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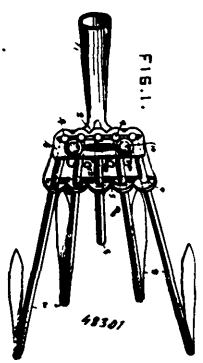
NOTE.—Patents are granted for 18 years. The term of years for which the fee has been paid, is given after the date of the patent.

No. 48,301. Garden Rake. (*Rateau de jardinier.*)



James Albert Lima, Liberty, Illinois, U.S.A., 1st March, 1895; 6 years.

Claim.—1st. In a rake or cultivator, the combination with a head plate and tines spacing device, of tine adjusting mechanism consisting of a movable plate adapted to be secured to the head plate, bearing apertures in the movable plate, separated by different distances, respectively, from the distances between the spacing device and tines carried therein, substantially as and for the purposes specified. 2nd. In a rake or cultivator, the combination with a head plate, front wall and apertures, of a lug plate, and tines pivoted therein, slots in the head plate, vertical to the front wall, bolts adapted to pass through the lug plate and the slots in the head plate and nuts to adjustably secure the lug plate upon the head plate, substantially as specified.

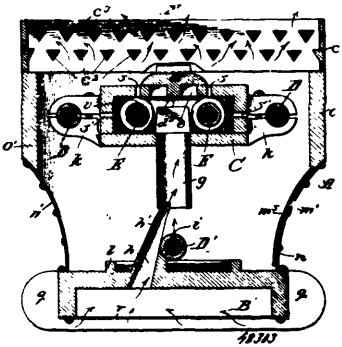
No. 48,302. Hat Fastener. (*Attache de chapeau*)

Isabella Shepard Niles, and George Rich, Sturgis, both in Michigan, U.S.A., 1st March, 1895; 6 years.

Claim.—As an improved article of manufacture, a hat provided with a fabric strip having its lower edge exposed and formed with a series of loops, whereby a hair pin may be passed through the strip

loops at any desired point, substantially as set forth.

No. 48,303. Hydro-carbon Heater.
(*Foyer à hydro-carbures*)

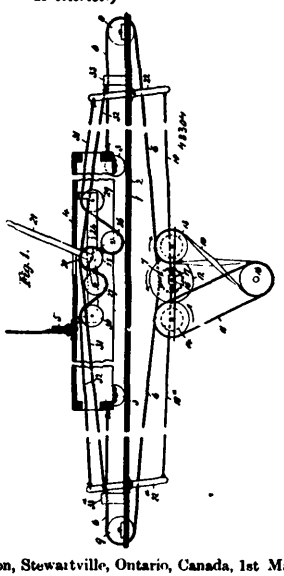


Casimir Rutkoskie, Benton Harbor, Michigan, U.S.A., 1st March, 1895; 6 years.

Claim. 1st. In a heater, the combination with an inclosing case having its sides closed and its base open to the ingress of air, of a mixing chamber supported in the upper portion thereof and having an outlet for the products of combustion and one or more openings in its base each provided with a hollow depending leg, a fuel-supply pipe, forming a generator, extending lengthwise through the case and having its end-section extended underneath the mixing chamber, and an opening in said end-section at each of said legs, substantially as described. 2nd. In a heater, the combination with an inclosing case having its sides closed and its base open to the ingress of air of a mixing chamber supported in the upper portion thereof and having an outlet for the products of combustion and one or more openings in its base each provided with a hollow depending leg, a fuel-supply pipe, forming a generator, extending through the case along opposite sides thereof and having its end section extended underneath the mixing chamber, an opening in said end-section at each of said legs,

and an air inlet opening in the bottom of the case adjacent to each opening in said end-section and provided with a deflector leading to a leg, substantially as described. 3rd. In a heater, the combination of an inclosing case having its sides closed and provided with an air-chamber in its base having a perforated bottom and a kindling-pan on its upper side, a mixing-chamber supported in the upper portion of the case, and having an outlet for the products of combustion, and one or more openings in its base each provided with a hollow depending leg, a fuel supply pipe, forming a generator, extending lengthwise through the case, and having its end-section extended lengthwise along the kindling-pan underneath the mixing chamber, an opening in said end-section at each of said legs, and an opening in the top of said air-chamber adjacent to each opening in said end-section, substantially as described. 4th. In a heater, the combination with an inclosing case of a mixing-chamber C, supported in the upper portion thereof, and having one or more inlet-openings, and a damper-top C^1, affording an outlet *a*, along its edge-portion and provided with one or more valve-covered openings, and a fuel-supply pipe, forming a generator, extending in the case underneath the mixing-chamber and having an outlet-opening at each inlet-opening to said chamber, substantially as described. 5th. In a heater, the combination with an inclosing case of a mixing chamber having an outlet for the products of combustion in its top and sides, and one or more openings in its base each provided with a hollow depending leg, a fuel-supply pipe extending through the case along opposite sides of the mixing-chamber, and having its end-section extended lengthwise underneath said chamber, a pipe E, extending through the mixing-chamber along opposite sides thereof and provided with openings *v*, an opening in said end-section at each of said legs, and an air-inlet opening in the bottom of the case adjacent to each opening in said end-section and provided with a deflector leading to a leg, substantially as described. 6th. A heater comprising, in combination, a case A having closed sides, one of which is provided with a valve-controlled opening, an air-chamber in the base of the case having a screen-covered bottom and carrying a kindling-pan on its upper side, a mixing-chamber C supported in the upper part of the case and having a damper-top C^1, affording outlet-openings *s* along its sides, longitudinal side-openings a^1, and hollow legs *c* opening into its base, a fuel-pipe D, extending through the case along opposite sides of the mixing-chamber, and having its end-section D^1, extended along the kindling-pan underneath the mixing-chamber and provided with openings *l* coincident with said legs, deflectors h^1, extending from openings *h*, in the air-chamber toward said legs, and a pipe E, extending in the mixing-chamber along opposite sides thereof and provided with openings *v*, the whole being constructed and arranged to operate, substantially as described.

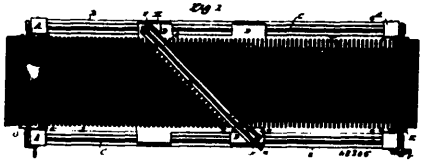
No. 48,304. Device for operating Saw Mill Carriages. (*Appareil pour actionner les charriots de scieries.*)



John Hamilton, Stewartville, Ontario, Canada, 1st March, 1895; 6 years.

Claim.—1st. The combination, with a saw-mill carriage and accessory means for driving the same, of a hand lever fulcrumed to said carriage, said lever having two sets of sheaves and two cables passing in reverse order between said sheaves, said cables secured at the ends to fixtures and to tilting levers operating said accessory means, whereby the hand lever when inclined effects a pull on one cable, and when inclined in the opposite direction effects a pull on the other cable, to reciprocate the carriage when desired by a person riding thereon, as set forth. 2nd. A device for reciprocating or gigging saw-mill log carriages by accessory means, said device comprising a hand lever fulcrumed to the carriage and having two sets of sheaves journalled thereto, and two cables, one cable passing between one set of sheaves and the other cable passing in reverse order between the other set of sheaves, and over sheaves attached to the carriage, one end of said cables attached to a fixture and the other end to a lever, whereby a portion of each cable forms a loop which is elongated by a sheave when the hand lever is inclined to effect a pull on either cable, as set forth. 3rd. The combination, with a saw-mill log carriage and accessory means for gigging the same, of a hand lever fulcrumed to said carriage, said lever having two sets of sheaves and two cables, one cable passing between one set of sheaves and the other cable passing between the other set of sheaves in reverse order, whereby each cable forms a loop divergently, one loop being elongated when the hand lever is inclined in one direction, and the other loop elongated when the lever is inclined in the opposite direction to effect a pull on the cables, respectively, and to cease when said lever is vertical, for the operation of the carriage by accessory means such as a friction gear, steam feed, &c., as described and set forth.

No. 48,305. Machine for Inserting Threads into Woven Fabrics. (*Machine pour insérer le fil dans les tissus.*)

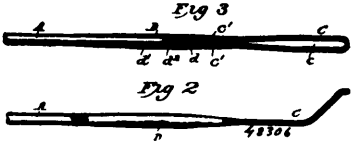


Edmund Morris, Michigan City, Indiana, U.S.A 1st March, 1895; 6 years.

Claim.—1st. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of a series of movable thread-carriers on opposite sides of the fabric, which act upon an additional thread to interweave it with the threads of the cloth. 2nd. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of a series of movable thread-carriers on opposite sides of the fabric, which act upon an additional thread to interweave it with the threads of the fabric, and guides interposed between the movable carriers to co-operate with them in directing the movement of the additional thread. 3rd. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of a series of movable carriers arranged in pairs on opposite sides of the fabric, and which act on an additional thread to interweave it with the cloth. 4th. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of a series of rotating carriers on opposite sides of the fabric, which act on an additional thread to interweave it with the cloth. 5th. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of a series of rollers arranged cross-wise of the fabric and on opposite sides thereof, to guide a thread in a sinuous course to interweave it through the meshes of the cloth. 6th. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of roller-carrying bars arranged cross-wise of the fabric, and on opposite sides thereof, and rollers carried thereby for interweaving a thread with the fabric. 7th. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of roller-carriers on opposite sides of the fabric, each consisting of a pair of bars both carrying rollers, and means for separating the roller-carrying bars of each pair. 8th. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of roller-carrying bars arranged cross-wise of the fabric and on opposite sides thereof, rollers carried thereby, gearing for driving the rollers, and guides interposed between the rollers. 9th. The combination, substantially as hereinbefore set forth, of the roller-carriers on opposite sides of the fabric, each consisting of a pair of bars, a shaft extending from one end of the bars to the other, a plate connected with and moved by the shaft, and having an inclined slot connected with a pin on one of the bars on the upper set, a plate pivoted to one bar of the lower set, and connected by a pin and slot with the adjacent bar of the same set, and connections between the two plates, for the purpose specified. 10th. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of a series of pairs of rollers arranged cross-wise of the fabric, and on opposite sides thereof to guide a thread in a sinuous course to interweave it through the meshes of the cloth, some of said rollers having annular grooves, as described, for the purposes specified.

No. 48,306. Needle for Weaving Cane.

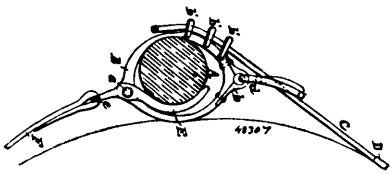
(*Aiguille à croisure pour tisser la canne*)



Edmund Morris, Michigan City, Indiana, U.S.A., 1st March, 1895; 6 years.

Claim.—1st. A crossing needle for weaving open-mesh fabric, having a pliable or elastic bent tip whereby, when the needle is drawn through the fabric, its tip bends or yields, for the purpose specified. 2nd. A crossing needle for weaving open-mesh fabric having a bent, flexible or elastic apertured tip rigidly but removably secured to the needle shaft. 3rd. A crossing needle for weaving open-mesh fabric having a straight, stiff shaft, and a bent tip formed of elastic wire secured to the end of the needle shaft. 4th. A crossing needle for weaving open-mesh fabric, having a socketed shaft and a tip formed of elastic wire bent and looped and secured in the socket at the end of the needle shaft. 5th. A crossing needle provided with a tip bent at a point in line with the axis of the shaft, and also again bent near its extreme outer end, to present a flattened portion, for the purpose specified. 6th. The combination, in a crossing needle for weaving open-mesh fabric, of the shaft, the recessed sleeve secured thereto, and a flexible or elastic tip secured in the recess in the sleeve. 7th. The combination, in a crossing needle for weaving open-mesh fabric, of a shaft, the sleeve having recesses at opposite ends, and a central partition, and a looped spring wire tip secured to the sleeve. 8th. A crossing needle for weaving open-mesh fabric, provided with an S-shaped tip formed of elastic steel wire, round in cross-section, and looped to form an eye, as described.

No. 48,307. Shaft Tug. (*Boucleteau de limonière.*)



Jay D. Harrigan, Gouverneur, New York, U.S.A., 1st March, 1895; 6 years.

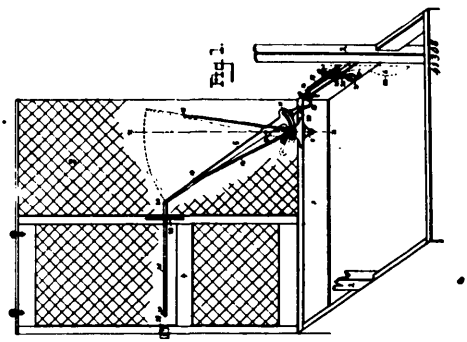
Claim.—1st. The combination with the shaft tug, formed of a closed ring, of a lever pivoted intermediate of its length to the lower side of the tug, a loop in the lower end of said lever, and a strap connected with said loop, as and for the purpose set forth. 2nd. The combination with the shaft tug, formed of an irregular shaped ring, of a lever pivoted intermediate of its length to the lower side of th tug and having its upper end curved to lie with its concave side against the shaft, a loop in the lower end of said lever and a strap connected with said loop, as and for the purpose described. 3rd. The combination with the gig-saddle and the shaft-tug formed of an irregular metallic closed ring, of a lever pivoted intermediate of its length to the lower side of the tug and having its upper end curved and bifurcated to lie on opposite sides of the said tug, means to secure the tug to the gig saddle, and a loop in the lower end of the lever to receive a connection, as set forth. 4th. The combination with the gig-saddle and the shaft-tug, of a cap on the upper side of the tug riveted to the latter and forming part of the wall of an eye, a buckle held in the eye and connected by a strap to the gig-saddle, loops on the outside of the tug for the said strap to pass through, and a clamp pivoted to the tug, as and for the purpose described.

No. 48,308. Gate Closer for Elevators.

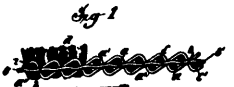
(*Appareil à fermer les barrières pour élévateurs.*)

James Marion Elder, Indianapolis, Indiana, U.S.A., 1st March, 1895; 6 years.

Claim.—1st. The combination, with an elevator framing and sliding hatchway gate, of an operating lever connecting the same and a car fitted with a double cam for operating upon said lever to close the gate both by the upward and downward movement of the car, substantially as described. 2nd. The combination, with an elevator, of a pivoted counterpoise lever connected with the gate, and the elevator framing and a cam upon the elevator car to shift the line of force exerted upon said counterpoise lever from one to the other side of said pivot, substantially as described for the purpose specified. 3rd. In an elevator, the combination, with the hatchway framing of the bracket, the counterpoise lever pivoted thereto, the connecting rod, the gate, a roller supported upon said lever and a cam secured thereto for actuating the same, substantially as described. 4th. An elevator gate closer, comprising a bracket fixed to the frame, a lever pivoted thereto, a lever connected with the gate at one end and operated by a cam upon the moving car at the opposite end, and a counterpoise spring connecting the bracket below the pivot point of the lever with the lever above said point, substantially as described. 5th. A gate closing device for elevators comprising the framing, the sliding gate, the counterpoise lever, rod and bracket connecting the same, a roller, a cam for actuating the roller and lever, and an intermediate spring for overcoming the inertia of the gate, substantially as described. 6th. A gate closing device for elevators comprising the framing, the sliding gate, the car fitted with a cam plate, and a counterpoise lever supported upon the frame connecting the gate and cam plate and having a segment slot and fixed pin working therein to limit the movement of said lever upon opposite sides of a vertical pivot line, substantially as described.



No. 48,309. Moquette Fabric. (*Tissu moquette.*)



Warren Baldwin Smith, assignee of Eugene Tymeson, both of Yonkers, New York, U.S.A., 1st March, 1895; 6 years.

Claim.—1st. A moquette fabric having a suitable body of warp strands, and rows of tufts inserted therein, and having two wefts for each row of tufts, one of said two wefts for each row of tufts passing through the row and forming a holding weft, and the other lying against the row of tufts upon said holding weft and forming a binding weft, substantially as described. 2nd. A moquette fabric having a row of tufts for each two wefts, one of said two wefts for each row of tufts passing through the row and forming a holding weft, and the other lying against the row of tufts upon said holding weft and forming a binding weft, and having a body of warps, a portion of said warps passing alternately above and below the wefts and forming binding warps, and a portion of the warps passing between the wefts and forming dividing warps, substantially as described. 3rd. A moquette fabric having a body of warp strands arranged in groups at suitable distances apart and rows of tufts inserted between said groups of warp strands, and having two wefts for each row of tufts, one of said two wefts for each row of tufts passing through the row and forming a holding weft, and the other lying against the row of tufts against said holding weft and forming a binding weft, substantially as described. 4th. A moquette fabric having a row of tufts for each two wefts, one of said two wefts for each row of tufts passing through the row and forming a holding weft, and the other lying against the row of tufts upon said holding weft and forming a binding weft, and having a body of warps arranged in groups at suitable distances apart between which the tufts are inserted, a portion of said warps passing alternately above and below the wefts and forming binding warps, and a portion of the warps passing between the wefts and forming dividing warps, substantially as described. 5th. A moquette fabric having a suitable body of warp strands and rows of tufts inserted between said warp strands and projecting through the body at the back of the fabric, and having two wefts for each row of tufts, one of said two wefts for each row of tufts passing through the row and forming a holding weft, and the other lying against the row of tufts against said holding weft and forming a binding weft, substantially as described. 6th. A moquette fabric consisting of a suitable body of warp strands, rows of tufts, said rows being inserted separately and

independently of each other, and two wefts for each row of tufts, one of said two wefts for each row of tufts passing through the row and forming a holding weft, and the other lying against the row of tufts upon said holding weft and forming a binding weft, substantially as described.

No. 48,310. Moquette Loom. (*Métier moquette.*)

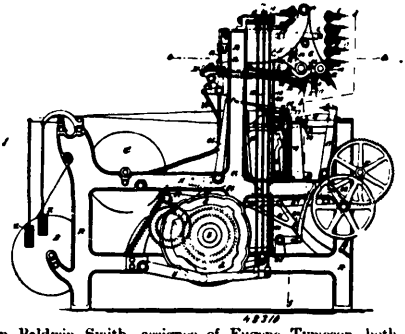


Fig 1

Warren Baldwin Smith, assignee of Eugene Tyrreson, both of Yonkers, New York, U.S.A., 1st March, 1895; 6 years.

Claim.—1st. The combination, with the warp heddles and means for inserting the tufts, of a weft carrier, and means for actuating said heddles and weft carrier to insert two shots of filling to each row of tufts, substantially as described. 2nd. The combination, with dividing warp and binding warp heddles, and means for actuating said heddles to open the warp in the manner described, of means for inserting the tufts, a weft carrier, and means for actuating the weft carrier to insert a tuft holding and a tuft binding shot of filling to each row of tufts, substantially as described. 3rd. The combination, with a tuft spool carrier, carrier support, and means for transferring the spools for the insertion of the tufts, of means for advancing the carrier and spools therein while a spool is out of the carrier, and means for varying the relative positions of the spool carrier support and transferring means for the return of the spool by the said transferring means, substantially as described. 4th. The combination, with the tuft spool carrier, carrier support, and means for transferring the spools, of means for advancing the carrier and spools therein while a spool is out of the carrier, and means for moving the spool carrier support for the return of the spool by the transferring means, substantially as described. 5th. The combination, with the tuft spool carrier, carrier support and means for transferring the spools, of means for advancing the carrier and spools therein while a spool is out of the carrier, and means for moving the spool carrier support for the return of the spool by the transferring means and returning the support to normal position, while the transferring means are in position to take a spool, substantially as described. 6th. The combination, with the tuft spools, carrier chains and transferring arms, of a movable support for the end of the carrier chains next the transferring arms, means for advancing the carrier chains and spools therein while a spool is out of the carrier, and means for reciprocating the chain support for the return of the spool by the transferring arms, substantially as described. 7th. The combination, with the warp heddles, weft carrier, tuft spool carrier, carrier support, and means for transferring the spools for the insertion of the tufts, of means for advancing the carrier and spools therein while a spool is out of the carrier and for varying the relative positions of the spool carrier support and transferring means for the return of the spool by said transferring means and means for actuating said heddles and weft carrier to insert two shots of filling to each row of tufts, substantially as described. 8th. The combination, with dividing warp and binding warp heddles and means for actuating said heddles to open the warp in the manner described, of a tuft spool carrier, and carrier support and means for transferring the spools for the insertion of the tufts, means for advancing the carrier and spools therein, while a spool is out of the carrier and for varying the relative positions of the spool carrier support and transferring means for the return of the spool by the said transferring means, a weft carrier, and means for actuating the weft carrier, to insert a tuft holding and a binding shot of filling to each row of tufts, substantially as described. 9th. The combination with dividing warp and binding warp heddles and means for actuating said heddles to open the warp in the manner described, of a tuft spool carrier and means for transferring the spools for the insertion of the tufts, means for advancing the carrier and spools therein, while a spool is out of the carrier, and for reciprocating the carrier for the return of the spool by the transferring means, a weft carrier and means for actuating the weft carrier, to insert a holding and binding shot of filling to each row of tufts, substantially as described. 10th. The combination with the warp heddles, weft carrier, spool carrier chains and spool transferring arms, of means for actuating said heddles and weft carrier to insert two shots of filling to each row of tufts, a movable support for the end of the carrier chains next the transferring arms, means for advancing the chains and spools therein while a spool is out of the chains, and means for reciprocating the chain support for the return of the spool by the transferring arms, substantially as described. 11th. The combination with a spool carrier, transferring arms and grips carried thereby, of a member carried by the transferring arms for holding the spool in position to be seized by the grips, and co-acting with the grips in releasing the spool from and returning it to the carrier, substantially as described. 12th. The combination with a spool carrier, transferring arms and grips carried thereby, said arms having a movement toward and from each other in seizing and releasing the spool, of a member carried by the transferring arms but stationary relatively thereto during the gripping and releasing movement and actuated by said movement of the arms to hold the spool in position to be seized by the grips, and to co-act with the grips in releasing the spool from and returning it to the carrier, substantially as described. 13th. The combination with a spool carrier, carrier support, transfering arms and grips carried thereby, of means for shifting the spool carrier support for the return of the spool, and returning said support to normal position for the transfer of the next spool, and a member holding the spool in position during the return of the carrier and co-acting with the grips in releasing the spool from and returning it to the carrier, substantially as described. 14th. The combination with spool carriages I, and carrier chains J, of the transferring arms K, means for advancing the chains while a spool is out, and swinging chain support G, substantially as described. 15th. The combination with spool carriages I, and carrier chains J, of the transferring arms K, means for advancing the chains while a spool is out, two set of wheels 18 by which the lower end of the chains is carried, and swinging chain support G, in which said wheels are mounted, substantially as described. 16th. The combination with spool carriages I, and carrier chains J, of the transferring arms K, means for advancing the chains while a spool is out, swinging chain support G, and a stop holding the chain against movement during the swinging of the support and released for the advance of the chains, substantially as described. 17th. The combination with spool carriages I, and carrier chains J, of the transferring arms K, springs 40 carried by the transferring arms, but stationary relatively thereto during the spool gripping and releasing movements, cams 5 for raising and lowering the springs by the movement of the transferring arms, means for advancing the chains while a spool is out, and swinging chain support G, substantially as described. 18th. The combination with spool carriages I, and carrier chains J, of the transferring arms K, carrying grips by which the spool carriages are released from the chains, springs 40 carried by the transferring arms, but stationary relatively thereto during the spool gripping and releasing movements, and cams 5 for raising and lowering the springs by the movement of the transferring arms, substantially as described. 19th. The combination with spool carriages I, and carrier chains J, of the transferring arms K, means for rocking the spool carriages for the insertion of the tufts, springs 40 carried by the transferring arms, but stationary relatively thereto during the spool gripping and releasing movements, and cams 5 for raising and lowering the springs by the movement of the transferring arms, substantially as described. 20th. The combination with spool carriages I, having catch springs 3 and arms 4, and carrier chains J, of the transferring arms K, having grips by which the springs are released and provided with arms between which the carriage is held and moving toward and from each other for gripping and releasing the spools, and springs 40 carried by the arms in their transferring movement and having cams 5 engaged by the arms on their movement from each other whereby the springs are raised against the spool carriages, substantially as described.

No. 48,311. Injector. (*Injecteur.*)

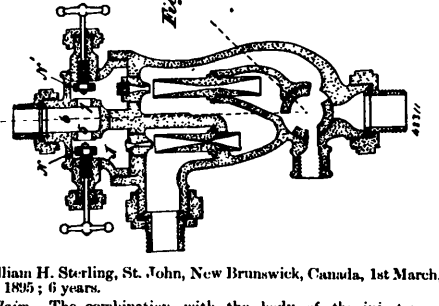


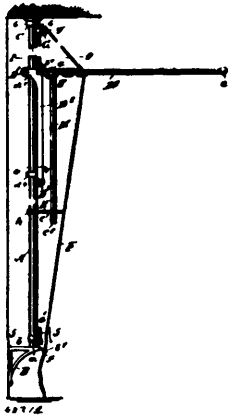
Fig 2.

William H. Sterling, St. John, New Brunswick, Canada, 1st March, 1895; 6 years.

Claim.—The combination with the body of the injector as described, of a top J, screwing thereon to make a tight joint, and

having steam inlet 6, provided with ports 5, 7, and having screw valves N, N', to prevent or permit passage of steam through said ports, and for the purpose set forth.

No. 48,312. Clothes Rack. (*Séchoir à linge.*)



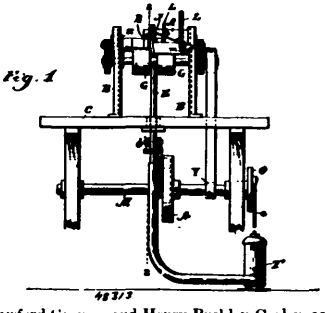
Thomas Edward Agan, assignee of Theodore M. Anderson, both of New Whatcom, Washington, U.S.A., 1st March, 1895; 6 years.

Claim.—A clothes rack comprising a post, a carriage vertically movable on the post, a ceiling socket fitting the upper end of the post, and a wall bracket for the lower end of the post, the bracket having a semi-circular flange, forming a recess, and the post having a sliding ring adapted to embrace the said flange, and a keeper on the post preventing displacement of said ring, the ring being movable vertically on the post and flange to a point above the said flange, substantially as described.

No. 48,313. Paper Feeding Device.

(*Appareil pour fournier le papier aux presses à imprimer.*)

Fig. 1



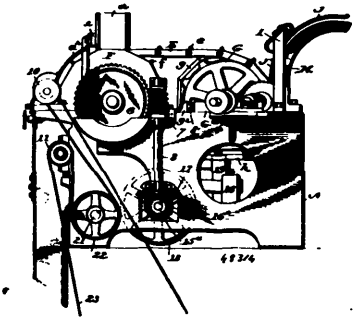
Francis Crawford Graves, and Henry Buckley Cooley, assignees of John Madison Noble, and James Edward Trevor, all of Hartford, Connecticut, U.S.A., 1st March, 1895; 6 years.

Claim.—1st. A paper feeding device consisting of a table for supporting the pile of paper, feeding rolls journalled in bearings below said table, the upper roll recessed for the passage of the paper therethrough, and a reciprocating suction pipe passing between said rolls and adapted to separate the bottom sheets of the pile, and carry the same to the feeding rolls, and means for creating suction in said pipe, substantially as described. 2nd. In a paper feed device, the combination with the inclined table for supporting a pile of paper flat upon the surface thereof, of the reciprocating suction pipe, the air pump, the feeding rolls journalled in bearings below said table, the upper roll recessed for the passage of the paper therethrough, the edge of the recess adapted to grip the sheet and strip it from the pipe as the said pipe descends, substantially as described. 3rd. In a paper feed device, the combination with the inclined table for supporting a pile of blanks, the feed rolls journalled in bearings on different vertical planes below the table, the upper roll recessed for the passage of the blanks, the suction pipe having its path of motion across the line of centres of said rolls, a shaft journalled below the table, connections between said shafts and pipe for reciprocating the same, substantially as described. 4th. In a paper feed device, the combination, with the inclined table supporting the pile, the feed rolls journalled in bearings below the same, the upper roll recessed for the passage of the blanks, with the suction pipe and means for reciprocating said pipe once while the feed rolls make two or more revolutions, substantially as described. 5th. In a paper feed device, the combination, with the apertured table, for supporting a pile of blanks, with the separator at the front end thereof, of feed rolls journalled in bearings below the table, the upper roll recessed for the passage of the blanks, the vertically moving suction pipe, the rotating shaft below the table provided with a cam controlling the movements of said pipe, whereby the pipe is brought in contact with the bottom sheet of the pile resting over the aperture in the table, substantially as described. 6th. In a paper feed device, the combination, with the table for supporting the pile of paper, of the feed rolls rotating in bearings below the same, the upper roll recessed for the passage of the paper, the suction pipe, the rotating shaft carrying a disc having a cam groove in its surface, a lever fulcrumed at one end to a fixed part of the device, and pivotally connected by links to said pipe at its other end, and a link attached to said lever with one end engaging the said cam groove, whereby said pipe is caused to reciprocate between said rolls, substantially as described. 7th. In a paper feed device, the combination, with the apertured table for supporting the pile, provided with guides for said pile, one set of which projects through the aperture to guide the paper passing therethrough, the reciprocating suction pipe, and the feed rolls journalled in bearings below the table, adapted to strip the sheet from said pipe in its descent, substantially as described. 8th. A paper feed device, consisting of an inclined apertured table supporting a pile of blanks flatly upon the same and over the apertures, a separator projecting over the aperture and supporting the end of the pile, a reciprocating suction pipe adapted to pass by the separator and raise the pile in its ascent and successively detach therefrom the bottom blank as it descends, with feeding rolls journalled below the table, the upper one recessed for the passage of the blanks, substantially as described.

No. 48,314. Stave Preparing Machine.

(*Machine pour arrondir les douves*)

Fig. 2.



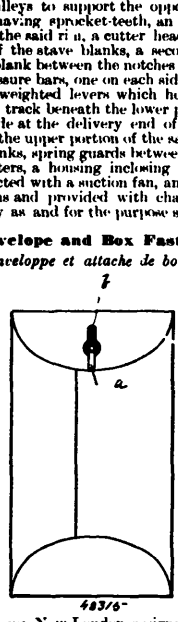
The Pleukharp Barrel Machine Company, assignee of James Pleukharp and William K. Ligget, all of Columbus, Ohio, U.S.A., 1st May, 1895; 6 years.

Claim.—1st. In an organized machine for rounding one face of stave blanks and chamfering and crozing the same, the combination of a cutter having the blades arranged at intervals in its length to notch the blanks, a second cutter to remove that portion of the blank between the said notches, crozing and chamfering cutters, and feeding mechanism to carry the blanks in a curved path to the notching and rounding cutters, and to the crozing and chamfering cutters, whereby the blanks will first be notched in opposite edges, have the portion removed between the notches and then crozed and chamfered, substantially as set forth. 2nd. In a stave rounding machine, the combination of a cutter having knives at intervals in its length, feeding mechanism to carry the blanks in a curved path so that the cutter will notch the opposite edges of the blanks, substantially as specified, and a pressure bar having a series of transverse projections to correspond in number and position with the knives on the said cutter-head, to enter the said notches formed in the blanks to hold the latter firmly against vibratory or longitudinal movement, substantially as set forth. 3rd. In a stave rounding machine, the combination of a drum for feeding the stave blanks, a cutter located beneath the said drum, pressure bars, one arranged on each side of the cutter, pivotally supported and adapted to move away from the drum, and weighted levers connected with the said pressure bars to yieldingly hold the same in a normal position, substantially as set forth. 4th. In a stave rounding machine, the combination of a stave blank feeding drum, a hopper located above the

said drum, a cutter b, located about opposite the centre of the drum, yielding guards conforming to the drum and extending between the hopper and the cutter b, a second cutter C^1, beneath the cutter b, a pressure bar b^1, between the vertically disposed b and C^1, and a pressure bar C^2, substantially as and for the purpose described. 5th. In a stave-rounding machine, the combination with the vertically disposed cutter heads b, and C^1, constructed to round one face of the blank staves, of a housing inclosing the said cutter heads and adapted to be connected through a suitable conveyer with a suction fan, substantially as and for the purpose set forth. 6th. In a stave-rounding machine, the combination with a guide H, and a carrier, of a pulley supporting the said carrier and provided with an annular rim, and an elastic band surrounding the said rim, substantially as and for the purpose set forth. 7th. In a stave-rounding machine, the combination with a guide H, and an endless carrier comprising a chain, of a pulley to support the said chain provided with sprocket-teeth to engage with the links of said chains, and having a rim, and an elastic band fitted around said rim, substantially as set forth. 8th. In a machine, of the herein described character, the combination with a drum having a series of faces, and having projections between the said faces, of a hopper located above the said drum and closed on one side and end only, and having a space between the said drum and the lower edge of the hopper, substantially as and for the purpose set forth. 9th. The combination with an endless carrier, and supports for the said carrier, of a track beneath the lower portion of the said carrier and ogee shaped guide forming a continuation of the said track and spring arms J, J^1, conforming to the upper portion of the said ogee shaped guide H, and extending in opposite direction from an intermediate support, the outer ends of the said arms being free, substantially as and for the purpose set forth. 10th. The combination with the drum F, having grooves formed therein near each end, and a hopper, of an endless carrier composed of chains which are adapted to travel in the said grooves and come flush with the face of the said drum, and provided with projections which are adapted to engage with and carry the stave blanks forward, substantially as set forth. 11th. The combination with an endless carrier, supports F and G, for the said endless carrier cutters for rounding one face of the stave blanks, the guide H, conforming to the support G, and oppositely inclined mandrels arranged within the plane of the support G, and provided with chamfering and crozing cutters to operate on the inner or straight side of the said stave blanks in opposition to the guide H, substantially as set forth. 12th. A machine of the character hereinbefore set forth, comprising the following elements which are combined and arranged to operate substantially in the manner hereinbefore set forth, the frame consisting of an endless carrier comprising two endless chains, a drum having a series of faces and having projections between the faces, and having annular grooves near each end of the drum to receive the said chains, pulleys to support the opposite end of the said chains, each pulley having sprocket-teeth, an annular rim, and an elastic band around the said rim, a cutter head to form notches in the opposite edges of the stave blanks, a second cutter to remove that portion of the blank between the notches and round one face of the stave blank, pressure bars, one on each side of the latter cutter and connected with weighted levers which hold the said pressure bars to their work, a track beneath the lower portion of the carrier and ogee shaped guide at the delivery end of the machine, spring arms conforming to the upper portion of the said guide, a hopper to receive the stave blanks, spring guards between said hopper and the first of the two cutters, a housing inclosing the said cutters and adapted to be connected with a suction fan, and mandrels inclining in opposite directions and provided with chamfering and crozing cutters, substantially as and for the purpose set forth.

No. 48,315. Envelope and Box Fastener.

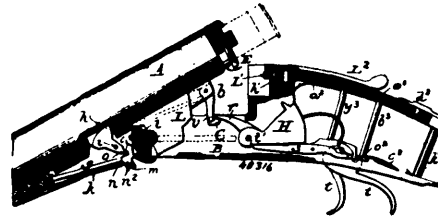
(*Enveloppe et attache de boîtes.*)



Benjamin L. Armstrong, New London, assignee of Frank H. Allen, Norwich, both of Connecticut, U.S.A., 1st March, 1895; 6 years.

Claim.—1st. In combination, with an envelope or box, a swivelled tongue secured to said envelope or box and adapted to interlock with the perforated flap or lid of the same, substantially as specified. 2nd. In combination, with the body and perforated overlapping flap or lid of a box or envelope a tongue of suitable material secured to said body by an eyelet, said tongue being adapted to lie within said perforation, when the flap or lid is closed, and to be swung on the eyelet to lock said body and flap together, all substantially as specified.

No. 48,316. Breech-loading Gun. (*Fusil à bascule.*)



Joseph Rider, Newark, Ohio, U.S.A., 2nd March, 1895; 6 years.

Claim.—1st. A frame for drop barrel guns, having its front projecting arm, breech, or recoil shoulder, top, side walls, central partition and upper tang formed integral of a single piece of metal, in combination with a trigger plate D^1, prolonged rearward to form a lower tang, said tangs being held rigidly in relation to each other at their rear ends by a screw and interposed sleeve k^1, substantially as described. 2nd. A thumb lever L, a locking latch L^1 arranged to be moved thereby, and a safety or trigger locking device arranged to be thrown out of the locking position by the movement of the thumb lever and latch in the opening or closing of the barrel, substantially as described. 3rd. The hammer H having a vertical notch or bearing on the rear side of its tumbler, in combination with the curved main spring S, provided at its front end with a lip p^1, arranged to bear against the tumbler below its axis when the hammer delivers its blow, and cause a rebound of the hammer, substantially as described. 4th. The combination of the hammer H, main spring S provided with a lip p^1, trigger t, and sear s, all arranged to operate substantially as described, whereby the one spring is made to operate all of said parts and also cause the hammer to rebound, as set forth. 5th. The combination, in a drop barrel gun, of a hammer provided with a cocking arm r, a movable cocking bar secured to the barrel or lug and provided with a projection to engage with the said cocking arm, and having a stem or bolt arranged to project at the front of the lug so that the placing in position of the fore end will throw the cocking bar back into position to engage with the cocking arm, and a spring arranged to move the cocking bar out of the cocking position upon the removal of the fore end, substantially as described. 6th. A fore end cartridge ejecting device in which the ejector hammer is caused to first start the shell by a positive movement, and then to eject the shell by action of the ejector spring, substantially as set forth. 7th. An automatic shell ejector, in which the ejector spring is first put under tension and then released during the dropping of the barrel, whereby said ejector spring is freed from tension at all times except during the dropping movement of the barrel, substantially as described. 8th. In a break-down gun, the combination of a pivoted ejector hammer located in the fore end and arranged to bear normally against the front end of the extractor stem, a spring arranged to be put under tension by the tipping of the barrels and operate the ejector hammer when released, and a sliding bar in the gun frame adapted to be operated by the gun hammer when fired and lock the ejector hammer, substantially as described, whereby the ejector hammer is caused to operate by positive force on the extractor during the initial movement of the barrels, and by the spring during the completion of the movement, as herein set forth.

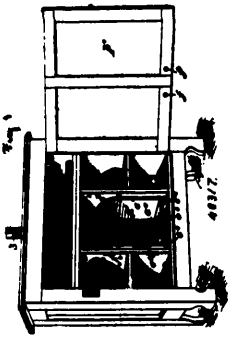
No. 48,317. Powder and Fuse Warmer.

(*Réchaud pour la poudre et les fusées.*)

Albert Price, Maryville, Montana, U.S.A., 2nd March, 1895; 6 years.

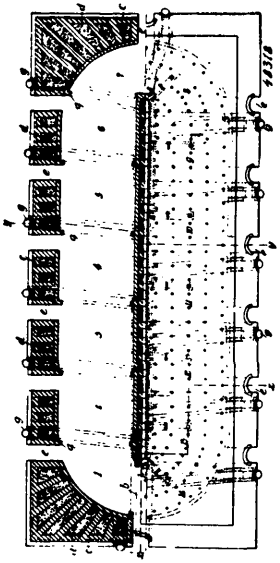
Claim.—1st. A powder and fuse warmer, substantially as described, comprising the case having the powder compartment, the fuse compartment and the heating compartment, and provided with openings forming communications between said compartments and the metallic candle holder, substantially as set forth. 2nd. A powder and fuse warmer, substantially as described, having its heating chamber or compartment provided with a metallic candle holder having an imperforated top, and also, provided with side end bottom plates, substantially as set forth. 3rd. In a warmer, substantially as described, the combination with the heater and the warming compartments of the metallic candle holder arranged in the heating compartment, and having a top and bottom and perforated sides, and having supporting legs whereby to support its bottom plate above the bottom of the casing, substantially as set forth. 4th. The

improved powder and fuse warmer, consisting of the casing having the powder compartment, the heating compartment and the fuse compartments, and provided with openings forming communication



as described, the candle holder arranged in said heating chamber and provided with the bottom, top and perforated sides, and having legs supporting its bottom above that of the casing, all substantially as and for the purposes set forth.

No. 48,318. Brick Kiln. (*Four à briques.*)



William Sercombe, Poole, Dorset, England, 2nd March, 1895; 6 years.

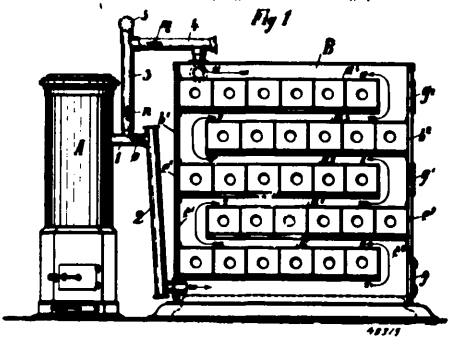
Claim.—1st. The construction of a continuous kiln in such a manner that the brickwork for the main flue carries the inner sides of the arches of the kiln, other flues crossing the chambers from the outside walls, substantially as described. 2nd. A continuous kiln, constructed substantially as described, with the flue between the arches, so that the heat escaping from the cooling chambers may pass directly to the chambers in which green bricks are stacked ready for firing, substantially as and for the purpose described.

No. 48,319. Device for Drying Boots and Shoes.

(*Appareil pour sécher les chaussures.*)

Alfred Rodde, Lubeck, Germany, 2nd March, 1895; 6 years.

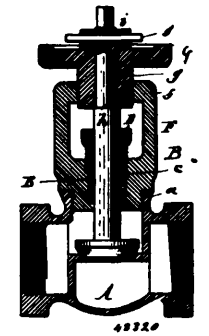
Claim.—The new or improved apparatus for drying boots and shoes and the like, which consists of a number of chambers, so arranged in a heating oven, that heated gases escaping from any suitable heating stove, and led into the said heating-oven, come successively in contact with the walls of the drying chambers, the doors and back walls of such drying chambers being provided with



suitable openings for ventilation, and for facilitating the drying process, substantially as described.

No. 48,320. Method of Packing Valve Stems.

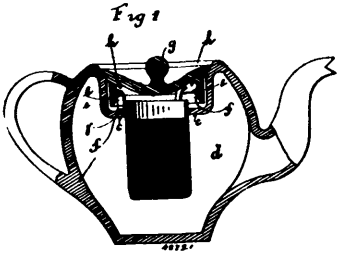
(*Méthode de garniture de tige de soupape.*)



Isaac Pierce, West Bay City, Michigan, U.S.A., 2nd March, 1895; 6 years.

Claim.—The herein described method of packing valve stems which consists in placing a coil of soft metal wire around the stem and into the stuffing box, and then rapidly rotating the stem and at the same time compressing the coil by moving the gland into the stuffing box, whereby a ground joint is formed between the wire coil and the stem, substantially as set forth.

No. 48,321. Infuser for Tea Pots. (*Couloir pour théières.*)



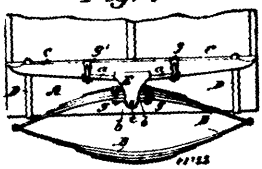
Frank William Bentall, Castle Headingham, Essex, England, 2nd March, 1895; 6 years.

Claim.—In strainers or infusers and teapots for use with same in combination, an elastic band having clips or projections, the strainer or infuser being attached to said band, a rim upon which said projection engage attached to the teapot, an inclined surface and annular recess formed in the lid, the clips engaging in the annular space when the lid is pressed upon same, substantially as and for the purpose hereinbefore set forth.

No. 48,322. Oscillating Device for Vehicles.

(*Appareil d'oscillation pour voitures.*)

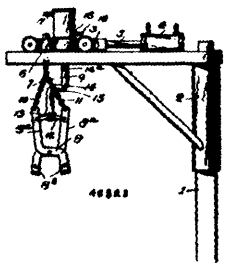
Fig. 2



Edward M. Crane, Oshkosh, Wisconsin, U.S.A., 2nd March, 1895; 6 years.

Claim. 1st. The combination with the front cross-bar C, of a vehicle, of the front spring B, the bifurcated pendent connecting and guiding device E, provided with a top plate *a*, by which it can be clipped to the said cross-bar, the front spring B, having the leaves of its upper half arranged between the jaws or prongs of the said connecting and guiding device, the bottom plate *b*, upon which the upper half of the spring bears and by which the upper half of the spring can be clipped to the said connecting device, and the pivot *c*, passed through the connecting and guiding device E, and through the plate at a point below the said half of the spring and on which the axle can oscillate without disturbing the body of the vehicle, substantially as described.

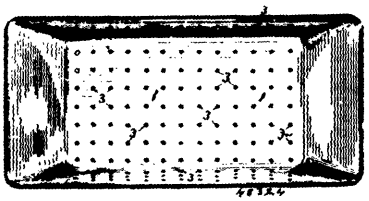
No. 48,323. Crane for Manipulating Tongs. (*Grue.*)



John Frederick Albert Smith, and James Madison Bryant, both of Benwood, West Virginia, U.S.A., 2nd March, 1895; 6 years.

Claim.—1st. In combination with the carriage of a crane, the tongs suspended therefrom, toggle levers connected to the said tongs, a cylinder mounted upon the carriage having inlet and exhaust pipes, and a piston rod depending from said cylinder and having its lower end offset to one side of the main portion and connected to the toggle levers for operating the tongs, substantially as described. 2nd. In combination with the carriage of a crane, the tongs suspended therefrom, toggle levers connected to said tongs, a cylinder mounted upon the carriage having inlet and exhaust pipes, a piston rod in said cylinder, and a detachable rod connected to said piston rod, said detachable rod having an angular offset portion with the lower end thereof connected to the toggle levers, substantially as described.

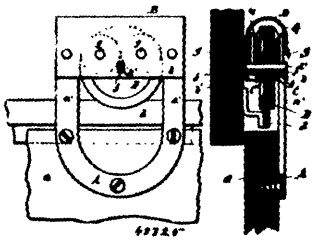
No. 48,324. Slop Dish and Dish Pan Rest Combined. (*Plat à vaisselle*)



Walter Davidson, Toronto, Ontario, Canada, 2nd March, 1895; 6 years.

Claim.—A rectangular-shaped vessel having inclining ends and its bottom and sides perforated, substantially as and for the purpose set forth.

No. 48,325. Door Hanger. (*Ferrure de porte.*)



Albert L. Swett, Medina, New York, U.S.A., 2nd March, 1895; 6 years.

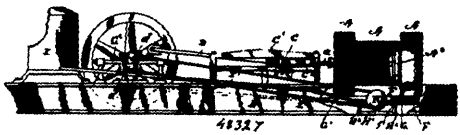
Claim. 1st. The combination, with the frame, the supporting wheel and its axle, of anti-friction rollers bearing against said axle, inner carrier plates arranged on opposite sides of said supporting wheel, independent arbours for said anti-friction rollers arranged on opposite sides of said supporting wheel and supported at their inner ends in said inner carrier plates, and carrier plates arranged on the outer sides of said anti-friction rollers and supporting the outer ends of said arbours, substantially as set forth. 2nd. The combination, with the frame having upwardly projecting arms provided with downwardly projecting hangers, of inner carrier plates secured to the inner sides of said hangers and arms, a hood or cover forming outer carrier plates which are secured to the outer sides of said hangers and arms, a supporting wheel arranged between the inner carrier plates and provided with an axle having its end arranged in slots formed in the inner and outer carrier plates, anti-friction rollers arranged between the inner and outer carrier plates and bearing upon said axle and arbours supporting said rollers and secured with opposite ends to the inner and outer carrier plates, substantially as set forth.

No. 48,326. Moustache Adjuster. (*Relève-moustache.*)

James Joseph McCallum, Belleville, Louis John Ball, Toronto, and Jacob Ball, Waterloo, all in Ontario, Canada, 4th March, 1895; 6 years.

Claim.—1st. A moustache adjuster comprised of a comb to fit into the moustache and spring fingers secured to such comb and designed to normally assume a position practically on a line with the comb and underneath the lower hairs of the moustache, as and for the purpose specified. 2nd. In a moustache adjuster, the combination with the comb, of grooved spring fingers hinged centrally to the comb and designed to spring upwardly into position in line with the comb, as and for the purpose specified. 3rd. In a moustache adjuster, the combination with the comb A, of spring fingers composed of a portion *b*, secured to the centre of the comb, spiral spring hinges extending therefrom and looped zigzagged portion all formed of the one wire, as and for the purpose specified.

No. 48,327. Gas Engine. (*Machine à gaz.*)



Homer L. Boyle, Grand Rapids, and Frank B. Gates, Owosso, both of Michigan, U.S.A., 4th March, 1895; 6 years.

Claim. 1st. For a gas or oil engine, a valve having a charging gas chamber, an igniting chamber, and a channel connecting said chambers, substantially as described. 2nd. For a gas or oil engine, a valve having one or more gas chambers or pockets near its end or ends, substantially as described. 3rd. In a gas or oil engine, the combination of a valve casing, and a valve having a gas holding chamber, and an igniting gas chamber near one end, and a channel connecting the two chambers to supply the igniting flame with fuel from the gas chamber, substantially as described. 4th. The combination with the valve casing, having a single gas inlet with a valve therein having two or more gas chambers or pockets, adapted to successively receive a charge of gas from said inlet as the valve is

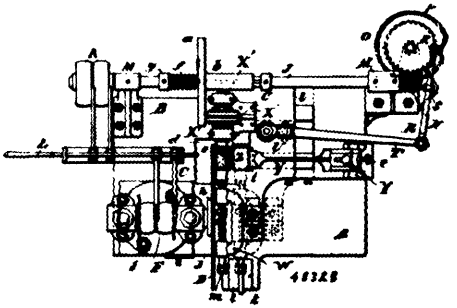
moved, substantially as described. 5th. The combination of a valve casing having a gas inlet, and a flame opening, substantially as described, with a valve having two chambers or pockets, both adapted to receive a charge of gas from the inlet, as the valve reciprocates, and one also adapted to communicate with the flame opening, substantially as described. 6th. The combination of the cylinder, the valve casing communicating with the cylinder ports at the opposite ends, and having a gas inlet, with a reciprocating valve in said casing, having two chambers or pockets at each end, all of said pockets successively receiving gas from said inlet, as the valve reciprocates, substantially as described. 7th. The combination of the cylinder, the valve casing communicating with the cylinder ports at each end, and having a central gas inlet, and flame openings at each side of said inlet, with a valve having two chambers or pockets at each end, all adapted to receive gas from the single inlet during the reciprocation of the valve, and one of the pockets at each end adapted to transfer gas to the cylinder port, and the other to carry gas first over the flame opening where it is ignited and then to the port, thereby igniting the gas in the cylinder, substantially as specified. 8th. The combination with a gas engine cylinder of means for dispensing the heat thereof by radiation and air circulation constructed, substantially as herein specified. 9th. In combination with an engine cylinder, metallic casing therefor formed of a layer or layers of reticulated or woven metal or similar good conductor of heat, whereby a large radiating surface and numerous air passages or spaces are formed for the dispersion of heat, substantially as herein specified. 10th. In a gas or oil engine, the combination with the cylinder, of a casing formed of layers of wire gauze or reticulated metal and rods or tubes interposed between the layers, substantially as and for the purpose herein described. 11th. In a gas or oil engine the combination of the main valve, its rod, a bevelled plate or disc on said rod, and a spring arranged to force said rod outward to unseat the valve, with the rotatable governor arms having their short ends impinging against said disc, and adapted to force the rod inward when shifted by centrifugal movement, substantially as set forth. 12th. The combination with the main valve, its rod, the spring forcing said rod outward to unseat the valve, and the bevelled disc on said rod, with the rotatable cap, the cranked governor arms pivoted in said cap and adapted to impinge against said disc when the governor balls or weights are thrown apart by centrifugal force the spring being adapted to force the rod outward and press the disc against the arms when the speed slackens, substantially as described. 13th. The combination of the gas chamber, the valve therein, the valve rod journalled in a stuffing box in said chamber, and in a sleeve exterior thereto, the spring on said rod within the sleeve, the disc on the outer end of the rod, the rotatable cap inclosing the outer end of the rod and the cranked levers pivoted within said cap, having their short arms impinging against said disc, and their long arms weighted, all substantially as described. 14th. In an engine the combination of the piston rod and pitman, and anti-friction roller bearing supporting said piston rod and pitman upon the guide-ways, substantially as described. 15th. The combination of the pitman, piston-rod and guide-ways, with an anti-friction roller bearing, movable connection between the piston-rod and guide-ways, substantially as described. 16th. In an engine a piston-rod and pitman provided with a roller adapted to operate between guide-ways, substantially as described. 17th. In an engine the combination of a pitman and piston-rod, and a roller provided with axle or journals and operating in guide-ways, substantially as described. 18th. In an engine the combination of the guide-ways, the piston-rod and pitman with a roller adapted to move in slots or grooves in guide-ways, and to support the connected ends of pitman and piston-rod, substantially as described. 19th. In an engine the combination with the piston-rod, pitman and guide-ways, and rollers adapted to move in said guide-ways for reducing the friction caused by the reciprocating movement of the piston-rod, and to support the connected ends of the piston-rod and pitman on the guide-ways, substantially as described. 20th. The combination of the piston-rod, pitman and guide-ways, with the cross-head having roller bearings in the guide-ways, substantially as described. 21st. The combination of the guide-ways, the cross-head, the rollers playing in slots in the cross-head and supporting it on the guide-ways, and the piston and pitman connected to said cross-head, substantially as described.

No. 46,328. Machine for Grinding Corks into Shape.

(*Machine pour roder les bouchons.*)

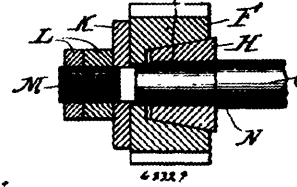
John Eisenhardt Howard, London, England, 4th March, 1895; 6 years.

Claim.—1st. In a machine for grinding corks into shape, having a reciprocating slide such as V, adapted to approach towards and recede from a suitable abrading surface in the manner and for the purposes hereinbefore described, the combination therewith of a suitable bearing or support carried on said slide in which is journalled the spindle, of the cork gripping chuck, which is to be driven intermittently, a friction wheel or wheels fixed on said spindle, and a friction disc or wheel mounted (at right angles or thereabouts to the first named friction wheel) on a continuously revolving shaft in such manner as always to revolve with said shaft while free to slide lengthwise thereon, and a spring adapted to keep the side face of said disc pressed into the path of advance of said first-named friction wheel and allow the latter to push the said friction disc before it along said shaft to thus impart rotary motion to the mechanically-held cork blank while same is in contact with the abrading surface. 2nd. A machine to automatically seize hold of the piece of cork (cork blank) and then very quickly rotate same and slowly advance same to be thus ground into shape, having a reciprocating slide



such as U, adapted to advance towards and recede from any suitable abrading surface in the manner and for the purposes hereinbefore described, suitable bearings or support carried on said slide in which is journalled the spindle of the cork gripping chuck *d*, a friction wheel or wheels such as *c*, fixed on said spindle in combination and acting in conjunction with a friction disc or wheel such as *a*, free to slide lengthwise on its shaft J, and adapted to revolve in a plant at right angles to said friction wheel *c*, and to quickly rotate the latter when intermittently forced into contact therewith, substantially in the manner and for the purposes hereinbefore described and illustrated in the drawings hereunto annexed. 3rd. In a machine for shaping corks by grinding the improved means of imparting intermittent rotary motion to the mechanically held cork, substantially in the manner and for the purposes hereinbefore described. 4th. The improved machinery for grinding corks into shape, combined and arranged to act, substantially in the manner and for the purposes hereinbefore described and illustrated in the drawings hereunto annexed.

No. 46,329. Transmitting Mechanism for Threshing Machines. (*Mécanisme de transmission pour machines à battre.*)



Charles Franklin Goddard, Chicago, Illinois, U.S.A., 4th March, 1895; 6 years.

Claim.—1st. In a threshing machine, the combination of a separator with an engine mounted thereon, a cylinder in the separator, and transmitting devices including a slipping connection. 2nd. In a threshing machine, the combination of a separator with an engine mounted thereon, a cylinder in the separator, and transmitting devices including a slipping connection comprising two parts held with adjustable pressure upon each other. 3rd. In a threshing machine, the combination of a separator with an engine mounted thereon, a cylinder in the separator, and transmitting devices including a slipping connection, said connection comprising a pinion or gear with a dish-shaped recess at one side, and a plug keyed to its shaft and adapted to be forced into said dish-shaped cavity with gear pressure. 4th. The combination of a threshing machine proper with an engine mounted thereon, a cylinder for the threshing, connections between both comprising a rotating shaft, a plug keyed thereon, a dish-shaped gear-wheel to fit over the shaft and plug, a screw threaded outer end of a shaft and nuts thereon bearing against the pinion, whereby the pinion is firmly gripped upon the plug, and can only be rotated under great pressure.

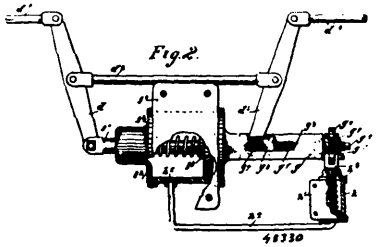
No. 46,330. Brake Adjuster. (*Ajusteur de frein.*)

Martin E. McKee, St. Paul, Minnesota, U.S.A., 4th March, 1895; 5 years.

Claim.—1st. A take-up device for brakes, comprising a shifting fulcrum block for the rear member of the primary brake-levers, a fixed guide for said fulcrum block, a screw-threaded rod for moving

said fulcrum block, and a nut held by said guide for operating said rod, substantially as described. 2nd. The take-up device, comprising the shifting fulcrum block, for one of the brake levers, a fixed guide for said block, a screw-threaded rod, for moving said block,

Fig. 2.

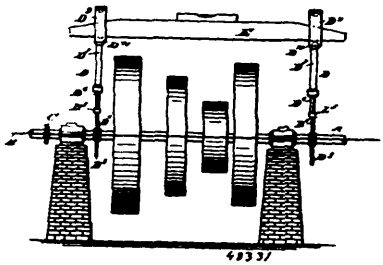


48330

and a pawl and ratchet device held against longitudinal movement by said guide with its ratchet member working on said rod as a nut, for adjusting said fulcrum block and taking up the slack, substantially as described. 3rd. The combination with the fixed fulcrum block guide, of the fulcrum block g^3, having the screw-threaded rod g^6, the combined nut and ratchet g^4, g^5, working on said rod and held by said guide, as described, and the pawl lever g^{10}, pivoted on said nut and provided with a spring held pawl g^9, engaging said ratchet g^5, substantially as described. 4th. An automatic brake-adjuster, comprising a take-up device, applied to shift the fulcrum of the rear member of the primary brake-levers, and a pawl and ratchet device, controlled by the brake motor, for operating said take-up device, substantially as described. 5th. The automatic brake-adjuster, comprising the take-up device applied to shift the fulcrum of the rear member of the primary brake-levers, the pawl and ratchet device, for operating the take-up device, and the take-up motor controlled by the brake-motor, for operating said pawl and ratchet device, and take-up device, substantially as described.

No. 48,331. Shaft Aligning Device.

(*Appareil pour aligner les arbres de couche.*)

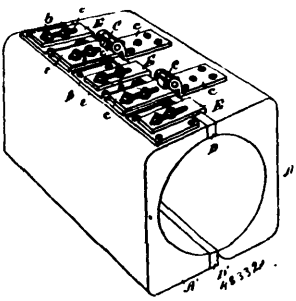


48331

Jacob M. Isgrig, Traverse City, Michigan, U.S.A., 4th March, 1895; 6 years.

Claim.—1st. A shaft aligning device, comprising means for aligning the shafting horizontally to find discrepancies, a pair of adjustable hangers adapted to be supported on and suspended from the line of shafting, and a level adapted to be supported by the said hangers, substantially as shown and described. 2nd. A shaft aligning device, provided with a measuring tool, comprising a tubular body formed with an open end and a closed end provided with angular arms, and a graduated bar fitted to slide in the open end of said tube and be fastened thereof, substantially as shown and described. 3rd. A shaft aligning device, provided with hangers each comprising a tube formed with a head adapted to support one end of a straight edge or level, a graduated bar held adjustable in the said tube, and a bead held on the said graduated bar and adapted to engage the line of shafting, the said head comprising two sets of angular arms, pivotally connected with each other and adapted to be fastened together, substantially as shown and described. 4th. An aligning device for shafting, provided with a head having arms standing at 60° and adapted to engage the shafting, a graduated bar on the said head, and a sleeve in which the said bar is held adjustable, substantially as described. 5th. A shaft aligning device, having a head provided with arms projecting at angles to one another, a pair of arms arranged at angles to one another, one of said last named arms being pivoted to one of the arms on the head and the other arm having an eye at its end, and a hook on the end of the other arm on the head adapted to engage said eye, substantially as set forth.

No. 48,332. Butter Mould. (*Moule à beurre.*)



48332

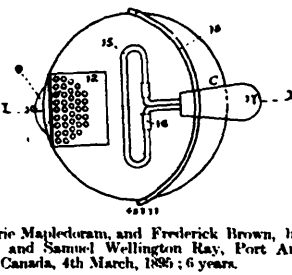
Herbert Sanford Malthy, Santa Cruz, California, U.S.A., 4th March, 1895; 6 years.

Claim.—1st. A butter mould, the sections of which are adjustably connected to their hinges whereby they may be separated or brought closer together, and an adjustably connected filling strip for the space between the hinged edges of said sections. 2nd. A butter mould, the sections of which are adjustably connected to their hinges, a filling strip between the hinged edges of the sections and adjustable catches for supporting said strips. 3rd. The butter mould sections, in combination with the hinges uniting them, a sliding connection between the lap plates of the hinges and sections, and means for closing the space between the sections when the latter are separated. 4th. In combination, with the sections of a butter mould, the plates B secured to said sections, the hinges having the slotted latch plates seated on said plates B, and slidable over bolts or studs therein, the nuts on the bolts or studs for fixing the parts when adjusted, and means for closing the space between the sections when the latter are separated. 5th. In combination with the sections of a butter mould, the plates B secured to said sections, the hinges having the slotted lap plates seated on said plates B and slidable over bolts or studs therein, the nuts on the bolts or studs for fixing the parts where adjusted, the slotted catches seated on said plates B and slidable over bolts or studs therein, nuts for holding said catches and a filling strip supported by the catches and lying between the edges of the mould sections. 6th. A butter mould having adjustably connected filling pieces for both the space between the hinged edges of said sections and for the space between the opening and closing edges of the same. 7th. A butter mould, the sections of which are adjustably connected to their hinges whereby they may be separated or brought closer together, and an adjustably connected filling piece for the space between the hinged edges of said sections and also for the space between the opening and closing edges of the same. 8th. In combination, with a butter mould, the sections of which are connected to their hinges whereby they may be opened and closed, a filling piece seated between the hinged edges of the sections, and a second filling piece seated between the opening and closing edges of said sections and catches adjustably mounted on opposite sides of the mould having pins passing through the filling pieces to connect them with the mould.

No. 48,333. Cover for Cooking Utensils.

(*Couvercle pour ustensile de cuisine.*)

Fig.



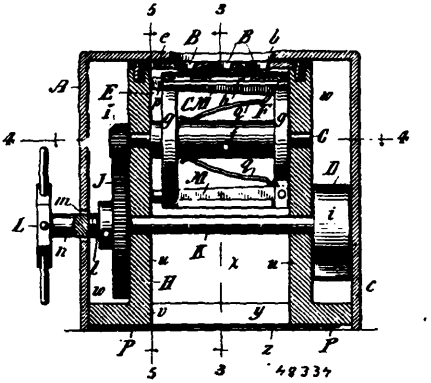
48333

William Currie Mapledoram, and Frederick Brown, both of Fort William, and Samuel Wellington Ray, Port Arthur, all in Ontario, Canada, 4th March, 1895; 6 years.

Claim.—1st. A cover for culinary vessels provided with a looped handle of angular construction pivoted thereon whereby the lower or horizontal member of the handle may be utilized to hold the cover upon a vessel, as and for the purpose set forth. 2nd. A cover

for culinary vessels provided with an outlet near one edge, a housing over the outlet, and a gravity door normally closing the outlet, and a projecting lip or guard in front of the outlet. 3rd. A cover for culinary vessels, the same being provided with outlet openings near one end, a housing covering the same, and provided with a gravity door, and an angular looped handle, pivoted at the junction, of its members upon the upper surface of the cover.

No. 48,334. Cigar Tip Cutter. (*Coupe-bout de cigares.*)



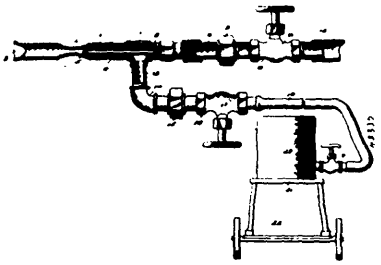
William Henry Campbell, Charles B. Redhead, Edward C. Redhead, and Frank W. Snydam, assignees of William Henry Campbell, all of Brooklyn, New York, U.S.A., 4th March, 1895; 6 years.

Claim.—1st. A cigar tip cutter having a casing and a rotating knife, means for rotating the knife, and stops holding the knife from rotation, in combination with a releasing device for disengaging the stops, mounted opposite the tip hole in the casing, moved by the insertion of a cigar in said hole, and when so moved disengaging said stops, permitting rotation of the knife and moving laterally away from the cigar. 2nd. A cigar tip cutter, having a casing, a tip hole, a movable knife, and stops preventing movement of the knife, in combination with a releasing device carried by the knife opposite the tip hole, moved by the insertion of a cigar in said hole, and when so moved disengaging said stops and permitting the knife to move past and cut the cigar. 3rd. A cigar tip cutter, having a casing, a tip hole, and a movable knife moving past said hole, in combination with a fixed stop carried by said casing, and a movable nose carried by said movable knife, and means for moving said nose out of engagement with said stop to free said knife when a cigar is inserted in said hole. 4th. In an automatic cigar tip cutter, a casing having a tip hole, a moving knife, a spring for moving the knife, and a fixed stop carried by said casing, a movable nose carried by the knife and engaging the stop to prevent movement of the knife, and a releaser carried by the knife opposite the tip hole, and operated when a cigar is inserted in said hole to move the nose away from said stop. 5th. In a cigar-tip cutter, the casing A and the inner frame H, having walls *u*, and the rotating knives carried by the spool F, and automatically released by the insertion of a cigar into a tip-hole, said knives mounted between the walls *u*, a spring *i*, for driving said knives arranged at the outside of one of said walls, and gears I and J, mounted at the outside of the other of said walls for transmitting the motion of the spring to the knives. 6th. In an automatic cigar-tip cutter, the rotating spool F, carrying a knife blade *b*, a bar M, pivoted to one wing of said spool back of said blade, and projecting at its other end as a nose *p*, through a slot *o*, in said spool, moving radially thereof, and engaging a stop for preventing rotation of the cutter. 7th. In a cigar-tip cutter, a spring-driven rotating cutter frame having a peripheral blade, a peripheral releaser behind said blade, a nose actuated by said releaser and engaging a stop for locking the cutter against rotation, and a tip-hole plate *c*, opposite said releaser and having a number of aligned tip-holes, as and for the purpose set forth.

No. 48,335. Vacuum Fire Kindler. (*Attisoir à vacuum.*)

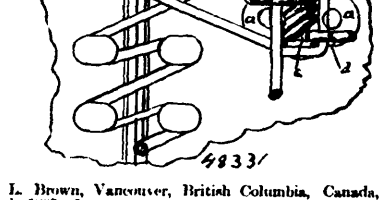
Norbourn Henry Smith, Jeremiah Bunting, jr., Lindsay Bunting, Thomas McCulloch and Lawrence N. Buford, all of Bristol, Tennessee, U.S.A., 4th March, 1895; 6 years.

Claim.—1st. In a vacuum fire kindling apparatus, a vacuum mixing pipe, a main air pipe connected with one end of said mixing pipe, a smaller air jet pipe connected and communicating with the main air pipe and arranged within the said mixing pipe, a feed pipe connected to the mixing pipe at the same end as the connection of the main air pipe therewith, an oil hose valve coupling detachably connected to said feed pipe and an air hose valve coupling adapted to be detachably connected to the main air pipe and to a separate blower attachment, substantially as set forth. 2nd. In a vacuum fire kindling apparatus, a vacuum mixing pipe provided at an intermediate point with a contracted throat portion and at one end with a narrow



integral vertically disposed rectangular burner-mouth, a T-coupling fitted to the end of the mixing pipe opposite the burner mouth, a reducing plug fitted in one end of the T-coupling and connected with a main air pipe of a larger internal diameter, a small air jet pipe fitted at one end within said reducing plug and extending inward within the mixing pipe to a point partly within said contracted throat, the inner end of said small jet pipe being provided with a jet opening, a feed pipe connected to the lower side of the T-coupling at one end of the mixing pile, and an oil hose valve coupling detachably connected to said feed pipe, substantially as set forth. 3rd. The herein described stack blower attachment for fire kindling apparatus, consisting of an inverted U-shaped blower pipe adapted to be placed over the upper edge of a locomotive stack and provided at its inner lower end with an offstanding upwardly disposed jet nipple, and a larger suction sleeve removably supported on said jet nipple, substantially as set forth.

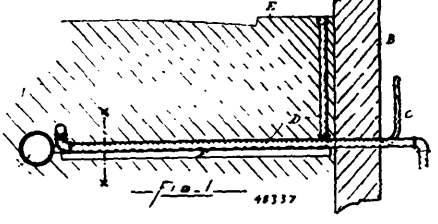
No. 48,336. Lace Holder. (*Porte-lacets.*)



Charles L. Brown, Vancouver, British Columbia, Canada, 4th March, 1895; 6 years.

Claim.—The combination of a spring mounted on a plate attached to a boot, shoe, or glove, etc., for the holding of their laces without tying, substantially as and for the purposes herein set forth.

No. 48,337. Device for Thawing out Ice in Service Pipes. (*Appareil pour fondre la glace dans les tuyaux.*)



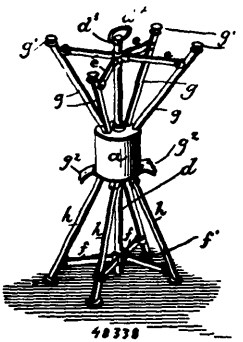
Damien Lalonde, Montreal, Quebec, Canada, 4th March, 1895; 6 years.

Claim.—A device consisting of a pipe laid along the side of the

water service pipes of buildings, extending upward to the ground surface, and supplied with a jet of steam substantially as herein shown and for the purpose set forth.

No. 48,338. Pedestal for Burial Caskets.

(*Piédestal pour cercueils*)

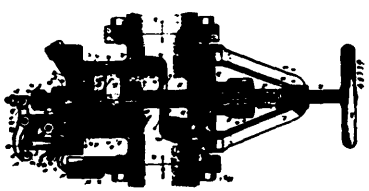


Sherman N. Hiser, Ed. N. Luffer, Charles H. Hiser and Seippo E. Baker, all of Springfield, Ohio, U.S.A., 4th March, 1895; 6 years.

Claim.—1st. In a pedestal for burial caskets, a central block or support having oppositely-arranged plates at the ends thereof, hinged arms and legs connected to said plates, and a flexible covering at each end of said support, said flexible coverings being respectively clamped between the end of said support and the said plates at one end and at the other end connected to said pivoted arms and legs, and means, substantially as described, for moving said arms and legs to fold and unfold the said pedestal, substantially as specified. 2nd. In a folding pedestal for burial caskets, a central block or support and hinged arms and legs connected to each end of said block, flexible coverings extending in opposite directions from said supporting block to the ends of the respective arms and legs, a sliding rod connected to said arms and legs above and below said central block or support, and a folding handle attached to one end of said sliding rod, substantially as specified. 3rd. In a folding pedestal for burial caskets, a central support having pivoted arms connected thereto at each end, a rod extending through said support and connected by pivoted links to the arms and legs on opposite sides of said block, a stop on said rod to contact with said block, said stop being so arranged that the upper end of the rod will stand flush with the tops of the arms when the same are extended, substantially as specified. 4th. In a folding pedestal for burial caskets, a central support, plates at each end of said support, pivoted arms and legs connected to said plates, a supporting rod extending through said plates and said support and connected by pivoted links to said arms and legs on opposite sides of said support, a flexible cover clamped between the respective plates and support at each end of said support, said cover being connected to the free ends of said arms and legs, and a handle connected to said rod to operate said arms and legs, to fold and unfold the said pedestal, substantially as specified.

No. 48,339. Apparatus for Controlling Valves, Etc.

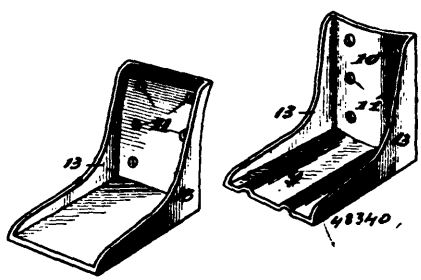
(*Appareil pour contrôler les soupapes, etc.*)



The Standard Valve Company, assignee of Benjamin Franklin, both of Chicago, Illinois, U.S.A., 4th March, 1895; 6 years.

Claim. 1st. An apparatus of the character described, comprising a cylinder, a differential piston within said cylinder, suitable channels for admitting fluid under pressure to both ends of said cylinder, and for allowing the escape of fluid from one end thereof, and a valve for controlling said escape of fluid, all substantially as and for the purpose described. 2nd. An apparatus of the character described, comprising a casing having a port 4, therein for the passage of fluid through said casing, and having a cylinder and a differential piston E, within said cylinder, said piston being provided with a trunk or rod *d*, that is permanently protected against access of fluid pressure on its outer end, a valve connected to said trunk or rod *d*, for closing the port 4, an escape port or channel in the end of the cylinder opposite the larger area of the piston, a release valve for controlling said escape port, and an electro-magnet and suitable intermediate mechanism for controlling said release valve, substantially as described. 3rd. An apparatus of the character described, comprising a cylinder and a differential piston within said cylinder, an escape port for said cylinder provided with an escape valve, an electro-magnet for controlling said escape valve and suitable means for determining the extent of movement of the armature of said magnet, substantially as described. 4th. An apparatus of the character described, comprising a cylinder with ports whereby fluid may be admitted to both ends of said cylinder and with an escape passage whereby fluid may escape from one end of said cylinder, a valve for controlling said escape passage, a differential piston within said cylinder provided with an annular flange or rim, and an annular space at the end of said cylinder into which said flange or rim of the piston will enter, substantially as described. 5th. An apparatus of the character described, comprising the combination with a cylinder, of a differential piston within said cylinder, an escape passage for fluid at the end of said cylinder opposite the larger area of said piston, an escape valve F, for controlling said escape passage, and a supplemental piston F^1, for operating said valve F, substantially as described. 6th. An apparatus of the character described, comprising a cylinder, a differential piston within said cylinder, an escape passage in one end of said cylinder whereby fluid may escape therefrom, a release valve F, for controlling said escape passage, a hollow trunk or rod *d*, connected to said piston E, and a plunger passing through said trunk or rod *d*, and said piston E, and arranged to close said escape valve F, substantially as described. 7th. An apparatus of the character described, comprising a cylinder, a differential piston E, within said cylinder and provided with a hollow trunk or rod *d*, a plunger H, passing through said trunk or rod, a spindle K, for operating said plunger, and a release valve F, at the end of said cylinder opposite the head of said plunger, whereby said release valve may be closed by said plunger, substantially as described. 8th. An apparatus of the character described, comprising a cylinder, a differential piston E, within said cylinder, an escape valve F, for controlling the escape of fluid from said cylinder, a piston F^1, for shifting said escape valve F, a lever R, connected to the rod of said piston F^1, an elbow lever T, an armature lever V, for engaging said elbow lever and an electro-magnet for releasing said elbow lever, substantially as described. 9th. An apparatus of the character described, comprising a cylinder, a differential piston within said cylinder, suitable ports whereby fluid under pressure may be admitted to both sides of said piston, a trunk or rod for said piston extending outside the casing, a spindle K, adapted to contact with said trunk or rod, an escape port whereby the release of fluid from one end of said cylinder may be had and a release valve for controlling said escape port of the cylinder, substantially as described.

No. 48,340. Supporting Bracket. (*Console*)



George Henry Drake, Omaha, Alfred Martin Castle, Chicago, Illinois, and William Jarvis Wickes, Saginaw, Michigan, all in the U.S.A., 4th March, 1895; 6 years.

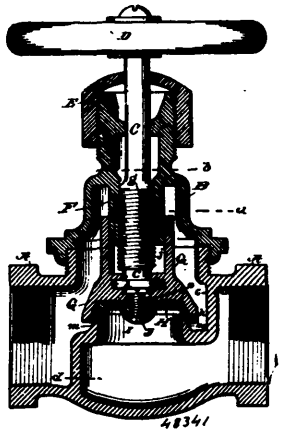
Claim.—The herein described lug or bracket, constructed from a sheet metal blank, wider at its middle than at its ends by bending said blank transversely to provide body portions angularly disposed, with reference to each other, and simultaneously turning up the edges of said blank to provide marginal strengthening ribs or flanges integrally connecting the angular portions, said flanges being widest at the angle and gradually tapering toward and terminating at the extremities of the angular members, substantially as described.

No. 48,341. Valve. (*Soupape.*)

John H. Eastwood, assignee of Henry Frisbie, both of Belleville, New Jersey, U.S.A., 5th March, 1895; 6 years.

Claim.—1st. The combination in a valve, of a body, a bonnet

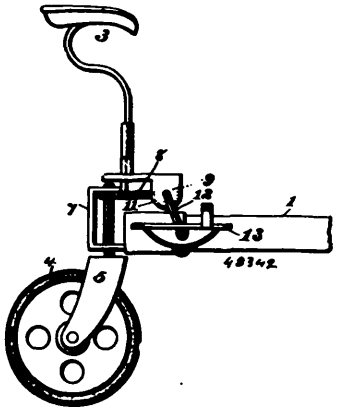
thereon, a cylindrical supporting guide projecting down from the interior of said bonnet, a longitudinally threaded hole therethrough, a spindle having a threaded portion to engage with the threaded portion of said guide, a valve-disc carrier mounted on said guide,



substantially as and for the purpose hereinbefore set forth. 2nd. The combination in a valve of a body, a bonnet thereon, in interiorly threaded guide having an outer cylindrical surface concentric with the axis of said bonnet and projecting downward from the upper interior wall thereof, a valve spindle whose threaded portion engages the threaded portion of said guide, a valve disc carrier mounted on the lower end of said spindle whose hub portion is cylindrically bored to operatively engage with said guide, a side opening in said carrier to admit the spindles, substantially as and for the purpose hereinbefore set forth. 3rd. The combination with the body A, bonnet B, valve spindle C, projecting disc carrier supporting guide F, of the disc carrier G, having bore j, to engage said guide and lateral opening i, to admit the end of said spindle, valve disc H, having square projection o, to engage the square recess p, of the disc carrier retaining screw J, engaging said valve disc from above and held in place by the end of the valve spindle, substantially as and for the purpose hereinbefore set forth. 4th. The combination of a valve disc carrier, a detachable valve disc, a retaining screw for said valve disc for securing it to said carrier, a valve spindle, the lower end of said spindle abutting the head of the retaining screw, so as to lock it against accidental displacement, substantially as and for the purpose hereinbefore set forth.

No. 48,342. Steering Apparatus for Wheat Headers.

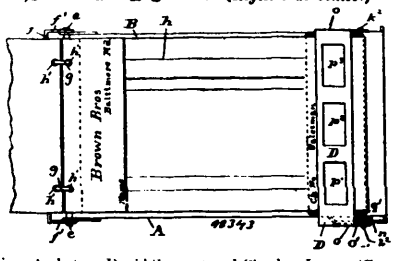
(*Appareil à gouverner pour ciseleurs à blé.*)



William McKay Chalk, and Frank Granger Aldrich, both of Spivey, Kansas, U.S.A., 5th March, 1895; 6 years.

Claim.—1st. In a steering apparatus for a wheat-header, the combination with a frame and seat, of a movable steering-wheel, a horizontal crank shaft operatively connected with the steering-wheel, and pedals upon the cranks of the shaft, substantially as and for the purpose specified. 2nd. In a steering apparatus for a wheat-header, the combination with the frame and seat of a steering-wheel, a segmental-gear carried thereon, a shaft, a worm-wheel meshing with the segmental-gear, cranks upon the ends of the shaft and stirrups upon the cranks, all arranged and co-operating, substantially as and for the purpose specified.

No. 48,343. Sale Register. (*Régistre de ventes.*)



William Assheton, David Stewart and Charles Jerome Carroll, all of Baltimore, Maryland, U.S.A., 5th March, 1895; 6 years.

Claim.—1st. In a manifolding sales register, the combination of a case having a chamber b, a top surface platen B, and a transverse opening q through the said platen, means for holding one end of a bunch of paper-blanks on the platen and leaving the other end of the bunch unconfined and resting over the said transverse opening, and a frame inclosed within the said chamber of the case and provided with means for carrying a strip of paper which is to be exposed at the said transverse opening. 2nd. The combination of the case having a platen B, a transverse rod e, provided with pins g, and mounted at one end of the case, and a bar f pivoted on the transverse rod so as to tilt back and forth and engage the said pins. 3rd. The combination of the case having a platen B, paper holding pins mounted at one end of the case, and a bar f provided with pin-holes and having its ends pivoted so as to permit the bar to tilt back and forth and engage the free ends of the pins 4th. In a manifolding sales register, the combination of a case having a chamber, a top-platen B, and a transverse opening q through the platen, means for holding paper-blanks on the platen so that one end of the blanks will rest immediately over the said transverse opening, an interior frame C, fitting within the said chamber and provided with suitable rollers to carry a band or strip of paper which is to be exposed at the said transverse opening, and a pivoted actuating bar D by which the rollers of the interior frame are revolved. 5th. In a manifolding sales register, the combination of a case having a chamber b, a top-surface platen B, and a transverse opening q through the platen, an interior frame C, within the chamber carrying a roller k at one end, and two rollers k^1, k^2 at the other end in frictional contact, one roller k^2 having its ends fitting in slots in the sides of the frame, a spring presser-bar pressing each end of said rollers k^1, to force it into close contact with the other roller k^2, a strip or band of paper j, carried by the rollers and exposed at the said opening q, and means to actuate one of the said two rollers. 6th. In a manifolding sales register, the combination of the case having a chamber b, a top surface platen B, and an opening q through the platen, means for holding a number of blanks on the platen so that one end of the blanks will be unconfined and rest over the said transvere opening, an interior frame C, inclosed within the chamber and having at one end a single roller k, and at the other end two rollers k^1, k^2 in frictional contact one of said two rollers carrying a ratchet-wheel n, the the said rollers adapted for carrying a strip or band of paper, and a pivoted actuating bar D, carrying a pawl which engages the ratchet-wheel, and which when the bar is tilted revolves the said roller. 7th. In a manifolding sales register, the combination of the case having a chamber b, a top-surface platen B, and a transverse opening q through the platen, means for holding a number of paper-blanks on the platen so that their unconfined ends will rest over the said transverse opening, rollers for carrying a strip or band of paper inclosed within the said chamber, a pivoted actuating bar D to rest upon the unconfined ends of the said paper-blanks over the said transverse opening and said bar provided with slots in coincidence with said transverse opening, and means connecting between the said pivoted actuating bar and the said rollers in the chamber, whereby in tilting the bar the said rollers will be actuated.

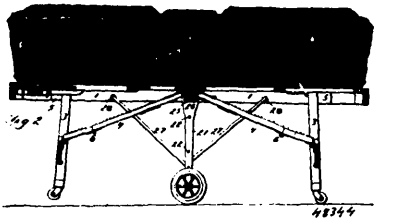
No. 48,344. Coffin Truck.

(*Camion pour cercueils.*)

Noah T. Shaw and Charles B. Palmer, both of Columbus, Ohio, U.S.A., 5th March, 1895; 6 years.

Claim.—1st. A truck truss having legs bifurcated at their upper ends, and connected by cross rods and the axle of the truck-wheels,

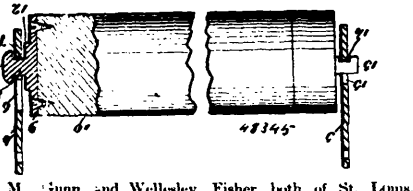
braces connecting said legs and clamping-jaws pivoted to the bifurcated ends of the latter, the said truck-truss being adapted by its bifurcated legs, clamps and braces, as an attachment for funeral director's church-truck and pall board, substantially as described. 2nd. In a funeral director's church-truck and pall board, the combination, with the hinged board sections, each having sockets 28 on its



inner sides, hinged folding-legs and hinged folding-braces, of an attachable truck-truss having legs bifurcated at their upper ends adapted to embrace the meeting-bars of the hinged board-sections, clamps pivoted to the said legs at their bifurcated ends adapted to engage and bind the legs to said meeting-bars, and spring-braces pivoted to said legs and adapted to engage the sockets of said board-sections, substantially as described. 3rd. The combination, with the hinged board-sections, each having surface recesses at its side edges and sockets at each corner, of canopy supporting posts having slots and pivoted within said corner-sockets, said sockets adapted to receive the ends of the posts when in operative position and said recesses adapted to receive the post lengthwise when in inoperative relation, substantially as described. 4th. The combination, with the hinged-board sections, each having surface recesses at its side edges and sockets at each corner, of canopy-supporting posts having slots and pivoted within said corner sockets for rigid vertical adjustment therein and spring-pins for securing said posts when folded within their receiving edge recesses, substantially as described. 5th. The combination, with the hinged board sections, of an adjustable head-section pivoted within the board and having a longitudinal middle opening forming a divided back support and having an extensible head-rest fitted to slide in said opening, substantially as described. 6th. The combination, with the hinged board-sections, and the hinged leg-frames, of the jointed hinged-braces provided at their joints with tongues on one part and co-acting slots on the other part, the tongue of each joint having a spring locking-catch adapted to engage the slotted part for preventing the accidental flexure of the brace, as described. 7th. A funeral director's church-truck, consisting of a board of hinged sections, having hinged folding-legs, hinged folding-braces of jointed sections provided with spring locking-catches at the joints, and a truck-truss attachment having braces and clamps adapted to secure the truck to the meeting-bars and sides of the hinged-sections, substantially as described.

No. 48,345. Window Shade Adjuster and Hanger.

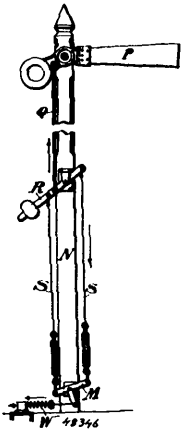
(*Ajustage des bâtons des stores des fenêtres.*)



Luther M. Gunn and Wellesley Fisher, both of St. Louis, Missouri, U.S.A., 5th March, 1895; 6 years.

Claim.—1st. In a window shade adjuster and hanger, a suitable roller, projecting bearings at either end thereof, hangers for the reception of said bearings, and means for varying the elevation of the hangers, substantially as set forth. 2nd. In a window shade adjuster and hanger, a suitable roller, a metallic casting rigidly secured at one end thereof, a reduced shoulder projecting from the outer surface of the casting, a contracted rounded neck forming a part of said shoulder, an extended head secured to or forming a part of the neck, a bearing movably secured to the opposite end of the roller, and suitable hangers for embracing the neck of the casting at one end and the bearing at the opposite end, substantially as set forth. 3rd. In a window shade adjuster and hanger, a suitable roller, a bearing in movable relation thereto secured at one end, a suitable notch on the lower edge of said bearing, a hanger having an inclined slot whose lower edge is adapted to be embraced by the notch, a bearing rigidly fixed to the opposite end of the roller, a hanger for said bearing having an enlarged opening and a reduced continuation thereof for receiving the operating end of the bearing, and an enlarged head at the end of said operating end of the fixed bearing, substantially as set forth. 4th. In a window shade adjuster and hanger, a suitable hanger, an inclined slot in said hanger, and means for connecting said hanger to the roller, substantially as set forth.

No. 48,346. Railroad Signal. (*Signal de chemin de fer.*)



Joseph Ritner Jones, Philadelphia, Joshua Wiestling Jones, Harrisburg and Thomas Abraham Jones, Philadelphia, all in Pennsylvania, U.S.A., 5th March, 1895; 6 years.

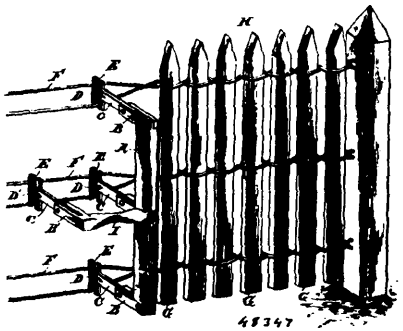
Claim.—1st. A signal arm in combination with an operating lever, a vertical traveller, a clutch block pivotally connected with said traveller, a weighted chain passing between said block and traveller, a weighted lever connected with said signal arm, and a connecting mechanism, substantially as described between said weighted lever and said weighted chain, all substantially as described. 2nd. A signal arm, an operating lever, a traveller vertically movable on a standard, a clutch block pivoted to said traveller, a weighted chain passing between said block and traveller, a pulley over which the weighted end of said chain passes, and mechanism formed of rods and levers connecting said chain with said signal arm, said parts being combined, substantially as described. 3rd. In a signal, a weighted connection for the operating lever and signal arm, and a pulley over which the weighted end of said connection passes, in combination with a clutch to which said lever is attached, said clutch being formed of a traveller, a post on which said traveller is supported and a block which is pivotally mounted on said traveller, said block and traveller having a space between them in which said weighted connection is adapted to move, the operating being substantially as described. 4th. A signal arm having one end connected with a weighted lever, mechanism connected with a weighted chain for operating said arm, an operating lever, and a clutch block pivoted to a vertically movable traveller, said parts being combined, substantially as described. 5th. A signal arm, a weighted connection attached to said signal arm and the operating lever, a pivoted clutch block and a traveller which supports said block, and a standard on which said traveller is vertically movable, said parts being combined substantially as described. 6th. A signal arm, an operating lever, with a clutch block attached thereto, a traveller on which said block is mounted, a weighted connection of the operating lever and signal arm passing between said block and traveller, and adapted to be clamped by said parts, the spring W, and mechanism consisting of rods and levers attaching said spring and connection to the signal arm, said parts being combined substantially as described. 7th. A signal arm, a weighted lever connected by a rod to one end of said arm, the rods S, and lever M, connected with said weighted lever for operating the same, the weighted chain G, connected by the spring W, to said lever M, an operating lever and a clutch mechanism connected therewith for clamping said weighted chain, said parts being combined substantially as described.

No. 48,347. Hand Fence Machine. (*Machine à clôture.*)

Milo A. Shipman, assignee of Enoch Warner, both of Central City, Nebraska, U.S.A., 5th March, 1895; 6 years.

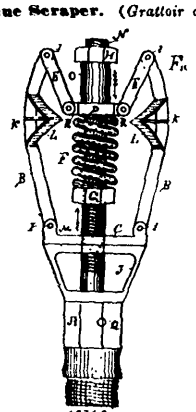
Claim.—1st. In a wire fence machine, the combination of the upright frame bar having a series of short off-standing shuttle arms, swinging shuttle bars pivoted at their inner ends to said shuttle arms, and having at their outer ends right-angularly disposed wire heads provided with notches in their opposite ends, and a combined

handle and side brace extended laterally from said bar, and adapted to be connected with the fence wires, substantially as set forth. 2nd. In a hand fence machine, the combination of an upright frame bar having a series of short shuttle arms, a series of swinging shuttle



bars pivoted at their inner ends to said shuttle arms, and having at their outer ends right-angularly disposed wire heads provided with wire notched in their opposite ends, a combined handle and side brace extended laterally from the frame bar at an intermediate point and provided with an angled outer end, and a supplemental shuttle bar pivoted to said angled end and having a notched right angularly disposed wire head, said supplemental shuttle bar, and its head being arranged in a line with an intermediate one of the other shuttle bars, substantially as set forth.

No. 48,348. Flue Scraper. (*Grattoir de carneaux.*)



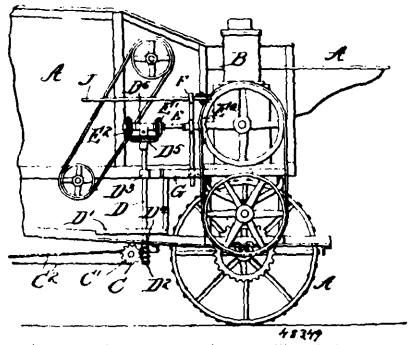
Edward D. Weston, Robert Gage and Benjamin Dyre Legg, all of Jackson, Michigan, U.S.A., 5th March, 1895; 6 years.

Claim.—1st. The flue scraper described, comprising the stock A^1, having the threaded stem N secured to said stock, the conical base J slipped on said stem, the cap C firmly secured to the stem N, and resting on the conical base J, and having the brackets M, M hinged in said brackets, the arms B, B, having the blades L, L and K, K, substantially as shown and for the purpose hereinbefore set forth. 2nd. In a flue scraper, having a threaded stem N, secured on said stem the tension nut G, spiral spring F, interposed between the tension nut G and the slidable collar D, the slidable furl O, and adjusting nut, all substantially as shown and for the purpose hereinbefore set forth. 3rd. The combination, in a flue cleaner of the arms B, B, having the links E, E attached to said arms at the upper or outer ends, said links E, E attached at the lower ends to the brackets R, R, on the slidable collar D, substantially as shown and for the purpose described.

No. 48,349. Steering Mechanism for Threshing Machines. (*Mécanisme pour gouverner les machines à battre.*)

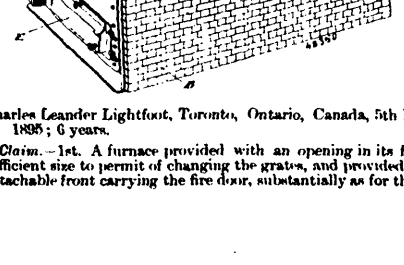
Charles Franklin Goddard, Chicago, Illinois, U.S.A., 5th March, 1895; 6 years.

Claim.—1st. The combination of a shaft having a gear-wheel on he end thereof, with a transverse shaft mounted upon a cap on the end of the first mentioned shaft so as to swing thereon, and gear-wheels on such transverse shaft adapted to intermittently engage the gear-wheel on the first mentioned shaft. 2nd. In a threshing machine, the combination of a steering gear with a controlling shaft therefor, a gear on such shaft, a tilting shaft with gears thereon



adapted one at a time to engage the controlling shaft, and means for driving said gears. 3rd. The combination of a controlling shaft with a gear thereon, a transverse shaft with gears thereon adapted alternately to engage the first mentioned gear, and means whereby the transverse shaft may be raised or lowered at one end to bring the gears thereon alternately in engagement with the gear on the controlling shaft. 4th. In a threshing machine, the combination of a rotating driving wheel with a shaft having a friction wheel on one end thereof opposed to the driving wheel and gears on the other end, means for moving the end of the shaft carrying the friction wheel either vertically or laterally, and a shaft and gear adapted alternately to engage the gears on the transverse shaft. 5th. The combination of a shaft adapted to be alternately rotated in opposite directions, with a gear-wheel on the upper end thereof, a tilting bearing on the top of said shaft, a transverse shaft in such bearing, gears thereto on opposite sides of the bearing, and adapted alternately to engage the gear on the reversing shaft. 6th. The combination of a shaft adapted to be alternately rotated in opposite directions, with a gear-wheel on the upper end thereof, a tilting bearing on the top of said shaft, a transverse shaft in such bearing, gears thereto on opposite sides of the bearing and adapted alternately to engage the gear on the reversing shaft, and a friction-wheel on the other end of the transverse shaft, and means for moving that end of the shaft to bring one and then the other of its gear into engagement with the gear on the vertical shaft. 7th. The combination of a shaft adapted to be alternately rotated in opposite directions, with a gear-wheel on the upper end thereof, a tilting bearing on the top of said shaft, a transverse shaft in such bearing, gears thereto on opposite sides of the bearing and adapted alternately to engage the gear on the reversing shaft, and a friction-wheel on the other end of the transverse shaft, and means for moving that end of the shaft to bring one and then the other of its gears into engagement with the gear on the vertical shaft, and to bring the friction gear against an opposed driving gear, whereby the transverse shaft is rotated.

No. 48,350. Hot Air Furnace. (*Fournaise à air chaud.*)



Charles Leander Lightfoot, Toronto, Ontario, Canada, 5th March, 1895; 6 years.

Claim.—1st. A furnace provided with an opening in its front of sufficient size to permit of changing the grates, and provided with a detachable front carrying the fire door, substantially as for the pur-

pose specified. 2nd. A furnace provided with an opening in its front of sufficient size to permit of changing the grates, and provided with a detachable front carrying the fire door and the ash pit door, substantially as and for the purpose specified. 3rd. A furnace provided with an opening in its front of sufficient size to permit of changing the grates, and provided with a detachable front carrying the fire door, the said fire door being made in two parts, substantially as and for the purpose specified. 4th. In a furnace, the combination of a smoke flue, a smoke chamber communicating with the interior of the furnace and with the smoke flue, and a header connected to the said smoke flue, both the header and the end of the smoke flue being so constructed that radiating flues may be connected therewith, substantially as and for the purpose specified. 5th. In a furnace, the combination of a smoke flue provided with a damper, a smoke chamber communicating with the interior of the furnace and with the smoke flue, and a header connected to the said smoke flue, both the header and the end of the smoke flue being so constructed that radiating flues may be connected therewith, substantially as and for the purpose specified. 6th. In a furnace, the combination of a smoke flue open at one end, a smoke chamber communicating with the interior of the furnace and with the smoke flue, and a header connected to the said smoke flue and provided with flanged openings, substantially as and for the purpose specified. 7th. In a furnace, a smoke flue, a smoke chamber, communicating with the interior of the furnace and the smoke flue, and a header connected to the smoke flue, in combination with a set of radiating flues comprising two flues detachably connected to the above mentioned header and connected either directly or indirectly with a short flue detachably connected to the first mentioned smoke flue, substantially as and for the purpose specified. 8th. In a furnace, a smoke flue, a smoke chamber, communicating with the interior of the furnace and the smoke flue, and a header connected to the smoke flue, a damper located in the said smoke flue behind the said smoke chamber, in combination with a set of radiating flues comprising two flues detachably connected to the above mentioned header and connected either directly or indirectly with a short flue detachably connected to the first mentioned smoke flue, substantially as and for the purpose specified. 9th. In a furnace, the combination of the smoke chamber G, the smoke flue I, the flanges g and h, the damper J, the header K, the flues M and N, flanges L, the header V, the flue c, and the smoke pipe O, substantially as and for the purpose specified. 10th. In a furnace, the combination of the smoke chamber G, the smoke flue I, the flanges g and n, the damper J, the header K, flanges L, the flues M and N, the stopper f, the header V, the flue c, the smoke pipe O, and openings P and e, closed by the stoppers Q and d respectively, substantially as and for the purpose specified. 11th. In a furnace, the combination, with a smoke chamber communicating with the interior of the furnace, of a smoke flue communicating with the said smoke chamber, a damper located in the said flue to one side of the smoke chamber, a lever arm connected to the spindle of the damper and a rod connected to the said lever arm and extending through the front of the furnace, substantially as and for the purpose specified. 12th. In a furnace, the combination of the smoke chamber G, the smoke flue I, the flanges g and h, the damper J, the spindle S, lever arm R, rod T, handle U, the header K, the flanges L, the flues M and N, the stopper f, the header V, the flue c, the smoke pipe O, and openings P and e, closed by the stoppers Q and d respectively, substantially as and for the purpose specified.

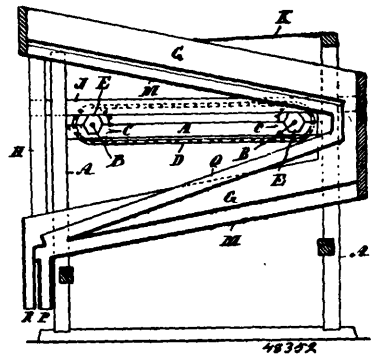
No. 48,251. Horse Detacher and Vehicle Brake.

(*Dételage instantané et frein de voiture.*)

Annie Hack Chilton, Baltimore, Maryland, U.S.A., 5th March, 1895; 6 years.

Claim.—1st. An improved combined horse detacher and vehicle brake mechanism, comprising a spring actuated band brake mechanism arranged to engage one or more of the wheel hubs, a detent for normally holding such mechanism out of operative position, horse detaching devices on the vehicle shafts, a guide member on the vehicle body, an operating cord or chain connected to the break band detent, and passed up over the guide in one direction, an operating cord, or chain connected to the detaching devices and passed over the guide in a reverse direction to the detent cord, and a single operating handle portion connected to the ends of such detent, and detaching cords, extended up within the vehicle body, all arranged substantially as shown and for the purposes described. 2nd. The combination with one or more wheels of the vehicle, a brake band held on the hubs thereof, a shaft mounted on the vehicle held to rock in one direction by spring tension, said shaft having a crank-arm connected to one end of the brake band, a fixed arm connected to the other end of such band, a lock notch or projection on such shaft, a pivoted detent adapted to engage such lock notch on the shaft, and connections between such detent and an operating member on the wagon body whereby the detent is released from the shaft, and the brake band applied on such hub when the operating member is pulled upon all substantially as shown and described. 3rd. The combination with the shaft D and the wheel E, of the spring-actuated rock-shaft I, journalled on the shaft having an angular arm L, at its inner end, the fixed angle arm H^2, inclined reversely to the arm L, the brake band M, fitted over the wheel hub and having its ends secured to the arms L and H^2, said shaft having a lock notch, the detent P, adapted to engage such notch and the chain or cord connections, for operating the detent P, all arranged substantially as shown and described. 4th. The combination with the axles and supporting wheels, of the spring-actuated rock-shaft I, having a crank arm K, and a notched collar O, at its inner end and an angularly extending arm L, at its opposite end, and a fixed arm H^2, and the band brake M, secured at its ends to the arms L, and H^2, and adapted to fit over the wheel hub, all arranged substantially as shown and described.

No. 48,252. Wheat Separator. (*Séparateur de blé.*)



Thomas Willing, Martintown, Ontario, Canada, 5th March, 1895; 6 years.

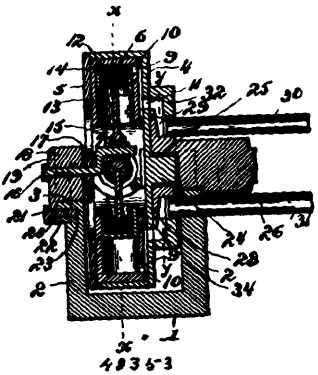
Claim.—1st. The combination with the main supporting frame A, chain gears C, C, D, and horizontal shafts B, B, carrying polygonal wiper wheels E, of the sieves G, G, connected rigidly together, oppositely inclined, and supported on said wheels E, said sieves having an imperforated outer bottom and an inner perforated bottom having round holes of the size to let the wheat grain to pass through endwise only, said sieves having a vertical motion imparted by the rotation of the wiper wheels collectively and with uniformity of action, whereby the grains jump in rapid succession or tremulously, to give the desired agitation to fall endwise through the round holes in the sieves, and the larger foreign seeds prevented from passing through the sieves are discharged at the tail of the sieves, as set forth. 2nd. The combination of the frame A, shafts B, B, geared together and carrying polygonal wiper wheels E, and the sieves G, G, supported by said wheels, and having an inner perforated bottom provided with round holes, and an outer imperforated bottom, whereby said sieves are given a tremulous vertical motion by the rotation of said wiper wheels simultaneously, for the purpose set forth.

No. 48,253. Steam Engine. (*Machine à vapeur.*)

Herman Nielsen, Edgerton, Wisconsin, U.S.A., 5th March, 1895; 6 years.

Claim.—1st. In a steam engine, the combination of a bearing bracket provided with opposite parallel bearing arms, a stationary crank detachably fastened to one of the bearing arms of said bearing bracket, a stationary bearing sleeve removably mounted on the other bearing arm of said bracket opposite the said stationary crank, a revolving cylinder wheel mounted at one side on the stationary crank and provided at its opposite side with a bearing trunnion mounted in said stationary bearing sleeve, a series of radial steam cylinders mounted within said wheel and having their pistons connected with said crank, and valve devices for said cylinders, substantially as set forth. 2nd. In a steam engine, the combination of a bearing bracket provided with opposite parallel bearing arms having squared sockets at their upper ends, a revolving cylinder wheel mounted to rotate between said bearing arms and provided at one

side with a central bearing trunnion, a stationary bearing sleeve fitted in the socket of one of said bearing arms and receiving said trunnion, a stationary crank shaft projecting centrally through one side of said wheel and provided at its inner end with a fixed crank pin, the cylinders mounted radially within said wheel and having their pistons connected with said crank pin, a squared block fitted



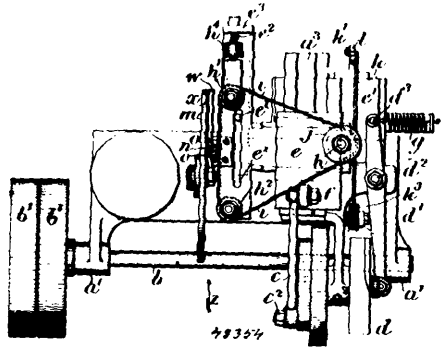
on the outer end of said crank shaft and resting in the squared socket of one of said bearing arms, means for clamping said shaft block to the adjacent bearing arms, and a valve device for said cylinders, substantially as set set forth. 3rd. In a steam engine, the combination of a fixed or stationary crank, a cylinder or casing-wheel mounted to rotate over said crank and open at one side, a series of radially disposed steam cylinders arranged within said wheel, segmental clamp plates 8, interposed between the binding at their ends against said cylinders to hold the same in position, a removable side cap plate inclosing the open side of the wheel, and having a central bearing opening for the fixed crank, the piston heads moving within said cylinders and having their rods connected with said crank, and a valve device for said cylinders, substantially as set forth. 4th. In a steam engine, the combination of the stationary crank, a cylinder-wheel mounted to rotate over said crank and provided in one side with steam ports, a series of radial steam cylinders mounted within said wheel, and having their pistons connected with said cranks and provided with steam ports in their closed ends, channel plates interposed between the cylinders, and one side of the wheel to connect the ports of the cylinders with those in the wheel, and a stationary adjustable valve device arranged at one side of the wheel over the ports thereof, substantially as set forth. 5th. In a steam engine, the combination of a revolving cylinder-wheel carrying a series of actuating steam cylinders and provided in one side with steam ports communicating with the cylinder ports, a stationary bearing disc provided with opposite live and exhaust steam recesses, and an adjustable valve ring mounted to work over said bearing disc at one side of said wheel and provided with steam grooves adapted to connect two ports of the wheel and inner peripheral ports at the terminals of said grooves adapted to register with the steam recesses of said bearing disc, substantially as set forth. 6th. In a steam engine, the combination of a revolving cylinder-wheel carrying a series of actuating steam cylinders and provided in one side with steam ports communicating with the cylinder ports, a peripherally bevelled stationary bearing disc arranged at one side of the wheel, and provided in its periphery with directly opposite live and exhaust steam recesses, an adjustable valve ring having an inner reversely bevelled periphery working over said stationary bearing disc, diametrically opposite segmental steam grooves in its inner side, and inner peripheral steam ports at the terminals of said grooves to register with the recesses of said stationary bearing disc, and a lever catch device for said valve ring to hold the same stationary in its adjusted position, substantially as set forth.

No. 48,354. Machine for Finishing Corks.

(*Machine pour finir les bouchons.*)

John Eisenhardt Howard, London, England, 5th March, 1895; 6 years.

Claim.—1st. In a machine for finishing, polishing or surfacing corks by grinding, the combination, with an abrading surface of a flexible cork holder, consisting essentially of an endless travelling band adapted to hold corks of varying shapes and sizes against the said abrading surface and to rotate the cork while in said position. 2nd. In a machine for finishing, polishing or surfacing corks by grinding, the combination, with an abrading surface of a platform adapted to travel across the face of said abrading surface and a flexible cork holder consisting of an endless travelling band travelling in a horizontal plane round its vertical supporting rollers carried on said platform. 3rd. In a machine for finishing, polishing or surfacing corks by grinding, the combination, with an abrading surface of a platform adapted to travel across the face of said abrading surface, an endless travelling band travelling in a horizontal plane round its vertical supporting rollers on said platform to form a flexible cork holder and means to adjust the tension of said endless band. 4th.



In a machine for finishing, polishing or surfacing corks by grinding, the combination, with an abrading surface of a platform adapted to travel across the face of said abrading surface, an endless travelling band travel ing in a horizontal plane round its vertical supporting rollers on said platform to form a flexible cork holder means to adjust the tension of said endless band a rest for the corks to be successively deposited thereon endwise and means to feed said corks one at a time endwise on to said rest. 5th. In a machine for finishing, polishing or surfacing corks by grinding, the combination, with an abrading surface, of a platform adapted parallel to be moved to and also at right angles to the said abrading surface, a flexible cork holding device carried on said platform, means to impart travelling motion to said flexible cork-holding device, so as to rotate the cork while presented thereby against the said abrading surface and means to propel the said platform and parts carried thereon in a parallel direction to as well as means to move said platform towards and away from said abrading surface, substantially in the manner and for the purposes hereinbefore set forth. 6th. In a machine for finishing, polishing or surfacing corks by grinding, the combination, with a grinding disc of an endless travelling belt *i*, vertically disposed rollers h, h^1, h^2 supporting same, a movable platform *c* carrying said rollers and belt and adapted to slide in opposite horizontal directions, means to impart reciprocating movement to said platform in said two directions, means to impart rotary motion to one or more of said vertical rollers carrying said belt and means to alter the relative positions of said rollers h, h^1, h^2, so as to thereby adjust the tension of said flexible cork-holding band *i*, all substantially in the manner and for the purposes hereinbefore set forth. 7th. The improved machine for polishing, finishing or surfacing corks by grinding, arranged, constructed, combined and acting, substantially in the manner and for the purposes described and illustrated.

No. 48,355. Railway Switch Frog.

(*Rail de croisement pour aiguilles de chemin de fer*)

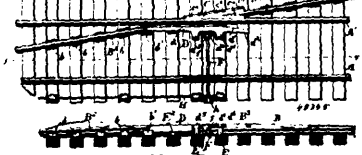


FIG. 2.

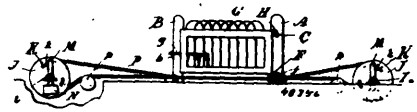
Russell Thomas Woldrep, Lifton, Georgia, U.S.A., 5th March, 1895; 6 years.

Claim.—1st. The combination with one of the main rails, of a wing rail pivoted in proximity thereto, the said wing rail being made thinner at its free end and the said reduced portion passing over the said main rail, of blocks supporting said wing rail at an incline, relative to said main rail, a siding rail cut away at an angle and adapted to abut against said wing rail when the latter is set for the siding, and a chair plate rigidly holding and supporting the said cut

away end of the said siding rail, substantially as and for the purposes described. 2nd. The combination with one of the main rails of a pivoted wing rail having its free end reduced and adapted to swing over the main rail when set for the siding, the end of said wing rail being curved outwards as at d^3, of a plurality of blocks supporting said wing rail at an incline relative to said main rail, a siding rail also set at an incline and connected to the pivoted end of said wing rail, means for swinging said wing rail, about its pivot, and an inclined siding rail cut away at an angle and adapted to bear against the face of said wing rail when the switch is set for the siding, substantially as and for the purposes described. 3rd. In an apparatus of the character described, the combination with one of the main line rails and the blocks E and E^1 of a pivoted frog rail adapted to swing partly over said main line rail, and provided with a straight edge d sloping outwards as at d^1, curved outwards as at d^2, and provided with flat lugs d^3 and d^4 adapted to rest on said blocks and give an enlarged supporting surface, a siding rail cut away at an angle and projecting above the level of said main line rail, and adapted to bear against said sloping edge d^1 of the frog rail, and a chair plate C approximately triangular in form having the projection c^2 fitting snugly against the web of the main line rail, with a groove c dove-tailed at c^1 adapted to receive the flange of the cut away siding rail, a vertical face c'' adapted to support the cut away side of the siding rail, and a flange c^5 with bolt holes c^6 therein for securing said chair plate to the cross ties, substantially as and for the purposes described.

No. 48,356. Gate Opening and Closing Device.

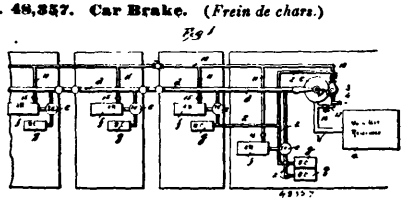
(*Appareil pour ouvrir et fermer les barrières.*)



Edward David Mayo, Three Rivers, assignee of Joseph Alexis Robillard, St. Andrew East, both of Quebec, Canada, 7th March, 1895; 6 years.

Claim.—1st. In a gate opening and closing device consisting of a fixed upper hinge, a pulley journalled on a vertical pin secured in a bracket secured to a gate post, the said pin being vertically under the upper hinge, the lower hinge pin of the gate resting in a socket formed in the said pulley, and means for partially rotating the said pulley, whereby the latch end of the gate is raised and the gate caused to lean over in the direction in which it is desired it should move, substantially as set forth. 2nd. In a gate opening and closing device, the combination with a pulley E, journalled on a pin which is vertically under the upper hinge, a socket being formed in the upper surface of the said pulley to receive and support the lower end of a gate, the said socket being some distance from the centre of the said pulley, of the pulleys J, journalled one on either side of the said pulley E, an endless cable connecting the three pulleys, and means by which the pulleys J, may be operated by vehicles passing near them, substantially as set forth. 3rd. In a gate opening and closing device, the combination with the pulley J, the adjustable pins k, of the cranked shaft I, on which the said pulley is loosely journalled, a finger L, adapted to engage one of the pins K, when the shaft is turned, a weighted arm N, and cranked portion M, substantially as set forth.

No. 48,357. Car Brake. (*Frein de chars.*)

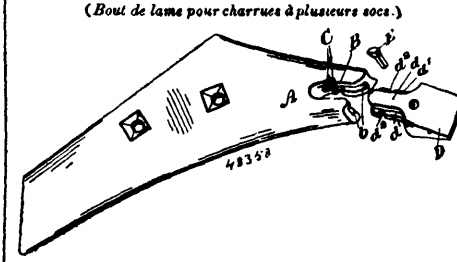


Hubert S. Herrington and William S. Head, jr., both of Latrobe, assignees of Samuel Leek French, Ligonier, Pennsylvania, U.S.A., 7th March, 1895; 6 years.

Claim.—1st. An air brake system having an air brake discharge from the brake cylinders to the engine and tender, independent of the triple valves, and extending to the engineer's cab, and provided with a controlling valve. 2nd. An air brake system having a direct release or discharge from one or more brake cylinders, controlled by the valve in the engineer's cab. 3rd. An air brake system having direct discharge connections from one or more of the brake cylinders independent of the ordinary system, a separate valve controlling the same, arranged adjacent to the engineer's valve, and connected with and operated by the same to open said connections, to discharge the air from said cylinder or cylinders, when the engineer's valve is thrown to release position. 4th. An air brake system having the direct connections from one or more of the brake cylinders provided with a discharge to the outer air, a brake controlling valve in said connections adjacent to the engineer's valve connected and arranged to be operated by the same, substantially as described. 5th. An air brake system having the discharge connections from the brake cylinders of the tender and engine, a controlling valve for said connections secured to the engineer's valve and having its stem connected with and operated by the engineer's valve, and a cut-off in said connection between said controlling valve and the cylinders. 6th. An air brake system having direct connection from the main air reservoir to the auxiliary reservoir independent of the triple valves, and the valve in said connections, as and for the purpose herein set forth. 7th. An air brake system comprising the main air reservoir, the engineer's valve, the train pipe, the tripple valves, the auxiliary reservoirs, the brake cylinders, an auxiliary train pipe directly connected with the auxiliary reservoirs and with the main air reservoir, and provided with the separate controlling valve connected with and operated by the engineer's valve and arranged so that when the engineer's valve is thrown to stop, air is supplied to the auxiliaries through said auxiliary pipes. 8th. An air brake system having connections from one or more of the brake cylinders to the outer air, a connection from the main air reservoir to the auxiliary reservoirs, a single plug valve controlling said two connections with and operated by the engineer's valve and constructed so that when the engineer's valve is thrown to release, the direct connection to the auxiliary reservoir will be cut-off, and the direct discharge from the brake cylinders will be opened, and when the engineer's valve is thrown to stop, the discharge from the brake cylinders will be closed and direct communication opened from the main air reservoir to the auxiliary reservoirs. 9th. An air brake system having an auxiliary train pipe arranged to directly place the main air reservoir in communication with the auxiliary reservoir, and check valves to prevent outflow from the auxiliaries through said auxiliary train pipe.

No. 48,358. Nose for Gang Ploughshares.

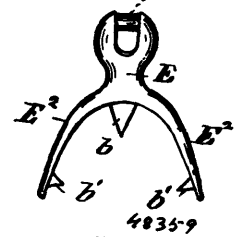
(*Bout de lame pour charrues à plusieurs socs.*)



The Cockshutt Plough Company, assignee of Andrew McSherry, both of Brantford, Ontario, Canada, 7th March, 1895; 6 years.

Claim.—1st. In a gang plough, the combination with the ploughshare having the front recess provided with side grooves, as specified, of a nose having a rearwardly extending projection, with tongues provided at its side and means for securing the projection of the nose from longitudinal movement within the recess, as and for the purpose specified. 2nd. In a gang plough, the combination with the ploughshere having the front recess provided with side grooves, and notches in the sides of one groove as specified, of a nose provided with a rearwardly extending projection, tongues in the sides of the projection and notches in such tongues, and a key designed to extend through the notches in the sides of the groove, and a notch in one of the tongues, as and for the purpose specified.

No. 48,359. Mop. (*Torchon.*)

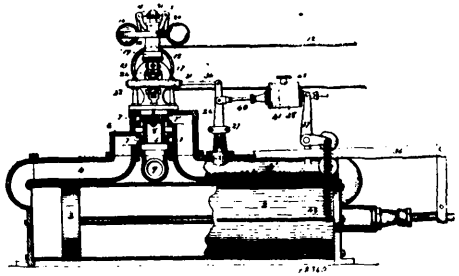


Harriet A. Hart, assignee of Charles W. Hart, both of Troy, New York, U.S.A., 7th March, 1895; 6 years.

Claim.—1st In a mop, the combination with the handle, the

clamp-jaw and jaw-operating lever, of a fulcrum-post for the lever, and a bifurcated attaching-shank integral with the post and including the handle, with one or more spurs on the shank embedded in the handle, substantially as described. 2nd. A fulcrum-support for mops, comprising in an integral malleable casting a fulcrum-post and a bifurcated attaching-shank provided with inwardly projecting spurs, substantially as described.

No. 48,360. Speed Regulator. (*Régulateur de vitesse*)

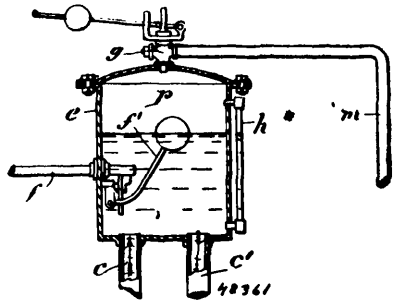


The Lombard Water Wheel Governor Company, assignee of Nathaniel Lombard, both of Boston, Massachusetts, U.S.A., 7th March, 1895; 6 years.

Claim.—1st. The combination, with a centrifugal regulator, a fluid filled cylinder, and a piston therein which controls a main valve for some prime motor, of a regulator valve adapted to control the travel of the piston, mechanism operated by movement of the piston to close the valve and means to counteract the functions of the balls in the act of resuming their normal position to prevent the valve being operated, substantially as specified. 2nd. The combination, with a centrifugal regulator, a main valve, a fluid filled cylinder, and a piston operating the said valve, of a regulator valve for the piston, and mechanism interconnecting said regulator valve and piston and adapted to neutralize at certain times the functions of the regulator weights to move said valve, substantially as and for the purposes explained. 3rd. In combination, with a centrifugal regulator, a fluid filled cylinder, and a piston therefor, a secondary valve to control circulation in said cylinder, and a rocking post operated by the piston to regulate the movements of the valve, substantially as set forth. 4th. A centrifugal regulator, a fluid filled cylinder, its piston, and a valve operated by the regulator, combined with a rocking post, mechanism from the post to the valve, as likewise means to actuate the post by travel of the piston, substantially as stated. 5th. In speed regulators having centrifugal weights, a liquid tight cylinder, a piston therein, a valve to regulate travel of the piston, combined with mechanism operated by the regulator to shift the valve in right line movement without rotation, as likewise means by which to unite the piston with the valve and impart rotation and slide said valve endwise, substantially as specified. 6th. In combination with a centrifugal speed regulator, a fluid filled cylinder, its piston, and a valve to control circulation, of a valve rod united with said regulator for right line sliding travel, a rocking post, a rack and pinion to rotate at times said valve rod to slide the valve, and mechanism to interconnect the post with the piston, substantially as set forth. 7th. In regulators, a rotary sleeve, centrifugal weights thereupon, a flanged tube reciprocated by said weights, combined with a valve, a valve rod longitudinally of the flanged tube, connections between the valve rod and tube to permit independent rotation of the rod, means for producing rotation of said rod, and a piston controlled within a cylinder by the movements of the valve, substantially as described. 8th. In combination with a cylinder, its piston, a valve to control the travel of said piston, a rocking post, and mechanism to operate the valve upon tilting of the post, a bar affixed to the piston, a lever to tilt the post, and brake mechanism to regulate the return of the post to a normal, substantially as specified. 9th. The combination with a fluid filled cylinder, a piston, its piston rod, an actuating bar, and a bell lever operated by the bar, of a rocking post adapted to stand upright, a regulator valve operated thereby, means to incline the post from the vertical, and brake mechanism to regulate the return of the post to an upright position, as stated. 10th. The combination with a fluid filled cylinder, its piston, a brake cylinder, and a regulator valve adapted to slide endwise upon movement of the piston, of a tilting post, a rack and pinion united with said post to rotate the regulator valve, and a bell lever likewise connected with said post and actuated by the travel of the piston, substantially as explained. 11th. In regulators, a cylinder, its piston, a regulator valve, and a reciprocating rod attached to said valve, combined with a fixed standard, a tilting post adapted to stand upright thereupon, a bell lever, and a bar affixed to the piston rod for actuating the said lever, a piston equipped rod 41 pivotally secured to the post, a brake cylinder secured to the bell lever, and means to regulate the travel of the brake piston by which to control the return of the post to a normal, substantially for the purposes specified.

No. 48,361. Hot Water Heating System.

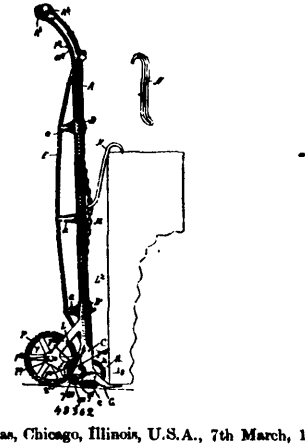
(*Système de chauffage à l'eau chaude.*)



Hermenegilde Roy and Zenon St. Aubin, both of Montreal, Quebec, 7th March, 1895; 6 years.

Claim.—1st. In a hot water heating system, a pressure chamber located in the distributing circuit thereof, for the purpose set forth. 2nd. In a hot water heating system, a suitably controlled air pressure chamber located in the distributing circuit thereof, for the purpose set forth. 3rd. In a hot water heating system, a pressure chamber or expansion tank, located in the distributing circuit of the system, through which the water passes, an air space being provided therein to contain air under pressure above the water level, and an automatic safety valve, for governing the air pressure, for the purpose set forth. 4th. In a hot water heating system having a heater and distributing circuit, a pressure chamber or expansion tank located between the upper end of the header from the heater, and the continuation of the distributing circuit, an automatically controlled feed water inlet to said tank, an air space in same adapted to contain air under pressure above the water level, and an automatic safety valve for governing the air pressure, for the purpose set forth. 5th. In a hot water heating system, the combination of a heater, a distributing header *c*, leading therefrom, a pressure chamber or expansion tank *e*, adapted to contain a body of air under pressure and into which such header delivers, a valve controlled feed water inlet to said tank, and an automatic safety valve for governing the air pressure therein, a continuation of the distributing circuit, as pipes c^1, c^2, leading from such pressure chamber to the radiators, suitable returns from the latter to the heater, and a valve controlled overflow communicating with the outlet passage of the safety valve and with the distributing circuit, for the purpose set forth.

No. 48,362. Hand Truck. (*Camion à bras.*)



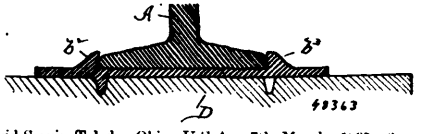
Henry Orris Thomas, Chicago, Illinois, U.S.A., 7th March, 1895; 6 years.

Claim.—1st. In a truck, in combination with the principal frame and the main supporting wheels journalled therein, a supplemental

wheel or roller located in such position with respect to the main wheel as to be off of the ground and extend above the plane of the load-supporting surface of the truck when the latter is horizontal, the shaft or bearings of said supplemental-wheel being movable with respect to the primary-wheel to permit such supplemental-wheel to come into peripheral contact with the primary-wheel, substantially as set forth. 2nd. In a truck, in combination with the frame, the load-supporting-wheels journalled on the frame above or forward of the truck supporting-wheels, the shoe pivotally connected to the frame and adapted to project forward of the load-supporting wheels when the truck is upright, and in tilting back toward the truck, to describe by its forward edge or point an arc outside the load-supporting-wheels, and adapted to stop against the frame behind or above said load-supporting-wheels, with its edge or point standing above or forward of a plane tangent to the load-supporting-wheel and extending to part of the load-supporting surface of a truck whereby such shoe may operate as a detent dog or pawl to prevent the downsliding of the load, substantially as set forth. 3rd. In combination with the truck frame and the load-supporting-wheels journalled above or forward of the truck-supporting-wheels and having their bearings or supporting shaft movable in the truck frame to permit the load-supporting wheels to come into peripheral contact with the truck-supporting wheels, a shoe pivotally connected to the frame and adapted to tilt from its forward or load engaging position behind or above the load-supporting wheels, and stopped on the frame in such backward tilting movement with its edge or point standing above or forward of a plane tangent to the load-supporting wheels and extending to the upper part of the truck, whereby said edge of the shoe constitutes a fulcrum over which the load may be tilted to take it off the load-supporting wheels to relieve the truck-supporting wheels of the friction of the latter, substantially as set forth. 4th In combination, with the truck frame, the truck-supporting wheels journalled thereon, the load-supporting wheels also journalled on the frame forward of or above the truck-supporting wheels, said wheels having ratchet rims, pawls pivoted on the frame adapted to engage said rims respectively, and the spring L having two arms which operate against the pawls respectively, said pawls having a path on which the spring bears, extending both sides of the fulcrum of the pawl, and a rod from said spring extending up to the handle end of the truck, whereby the springs may be adjusted to bear against the pawls at either side of their fulcrums to hold them into or out of engagement with their ratchets r spectively at will, substantially as set forth. 5th. In combination, with the truck frame, the truck supporting wheels journalled thereon, the load-supporting wheels also journalled on the frame forward of or above the truck-supporting wheels, said wheels having ratchet rims, pawls pivoted on the frame adapted to engage said rims respectively, and the *spring L having two arms which operate against the pawls respect*-ively adapted to be shifted at will past the fulcrums to hold them in or out of engagement with the ratchets respectively, and a rod from said spring extending up to the handle end of the truck, substantially as set forth. 6th. In a truck frame, comprising the wheel bearing brackets C, C, provided with seats or sockets at their upper ends for the longitudinal bars, the handle or side-bars A, A, and the bow B, having their ends lodged in such seats respectively, and the cross-bars D and D^1, and the supplemental bars D^2, and bolts extending through said cross-bars and supplemental bars at the seats of the tubular bars in the brackets, substantially as set forth. 7th. In combination, with the wheels-supporting brackets and the tubular handle-bars secured thereto, the wheels journalled in said brackets, and the pawl and ratchet devices pertaining thereto, the pawl actuating springs and the rods by which said springs are adjusted on the pawls extending up through the tubular bars and emerging at the handle end, substantially as set forth.

No. 48,363. Tie Plate.

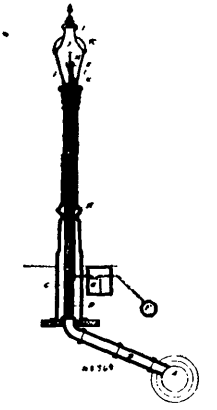
(*Plaque pour traverses de chemin de fer.*)



David Servis, Toledo, Ohio, U.S.A., 7th March, 1895; 6 years.

Claim.—1st. A railway tie plate provided on its under side with two continuous or unbroken ribs arranged to extend across the grain of the tie when in position thereon, neither of said ribs extending entirely the *width of the plate and said ribs being out of* longitudinal alignment with each other, substantially as described. 2nd. A railway tie plate provided on its under side with two ribs arranged to extend across the grain of the tie when in position, said ribs located diagonally opposite each other, so that they enter the tie in different longitudinal portions, substantially as described. 3rd. A railway tie plate provided on its under side with two ribs arranged to extend across the grain of the tie when in position thereon, said ribs being diagonally opposite each other and substantially under the edges of the rail base, said tie plate also provided with spike holes arranged diagonally opposite to each other and to the ribs, substantially as described.

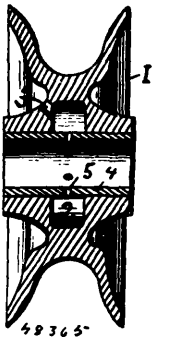
No. 48,364. Method of Extracting and Destroying Sewer Gas. (*Destruction de gaz d'égouts.*)



Joseph Edmund Webb, Hockley, Birmingham, England, 7th March, 1895; 6 years.

Claim.—1st. The improved method of extracting and destroying sewer gases consisting in drawing them into a lamp head by means of burning gas jets and there burning or submitting them to a high temperature before permitting them to pass to the atmosphere, substantially as described. 2nd. In apparatus for extracting and destroying sewer gases, the combination of a pipe connecting the sewer with a lamp hermetically sealed except at the top, and burners in said lamp, all substantially as described. 3rd. In apparatus for extracting and destroying sewer gases, the combination of a pipe connecting the sewer with a lamp, burners in said lamp and a lamp head adapted to radiate the heat toward the point of combustion, substantially as and for the purpose set forth. 4th. In apparatus for extracting and destroying sewer gases, the combination of *a pipe connecting the sewer with a lamp, burners in* said lamp and a lamp head adapted to radiate the heat toward the point of combustion and an external non-heat radiating chamber partially surrounding the lamp head, substantially as set forth.

No. 48,365. Trolley Wheel. (*Roue de trolley*)



John Douglass Ansley, Cambridge, and Frederick William Gregory, Boston, both of Massachusetts, U.S.A., 7th March, 1895; 6 years.

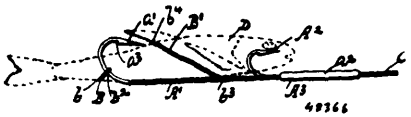
Claim.—1st. A *bushing of pure copper for trolley-wheels and* loose pulleys, substantially as described. 2nd. The combination with a trolley-wheel or pulley having in its hub an annular recess or chamber for reception of a lubricant, of a pure copper bushing having a perforation or perforations communicating with said chamber, substantially as described.

No. 48,366. Fishing Hook. (*Hameçon*)

David Macarn Kittle, Canajoharie, New York, U.S.A., 7th March, 1895; 6 years.

Claim.—1st. A fishing hook comprising separated shanks A, A^1

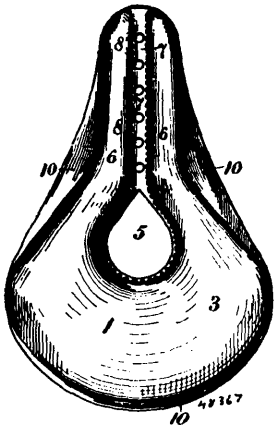
provided with hooks a, a^1, and cross-bars B, B^1, secured to said *shanks for engaging the bait*, substantially as and for the purpose described. 2nd. A fishing hook comprising separated flexible shanks



A, A^1, provided with hooks a, a^1, at their free extremities, an additional hook A^2, arranged in proximity to the opposite extremities of the shanks, and cross bars B, B^1, secured to said shanks for engaging the bait, substantially as specified. 3rd. A fishing hook comprising separated flexible shanks A, A^1, provided with hooks a, a^1, a cross-bar B, for forcing said shanks towards and away from each other, and a second cross-bar B^1, movable lengthwise of the shanks, and having its intermediate portion b^4, arranged above the corresponding portion of the former cross-bar, substantially as and *for the purpose described*.

No. 48,367. Pneumatic Saddle for Bicycles.

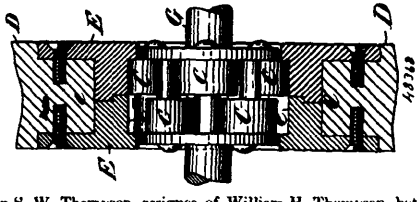
(*Selle pneumatique pour bicycles*)



John Henry Banes and Andrew Cleland, both of Toronto, Ontario, Canada, 7th March, 1895; 6 years.

Claim.—1st. A pneumatic bicycle saddle having a central opening therein and a channel in the top extending from said central opening to the front extremity of the saddle, so as to form when inflated two parallel tubular extensions from the rear body of the saddle, substantially as shown and described. 2nd. A pneumatic bicycle saddle, having a central opening therein and a channel in the top extending from said opening to the front extremity of the saddle, said channel having a series of holes along its bottom, and a series of eyelets holes along the margin of the saddle by which it is secured in position, substantially as shown and described.

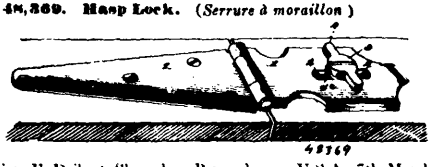
No. 48,368. Roller Bearing. (*Coussinet anti-frotteur.*)



John S. W. Thompson, assignee of William H. Thompson, both of Morristown, Jersey, U.S.A., 7th March, 1895; 6 years.

Claim.—A roller bearing comprising rollers C, and two like pintle-sections of cast metal, each of said sections comprising a plate A, having a central aperture a, and a series of holes b^2, to receive the pintles on the other section, and the pintles formed integrally with the plate A and having each a broad base portion b, a journal b_5, for the roller, and a reduced extremity, substantially as set forth.

No. 48,369. Hasp Lock. (*Serrure à moraillon*)



William E. Deibert, Shamokin, Pennsylvania, U.S.A., 7th March, 1895; 6 years.

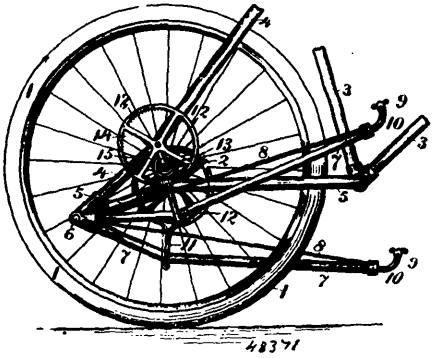
Claim.—1st. In a hasp lock, the combination of a hasp having an opening, consisting of an enlarged circular portion and a contracted portion, an attachment plate having a central cylindrical portion provided with a flat outer face having a central opening, and eccentrically arranged openings extending inward from the outer face, spring supported bolts arranged in the eccentric openings and projecting beyond the outer face of the attachment plate, a disc provided in its outer face with a groove, and having a flat inner face to fit against that of the said cylindrical portion, and provided with openings arranged eccentrically, and corresponding with the eccentric openings of the cylindrical portion of the attachment plate, and contracted at their outer ends and communicating with the groove, and adapted to receive at their inner ends the projecting portions of said bolts, said disc being provided with a central stem arranged in the central opening of the attachment plate and projecting beyond the same and detachably secured thereto, slides arranged in the enlarged portions of the openings of the disc, and a lug rigid with the disc and projecting therefrom and conforming to the configuration of the contracted portion of the hasp opening and adapted to pass through the latter and arranged to engage the outer face of the hasp when turned away from the contracted portion of the opening, substantially as described.

No. 48,370. Vehicle Spring. (*Ressort de voiture.*)

George Penn, Syracuse, New York, U.S.A., 7th March, 1895; 6 years.

Claim.—1st. A vehicle spring having its ends bent upwardly and curved inwardly and downwardly, and then bent horizontally to form a seat for the side bars of the vehicle, substantially as specified. 2nd. The combination, with the axles of a vehicle, of the springs having their ends bent upwardly, inwardly, downwardly and then horizontally, the side bars supported by and rigidly clipped to the horizontal portions, and means for securing the springs and head block to the axle, as set forth.

No. 48,371. Bicycle. (*Bicycle.*)



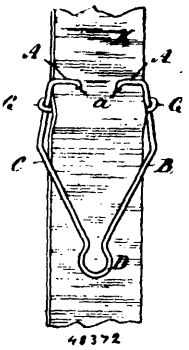
John Henry Banes, Toronto, Ontario, Canada, 7th March, 1895; 6 years.

Claim.—1st. In a bycicle, the combination of a toothed pinion near each end of the rear wheel axle, a vibrating circle adapted to mesh with said pinion, and a link connecting the centre of said circle with the said axle to maintain said circle and pinion in mesh, substantially as shown and described. 2nd. In a bicycle, the combination of a toothed pinion near each end of the rear wheel axle, a vibrating circle adapted to mesh with said pinion, a link connecting the circle and pinion, and a foot lever having said circle jointed

thereon and provided with an adapted pedal substantially as shown and described. 3rd. In a bicycle, the combination of a toothed pinion near each end of the axle as specified, a circle adapted to mesh with said pinion, means as provided to guide said circle to mesh with said pinion, a foot lever having said circle jointed thereon, and extensions on the bicycle frame to support said lever jointed thereto, substantially as shown and described. 4th. In a bicycle, the combination of a foot lever having pedals thereon extensible to vary the leverage, a circle jointed to said foot lever and adapted to mesh with a pinion on the rear wheel axle to drive the same, substantially as shown and described.

No. 48,372. Buckle and Button Loop.

(*Boucle et ganse de bouton*)

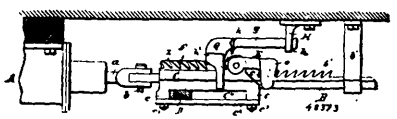


48372

Erastus W. Jewett, Swanton, Vermont, U.S.A., 8th March, 1895 6 years.

Claim.—1st. The combination of the buckle having the divergent and convergent sides B, C oppositely, loop D, and fingers *a*, *a*, and the link or bar E, as set forth. 2nd. The combination of the buckle having the sides A, B, C, and loop D, and the link E, as set forth. 3rd. The combination of the buckle having oppositely divergent and convergent sides B, C, loop D, fingers *a*, *a*, the link or bar E, and the strap or suspender K, as set forth. 4th. The combination of the buckle having the straight side A, the divergent and convergent opposite sides B, C, loop D, link E, and the strap or suspender K, as set forth.

No. 48,373. Brake Adjuster. (*Ajusteur pour freins.*)

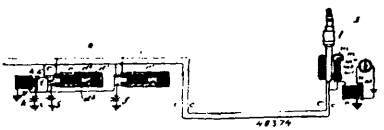


48373

James Howard, New York, State of New York, U.S.A., 8th March, 1895; 6 years.

Claim.—1st. The combination with the ratchet-bar, of a ratchet-block connected with the ratchet bar, a brake lever capable of a limited movement on the ratchet-block, lengthwise of the car, and a hand pull rod connected with said brake lever, substantially as set forth. 2nd. The combination with the ratchet-bar, of a ratchet block connected with the ratchet-bar and provided with a longitudinal slot, a brake lever arranged with its actuated end in said slot, and capable of a limited movement therein independent of the rachet-block, and a hand pull rod connected with said brake lever, substantially as set forth. 3rd. The combination with a ratchet-bar, of a ratchet-block connected with the ratchet-bar and provided with depending lugs, a bar secured with its ends to said lugs and forming with the ratchet-block the longitudinal slot, a brake lever arranged with its actuated end in said slot and capable of a limited movement therein independent of said ratchet-block, and a hand pull rod connected with said lever, substantially as set forth. 4th. The combination with the ratchet-bar, of a ratchet-block connected with the ratchet-bar and having a longitudinal slot, a brake lever arranged with its actuated end in said slot and capable of a limited forward and backward movement therein, and means for holding said lever from lengthwise displacement, in the slot, substantially as set forth. 5th. The combination with the ratchet bar, of a ratchet block connected with the ratchet-bar and provided on its underside with a longitudinal groove and near the ends of said groove with depending lugs, a bar secured with its ends to said lugs and provided on its upper side with a longitudinal groove, a brake lever arranged with its actuated end between the ratchet-block and the longitudinal bar, a pin passing through said lever and arranged with its ends in the grooves of the ratchet-block and longitudinal bar, and a hand pull rod connected with said lever, substantially as set forth. 6th. The combination with the ratchet-bar, the ratchet-block and the brake lever, of a pawl connecting the ratchet-block with the ratchet-bar and provided with a shield or hood which covers the space between the teeth of the ratchet-bar in advance of the connecting pawl, substantially as set forth. 7th. The combination with the ratchet bar, the ratchet-block, the pawl connecting the ratchet-block with the ratchet-bar, and the brake lever connected with the ratchet-block, of a detent pawl engaging with the teeth of the ratchet-block and provided with a hood or shield which covers the space between the teeth of the ratchet-block in advance of the detent pawl, substantially as set forth. 8th. In a brake gearing, the combination with the ratchet-bar, the ratchet-block provided with a row of teeth, the pawl connecting the ratchet-bar with the ratchet-block, the detent pawl adapted to engage successively with the teeth of the ratchet-block, and the brake lever, of a guard arranged adjacent to the teeth of the ratchet-block, and adapted to prevent the detent pawl from taking up an excessive number of teeth upon applying and releasing the brake, substantially as set forth. 9th. In a brake gearing, the combination with the ratchet-bar, the ratchet-block provided with a row of teeth, the pawl connecting the ratchet-bar with the ratchet-block, the detent pawl adapted to engage successively with the teeth of the ratchet-block, and the brake lever, of a guard secured to the ratchet-bar and arranged to bridge the spaces between the teeth of the ratchet-block, to prevent the detent pawl from taking up an excessive number of teeth upon applying and releasing the brake, substantially as set forth. 10th. In a brake gearing, the combination with the ratchet-bar, the ratchet-block provided with a longitudinal slot and a row of teeth on opposite sides of said slot, the pawl connecting the ratchet bar with the ratchet-block, the detent pawl adapted to engage successively with the teeth of the ratchet-block and the brake lever, of a guard bar secured to the ratchet-bar and extending upwardly through the slot in the ratcht-block to the top of the teeth thereof, substantially as set forth.

No. 48,374. Signalling Apparatus for Telephone Lines. (*Appareil de signal pour lignes de téléphone.*)

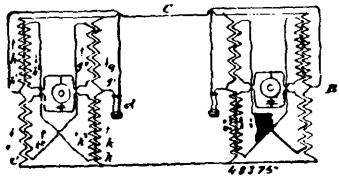


48374

The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Oro Allen Bell, Brooklyn, New York, U.S.A., 8th March, 1895; 6 years.

Claim.—1st. The combination, with a trunk line, of a signalling circuit including a source of electricity, contact points at one of the offices included in the signalling circuit adapted to be separated by the act of connecting with the trunk line, contact points included in the signalling circuit at the other station adapted to be closed together by the act of making connection with the trunk line thereat and an indicator in the signalling circuit at said second office, whereby said indicator is operated by the removal of the connection at the first office when connection exists from the trunk line at the second office, substantially as described. 2nd. The combination, with a trunk line, of a signalling circuit including a portion of the trunk line, contact points at one end of said trunk line adapted to be separated when connection is made to the trunk line at that end, contact points at the other end of the trunk line adapted to be closed when connection is made to that end of the trunk line, said contact points being included in the signalling circuit, and an indicator connected with the signalling circuit, substantially as described. 3rd. In combination, with a trunk line extending between two exchange offices and terminating at one of said offices in a spring jack, and at the other in a terminal plug, of a signalling circuit normally closed at the first of said offices, through contact points controlled by the spring jack to be separated when connection is made to the spring jack, included in said signalling circuit, a socket and cord switch for said terminal plug arranged to close said signalling circuit at that office when the terminal plug is out of the socket, a source of electricity in the signalling circuit, and an indicator controlled by current in said circuit, substantially as described. 4th. The combination, with a trunk line circuit terminating in a spring jack at one office, and in a terminal plug at the other office, of contact points controlled by said spring jack to open a branch circuit from one side of said trunk line to earth when connection is made with the spring jack, a cord switch for said terminal plug adapted to close a branch from the same side of said trunk line to earth, when the plug is removed therefrom, a source of electricity included in the circuit formed by the two earth branches and one side of the trunk line and an indicator at the second office included in said circuit, substantially as described.

No. 48,375. Telephone Circuits. (*Circuit de téléphone.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Charles Ezra Scribner, Chicago, Illinois, U.S.A., 8th March, 1895; 6 years.

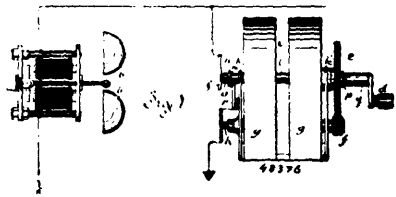
Claim.—1st. The combination in a Wheatstone parallelogram of sources of electromotive force in the four sides thereof, a bridge wire containing an instrument responsive to electric currents connected between two opposite angles of the parallelogram, and an electric circuit containing other instruments responsive to electric currents connected with the remaining angles of the parallelogram, the said sources of electromotive force being adjustable with respect to each other to produce a condition of no difference of potential between the terminals of the said bridge wire, substantially as described. 2nd. The combination in an electric circuit including an instrument sensitive to electric current, said circuit being divided at one point into two parallel branches, of two sources of electromotive force in each branch, and a bridge wire connecting two branches from points between sources of electromotive force in each, the different sources of electromotive force being adjustable with respect to each other to produce a condition of no difference of potential between the terminals of the bridge wire, and one portion of each branch between the bridge wire and different sides of the circuit being constructed to have high resistance to incoming currents in the circuit, whereby the incoming currents are directed through the receiving instrument in the bridge wire, while outgoing currents generated by the said sources of electromotive force do not send any current through said bridge wire, substantially as described. 3rd. The combination in a telephone circuit divided into two parallel branches, of a bridge wire including a telepone receiver uniting the two parallel branches, and sources of telephonic current, two in each branch upon opposite sides of the connection of the said bridge wire with that branch, the said source of current having their electromotive forces adjusted to produce a condition of no difference of potential between the terminals of the bridge wire, whereby outgoing telephonic current is transmitted to the line without traversing the telephone receiver, as described. 4th. The combination in a telepone circuit divided into two parallel branches of a bridge wire containing a telephone receiver uniting the two branches, two sources of telephonic current in each branch, one upon each side of the point of connection, of the bridge wire with the said branch, one portion of each brach upon opposite sides of said bridge connection, being constructed to have high impedence and the electromotive forces of the different sources of current being adjustable to produce a condition of no difference of potential between the terminals of the said bridge connection, whereby outgoing telephonic currents are generated without affecting the telephone receiver, while incoming currents may be directed through the said receiver, substantially as described. 5th. The combination with a telephone line, of four induction coils having their secondary helices connected in two parallel branches or the telephone circuit, two in each branch, and their primary helices in circuit with a common microphone, a telephone receiver having one terminal connected to each branch between the two induction coils thereof, one secondary helix in each branch upon opposite sides of the telephone terminals being constructed to have high impedence, as described. 6th. The combination in a telephone circuit, of four induction coils having their secondary helices connected in two parallel branches of the telephone circuit, two in each branch, a telephone receiver connected between the different branches from points intermediate of the two helices therein, the primary helices being connected in multiple series with a microphone, the primary helix of a coil in one branch being included in series with the primary helix, of a coil in the other branch upon the opposite side of the telephone connection, whereby incoming telephonic currents are directed through the telephone receiver by the reaction of the currents induced in the primary helices thereby, substantially as described.

No. 48,376. Telephone Exchange Call Boxes.

(*Boîte à appels pour échanges téléphoniques.*)

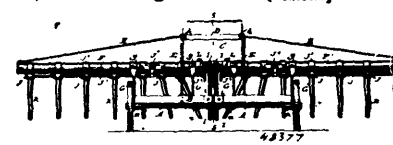
The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Charles Ezra Scribner, Chicago, Illinois, U.S.A., 8th March, 1895; 6 years.

Claim.—1st. The combination with the calling generator, of the contact disc *n*, the contact anvil *r*, normally in contact therewith, said contacts *r*, *n*, having electrical connections such that they close a short circuit about the armature of said generator, the movable block *o*, the block *s*, and mechanism in connection with the driving gear of said generator adapted to move said block *o*, into contact with block *s*, and to separate said disc *n*, from said contact anvil *r*, when said generator is in use, substantially as described. 2nd. The combination with a calling generator, of a movable contact



piece and a movable block, a fixed contact anvil and a fixed block, mechanism in connection with the driving gear of the generator allowing said movable block to bear against said fixed block when said generator is in use, but adapted to withdraw said movable block to a slight distance from said fixed block and to close said movable contact piece upon said fixed contact piece when said generator is idle, and circuit connections joining the fixed block to a telephone line, the movable block and the movable contact piece to one end of the armature coil, the fixed contact anvil to the other end of the armature coil and to earth, substantially as described. 3rd. The combination, with a calling generator, of a movable block, a fixed block, mechanism in connection with the driving gear of said generator adapted to allow said movable block to bear upon said fixed block when said generator is in use, but to withdraw said movable block to a slight distance from said fixed block when not in use, and circuit connections joining said fixed block to a telephone line and said movable block to one end of the armature coil of the generator, the other end of said armature coil being connected to earth, substantially as described. 4th. The combination, with a telephone line wire, of a signal bell connected in a branch from said line wire to earth or other suitable conductor, a calling generator having a movable block connected to one end of its armature coil, and a fixed block connected to said line, the other extremity of said armature coil being connected to the earth or other equivalent conductor, and mechanism allowing said movable block to bear upon said fixed block when said generator is in use, and adapted to withdraw said movable block to a slight distance from said fixed block automatically when the generator is not in use, substantially as described. 5th. The combination with a telephone line wire, of a signal bell connected in a branch from said line wire to earth or other conductor, a calling generator having a movable block connected to one end of the armature coil, a movable contact-piece, a fixed block connected to line, a fixed contact anvil, said movable contact being connected with said movable block and said fixed contact anvil being connected to earth or other conductor, and mechanism adapted to allow said movable block to rest against or very near to said fixed block when said generator is in use, but to withdraw said movable block to a slight distance from the fixed block automatically when the generator is not in use, substantially as described.

No. 48,377. Seeding Machine. (*Semoir.*)

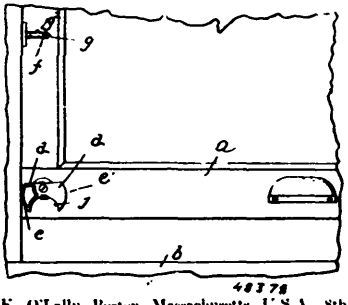


Lewis H. Kimball, Iowa, State of Iowa, U.S.A., 8th March, 1895; 6 years.

Claim.—1st. The combination, substantially as hereinbefore set forth, of a sulky, a hopper carried thereby, a seed-tube, trough or duct connected with the hopper and arranged above the plane of the carrying-wheels, a feed screw revolving in the duct, and a direct driving connection approximately in the central line of draft, between the screw-shaft and the axle. 2nd. The combination, substantially as hereinbefore set forth, of a main frame, a driving axle, supporting wheels thereon, a hopper above the wheels, a conveyor duct extending over and beyond the plane of the wheels, and a feed-screw revolving in the duct, and geared to the axle, in approximately the central line of draft, for the purpose specified. 3rd. The combination, substantially as hereinbefore set forth, of a main frame, a driving axle, supporting wheels thereon, a hopper carried by the main frame, conveyor-tubes or ducts connected with the hopper and extending in opposite directions therefrom, over and beyond the wheels, and feed-screws in the ducts geared to the axle, in approximately the central line of draft. 4th. The combination, substantially as hereinbefore set forth, of a main frame, the sectional or divided driving axle, a supporting and driving-wheel secured

to and turning with each section of the axle, a hopper mounted on the main frame, a centrally-divided conveyor-duct connected with the hopper and extending beyond the wheels, feed-screws in the duct, and gearing driving each section of the screw from its corresponding section of the axle. 5th. The combination, substantially as hereinbefore set forth, of a main frame, the driving axle, supporting wheels thereon, a hopper above the wheels, a conveyor duct extending over and beyond the wheels, a feed-screw in the duct, and seed-dropping devices below the duct, the duct, screws and dropping-devices all being interposed between the hopper and the driving wheels and above the latter, for the purpose described. 6th. The combination substantially as hereinbefore set forth, of the hopper, a conveyor trough or tube opening into the hopper, a series of adjustable seed-dropping devices arranged at the delivery ports in the conveyor tube, and a screw conveyor operated simultaneously with the seed-dropping devices. 7th. The combination, substantially as hereinbefore set forth, of the main frame, the wheels and axle, the hopper, a seed-duct extending from the hopper beyond the wheels, a feed-screw revolving in the duct, a series of recessed rollers at the delivery openings in the duct, a shaft on which they are mounted, a cog on said shaft gearing with a pinion on the shaft of the feed-screw, and sprocket gearing connecting the shaft of the feed-screw with the axle of the sulky. 8th. The combination, substantially as hereinbefore set forth, with a hopper divided into compartments, of a tube or trough connected with said compartments and receiving seed from them, and a seed-feeding screw arranged within the conveyor tube or trough to mix or intermingle different kinds of seed from the several compartments before their delivery through the discharge-ports of the tube. 9th. The combination, substantially as hereinbefore set forth, of a hopper divided into a series of compartments, conveyor-tubes or ducts on opposite sides of the hopper and connected with the compartments thereof, screw-conveyors within the tubes, gearing connecting them with the axle of the carrying-wheels, and devices for regulating the amount of seed fed from the compartments to the tubes. 10th. The combination, substantially as hereinbefore set forth, of a hopper divided into a series of compartments, conveyors connected with the hopper, gates or slides for regulating the opening between the larger compartment of the hopper and the conveyor, and an adjustable roller between each smaller compartment of the hopper and the conveyor. 11th. The combination, substantially as hereinbefore set forth, of a hopper divided into a series of compartments, a conveyor-trough or tube connected with said compartments, means for regulating the amount of seed fed from the compartments to the trough or tube, adjustable seed-dropping devices arranged at the delivery ports of the conveyor tube, and devices for feeding the seed from the hopper through the tube and mixing or intermingling different kinds of seed from the several compartments. 12th. The combination, substantially as hereinbefore set forth, of a hopper divided into a central and end compartments, seed conveyors connected therewith, feed slides regulating the feed from the central compartment to the conveyor, a roller-feed regulating the discharge from one of the smaller compartments to the same conveyor, a roller-feed connecting shaft passing through the lower portion of the hopper, and driving gearing below the central portion of the hopper and connected with the axle of the sulky. 13th. The combination, substantially as hereinbefore set forth, with the conveyor tubes, of a series of spouts or delivery tubes, between the wheels of the carriage and outside of them, the tubes or spouts being at their upper ends arranged closer together than the tubes outside the wheels, and some of them being bent or inclined, as described, for the purpose specified 14th. The combination of the recessed or fluted roller, and the adjustable washer having lateral projections extending into the recesses of the roller. 15th. The combination of the fluted or recessed roller, the washer having lateral projections extending into the recesses of the roller, the casing at one end of the roller, and the yielding disc or plate in the casing, against which the ends of the projection abut.

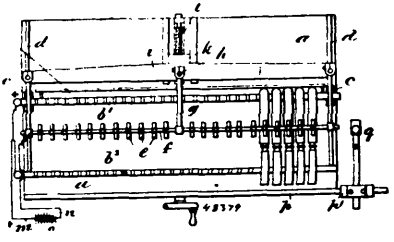
No. 48,378. Window Sash Fastener. (*Arrête-croisée*)



Patrick K. O'Lally, Boston, Massachusetts, U.S.A., 8th March, 1895; 6 years.

Claim.—A sash fastening device adapted to be pivotally connected to the sash and weighted at one side of its point of connection, the weighted side having an eccentric face adapted to prevent upward movement of the sash, while the lighter side has an eccentric face adapted to prevent downward movement of the sash, a socket projecting from the casing, and a rod in said socket, and having a lateral arm arranged to stand in the path of the fastener, substantially as described.

No. 48,379. Method of and Means for Marking and Ornamenting Table Ware. (*Méthode et moyen de marquer et orner les objets de table*)

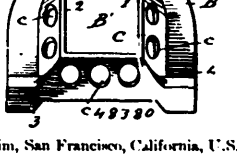


William Henry Legate, Hartford, Connecticut, U.S.A., 8th March, 1895; 6 years.

Claim.—1st. The improved method of marking metallic articles which consists in treating the surface to be marked with a protecting varnish, then printing upon the varnished surface with a stamp treated with a solution of wood potash, then washing the stamped surface with water, then treating the stamped surface with a solution of sal-ammoniac, then connecting up the article to the positive pole of a battery, and placing a metallic conductor which is connected to the negative pole of the battery in close proximity to the varnished surface where the mark is imprinted and subjecting it to the action of an electric current, all substantially as described. 2nd. The improved method of marking cutlery which consists in treating the surface of the article with a resinous varnish, then imprinting a mark on the varnished surface by means of a stamp treated with an alkaline solution, then washing the surface with water, and then applying a solution of sal-ammoniac to the marked surface, then placing the article in an electric circuit, the negative wire terminating in a block of copper placed adjacent to but out of contact with the surface to be marked, the article being connected to the positive pole of the battery, and then washing off the varnish with an alkaline solution, all substantially as described. 3rd. The improved method of marking and ornamenting cutlery and other articles of metal which consists in applying a resist to the surface, imprinting the outline of the mark by removal of the resist, treating the surface with a solution of sal-ammoniac and then placing a metallic block connected to the negative pole of a battery close to but out of contact with the surface, and connecting the article to the positive pole of the battery while the latter is in action, all substantially as described. 4th. An improved apparatus for marking cutlery which comprises a table or stand, metallic supports for the article, a metallic conductor, as a copper block, supported on a movable carriage, and adapted to be held near the surface of the article and an adjustable stamp for imprinting the surface, all substantially as described.

No. 48,380. Heel Plate for Rubber Boots and Shoes.

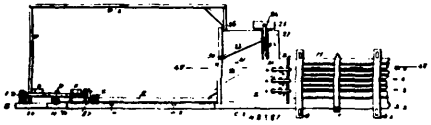
(*Plaque pour talons de chaussure de caoutchouc.*)



Ferdinand Ephraim, San Francisco, California, U.S.A., 8th March, 1895; 6 years.

Claim.—1st. As a new article of manufacture, a metallic heel plate for the heels of rubber boots or shoes, which consists of a plate provided with an inner inclined projecting flange. 2nd. The combination with a rubber heel, of a protecting plate secured thereto, said plate being provided with an inner inclined perforated projecting flange by means of which the plate is secured to the heel by the rubber itself.

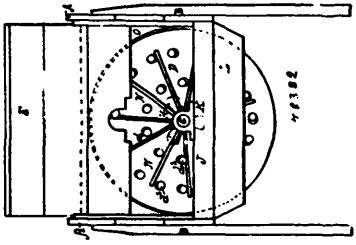
No. 48,381. Hay Press. (*Presse à foin.*)



Andrew Barr, Maynooth, and Samuel Harryett, Bancroft, both of Ontario, Canada, 8th March, 1895; 6 years.

Claim.—1st. In a machine of the character described, an eccentric C formed as shown, in combination, with a disc or wheel A^1, 1, and arms or leavers B, B, with an extended frame or sills S, S, as and for the purpose specified. 2nd. The combination of the plunger E, with the body part H, and die 25, with leavers 21, having arms 23 attached and connected by short perpendicular arms 27, to a rod 24, attached to the die 25, playing in a slot S^1, 4, substantially as and for the purpose specified. 3rd. In a machine of the character described, the combination of a detachable and extended interlocking frame S, S, of power R, and a similar interlocking combination or device on the sills S^1, 2, of the body H, the combination of the power R, with the plunger E having a roller at its extremity adapted to roll on the eccentric C, with the feed apparatus having a die 25, with the sliding board 26, attached to push rod P, 2, and post P, with the power wheel A^1, 1 with the body part H, with the dogs 4, formed as described, with their springs 41, and the stop rod B^1, 4, substantially as and for the purpose specified.

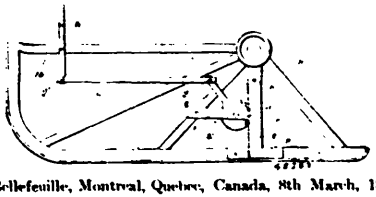
No. 48,382. Root Cutter. (*Coupe-racine.*)



Oliver E. Thompson, Ypsilanti, Michigan, U.S.A., 8th March, 1895; 6 years.

Claim.—1st. In a root cutter, the combination, with the casing A, open at the top and at one end, of a rotary cutter mounted on a rotary shaft journalled in said casing, a pivoted inclined grate arranged in front of said cutter, a rearwardly and downwardly inclined lug *f* on the bottom of said grate, and a cam H adjustably mounted on said shaft, and rotating against said lug, substantially as and for the purpose described. 2nd. In a root cutter, the combination, with the casing A open at the top and at one end of a rotary cutter D, a fixed inclined imperforate shelf G, an inclined grate F arranged in front of said cutter, said grate being pivoted at its lower end to the casing and supported at its lower end to the casing and supported at its upper end in the same plane with the shelf G, and a rotary cam disconnected from and intermittently striking against the bottom of said grate, substantially as described. 3rd. In a root cutter, the combination of the casing A, the rotary cutter D, the pivoted inclined grate F provided at one side with a vertical plate M gradually inclined from its top toward the centre of the lower edge of the grate, and a cam for vibrating the said grate and its attached vertical plate, as and for the purpose specified.

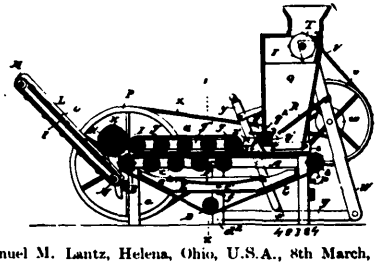
No. 48,383. Brake for Sleighs. (*Frein de traineau.*)



Léon Bellefeuille, Montreal, Quebec, Canada, 8th March, 1895; 6 years.

Claim.—A brake for sleighs consisting in a vertical rack or brake A, secured in a guide B, and operated by a toothed sector E pivoted to the framing of the running gear and having an arm e^1 to which is joined the piece G, worked by the ordinary brake lever H, substantially as described and for the purposes set forth.

No. 48,384. Cider Press. (*Presse à cidre.*)

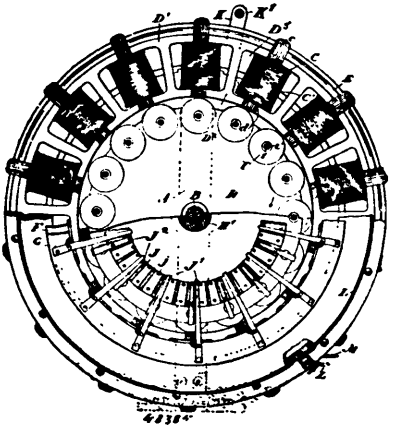


Emanuel M. Lantz, Helena, Ohio, U.S.A., 8th March, 1895; 6 years.

Claim.—1st. In a cider mill, the combination of the frame, an endless permeable cider apron having an upper horizontal portion, a series of lower pressure rollers mounted within the frame under the upper portion of the cider apron, an upper adjustable frame carrying a series of upper pressure rollers disposed above and slightly in rear of each lower pressure roller, an inclined pomace carrier located at one end of the frame, fastening devices detachably connecting the pomace carrier with the frame, and a cleaning brush disposed over the pomace carrier at one end of the main frame, substantially as set forth. 2nd. In a cider mill, the frame, apron rollers journalled at each end of said frame and having sprockets at their ends, opposite endless apron chains passing over the sprockets of said apron rollers, an endless cider apron attached to said apron chains, a series of lower pressure rollers mounted in the frame under the upper portion of the cider apron intermediately of the end apron rollers and each of which is provided with end sprockets engaged by said apron chains, a combined guide and tightener roller suitably journalled below the centre of said frame and receiving the lower portion of the cider apron which passes there-under, a cider tank arranged *inside of the space between both portions* of the cider apron, and the revolving feeder having end sprocket-wheels engaging the opposite apron chains, substantially as set forth. 3rd. In a cider mill, the main frame, an endless cider apron mounted in said frame, opposite depending bearing-legs having bearing-boxes at their lower ends, and one of which is hinged at its upper end to the main frame and capable of being swung outward, a roller journalled at its ends in the bearing-boxes on said legs and receiving the lower portion of the cider apron which is depressed thereby, a removable cider tank or pan arranged within the frame under the upper portion of the cider apron, supporting pins secured to each of the bearing-legs and adapted to engage beneath the cider tank or pan, and the feeding and pressing devices, substantially as set forth. 4th. In a cider mill, the combination with the main frame, the cider apron having a lower centrally depressed portion, and the feeding and pressing devices, of opposite intermediate frame legs one of which is hinged at its upper end to the main frame, a removable cider tank *arranged in the space between the upper and lower portions of the* cider apron and having inclined ends and a strainer in the open top portion thereof, and supporting pins secured *to the inside of said* frame legs and adapted to engage beneath the cider tank to removably hold the same in position, substantially as set forth. 5th. In a cider mill, the main frame, the lower cider apron mounted in said frame, a vertically-adjustable pressure frame arranged above the top of the cider apron and having opposite frame-bars provided with slotted tongues at one end, a series of upper pressure rollers, and a pressure apron supported by said frame-bars, suitably-supported retaining pins arranged on the frame and engaging the slotted tongues of the frame-bars, *opposite* supporting straps connected to the inner ends of said frame bars, feeding devices arranged over the cider apron near one end of the pressure frame, and a pomace carrier removably attached to one end of the main frame beyond both aprons, substantially as set forth. 6th. In a cider mill, the combination with the main frame having open bearing notches at one end, and the feeding and pressing devices, of an inclined pomace carrier having the extremities of the inner one of its belt rollers loosely turning in said open, bearing notches at one end of the frame, and a hook and eye connection between the pomace carrier and main frame to provide for the convenient attachment and detachment of the pomace carrier, substantially as set forth. 7th. In a cider mill, the main frame having bearing notches at one end thereof, the milling and pressing devices mounted on said frame and inclined carrier frame carrying belt rollers, one of which projects beyond the sides of the frame and removably fits in said bearing notches, the slatted carrier or belt moving through said frame, and a detachable connection between the carrier frame and the main frame, substantially as set forth. 8th. In a cider mill, the combination with an approximately horizontal cider apron, the lower pressure rollers arranged under the top portion of said aprons, and the pressing devices arranged over said cider apron, of a feed

hopper arranged over one end of said apron beyond the pressing devices, a revolving winged feeder mounted to rotate in the lower end of said hopper directly over the cider apron, and an inclosing guard frame for said feeder, substantially as set forth. 9th. In a cider mill, the combination of the pressing devices, the long cider apron having apron chains at its opposite edges, the lower pressure rollers arranged under the top portion of said apron, a feed hopper suitably supported over one end of the cider apron and having a removable bottom feed-board, a grinder arranged in the top of said hopper, a feed roller journalled in front of the hopper and having at its opposite ends sprocket-wheels engaging the opposite apron chains, and a tangential series of feed blades working inside of the lower open end of the hopper, substantially as set forth. 10th. In a cider mill, the combination with the pressing devices, of the feed-hopper, a toothed grinding roller arranged in the top of said hopper, a revolving feeder arranged within the lower end of the hopper, and a convergent guard-frame arranged below the hopper and embracing said revolving feeder, substantially as set forth. 11th. In a cider mill, the combination with the milling, feeding and pressing devices, of means for throwing the pressing devices in and out of gear with the milling and feeding devices, substantially as set forth. 12th. In a machine of the class described, the combination with the frame having a frame-upright provided with locking notches, the feeding device, one shaft of which is provided with a sprocket-wheel at one end, the apron devices, one shaft of which is provided with a belt-wheel at one end, a gear-yoke pivoted at its upper end to a suitable point of attachment, a larger sprocket-wheel journalled in said gear-yoke and carrying at one side a belt-pulley, a belt passing over said belt-pulley and said belt-wheel, a sprocket-chain passing over the two sprocket-wheels, a horizontally-movable adjusting bar pivoted at one end to the lower end of said gear-yoke, and a gear-lever pivoted at an intermediate point to one side of the main frame and carrying near its upper end a pivoted dog adapted to engage said locking notches, substantially as set forth.

No. 48,385. Electric Motor. (*Moteur électrique.*)

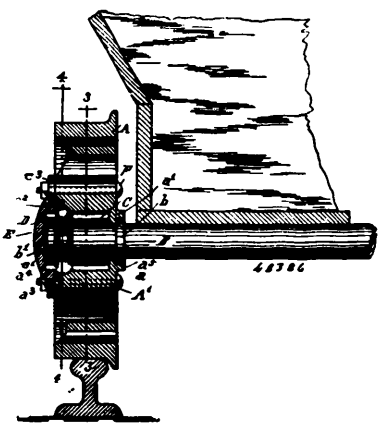


Archibald H. Brintell, Toronto, Ontario, Canada, 8th March, 1895; 6 years.

Claim.—1st. An electric motor comprising a plurality of magnets circularly arranged in a suitable frame, so that the poles touch and are circumferentially flush with a common circle and a number of spool armatures journalled in bearings in discs secured to the main shaft and caused to rotate in their bearings by the pull exerted by the poles of the magnets with which they come in direct and rolling contact, as and for the purpose specified. 2nd. The combination, with a plurality of horse shoe magnets supported in a circular frame of non-magnetic metal and with their poles extending through notches made in the sides of the inner rim of the frame, so that the ends of the poles are circumferentially flush with the inner rim, of a series of spool armatures journalled in discs secured to the main shaft and means whereby a current is thrown into one or more diametric pairs of magnets and armatures successively, as and for the purpose specified. 3rd. The combination, with a circular non-magnetic frame D, provided with a plurality of laminated horse shoe magnets with coils and the rings E, secured to the outer ends of the magnets and supported in the frame, and the rims F and G, provided with spring contact brushes J^1, of the spool armature I, provided with spindles i, which are journalled in the discs H, H, secured to the shaft B, the insulating rings J, J, the brushes J^2, secured to the rings J, and commutating means whereby the current is carried simultaneously and successively through the co-acting magnets and armatures, as and for the purpose specified. 4th. The combination, with a circular non-magnetic frame D, provided with a plurality of laminated horse shoe magnets with coils and the rings E, secured to the outer ends of the magnets and supported in the frame, and the rims F and G, provided with spring contact brushes J^1, of the spool armature I, provided with spindles i, which are journalled in the discs H, H, secured to the shaft B, the insulating rings J, J, the brushes J^2, secured to the ring J, and the main current wires L and M, connected by a wire l, to one coil and the current being carried by wires l^1, brush J^1, brush J^2, spindle i, coil I^1, wire m^4, pin i^1, brushes J^2 and J^1_2, wire m^1, coil C^1, wire m, to negative wire M, successively for each diametric co-acting magnets and armatures, as and for the purpose specified.

No. 48,386. Box and Axle for Vehicles.

(*Boîte et essieu de voiture.*)

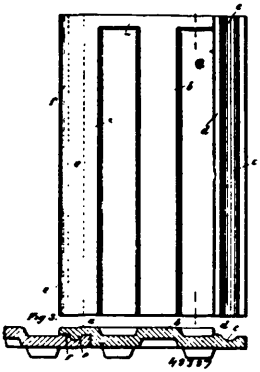


Irving Barker, James Lamb Cook and John Williams Black, all of Springfield, Illinois, U.S.A., 8th March, 1895; 6 years.

Claim.—1st. In a box and axle for vehicles, the means adapted to prevent longitudinal movement of the wheel on the axle, also adapted to receive the end thrust of the wheel on the axle, to wit, the rollettes having a cylindrical part and an enlarged bulbous part adapted to turn in a channel, in combination with an axle having a channel adapted to accommodate the bulbous parts of said rollettes, the body of the wheel, a hub on said wheel having in its outer end a circumferential groove and a cap attachable to said hub and having an annular flange provided with a chamfer, said chamfer and circumferential groove together forming a channel adapted to accommodate the bulbous parts of said rollettes, said cap also having a recess adapted to accommodate the cylindrical part of said rollettes between said axle and said cap, as set forth. 2nd. In a box and axle for vehicles, the combination of the body of the wheel, the hub integral with said body and having a bore adapted to accommodate rollers, the annulus within said hub, the circumferential groove and the ledge in said hub, the cap attachable to said hub and having a chamfered flange abutting against said ledge, the axle fitting in said annulus and having near its outer end a circumferential channel, the collar on the axle against which said annulus abuts, and the rollettes surrounding said axle and turning in the channel thereof, as set forth and for the purpose stated. 3rd. A box for vehicle wheels consisting of a hub connected with the wheel and having at its end a circumferential groove a^5 and a circumferential ledge a^6 adjacent thereto, a cap attachable to said hub and having an internal flange abutting against said ledge, said flange having a circumferential chamfer forming in conjunction with said circumferential groove a channel adapted to accommodate rollettes, as set forth. 4th. A rotatable shaft having near its end a circumferential groove adapted to accommodate rollettes, in combination with a wheel connected with said shaft, a stationery box having a bore adapted to accommodate rollers on which said axle turns, and having a channel adapted to accommodate rollettes fitting in the groove in said axle, rollers within said bore, and rollettes in said channel and groove, substantially as set forth. 5th. A box attachable to a suitable support, said box having a bore adapted to accommodate rollers surrounding a shaft revolving in said box, having an internal circumferential channel adapted to accommodate rollettes and having a circumferential flange adapted to exclude dirt or grit, in combination with a rotatable shaft having a groove adapted to accommodate rollettes, rollers within the bore of said box and rollettes in said grooves and channel, as set forth. 6th. A box having a bore adapted to accommodate rollers surrounding a rotatable shaft turning on said rollers, said box having a ledge and having a circumferential

chamfer, said box also having a cap detachably connected with the body of said box, said cap having a circumferential chamfer and having a flange adapted to abut against the ledge in the body of the box, as set forth, in combination with a rotatable shaft having a groove adapted to accommodate rollettes, rollers within the bore of the box on which said shaft turns, and rollettes fitting in the groove in said shaft, and in the channel formed by the chamfers in the cap and the body of the box, as set forth. 7th. The combination of the grooved rotatable axle, the box provided with a cap, said box having a bore adapted to accommodate rollers and having a channel adapted to accommodate rollettes, and the rollers and rollettes within said box, substantially as set forth. 8th. The combination of the stationary box provided with a recessed cap, the body of said box having a bore adapted to accommodate rollers, also having a flange adated to accommodate rollers, also having a flange adapted to exclude dirt, also having a circumferential ledge and a circumferential chamfer, said cap having a flange adapted to abut against the ledge in the body of said box, and having a chamfer forming in conjunction with the chamfer in the body of the box, a channel adapted to accommodate balls, means for connecting said cap with the body of the box, rollers and balls within said box, a rotatable grooved shaft turning on said rollers and balls, and a wheel secured to and adapted to rotate said shaft, all co-operating as set forth.

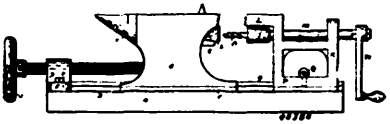
No. 48,387. Tile for Roofing. (*Tuile pour toitures.*)



Stephan Engelmeire, and Gustav Czerwonky, Birnbaum, Germany, 8th March, 1895; 6 years.

Claim.—1st. In roofing tiles, a channel *c*, with projecting small rib *d*, on the upper surface of the one tile, which registers with a corresponding rib *c*, and projecting lap *f*, on the under surface of the next lying tile, substantially as herein set forth. 2nd. In roofing tiles, a channel *c*, with projecting small rib *d*, on the upper surface of the one tile, which, registers with a corresponding rib *c*, and projecting lap *f*, on the under surface of the next lying tile, each tile being provided with connecting strips *g*, introduced between the longitudinal ribs *a*, *b*, on the upper surfaces of both tiles, substantially as herein set forth.

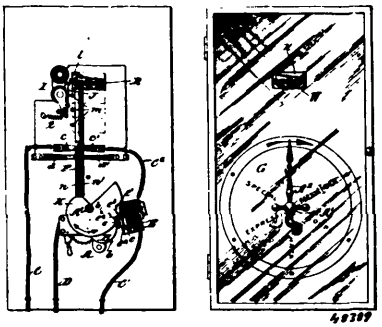
No. 48,388. Combination Tool. (*Outil à combinaison.*)



Christian Arthur Salzman, Hamilton, Ohio, and John A. Robbins, Indianapolis, Indiana, U.S.A., 8th March, 1895; 6 years.

Claim.—1st. The combination with a base, a T-shaped track secured thereon, an anvil mounted on the base and movably engaging with the track and a hand screw engaging with a boss formed on one end of the track and with the anvil of a bracket movably engaging with the track and being reversible thereon, a vise jaw formed on the bracket in a line with the heel of the anvil, and means to automatically secure the bracket immovable and in different positions along the track. 2nd. The combination with a base, a T-shaped track thereon, an anvil movable on the base and engaging with the track, and a hand screw engaging with the track, and with the anvil of a reversible bracket movable on the base and along the track, a drill spindle reversibly journalled therein, and means to secure the bracket immovably to the track.

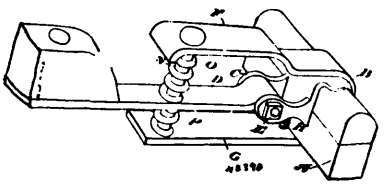
No. 48,389. Telegraph Call. (*Boîte à appels de télégraphe.*)



William Henry Garven, Portland, Oregon, U.S.A., 8th March, 1895; 6 years.

Claim.—1st. The combination with a district telegraph call, of a cam arranged on its winding shaft, a slide bar adjusted by the cam, an extent commensurate with the movement of the winding shaft, and a plate bearing pictorial illustrations of the different calls arranged to be progressively brought to view, according to the throw of the winding shaft and cam, substantially as shown and described. 2nd. The combination with the circuit breaking disc of a district call box, of the duplex spring contacts *e*, and e^1, and their stops e^2 and e^3, one of said springs being arranged to make and break circuit through its stop, and the other through the circuit-breaking disc, substantially as shown and described. 3rd. The slide bar F, having a metallic portion at one end with pins or teeth, and a non-conducting portion at the other end with insulated metal plates *n* and n^1, in combination with the electro-magnets I, and armature J, with detent for engaging the pins of the slide bar, the contact springs *e*, e^1, and *d*, d^1, the circuit wires, and the adjusting cam K, and circuit breaking devices, substantially as shown and described.

No. 48,390. Cart Attachment. (*Attache pour charettes.*)

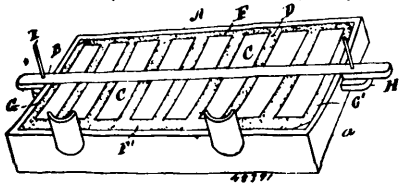


John James Cameron, Vallore, Ontario, Canada, 9th March, 1895; 6 years.

Claim.—1st. A cart attachment consisting of the axle, the thill, means for pivotally connecting the thill to the axle, and a spring arranged to bear on the thill and counteract the horse motion, substantially as specified. 2nd. A cart attachment consisting of the axle, the thill pivotally connected to the axle, a substantially U-shaped spring connected to the axle and having its outwardly extending arms arranged to bear on the thill or thill iron and counteract the horse motion, substantially as specified. 3rd. A cart attachment consisting of the axle clip, an arm extending outwardly and forwardly from the top of the axle clip, a similar arm extending outwardly and forwardly from the bottom of the axle clip, the thill iron located between said arms and pivotally connected to the axle, a pin passing through the said arms and thill iron, springs bearing against the said arms and thill iron, substantially as specified. 4th. An attachment for a cart consisting of the axle clip two outwardly and forwardly extending lugs connected to the front side of the axle clip, an arm extending forwardly from the top of the axle clip, and a similar arm extending forwardly from the bottom of the axle clip, a thill iron pivoted between the said lugs, a pin passing through the said arms and thill iron, and springs bearing against the said arms and thill iron, substantially as specified. 5th. An attachment for a cart consisting of the axle clip, two outwardly and forwardly extending lugs connected to the front side of the axle clip, an arm extending outwardly and forwardly from the top of the axle clip, and a similar arm extending outwardly and forwardly from the bottom of the axle clip, the thill iron pivotally connected to the said lugs, a pin passing through the arms and thill iron, a sleeve enclosing the said pin and passing through the thill iron, and the under side of the upper arm, and a spring coiled on the said sleeve between the under side of the thill iron and the top of the lower arm, substantially as specified.

No. 48,391. Process for Moulding Brake Shoes.

(*Procédé pour mouler les sabots de freins.*)



Archibald Brake, Toronto, Ontario, Canada, 9th March, 1895; 6 years.

Claim.—1st. A process for moulding brake-shoes, consisting of arranging a shoe pattern within the drag and providing the drag with a cope which will form a perfect bearing for the moulding sand, then filling the drag with moulding sand and packing it around the shoe pattern against the cope, then removing the shoe pattern and pouring the molten metal into the mould, substantially as specified. 2nd. A process for moulding brake-shoes, consisting of arranging a shoe pattern within the drag and providing the drag with a cope which will form a perfect bearing for the moulding sand and forming in the cope an opening corresponding in size and location with the shoe pattern and filling the drag with moulding sand and packing it around the shoe pattern against the cope and filling the opening in the cope with moulding sand and packing tight against the shoe pattern, then removing the cope and shoe pattern then replacing the cope and pouring the molten metal into the mould, substantially as specified. 3rd. A process for moulding brake-shoes, consisting of arranging a series of shoe patterns within the drag with an interval between each adjacent pair of shoe patters and providing the drag with a cope which will form a perfect bearing for the moulding sand, having an opening above each shoe pattern, each opening corresponding in size and location with its respective shoe pattern and filling the drag with moulding sand, packing it around the shoe patterns and into the intervals between them and tightly against the underside of the cope and filling the openings in the cope with moulding sand, then removing the cope and shoe patterns and then replacing the cope and pouring the molten metal into the mould, substantially as specified. 4th. A process for moulding brake-shoes consisting of arranging a series of shoe patterns within the drag and providing a cope which will form a perfect bearing for the moulding sand having a series of openings corresponding in size and location with the size and location of the shoe patterns, and providing each of the openings in the cope with a series of chills and packing the sand into the drag and into the intervals between and around the shoe patterns and tightly against the underside of the cope, then filling the openings in the cope with moulding sand, then removing the cope and shoe patterns, then replacing the cope and pouring the molten metal into the moulds, substantially as specified. 5th. A process for moulding brake-shoes, consisting of arranging a shoe pattern within the drag and providing the drag with a cope which will form a perfect bearing for the moulding sand, and forming in the cope a series of openings corresponding in size and location with the shoe patterns, and removably attaching to the opening in the cope a series of chills which come in contact with the shoe patterns, and packing the moulding sand into the drag around and against the shoe patterns, and filling the openings in the cope with moulding sand, then removing the cope and shoe patterns, then replacing the cope and pouring the molten metal into the mould, substantially as specified.

No. 48,392. Rubber and Stocking for Lumbermen.

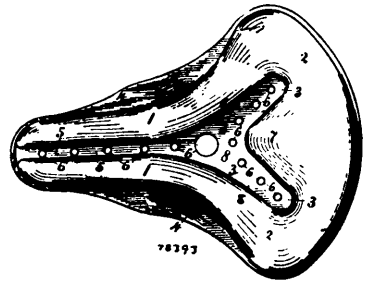
(*Chaussure en caoutchouc et bas pour hommes de chantiers.*)

Moses Dominick Gerard, Penwater, Michigan, U.S.A., 9th March, 1895; 6 years.

Claim.—1st. In a lumberman's rubber, the combination with a foot portion or shoe R, having an internal flap F, the lower edge of which is attached to the interior of said shoe at a point below the upper edge of the latter, of a combined legging and stocking foot, the stocking foot being secured to the interior of the legging at a point above the bottom of the latter and the lower edge of the flap F, and fastening device, substantially as described. 2nd. A boot or shoe, adapted for connection with a stocking or leggin, having an internal flap secured at its lower edge to the shoe and forming with the upper part of the latter an upwardly opening annular pocket, substantially as described. 3rd. A legging or stocking adapted for connection with a shoe or boot, comprising a leg portion and a foot portion connected to the interior of the leg portion above the lower edge thereof, forming a depending flap around the foot portion, substantially as described.

No. 48,393. Pneumatic Bicycle Saddle.

(*Selle pneumatique pour bicycles.*)

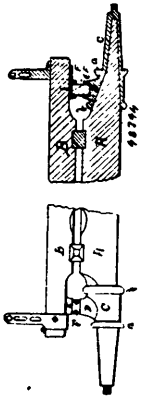


Andrew Cleland, Toronto, Ontario, Canada, 9th March, 1895; 6 years.

Claim.—1st. In a saddle for cycles, the arc-shaped cavity formed in and depressed from the upper surface of the saddle, the ends of said arc-shaped cavity terminating rearward substantially as shown and described. 2nd. In a saddle for cycles, the arch-shaped cavity formed in an depressed below the upper surface of said saddle and having a series of holes in the bottom of said cavity, substantially as shown and described. 3rd. In a saddle for cycles, the combination of an arc-shaped cavity formed in and depressed below the upper surface of the saddle, the series of perforations or holes in the bottom of said cavity, and a channel extending forward along the centre of the forward extension of the saddle and having holes therein at its bottom, substantially as shown and described.

No. 48,394. Axletree Arm for Wagons.

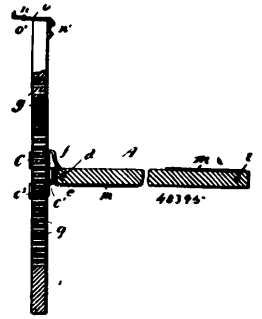
(*Fusée d'essieu pour wagons*)



William Milner, Chatham, Ontario, Canada, 9th March, 1895; 6 years.

Claim.—In combination with the wagon axletree A, the flexible bumper E, and the bolster B, substantially as specified and set forth. 2nd. In combination with the wagon axletree A, the flexible bumper E, and the sand-board G, substantially as specified and set forth.

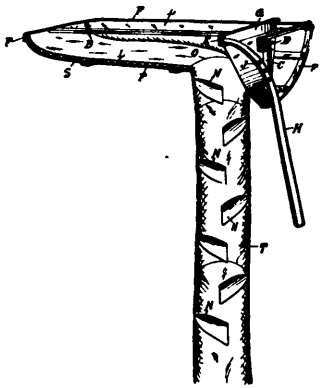
No. 48,395. Thill Support. (*Armon de limonière.*)



John Edward Dolber, Manchester, New Hampshire, U.S.A., 9th March, 1895; 6 years.

Claim.—1st. A support for the shafts of vehicles comprising a base bar having at one end a pivoted hook, a standard, a sleeve movable on said standard, pivotal connection between the sleeve and base bar, and means for locking the sleeve on the standard, substantially as set forth. 2nd. A support for the shafts of vehicles comprising a base bar having at one end a pivotally secured hook, a standard having a plurality of holes, and at its upper end a step, a sleeve movable on the standard and having ears pivotally connected with the end of the base bar, and a pivoted latch on the sleeve for engagement with any one of the holes, substantially as described.

No. 48,396. Fruit Picker. (*Jaffet.*)

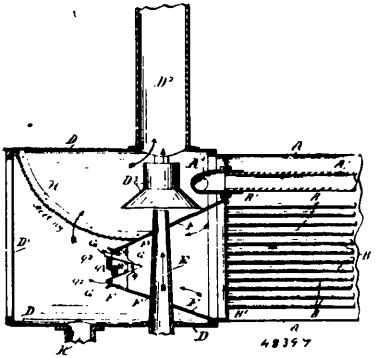


Duncan H. Gould, East Zorra, Ontario, Canada, 9th March, 1895; 6 years.

Claim.—1st. In a fruit picker, the zig-zag partitions N, secured to and in combination with a flexible tube T, substantially as described. 2nd. In a fruit picker, the zig-zag partitions N, formed of a rim hoop M, and a yielding cover K, secured to and in combination with a flexible tube T, substantially as described. 3rd. In a fruit picker, the combination of the dish-shaped receiving frame F, with the flexible lining L, and means for suspending said lining evenly within the frame, substantially as described. 4th. In a fruit picker, the combination of the dish-shaped receiving frame F, the flexible lining L, and means for suspending said lining evenly within the *frame, the longitudinal bar B B, the handle H, and the rake R,* substantially as described. 5th. In a fruit picker, the combination of the dish-shaped receiving frame F, the flexible lining L, and means for suspending said lining evenly within the frame, the longitudinal bars B B, the handle H, the automatic yielding grip *f, g,* and the rake R, substantially as described. 6th. The flexible tube T, and the zig-zag partitions N, in combination with the dish-shaped receiving frame F, the flexible lining L, and means for suspending said lining evenly within the frame, substantially as described. 7th. The flexible tube T, the zig-zag partitions N, the dish-shaped receiving frame F, the flexible lining L, the laces S, the longitudinal bars B B, and the handle H, in combination with the rake R, substantially as and for the purpose set forth.

No. 48,397. Draft Regulator for Locomotives.

(*Régulateur du tiraqe pour locomotives.*)

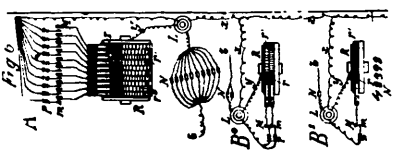


Charles A. McCulloch and Frank Welliver, both of Minneapolis, Minnesota, U.S.A., 9th March, 1895; 6 years.

Claim.—1st. In a locomotive or other engine, the combination with a flue discharge hood, extending from the boiler head into the smoke-box, of an expansible and contractible divider, located in the mouth of said discharge hood, for regulating the draft, substantially as described. 2nd. In a locomotive or other engine, the combination with a flue discharge hood, extending from the boiler head into the smoke-box, of a wedge-shaped expansible and contractible divider located in the mouth of said discharge hood, substantially as and for the purpose set forth. 3rd. In a locomotive or other engine, the combination with a flue discharge hood, having convergent walls, extending from the boiler head into the smoke-box, of an expansible and contractible divider, located in the mouth of said discharge hood, substantially as and for the purpose set forth. 4th. In a locomotive or other engine, the combination with a flue discharge hood, extending from the boiler head into the smoke-box, having convergent upper and lower walls, and parallel side-walls, and an expansible and contractible wedge-shaped divider, located in the mouth of said discharge hood, substantially as and for the purpose set forth. 5th. In a locomotive or other engine, the combination with a flue discharge hood, extending from the boiler-head into the smoke-box, of a wedge-shaped divider in the mouth of said hood, constructed in sections, the edge section of which is fixed to the hood, and the body or wing sections of which are pivoted to the edge sections, and are securable in any desirable angular adjustment, with respect to each other and the said edge section, for regulating the draft, substantially as described.

No. 48,398. Multiple Telegraphic Apparatus.

(*Appareil télégraphique multiple*)



Alfred Piedfort, Calais, France, 9th March, 1895; 6 years.

Claim.—1st. A system of multiple telegraphy comprising a transforming drum fitted with one or more rings of conducting and non-conducting surface caused to rotate with a uniform and regular movement and transforming the continuous electric current from any source of electricity into one or more intermittent currents which at each operation of the key are transmitted to the particular receiver, the vibration of whose plate a diaphragm in a given time *exactly corresponds to the musical pitch of the distinct and separate* intermittent current transmitted through the line-wire by each several ring of the transforming devices in combination with a receiver provided with a vibrating plate or diaphragm producing luminous eclipses, substantially as described. 2nd. An improved apparatus for producing intermittent currents comprising a transforming drum R, upon which are mounted one or more metallic rings *r*, inlaid at regular intervals with small insulating locks r^2, each such metallic ring being fitted with a different number of insulating blocks, the said transforming drum communicating by means of a terminal *y*, with a source of electricity and being actuated by a uniform and regular movement of rotation imparted to it by means of a clock-work movement driven by a weight wound up by

a Hughes winding apparatus E, regulated by a Hughes regulator also of brushes r, connected each with a separate key N, the said brushes rubbing separately on the individual rings r^1, and thereby transmitting through the line-wire a distinct and separate undulatory current corresponding to the number of interruptions in the current caused by the passage of the insulating blocks r^2, beneath the brushes of each metallic ring when the key corresponding to each brush r, is operated substantially as described and shown. 3rd. In a transformer R, which is connected by brushes y, with a source of electricity and rotated at a regular and uniform speed, the combination of two series of identical rings r^1, r^1, placed on two insulated sections of the transforming cylinder R, the said rings being each fitted severally with a different number of insulating blocks r^2, on which bear respectively two series of brushes r, r^0, the one series of brushes being connected with the positive pole of a battery while the other series of brushes is connected with its negative pole when the respective keys M, corresponding to each pair of brushes r, r^0, rubbing on each pair of rings r^1, r^1, upon which the insulating blocks are arranged contrary to one another are operated for the purpose of obtaining more rapid vibrations of the current on long telegraphic lines, substantially as described and shown. 4th. A luminous eclipse receiver comprising a camera or dark chamber divided into two compartments in one of which is placed an electro-magnet t, provided with a vibrating plate or diaphragm n, carrying either a lens r^1, or a fringed or striped screen n^1, arranged opposite to an orifice z, formed in the camera in such manner that the light natural or artificial entering by such orifice and traversing the fringed or striped screen n^1, may be thrown by the lens upon another and larger striped or fringed screen such as u, behind which are placed lenses v, t, the said screen u, preventing the access of the light into the second compartment of the camera or dark chamber so as to prevent the light falling upon the radiometric strip l, except and until the diaphragm n, is set in vibration and in proportion to the amplitude and duration of its vibrations, substantially as described and shown. 5th. A luminous eclipse receiver comprising a dark chamber or camera wherein is placed an electro-magnet i, fitted with a vibrating plate or diaphragm n, carrying a striped or perforated screen n, in front of which is placed a box s, adjustable in position wherein are arranged equidistant parallel plates or tubes which conduct the luminous rays falling upon a mirror D, in front of the fringed or perforated screen n^1, the openings formed in which screen n^1, are arranged in such manner as to intercept the passage of light into the dark chamber N, when the diaphragm n, is not in vibration and to allow of its entrance wherever the diaphragm n, is in vibration proportionally to the amplitude and duration of its vibrations so that its light may act upon the radiometric strip l, connected with the electric circuit of an ordinary relay of a recording instrument of any known kind, substantially as described and shown.

No. 48,399. Beer Pipe Cleaner.

(*Nettoyeur de tuyau à bière.*)

Frederick Krentz, Emile Krentz, both of Jersey City Heights, New Jersey, and Morgan Charles Silsbee, Avoca, New York, all in the U.S.A., 9th March, 1895; 6 years.

Claim.—1st. A pipe cleaner comprising a propeller having a brush secured to one end thereof, and a brush upon the opposite end, revoluble independently thereof, substantially as shown and described. 2nd. In a pipe cleaner, the combination of a propeller, a rod or axle upon which the propeller revolves, brushes situated at each end of the rod or axle, one of which is securely attached to the propeller and revolving with it, and the other or inner brush on the propeller and rigidly connected to the rod, substantially as shown and described.

No. 48,400. Fibrous Lining. (*Doublure fibreuse.*)

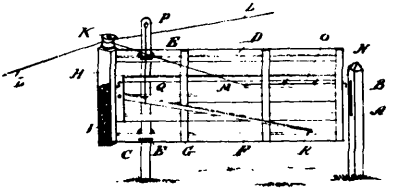
John Cameron McLauchlin, New York, State of New York, U.S.A., 9th March, 1895; 6 years.

Claim.—1st. The fibrous felted sheet having crushed or crumpled creasings formed longitudinally of the fire, substantially as described. 2nd. The hereinbefore method of treating a sheet of fibrous felted material, the same consisting in gathering the sheets laterally, and then subjecting them to crushing between the rolls, substantially as described. 3rd The herein described method of treating a sheet of fibrous felted material, which consists in twisting the sheet and then passing it between rolls, substantially as described. 4th. The hereinbefore described method of treating a sheet of fibrous felted material, which consists in first moistening the material, then gathering it laterally and subjecting it while in a closely gathered position to a crushing process by passing it between rolls, substantially as described.

No. 48,401. Gate. (*Barrière.*)

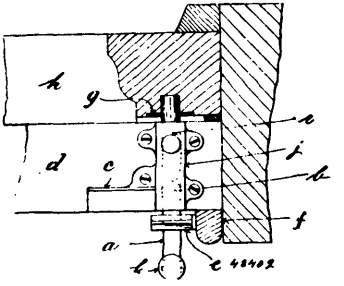
Matthew G. Caldwell, North East, Pennsylvania, U.S.A., 9th March, 1895; 6 years.

Claim—1st. A gate consisting of the posts, the gate having the sliding and hinge connection with the post, the rotatable spool carried by the gate, the cords for rotating the spool, and the latch on the gate connected to the spool. 2nd. A gate consisting of the



posts, the gate hinged to one of the posts, the box secured to the gate and carrying a weight, and the lever connected to the hinge post and having the head or block for bearing against the gate to support the same.

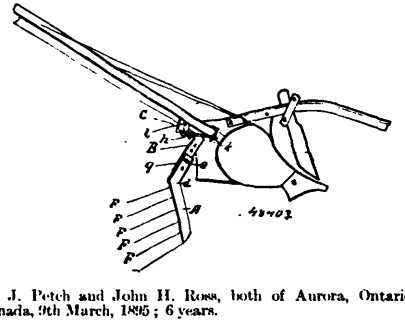
No. 48,402. Window Fastener. (*Arrête-croisée.*)



Joseph Wharfe, Wimbledon, England, 9th March, 1895; 6 years.

Claim.—A window fastener, in combination, a hinged or pointed bolt, a socket piece for attaching same to window sash and in which said bolt slides, a pin or stop attached to said bolt and sliding in a slot cut in said socket, an aperture in said bolt, a pin or locking piece upon said socket which falls into the said aperture in bolt and locks same when the bolt is shut

No. 48,403. Potato Digger. (*Scarificateur à patates.*)

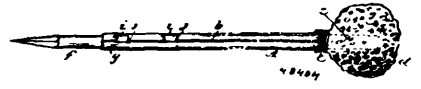


Arthur J. Petch and John H. Ross, both of Aurora, Ontario, Canada, 9th March, 1895; 6 years.

Claim.—1st. The blade A, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the blade A and fingers I, with the bracket B and the fastening C, substantially as and for the purpose set forth.

No. 48,404. Adjustable Slate Pencil Holder, &c.

(*Parte crayon d'ardoise, etc.*)



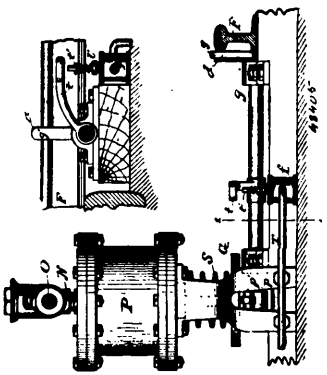
Frederick Hayden Lumsden, Hamilton, Ontario, Canada, 9th March, 1895; 6 years.

Claim.—1st. A combined pencil holder, pencil protecting case

and slate-eraser, constructed substantially as and for the purpose specified. 2nd. A combined pencil-holder, protecting case and slate-eraser, consisting of a sheet metal holder *a*, constructed with lugs *i*, *i*, and oval opening *h*, between the lugs, the outer case A, having a slot *b*, and enlargement *j*, *j*, which receive the lugs *i*, *i*, of the tube *g*, when inserted therein, a cylinder *c*, inserted in one end of the outer tube A, a sponge *d*, secured thereto, and slate pencil *f*, in the holder *g*, all constructed substantially as and for the purpose specified.

No. 48,405. Railroad Block Signal.

(*Signal de chemin de fer.*)



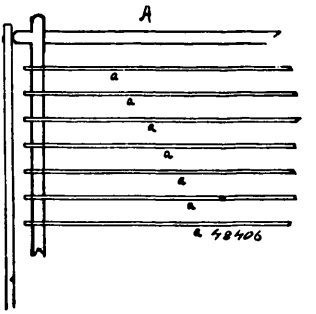
Charles Henry Sherwood, Utica, and Henry Clay Lyman, Sherburne, both of New York, U.S.A., 11th March, 1895; 6 years.

Claim.—1st. A railroad block signal having pneumatically controlled semaphores operated automatically by track instruments actuated by passing trains, as set forth. 2nd. In a railroad block signal, the combination with the semaphores, each provided with an air-cylinder and piston for actuating the semaphore, of track instruments at or near the respective semaphores, to be actuated by the passing trains, an air-pump at each track instrument, and operated thereby, an air conducting pipe extending from the pump to the air-cylinder of the next semaphore at the rear, and a relief-valve operated by the track instrument and communicating with the air-cylinder of the adjacent semaphore, as set forth. 3rd. In combination with the horizontal shaft *g*, provided with a crank, g^1, to be operated by the passing engine or cars, an air-pump and a valve controlling the flow of compressed air and a crank and lever both attached to the shaft *g*, and operating respectively the aforesaid pump and valve, as set forth. 4th. In combination with the shaft *g*, provided with the crank g^1, the arm *t*, and two-armed lever *p*, attached to the said shaft, the pump P, and plate G^1, attached to the lower end of the piston-rod and riding on the lever *p*, and the valve *f*, disposed with its valve-stem opposite the arm *t*, as set forth and shown. 5th. In combination with the shaft *g*, provided with the crank g^1, the arm *t*, and two armed lever *p*, attached to said shaft, the pump P, the plate G^1, attached to the piston-rod and riding on the lever *p*, the springs S, interposed between said plate and pump cylinder, and the valve *f*, having its valve stem opposite the arm *t*, as set forth. 6th. In combination with the shaft *g*, provided with the crank g^1, the two-armed lever *p*, attached to said shaft, the pump P, and the plate G^1, pivoted to the piston-rod, and riding on the aforesaid lever, as set forth. 7th. In combination with the shaft *g*, provided with the crank g^1, the two-armed lever *p*, attached to said shaft, rollers p^1, p^1, pivoted to said lever, the pump P, over the lever, and the plate G^1, connected to the piston-rod and extending over the aforesaid rollers, as set forth. 8th. In combination with the shaft *g*, provided with the crank g^1, the two-armed lever attached to said shaft, cushions S^1, secured to the top of said lever, the pump P, and the annular plate G^1, attached to the piston-rod and riding normally on the cushions and extending over the rollers, as set forth and shown.

No. 48,406. Clothes Horse. (*Séchoir à linge*)

Allen G. Ingalls and George A. Newmark, both of Montreal, Quebec, Canada, 11th March, 1895; 6 years.

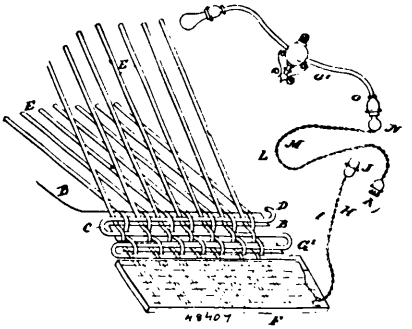
Claim.—1st. A clothes drying device consisting of the frame A, having bars *a*, *a*, *a*, *a*, and arms B, C, D, articulated thereto to hold the frame horizontally and to cause it to move upwards and downwards through the said arms being articulated to and moving upon a vertical as a wall, and a hoisting device, substantially as set forth. 2nd. The combination with the frame A, of the arms B, D, as set forth. 3rd. The combination with the frame A, of the brace C, and the arms B, D, as described. 4th. The combination with the arm



D, of the brace C, and the arm B, to raise and lower the frame R, substantially as set forth.

No. 48,407. Electric Heater.

(*Appareil de chauffage électrique.*)

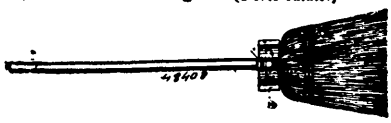


John Emory Meek, New York, State of New York, U.S.A., 11th March, 1895; 6 years.

Claim.—1st. In an electrical heater, an electric resistance fabric, consisting of a conducting wire, woven with non-conducting strands, preferably asbestos, said non-conducting strands preferably forming the warp of said fabric, and having said wire preferably woven as or with the filling thereof, so that the fabric may be cut parallel with said filling strands into pieces of suitable size for use as cushions, pads, blanks, garments and for other heating purposes, each piece so cut from the fabric being in itself a complete electrical heater when connected in circuit, as and for the purposes set forth. 2nd. An electrical heater, comprising a continuous conducting wire, woven with non-conducting and insulating threads into a fabric in such manner that the wire will be enclosed within and insulated by the non-conducting and insulating strands of the fabric, as and for the purposes set forth. 3rd. An electrical heater, comprising a continuous conducting wire or strip of metal, enclosed within and insulated by flexible sheets or layers of non-conducting and insulating material placed about the conductor, the whole being enclosed within a flexible exterior wrapper or case, as and for the purposes set forth. 4th. An electrical heater, comprising a continuous conducting wire or strip of metal, enclosed within and insulated by flexible sheets or layers of non-conducting and insulating material, placed about the conductor, the whole being enclosed within a flexible exterior wrapper or case, said case being treated with or covered by water-proofing material, as and for the purposes set forth. 5th. An electrical heater comprising a conducting wire, coiled, bent or folded, for the purposes set forth, and enclosed within exterior flexible sheets or layers of non-conducting and insulating material, the whole being fastened together, and the folds of the wire kept from contact with each other by stitching, or in any other suitable manner, for the purposes set forth. 6th. An electrical heater, comprising a conducting wire embedded within and insulated and protected by flexible, water-proofed non-conducting and insulating material, for the purposes set forth. 7th. An electrical heater comprising a conducting wire embedded within and insulated and protected by flexible sheets or layers of disinfected, non-conducting and insulating material, for the purposes set forth. 8th. A fabric for the purpose stated, composed of a conductor first covered with insulating material and then

woven with non-conducting material. 9th. An electrical heating device, comprising a conductor enclosed within flexible protecting and insulating material in combination with a suitable current regulator, for the purposes set forth. 10th. A heating conductor interlaced with the threads of a flexible non-conducting and inconcustible fabric, for the purposes set forth. 11th. A heating conductor, interlaced with the threads of a flexible, non-conducting fabric, for the purposes set forth.

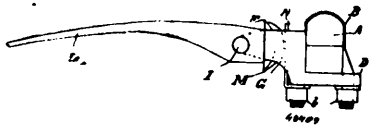
No. 48,408. Broom Hanger. (*Porte-balais.*)



Edward S. Field, Metchosin, British Columbia, Canada, 11th March, 1895; 6 years.

Claim.—A broom hanger or holder having two converging curved cheeks B, C, provided with divergent opposite faces and connected by a back A, as set forth.

No. 48,409. Thill Coupling. (*Armon de limonière.*)

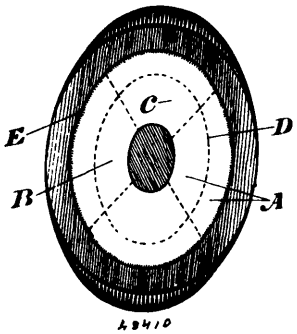


William J. Powers and Hiram E. Blake, both of Bedford, Quebec, Canada, 11th March, 1895; 6 years.

Claim.—In a thill-coupling, the combination of the thill-jack, the perforated extension plate D, the lug projecting inwardly from one side of the thill-jack, and having an arc shaped bearing surface, and a straight flat face flush with the end of the said side, the arm projecting from the other side of the thill-jack having a convex bearing end, the pivot formed integral with the arm and flush with the said convex bearing end, the thill having a reduced portion in which is formed the pivot hole, and having a concave bearing shoulder flush with the wall of the said hole, and engaged by the bearing end of the thill-jack arm, the arc shaped lug projecting above the thill and over-lapping the lug of the thill-jack, and the plate spring secured under the said extension plate and having a portion extending vertically between the plate and the thill-lug, as set forth.

No. 48,410. Sweat Band and Support.

(*Coussinet absorbant la sueur et support.*)



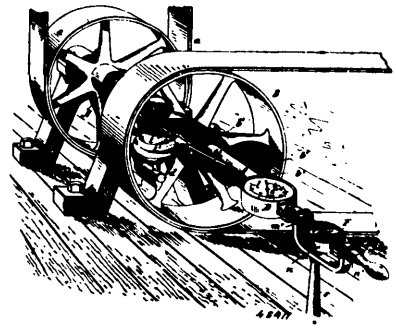
Samuel Woods, Montreal, Quebec, Canada, 11th March, 1895; 6 years.

Claim.—A new article of manufacture, viz., a combined hat sweat and support having an extension as shown by letter B, covering the head, substantially as shown and described herein.

No. 48,411. Dynamometer. (*Dynamomètre.*)

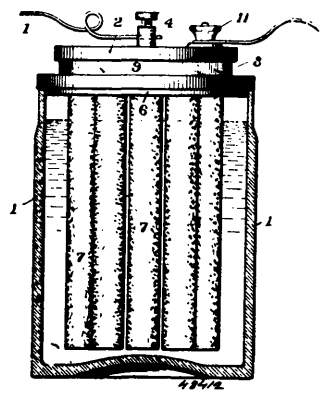
Benjamin Franklin Perkins, Holyoke, Massachusetts, U.S.A., 11th March, 1895; 6 years.

Claim.—1st. The combination with the shaft A, having the passage i^4 therein, which opens to its end, and the pulley B, loose on the shaft having the projecting stud d, of the arm b, fixed on the shaft and having the hole g, transversely through it, a diaphragm casing having a hollow hub screwed into one orifice of said hole, and a reciprocatory stud engaging the diaphragm and in turn engaged by the said stud d, of the pulley, the removable stopper g^2, screwing



into the other orifice of said hole g, the tube section communicating with said hole g, and the tube section i^2, coupled to said section i, and communicating with the shaft passage i^4, and a pressure indicator connected with the said passage i^4, all substantially as described and shown. 2nd. In combination, the shaft A, with hole i^4, extended to its end and having the fixed arm b, with hole g, and conduits i, i^3, leading therefrom to said hole i^4, and the diaphragm-casing and diaphragm supported by said arm and having its chamber in communication with said hole g, the screw-stopper at one end of said hole, and the diaphragm-stud j, the loose pulley B, having the projection d, in engagement with said stud j, the re-active casing m, having the hollow hub m^3, screwing into the open end of shaft A, and the enclosing casing m^2, movable as a part of said hub and having double dial faces, the diaphragm-operating liquid, and the pointer over one of the dials, operated by said re-active casing, all substantially as described and shown.

No. 48,412. Galvanic Battery. (*Batterie galvanique.*)

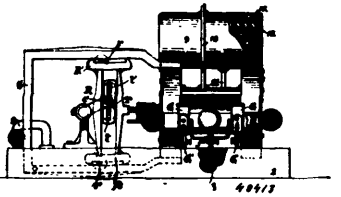


Charles B. Schoenmehl, and Clark M. Plate, both of Waterbury, Connecticut, U.S.A., 11th March, 1894; 6 years.

Claim.—1st. As a new article of manufacture, a battery pole which consists of an insulated cover, having an internal annular recess, openings through the bottom of the cover into said recess, a series of carbons having their ends extending into said recess, cast metal within and filling said recess for the purpose of retaining the carbons and serving to complete the electrical connections between said carbons. 2nd. In a carbon pole of a battery of the class described, the combination in an insolated top, of an annular recess within said top, a series of openings extending through the underside of the top into the recess, carbons arranged within said openings with their ends in the before mentioned recess, and metal within the recess and surrounding the ends of the carbons, whereby they are retained and the metallic connection between the carbons secured. 3rd. In a battery of the class described, the combination in an insulated cover, of a peripheral annular recess within said cover, a series of openings extending through the underside of the cover into the annular recess, a series of bores extending into the top

from the recess and registering with the before mentioned openings, carbon sticks arranged within said openings with their ends extending through the before mentioned recess and into the bores, metal within the recess and surrounding the ends of the carbons, whereby they are retained and their metallic connection completed.

No. 48,413. Gas Engine. (*Machine à gaz.*)

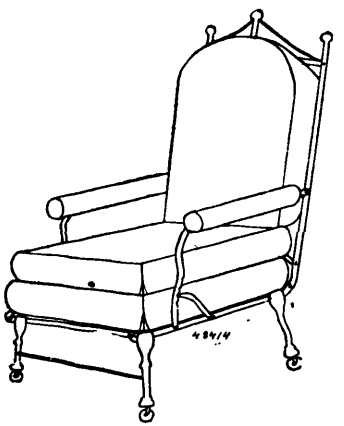


Homer L. Boyle, Grand Rapids, and Frank B. Gates, Owosso, both of Michigan, U.S.A., 11th March, 1895; 6 years.

Claim.—1st. In a gas engine, the combination, with the working cylinder having the enlarged heads forming pockets at the ends of the cylinder, of the open ended casing or valve chest, ports or openings connecting said valve chest and pockets, and the plunger adapted to expel matter exuding from said openings, substantially as described. 2nd. In a gas engine, the combination, with the working cylinder and piston, of the enlarged cylinder heads forming combined explosion chambers and pockets or receptacles at the ends of the cylinder, the valve chest or casing communicating with said pockets, the reciprocating valve or plunger seated in said casing, and means for actuating the valve, substantially as described. 3rd. In a gas engine, the combination, with a working cylinder having the enlarged explosion chambers, and the reciprocating valve with inlet and exhaust ports communicating with said chambers, the automatically actuated igniting device, substantially as described. 4th. The engine cylinder and valve chamber provided with suitable inlet and exhaust ports, in a combination with the reciprocating valve adapted to alternately open and close said ports, the exhaust port being adapted to permit a free exhaust and serve as an inlet for air after the explosion occurs, substantially as described. 5th. In a combination with the engine, the working cylinder and piston, the explosion chambers, the tubular valve casing or fluid or gas supply communicating with said chambers, and the reciprocating piston valve fitted on said supply pipe, and provided with piston heads and inlet and outlet ports and intermediate igniting chambers, and means for operating the same, substantially as described. 6th. In a gas engine, the combination, with the working cylinder and piston, the crank shaft connected to said piston, the combined explosion chambers and pockets at the ends of the cylinder, the tubular valve casing, the reciprocating piston valve seated in said casing, and means for actuating said valve, substantially as described. 7th. In a combination, with an engine and the valve for controlling the fluid or gas supply thereto, of the governor and casing H, inclosing and adapted to revolve with the said governor, as and for the purpose set forth. 8th. In a combination, with the engine, the working cylinder and piston, the explosion chambers, the valve chest communicating with said chambers the regulating valve the governor, the governor inclosing casing, and an adjusting device inside of said casing for regulating said governor, as and for the purpose set forth. 9th. In combination, with a gas engine, the governor provided with an inclosing casing having an oil cup therein, whereby the governor is adapted to be immersed in oil during the operation thereof, substantially as described. 10th. In a gas engine, a governor comprising the regulating valve, the valve stem or rod, the sleeve fixed on said rod, the adjusting screw, the spring interposed between said screw and sleeve, the cross heads connected with said valve stem, the balls or weights, the elbow levers secured thereto, the links connecting said lever and cross head, and the casing inclosing the governor, substantially as described. 11th. In a gas engine, the combination, with the regulating valve, of the governor and the inclosing casing having an oil cup provided with a detachable cap or cover, substantially as described. 12th. In a combination with the cylinder, the piston and piston-rod, and yoke connecting with said rod, the yielding stuffing box arranged intermediate the cross head and piston and adapted to permit the piston-rod to vibrate without binding on the stuffing box, substantially as described. 13th. In a gas engine, a stuffing box comprising the cone shaped segmental ring or disc, the correspondingly recessed ring and the cap piece or follower fitted over said discs, and adapted to be screwed upon the cylindrical projection or hub of the cylinder head, substantially as described. 14th. The combination, in a gas or other engine, with the yoke or cross head R, crank shaft C, and anti-friction rolls r, and means for connecting said yoke or cross head and crank shaft, substantially as set forth. 15th. The combination, in a gas or other engine, the combination with the cross head or yoke R, of the travelling rolls r, adapted to relieve the wearing surfaces of friction, substantially as set forth. 16th. The combination, in a gas or other engine with the cross head R, the guide frame S and interposed travelling roll or rolls, substantially as set forth. 17th. The combination, in a gas or other engine, with the engine cylinder, piston or piston-rod b, the cross head or yoke R, secured to said piston or piston-rod, the guide frame S, rolls r interposed between the said cross head and guide frame of the cranked axle C, the sliding frame T, carrying rolls adapted to slide in a slot in the said cross head, the said sliding frame connecting the said cross head and cranked axle, substantially as set forth. 18th. In a gas engine, a tubular or hollow frame forming an oil reservoir provided with an absorbent lining or material for vapourizing the oil, substantially as described. 19th. In combination, with the tubular or hollow frame, the air inlet port or ports with check valve or valves therein, substantially as described. 20th. In a gas engine, the combination, with the oil receptacle having the air inlet thereto, the check valve provided with perforated or wire gauze protector or covering for the valve inlet, substantially *as described.* 21st. *In combination with the engine, the chimney* having wire gauze bottom, substantially as described. 22nd. In combination with the engine cylinder and valve chest, the chimney having an open top and perforated or wire gauze bottom, substantially as described. 23rd. A reciprocating valve for a gas engine, consisting of the hollow cylinder E closed at both ends, having centrally disposed inlet ports e, e, the igniting chambers e^3, e^2 extending through the said cylinder, outlet ports e^1, e^1 located at or near the ends of the said cylinder, and the dividing wall e^3, substantially as described. 24th. In combination, with the inlet valve chamber, the contractible tube or bulb communicating with the outer air, substantially as described. 25th. In a gas engine having the open ended cylinder, the screen covering said open end so as to protect the cylinder and piston from dust, &c., substantially as described.

No. 48,414. Folding Bed and Lounge.

(*Lit et causeuse pliant.*)



Jacob Samuel Shpira, Montreal, Quebec, Canada, 11th March, 1895; 6 years.

Claim.—1st. A combined folding bed, lounge and chair, comprising a frame formed in three sections pivotally connected together, the intermediate section provided with rigid legs and the foot and head forming sections provided with pivoted supports, the whole adapted to carry cushions or other filling, as set forth. 2nd. A combined folding bed, lounge, and chair comprising a frame formed in three sections pivotally connected together, the intermediate section provided with rigid legs, and pivoted arm-forming bars with pivoted supporting pawl adapted to engage notches in one of such bars, and the whole adapted to carry cushions or other filling, as set forth. 3rd. In a combined folding bed, lounge and chair frame, the combination of the pivoted sections A, B, C, legs d, supports a^2 and c^2, and arm forming bars g, h, with their supporting pawls k, and adapted to engage notches m, in the bars g, as and for the purpose set forth. 4th. In a combined folding bed, lounge and chair frame, the combination of the pivoted sections A, B, C, legs d, supports a^2 and c^2 folding end pieces e, an arm forming bars g, h, *with their supporting pawls* k, *adapted to* engage notches m, in the bars g, as and for the purpose set forth.

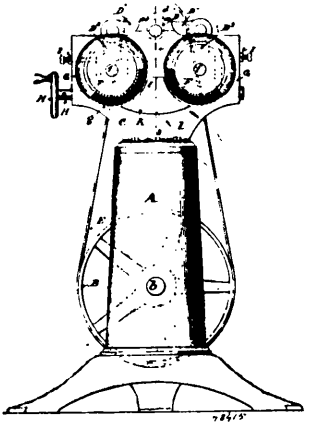
No. 48,415. Heel Burnishing Machine.

(*Machine à brunir les talons de chaussures.*)

John O. Collins, Marblehead, Massachusetts, U.S.A., 11th March, 1895; 6 years.

Claim.—1st. In a burnishing machine, the combination with supporting frame, of boxes F, adjustable to and from each other,

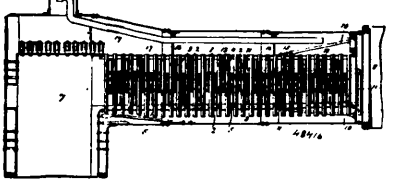
rock-shafts journalled respectively in the boxes and provided with burnishing discs, a rotary-shaft D, having a cam or eccentric, and connections between the cam or eccentric and the rock-shafts, substantially as described. 2nd. In a burnishing machine, the combination with a frame, of slidable boxes F, devices for sliding the boxes to and from each other, rock-shafts journalled respectively in



the sliding boxes, a drive shaft D, having a cam or eccentric D^1, links D^2, engaged at one end with the cam or eccentric and levers D^3, secured to the said rock shafts and pivoted to the said links, whereby the rock-shafts are simultaneously rocked by a single shaft, substantially as described. 3rd. In a burnishing machine, the combination with a standard having a head, of a pair of movable boxes arranged upon the head, devices for adjusting the boxes to and from each other, rock-shafts journalled respectively in the boxes and provided with burnishing discs, a drive shaft D, having a cam D^1, and devices connecting the cam with the rock-shafts for simultaneously rocking the latter by the action of the single shaft, substantially as described. 4th. In a burnishing machine, the combination with a frame of slidable boxes F, F, rocking burnishing discs G, G, journalled therein and a spindle H, having right and left hand screw threads working in corresponding screw threads in the slidable boxes for the purpose of simultaneously adjusting the burnishing discs to and from each other, substantially as described. 5th. In a burnishing machine, the combination with a supporting frame of boxes F, F, adjustable to and from each other, rock-shafts journalled respectively in the boxes and provided with burnishing discs G, G, and a yielding top lift support K, arranged between said burnishing discs, substantially as and for the purpose set forth.

No. 48,416. Water Tube Locomotive Boiler.

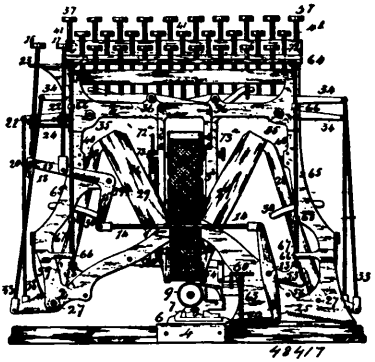
(Chaudière de locomotive à tuyau d'eau)



George J. Perkins, Truckee, California, U.S.A., 11th March, 1894; 6 years.

Claim.—1st. In a locomotive steam engine or other boiler, the combination with a fire box, of a tube chamber, a series of vertical and diagonal water tubes, the latter disposed in alternation with the said vertical tubes, the successive series of diagonal tubes being arranged in reverse directions, substantially as and for the purpose specified. 2nd. In a locomotive steam engine or other boiler, the combination with a fire box, of a tube chamber having flat top and bottom sheets and outwardly deflected sides, of a vertical series of water tubes bracingly attached at their ends to the said top and bottom sheets, and a series of diagonal water tubes attached bracingly at their ends to the outwardly deflected sides, the diagonal tubes being reversely disposed in succeeding order, and having a vertical series of tubes arranged between them, substantially as described. 3rd. In a locomotive steam engine or other boiler, the combination with a fire box, of a tube chamber composed of two or more overlapping sheets of metal, said tube chamber being flat at top and bottom and deflected outward at opposite sides, and having its surface a continuation of the crown sheet of said fire box and nearly on a level with the same, and communicating at one end with the fire box and at the other end with the smoke arch, and a series of vertical and diagonal water tubes, the diagonal tubes being reversely disposed and interspersed with the vertical tubes, which latter are bracingly attached at their ends to the said flat top and bottom, substantially as specified. 4th. In a locomotive steam engine or other boiler, the combination with a fire box, a tube chamber, a series of water tubes arranged therein in vertical and transverse angular positions, of pipes entering the said tube chamber for the admission of air or steam to aid combustion and automatic valves in the outer portions of said pipes, substantially as and for the purposes specified. 5th. In a locomotive steam engine or other boiler, the combination with a tube chamber, of pipes entering the same and having automatic valves in their outer portions and return bends at their inner portions, the said return bends having openings therein for the admission of smoke consuming jets into the tube chamber, substantially as and for the purposes specified. 6th. In a locomotive steam engine ar other boiler, the combination of a fire box, a tube chamber having its surface a continuation of the crown sheet of said fire box, and substantially on a level with the same and communicating at one end with the fire box and at the other end with the smoke arch, water tubes arranged vertically and diagonally or angularly in transverse directions, and an end head or sheet at each end of the tube chamber to connect the same with the fire box and outer shell, the forward end being provided with wash-out holes for the removal of sediment, and the said water tubes being provided near their extremities with beads or shoulders, substantially as and for the purposes specified. 7th. In a locomotive steam engine or other boiler, the combination with a fire box, and a tube chamber having its bottom side flattened, of a vertical series of water tubes bracingly attached at their lower ends to the flattened bottom of the tube chamber, the end tubes terminating about flush with the said flattened bottom, and the intermediate tubes projecting a short distance beyond the flattened bottom into the water space, substantially as described, for the purpose set forth.

No. 48,417. Type Writer. *(Clavigraphe.)*



Joseph March Webster, Liverpool, England, 11th March, 1895; 6 years.

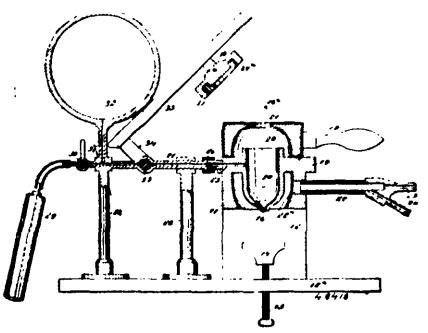
Claim.—1st. A type writing machine comprising a cylinder with feeding and spacing mechanism therefor, type levers arranged in two groups at opposite sides of said cylinder and carrying type above said cylinder, a centering device for said type levers, and type keys and connections for operating said type levers. 2nd. A type writing machine, comprising a cylinder capable of adjustment into different positions parallel with itself, means for thus adjusting said cyclinder, type carrying and operating mechanism having type levers arranged in two groups located at opposite sides of said cylinder and each carrying a plurality of type, a centering device located above said cylinder and below said type and feeding and spacing mechanism for said cylinder. 3rd. A type writing machine, comprising a cylinder capable of adjustment into different positions parallel with itself, means for thus adjusting said cylinder, type carrying and operating mechanism having type levers arranged in two groups located at opposite sides of said cylinder and each provided with a spring arm carrying a type block having several type, a centering device located above said cylinder and below the type blocks, type keys supported above said type lever spring arms and cylinder, and feeding and spacing mechanism, substantially as herein described. 4th. In a type writing machine, the combination with a cylinder and slides for supporting said cylinder so that it can move in a direction parallel to itself and also in the direction of its axis, of a lever 15 a finger

key 16 having its rod connected by a pin and slot connection to one arm of said lever, a finger key 17 having its rod pivoted to said lever at a point between said pin and slot connection and the fulcrum of the lever, stops for holding the respective keys in their depressed position, means for connecting the other arm of said lever with the slide for moving the cylinder parallel to itself, and a spring for returning said cylinder to its normal sideways position when said finger keys are released, substantially as described. 5th. In a type writing machine, the combination with a cylinder and means for feeding the same, of upwardly extending type levers arranged in two straight rows at opposite sides of the axis of said cylinder and each provided with a downwardly inclined spring bar carrying a type block at its lower end, a centering guide located above said cylinder and below the type blocks, finger keys arranged above said type levers and spring bars, and mechanism, substantially as described, connecting said finger keys with said type levers. 6th. In a type writing machine, the combination with a cylinder mounted in a frame provided with a rack bar, and two groups of type levers arranged at opposite sides of the axis of said cylinder, of connected levers provided with crank pins arranged adjacent to the respective groups of type levers so as to be operated by the depression of either of the type levers, a spring for returning said connected levers to their normal positions after being operated by a type lever, a lever pivoted to a fixed part of the machine and connected with one of said connected levers and a pawl carried by the last mentioned lever and adapted to engage said rack bar, substantially as described. 7th. The combination with the two sets of type levers 26, the cylinder 9 and rack 47 of the cylinder frame, of the two lever 51 and 55 connected by a link and provided with pins 56, 57, a spring for returning said levers to their normal positions, the bell crank lever 48 pivoted to a fixed part of the machine and connected with one of said levers, and a pawl 46, carried by said bell crank lever and adapted to engage said rack, substantially as described. 8th. In a type writing machine, the combination with a cylinder two groups of type levers arranged at opposite sides of the axis of said cylinder and a feeding device for imparting a step by step motion to said cylinder in the direction of its length, of levers connected with each other and with said feeding device and provided with crank pins or arms arranged adjacent to the respective groups of type levers so that said feeding device will be operated whichever type lever be depressed, and a spacing key arranged to actuate one or both of said connected levers when it is depressed, substantially as herein described. 9th. The combination with the two sets of type levers 26, the cylinder 9 and rack 47 of the cylinder frame, of the two levers 51 and 55 connected by a link and provided with pins 56, 57, a spring for returning said levers to their normal positions, the bell crank lever 48 pivoted to a fixed part of the machine and connected with one of said levers, a pawl 46 carried by said bell crank lever and adapted to engage said rack, a pin 62 carried by said pawl, and a spring-actuated arm 60 adapted when moved in opposition to its spring to engage said pin and throw said pawl out of engagement with said rack, substantially as described. 10th. In a type writing machine, the combination with the two groups of type levers arranged at opposite sides of the paper cylinder the centering device for said levers and feeding mechanism for operating said cylinder from said type levers, of an inking device comprising an inking ribbon led around the lower open end of said guide and wound on two spools, and pawl and lever mechanism operated from said feeding mechanism and capable of being thrown into gear with either of said spools at will, substantially as herein described. 11th. In a type writing machine, the combination with the two groups of type levers arranged at opposite sides of the paper cylinder, the centering device for said levers, and the connected levers 51 and 55 for operating the feeding mechanism of said cylinder from said type levers, of an inking device comprising an inking ribbon 69 led around the lower open end of said guide and above said cylinder spools 70 and 71 whereon said ribbon is wound, connected levers 74 and 75 carrying pawls adapted to be thrown in and out of gear with their respective spools, and means connecting said levers 74 and 75 with one of said levers 55 and 51, substantially as herein described and for the purpose specified.

No. 48,418. Casting Metal. (*Moulage de métal.*)

Edmond H. Casgrain, Quebec City, Quebec, Canada, 11th March, 1895; 6 years.

Claim.—1st. The herein described method of casting metal, which consists in forcing the molten metal from the crucible into the flask under air pressure, and maintaining the pressure until the metal cools. 2nd. An apparatus of the kind described, comprising a crucible having a bottom outlet and a suitable cover, an air reservoir, and a valve-controlled pipe leading from the reservoir to the crucible, substantially as described. 3rd. An apparatus of the kind described, comprising a crucible having a bottom outlet, an air reservoir, a valve-controlled pipe leading from the reservoir to the crucible, a lever to operate the valve, and a cover for the crucible, carried by the lever, substantially as described. 4th. An apparatus of the kind described, comprising a furnace, a blow pipe detachably connected therewith, a crucible in the furnace, having a bottom outlet, a cover for the crucible, and an air pipe connected with a source of air supply and with the upper part of the crucible, substantially as described. 5th. An apparatus of the kind described, comprising a furnace, a crucible supported therein, a temporary cover, an air pipe connected with a source of air supply and with the upper part of the crucible, a temporary cover for the crucible, a second cover for the crucible and means for securing the second cover, substantially as described. 6th. An apparatus of the kind described,



comprising a crucible having a bottom outlet, a furnace encircling and supporting the crucible, a cover for the crucible, means for forcing air into the upper part of the crucible, and a vertically-adjustable flask supported beneath the crucible, substantially as described. 7th. The combination, with the crucible having a bottom outlet, the air supply pipe connected with the crucible, and the valve controlling the air pipe, of the lever secured to the valve stem, and the cover pivoted on the lever and adapted to close over the crucible, substantially as described.

No. 48,419. Process of Manufacturing Fish Guano.

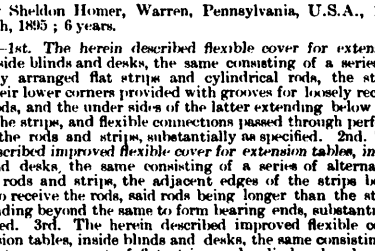
(*Procédé de fabrication de guano de poisson.*)

Edward Hosker, Vancouver, British Columbia, Canada, 11th March, 1895; 6 years.

Claim.—The use of a surface to drying pans composed of tiles, bricks, concrete, cement, or other earthen material, as and for the purposes described.

No. 48,420. Flexible Cover for Tables, Etc.

(*Couverture flexible pour tables, etc.*)

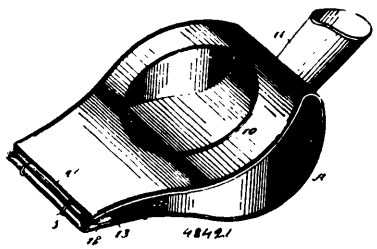


Chauncey Sheldon Homer, Warren, Pennsylvania, U.S.A., 12th March, 1895; 6 years.

Claim.—1st. The herein described flexible cover for extension tables, inside blinds and desks, the same consisting of a series of alternately arranged flat strips and cylindrical rods, the strips having their lower corners provided with grooves for loosely receiving the rods, and the under sides of the latter extending below the plane of the strips, and flexible connections passed through perforations in the rods and strips, substantially as specified. 2nd. The herein described improved flexible cover for extension tables, inside blinds and desks, the same consisting of a series of alternately arranged rods and strips, the adjacent edges of the strips being grooved to receive the rods, said rods being longer than the strips and extending beyond the same to form bearing ends, substantially as specified. 3rd. The herein described improved flexible cover for extension tables, inside blinds and desks, the same consisting of an alternate arrangement of flat strips and cylindrical rods, such strips having their upper corners slightly rounded and their lower corners grooved and receiving the rods, said rods and strips being provided with perforations, and the rods having their lower sides extending below those of the strips and flexible connecting devices passing through the perforations, substantially as specified. 4th. The herein described flexible cover for extension tables, inside blinds and desks, the same consisting of a series of sections loosely connected, a plurality of said sections having their lower sides rounded and extending below the remaining sections to form bearing surfaces, substantially as specified. 5th. The herein described flexible cover

for extension tables, inside blinds, desks, &c., the same consisting of a series of sections loosely jointed together, a plurality of said sections having their lower sides extending below the remaining sections and their ends projecting beyond those of said remaining sections forming bearing surfaces, substantially as specified.

No. 48,421. Bed Pan. (*Vase-de-lit.*)



Moses Samuel Diamond, New York, State of New York, U.S.A., 12th March, 1895; 6 years.

Claim.—1st. A bed pan provided with an opening adapted to be closed by a trap door, the opening and door being located at the lower forward portion of the pan, substantially as shown and described. 2nd. A bed pan provided with an opening in the lower portion of its forward end, a door adapted to normally cover the said opening, and a keeper whereby the door will be held in sealing contact with the walls of the said opening, as and for the purpose specified. 3rd. As an improved article of manufacture, a bed pan having an inclined upper surface and provided with an opening at its bottom at the extreme forward end, and with a door for closing the said opening, as and for the purpose specified. 4th. As an improved article of manufacture, a bed pan having an inclined upper surface and provided with an opening in its bottom at the extreme forward end, a door hinged to the bottom at the rear edge of the opening thereof, and means for locking the said door closed, substantially as described. 5th. In a bed pan, the combination with the body having an inclined upper surface and provided with an opening in its bottom at the extreme forward end, of a door hinged to the bottom at the rear edge of the opening thereof, and a yoke-shaped keeper hinged to the forward edge of the body of the opening and engaging the door to hold it closed, substantially as described. 6th. In a bed pan, the combination, with a body having an inclined upper surface and provided with an opening in its bottom at the extreme forward end, of a door hinged to the bottom at the rear edge of the opening thereof, an arched sealing cover secured to the upper surface of the door, and a keeper hinged to the forward edge of the pan and engaging the said door, substantially as described. 7th. A bed pan, the same comprising a body having an inclined upper surface and provided with an opening therein on the bottom at its closed or forward edge, a hinged door adapted to seal the said opening and capable of uncovering the same, a hinged keeper whereby the door is held in sealing position, and a tubular handle located at the rear of the body, substantially as shown and described.

No. 48,422. Electric Deposition of Aluminium and Aluminium Alloys. (*Déposition électrique d'aluminium et d'alliage d'aluminium.*)

Alfred Francis Bilderbeck Gomess, South Kensington, England, 12th March, 1895; 6 years.

Claim.—1st. In the process of the electro deposition and plating of aluminium the use of tartrate of aluminium in an aqueous bath. 2nd. In the process of the electro deposition and plating of aluminium the use of tartrate of aluminium in an aqueous bath in conjunction with a chloride of an alkali. 3rd. In the process of the electro deposition and plating of aluminium surrounding the anode or positive pole with hydrated oxide of aluminium, so that such oxide shall be kept in close proximity to the pole, at the same time allowing the acidulous radical to pass readily to and from the positive pole for the purpose described. 4th. In the process of the electro deposition and plating of aluminium alloys in an aqueous bath the use of tartrate of aluminium together with the salts of the metal forming the alloy. 5th. In the process of the electro deposition and plating of aluminium the use of salts of aluminium derived from other suitable acids containing two carboxyl groups in the molecule. 6th. The process of obtaining aluminium from its oxide in an aqueous bath. 7th. The process for the improvements in the electro deposition (whether plating or extraction) of aluminium, substantially as described. 8th. The process for the improvements in the electro deposition and plating of aluminium alloys, substantially as described.

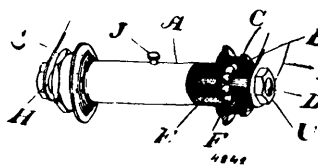
No. 48,423. Method of Coating Metals.

(*Méthode d'enduire les métaux.*)

Robert McKnight, Philadelphia, Pennsylvania, U.S.A., 12th March, 1895; 6 years.

Claim.—1st. The method of planting metals with aluminium, which consists in coating the foundation metal with a metallic substance more fusible than aluminium, and having an affinity for the foundation metal, and then dipping the metal into a bath of molten aluminium or alloy thereof, substantially as described. 2nd. The method of coating metals with aluminium which consists in coating the foundation metal with a metallic substance which is more fusible than aluminium, and has an affinity for the foundation metal, then treating this metal placed upon the foundation metal with acid, and then dipping the foundation metal thus treated into the aluminium or alloy thereof that is to form the coating, substantially as described. 3rd. In a method of coating metals with aluminium, the use of a material that is decomposable by the reagency of molten aluminium, producing an aluminium combination, soluble in molten aluminium upon the surface of the foundation before same is dipped into the molten aluminium, substantially as described. 4th. In a method of coating metals with aluminium, the use of a soluble salt of aluminium on the material to be coated as a flux, substantially as described. 5th. In a method of coating metals with aluminium, in which a salt forming a flux is deposited along with water on the metal to be coated, the drying of said salt previous to the dipping stage of the process in a material containing no free oxygen, substantially as described. 6th. The alloy of iron, aluminium and a metal having an affinity for iron and melting at a lower temperature than the aluminium the same being compounded, substantially as herein described.

No. 48,424. Bicycle Bearing. (*Coussinet de bicycle.*)

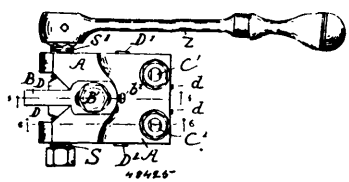


George Gilbert, Coventry, England, 12th March, 1895; 6 years.

Claim.—1st. In a bicycle bearing, an outer casing shaped to contain oil, in combination with cups closing the ends of the said casing, and an axle passing through the said casing and cups, which axle is provided with cones to form the complementary bearings for the balls running in the said cups, substantially as and for the purpose specified. 2nd. The combination of the casing A, the cups B screwed into the ends of the said casing, the axle D, carrying the cones E, and the balls F, running in the oil contained in the casing, substantially as and for the purpose specified. 3rd. The combination of the casing A, the cups B screwed into the ends of the said casing, the clamping nuts C, the axle D, carrying the cones E, and the balls F running in the oil contained in the casing, substantially as and for the purpose specified. 4th. The combination of the casing A, the cups B screwed into the ends of the said casing, the clamping nuts C on the said cups, the axle D, carrying the cones E, the balls F, the shoulders G, the washers H, the fork I, and the nuts J, substantially as and for the purpose specified.

No. 48,425. Device for Shaping Swaged Saw Teeth.

(*Appareil pour former les dents de scies etampées.*)

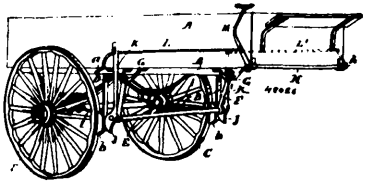


John F. Pribnow, Mellen, Wisconsin, U.S.A., 12th March, 1895; 6 years.

Claim.—1st. The combination, in a shaper for the points of saw teeth, of the frame-work, a stop, clamping jaws, and carrying blocks for said jaws, said carrying blocks being secured to the frame by two-sized bolts, whereby they serve both as pivots and securing bolts, substantially as set forth. 2nd. The combination, in a shaper for the points of saw teeth, of the framework, the clamping jaws, carrying blocks for said clamping jaws, and two-sized bolts uniting the same, said carrying blocks having perforations, and said frame having slots through which said bolts pass, the smaller portions of the bolts being flattened where they pass through said slots, and

said slots being equal in width to the smaller diameter of the bolts, whereby said bolts are prevented from turning, substantially as shown and described. 3rd. The combination, in a shaper for the joints of saw teeth, of the framework, carrying blocks for the clamping jaws pivoted to the framework, and said clamping jaws independently adjustable upon said carrying blocks, substantially as shown and described. 4th. The combination, in a shaper for the joints of saw teeth, of the framework, carrying blocks for the clamping jaws pivoted thereto, and said clamping jaws secured to said carrying blocks by bolts passing through slots and into said jaws, and set screws *d*, whereby the longitudinal adjustment of the jaws may be finely regulated, substantially as shown and described.

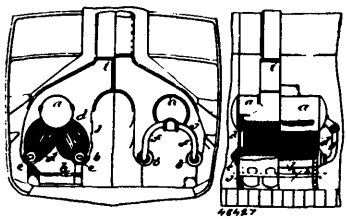
No. 48,426. Vehicle Brake. (*Frein de voiture.*)



De Lancy Haven, Detroit, Michigan, U.S.A., 12th March, 1895; 6 years.

Claim.—1st. In a vehicle brake, the combination with the wheel, of the eccentric head, the shoe lying against said head and adjacent to the wheel, and the lever for actuating said eccentric. 2nd. In a vehicle brace, the combination with the running gear, of the suspended shaft, the eccentric thereon, the shoe lying against said eccentric but independent therefrom, and the lever for actuating said eccentric. 3rd. In a vehicle brake, the combination with the running gear, of the suspended shaft, the tie-rods coupling said shaft to the axle, the eccentrics on said shaft, the shoes interposed between said eccentrics and the vehicle wheels, the lever arms extending from said eccentrics, the foot lever, and the rods connecting said arms thereto. 4th. In a vehicle brake, the combination with the axle and wheel the suspended shaft, the eccentrics thereon, the tie-rods coupling said shaft to the axle, the shoes depending from spring arms and interposed between said eccentrics and the vehicle wheels, and mechanism connected with said eccentrics whereby they may be actuated to throw said shoes against the wheels.

No. 48,427. Steam Boiler. (*Chaudière à vapeur.*)



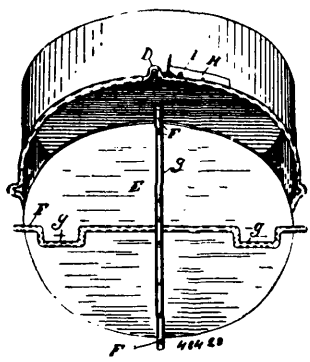
William Young Fleming and Peter Ferguson, both of Paisley, Scotland, 12th March, 1895; 6 years.

Claim.—1st. In a steam boiler, the combination of two or more water drums *b*, in proximity to the furnace, an independent steam and water drum *a*, in the uptake, and drum *a* and *b*, being independent of each other, a number of small water tubes *d*, connecting the drums *b* and *a*, and each adapted to be withdrawn into the main drum *a*, and independent circulating tubes *f*, fitted outside of the furnace and smoke casing and connecting the lower drums with the upper drum and having a capacity sufficient to give a supply of water equal to that flowing through the small tubes *d*, substantially as and for the purposes described.

No. 48,428. Carrying Case. (*Caisse à transport.*)

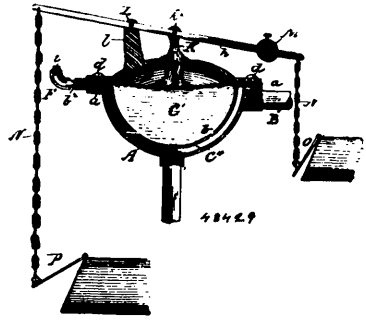
Thomas James Byers, Eganville, Ontario, Canada, 12th March, 1895; 6 years.

Claim.—1st. A carrying case having a closed top provided with a handle, and a removable bottom having arms protruding from its edge outward to engage in gaps formed in the wall of the case, substantially as shown and described. 2nd. A carrying case, provided with a removable bottom from the edge of which arms protrude radially, and engage in gaps formed in the vertical wall of the case, and in which said arms are held by a suitable locking device, substantially as herein set forth. 3rd. A carrying case having a closed top and and handle, and a cylindrical wall, in the bottom edge of which are made gaps C, and in which a stiffening wire B, having the loops D, is fixed crossing said gaps, and a removable bottom



having the feet or bows *g*, and the radial arms F, and a spring H, attached to the wall of the case, and having formed in it a notch I, taking over the arm F, substantially as shown and described.

No. 48,429. Draft Regulator. (*Régulateur du tirage.*)



James J. Lawler, Scranton, Pennsylvania, U.S.A., 12th March, 1895; 6 years.

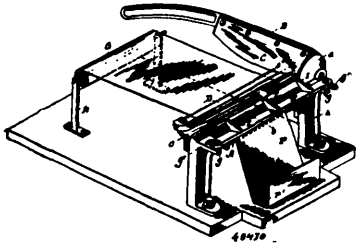
Claim.—1st In a draft regulator the combination of the hemispherical receptacle having flanges, an outer casing parallel therewith forming a chamber intermediately, said outer casing being provided with flanges and having inlet and outlet pipes through which the heating medium reaches the chamber, the diaphragm, the the piston actuated thereby to which is pivoted the lever carrying the chains or connection operating the doors, substantially as described. 2nd. In a draft regulator, the combination of the hemispherical receptacle, the outer casing running parallel therewith and forming a chamber intermediately, the inlet and outlet pipes communicating with the chamber, the supply pipe, the diaphragm, the piston actuated thereby which in turn communicates motion to the pivoted lever, substantially as described. 3rd. In a draught regulator, the combination of the hemispherical receptacle, the outer casing running parallel therewith, and forming a chamber intermediately, said outer casing having inlet and outlet pipes as described, the supply pipe leading to the receptacle, the diaphragm, the piston actuated thereby, and the lever pivoted to the piston and bifurcated arm, and the connections extending from the lever to the draft doors, as and for the purpose specified.

No. 48,430. Machine for Manufacturing Supplementary Metallic Shingle Strips. (*Appareil pour la fabrication de bande de bardeau métallique.*)

Charles Henry Dana, West Lebanon, New Hampshire, U.S.A., 12th March, 1895; 6 years.

Claim.—1st. The machine for the purpose described, comprising a frame, a longitudinal slot therein, an oscillating lever pivoted to said frame, a toothed cutter blade carried by said lever, a holding guide, and a gage, substantially as specified. 2nd. The machine for the purpose described, comprising a frame, a longitudinal slot therein, an oscillating lever pivoted to said frame, a cutter blade carried by

said lever and having a curved edge, and a holding guide and gage, said cutter having doubled bevelled teeth forming a direct forcing cut, substantially as specified. 3rd. The machine for the purposes described, comprising a frame, a longitudinal slot through the



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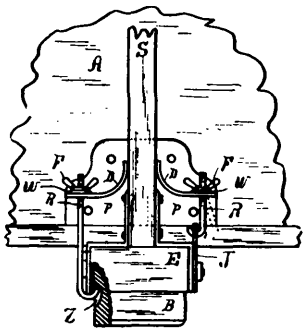
horizontal bar of said frame, an oscillating lever pivoted to one end portion of said frame, a cutter blade carried by said lever and having a curved serrated or toothed edge, a holding guide, and an adjustable gage having holding lugs, substantially as specified. 4th. In a machine for cutting supplementary shingle strips, the combination, with a frame having a narrow longitudinal slot therein, of an oscillating cutter pivoted to said frame and having a longitudinally curvex cutting edge formed with a series of fine double bevelled teeth, substantially as specified.

No. 48,431. Wagon Body Fastener.

(*Attache pour boîtes de wagon.*)

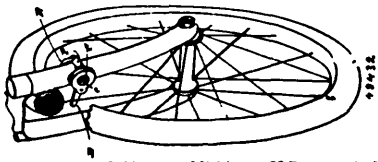


48431

Clinton D. Bradshaw, Derby, Kansas, U.S.A., 13th March, 1895; 6 years.

Claim.—1st. The combination, with the wagon body and bolster, of the plate P secured to the said body, and provided with wings D, D, the slotted plates J fixed to the said bolster, and the hooked bolts R, R, for detachably connecting said plates in the manner, substantially as and for the purpose specified. 2nd. In combination, with a wagon, the plates P provided with the laterly extending curved wings D, D, and adapted to be secured to the wagon body between the sides thereof, and the bolster stakes with one of said wings resting at each side of each of said stakes, and the hooked bolts R, R, and the thumb nuts F, F, thereof for detachably connecting said plates with fixtures of said bolsters, substantially as and for the purpose specified.

No. 48,432. Bicycle Lock. (*Serrure de bicycle.*)



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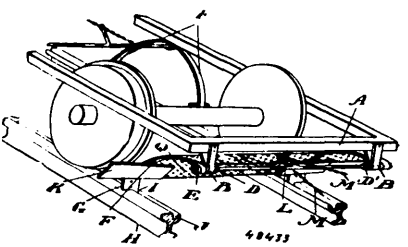
Thomas A. Hilton, Coldwater, Michigan, U.S.A., 13th March, 1895; 6 years.

Claim.—In a bicycle lock, the combination of a casing provided with posts adapted to embrace a fixed part of the bicycle, and a yoke adapted to secure the lock to the bicycle, a swinging locking bolt, and locking mechanism adapted to lock the same in either of two positions, substantially as described.

No. 48,433. Rail Cleaner. (*Nettoyeur de rail.*)



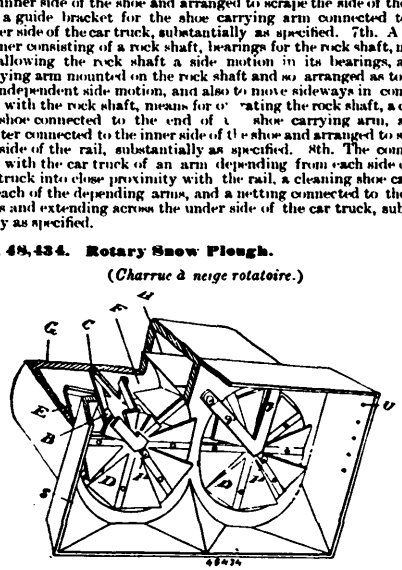
48433

Robert Leslie, Toronto, Ontario, Canada, 13th March, 1895; 6 years.

Claim.—1st. A track cleaner consisting of a rock shaft, a shoe carrying arm mounted on the end of the rock shaft, a cleaning shoe connected to the lower end of the arm and arranged to scrape the top of the rail, substantially as specified. 2nd. A track cleaner consisting of a rock shaft, a shoe carrying arm mounted on the end of the rock shaft, a cleaning shoe connected to the lower end of the arm and arranged to scrape the top of the rail, and a coulter connected to the shoe and extending down the side of the rail, substantially as specified. 3rd. A track cleaner consisting of a rock shaft, a shoe carrying arm mounted on the end of the rock shaft, a cleaning shoe connected to the lower end of the arm and arranged to scrape the top of the rail, and a mould board connected to the said arm and shoe, substantially as specified. 4th. A track cleaner consisting of a rock shaft, a shoe carrying arm mounted on the end of the rock shaft, a cleaning shoe connected to the lower end of the arm and arranged to scrape the top of the rail, a coulter connected to the shoe and extending down the side of the rail, and a mould board connected to the said arm and shoe, substantially as specified. 5th. A track cleaner consisting of a shoe carrying arm, a cleaning shoe connected to the lower end of the arm arranged to scrape the top of the rail, a coulter connected to the inner side of the shoe and arranged to scrape the side of the rail, substantially as specified. 6th. A track cleaner consisting of a shoe carrying arm, a cleaning shoe connected to the lower end of the arm arranged to scrape the top of the rail, a coulter connected to the inner side of the shoe and arranged to scrape the side of the rail, and a guide bracket for the shoe carrying arm connected to the under side of the car truck, substantially as specified. 7th. A track cleaner consisting of a rock shaft, bearings for the rock shaft, means for allowing the rock shaft a side motion in its bearings, a shoe carrying arm mounted on the rock shaft and so arranged as to have an independent side motion, and also to move sideways in conjunction with the rock shaft, means for operating the rock shaft, a cleaning shoe connected to the end of the shoe carrying arm, and a coulter connected to the inner side of the shoe and arranged to scrape the side of the rail, substantially as specified. 8th. The combination with the car truck of an arm depending from each side of the car truck into close proximity with the rail, a cleaning shoe carried by each of the depending arms, and a netting connected to the said arms and extending across the under side of the car truck, substantially as specified.

No. 48,434. Rotary Snow Plough.

(*Charrue à neige rotatoire.*)



48434

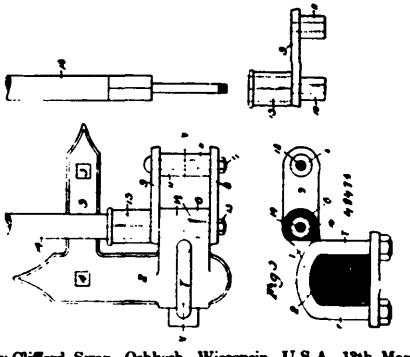
Fred Dallas Linton, Toronto, Ontario, Canada, 13th March, 1895; 6 years.

Claim.—1st. A snow plough consisting of a fan chamber, a fan within the fan chamber consisting of a series of cutting blades and a series of throwing blades, and a discharge chute from the fan chamber, substantially as specified. 2nd. A snow plough consisting of a fan chamber, a fan within the fan chamber, consisting of a hub, a

series of radial spooks connected to the outer end of the hub, a series of tangential spokes connected to the inner end of the hub, a blade connected to each of the radial spokes and arranged to transversely cross the horizontal axis of the shaft, a cutting blade connected to the outer side of each of the radial spokes and a discharge chute from the fan chamber, substantially as specified. 3rd. A snow plough consisting of a fan chamber, a fan within the fan chamber consisting of a series of cutting blades and a series of throwing blades, a discharge chute from the fan chamber, and an adjustable lid for the end of the discharge chute to regulate the distance which the snow is to be thrown, substantiallyas specified 4th. A snow plough consisting of a fan chamber, a fan within the fan chamber, consisting of a hub, a series of radial spokes connected to the outer end of the hub, a series of tangential spokes connected to the inner end of the hub, a blade connected to each of the radial spokes and arranged to transversely cross the horizontal axis of the shaft, a cutting blade connected to the outer side of each of the radial spokes a discharge chute from the chamber, and an adjustable lid for the end of the discharge chute to regulate the distance which the snow is to be thrown, substantially as specified. 5th. A snow plough consisting of a frame, a fan chamber within the frame, a discharge chute from the fan chamber opening through the side of the frame, a lid hinged to the frame and arranged to close the end of the discharge chute, guides connected to the frame and arranged one on either side of the discharge chute, a pin connected to each side of the lid and arranged to work in said guides, a lever to open and close the said lid, and a fan arranged to revolve within the fan chamber, substantially as specified. 6th. A snow plough consisting of a frame, a fan chamber within the frame, a discharge chute from the fan chamber opening through the side of the frame, a lid hinged to the frame and arranged to close the end of the discharge chute, guides connected to the frame and arranged one on either side of the discharge chute, a pin connected to each side of the lid and arranged to work in said guides, a lever to open and close the said lid, a fan arranged to revolve within the fan chamber, consisting of a hub, a series of radial spokes connected to the outer end of the hub, a series of tangential spokes connected to the inner end of the hub, a blade connected to each of the radial spokes and the corresponding tangential spoke transversely crossing the horizontal axis of the hub, and a cutting blade connected to the outer side of each of the radial spokes, substantially as specified. 7th. A snow plough consisting of a frame, a fan chamber within the frame, a discharge chute from the fan chamber opening through the side of the frame, a lid hinged to the frame and arranged to close the end of the discharge chute, guides connected to the frame and arranged one on either side of the distharge chute, a pin connected to each side of the lid and arranged to work in said guides, a lever to open and close the said lid, a fan arranged to revolve within the fan chamber consisting of a hub, a series of radial spokes connected to the outer end of the hub, a series of tangential spokes connected to the inner end of the hub, a blade connected to each of the radial spokes and the corresponding tangential spoke transversely crossing the horizontal axis of the hub, a cutting blade connected to the outer side of each of the radial spokes, a shaft for each of the fans, the outer end of which is supported by a V-shaped bracket connected to the front of the frame, the rear end of which is mounted in a bearing in the frame, and mechanism for causing the revolution of the said shaft, substantially as specified. 8th. A snow plough consisting of a frame, a fan chamber within the frame, a discharge chute from the fan chamber, a fan arranged to revolve within the fan chamber, and an outwardly flaring mouth for the frame arranged to scoop the snow into the fan, substantially as specified.

No. 48,435. Spring Shackle for Vehicles.

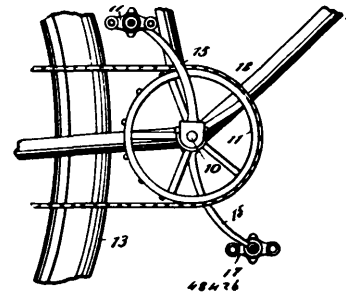
(*Manille à ressort pour voitures.*)



Henry Clifford Swan, Oshkosh, Wisconsin, U.S.A., 13th March, 1895; 6 years.

Claim.—1st. An axle plate having a laterally projecting perch plate and a separate lateral shackle-barrel, both of which are integral therewith and shackle links interfitting with the barrel, substantially as described. 2nd. A spring shackle, comprising two side links, each having inwardly projecting half barrels, and one of the links having an outwardly projecting squared socket for the equalizing rod, substantially as described. 3rd. A spring shackle having separate side links, in combination with an equalizing rod extending through the side links and connecting them together as a bolt, substantially as described.

No. 48,436. Bicycle Crank. (*Manivelle de bicycle.*)



Ferdinand F. Ide, Peoria, Illinois, U.S.A., 13th March, 1895; 6 years.

Claim. 1st. As an improved article of manufacture, a curved bicycle crank made of spring material, substantially as described. 2nd. The combination, with the pedal shaft of a bicycle, of a curved crank secured thereto and adapted to partly straighten under pressure, substantially as described.

No. 48,437. Clover Seed Attachment for Mowers.

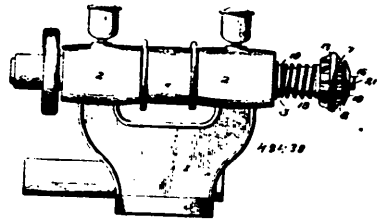
(*Attache de semoir pour faucheuses.*)

Daniel Crough, Ennismore, Ontario, Canada, 13th March, 1895; 6 years.

Claim.—1st. The combination with the cutter bar of a mower, of a rearwardly extending table secured thereto, a box or receptacle secured to the rear of the table, and a lid or top for the box comprising a frame suitably secured in position and a coarse open woven wire cloth attached to such frame, as and for the purpose specified.

No. 48,438. Sole Trimming Machine.

(*Machine pour dresser les semelles.*)

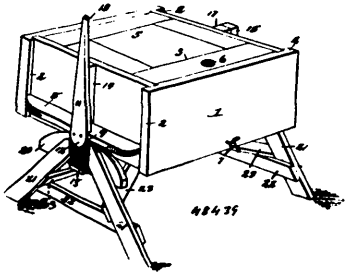


John Berry Emery, Lynn, Massachusetts, U.S.A., 13th March, 1895; 6 years.

Claim.—1st. The combination in a sole-trimming machine, of a rotating-shaft having at one extremity a slotted, radially expansible and contractible cylindrical bearing, a cutter having a bore adapted to receive said bearing, and means for expanding the slotted bearing to centre the cutter and compensate for any wear of the bearing, substantially as described. 2nd. The combination in a sole-trimming machine, of a rotating-shaft having at one extremity a cylindrical bearing composed of radially expansible and contractible segments sections, a screw engaged with the shaft and having a coni-

cal head for radially expanding the segmental sections and a central screw-threaded socket for receiving a clamping-bolt, a cutter centered on the said bearing by the adjustment of the conically headed screw, a yielding feather-edger or rest, and a disc-guard interlocked with the cutter and held by the clamping-bolt, substantially as described. 3rd. The combination in a sole-trimming machine, of a rotating-shaft having one end provided with a screw-threaded socket, and a series of longitudinal slots to form a cutter-bearing composed of a series of radially expansible and contractible segmental sections, a screw engaged with said socket and having a conical head and a central screw-threaded socket, a cutter centre-rod on the said cutter bearing, a guard at the end of the shaft, and a clamping-bolt passing through the guard into the screw-socket in the conically headed screw, substantially as described.

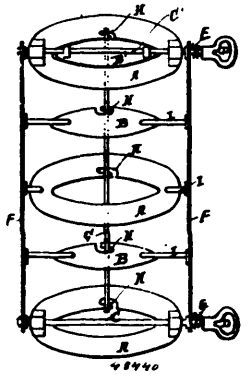
No. 48,439. Churn. (*Baratte.*)



Madts Hanson, Blair, Wisconsin, U.S.A., 13th March, 1895; 6 years.

Claim.—In a churn, the combination with an oscillating churn body, of the opposite bearing blocks mounted therein and located at the bottom thereof, and provided with angular recesses forming opposite inclined shoulders or stops, one of the blocks being provided with a bearing opening and the other having a vertical slot, and the automatically oscillating blade provided at its ends with trunnions removably arranged in the bearing opening and the groove of the bearing blocks, said plate having its ends located in the angular recesses between the opposite shoulders, substantially as described.

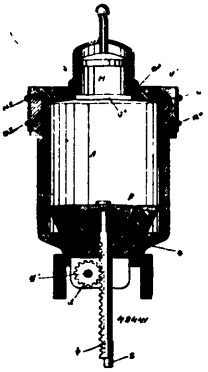
No. 48,440. Smoke-pipe Damper. (*Régistre pour tuyaux.*)



Benjamin Frigon, Montreal, Quebec, Canada, 13th March, 1895; 6 years.

Claim.—1st. In a compound smoke-pipe register, the combination of movable rings A, and discs B, supported on axles in the uprights F, substantially as and for the purpose hereinbefore set forth. 2nd. In a compound smoke-pipe register, the combination of the rod G jointed with the rings A, and discs B, by means of jintles H, said rod G, operating the rings A, and discs B, through the driving axle C, substantially as and for the purpose hereinbefore set forth. 3rd. In a compound smoke-pipe register, the combination of disc B^1, supported by axle c^1, and operating within the upper ring A, independently of the rest of the machine, substantially as and for the purpose hereinbefore set forth.

No. 48,441. Butter Mould. (*Moule à beurre*)

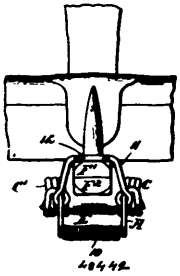


Napoleon Lefebvre, Montreal, Quebec, Canada, 13th March, 1895; 6 years.

Claim.—1st. A butter moulding press, composed of a cylinder A, base frame G, cover a^1, having openings a^2, and channels a^2, piston B, provided with a rack b, sliding in a U-shaped guide C, pinion d, shaft d^1, ratchet lever D, and clamping screws F, substantially as described and for the purposes set forth. 2nd. The combination of a butter moulding machine, composed of a cylinder A, base frame G, cover a^1, having openings a^2, and channels a^2, piston B, provided with a rack b, sliding in a U-shaped guide C, pinion d, shaft d^1, ratchet lever D, and clamping screws F, with the ordinary butter moulds H, substantially as described and for the purposes set forth.

No. 48,442. Anti-Rattler for Thill Couplings.

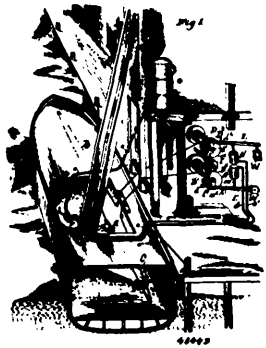
(*Compensateur pour armons de limonières.*)



Frank P. Johnson, Danville, Pennsylvania, U.S.A., 13th March, 1895; 6 years.

Claim.—1st. An anti-rattling attachment for thill coupling, the same consisting of a spring body provided with a shoe at one extremity, adapted for engagement with the socket member of the thill coupling, and a yoke at the opposite end of the body, adapted for engagement with the clip member of the coupling, as and for the purpose set forth. 2nd. An anti-rattling attachment for thill couplings, the same consisting of a spring body capable of being bent to an angular form, one end of the body being provided with a shoe adapted for engagement with the eye or socket of the thill coupling, and a yoke adjustably carried at the other or opposite end of the body, adapted for locking engagement with the clip section of the coupling, as and for the purpose specified. 3rd. In an anti-rattling attachment for thill couplings, a body constructed of spring wire, comprising two loops united by coils, one of the loops at one of its extremities beneath the body having its members spring connected, a yoke movably mounted on the loop having a spring end, and a shoe located upon the opposite side of the opposite loop, substantially as and for the purpose specified. 4th. Anti-rattling attachment for thill couplings, comprising two loops connected by coils, and a wear-plate having lugs for entering the coils of the loops and provided with a shoe against which one of the loops rests, substantially as described. 5th. An anti-rattling attachment for thill couplings, consisting of two loops connected by coils, a wear-plate formed of two sections secured together, one section being concave on its inner face and the other provided with lugs fitting in the coils of the loops, and a tail loosely connected with one of the said loops, substantially as herein shown and described.

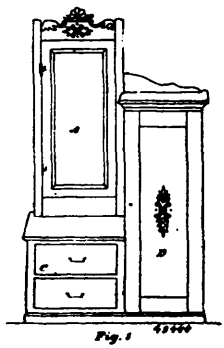
No. 48,443. Device for Transmitting Power by Compressed Air or Other Fluids. (*Appareil pour transmettre la force au moyen de l'air comprimé ou autres fluides*)



James George Westbrook, Ogdensburg, New York, U.S.A., 13th March, 1895; 6 years.

Claim.—1st. In a system of power transmission, a cylinder and piston situated adjacent to the work, a valve at a distance from the cylinder and situated at the point of control, and a pipe connecting the valve with the cylinder, substantially as described. 2nd. In a system of power transmission, the combination of a cylinder and a piston adjacent to the work, a valve casing at a distance from the cylinder and situated at the point of control and provided with inlet, outlet and exhaust ports, a reservoir of fluid under pressure connected with said inlet ports, pipes from said outlet ports to said cylinder, and a valve in said valve casing adapted to connect said outlet port alternately with said inlet and said exhaust ports, substantially as described. 3rd. In a friction gearing, the combination with the friction disc, and drums adapted to be actuated thereby, of cylinders operated by compressed air or steam, and arranged to connect and disconnect said drums with and from the friction discs, substantially as described. 4th. In friction gearing, a valve adapted to control the cylinder which connects and disconnects the friction gearing and provided with inlet and exhaust ports, substantially as described.

No. 48,444. Wardrobe, etc. (*Garde-robe, etc.*)



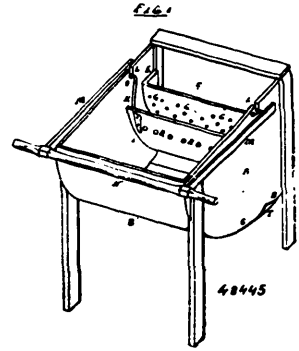
Mathew Charles Drew, Burk's Falls, Ontario, Canada, 13th March, 1895; 6 years.

Claim.—1st. The combination of the dresser C, with the wardrobe D, and the cupboard B, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the dresser C, with the wardrobe D, above, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of the mirror A and the cupboard B, substantially as and for the purpose hereinbefore set forth.

No. 48,445. Washing Machine. (*Machine à laver.*)

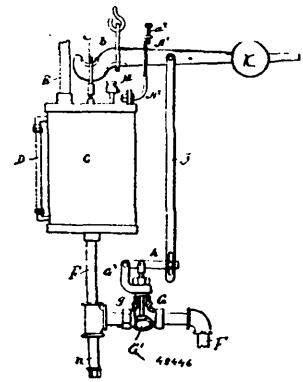
Abel Eliphlet Hammond, Mansonville, Quebec, Canada, 13th March, 1895; 6 years.

Claim.—The combination, in a washing machine, of a rectangular tank A, provided with a double curved bottom, B, C, D, a water chamber F, formed by a perforated and corrugated partition E, and a perforated and corrugated dasher I, suspended by the arms K,



K, from bearings in the sides of the tank A, and operated by arms or levers M, M, and cross-bar N, oscillating longitudinally within the tank A, substantially as and for the purpose hereinbefore set forth.

No. 48,446. Steam Trap. (*Purge de tuyau de vapeur.*)

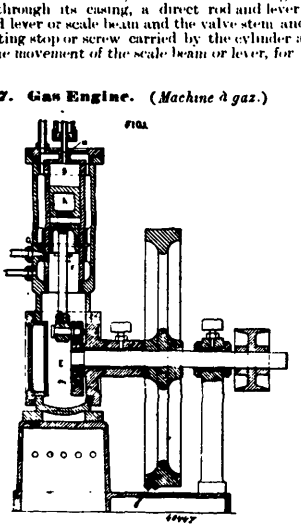


Michael Partington, Fall River, Massachusetts, U.S.A., 14th March, 1895; 6 years.

Claim.—1st. In a steam trap, the combination with the water collecting cylinder suitably hung and having suitable inlet and outlet, the latter provided with valve chamber and valve, a valve controlled sediment collecting extension intermediate of said cylinder and the valve in the outlet pipe therefrom, for the purpose set forth. 2nd. In a steam trap, the combination of a suitable support or hanger, a lever or scale beam suspended from such hanger, a water collecting cylinder hung from one end of said lever and a counterpoise carried by the opposite end thereof, the said cylinder having suitable inlet and outlet, the latter provided with valve chamber and valve and the valve having a plain stem projecting through its casing, a direct connection between said lever or scale beam and the valve stem and a regulating device mounted on said cylinder and adapted to control the extent of movement of said lever, substantially as and for the purpose set forth. 3rd. In a steam trap, the combination of the following elements, a suitable support or hanger, a water cylinder having steam and water inlet and outlet with valve chamber and valve controlling the outlet and an automatic valve controlled air outlet, a lever or scale beam suspended from said hanger, and from one end of which scale beam the cylinder is hung, a counterpoise carried by the opposite end of said beam, the said valve having a plain stem projecting through its casing, and a direct connection between said scale beam and valve stem, for the purpose set forth. 4th. In a steam trap, the combination of the following elements, a suitable support for hanger, a water cylinder having inlet and outlet with valve chamber and valve controlling the outlet, a lever or scale beam suspended from said hanger, and from one end of which scale beam the cylinder is hung, a counterpoise carried by the opposite end of said beam, the said valve having a plain stem projecting through its casing and a direct rod and lever connection between said scale beam and valve stem, a

regulating device mounted on said cylinder and adapted to control the extent of movement of said lever, and an automatic valve controlled air outlet, for the purpose set forth. 5th The combination of a suitable support or hanger, a lever or scale beam suspended from such anger, a water collecting cylinder hung from one end of said lever and a counterpoise carried by the opposite end thereof, the said cylinder having suitable inlet and outlet, the latter provided with valve chamber and valve, and the valve having a plain stem projecting through its casing, a direct rod and lever connection between said lever or scale beam and the valve stem and an adjustable regulating stop or screw carried by the cylinder and adapted to control the movement of the scale beam or lever, for the purpose set forth.

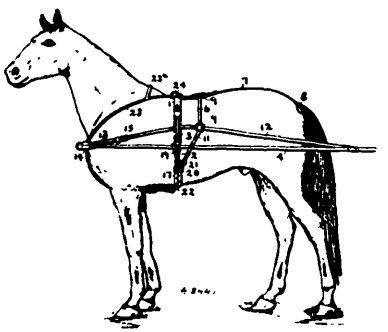
No. 48,447. Gas Engine. (*Machine à gaz.*)



Frederick William Caswell Cock, Erith, England, 14th March, 1895; 6 years.

Claim.—The construction of gas engines as described wherein the inlet or ports F and (or) G, is or are so placed in reference to the piston A, as to be controlled by the movements of that piston, being opened and closed when the piston is near the extreme of its return stroke, the piston being furnished with a shield or deflector O, or the alternative provisions before mentioned to prevent the incoming current of mixture from escaping at the exhaust port before ignition, substantially as hereinbefore described.

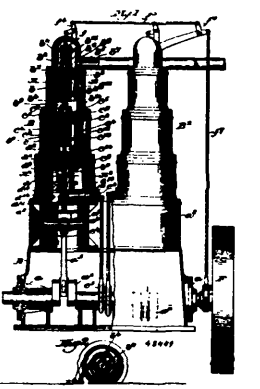
No. 48,448. Harness. (*Harnais.*)



Charles A. Rahn, Cleveland, Ohio, U.S.A., 14th March, 1895; 6 years.

Claim.—1st. The combination, in a harness, of a saddle provided with the straps 2, having adjusting buckles and secured to said saddle above the guides 5, a supplementary saddle strap back of said saddle and connected thereto by the back-strap and an adjusting buckle, said saddle strap extending downward and forward and having an adjusting buckle on each side, the continuous straps 12, adjustably secured to said straps 2, and said supplementary saddle strap by said buckles, a combined belly-girth and sheath buckling to said straps 2, and the straps 19 and 20 passing through said heath, the latter buckling to said supplementary saddle straps, substantially as and for the purpose set forth. 2nd. The combination, in a harness, of a saddle provided with the straps 2, having adjusting buckles thereon, and secured to said saddle above the guides 5, a supplementary saddle strap back of said saddle and connected therewith by the back-strap and an adjusting buckle, said saddle strap extending downward and forward and having an adjusting buckle on each side, the continuous straps 12, adjustably secured to said straps 2, and said supplementary saddle strap by said buckles, straps connecting said caps with said straps 12, a combined belly-girth and sheath buckling to said straps 2, and the straps 19 and 20 passing through said sheath, the latter buckling to said supplementary saddle strap, substantially as and for the purpose set forth. 3rd. In combination with a harness, the cap 14 having perforations therein, and the strap 13, passing into and out of said cap through said perforations, substantially as and for the purpose set forth. 4th. In combination with a harness, a belly-girth provided with a tab and buckle at each end, each end of said girth being provided with a hole, and the sides of the girth laced together to form a sheath for the reception of one or more supplemental straps, substantially as and for the purpose set forth.

No. 48,449. Steam Engine. (*Machine à vapeur.*)



Pardon Armington, Providence, Rhode Island, U.S.A., 14th March, 1895; 6 years.

Claim.—1st. A single acting engine containing the following instrumentalities, viz:—a series of cylinders arranged tandem and pistons therein, receivers interposed between the several cylinders and in open communication with the cylinders at one of their ends and separated from and by the heads of the cylinders at their opposite ends, fixed valve seats for and at the closed ends of the respective cylinders, ports leading therefrom to the respective cylinders and to the receivers in open communication therewith, and a valve co-operating with said valve seat, substantially as described. 2nd. An engine containing the following instrumentalities, viz:—a cylinder, an interiorly arranged conducting chamber, a piston having a relative movement to said chamber, one or more passages connecting said conducting chamber and cylinder, and a valve or valves and means to operate the same, substantially as described. 3rd. An engine containing the following instrumentalities, viz:—a cylinder, an interiorly arranged conducting chamber, a surrounding ring-like piston having a relative movement to said conducting chamber, one or more passages connecting said conducting chamber and cylinder, and a valve or valves working within said conducting chamber and controlling said passages, substantially as described. 4th. A single acting engine containing the following instrumentalities, viz:—a series of cylinders arranged tandem, interposed receivers, each in open communication with the cylinder at one end and separated from and by the head of the cylinder at its opposite end, passages in the said cylinders, fixed valve seats for and at the closed ends of the respective cylinders, ports leading therefrom to the respective cylinders and to the receivers in open communication therewith, valves co-operating with said valve seats, a crank-shaft, its crank connected with and operated by said passages, and means on the crank-shaft connected with and to operate said valve or valves, substantially as described. 5th. An engine containing the following instrumentalities, viz:—a cylinder, an interiorly arranged conducting chamber in fixed relative position thereto, a surrounding ring-like piston, one or more passages connecting said conducting chamber and cylinder, a valve or valves in said chamber, a crank-shaft, its crank connected with said piston, and means on the crank-shaft connected with and to operate said valve or valves, substantially as described. 6th. An engine containing the following instrumentalities, viz:—a cylinder, an interiorly arranged conducting chamber in fixed relative position thereto, a surrounding ring-like piston, passages connecting said valve chamber and cylinder, the main and cut-off valve s

controlling the flow of steam to and from said cylinder, substantially as described. 7th. An engine containing the following instrumentalities viz:—a series of cylinders arranged axially in line, conducting chambers concentrically arranged in the respective cylinders, passages connecting said conducting chambers and cylinders, valves, a common actuator for the same, and pistons in the said cylinders surrounding and having a relative movement to said conducting chambers, substantially as described. 8th. An engine containing the following instrumentalities, viz: a cylinder closed at one end, a conducting chamber concentrically arranged within the same, a receiver at the open end of and in open communication with the said cylinder and conducting chamber, steam passages adjacent the closed end of the steam cylinder, a valve or valves controlling said passages, a piston surrounding said conducting chamber and having a relative movement thereto, substantially as described. 9th An engine containing the following instrumentalities, viz:—a cylinder, its head, a conducting chamber depending from said head, and connecting passages leading to said cylinder, a valve or valves in said conducting chamber and controlling said passages, and a piston in said cylinder surrounding said chamber, substantially as described. 10th. An engine containing the following instrumentalities, viz: a cylinder, a conducting chamber extended both above and below the cylinder head, steam passages leading from said chamber to said cylinder, steam inlet ports leading to said conducting chamber above said cylinder head, a main valve in said chamber controlling the passage of steam through said passages, and a balancing valve arranged at the opposite sides of said ports and movable by and with said main valve, and a piston surrounding said conducting chamber and having a relative movement thereto, substantially as described. 11th. An engine containing the following instrumentalities, viz:—a series of cylinders arranged axially in line, concentrically arranged conducting chambers in the respective cylinders, connected valves working in said conducting chambers, pistons in the respective cylinders surrounding said conducting chambers, and a plurality of piston rods, connecting one piston with another whereby all move in unison, substantially as described.

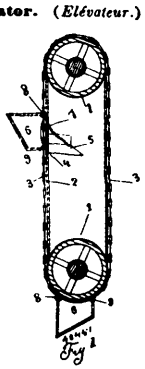
No. 48,450. Composition for use in Lettering, Etc.

(*Composition pour le tracement des lettres.*)

Doctor August Kirschmann, and Robert Foster Hogg, both of Toronto, Ontario, Canada, 14th March, 1895; 6 years.

Claim.—The combination of matter made by placing a leaf of metal, as genuine gold, silver, aluminum, &c., between two translucent media of greatest thinness especially mica.

No. 48,451. Elevator. (*Elévateur.*)



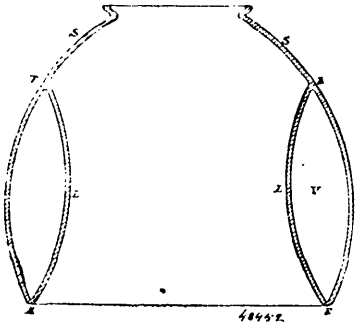
Reuben J. Melius, Bath-on-the-Hudson, New York, U.S.A., 14th March, 1895; 6 years.

Claim.—An elevator having a guide floor with an opening in it and revolving devices around which are carried buckets, said buckets having the rear side coming in proximity to and passing over the periphery of the revolving devices in the form of a curved automatically opening and closing pivoted door, said door being arranged to have movement about the pivot that any movement of the door shall not operate to rack the rigid walls of the bucket, the curvature of the door and that of the revolving devices around which and over which it passes being practically of the same radius, said curved door being arranged to open and discharge its contents when the bucket reaches an opening in the guide floor and to close after the bucket has discharged its load, as and for the purposes described.

No. 48,452. Lamp Shade. (*Abat-jour pour lampes.*)

Numa Demers, New Westminster, British Columbia, Canada, 15th March, 1895; 6 years.

Claim.—1st. The combination of an interior with an exterior glass shade, as set forth; producing the lenticular void, as shown. 2nd. The use of a refracting medium in the said void of a nature to amplify the power of the lens and intensify the light transmitted. 3rd.



The application of the principle of my invention to all forms of shades whether round, oval or rectangular and to all uses to which a shade or protraction is applied

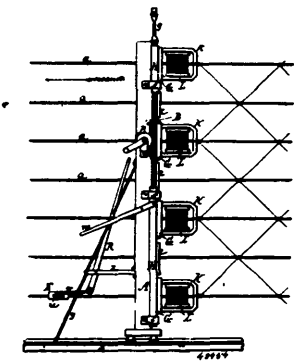
No. 48,453. Ruler. (*Règle.*)

Frank Barnard Deming, Calais, Maine, U.S.A., 15th March, 1895; 6 years.

Claim.—The combination with a suitable base, adapted to rest upon the paper, of a pen guide supported in brackets rigidly secured to said base and inclined upwardly, said guide extending parallel with and above and beyond the front edge of the rule, substantially as and for the purposes set forth.

No. 48,454. Wire Fence Machine.

(*Machine à clôture de fil de fer.*)



Willie De Lano Whitney, Clarendon, New York, U.S.A., 15th March, 1895; 6 years.

Claim.—1st. The combination, with the gear wheels, of the flat segmental twister heads resting in close contact with the faces of the gears and connected therewith by dove-tailed connections that allow said twister heads to shift from one gear to another by sliding along the dove-tails, as herein shown and described. 2nd. The combination of a set of flat-faced gear wheels, a set of flat segmental twister heads resting in close contact therewith and connected, thereto by dove-tailed ribs, a set of brackets connected therewith holding the spools of filling wire, a pair of slides arranged to move in reverse direction, and bearings of the slides embracing the segmental heads, as shown and described and for the purpose specified. 3rd. The combination with the machine of a hand lever pivoted to a stationary

part on one side, and a clamp provided with eccentrics connected with said lever and engaging with the fence wire, whereby the machine is drawn forward by operating the lever, as and for the purpose specified.

No. 48,455. Preparing Metallic Sand or Finely Ground Ore for Smelting. (*Mélange pour fondre*)

Archibald Anderson, Dickson, Toronto, Ontario, Canada, 15th March, 1895; 6 years.

Claim.—1st. The method of preparing metallic sand or finely ground ore for smelting, which consists in mixing such sand or ore with a carbonaceous or combustible material and then compressing the combined materials into blocks, bars or sticks, substantially as set forth. 2nd. The method of preparing metallic sand or finely ground ore for smelting, which consists in first mixing such sand or ore with crude peat which has been previously deprived of all excess of moisture, and then compressing such combined materials in moulds of forms, so as to form integral blocks, bar or sticks, substantially as and for the purpose specified. 3rd. The new article of manufacture herein described which consists of a block, bar or stick composed of crude peat and metallic sand, combined and compressed, substantially in the manner and for the purpose specified.

No. 48,456. Electrolysis. (*Electrolyse.*)

Fig. 1

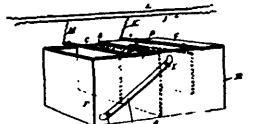
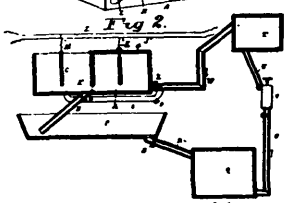


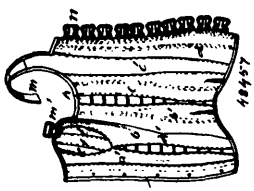
Fig. 2.



Henry Blumenberg, jr., South Mount Vernon, New York, U.S.A., 15th March, 1895; 6 years.

Claim.—1st. The combination of an electrolytic bath having positive and negative compartments, a pipe connecting the two, a settling tank connected with said bath, another tank located between the settling tank and bath, and pipes connecting them into a continuous system. 2nd. The herein described process which consists in placing an electrolyte containing a haloid salt in a vat electrolyzing the same thereby setting free the halogen at the positive electrode, and the base at the negative electrode, and finally transferring the liberated gas from the positive to the negative electrode, and thereby bringing it into contact with the base. 3rd. The herein described process which consists in placing an electrolyte containing a haloid salt in a vat, then electrolyzing the same, thereby setting free the halogen at the positive electrode and the base at the negative electrode, transferring the liberated gas from the positive to the negative electrode, then conveying the liquid electrolyte to a settling tank, and then leading the bi-products of the electrolyte to a resaturator and back to the vat.

No. 48,457. Corset. (*Corset.*)

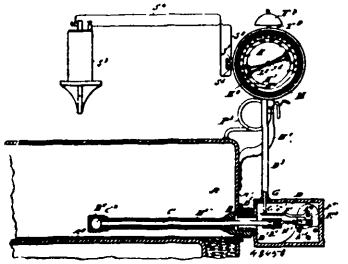


Arthur Horace Phelps, Omaha, Nebraska, assignee of Belle Epperly Logan, Iowa, both of the U.S.A., 15th March, 1895; 6 years.

Claim.—As an improved article of manufacture, a corset having each of its sections comprising parts a, a^1, b, b^1, c, c^1 and d, the parts a^1 and b, having their adjacent edges cut-away forming an elliptical opening over the bust and tapering at their lower ends to conform to the abdomen, the gore portions e, f and e^1, located in said elliptical opening, and the elastic connections between said parts a^1, and b below the bust portion and between parts b^1 and c, substantially as set forth.

No. 48,458. Boiler Alarm-gauge.

(*Indicateur d'eau pour chaudières.*)

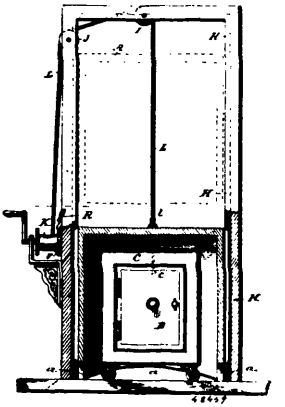


Albert F. Mallick and Pierce Blewett, both of Jamestown, North Dakota, U.S.A., 15th March, 1895; 6 years.

Claim.—1st. A boiler alarm-gage, comprising a heat indicator and a pressure indicator, operating in unison as long as the boiler is in a normal condition, and operating differentially when the boiler is in an abnormal condition, substantially as shown and described. 2nd. A boiler alarm-gage, comprising a heat indicator and a pressure indicator, both arranged in such a manner that the hand of the heat indicator moves in unison with the hand of the pressure gage as long as the boiler is working under normal conditions, and when the boiler is working under abnormal conditions, either by an increase of heat or a sudden decrease of steam pressure, then the said hands move at a different rate of speed, substantially as shown and described. 3rd. A boiler alarm-gage, comprising a heat indicator and a pressure indicator, each provided with a rack, a lever pivoted on one of the racks and engaged by the other rack, and an electric alarm of which the said lever forms the circuit closer, the said lever receiving a swinging motion whenever the racks move at a differential rate of speed, substantially as shown and described. 4th. In a boiler alarm-gage, the combination, with two movable racks, of which one is controlled by a pressure indicator and the other by a heat indicator, of two hands actuated from the said racks, a dial on which indicate the said hands, the said dial being graduated with a degree scale and with a pressure scale, a lever pivoted on one of the said racks and engaged by the other rack, and an electric alarm of which the said lever forms a circuit closer, substantially as shown and described. 5th. In a boiler alarm-gage, the combination, with two racks controlled by a pressure indicator and a heat indicator, of a lever pivoted on one of the said racks and engaged by the other rack, so that when the said racks move at a differential rate of speed then a swinging motion is given to the said lever, and an electric alarm of which the said lever forms the circuit closer, substantially as shown and described. 6th. In a boiler alarm gage, the combination, with two racks controlled by a pressure indicator and a heat indicator, of a lever pivoted on one of the said racks and engaged by the other rack, so that when the said racks move at a differential rate of speed then a swinging motion is given to the said lever, an arm provided with an insulated plate through which extend contact pins arranged on the said arm, the said insulated plates, contact pins and arms being adapted to be engaged by the free end of said lever, and an electric alarm connected by one wire with the said lever, and by its other wire with the said arm, substantially as shown and described. 7th. In a boiler alarm gauge, the combination with two racks controlled by a pressure indicator and a heat indicator, of a lever pivoted on one of the said racks and engaged by the other rack, so that when the said racks move at a differential rate of speed then a swinging motion is given to the said lever, a spring plate held on the free end of the said lever, and an arm provided with an insulation plate through which extend contact pins arranged on said arm, the said insulated plates, contact pins and arms being adapted to be engaged by the said spring plate, and an electric alarm connected by one wire with the said lever and by its other wire with the said arm, substantially as shown and described. 8th. A boiler alarm gauge provided with a heat indicator, comprising a pipe adapted to be secured to the boiler and extending over the crown plate, the inner end of the said pipe being provided with a cap, a non-conducting rod held loosely in the said pipe and provided with a head enclosed by the said cap, beyond the edge of said pipe, and of greater diameter than the pipe so that an expansion of the said pipe draws the said rod inwardly, and a bell crank lever connected with the outer end of the said rod, substantially as shown and described. 9th. A boiler alarm gauge, provided with a heat indicator, comprising a pipe adapted to be secured to the boiler and extending over the crown

plate, the inner end of the said pipe being provided with a cap, a non-conducting rod held loosely in the said pipe and provided with a head enclosed by the said cap, beyond the end of said pipe and of greater diameter than the pipe, so that an expansion of the said pipe draws the said rod inwardly, a bell crank lever connected with the outer end of the said rod, and an adjusting mechanism between the said rod and the said bell crank lever, substantially as shown and described. 10th. A boiler alarm gauge provided with a neat indicator, comprising a pipe adapted to be secured to the boiler and extending over the crown plate, the inner end of the said pipe being provided with a cap, a non-conducting rod held loosely in the said pipe and provided with a head enclosed by the said cap, beyond the end of said pipe and of greater diameter than the pipe so that an expansion of the said pipe draws the said rod inwardly, a bell crank lever connected with the outer end of the said rod, a vertically disposed rod resting on the free end of the said bell crank lever, a rack held on said second rod, a pinion in mesh with the said rack, a shaft carrying the said pinion, and a hand or a pointer on the said shaft, substantially as shown and described.

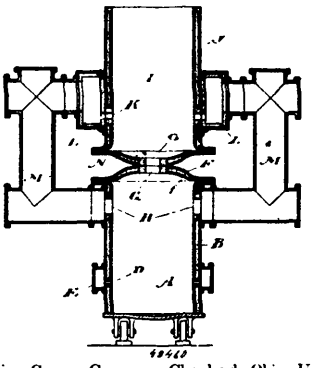
No. 48,459. Jacket for Money Safes.
(*Chemise pour coffre-fort.*)



François Bernardin, Eli C. Munson and John L. Pocock, all of Antwerp, Ohio, U.S.A., 18th March, 1895; 6 years.

Claim.—In combination, with a safe having a time lock, a jacket having a rod C adapted when the said jacket is lowered over the safe to enter a perforation *d*, tilt a lever which throws a bolt through a perforation in the end of the said rod C, and at the same time start a wheel carrying a lug designed to withdraw the bolt after making a partial revolution, substantially as described.

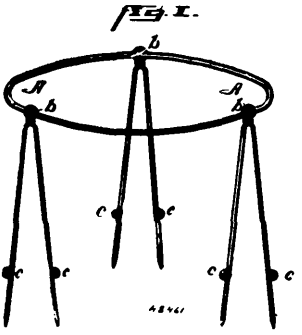
No. 48,460. Process of and Furnace for Smelting Ores, &c. (*Procédé et fournaise pour fondre le minerai, etc.*)



The Canadian Copper Company, Cleveland, Ohio, U. S. A., and James A. McArthur, Algoma, Ontario, Canada, 18th March, 1895; 6 years.

Claim.—1st. A process for smelting and bessemerizing pyritic and other ores consisting of treating the ore to the action of the highly heated gasses and spent air from the bessemerizing action to provide a continuous flow of molten matte to feed the bessemerizing action and then subjecting the molten matte to the bessemerizing action, substantially as specified. 2nd. A furnace for smelting and bessemerizing pyritic or other ores consisting of a lower section an upper section above the lower section a flow channel from the upper section into the lower section and means for conveying the highly heated gases and spent air from the lower section to the upper section, substantially as described. 3rd. A furnace for smelting and bessemerizing pyritic and other ores consisting of a lower water-jacketed section a cold blast receiving bustle partially encircling the lower section at the zone of tuyeres a concavo-convex water jacketed cover for the lower section an opening through the middle of the water-jacketed cover escape ports formed through the lower section on the opposite sides of it below the junction of the cover discharge pipes connected to the escape ports a water-jacketed upper section a water-jacketed concavo-convex bottom for the upper section an opening through the middle of the bottom of the upper section corresponding in size and location with the opening through the cover of the lower section, a refractory clay-lined receiving bustle encircling the upper section at the zone of tuyeres, the discharge pipes connected to the refractory clay-lined receiving bustle, substantially as specified.

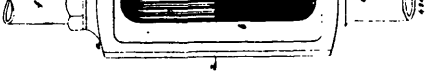
No. 48,461. Plant Supporter. (*Support pour plantes.*)



Ladd J. Lewis, jr., Utica, assignee of Newton Leonard, Washington Mills, both of New York, U.S.A., 18th March, 1895; 6 years.

Claim.—1st. A device for supporting plants, comprising a hoop having legs secured thereto, consisting of rods first bent to form an eye through which the hoop is adapted to pass, and also bent so as to create shoulders, as set forth. 2nd. A device for supporting plants, comprising a hoop provided with legs formed by bending rods about said hand or hoop near their ends to form shoulders. 3rd. A device for supporting plants, comprising a hoop provided with supporting legs, formed by bending rods first to form an eye, thence bent laterally to close the eye, thence bent near their ends to form shoulders, said ends being spread apart for the purpose of giving lateral support to the leg, as set forth.

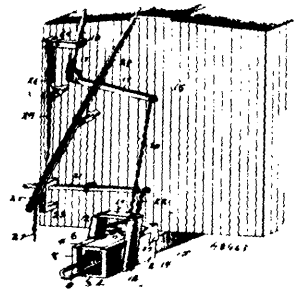
No. 48,462. Water Gauge. (*Indicateur d'eau.*)



Richard Klinger, Vienna, Austria, 18th March, 1895; 6 years.

Claim.—1st. Glasses for liquid gauges, provided with facets or reflecting surfaces in such manner that they will permit the passage of the light when covered by the liquid, and entirely or partially reflect the light when not covered by the liquid, substantially as and for the purpose described. 2nd. The combination of glasses provided with facets or reflecting surfaces with the frame or casing of a liquid gauge, substantially as described. 3rd. In liquid gauges, the combination with a suitable frame or casing, of glasses provided with facets or reflecting surfaces, and a coloured background, substantially as described. 4th. In liquid gauges, the combination with a suitable frame or casing, of glasses provided with facets or reflecting surfaces, a plain glass plate c^1, in the rear part of the gauge, and a removable background, substantially as described.

No. 48,463. Car Coupler. (*Attelage de chars.*)

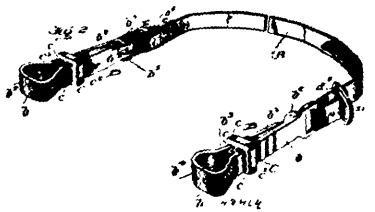


William K. Kight, El Dorado, Illinois, and Frances M. Phillips, Poplar Bluff, Missouri, both in the U.S.A., 18th March, 1895; 6 years.

Claim.—1st. In a car coupling, the combination of a draw-head, comprising a bottom and opposite sides and provided with inclined ways and having at the rear edges of the side recesses with inclined walls, and a vertically movable top carrying the catch and provided with slides arranged at an inclination and fitting in said ways, said top being provided at its inner end with opposite depending lugs, having inclined front faces conforming to the configuration of said recesses, substantially as described. 2nd In a car coupling, the combination of a draw head comprising a bottom and opposite sides and provided with inclined ways, a vertically movable top carrying a catch and provided with slides arranged in said ways, said top when lowered fitting between the sides and completing the draw-head, arms extending upward from the sides of the draw head, and a cross-piece connecting the upper ends of the arms and limiting the upward movement of the top, substantially as described. 3rd. In a car coupling, the combination with a car, of a draw-head comprising a bottom and sides and provided with inclined ways, and having at the rear ends of the sides recesses with inclined walls, a vertically movable top provided with slides arranged in said ways, and having depending lugs with inclined faces to engage said recesses, a guard frame extending above the draw-head and limiting the upward movement of the top, the upper and lower operating levers mounted on the car and connected with the top of the draw-head, keepers receiving the outer ends of the levers and provided with perforations, and upper and lower locking levers fulcrumed on the car and provided with pins adapted to be inserted in the said perforations for confining the operating levers, substantially as described.

No. 48,464. Lap Robe Holder.

(*Accroche-couverture de voiture*)

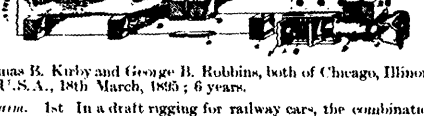


Benjamin Porter and Fred L. Walker, both of Ellendale, North Dakota, U.S.A., 18th March, 1895; 6 years.

Claim.—1st. As a new article of manufacture, a lap robe holder, consisting of the band to pass around the person, and provided at its ends with clasps to engage the robe and hold it to the person, substantially as described. 2nd. As a new article of manufacture, a lap robe holder, consisting in a band to pass around the person, and provided at its ends with clasps to engage the robe and hold it to the person, and means for adjusting the length of the band, substantially as described. 3rd. As a new article of manufacture, a lap robe holder consisting in a band to pass around the person, and robe-engaging clasps carried by the ends of the band to hold the robe to the person and each comprising two members pivoted together and provided with an operating slide having a middle cross bar engaging the inner faces of the said members to force them positively apart when the slide is moved rearwardly, the outward movement of the slide forcing the members together, substantially as described. 4th. A lap robe holder comprising the back band and the clasps carried by the ends thereof, one of said clasps having a slot or loop at its inner end through which the band is passed and returned upon itself, and a slide having a cross-bar to which the extremity of the band is secured and having a slot through which the main portion of the band freely passes, the inner cross-bar of the said slot being provided on one side with teeth to engage the outer face of the band and hold the slide in its adjusted position, substantially as described. 5th. A lap robe holder comprising the back band, and the clasps carried by the ends thereof, one of said clasps having a slot or loop at its inner end through which the band is passed and returned upon itself, and a slide having a cross-bar to which the extremity of the band is secured and having a slot through which the main portion of the web freely passes, the inner cross-bar of the slot being provided on one side face with teeth to engage the outer face of the band and hold the slide in its adjusted position and the outer face of the said cross-bar being beveled outwardly, substantially as described. 6th. The combination with the two clasp jaws or members pivoted together at their inner ends, of a slide having two slots through which said members freely pass, the middle cross-bar of the slot serving to positively open the jaws when the slide is forced rearwardly, substantially as described. 7th. The combination with the clasp jaws or members pivotally connected at their rear ends and the outer face of one member being transversely grooved or corrugated, of a slide having two slots through which said members freely pass, one of the outer cross-bars of the slide being rounded on its inner face to engage said grooves or corrugations and the middle cross-bar serving as a wedge to force the members apart when the slide is moved rearwardly, substantially as described. 8th. A lap robe holder comprising the back band to pass around the person, clasps on the ends of the band and provided with operating slides for opening and closing them, a loop or slot at the inner end of one clasp and a pivoted clamp at the inner end of the other, the ends of the band passing through said loop and under said clamp, respectively, and an adjusting slide on that end of the band which passes through said loop, substantially as described. 9th. The adjusting slide D having an upper or outer cross-bar and a slot d^1 below or in rear thereof, the inner cross-bar d^2 of the said slot having teeth d^3 on one outer side and beveled on its inner face, substantially as described.

No. 48,465. Draft Device for Railroad Cars.

(*Appareil de tirage pour chars de chemin de fer.*)



Thomas B. Kirby and George B. Robbins, both of Chicago, Illinois, U.S.A., 18th March, 1895; 6 years.

Claim. 1st In a draft rigging for railway cars, the combination of buffing timbers which terminate near the ends of the car, metallic draft arms arranged opposite the ends of and substantially in line with the buffing timbers forming recesses between the draft arms and the buffing timbers, and draw-bar spring mechanism interposed in the recess between the draft arms and the ends of the buffing timbers, substantially as described. 2nd. In draft rigging for railway cars, the combination of buffing timbers which terminate near the ends of the car, metalhe draft arms arranged opposite the ends of and substantially in line with the buffing timbers forming recesses between the arm and buffing timbers, a front follower plate arranged to abut against the draft arm, a rear follower plate to abut against the ends of the buffing timbers, and spring mechanism interposed between the follower plates to receive the strains and support the draw bar mechanism, substantially as described. 3rd. In draft rigging for railway cars, the combination of buffing timbers which terminate near the ends of the car, draft arms arranged opposite the ends of and substantially in line with the buffing timbers and forming recesses between the draft arm and buffing timbers, draw-bar spring mechanism interposed between the draft arms and the ends of the buffing timbers, and rigid tie or draft rods uniting the draft arms on the same side of the car and at opposite ends thereof, substantially as described. 4th. In draft rigging for railway cars, the combination of buffing timbers which terminate near the ends of the car, draft arms arranged opposite the ends of and in line with the buffing timbers forming a shouldered recess between them and the buffing timbers, a front follower plate arranged to bear against the shoulders of the draft arms, a rear follower plate arranged to bear against the ends of the buffing timbers, and spring mechanism interposed between the follower plates to receive the strains and support the draw-bar mechanism, substantially as described. 5th. In draft rigging for railway cars, the combination of timbers which terminate near the ends of the car, draft arms arranged opposite the ends of and substantially in line with the buffing timbers, each provided on its outer longitudinal surface with a lug and forming a recess on its inner side between the draft arms and the ends of the buffing timbers, draw-bar spring mechanism arranged in the recess, and tie or draft rods securing the draft arms by their lugs on the same side of the car at the opposite ends thereof, substantially as described. 6th. In a draft rigging for railway cars, a metallic extension for the buffing timbers partially secured thereto, by a bolt which passes through the follower plate guide on said draft arm, one of the buffing timbers, flanged strike plate at the end of the buffing timber, and through one end of the lower follower strap, the said bolt also passing through the car sills, whereby the said several

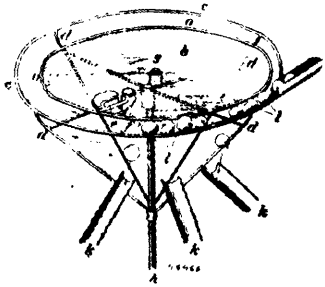
parts are held in place by the said bolt, substantially as described.

7th. In draft rigging for railway cars, metallic draft arms forming extensions of the buffing timbers, and which in connection with the ends of the buffing timbers and lower follower straps form a case for the draw bar follower plates and springs, substantially as described.

plug at the upper end of the stem, and the screw spindle extending through the plug and threaded in the lower end of the stem, substantially as described.

No. 48,466. Machine for Sizing Fruit.

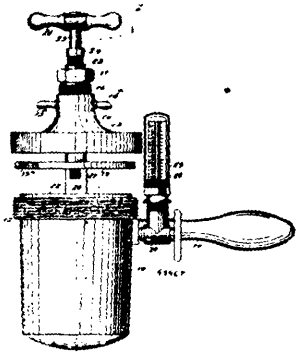
(*Machine pour assortir les fruits*)



David C. Horner, St. Johnsbury, Vermont, assignee of Henry C. Jones, Orange City, Florida, both of the U.S.A., 18th March, 1895; 6 years.

Claim.—1st. The combination in a fruit sizing machine of the wheels *c* and *b*, so arranged as to form increased or crescent-shaped openings and be automatically propelled by the weight of the fruit or power, substantially as and for the purpose set forth. 2nd. The combination in a fruit sizing machine of the feeding spout *a*, the automatically or power propelled wheels *c* and *b*, upon anti-friction or other bearings, the delivering spouts *k*, with increased or crescent-shaped openings, and the connecting pin *f*, working in slot *e*, substantially as set forth and for the purpose specified.

No. 48,467. Vulcaniser. (*Vulcanisateur.*)

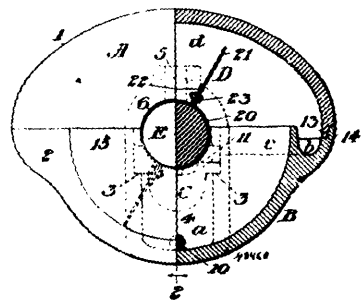


Edmond Casgrain, Quebec City, Quebec, Canada, 18th March, 1895; 6 years.

Claim.—1st. The combination, with the pot and outer cover, of a cover plate to fit the pot within the outer cover, a yoke on the cover plate, and a screw extending through the outer cover and impinging on the top of the cover plate, substantially as described. 2nd. The combination, with the pot, of the exterior cover thereon, and the cover plate fitting the pot top within the outer cover, the yoke carried by the cover plate, the sleeve threaded into the outer cover and impinging on the cover plate, the hollow stem secured to the cover plate and extending through the sleeve, and the screw spindle extending downward through the stem and cover plate, substantially as described. 3rd. The combination, with the pot, and the outer cover threaded thereon, of the cover plate having an annular flange to fit the top of the pot, the mould-carrying yoke on the cover plate, the upwardly-extending stem on the cover-plate, the threaded sleeve encircling the stem and extending through the outer cover, and the spindle extending downward through the stem and cover plate, substantially as described. 4th. The combination, with the pot, the outer cover, the cover plate within the pot top and carrying a yoke beneath it, and the vertical stem on the cover plate, of the sleeve encircling the stem and threaded to fit within the cover, a guide

No. 48,468. Lubricator. (*Lubricateur.*)

Fig. 1.



Charles Alfred Westervelt, and James Pierce Walters, both of Uhrichsville, Ohio, U.S.A., 18th March, 1895; 6 years.

Claim.—1st. In combination with an oil elevator revolving with the shaft or axle, a housing for said oil elevator having side pockets within it, on a level with such shaft or axle, into which the oil is thrown centrifugally by said oil elevator, and horizontal or substantially horizontal passages leading from said side pockets, through which the oil flows centripetally to the shaft or axle, substantially as hereinbefore specified. 2nd. In an automatic lubricator for horizontal shafting or rotary axles, the combination, substantially as hereinbefore specified, of a revolving oil elevator carried by the shaft or axle, and a housing for said oil elevator having open-topped side pockets, on a level with the shaft or axel, and a housing for said oil elevator having open-topped side pockets, on a level with the shaft or axle, into which the oil is thrown centrifugally by said oil elevator, and open topped passages leading from said side pockets, through which the oil flows centripetally to the shaft. 3rd. In an automatic lubricator for line shafting and the like, the combination within upper and lower shell parts of an oil elevator revolving with the shaft, a housing for said oil elevator having side pockets within the lower shell part at its top, into which the oil is thrown centrifugally by said oil elevator, and open-topped passages leading from said side pocket, through which the oil flows centripetally to the shaft, substantially as hereinbefore specified. 4th. In a journal bearing for line shafting and the like, provided with an automatic lubricator, the combination of a lower shell part having an oil chamber, open-topped side pockets at the sides of said chamber on a level with the shaft, open-topped passages leading from said side pockets, and an oil well in communication with said chamber, an upper shell part completing the housing of said oil elevator, forming a cover above said pockets and passages and having an oil inlet at top and a bore enlargement in communication with said oil inlet and said oil well, a brass supported beneath the shaft within said lower shell part and having open-topped oil-containing recesses c surrising an oil receptacle into which said passages discharge, and with a space forming end projection, and an oil elevator revolving within said housing elevating the oil as it flows thereto, and discharging the oil centrifugally into said side pockets, from which it flows centripetally to the shaft, substantially as hereinbefore specified.

No. 48,469. Piano Truck. (*Camion pour pianos.*)

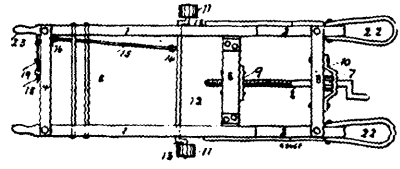


Fig. 1.

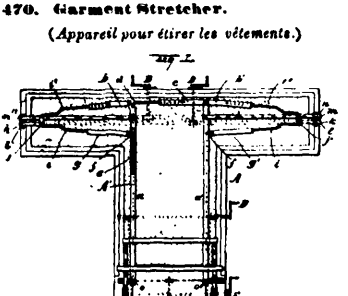
George G. Hardy, Vancouver, British Columbia, Canada, 18th March, 1895; 6 years.

Claim.—1st. In a piano truck, the combination of the slotted frames 1, the frames 2, with fastenings 8, the screw 6, taking through a strap 7, into a nut 9, for purposes substantially set forth.

2nd. In a piano truck with the slotted frames 1, with the brace rods 5, and the tie bar or frame 4, substantially as set forth. 3rd. In a piano or instrument truck, the combination of the slotted frame 1, and frames 2, which enter said slots, the wheels 11, mounted on crooked shaft 12, the rods 15, engaging arm 14, an angle iron 16, having connection with arm 17, and actuated by lever 18, the whole adapted to operate, substantially as specified. 4th. In the piano truck, the combination of the frame 1 and 2, with wheels mounted thereon with mechanism to throw said wheels in and out of gear, substantially as specified.

No. 48,470. Garment Stretcher.

(*Appareil pour étirer les vêtements.*)



Patrick O'Thayne, assignee of George Alexander Rutherford and Reuben Clifford Rutherford, all of New York, State of New York, U.S.A., 1895; 6 years.

Claim.—1st. An apparatus for stretching shrunken garments, comprising a hollow table having a perforated top, an expansible skeleton frame having the form of the garment to be treated, and adapted for insertion in the garment, and an expanding mechanism carried by the table and connected with the expansible frame, substantially as described. 2nd. In an apparatus for stretching shrunken garments, the combination with a table, of an expansible frame on the table, windlasses carried by the table, and cords or tapes connected to the windlasses and frame, substantially as and for the purpose set forth. 3rd. In an apparatus for stretching shrunken garments, an expansible frame comprising side bars, tubes hinged to the upper ends of the side bars, a second set of tubes having a sliding and hinged connection with said side bars and two pairs of rods, each pair having their inner ends fitting in the said tubes and their outer ends slidably connected together, substantially as described. 4th. In an apparatus for stretching shrunken garments, an expansible frame, comprising tubular side rods provided with slots, tubes hinged to the upper ends of the side bars, slides in the tubular side bars and projecting out through the slots thereof, a second set of tubes hinged to the said slides, and two pairs of rods, each pair having their inner ends fitting in the said tubes, and their outer ends slidably connected together, substantially as described. 5th. In an apparatus for stretching shrunken garments, an expansible frame, consisting of tubular and slotted side bars, one of said side bars having a right angled extension at the top, a right angled rod fitting in the said right angled extension of the side bar, and in the other side bar, a tube hinged to the upper end of each side bar, slides in the side bars and projecting through the slots thereof, a second tube hinged to each slide, and two pairs of rods having their inner ends fitting in the said tubes, the outer end of one rod of each pair being provided with an angular tubular extension to receive the angular end of the other rod, substantially as herein shown and described. 6th. A process of stretching shrunken garments, which consists in subjecting the garment to the action of steam, while the same is in position on an expansible frame, by means of the perforated table, the garment during treatment being expanded or stretched. 7th. In a process for stretching shrunken garments, the employment of a perforated table for the treatment of the garment by steam.

No. 48,471. Art of Extracting, Etc., Gold and Silver.

(*Art d'extraire, etc., l'or et l'argent*)

Joseph H. Jory, San Francisco, California, U.S.A., 18th March, 1895; 6 years.

Claim.—1st. In a capillary electrolytic sluice, the combination with an elongated sluice box, of a series of obliquely arranged amalgamating plates arranged within said box and having capillary channels or passages therebetween, and means for adjusting the channels or passages between said plates, substantially as set forth. 2nd. In an apparatus of the class described, the inclosing sluice box, a series of parallel plates arranged within the box, means for adjusting said plates simultaneously, to regulate the capillary channels or passages therebetween and electrical connections for said plates, substantially as set forth. 3rd. In an apparatus of the class described, an elongated sluice box, a series of obliquely arranged plates removably hung within the sluice box and having capillary passages therebetween, means for uniformly adjusting the width of

Fig 1

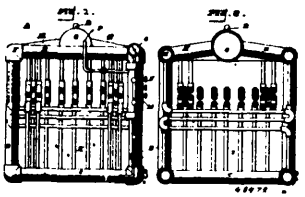
said passages, substantially as set forth. 4th. In an apparatus of the class described, an elongated sluice box, removable hangers at opposite inner sides of said box, a series of parallel overlapping plates pivotally supported in the removable hangers, and a sliding adjusting frame connected with the lower ends of said plates to uniformly adjust the capillary passages between said plates, substantially as set forth. 5th. The combination of an elongated sluice box removable hangers at opposite inner sides of said box, a series of parallel overlapping amalgamated plates pivotally supported in the removable hangers, said plates being arranged obliquely or at an angle, a sliding adjusting frame loosely connected to the lower ends of said plates to regulate the capillary passages therebetween, spring-actuated flood gates arranged within the sluice box, and held against the end plates of the parallel series, and electrical connections for the plates, substantially as set forth. 6th. The combination of a sluice box having a removable feed trough at one end and a discharge opening at the opposite end, opposite sectional hanger plates arranged at opposite inner sides of the sluice box, and having a regularly spaced series of tearing openings, the upper section of said hanger plates being removable, a parallel series of obliquely overlapping amalgamated plates having opposite pivot pins removably engaging the bearing openings of the hanger plates, a sliding adjusting frame connected to the lower ends of said amalgamated plates to adjust the capillary passages, and the spring-actuated flood gates, substantially as set forth. 7th. The combination of an elongated sluice box open at the top, a removable feed trough at one end of said sluice box, a series of parallel obliquely arranged amalgamating plates having opposite pivot pins, and opposite adjusting pins below the pivot pins, opposite removable hangers receiving the pivot pins of said plates, a sliding adjusting frame arranged within the sluice box below the hangers, and having opposite adjusting plates overlapped by the opposite edges of the amalgamating plates and provided with a parallel series of angle or oblique grooves which receive the adjusting pins of said plates, an adjusting screw connected with one end of said frame, and electrical connections, substantially as set forth. 8th. The combination of an elongated sluice box open at the top, a series of parallel amalgamating plates arranged at an angle removably within the box and having capillary passages there-between, spring actuated removable flood gates supported within the sluice box and provided with packing in their edges contacting with the opposite sides of the box and the end plates of the series, an adjusted frame mounted to slide within the bottom of the sluice box and comprising opposite connected plates having a parallel series of angle or oblique grooves, adjusting pins projecting from opposite lower edges of the amalgamating plates and taking into the grooves of the frame plates, an adjusting screw connected to one end of the sliding frame, connecting clamps removably attached to the end plates of the series, and electric circuit wires connected to said clamps, substantially as set forth. 9th. The herein described method and process of amalgamating reducing and extracting metals which consists in forcing the ore slimes, pulp, &c., through separated capillary passages between metallic plates, under the pressure due to the body of the liquid above the plates and maintaining an electric circuit through said plates, substantially as set forth.

No. 48,472. Steam Boiler. (*Chaudière à vapeur.*)

Charles E. Parker, Orange, Texas, U.S.A., 18th March, 1895; 6 years.

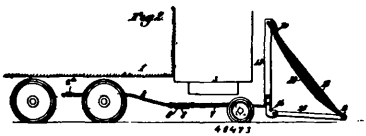
Claim.—1st In a steam-boiler, the combination of a rectangular series of circulation tubes at the base of the boiler, disposed horizontally, a rectangular arrangement of horizontal tubes at the top of the boiler, a series of four vertical circulation tubes uniting each of the four corners of the lower horizontal, with each of the corners of the upper horizontal circulation tubes, a series of water-tubes, and a steam dome or reservoir connected with said circulation tubes. 2nd. In a steam boiler, the combination of the upper rectangular horizontal circulation tubes, a steam dome or reservoir placed within and supported by said rectangular circulations tubes, and a series of inclined circulation tubes connecting the steam dome at intermediate points along the opposite sides with intermediate points along the opposite sides of the rectangular circulation tubes, all said tubes

being of substantially the same capacity. 3rd. In a steam-boiler, the combination of a boiler of rectangular or square form, having a rectangular series of circulation tubes surrounding the sides of each



of the six faces or sides of the boiler, a series of return-bend water tubes connected with the circulation tubes, and another series of return-bend water-tubes disposed at right angles to the first series and connected with the circulation tubes.

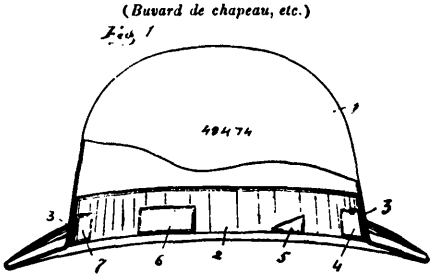
No. 48,473. Car Fender. (*Défense pour chars*)



Robert Bustin, Boston, Massachusetts, U.S.A., and Wesley Vanwart, Fredericton, and John R. McConnell, both of New Brunswick, Canada, 18th March, 1895; 6 years.

Claim.—1st. The combination with a car, of a bar or beam secured to the car-truck and extending forward therefrom, an axle or shaft journalled in the forward end of the bar or beam and provided with guide-wheels to travel on the railway-rails, a yoke shaped frame provided with journal boxes for said axle or shaft, and having its front end portions extended laterally in opposite directions to extend over and past the rails, and a safety-net supported from said lateral extensions of the yoke-shaped frame, substantially as described. 2nd. The combination with a car, of a bar or beam pivoted to the car-truck and extending forward therefrom, an axle or shaft journalled in the front end of the bar or beam and having guide-wheels for traversing the railway rails, a yoke-shaped frame provided with journal boxes in which said axle or shaft is mounted, and having its front extremities extended laterally over and past the railway rails, standards or uprights on the lateral extension of the yoke-shaped frame, stretcher-bars connected to the said standards or uprights, and a net connected with the front ends of the stretcher-bars and with the upper ends of the said standards or upright, substantially as described. 3rd. The combination with a car, of a bar or beam pivoted to the car-truck and extending forward therefrom, an axle or shaft journalled in the front end of the bar or beam and having guide-wheels for traversing the railway-rails, a yoke-shaped frame provided with journal boxes in which said axle or shaft is journalled, and having its front end portions extended laterally over the railway-rails, uprights or standards carried by the lateral extension of the yoke-shaped frame, stretcher-bars connected with the lower ends of the standards or uprights, a rod or shaft connecting the front ends of the stretcher-bars and provided with an elastic buffer, and a net connected with said rod or shaft and with the upper ends of the standards or uprights, substantially as described.

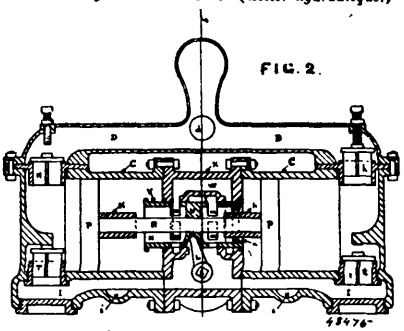
No. 48,474. Sweat-band for Hats, &c.
(*Buvard de chapeau, etc.*)



Dennis Monahan and Edward J. McOscar, both of Fort Wayne, Indiana, U.S.A., 19th March, 1895; 6 years.

Claim.—1st. A sweat-band for men's hats provided with lateral prominences or hat supporting pads, arranged as described, and adapted to relieve the cranial arteries from constriction caused by the pressure of the hat. 2nd. A hat having a sweat-band mounted thereon, so constructed and arranged as to rest upon the head only at points between the cranial artaries, as described, the weight of the hat being supported at such points by lateral sweat-band prominences or pads, and also adapted to afford aeration of the scalp, all substantially as described. 3rd. A sweat band provided with spaced lateral hat supporting pads or prominences so arranged as to rest upon the head only at points or areas not crossed by the cranial supply arteries at the line of usual constriction, to afford an unobstructed cranial circulation for the nourishment of the hair follicles, and also adapted to afford increased facilities for the aeration of the scalp, all constructed and arranged, substantially as set forth and described.

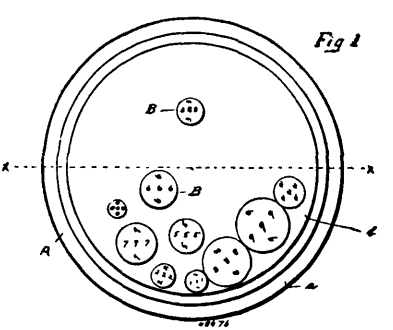
No. 48,475. Hydraulic Ram. (*Bélier hydraulique.*)



John Kilgour and John Jolly, both of Toronto, Ontario, Canada, 19th March, 1895; 6 years.

Claim.—1st. In a hydraulic ram, a valve chest *x*, and a valve *v*, containing controlling and operating the ports or openings to and from one end of each of two connecting cylinders *c*, *c*, substantially as and for the purpose hereinbefore set forth. 2nd. In a hydraulic ram, the combination of a valve chest *x*, and a valve *v*, with a series of valves T, *t*, H, *h*, substantially as and for the purpose hereinbefore set forth. 3rd. In a hydraulic ram, the combination of two pistons P, P, fixed on a piston rod R, having collars K, *k*, and in separate cylinders, with a valve V, containing and controlling the ports or openings to and from one end of each of the cylinders, substantially as and for the purpose hereinbefore set forth. 4th. In a hydraulic ram, the combination of a valve V, with a spindle S, and levers L, J, having weight B attached, substantially as and for the purpose hereinbefore set forth. 5th. In a hydraulic ram, the combination of a cock or valve O, on the waste outlet *d*, with a valve V, and valve chest X, substantially as and for the purpose hereinbefore set forth. 6th. In a hydraulic ram, the combination of the valves T, *t*, with the valves H, *h*, substantially as and for the purpose hereinbefore set forth.

No. 48,476. Puzzle. (*Jeu de patience*).

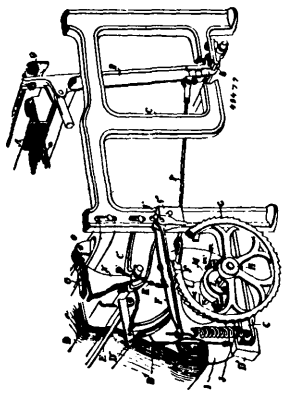


Francis Melville Merridew, Boulogne-Sur-Mer, France, 19th March, 1895; 6 years.

Claim.—1st. A game or puzzle, consisting of a case transparent at the top, a plurality of balls within the case and characters upon the balls, whereby, when the balls are properly arranged with reference to each other by manipulation of the box, the characters will form a word or number, substantially as shown and described. 2nd. A

game or puzzle, consisting of a case having a glass top, a plurality of balls within the case, and characters as letters or numbers, marked throughout the entire surface of the balls to be continuously in view, the said balls being adapted, when properly arranged by manipulation of the box, to form a word or number, substantially as shown and described. 3rd. A game or puzzle, comprising a box having a transparent closed top, a plurality of balls of graduated sizes within the case, having single characters marked thereon throughout the whole surfaces thereof, whereby the character of each ball is constantly visible, and the whole may form a numerical or alphabetical combination, the characters upon said balls being marked in progression according to the size thereof, whereby the character of each ball may be distinguished by its degree of size, substantially as shown and described. 4th. A game or puzzle, comprising a plain base portion, a glass dome or housing secured thereon, a series of balls of graduted sizes dispersed within the housing, said base and housing being so formed as to permit said balls to roll freely and uninterruptedly upon the whole area of said base, each of said balls being marked upon its entire surface with a single character closely repeated, whereby said character is constantly visible in any position of said ball, for the purposes specified, the said characters being graduated, or marked upon said balls in progression, according to the size thereof, whereby the character upon each ball, when the same is rolling, may be deduced from its degree of size, substantially as shown and described.

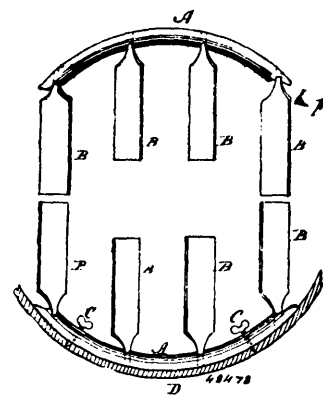
No. 48,477. Carpet Loom. (*Métier à tisser.*)



The Toronto Carpet Manufacturing Company, assignee of William Talbot, both of Toronto, Ontario, Canada, 19th March, 1895; 6 years.

Claim.—1st. In a loom, means for effecting a tension on the warp threads consisting of the warp beams, a whip roll, a ratchet-wheel mounted on the spindle of the warp beam, a dog pivotally connected to the frame of the loom normally engaging with the ratchet-wheel, and the chain connecting the dog with the spindle of the whip roll for lifting the dog from engagement with the ratchet-wheel during the partial revolution of the said spindle, substantially as specified. 2nd. In a loom, a means for effecting a tension on the warp threads, consisting of the combination of the warp beam, a ratchet-wheel mounted on the spindle of the warp beam, a spring operated dog pivotally connected to the frame of the loom and normally engaging with the teeth of the ratchet-wheel, the whip roll, a chain between the spindle of the whip roll and the dog to intermittently lift the dog out of engagement with the ratchet-wheel, substantially as specified. 3rd. In a loom, a means for effecting a tension on the warp beam, consisting of the combination of the warp beam journalled to the loom frame, a ratchet-wheel mounted on the spindle of the warp beam, a dog pivotally mounted to normally engage with the ratchet-wheel, a spring to hold the dog in engagement therewith, the whip roll, a chain having one end connected to the spindle of the whip roll, and the other to the spring actuated dog to intermittently lift the dog from engagement with the ratchet wheel, a sector on the spindle of the whip roll, a brake of the sector, a lathe sword and a pitman, connection between the brake and the lathe sword, substantially as specified. 4th. In a loom, means of effecting a tension in the warp threads, consisting of the combination of the warp beam, the spindle of the warp beam, a ratchet wheel mounted on the spindle of the warp beam, a spring operated dog pivotally connected to the frame of the loom normally engaging with the teeth of the ratchet-wheel, the whip roll, a connection between the whip roll and spring operated dog to intermittently lift the dog out of engagement with the ratchet-wheel during the operation of the loom, a tension rod connected to the whip roll, and means for automatically returning the whip roll to its normal position during the disengagement of the dog from the ratchet-wheel, a brake for the spindle of the warp beam to prevent its rapid revolution during the disengagement of the said dog from the said ratchet-wheel, substantially as specified. 5th. In a loom, the combination with the whip roll and warp beam of a ratchet wheel secured on one end of the spindle of the warp beam, a pivoted spring operated dog engaging the ratchet-wheel, a chain to connect the dog to the spindle of the whip roll, and a friction brake acting on the warp beam spindle, substantially as specified. 6th. In a loom, the combination with the whip roll having an arm, and the warp beam, of a ratchet-wheel secured on the end of the spindle of the warp beam a spring operated dog, a chain connection between the dog and the spindle of the whip roll, a friction brake acting on the warp beam spindle, and a weight attached to the arm of the whip roll, substantially as specified. 7th. In a loom, the combination with the whip roll, the tension rod E rigidly connected to the spindle of the whip roll, and the warp beam I, of the ratchet-wheel G, mounted on the spindle of the warp beam, a spring operated dog F, provided with teeth to engage the ratchet-wheel, and pivotally mounted on its support, a chain K connected to the dog and passing partially around the spindle of the whip roll, the friction collar L fixed on the spindle of the warp beam, the divided friction strap M on the friction collar, clamping means to adjustably hold the friction strap on the collar, arm D^2 connected to the spindle of the whip roll, and a weight D^1 suspended from the arm D^2, substantially as specified. 8th. In a loom, the combination with the whip roll and warp beam, of the ratchet-wheel G, mounted on the spindle of the warp beam, the dog F, hinged to the frame of the machine and provided with teeth to engage the teeth of the ratchet wheel, a chain K, connecting the spindle of the whip roll and the dog F, and arm D^{11}, on the whip roll, and having a weight D^{111}, connected therewith, the adjusting hook *j* in the free end of the dog, the spring J connected at its upper end to the hook *j*, and at its lower end to the frame of the loom, the sector N secured on the end of the whip roll, a brake shoe bearing on the sector, the lathe sword B, and the pitman rod P, between the lathe sword and the brake shoe, whereby the brake is drawn into engagement with the periphery of the sector in the forward movement of the lathe sword, substantially as specified.

No. 48,478. Churn. (*Baratte*).



Charles Pelton, Burford, Ontario, Canada, 19th March, 1895; 6 years.

Claim.—1st. In combination with a barrel churn, two segments, each carrying four, more or less projecting blades set at an angle of about 45 degrees in the segments, the same being attached to opposite sides of a churn, each about one-third of the distance from the ends, substantially as and for the purpose specified. 2nd. In combination with a barrel churn, two segments A A, made to fit the interior of the churn, and four (more or less) blades B, affixed in each segment at an angle of about 45 degrees, the segments A A, with their blades B, adjustably secured to the interior of a churn D, about one-third the distance from the ends on opposite sides, substantially as and for the purpose specified. 3rd. In combination with a barrel, square, or other shaped rotating churn, blades or fans inserted in sections affixed to the interior of a churn, about one-third the distance from the ends, on opposite sides, substantially as and for the purpose specified.

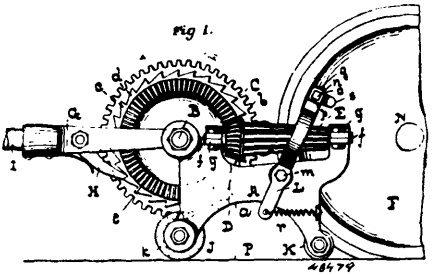
No. 48,479. Car Mover. (*Pousse-char*)

Edward Walter Ringrose, Baltimore, Maryland, U.S.A., 19th March, 1895; 6 years.

Claim.—1st. In an apparatus for moving cars, a pair of tapered corrugated rollers between which a wheel of the car is gripped, and suitable gearing for effecting the revolution of the said rollers, substantially as specified. 2nd. In an apparatus for moving cars, a

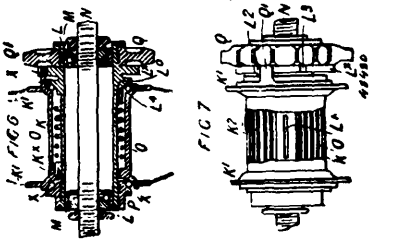
pair of tapered corrugated rollers arranged so as to grip a wheel of the car, devices to effect their revolution, and means whereby the

Fig 1.



apparatus is forced or drawn forward and kept in contact with the said car wheel, substantially as specified.

No. 48,480. Velocipede. (*Vélocipède*).



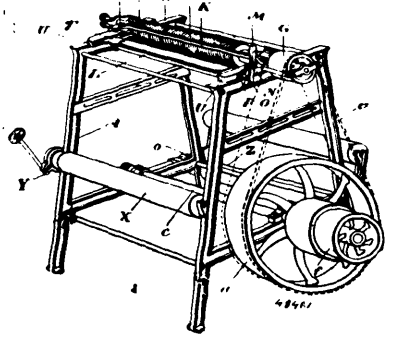
Edward Charles Frederick Otto, Peckam, England, 19th March, 1895; 6 years.

Claim.—1st. In velocipedes, a saddle or seat which is adapted at the will of the rider to be shifted into the desired or most advantageous position, said saddle moving in an arc struck from a fulcrum at or about the centre of the crank axle, in combination with means for joining it in such position, substantially as set forth. 2nd. In velocipedes, a seat carrying pillar limb pivoted on a fulcrum at or about the centre of the crank axle, in combination with means for fixing it in the desired position, substantially as set forth. 3rd. In velocipedes, a seat adapted to move in a tooth rack made in the form of an arc struck from a fulcrum at or about the centre of the crank axle, in combination with a clutch gearing with the tooth rack, and means for working the clutch, so as to cause the seat to be shifted into and fixed in the desired position on the tooth rack, substantially as set forth. 4th. In velocipedes, the seat pillar clamped in the seat pillar tube A, which is pivoted a little above and behind the centre of the crank axle C, in combination with the spring A^3, the toothed tubular clutch E, the toothed racks D^1, in a pocket part of the upper frame limb D, means for raising the clutch E, out of gear with the racks D^1, and a spring F, for pushing it into gear, substantially as set forth. 5th. In velocipedes, a seat adapted to move on a tooth rack made in the form of an arc struck from a fulcrum at or about the centre of the crank axle, in combination with a clutch gearing with the tooth rack, a piston rod G^2, connected to the clutch, a piston G^1, a cylinder G, wherein it works, a pipe conveying air pressure to undersides of the piston, a cylinder H, on the steering handle, a piston working therein against a spring H^4, and provided with rod H^4, and pressing knob H^1, stop back valve U^3, and air escape valve U^2, with pressing knob U, and spring U^1, substantially as set forth. 6th. In velocipedes, a seat adapted to move on a tooth rack made in the form of an arc struck from a fulcrum at or about the centre of the crank axle, in combination, with means for fixing it in the desired position and a spring attachment of the driving wheel hub for assisting up hill travelling and softening the break, substantially as set forth. 7th. In velocipedes, a shifting seat, of the character described and provided with means as described for fixing it in position, in combination with the outer driving wheel Q, the spring O, connecting the two hubs, holes in the outer hub, into one of which the end of the spring can be placed, notches L^2, L^3, in the inner hub, and a stud Q^1, on the outer hub to engage with one of them, substantially as set forth.

No. 48,481. Machine for Cutting Chenille Cloth. (*Machine pour tailler le drap de chenille*).

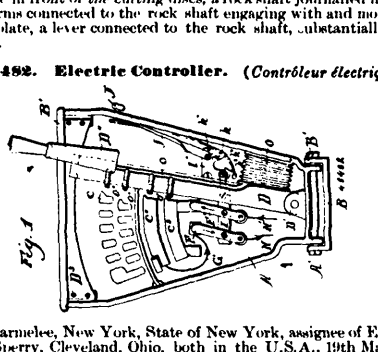
The Toronto Carpet Manufacturing Company, assignee of William Talbot, both of Toronto, Ontario, Canada, 19th March, 1895; 6 years.

Claim.—1st. A machine for cutting chenille cloth consisting of a frame, a shaft journalled in the said frame, a series of cutting discs mounted and longitudinally movable on the said shaft and revolving therewith, means for transmitting motion to the said shaft, a bed plate having a series of lateral grooves arranged equi-distant from



and parallel to each other, a series of slots located intermediate the said grooves corresponding in number and location with the cutting discs, and means for moving the bed plate to and from the cutting discs, substantially as specified. 2nd. A machine for cutting chenille cloth consisting of a frame, a shaft journalled in the said frame, a series of cutting discs mounted and longitudinally movable on the said shaft and revolving therewith, means for transmitting motion to the said shaft, a bed plate having a series of lateral grooves arranged equi-distant from and parallel to each other, a series of slots located intermediate the said grooves corresponding in number and location with the cutting discs, and means for moving the bed plate to and from the cutting discs, and a guide bar bolted to the frame on the same side as and above the bed plate having a series of slots one for each of said cutting discs, substantially as specified. 3rd. In a machine for cutting chenille cloth, the combination of the frame, a shaft having a spline journalled in the frame, a series of cutting discs mounted and longitudinally movable on the shaft, means for transmitting motion to the shaft, a bed plate sliding on the frame in front of the cutting discs, a rock shaft journalled in the frame, arms connected to the rock shaft engaging with and moving the bed plate, a lever connected to the rock shaft, substantially as specified.

No. 48,482. Electric Controller. (*Contrôleur électrique*).



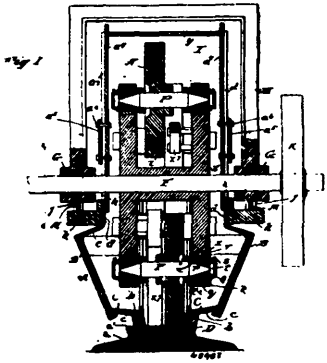
James Parmelee, New York, State of New York, assignee of Elmer A. Sperry, Cleveland, Ohio, both in the U.S.A., 19th March, 1895; 6 years.

Claim.—1st. In an electric controller, a series of contacts, an element of the controller moving to and fro over said series of contacts, a co-operating contact bone upon such element, an air-discharge nozzle upon one side of the said co-operating contact, a source of fluid pressure as bellows O, means connected with said moving element whereby said source shall inhale during one, and discharge during the other of the to and fro movements of said moving element, and a duct from the said source to the discharge nozzle, substantially as and for the purpose specified. 2nd. In an electric controller, a stationary electric contact, an element of the controller moving to and fro operating a co-operating contact adapted to make and break the electric circuit with said stationary electric contact, an air-discharge nozzle upon one side of said co-operating contact, a source of fluid pressure as bellows O, means connected with said moving element whereby said source shall inhale during one, and discharge during the other of the to and fro movements of said moving elements, and a duct from the said source to the discharge nozzle, substantially as and for the purpose specified. 3rd. In an electric controller, stationary electrical contacts, co-operating electric contacts which are moved to and fro on and off such contacts during

the normal operation of the controller, the contacts being organized to have individual movements of their own, in combination with means adapted to impart such individual movement after breaking and before re-establishing said contacts. 4th. In an electric controller, stationary electrical contacts, co-operating electric contacts which are moved to and fro on and off such contacts during the normal operation of the controller, the contacts being organized to have individual movements of their own, in combination with means actuated by the said to and fro movement to impart such individual movement after breaking and before re-establishing said contact. 5th. In an electric controller, a switch, a handle for manual operation of said switch, a main moving element for the controller provided with a separate handle, two sets of stationary and moving contacts, one controlled by each handle, those of one set being in series circuit relation with those of the other, a lock for the switch, and means connected with the main moving element for actuating such lock. 6th. In an electrical controller, a main moving element pivoted below, electric contacts operated thereby, a metallic guide for the upper portion of the said element, and an insulated top for the controller to which the guide is attached. 7th. An electrical controller for a car situated on the dasher of said car, in combination with a hinge at or near the base of said controller by means of which the controller may be tipped forward. 8th. An electrical controller for a car situated on the dasher of said car, a hinge at or near the base of said controller by means of which the controller may be tipped forward, in combination with electrical connections upon the back of said controller. 9th. An electrical controller for a car situated on the dasher of said car, a hinge at or near the base of said controller by means of which the controller may be tipped forward, in combination with electrical connections upon the back of said controller, and a removable cover or shield upon the back of the controller protecting said electrical conductors. 10th. In an electrical controller, a cover providing a slot for the operating handle, and an apron overhanging said slot, substantially for the purpose specified. 11th. In an electrical controller, a cover providing a slot for the operating handle, an apron overhanging said slot, and a handle protruding upward within such slot. 12th. In an electrical controller, a circuit breaker consisting of moving electrical contacts and stationary electrical contacts, the moving electrical contacts mounted so as to turn upon an axis in combination with means for rotating such contacts. 13th. An electric car provided with a controller for controlling the electric mechanism of said car, the controller being provided with a flat top for purposes of a seat.

No. 48,483. Machine for Pulverizing Rock, Ore, Etc.

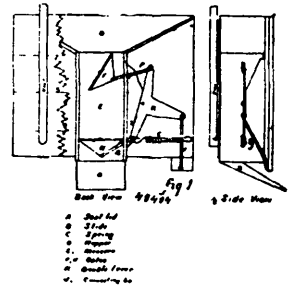
(*Moulin à broyer la roche, le minerai etc.*)



Peter McKellar, Fort William, Ontario, Canada, 19th March, 1895; 6 years.

Claim.—1st. In a machine for pulverizing ore, rock, and the like, the combination of a mortar, vertically-movable bearings G, a pivoted or swivelled bearing, the shaft journaled in the vertically movable bearings and in the pivoted or swivelled bearing, and a wheel fixed on said shaft and arranged to turn in the mortar or receptacle, substantially as and for the purpose set forth. 2nd. In a machine for pulverizing ore, rock, and the like, the combination of a mortar, vertically movable bearings G, a pivoted or swivelled bearing at one side of the mortar, the shaft journalled in the vertically movable bearings and in the pivoted or swivelled bearing, a wheel fixed on said shaft and arranged to turn in the mortar or receptacle, and a fly or balance wheel fixed on the free portion of the shaft, substantially as and for the purpose set forth. 3rd. In a machine for pulverizing ore, rock, and the like, the combination of a mortar or receptacle having vertical guides, vertically movable bearings arranged in said guides, a bearing *l*, mounted in suitable bearings and located at one side of the mortar or receptacle, a shaft journalled in the vertically movable bearings and in the bearings I, and having a fly or balance wheel, and a wheel fixed on the shaft and arranged to turn in the mortar or receptacle, substantially as specified. 4th. A machine for pulverizing ore, rock, and the like, comprising a mortar having the parallel ridges *b*, provided with lateral flanges *c*, the vertical walls *d*, provided with flanges *e*, *f*, and the screens arranged in the openings formed by said flanges, and a wheel arranged to turn in said mortar or receptacle, substantially as and for the purpose set forth. 5th. A machine for pulverizing ore, rock, and the like, comprising a mortar having the parallel ridges *b*, provided with lateral flanges *c*, the vertical walls *d*, provided with flanges *e*, *f*, the copper plates arranged on the flanges *e*, and the screens arranged in the openings formed by said flanges, and a wheel arranged to turn in said mortar or receptacle, substantially as and for the purpose set forth. 6th. In a machine for pulverizing or breaking ore or rock, vertically movable bearings arranged in said guides, a wheel arranged to turn in the mortar or receptacle and having its shaft journalled in the vertically movable bearings and adjustable wedges arranged beneath the vertically movable bearings, substantially as and for the purpose set forth. 7th. In a machine for pulverizing or breaking ore or rock, the combination of a mortar or receptacle having guides, vertically movable bearings arranged in said guides, a wheel arranged to turn in the mortar or receptacle and having its shaft journalled in the vertically movable bearings, adjustable wedges extending through the guides below the vertically movable bearings and set screws taking through the guides, and engaging the wedges, substantially as and for the purpose set forth. 8th. The combination of a shaft having its end tapered, an interiorly threaded shell *r*, a body having exterior threads to engage those of the shell and adapted to receive the tapered end of the shaft, and a ring *v*, mounted on the shaft and having interior threads adapted to engage the threads of the body, substantially as and for the purpose set forth. 9th. In a machine for pulverizing ore or rock, the combination of the wheel having notches in its periphery, a shaft having its ends tapered and carrying an impact roll, the journal boxes or bearings arranged in the peripheral notches of the wheel and respectively comprising an interiorly threaded shell *r*, an exteriorly threaded body *s*, engaging the shell *r*, and adapted to receive the tapered end of the shaft, and the ring *v*, surrounding the shaft and having interior threads to engage the threads of the body *s*, and means for fixing the shells *r*, with respect to the wheel, substantially as and for the purpose set forth. 10th. In a machine for pulverizing ore or rock, the combination of the wheel having notches in its periphery, a shaft having its ends tapered and carrying an impact roll, the journal boxes or bearings arranged in the peripheral notches of the wheel and respectively comprising an interiorly threaded shell *r*, the exteriorly threaded body *s*, engaging the shell *r*, and adapted to receive the tapered end of the shaft and having the lubricant or packing receptacle at its outer end, and the ring *v*, surrounding the shaft and having interior threads adapted to engage the threads of the body *s*, for tightening packing in space *t*, the caps R, secured to the wheel and arranged over the journal bearings or boxes and screws taking through said caps and the shells *r*, of the boxes, substantially as and for the purpose set forth. 11th. In a machine for pulverizing ore and rock, the combination of a mortar having notches *h*, in its side walls, a hood arranged on the mortar and having vertical play spaces a^3, in alignment with the notches *h*, the wheel arranged in the mortar and having its shaft extending through the notches *h*, and journalled in vertically movable bearings, the vertically movable plates a^4, arranged on the inner sides of the mortar and hood walls, and receiving the shaft of the wheel, and the plates a^5, arranged on the outside of the hood walls and connected and adapted to move with the plates a^4, substantially as and for the the purpose set forth.

No. 48,484. Dry Earth Closet. (*Latrines sèches*).

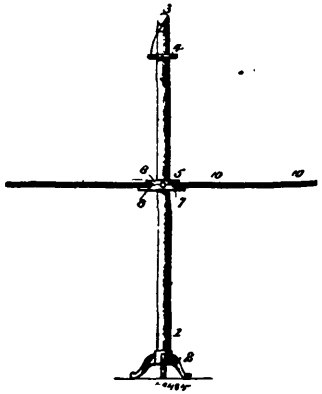


William McKenzie, Gananoque, Ontario, Canada, 19th March, 1895; 6 years.

Claim.—1st. The combination of seat-lid A, bar I, double or T-lever K, with the bars P and R, to the gate valves F and H, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of seat-lid A, bar I, and spring C, double-lever K, with the bars P and R, to the gate-valves F and H, substantially as and for the purpose hereinbefore set forth.

No. 48,485. Dry Goods Displayer.

(*Râtelier pour marchandises*).



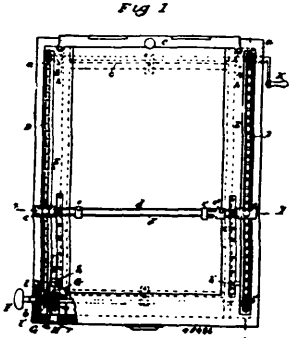
Alfred Ballard, Vancouver, British Columbia, Canada, 19th March, 1895; 6 years.

Claim.—1st. The combination, with the central rod, of a casting secured thereto and having circumferential slots and a like groove as described, a series of rods extending through the said slots and provided themselves with slots, and a wire passing through the slots of the rods and within the groove of the casting, for the purpose specified. 2nd. The combination, with the central rod, of a casting secured thereto, rods having a pivotal connection with said casting and adapted to be folded upwardly, and a rubber disc having circumferential notches or cesses adapted to receive the said rods when folded, as and for the purpose specified. 3rd. The combination, with the central rod, of a casting secured thereto, and having a central body portion and a horizontal flange having upwardly projecting ears, and said body portion being provided with slots as described, and rods extending through the said slots and adapted to rest upon the said ears when in a horizontal position, as and for the purpose specified.

No. 48,486. Writing Apparatus for the Blind.

(*Appareil à écrire pour les aveugles*)

Fig 1

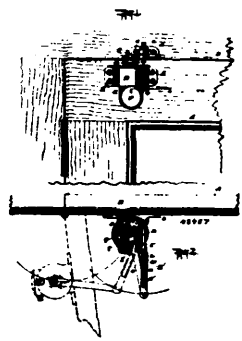


Dr. Julius Nord, 19 Kerklaan, Amsterdam, Holland, 19th March, 1895; 6 years.

Claim.—1st. A writing apparatus for blind or short-sighted persons, consisting essentially of a desk or support for the paper, two parallel flexible or yielding rods extending across the same to form the line guide, and runners or slides in which said flexible or yielding rods are fitted and which are movable to and fro along the sides of said desk or support respectively, the normal distance between said rods determining the height of the small letters which extend neither above or below the line whilst the flexibility or yielding of said rods permits the formation of capitals and other letters which extend above or below the line. 2nd. In a writing apparatus, the combination with the line guide and the runners or slides therefor of the feeders or conveyors connected therewith and situated on either side of the apparatus whereby said line guide may be adjusted to and retained at the required distance from its previous position, so as to provide for the proper spacing between the lines, substantially as described. In a writing apparatus, the combination with the line guide, of a line finishing stop adjustably secured upon one of the rods of said line guide, and which yields to permit the writing of a limited number of letters thereafter, substantially as and for the purposes set forth. 4th. In a writing apparatus, the combination with the desk or support for the paper, of the parallel rods forming the line guide, the runners or slides movable to and fro along the sides of said desk or support, respectively, and springs connecting said rods with the runners or slides, whereby upward or downward displacement of said rods in the runners or slides is permitted during formation of letters which extend above or below the line, substantially as described. 5th. In a writing apparatus, the combination with a desk or support for the paper, of feeding chains or belts situated at either side of the desk or support, means for adjusting the same, runners or slides connected with said chains or belts and parallel rods carried by said runners or slides, substantially as and for the purpose set forth. 6th. In a writing apparatus, the combination with a desk or support for the paper, of feeding chains or belts situated at either side of said desk or support, means for adjusting the same, runners or slides connected with said chains or belts, parallel rods carried by the runners or slides and a line finishing stop adjustably secured to one of said rods, and having a readily yielding spring, substantially as and for the purpose set forth.

No. 48,487. Door Spring and Lock Combined.

(*Ressort et serrure de porte combinés.*)



Joseph Bardsley, Montclair, New Jersey, U.S.A., 19th March, 1895; 6 years.

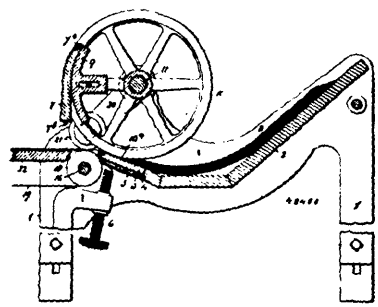
Claim.—1st. A combined door spring and check consisting of the casing forming the spring chamber and the horizontal liquid cylinder, the latter extending beneath said chamber and separated therefrom by a partition containing apertures and a vent, combined with the actuating spindle extending through the said chamber and into said cylinder, the horizontally reciprocating piston within said cylinder, the valve controlled port in said piston, the passage for the liquid around said piston, the crank on said spindle to effect the reciprocation of said piston, the helical spring encompassing said spindle, and means substantially as described for winding said spring and rotating said spindle, substantially as set forth. 2nd. The combined door spring and check consisting of the casing forming the spring chamber and liquid cylinder, the helical spring in said chamber, and the piston reciprocating horizontally and longitudinally in said cylinder, the said cylinder being separated from said chamber by a partition having apertures and a vent, in combination with the actuating spindle for operating said piston in connection with a checking fluid, the sleeve and toothed-wheel encompassing said spindle and receiving one end of said spring, the lever arm on the spindle, and the pawl connecting said arm and toothed-wheel, substantially as set forth. 3rd. The combined door spring and check consisting of the casing forming the spring chamber and liquid cylinder, the helical spring in said chamber, and the piston in said cylinder, the said cylinder and chamber being separated by a partition but being in communication with each other, in combination with the actuating spindle having upon its lower end the crank arranged to alternately contact with front and rear faces on said piston, the sleeve and toothed-wheel encompassing said spindle and receiving one end of the spring, the lever arm on the spindle, and the pawl connecting the said arm and toothed-wheel, substantially as set forth. 4th. The combined door spring and check consisting of the casing forming the spring chamber and liquid cylinder, the helical spring in said chamber, and the piston in said cylinder, the said cylinder and chamber having between them a perforated partition, a vent and a central nut through which is formed an opening, in combination with the actuating spindle passing downward through said chamber

and nut, and provided with a crank engaging said piston, the sleeve and toothed-wheel encompassing said spindle and receiving one end of the spring, the lever arm on the spindle and the pawl connecting the said arm and toothed-wheel, substantially as set forth. 5th. The combined door spring and check consisting of the casing forming the spring chamber and liquid cylinder, the helical spring in said chamber and the piston in said cylinder, the said cylinder and chamber communicating with each other, in combination with the actuating spindle for operating said piston in connection with a checking liquid, the by-pass around said piston and the auxiliary releasing by-pass in said cylinder, substantially as set forth. 6th. The casing containing the spring, the actuating spring and the cylinder, combined with the piston having formed between its opposite ends the race S and the space W and provided with the openings *b*, *c*, and valve *j*, the actuating spindle extending into said cylinder and provided with the crank *n* and wheel I, the latter engaging said race and the former moving in the said space, substantially as set forth. 7th. The combined door spring and check consisting of the casing forming the spring chamber and liquid cylinder, the spring in said chamber and the piston in said cylinder, the said cylinder and chamber being separated by a perforated partition and having a central opening, combined with the nut engaging said opening and provided with a vent, the actuating spindle extending downward through said nut and into said cylinder, the crank on said spindle engaging said piston and means, substantially as described, for winding said spring and rotating said spindle, substantially as set forth. 8th. The combined door spring and check consisting of the casing forming the spring chamber and liquid cylinder, the helical spring in said chamber, and the piston in said cylinder, in combination with the actuating spindle for operating said piston in connection with a checking liquid, means, substantially as described, for winding said spring and rotating said spindle the by-pass around the piston, and the auxiliary releasing by-pass formed in the walls of said cylinder and having its ends only open to said cylinder, substantially as set forth. 9th. The helical spring and its casing, combined with the actuating spindle, the lever arm secured to the exposed end thereof, and the extensible arm connected to said lever arm comprising a grooved section, a section adjustable in the said grooved section, and means for securing the sections of said extensible arm together, substantially as set forth. 10th. The spring and its casing, combined with the actuating spindle, the lever arm on said spindle and the extensible arm connected to said lever arm and comprising the grooved section, the recessed section adjustable thereon and the screw clamp for locking said sections together, substantially as set forth. 12th. A combined door spring and check consisting of the casing forming the spring chamber and the liquid cylinder, the spring in said chamber and the piston in said cylinder, the said cylinder being separated from said chamber by a partition, but communicating therewith through an aperture or apertures and a vent, in combination with the actuating spindle for operating said piston in connection with a checking fluid, substantially as set forth. 13th. The combination door spring and check consisting of the casing forming the spring chamber and liquid cylinder, the spring in said chamber and the piston in said cylinder, the said cylinder being separated from said chamber by a partition but communicating therewith through an aperture or apertures and a vent, the upper end of the latter being at a higher elevation than the upper end of said aperture or apertures, in combination with the actuating spindle for operating said piston in connection with a checking fluid, substantially as set forth. 14th. A door check comprising the casing sub-divided by a partition into two chambers, the latter being a liquid cylinder, said chambers having an opening and an air vent between them, combined with the actuating spindle, pivoted lever arms connected with the said spindle, and the piston in said cylinder adapted to be operated by said spindle, substantially as set forth. 15th. A door check comprising the casing sub-divided by a partition into two chambers, the latter being a liquid cylinder, said chambers having an opening and an air vent between them, combined with the actuating spindle, pivoted lever arms connected with said spindle, the valved piston in said cylinder and adapted to be operated by said spindle, the main by-pass in said cylinder, and the auxiliary by-pass in said cylinder, substantially as set forth.

No. 48,488. Apparatus for Separating and Feeding Paper to Printing Presses. (*Appareil pour séparer et fournir le papier aux presses à imprimer.*)

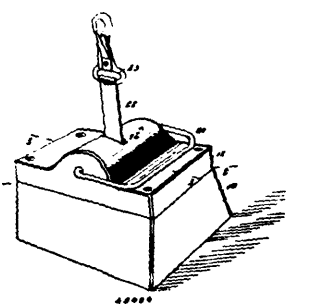
John James Allen, Victory Works, Bradford, England, 19th March, 1895; 6 years.

Claim.—1st. In an apparatus for feeding sheets of paper or the like, a table on which the piled paper is placed, an adjustable piece situated at one end of the table having a covering of rubber or the like, a flapper or drawing piece of rubber or the like over said adjustable piece and means for supporting and rotating the flapper or drawing piece, substantially as and for the purpose described. 2nd. In combination, an inclined or concave table an adjustable rubber faced piece situated at one end of same, wheels mounted above the table at that end, a rubber flapper or drawing piece carried by said wheels, means for carrying and rotating the latter, and a pile of paper the feathered ends of which lie close up to the wheels so that the sheets are in position to be drawn by the flapper or



drawing piece between the adjustable piece and the wheels, substantially as described. 3rd. In combination, an inclined or concave paper carrying table, a rubber feed piece pivoted at one end of same, a screw for adjusting same, wheels mounted over said piece, a block carried between said wheels and a flapper or drawing piece carried by the block, means for carrying and rotating said wheels, and means for taking off the sheet drawn by the drawing piece or flapper between the wheels and the table, substantially as described. 4th. In combination, the paper carrying table and adjustable rubber faced piece, the wheels 10, adjustable block 9, and flapper or drawing piece 7, shaft carrying same loose arms 20, carried by the shaft and presser rolls 21, carried by the arms adapted to bear on the sheet of paper runners 17, for taking the pressure of the rolls 21, means for carrying the runners 17, and means for taking off the sheet, substantially as described. 5th. The combination, with the concave or inclined table 2, of a paper feeding apparatus of a raised portion across the width of same for preventing the material sliding down and for shortening the table, substantially as described. 6th. The combination, with an inclined table and a revolving flapper or drawing piece of a cleaning pad and presser fingers, substantially as described and for the purpose set forth. 7th. The combination, with an inclined table and a revolving flapper or drawing piece of a slide rod carrying registering fingers, means for operating the rod, fingers such as 43 for holding the sheets and means for raising and lowering said fingers, substantially as and for the purpose set forth.

No. 48,489. Horse-Weight. (*Poids pour cheval.*)



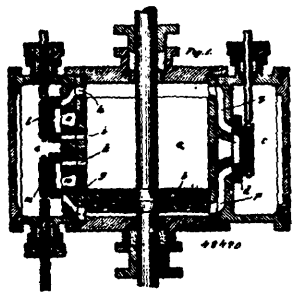
David Brown MacConachie, Toronto, Ontario, Canada, 19th March, 1895; 6 years.

Claim. 1st. The combination of the hollow weight block having aligning recesses in its upper face, the spring controlled strap roller provided with axially projecting ends supported in the said recesses, one of the ends being angular and forming a journal upon which the roller is mounted to rotate, and the slotted cap piece covering the said recesses so as to hold the roller ends therein and prevent rotation of the said angular end, substantially as described. 2nd. The combination with a chambered weight block, and a slotted cap piece securable on said weight block, of a hollow roller journalled at one end in a recessed edge of the weight block, a shaft within the roller and journalled at one end in an end wall of the roller, a tension spring on the shaft, fastened at one end to said end wall and at the other end to the shaft, a pawl pivoted on the opposite end wall of the roller and adapted to interlock with an indent in the shaft body near its other end, which end is interlocked with a notch in the

opposite edge of the weight block and held in place by the secured cap piece, and a halter band fastened at one end to the roller and extending therefrom through the slot in the cap piece, substantially as described.

No. 48,490. Valve Gear for Steam Engines.

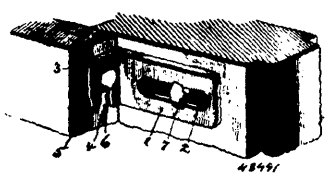
(Renvoi de mouvement de tiroir pour machines à vapeur.)



George August Julius Talge, Oldenburg, Germany, 19th March, 1895; 6 years.

Claim.—1st. Valve gear for steam-engines which causes exhaust every time the piston reaches the mid-stroke position as well as at the end of the strokes of said piston, constructed and arranged, substantially as described. 2nd. In a valve gear for steam-engines, the use of auxiliary valves adapted to admit steam only from the beginning of each stroke of the piston up to half-stroke of the latter, and then exhaust and again close the exhaust in combination and acting in conjunction with an ordinary main valve adapted to only admit steam after the piston is at half stroke arranged and acting constructed and arranged, substantially as described. 3rd. In a valve gear for steam-engines, the combination, with the ordinary main valve, of two auxiliary valves such as *l* and *m* adapted to uncover exhaust ports such as *i* and *k* respectively when the piston is in the mid-stroke position in the cylinder, constructed and arranged, substantially as hereinbefore described. 4th. The improved valve gear arranged, constructed, combined and acting, constructed and arranged, substantially as hereinbefore described.

No. 48,491. Window Fastener. *(Arrête-croisée.)*

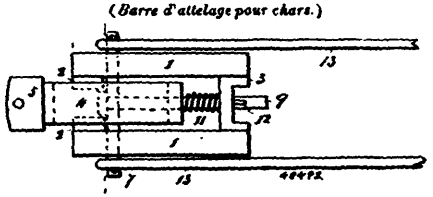


Henry H. Caswell, Newport, Vermont, U.S.A., 19th March, 1895; 6 years.

Claim.—1st. A sash fastener consisting of a slotted plate adapted to be secured to the sash, and provided with a notched angular extension for engaging the window casing, in the manner substantially as shown and described. 2nd. A sash fastener consisting of a slotted plate adapted to be secured to the sash, and an angular extension for engaging the window casing; substantially as and for the purpose specified.

No. 48,492. Draw-Bar for Railway Cars.

(Barre d'attelage pour chars.)

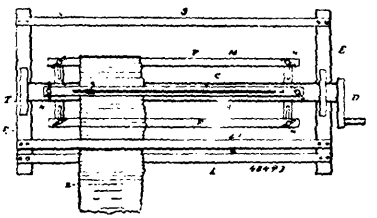


John Arthur Sample, Rankin, Pennsylvania, U.S.A., 19th March, 1895; 6 years.

Claim.—The herein described draw-bar, consisting of the frame 1, the draw-head arranged thereon, substantially as described, the shaft 9, passing through the said draw-head and frame, the springs 10 and 11, arranged about the said shaft, and the cross-bar 7 attached to the said shaft, and the bars 13, connected to the cross-bar, and extended rearward to another cross-bar arranged in a draw-head of the same construction, all arranged for service, substantially as and for the purpose described.

No. 48,493. Device for Measuring and Cutting Cheese Bandages. *(Appareil pour mesurer et couper les liens de meules de fromage.)*

Fig. 5

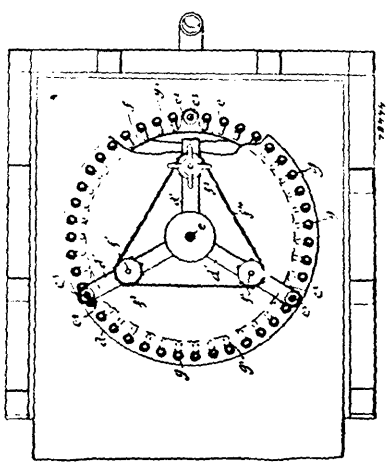


William James Whitton, Wellman's Corners, Ontario, Canada, 19th March, 1895; 6 years.

Claim.—1st. In a device of the character described, the combination of a reel M, having an adjustable circumference with a handle D; with posts T, with sills E, having rails L and S, connecting them together forming a base, with tension rail L^1, substantially as and for the purpose specified. 2nd. The combination in an adjustable reel having slotted, radial arms P, with rail F, and bolts Y, and thumb-nuts N, with axle B, having radial arms R, supporting a rail A^2, having longitudinal incision C, with bolts and thumb-nuts N, substantially as and for the purpose specified. 3rd. In a device of the character described, the combination of a cap A, having a longitudinal incision corresponding with a similar incision in rail A^2, with bolts Y, and thumb-nuts N, and knife K, with radial arms or spokes R, and axle B, with slotted radial arms P, with bar F, and handle D, with axle B, with the standards T, and sills or base E, with the rails S and L, and tension rail L^1, substantially as and for the purpose specified.

No. 48,494. Hydraulic Air Compressing Apparatus.

(Compresseur à air hydraulique.)



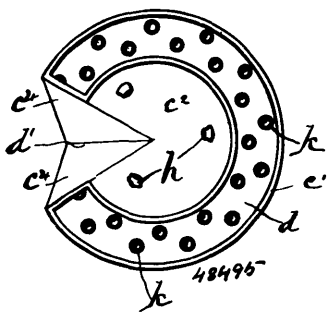
Joseph Rowart Fair and Henry Milken, assignees of Charles Havelock Taylor, all of Montreal, Quebec, Canada, 21st March, 1895; 6 years.

Claim.—1st. In hydraulic air compressing apparatus, the stand pipe or conductor, having a movable receiving end for the purpose set forth. 2nd. In hydraulic air compressing apparatus, a movable regulator adjustable relatively to the receiving end of the stand pipe, with means for operating same, for the purpose set forth. 3rd. In hydraulic air compressing apparatus, a series of air inlets located at

the receiving end of the stand pipe or conductor, and a cut-off device common to the series of inlets with means for operating same, for the purpose set forth. 4th. In hydraulic air compressing apparatus, *the stand pipe or conductor of tapering form, for the purpose* set forth. 5th. In hydraulic air compressing apparatus, the stand pipe or conductor having its lower end expanded, for the purpose set forth. 6th. In hydraulic air compressing apparatus having a stand pipe or conductor, a spreader located beneath the lower end of such stand pipe, for the purpose set forth. 7th. In hydraulic air compressing apparatus, having a stand pipe or conductor, a movable receiving end for such conductor and a movable regulator adjustable relatively to such movable receiving end, for the purpose set forth 8th. In hydraulic air compressing apparatus having a stand pipe or conductor, a movable receiving end for such conductor, a series of air inlets located to deliver into the movable receiving end and a combined water flow regulator and air cut-off device, for the purpose set forth. 9th. In hydraulic air compressing apparatus, the stand pipe or conductor tapering inward for a portion of its length, and having its lower end expanded, for the purpose set forth. 10th. In hydraulic air compressing apparatus, the combination of the stand pipe or conductor, having at its upper end the movable receiving end, the series of air inlets, the movable regulator and cut-off device and at its lower end the expansion chamber or dome with air outlet therefrom, for the purpose set forth. 11th. In hydraulic air compressing apparatus, the combination of the stand pipe or conductor having at its upper end the movable receiving end, the series of air inlets, the movable regulator and cut-off device, and at its lower end the expansion chamber or dome with air outlet therefrom, and a spreader within the expansion chamber and located beneath the lower end of the strand pipe for the purpose set forth.

No. 48,495. Hydraul. Ir Compressing Apparatus.

(*Compresseur a air hydraulique.*)

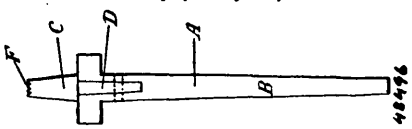


Joseph Rowat Fair and Henry Millen, assignees of Charles Havelock Taylor, all of Montreal, Quebec, Canada, 21st March, 1895; 6 years.

Claim.—1st. In hydraulic air compressing systems, in which a falling body of water is passed through a conductor, first dividing the body of water into a number of separate streams upon entering the conductor, for the purpose set forth. 2nd. In hydraulic air compressing systems, in which a falling body of water is passed through a conductor, first dividing the body of water into a number of separate streams upon entering the conductor and bringing them together within such conductor, for the purpose set forth. 3rd. In hydraulic air compressing systems, in which a falling body of water is passed through a conductor, creating a whirlpool at the lower end of the conductor, for the purpose set forth. 4th. A hydraulic air compressing apparatus, having a stand pipe or conductor, with its receiving end divided into a number of independent inlets, for the purpose set forth. 5th. Hydraulic air compressing apparatus having the receiving end of its stand pipe or conductor formed to present inner and outer edges, for the water to fall over into the conductor, and means for conducting water to the inner edges, for the purpose set forth. 6th. Hydraulic air compressing apparatus having a stand pipe or conductor, the receiving end of which is composed of two inverted cones, one within the other, and the outer one truncated, so as to form an inlet to the stand pipe, each cone having a portion cut away and the edges thus formed of one, connected to the edges thus formed of the other, so as to form a lateral passage to the inner cone, for the purpose set forth. 7th. Hydraulic air compressing apparatus, having a stand pipe or conductor, an expansion chamber to which said stand pipe is connected tangentially, and an air conductor leading from such expansion chamber to a receiver. 8th. A hydraulic air compressing apparatus comprising a water conductor, having its upper end adjustable and communicating with the atmosphere at the end into which the water falls in order that air may be sucked into same by the action of the water and an air conductor leading from the lower or delivery end of said water conductor into which such air passes, and through which it is forced by said body of water to a tank or receiver, for the purpose set forth.

No. 48,496. Die for Stamping Cigars.

(*Etampe pour cigares*)

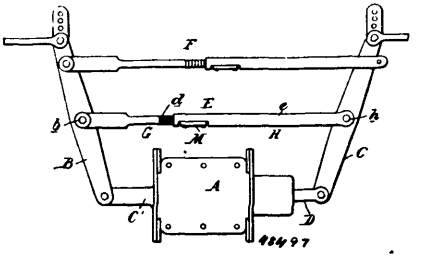


Edmond Narcisse Casson, Montreal, Quebec, Canada, 21st March, 1895; 6 years.

Claim.—A die for stamping cigars composed of a copper tail piece B, surmounted by a steel die C, having raised dotted concave letters G, and secured to tail piece B by means of rivets E, substantially as described and for the purposes set forth.

No. 48,497. Brake Slack Adjuster.

(*Appareil pour assurer la tension des freins de chars.*)



James Hale Sewall, Portland, and Frank Robinson, Bangor, both of Maine, U.S.A., 21st March, 1895; 6 years.

Claim.—1st. The combination with two oppositely moving levers of a car brake apparatus of a slack-take-up connecting bar therefor made in two sections, an open ended sleeve on the end of one section, a notched bar on the end of the other section slidingly engaging in the sleeve, a series of dogs or pawls in the sleeve engaging the notched bar, and a coupler bar for connecting the dogs and insuring them simultaneous and uniform engagement. 2nd. The combination with two oppositely moving levers of a car brake apparatus, of a slack take-up connecting bar therefor made in two sections, an open ended sleeve on the end of one section, a notched bar on the end of the other section slidingly engaging in the sleeve a series of dogs engaging the notched bar, a coupler bar connecting the dogs and acting to cause them to move simultaneously and devices for lifting the bar to disengage the dogs. 3rd. The combination with two oppositely moving levers of a car-brake apparatus of a slack take-up connecting bar therefor made in two sections, an open ended sleeve at the end of one bar, a ratched bar at the end of the other section slidingly engaging into the sleeve, a movable plate forming one side of the box or sleeve, and pawls or dogs on the sleeve engaging the ratchet bar, actuated by the plate. 4th. In a device of the kind described, the combination of the two part bar having overlapping ends slidingly engaging tog ther, one within the other, notched face on the inner section, a series of doors on the other section engaging the notches, the plate H vertically slidingly supported and forming one side of the enclosing section, pins on the dogs engaging recesses in the plate, and flanged cam P for lifting said plate, to disengage the dogs.

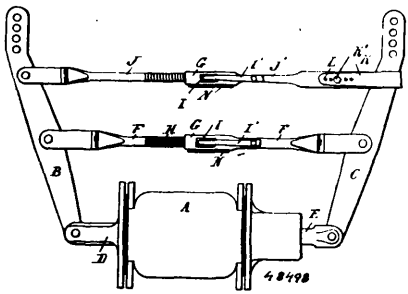
No. 48,498. Brake Slack Adjuster.

(*Appareil pour assurer la tension des freins de chars.*)

Frank Robinson, Bangor, and James H. Sewall, Portland, both of Maine, U.S.A., 21st March, 1895; 6 years.

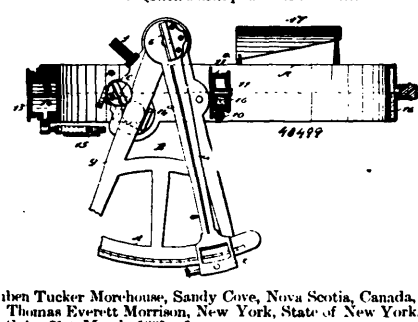
Claim.—1st. The combination of the cylinder levers, a fulcrum rod having an intermediate take-up, an adjustment rod extending between the levers beyond the fulcrum rod, one end of said adjustment rod having a loose connection with the lever, and a take-up in said adjustment rod, substantially as described. 2nd. The combination of the cylinder levers, a two part fulcrum rod, having a ratchet and pawl connection at the meeting ends of the parts, a two part adjustment rod pivoted at one end near the outer end of one lever, a loop or eye at the other end through which the other lever engages, and a take-up at the meeting ends of the adjustment rod, substantially as described. 3rd. The combination of the cylinder levers, a two part fulcrum rod having an intermediate take-up, a two part adjustment rod having a similar take-up, one end of said rod being pivotally connected to one lever, a loop at the other end of the adjustment rod through which the other lever passes, and a pin

adapted to adjust the length of the play of the lever in the loop, substantially as described. 4th. In a device of the kind described, a take-up connecting rod formed in two parts, having overlapping ends, an opened box-shaped sleeve at the inner end of one part, a toothed-bar at the inner end of the other part sliding into the sleeve,



and a pawl or series of dogs in the top of the sleeve adapted to engage the ratchet-bar, substantially as described. 5th. In a device of the kind described, a take-up connecting rod formed in two parts having overlapping end, a box-shaped sleeve at the inner end of one part, a toothed section on the top face of the inner end of the other part slidingly engaging into the sleeve, a series of dogs on the inner face of the top of the sleeve engaging with the toothed section, a bar, or slate on the end sleeve engaging beneath the dogs and means for raising said bar to simultaneously disengage all the dogs, substantially as and for the purpose described. 6th. The combination with the cylinder levers of a brake apparatus, of a tie of fulcrum bar having a take-up joint, an adjuster rod or bar between the levers beyond the fulcrum bar, and an adjustable loose connection between one lever and the bar, whereby the piston travel may be adjusted to a given length. 7th. The combination with two oppositely moving levers of a car brake apparatus, of a slack take-up connecting bar therefor made in two sections, a guide sleeve at the end of one section, a toothed bar at the end of the other section fitting snugly into the sleeve, a series of recesses in the under face of the top of the sleeve, and a series of dogs or pawls in said recesses engaging the teeth of the ratchet-bar, substantially as described.

No. 48,499. Instrument for Obtaining Altitudes at Sea. (*Instrument pour obtenir l'altitude en mer.*)

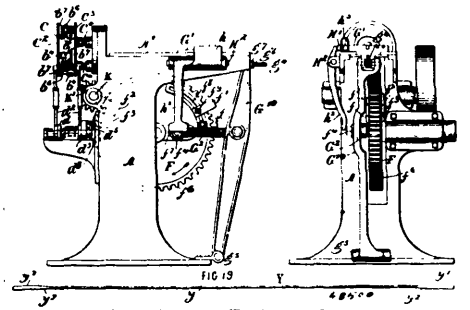


Reuben Tucker Morehouse, Sandy Cove, Nova Scotia, Canada, and Thomas Everett Morrison, New York, State of New York, U. S.A., 21st March, 1895; 6 years.

Claim.—1st. In an instrument for obtaining altitudes at sea, or an azimuth instrument, a liquid artificial horizon, as and for the purpose set forth. 2nd. In an instrument for obtaining altitudes at sea, or an azimuth instrument, an artificial liquid horizon, and means, substantially as described for bringing the sextant in the line of vision with the said horizon, as and for the purpose set forth 3rd. In an instrument for obtaining altitudes, a continuous hollow band adapted to contain an artificial liquid horizon and to encircle the head, and having a transparent wall at one side and a central sight hole, substantially as and for the purpose set forth. 4th. In an instrument for obtaining altitudes, a continuous hollow band adapted to contain an artificial liquid horizon and to encircle the head, and having a transparent wall on one side and a diametrical bar having a central sight hole, substantially as and for the purpose set forth. 5th. In an instrument for obtaining altitudes, a continuous hollow band adapted to contain an artificial liquid horizon and to encircle the head, having a transparent wall on one side and a diametrical hollow bar in open communication with the hollow band and having in the centre a sight hole, as and for the purpose set forth. 6th. An instrument for obtaining altitudes, consisting of a continuous hollow band adapted to contain an artificial liquid horizon and to encircle the head, and having a transparent wall on one side and a central sight opening, and a sextant interposed between the said sight hole and the said transparent wall, as and for the purpose set forth. 7th. An instrument for obtaining altitudes, consisting of a continuous hollow band adapted to contain an artificial liquid horizon and to encircle the head, and having a transparent wall on one side and a central sight hole, and a sextant and compass interposed between the sight hole and the transparent wall and supported upon the frame-work, substantially as and for the purpose set forth.

No. 48,500. Process of Making Wire, Etc.

(*Procédé pour fabriquer le fil de fer, etc.*)



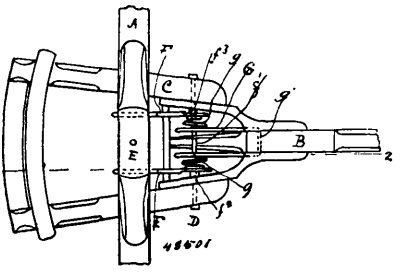
The Excelsior Needle Company, Torrington, Connecticut, assignee of Christian C. Hill, Chicago, Illinois, both in the U.S.A., 21st March, 1895; 6 years.

Claim.—1st. The process of making wire or wire articles, consisting in drawing and rolling the stock through a plurality of roller dies breaking joints with each other, substantially as specified. 2nd. The process of making wire or wire articles, consisting in drawing and rolling the stock through a plurality of roller dies breaking joints with each other, and moving an individual section or roller of one or more of the dies to or from the other sections or rollers thereof, substantially as specified. 3rd. The combination with two or more revolving sectional or roller dies breaking joints with each other, of means for drawing stock through the same, substantially as specified. 4th. The combination with two or more roller dies, the sections or rollers of one breaking joints with those of another and the sections or rollers of each die being movable to and from each other, of means for drawing the stock through the die, substantially as specified. 5th. The combination with two or more roller dies, the sections or rollers of one breaking joints with those of another and the sections or rollers of each die being movable to and from each other, of means for drawing the stock through the die, and means for automatically moving the sections of each die to and from each other at intervals as the wire is drawn, substantially as specified. 6th. The combination with a set of movable die rollers of means for automatically moving the rollers to and from each other, and a reciprocating gripper, substantially as specified. 7th. The combination with a set of movable die rollers of means for automatically moving the rollers to and from each other, a reciprocating gripper, and a pair of knives or cutters, substantially as specified. 8th. The combination with a set of movable die rollers, of a slotted head or support in which said rollers are mounted, and shafts having eccentric studs upon which said rollers are journalled, substantially as specified. 9th. The combination with a set of movable die roller of shafts furnished with eccentric studs upon which said rollers are journalled, each of said shafts having a segment gear arm, and a gear ring for operating said segment gear arms, substantially as specified. 10th. The combination with a set of movable die rollers, of shafts furnished with eccentric studs upon which said rollers are journalled, each of said shafts having a segment gear arm, a gear ring for operating said segment gear arms, a rock shaft provided with an arm, and a connecting rod connected at one end to said segment gear, and at the other end to the arm of the rock shaft, said connecting rod being arranged and adapted to be thrown past the centre, substantially as specified. 11th. The combination with two sets of movable die rollers, of a head or support in which they are mounted, two sets of eccentric rock shafts journalled in said head for moving the rollers to and from each other, each of said rock shafts being provided with an operating arm, and two rocking rings mounted on the head for operating the arms of said rock shafts, substantially as specified. 12th. The combination with two sets of movable die rollers, of a head or support in which they are mounted, two sets of eccentric rock shafts journalled in said head for moving the rollers to and from each other, each of said rock shafts being provided with an operating arm, two rocking rings mounted on the head for

operating the arms of said rock shafts, a rocking shaft having an arm connected by a link with one of said rocking rings and a rocking sleeve having an arm connected by a link with the other of said rocking rings, substantially as specified. 13th. The combination, with two sets of movable die rollers, of a head or support in which they are mounted, two sets of eccentric rock shafts journalled in said head for moving the rollers to and from each other, each of said rock shafts being provided with an operating arm, two rocking rings mounted on the head for operating the arms of said rock shafts, a rocking shaft having an arm connected by a link with one of said rocking rings, a rocking sleeve having an arm connected by a link with the other of said rocking rings, a cam-wheel furnished with arms or projections for engaging said arms on said rocking shaft and rocking sleeve, substantially as specified. 14th. The combination, with two sets of movable die rollers, of means for independently moving the rollers of each set to and from each other at intervals, and an operating wheel provided with adjustable arms or projections for adjusting or regulating the intervals at which the rollers of each set are closed or opened, substantially as specified.

No. 48,501. Tongue Support for Vehicles.

(*Tuteur de limonières.*)



John W. Lindquist and Fred Lindquist, both of Galesburg, Illinois, U.S.A., 21st March, 1895; 6 years.

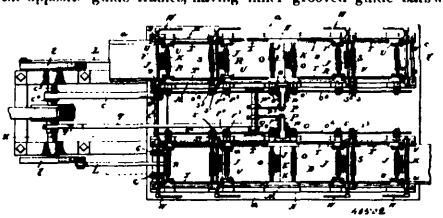
Claim.—1st. A spring support for a wagon or vehicle tongue, consisting in the combination of a pulling bar adapted to be attached to the axle, and a spring pivotally connected to said pulling bar having one arm fitting against the tongue and another arm fitting against the draw-bolt of the tongue, substantially as specified. 2nd. The vehicle tongue support, consisting in the combination of draw bars F, F, having loops or hooks f, f, for connecting with the axle, a double coil spring G made of a single piece of rod having eyes g^3, g^3 pivotally connected to said pulling bars, hooked arms g^2, g^2 adapted to connect with the draw-bolt, and arm or loop g^1 adapted to bear against the tongue, substantially as specified. 3rd. The combination of axle A, with tongue C, and draw bolt D, of hooked pulling bars F, F connected to the axle, double coil spring G, having two coils g, g one fitting on each side of the main bar of the tongue and furnished with eyes g^3, g^3, a pivot bolt f^1 passing through said pulling bars and the eyes of said coils, said spring G, having also a looped middle portion g^1 fitting against the tongue, and hooked arms g^2, g^2 fitting against said draw-bolt D, substantially as specified. 4th. A spring support for a wagon or vehicle tongue, consisting in the the combination of a pair of pulling bars F, F connected to the axle, and a coil spring pivotally connected to said pulling bars and having two arms, one bearing against the tongue to support the same and the other against the draw bolt of the tongue, substantially as specified. 5th. A spring support for a wagon or vehicle tongue, consisting in the combination of a pulling bar adapted to be connected with the axle, and a double coil spring made in a single piece and pivotally connected to said pulling bars, said spring being provided with a loop portion g^1 bearing against the tongue, and a pair of hooks g^2 bearing against the draw bar of the tongue, substantially as specified.

No. 48,502. Excelsior Cutting Machine.

(*Machine pour réduire le bois en fibre.*)

William Wesley Ryan, Alpena, and Edward Jennings, Pinconning, both of Michigan, U.S.A., 21st March, 1895; 6 years.

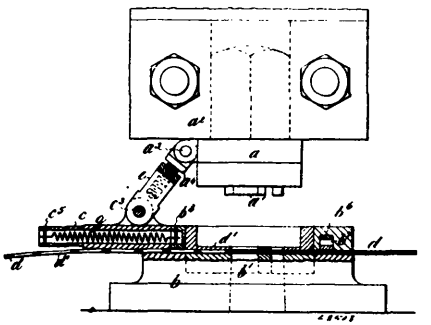
Claim.—1st. In an excelsior cutting machine, the combination of the opposite parallel guide frames, each having inclosing sides B, endless carriers arranged at the bottom of the space inclosed between said sides, flat cutter tables arranged to slide in each of said guide-frames alternately with respect to each other, knife-heads or blocks removably fitted in said cutter tables flush with the tops thereof and carrying separate sets of splitting and planing knives cutting toward the centres of the guide-frames, separate pairs of movable and stationary feed rolls mounted on the guide-frames at both sides of the centres thereof and each carrying at one end a worm gear-wheel, separate feed shafts mounted at the top and one side of the guide frames and having their ends at the centres of such frames terminating short of each other, worm pinions mounted on said shafts and meshing with said worm gear-wheels, and a ratchet device arranged between the guide-frames and connected with the adjacent ends of the separate feed-shafts, substantially as set forth. 3rd. In an excelsior cutting machine, the combination of the opposite guide frames, having inner grooved guide bars a,



and parallel guide strips M, thereabove, oppositely reciprocating flat cutter tables moving in the grooved bars a, and carrying removable sets of knives cutting toward the centres of the frames, stationary and self adjusting movable bearing boxes arranged alternately on top of the bars a, under the strips M, corrugated feed rolls having their ends journalled in said boxes and each carrying at one end a gear-wheel, springs connected at one end to the self-adjusting bearing boxes to draw the movable rolls toward the stationary rolls, separate aligned feed shafts mounted at one side of the guide-frames, worm pinions mounted on said feed-shafts and meshing with the roll gear-wheels, the pinions for the movable feed-roll gears being mounted to slide on the shafts, and an operating device connected to the adjacent ends of the separate feed shafts and adapted to impart to each of the same an independent intermittent motion, substantially as set forth. 3rd. In an excelsior machine, the opposite parallel guide frames having parallel guide strips M, arranged above each side thereof, oppositely reciprocating cutter bars moving in said guide frames, stationary and movable bearing boxes arranged alternately under said guide strips on each side of the centre of said guide frame, corrugated feed rollers mounted in said boxes, retractile springs connected to the movable boxes to draw their rolls toward the stationary rolls paired thereto, stationary bearings arranged at opposite sides and on top of the frames, transverse rock shafts journalled above the guide-frames at suitable points in said stationary bearings and having operating levers at one end and intermediate rock-arms, pivotal links connected to said rock arms and the movable bearing boxes to slide the same from the stationary boxes against the spring tension, and worm gearing for intermittently turning said feed rolls, substantially as set forth. 4th. In an excelsior machine, opposite guide-frames, oppositely reciprocating cutter bars sliding in said guide-frames and carrying separate sets of knives, a stationary and movable feed roll for each set of knives and car ying at one end a worm gear-wheel, shaft bearings or brackets attached to the bearings for the stationary and movable feed rolls, separate feed shafts mounted in said brackets and having their ends at the centre of the guide-frames terminating short of each other, worm pinions mounted on said shafts and meshing with said worm gear-wheels, the pinions for the movable feed roll gears being mounted to slide on said shafts, ratchet-wheels mounted on said shafts near their inner ends, swinging pawl levers journalled on the adjacent inner ends of said shafts and carrying reversely disposed pawls engaging the ratchet-wheels on both sides thereof, and means for simultaneously moving the opposite pawl levers in the same direction, substantially as set forth.

No. 48,503. Feed Apparatus for Stamping Presses.

(*Appareil d'alimentation pour machines à étamper.*)

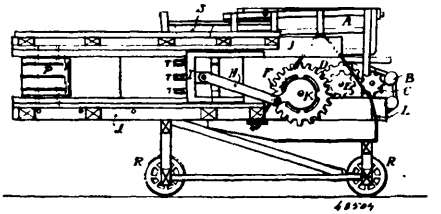


Luigi Armanni, London, England, 21st March, 1895; 6 years.

Claim.—The hereinbefore described improved feed apparatus for

stamping presses, the same being characterized by a feed-slide or carrier *c*, applied to the die-holder *b*, and connected by a link or levers *e*, *a*⁴, to the punch or the die-holder, and actuated directly from the punch at each downstroke or upstroke of the punch-slide, and returned on the return stroke of the punch-slide by its connection to the punch or by springs *g*, as set forth.

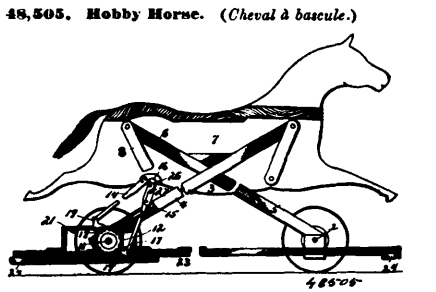
No. 48,504. Hay Press. (*Presse à foin.*)



Alexis Préfontaine, St. Marc, Québec, Canada, 23 Mars, 1895; 6 ans.

Résumé—1°. Dans une presse à foin horizontale mise en opération par un manège, la combinaison des pignons C, placés sur un essieu O, qui traverse le manège A, et des roues d'engrenage D posées sur un essieu N, qui traverse le manège A, et la partie antérieure de la charpente de la boîte J, de la presse, tel que décrit et pour les fins indiquées. 2° Dans une presse à foin horizontale mise en opération par un manège, le combinaison d'un pignon E, placé sur l'essieu principal N, qui traverse le manège A, et la partie antérieure de la charpente de la presse J, et la roue d'engrenage mobile F, s'accouplant avec la piece K, de la manivelle G, qui l'avoisine au moyen de troches ou entailles dans la roue F, et de dents dans la piece K, tel que ci-dessus décrit et pour les fins indiquées. 3° Dans une presse à foin horizontale mise en opération par un manège, la combinaison des panneaux P, jouant sur des pivots placés à l'une de leurs extrémités et des vis Q, avec roues à main servant à pousser les panneaux vers les lignes ponctuées afin de rétrécir la sortie du tube de la presse, tel qui ci-dessus décrit et pour les fins indiquées. 4° Dans une presse à foin horizontale mise en opération par un manège, la combinaison de la masse I, réunie à la manivelle G, et à la piece K, par un bras H, tel que décrit ci-dessus et pour les fins indiquées.

No. 48,505. Hobby Horse. (*Cheval à bascule.*)

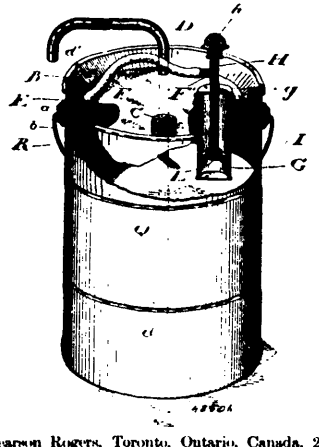


Robert Allen Horning, Randolph Landt and Harry Hepper, all of Lanark, Illinois, U.S.A., 23rd March, 1895; 6 years.

Claim.—1st. In a vehicle, the combination with the driving axle, of a ratchet fixed to and carried thereby, reverse driving ratchets rotatably mounted upon the axle and adapted to alternately engage the fixed ratchet, shifting mechanism connected to the said driving ratchets, an operating part or lever, connections between said part or lever and the driving ratchets, and a reversing bar connected to the shifting mechanism, substantially as specified. 2nd. The combination with the driving axle, of oppositely rotatable driving ratchets mounted upon the axle and adapted to be alternately connected thereto, an operating part or lever, connections between said part or lever and the driving ratchets, a shifting mechanism connected to the driving ratchets, and a reversing bar connected to the shifting mechanism, substantially as specified. 3rd. The combination with the driving axle, of oppositely rotatable driving ratchets, clutch mechanisms for connecting either of said ratchets with the axle, an operating part or lever, connections between said part or lever and the driving ratchets, and a reversing bar provided with shifting devices to operate said clutch mechanisms, substantially as specified. 4th. The combination with the driving axle, of rotatable driving ratchets, clutch mechanisms for connecting either of said ratchets to the driving-axle, an oscillating part or lever operatively connected to the said ratchets, a reversing bar, shifting blocks connected to said clutch mechanisms, and a shifting guide carried by the reversing bar and operatively connected to the shifting blocks, substantially as specified. 5th. The combination with the driving axle, of rotatable driving ratchets, a clutch mechanism for connecting either of said ratchets with the axle, an operating part or lever operatively connected to said ratchets whereby they are rotated continuously in opposite directions, a slidable reversing bar provided with shifting guides, and slidable shifting blocks operated by said guides and connected to the clutch mechanism, substantially as specified. 6th. The combination with the driving axle, of oppositely rotatable driving ratchets, a clutch mechanism to connect either of said ratchets to the axle, an operating part or lever connected to said ratchets to impart continuous rotary motion in opposite directions thereto, a slidable reversing bar capable of movement in a direction perpendicular to the axis of the driving axle, guides carried by said bar and provided with bevelled shoulders, and shifting blocks slidably mounted upon the axle in operative relation to the clutch mechanism and provided with shoulders engaging the shoulders of the guides, substantially as specified. 7th. The combination with the supporting framework, a driving axle, and an oscillating part or lever mounted upon the supporting framework, of a reversible driving mechanism operatively connected to the axle and having oppositely rotatable driving ratchets, a clutch mechanism for connecting either of said ratchets to the axle, means for operating said clutch mechanism, and pawl-bearing arms connected to the oscillating part or lever and carrying oppositely disposed actuating pawls engaging the driving ratchets, respectively, to impart rotary movement in opposite directions, substantially as specified. 8th. The combination with the supporting framework, a driving axle, and an oscillating part or lever mounted upon the supporting framework, of a reversible driving mechanism operatively connected to the axle and having oppositely rotatable driving ratchets, a clutch mechanism for connecting either of said ratchets to the axle, means for operating said clutch mechanism, pawl-bearing arms operatively connected to said driving ratchets to impart rotary movement in opposite directions thereto, and a detachable connection between said arms and the oscillating part or lever, substantially as specified. 9th. The combination with the supporting framework, a driving axle, and an oscillating part or lever mounted upon the supporting framework, of a reversible driving mechanism operatively connected to the axle and having oppositely rotatable driving ratchets, a clutch mechanism for connecting either of said ratchets to the axle, means for operating said clutch mechanism, pawl-bearing arms operatively connected to said driving ratchets to impart rotary movement in opposite directions thereto, and a catch for connecting said arms to the oscillating part or lever, the same comprising a hook to engage a cross-bar carried by the said part or lever, and a slide to close the mouth of said hook, substantially as specified. 10th. In a vehicle, the combination of a supporting framework provided with upward divergent supporting arms, carrying-wheels, a driving axle, a reversible operating mechanism connected to said axle and having oppositely driving ratchets, a reversing bar, connections between said reversing bar and the driving mechanism, an oscillating part or lever connected by links to said supporting arms, and pawl-bearing arms pivotally connected to said part or lever and having their pawls arranged in operative relation to the driving ratchets, substantially as specified.

No. 48,506. Lamp Filler.

(*Appareil pour remplir les lampes.*)

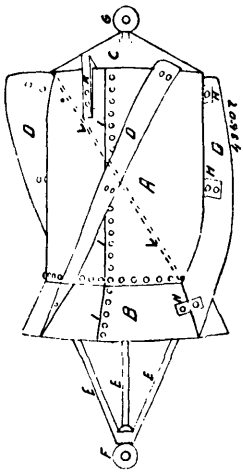


Joseph Pearson Rogers, Toronto, Ontario, Canada, 23rd March, 1895; 6 years.

Claim.—1st. In an oil can and lamp filler, the combination of an oil can, a flexible air passage between the interior of the can and the

interior of a hollow piston rod, means for pumping air through the piston rod and flexible air passage so as to compress the air above the oil, and an oil ejecting pipe, substantially as described and for the purpose specified. 2nd. An oil can and lamp filler provided with a flexible air passage between the upper part of the can above the oil, and the interior of a hollow piston rod fitted in an air pump cylinder, the hollow piston rod serving as a medium through which air is forced into the interior of the can by suitable means, and of permitting its escape therefrom, substantially as described and for the purpose specified. 3rd. In an oil can and lamp filler, the combination of an oil can, an air pump cylinder in which is fitted a piston head with an air valve and a hollow piston rod having an open upper end, a flexible air tube forming a communication between the interior of the can above the oil, and the interior of the hollow piston rod above the upper surface of the can, and an oil ejecting pipe, substantially as described and for the purpose specified. 4th. In an oil can and lamp filler, the combination of the can A, flexible tube F, hollow piston rod H, and means for pumping air through the flexible tube from the air pump cylinder C, to the interior of the can above the oil, and the oil ejecting pipe D, substantially as described and for the purpose specified. 5th. In an oil can and lamp filler, the combination of the can A, air inlet pipe E, flexible tube F, hollow stem F', hollow piston rod H, air pump cylinder G, cap *g*, piston head I, leather ring J, flange K, air valve L, valve seat M, air-way N, valve stem O, valve head P, with openings *p*, rotatable oil ejecting pipe D, and screw cap C, substantially as described and for the purpose specified.

No. 48,507. Dredging Bucket. (*Godet pour draguer.*)



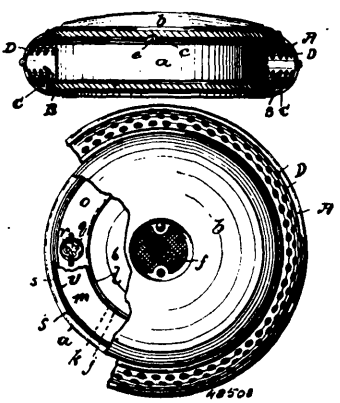
Elijah John Fader, Calgary, North West Territories, Canada, 23rd March, 1895; 6 years.

Claim.—1st. A dredging bucket of cylindrical form, with or without the propeller flanges D, D, D, which are required only in slack currents, having a funnel-shaped dipping flange B, at mouth of bucket barrel A, which serves to fill bucket when drawn by that end on river bed, having two swivels, one F at end of draw irons E, E, E, and another G on bottom C, allowing bucket to revolve over river bed, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of this bucket with the cable E, F, having one end fastened on river shore at M working through pulley I and the other end on winch G which hauls bucket ashore, and with the cable K one end of which is fastened on opposite shore at L or to an anchor out in the stream and the other end to swivel ring on bottom of bucket, when by paying out the cable E, F, the river current acting, on cable K, and on bucket revolves and swings the bucket out into position ready to be filled and drawn ashore, substantially as and for the purpose hereinbefore set forth.

No. 48,508. Portable Heater. (*Chauffeur portatif.*)

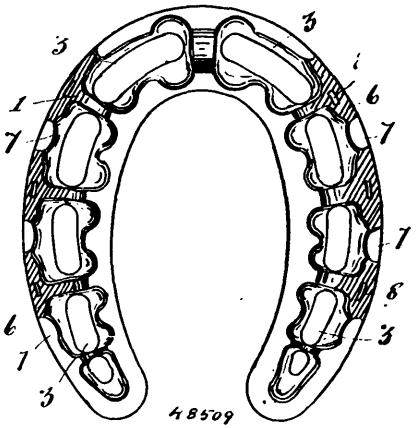
Jonathan T. Ellis, Newark, New Jersey, U.S.A., 23rd March, 1895; 6 years.

Claim.—1st. The improved warmer, comprising a perforated body, a cover, a gauze partition forming a central fire chamber and an outer air chamber and a central pin or stud for holding a perforated fuel block, substantially as set forth. 2nd. The improved warmer, comprising an outer casing having upper and lower perforations, the latter being smaller than the other to provide a bearing for the body, a body and cover, seated in said casing and held therein by spring catches, said body consisting of a perforated piece having an interior fire chamber and air chamber separated by a wire gauze partition and a fuel support, substantially as set forth. 3rd. The combination with a body and cover of a warmer, a central pin for supporting



a perforated fuel in a fire chamber, substantially as set forth. 4th. The combination with a body and cover having air perforations protected by gauze, of a grating having compressed fuel material thereon and means for holding said grating and fuel in place in the fire chamber, substantially as set forth. 5th. The combination with the body *a*, and cover *b*, and annular partition *k*, of gauze, the flanged fire chamber bottom *h*, the flanged air chamber cover *o*, and the fire chamber cover *i*, fastened to the cover *b*, all arranged and combined, substantially as and for the purposes set forth. 6th. The combination with the body *a*, cover *b*, gauze partition separating the central fire chamber from the air chamber, and a cover for the air chamber, perforated as at *q*, and having suspensory receptacle for odoriferous substances, substantially as set forth.

No. 48,509. Horse-Shoe. (*Fer à cheval.*)



Hiram H. Gibbs, Indianapolis, Indiana, U.S.A., 23rd March, 1895; 6 years.

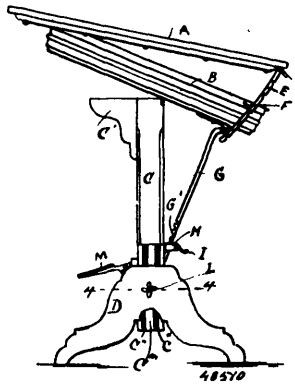
Claim.—A horse-shoe consisting of a metal frame provided with a series from one end to the other of long bevelled sided slots through it separated by narrow partitions and recesses on the upper surface of the frame, and a resilient material so secured to the frame as to extend through such slots and bear on the ground when in use and to form a cushion above such frame, substantially as shown and described.

No. 48,510. Drafting Table. (*Table de dessin.*)

John H. Fry and James G. Alexander, both of Grand Rapids, Michigan, U.S.A., 23rd March, 1895; 6 years.

Claim.—In a drafting table, the combination with vertically

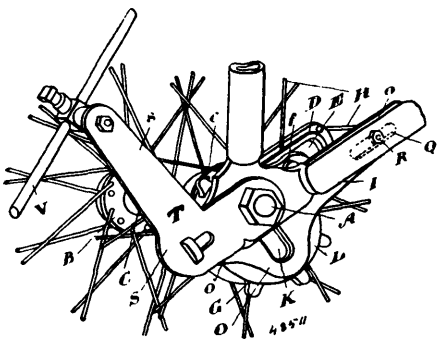
adjustable posts and the hinged top thereon, of the board hinged to the top, the brace pivoted on the underside of the top and provided with notches, and the pivoted trip lever having a concave face to bear on said brace, substantially as specified. 2nd. In a



drafting table, the combination with the vertically adjustable posts and the top hinged thereon, of the board hinged to the top, the brace pivoted to the underside of the top and provided with notches, the pivoted trip lever having a concave face to bear against said brace, the stud K, on the connecting bar of the posts to engage the notches of the said brace, as set forth. 3rd. The improved drafting table described, consisting of the leg brackets, the posts vertically adjustable thereon, the brackets at the upper ends of the posts, the top centrally hinged to the upper ends of the posts, the board hinged at one edge to the top, the brace hinged to the underside of the top and notched at its lower end, the pivoted trip lever the stud K, to engage the notches of the brace, the loops on the top and the revoluble bar on the underside of said board and having handle and integral depending end portions which are notched and pass loosely through said loops, all substantially as shown and described.

No. 48,511. Driving Gear for Bicycles.

(*Roues de commande pour bicycles*)



William Sandfield Wilson, Brantford, Ontario, Canada, 25th March, 1895; 6 years.

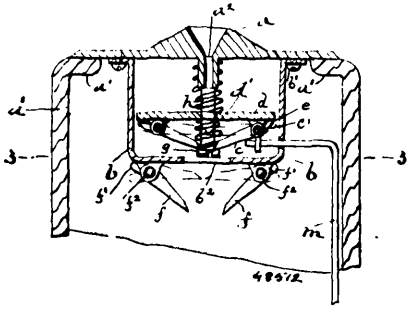
Claim.—1st. A driving gear for bicycles consisting of a driving wheel, a sprocket-wheel journalled independently of the driving wheel and capable of being moved into a position either eccentric or concentric to the driving wheel, substantially as specified. 2nd. A driving gear for bicycles consisting of a driving wheel, a sprocket-wheel journalled independently of the driving wheel and capable of being moved into position either eccentric or concentric to the driving wheel to equalize the leverage on the crank, and a connection between the sprocket-wheel and driving wheel whereby the driving wheel is revolved during the revolution of the sprocket-wheel, substantially as specified. 3rd. A driving gear for bicycles consisting of a driving wheel, a disc journalled independently of the driving wheel and capable of being moved into a position either eccentric or concentric to the driving wheel, a sprocket-wheel mounted on and revolving around the said disc, and a connection between the sprocket-wheel and the driving wheel, whereby the driving wheel is revolved during the revolution of the sprocket-wheel, substantially as specified 4th. In a bicycle, the combination of the rear axle, a driving wheel mounted on the rear axle, a movable disc mounted on the axle, having an elongated slot through which passes the said axle to enable the said disc to be moved into a position eccentric to or concentric with the driving wheel, a sprocket-wheel mounted on and revolving around the said disc and a connection between the sprocket-wheel and the driving wheel whereby the revolution of the sprocket-wheel causes the revolution of the driving wheel, substantially as specified. 5th. In a bicycle, the combination of the rear axle, a driving wheel mounted on the rear axle, a movable disc mounted on the axle, having an elongated slot through which passes the said axle to enable the said disc to be moved into a position eccentric to or concentric with the driving wheel, a sprocket-wheel mounted on and revolving around the said disc, a connection between the sprocket-wheel and the driving wheel, whereby the revolution of the sprocket-wheel causes the revolution of the driving wheel, and means for moving the disc with its sprocket-wheel into a position either eccentric to or concentric with the driving wheel, substantially as specified. 6th. In a bicycle, the combination of the rear axle, a driving wheel mounted on the rear axle, a movable disc mounted on the axle, having an elongated slot through which passes the said axle to enable the said disc to be moved into a position eccentric to or concentric with the driving wheel, a sprocket-wheel mounted on and evolving around the said disc, a connection between the sprocket-wheel and the driving wheel, whereby the revolution of the sprocket-wheel causes the revolution of the driving wheel, means for moving the disc with its sprocket-wheel into a position either eccentric to or concentric with the driving wheel, and means for holding the disc and sprocket-wheel in the adjusted position, substantially as specified. 7th. A driving gear for bicycles, consisting of an axle, a driving wheel mounted on the axle, a radial arm extending outwardly from the hub of the driving wheel having formed in it a radial slot, a sprocket-wheel journalled independently of the driving wheel, and capable of being moved into a position either eccentric to or concentric with the driving wheel, and a pin connected to the sprocket-wheel working in the said radial slot whereby the revolution of the driving wheel is caused during the revolution of the sprocket-wheel, substantially as specified. 8th. A driving gear for bicycles consisting of a driving wheel, a radial arm extending outwardly from the hub of the driving wheel, a radial slot formed in the radial arm, a disc journalled independently of the driving wheel and capable of being moved into a position either eccentric to or concentric with the driving wheel, a sprocket-wheel mounted on and revolving about the said disc, a pin connected to the sprocket-wheel and working in the said slot whereby the driving-wheel is caused to revolve during the revolution of the sprocket-wheel, substantially as specified. 9th. A driving gear for bicycles, consisting of a driving wheel, a radial arm extending outwardly from the hub of the driving wheel, a radial slot formed in said arm, a disc journalled independently of the driving wheel and capable of being moved into a position either eccentric to or concentric with the driving-wheel, an elongated slot formed in the disc through which passes the axle of the driving wheel, a sprocket-wheel mounted on the said disc, a pin connected to the sprocket-wheel and working in the slot in the radial arm, and means for adjusting the position of the disc and sprocket-wheel, substantially as specified. 10th. A driving gear for bicycles consisting of a driving wheel, a radial arm extending outwardly from the hub of the driving wheel, a radial slot formed in the said arm, a disc journalled independently of the driving wheel and capable of being moved into a position either eccentric to or concentric with the driving wheel, an elongated slot formed in the disc through which passes the axle of the driving wheel, a sprocket-wheel mounted on the said disc, a pin connected to the sprocket-wheel and working in the slot in the radial arm, means for adjusting the position of the disc and sprocket-wheel, and means for holding the disc and sprocket-wheel in their adjusted position, substantially as specified.

No. 48,512. Fare Box. (*Boîte à billets.*)

Francis Joseph Freese, Montreal, Quebec, Canada, 25th March, 1895; 6 years.

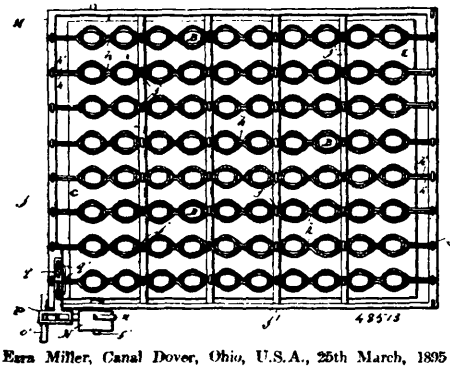
Claim.—1st. A fare box having a guarding device comprising movable fingers resting at an inclined angle with their acting ends in line with the sides of the fare passage and adapted by frictional contact with any instrument passed down such passage to prevent its withdrawal, as set forth. 2nd. In a fare box, the combination, with a movable guarding device adapted to grip any instrument passed down the fare passage to prevent its withdrawal, of an indicator and operating connection between it and said guarding device, for the purpose set forth. 3rd. In a fare box, the combination, with the inlet plate, of vertical guides, a frame plate movable on said guides and springs between said frame plate and inlet plate, fingers pivoted to said frame plate and lying at an inclined angle with their acting ends in line with the sides of the fare passage, for the purpose set forth. 4th. In a fare box, the combination, with the inlet plate of vertical guides, a frame plate movable on said guides and springs between said frame plate and inlet plate, fingers pivoted to said frame plate and lying at an inclined angle with their acting ends in line with the sides of the fare passage, an indicator near the bottom of the box and an operating connection between said movable

frame plate and the indicator, for the purpose set forth. 5th. In a fare box, the combination, with the inlet plate, of vertical guides, a frame plate movable on said guides and springs between said frame plate and inlet plate, fingers pivoted to said frame plate and lying at an inclined angle with their acting ends in line with the sides of



the fare passage, an inclosing casing for the guides, springs, frame plate and fingers, for the purpose set forth. 6th. In a fare box, the combination, with the inlet plate of vertical guides, a frame plate movable on said guides and springs between said frame plate and inlet plate, fingers pivoted to said frame plate and lying at an inclined angle with their acting ends in line with the sides of the fare passage, a slot in the bottom of said inclosing casing and auxiliary fingers pivoted to the underside of said casing and also lying at an inclined angle with their acting ends in line with the sides of said slot, for the purpose set forth. 7th. In a fare box, the combination, with the inlet plate of vertical guides, a frame plate movable on said guides and springs between said frame plate and inlet plate, fingers pivoted to said frame plate and lying at an inclined angle with their acting ends in line with the sides of the fare passage, an inclosing casing for the guides, springs, frame plate and fingers, a slot in the bottom of said inclosing casing and auxiliary fingers pivoted to the underside of said casing and also lying at an inclined angle with their acting ends in line with the sides of said slot, an indicator near the bottom of the box and an operating connection between said movable frame plate and the indicator, for the purpose set forth. 8th. In a fare box, the combination, with the inlet plate of vertical guides, a frame plate movable on said guides and springs between said frame plate and inlet plate, fingers pivoted to said frame plate and lying at an inclined angle with their acting ends in line with the sides of the fare passage, an inclosing casing for the guides, springs, frame plate and fingers, a slot in the bottom of said inclosing casing and auxiliary fingers pivoted to the underside of said casing and also lying at an inclined angle with their acting ends in line with the sides of said slot, an indicator in the form of a rotating ratchet disc and an operating rod connected with said frame plate and carrying a pawl to engage said ratchet disc, for the purpose set forth.

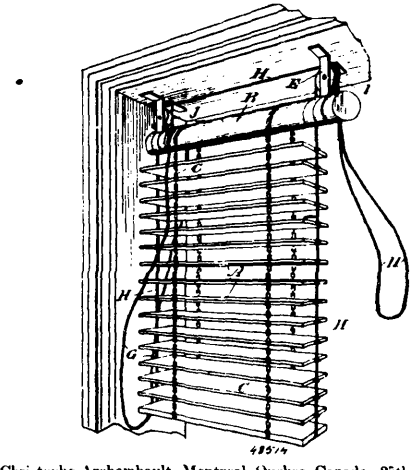
No. 48,513. Dust Collector. (*Aspirateur de poussière.*)



Ezra Miller, Canal Dover, Ohio, U.S.A., 25th March, 1895; 6 years.

Claim.—1st. In a dust collector, the combination with a flexible filtering tube or passage into which the dust-laden air is delivered, of a cleaner impinging against the outer side of said tube or passage and adapted to agitate it where it impinges against the same, and mechanism whereby the cleaner is moved along the tube or passage, substantially as set forth. 2nd. In a dust collector, the combination with a flexible filtering tube or passage into which the dust-laden air is delivered, of a cleaner embracing said tube or passage and having a form different from that of the tube or passage, and mechanism whereby the cleaner is moved along the tube or passage, substantially as set forth. 3rd. In a dust collector, the combination with a round flexible filtering tube or passage into which the dust-laden air is delivered, of an oblong cleaner embracing the tube or passage and impinging against the same, and mechanism whereby the cleaner is moved along the tube or passage, substantially as set forth. 4th. In a dust collector, the combination with a group of filtering tubes or passages into which the dust-laden air is delivered, of a cleaner frame having members which are arranged between the tubes or passages and which impinges against the outer sides thereof, and mechanism whereby the cleaner frame is moved along the tubes or passages, substantially as set forth. 5th. In a dust collector, the combination with a chamber into which the dust-laden air is blown, flexible tubes or passages extending downward from said chamber, and a dust chamber connected with the lower ends of said tubes or passages, of a cleaner frame arranged between said two chambers and having members which impinge against the outer sides of said tubes or passages, and mechanism whereby said cleaner frame is moved up and down between the two chambers, substantially as set forth. 6th. In a dust collector, the combination with the upright filtering tubes or passages, of a cleaner impinging against the outer sides of said tubes or passages, a drum shaft, cords connecting the cleaner with said shaft, and mechanism whereby the shaft is rotated to elevate the cleaner and released to allow the descent of the cleaner, substantially as set forth. 7th. In a dust collector, the combination with the upright filtering tubes or passages, of a cleaner impinging against the outer sides of said tubes or passages, a drum shaft provided with tight and loose pulleys, cords connecting the cleaner with said shaft, a driving belt running around said pulleys, a movable belt shifter on the cleaner, and upper and lower shifting arms whereby the belt shifter is moved to shift the belt, substantially as set forth.

No. 48,514. Window Blind. (*Store de fenêtre.*)



Christophe Archambault, Montreal, Quebec, Canada, 25th March, 1895; 6 years.

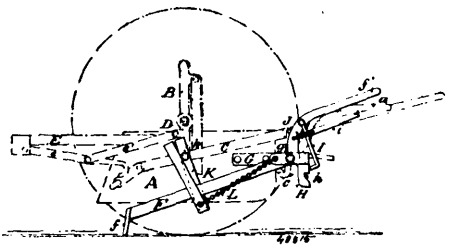
Claim.—1st. A window blind composed of a series of slats connected together by chains attached to their opposite edges, and to a roller at the top, and cords attached to said roller for rotating the same, and tilting the slats, as described. 2nd. A window blind in which a series of slats are suspended from a pivoted roller, by chains or their equivalent, and lifting cords passing over suspended pullies and through guide staples in the ends of the slats, and secured to the bottom slat, substantially as shown and described.

No. 48,515. Automatic Dumping Gear for Wheeled Scrapers. (*Appareil automatique à bascule pour grattoirs de chemins.*)

Thomas Kelly, Los Angeles, California, U.S.A., 25th March, 1895; 6 years.

Claim.—1st. The combination in an automatic dumping gear for wheeled scrapers of a dumping lever having a broad flat end set at an angle for penetrating the ground and opposing resistance to it, and its other end terminating with a handle, with a suitable bracket to which the said lever is pivoted attached to the scraper pan, at or

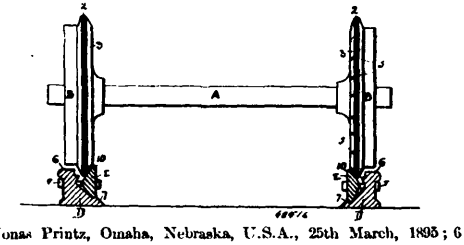
near its rear portion, for the purpose of partially inverting the pan and discharging the load, substantially as specified. 2nd. The combination in an automatic dumping gear for wheeled scrapers of a dumping lever pivoted to a suitable bracket attached to the scraper pan at or near its rear portion, with a retaining hook or pawl engaging in a notch in a lug or quadrant attached to the said bracket by



which the lever is held in place or released as desired, substantially as specified. 3rd. The combination in an automatic dumping gear for wheeled scrapers of a dumping lever pivoted to a suitable bracket attached to the scraper pan at or near its rear portion, with a retaining hook or pawl engaging in a notch in a lug or quadrant having a spring for keeping the hook so engaged and means for releasing the same, substantially as specified. 4th. The combination in an automatic dumping gear for wheeled scrapers of a dumping lever pivoted to a suitable bracket attached to the scraper pan at or near its rear portion, with a pivoted guide having two jaws between which the lever works for the purpose of steadying the same and preventing its deflection sideways, substantially as specified. 5th. The combination in an automatic dumping gear for wheeled scrapers of a dumping lever pivoted to a suitable bracket attached to the scraper pan, with a guide having jaws between which the lever works pivoted to some convenient fixed or movable point on the scraper pan, or its levers, and having a chain or other flexible connection from its lower end to some convenient movable or fixed point on the machine, whereby its forward motion is limited, and it may be drawn backwards and upwards out of the way of obstructions by the motion of lowering the pan for loading, substantially as specified. 6th. The combination in an automatic dumping gear for wheeled scrapers of a dumping lever on each side of the pan pivoted to suitable brackets attached to the scraper pan at or near its rear portion, with a shaft connecting the two levers to which they are firmly attached and by which simultaneous action of the levers is secured, substantially as specified. 7th. The combination in a wheeled scraper of an automatic dumping gear, with a dumping lever, or levers, pivoted to suitable brackets attached to the pan of the scraper having a retaining hook or pawl with releasing mechanism and working in a pivoted guide or guides all so arranged as to apply the strain of inverting the scraper in a gradual manner, and to automatically withdraw the levers from the ground as the dumping is accomplished, substantially as specified.

No. 48,516. Car Wheel and Track.

(*Roue de chars et rails.*)

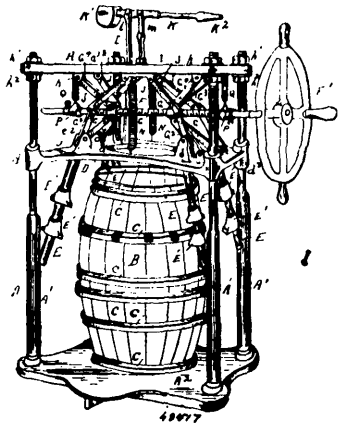


Jonas Printz, Omaha, Nebraska, U.S.A., 25th March, 1895; 6 years.

Claim.—1st. The combination, with a car axle and wheels, said wheels being provided with an angular upwardly extending friction flange, of a two-part rail comprising an upwardly extending adjustable friction rail, adapted to engage the friction flange of said car wheels, so that said car wheels will be supported by said upwardly extending friction flange, all substantially as and for the purpose set forth. 2nd. The combination, with a car axle having suitable wheels, said wheels being provided with outwardly extending friction flanges, said friction flanges being scalloped, of a two-part rail comprising the main supporting section in combination with a friction rail, transversely in the shape of an isosceles triangle, the base of said friction rail being positioned vertically and being reversibly and adjustably secured to the main part of said rail, the angular sides of said friction rail being adapted to engage the friction flanges of said wheels to support the same, all substantially as and for the purpose set forth. 3rd. The combination, with the car axle A, provided with the wheels B, having the friction flanges C, provided with the corrugations 3, of the two-part rail comprising the section D, having the angular seating 12, and the lower circular seating 7, of the friction rail E, provided with the two circular edges 10, 10, said friction rail being in cross section in the form of an isosceles triangle, and provided with the transverse opening, 9, and the supporting spokes, F, all arranged to operate substantially as and for the purpose set forth.

No. 48,517. Machine for Trussing Barrels.

(*Support de tonneau.*)



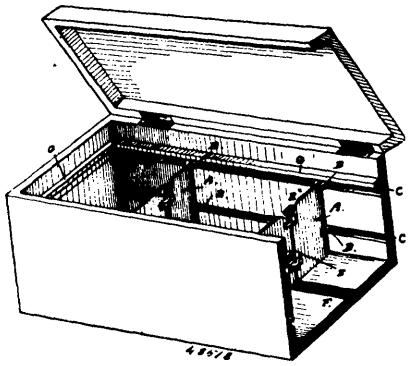
David A. Gordon, Wallaceburg, Ontario, Canada, 25th March, 1895; 6 years.

Claim.—1st. In combination, a supporting bed and a vertically reciprocatory levelling and trussing plate, substantially as set forth. 2nd. In combination, a supporting bed provided with an angular groove and a vertically reciprocatory levelling and trussing plate provided with depending annular flange, substantially as set forth. 3rd. In combination, a supporting bed and vertically reciprocatory oscillatory arms E, substantially as set forth. 4th. In combination, a supporting bed, vertically reciprocatory oscillatory arms E, and trussing feet engaged with said arms, substantially as set forth. 5th. In combination, a supporting bed, a vertically reciprocatory levelling and trussing plate and oscillatory arms connected with said plate, substantially as set forth. 6th. In combination, a supporting bed, a vertically reciprocatory levelling and trussing plate, and oscillatory arms E, having a jointed connection with said plate, substantially as set forth. 7th. In combination, a supporting bed, a vertically reciprocatory levelling and trussing plate, oscillatory arms, devices carried by said arms to tighten the truss hoops, and means to oscillate said arms, substantially as set forth. 8th. In combination, a supporting plate, a supporting frame, a vertically reciprocatory levelling and trussing plate and a rotatable screw to operate said plate, substantially as set forth. 9th. In combination, a supporting frame, a levelling and trussing plate having a vertically reciprocatory movement in connection with said frame, an operating screw, nuts travelling upon said screw, and trussing arms engaging said nuts to said plate, substantially as set forth. 10th. In combination, a supporting frame, a vertically movable levelling and trussing plate, an operating screw, nuts to travel upon said screw, and a set of trussing arms engaging the frame with said nut, and a set of trussing arms engaging said nuts with said plate, substantially as set forth. 11th. In combination, a supporting frame, a vertically movable levelling and trussing plate, a screw shaft, nuts to travel upon said shaft, and toggle lever mechanism connecting said nuts with said plate, substantially as set forth. 12th. The combination of a supporting frame, a vertically reciprocatory disc, and vertically reciprocatory oscillatory arms E, connected with said disc, substantially as set forth. 13th. In combination, a supporting frame, a vertically reciprocatory levelling and trussing plate, oscillatory arms jointly connected with said plates, a vertically reciprocatory disc, and lever arms J, connecting said disc with said arms, substantially as set forth. 14th. In combination, a supporting frame, a vertically reciprocatory levelling and trussing plate, oscillatory arms jointedly connected with said plate, a vertically reciprocatory disc, lever arms connecting said disc with said oscillatory arms, an operating screw to reciprocate the trussing plate and the oscillatory arms, collars forming bearings for said screw, tension springs connecting the said collars with the frame, and

additional tension springs connecting the levelling and trussing plate with the frame, substantially as set forth.

No. 48,518. Adjustable Partition for Packing-Boxes.

(Division ajustable pour caisses d'emballage, coffres, etc.

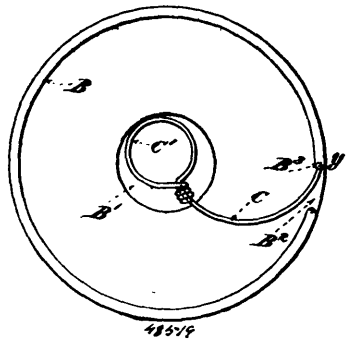


James Valentine Coleman, San Francisco, California, U.S.A., 25th March, 1895; 6 years.

Claim.—The combination with a box or similar receptacle having grooves in the inner walls or faces of its opposite vertical sides, of a movable vertical partition provided on its opposite end with lugs or projections adapted to fit and slide in said grooves and a clamping or locking device on the partition consisting of a vertical rod rotatable in guides on one face of the partition, its foot or end at the bottom of the partition adapted to bear against the bottom of the box, a head on the top end accessible from the top of the partition and a screw-threaded portion on the body of the rod fitted to a corresponding threaded-socket in one of the guides, whereby the partition is locked in position by the downward thrust of the rod against the said bottom when the rod is rotated and the said locking means is operative from the upper part of the box.

No. 48,519. Can Opener.

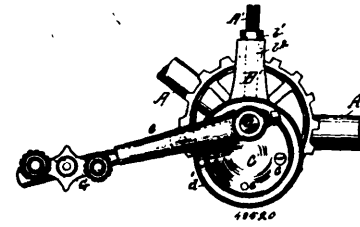
(Machine à ouvrier les b[illegible] talliques.)



The Pull Wire Tin Opening Company, Sydney, assignee of William Merton, Hill End, all in New South Wales, Australia, 26th March, 1895; 6 years.

Claim.—1st. Improvement in metal canisters and cases to facilitate their opening consisting of groove or recess such as A^1, on one end or edge of the body or shell of a bulging such as B, with an unbulged space such as B^2, on the cover or lid of a depression or recess such as B^1, in said cover or lid and of a wire such as C, soldered or fastened in said groove or recess such as A^1, at point such as A^2, passing through end such as B^3, of said bulging such as B, and terminating in loop or ring such as C^1, adapted to take in said recess or depression such as B^1, and to be retained in place by a label, substantially as herein described and explained, and as illustrated in the drawings.

No. 48,520. Crank. *(Manivelle.)*

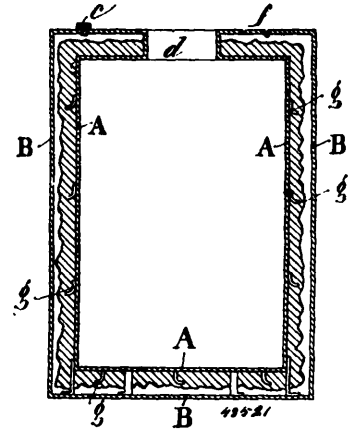


Coe Tyler and William C. Bronson, both of Binghampton, New York, U.S.A., 26th March, 1895; 6 years.

Claim.—In a crank, the combination of a revoluble shaft, a disc immovably mounted adjacent and eccentric thereto, a band or strap working on the disc, a sleeve fixed at one end on the shaft and having the other end open, a bar or rod fitting loosely in the open end of the sleeve, and a connection between the bar or rod and the strap on the disc whereby when the bar and sleeve are swung with the shaft, the band on the disc will travel around the disc and cause the rod to reciprocate in the sleeve and thus increase or decrease the length of the crank, substantially as described.

No. 48,521. Milk Preserver.

(Appareil de conservation du lait.)



Wolff Frederick Engelbreth Cass, Copenhagen, Denmark, 26th March, 1895; 6 years.

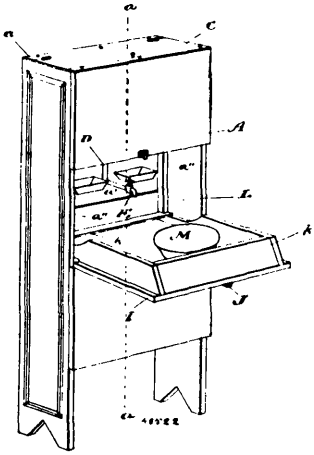
Claim.—1st. The process for preserving milk, cream and other liquids in suitable jacketed vessels, consisting in surrounding the inner wall of the vessel with a firm or coherent layer of ice, which is produced by admitting water to the jacket and freezing it, and then charging the vessel with the milk, whereby is attained that the milk almost till all the ice is melted is all surrounded by a coherent layer of ice which retains the interior of the vessel at freezing point, substantially as set forth. 2nd. The process for preserving milk, cream and other liquids in jacketed vessels of the character described, consisting in charging the jacket with water, freezing the latter, charging the vessel with the milk and surrounding the vessel with non-conducting material, substantially as set forth. 3rd. For the process described, the employment and use of a vessel consisting of inner part A, outer part B, the former being provided with hook-like projection *g*, said vessel having a neck *d* for charging the milk, a plug for charging the water, and a vacuum valve, substantially as described and shown.

No. 48,522. Washstand or Sink. *(Lavabo et évier.)*

Charles Newbo[illegible]ey, Darlington, Ontario, Canada, 26th March, 1895; 6 years.

Claim.—1st. In an inclosed washstand or sink, the combination of the cabinet, a hinged door in the cabinet adapted to support the washbasin or sink, and a tank in the bottom of the cabinet to receive the waste water, &c., substantially as specified. 2nd. In an inclosed washstand or sink, the combination of the cabinet, a reser-

voir in the top of the cabinet, a tank for the waste water in the bottom of the cabinet, a hinged door in the middle of the cabinet arranged to be placed in a horizontal position and to support a washbasin or sink, substantially as specified. 3rd. In an inclosed washstand or sink, the combination of the cabinet, a reservoir in the



top end of the cabinet, a discharge pipe and tap for the reservoir, a tank in the bottom of the cabinet adapted to receive the waste water, a hinged door for the front of the cabinet adapted to be placed in a horizontal position, a trough connected to the door and extending to the back of the cabinet when the door is in a horizontal position, a batten connected to each side of the cabinet against which bears the said trough, substantially as specified. 4th. In an inclosed washstand or sink, the combination of the cabinet, a reservoir in the top end of the cabinet, a discharge pipe and tap of the reservoir, a tank in the bottom of the cabinet adapted to receive the waste water, a hinged door for the front of the cabinet adapted to be placed in a horizontal position, a trough connected to the door and extending to the back of the cabinet when the door is in a horizontal position, a batten pivoted to each side of the cabinet against which bears the said trough, a pocket formed in the back of the trough and a series of discharge holes formed through the pocket, substantially as specified.

No. 48,523. Fertilizer. (*Engrais.*)

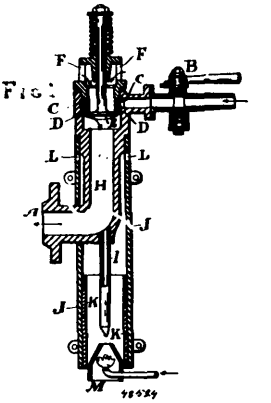
Charles Halford Thompson, Teignmouth, England, 26th March, 1895; 6 years.

Claim.—1st. The fertilization of peat-moss or other suitable fibrous or spongy material, by boiling the same in a weak solution of phosphoric acid together with a composition of soot, bone-meal and gypsum or equivalent fertilizing substances, and then straining and fermenting or partially fermenting the product. 2nd. The improved process consisting in mixing together soot, bone-meal and gypsum in or about in the named proportions, introducing the mixture into a boiling solution of phosphoric acid and placing therein peat-moss or other suitable fibrous or spongy material, boiling the whole from about twenty to thirty minutes, and then straining the impregnated material, and allowing it to ferment or partially ferment, substantially as described. 3rd. The improved fertilized material consisting of peat-moss or other fibrous or spongy substance treated with phosphoric acid, soot, bone-meal and gypsum or equivalent substances, substantially as described. 4th. The improved fertilizing liquid produced by boiling soot, bone-meal and gypsum or equivalent substances in a weak solution of phosphoric acid and afterwards fermenting the same with yeast, substantially in the manner described.

No. 48,524. Oil Engine. (*Machine à l'huile*)

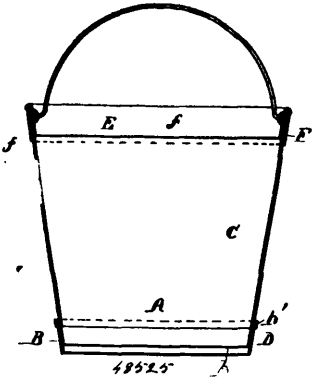
Hugh Campbell, Halifax, England, 26th March, 1895; 6 years.

Claim.—1st. In an oil engine, the combination, with the vapourizer consisting of an elbow pipe H, adapted to have its horizontal end secured to the engine cylinder, of the ignition tube I, depending from the bend in the said pipe, the jacket J, surrounding the vertical portion of the said pipe and provided with a hole for its horizontal portion to project through, and lateral draft hole L at its top, a heating device at the lower part of the jacket, an air and oil admission valve at the top of the said vapourizer, and a spring normally holding the said valve closed, substantially as set forth. 2nd. The combination, with the exhaust valve, and a spring normally holding the said valve closed *i*, of the pivoted lever Q, for opening the exhaust valve, provided with the adjustable set screw P, the reciprocatory rod O, for striking the said set screw and opening the exhaust valve, periodically, a speed governor, the



pivoted lever V, connected to the said governor at one end, and the finger W, depending from the other end of the lever V, said finger being lowered into the path of the end of the lever Q, when the speed becomes too great, thereby preventing the closure of the exhaust valve, substantially as set forth.

No. 48,525. Collapsible Pail. (*Seau pliant.*)

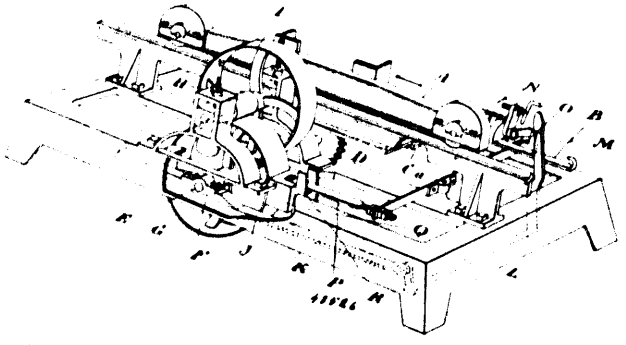


Harry Hall Freer and Edward Montgomery, both of Pontiac, Michigan, U.S.A., 26th March, 1895; 6 years.

Claim.—1st. A collapsible pail having in combination a bottom A, a rigid hoop B, engaged about the periphery of said bottom, a flexible body having its lower end engaged between said hoop and bottom, and rigid hoops E and F, engaging the top of said body therebetween, said hoops E and F telescoping over said bottom and its adjacent hoop when the pail is collapsed, enfolding the collapsed body between the upper hoops and the hoop about the bottom, substantially as described. 2nd. A collapsible pail having in combination a bottom A, a rigid hoop B, engaged about the periphery of said bottom, a flexible body having its lower end engaged between said hoop and bottom, and hoops E and F engaging the top of said body therebetween, said hoops E and F telescoping over said bottom and its adjacent hoop when the pail is collapsed, the lower edge of the outer hoop F, projecting below the lower edge of the hoop E, and the hoop B, projecting below the bottom A, to protect the flexible body between the hoops B and F, when the pail is collapsed, and also projecting above the bottom A, to facilitate the standing up of the pail when filled, substantially as described. 3rd. A collapsible pail having in combination a flat bottom A, a downwardly tapering rigid hoop B, engaged about the periphery of said bottom, a downwardly tapering flexible body having its lower end engaged between said hoop and bottom, and downwardly tapering rigid hoops E and F, engaging the top of said body therebetween, said hoops E and F telescoping over said bottom and its adjacent hoop B, when the pail is collapsed, the lower

edge of the hoop F projecting below the lower edge of the hoop E, and the hoop B, projecting below the bottom A, to protect the flexible body when the pail is collapsed, the hoop B, also projecting above the bottom A, to facilitate the standing up of the pail when filled, substantially as described. 4th. A collapsible pail having in combination a bottom A, a rigid hoop B, engaged about the periphery of said bottom, a flexible body having its lower end engaged between said hoop and bottom, and rigid hoops E and F engaging the top of said body therebetween, said hoops E and F, telescoping over said bottom A, and its adjacent hoop B, when the pail is collapsed, the hoop F, being of greater width than the hoop E, and the hoop B, and projecting below the lower edge of the hoop E, and above the upper edge of the hoop B, to protect the flexible body when the pail is collapsed, substantially as described.

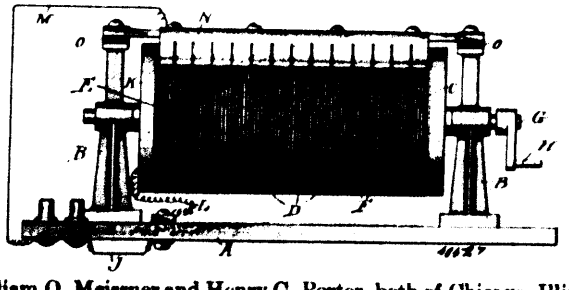
No. 48,526. Shingle Machine. (*Machine à bardeau.*)



B. R. Mowry & Son and Isaac Milton House, Gravenhurst, assignee of Asa Mutchinbacker, Rosseau Falls, all in Ontario, Canada, 26th March, 1895; 6 years.

Claim.—1st. In a shingle machine, a lever pivoted on the frame of the machine and carrying a break shoe adapted to engage with a pulley geared to the carriage of the machine in combination with the reciprocating carriage adapted to engage with the lever and apply the brake, substantially as and for the purpose specified. 2nd. In a shingle machine, a lever pivoted on the frame of the machine and carrying a brake-shoe adapted to engage with a pulley geared to the carriage of the machine, in combination with the reciprocating carrier carrying a pivoted dog which may be set to engage with the said lever and apply the brake, substantially as and for the purpose specified. 3rd. In a shingle machine, the combination of the pulley G, brake shoe Q, bar P, fork R, lever O, dog N, and reciprocating carriage A, substantially as and for the purpose specified.

No. 48,527. Rheostat. (*Rhéostat.*)

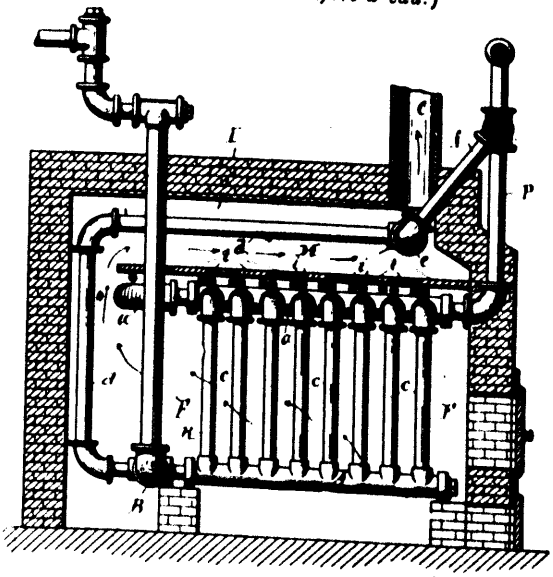


William O. Meissner and Henry C. Porter, both of Chicago, Illinois, U.S.A., 26th March, 1895; 6 years.

Claim.—1st. In a rheostat, the combination of a rotatable cylinder with a spiral ridge thereabout and resistance wires thereabout. 2nd. In a rheostat, the combination of a rotatable cylinder with a spiral ridge thereabout and resistance wires thereabout, said resistance wire bare, but its successive coils separated from each other. 3rd. In a rheostat, the combination of a rotatable cylinder with a spiral ridge thereabout and resistance wires thereabout, said resistance wire bare, but insulated from said cylinder and ridge. 4th. In a rheostat, the combination of a rotatable cylinder with a spiral ridge thereabout and resistance wires thereabout, said resistance wire bare, but insulated from said cylinder and ridge, and its successive coils separated from each other. 5th. In a rheostat, the combination of a rotatable cylinder with a spiral ridge thereabout and resistance wires thereabout, and a contact bar along such cylinder, and adapted to engage the spiral ridge at successive points, as the cylinder is turned. 6th. In a rheostat, the combination of a rotatable cylinder with a spiral ridge thereabout, insulation covering for ridge and cylinder, a resistance wire wound about such cylinder and ridge, its successive coils separated from each other, a connection with one end of such resistance wire, a contact bar along such cylinder, a connection therefrom, said contact bar in such proximity to the cylinder, that the latter is rotated if the contact bar engages the resistance wire on the top of the ridge. 7th. In a rheostat, the combination of a cylinder with a spiral ridge thereon and resistance wire thereabout and a contact bar along such cylinder, said bar and ridge is successively engaged at different points by the contact bar.

No. 48,528. Boiler for Heating.

(*Chaudière de calorifère à eau.*)



Albert Burt, Syracuse, New York, U.S.A., 26th March, 1895; 6 years.

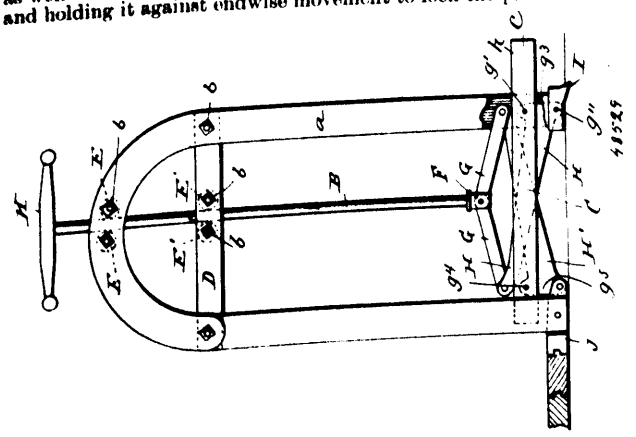
Claim.—1st. The combination of the headers A A and B, extending along the sides and rear end of the base of the fire-box, the return pipes R, communicating with said headers, the two rows of pipes *c c c*, rising from the side header, the transverse pipes c^1, c^1, extending from the upper ends of said vertical pipes partway across the top of the fire-box, the loop *a*, disposed with its limbs in a horizontal plane and lengthwise over the central portion of the fire-box, and connected to the two rows of transverse pipes to collect the water from the sides of the fire-box, and conduct said water lengthwise over the centre of the fire-box, the pipes P P, extending upward from the ends of the loop, the series of pipes *d d*, extending from the back-header to an elevation above the loop *a*, the pipes d^1, d^1, extending from the upper ends of the pipes *d d*, to the front end of the combustion chamber, the header *e*, extending across the combustion chamber and connected to the ends of the pipes d^1, d^1, and pipes *f f*, extending from the ends of the latter header to the pipes P P, as set forth. 2nd. In combination with the combustion chamber and fire-box having its crown composed of a series of water-containing pipes, a fire-proof floor over said pipes forming a flue for the products of combustion in the upper part of said combustion chamber, as set forth. 3rd. In combination with the combustion chamber having its exit pipe at the top of its front end, and the fire-box having its crown composed of a series of water-containing pipes, a fire-proof floor over said pipes extending from the front end of the combustion chamber partway toward the rear end thereof and forming the return-flue H, substantially as set forth and shown. 4th. In combination with the combustion chamber having its exit-pipe C, at the top of its front end, and the fire-box having its crown composed of horizontal pipes, the rods *i i*, extending across the combustion chamber above the aforesaid pipes, tile-floor *t*, supported on said rods and extending from the front end of the combustion chamber partway toward the rear end thereof, substantially as set forth and shown. 5th. In combination with the combustion chamber I, and fire-box F, the headers A A and B, extending along the sides and rear end of the base of the fire-box, the return pipes R, communicating with said headers, the two rows of pipes *c c*, rising from the side headers, the transverse pipes c^1, c^1, extending from the upper ends of said vertical pipes partway across the top of the fire-box, the loop *a*, disposed with its limbs in a horizontal plane and lengthwise over the central portion of the fire-box and connected to the pipes c^1, c^1, the pipes P P, extending upward from the ends of the loop, the pipes *d d*, extending from the back-header B, to an elevation above the aforesaid loop, the pipes d^1, d^1, extending from the upper ends of the pipes *d d* to the front end of the combustion chamber, and communicating with the pipes P P, and the tile-floor *t*, over the aforesaid loop *a*, and transverse pipes c^1, c^1, and extending from the front end of the combustion chamber partway toward the rear end thereof, and forming the return flue H, substantially as set forth and shown.

No. 48,529. Floor Clamp. (*Serre-joint pour planchers.*)

Spencer Mero, Camden, Maine, U.S.A., 26th March, 1895; 6 years.

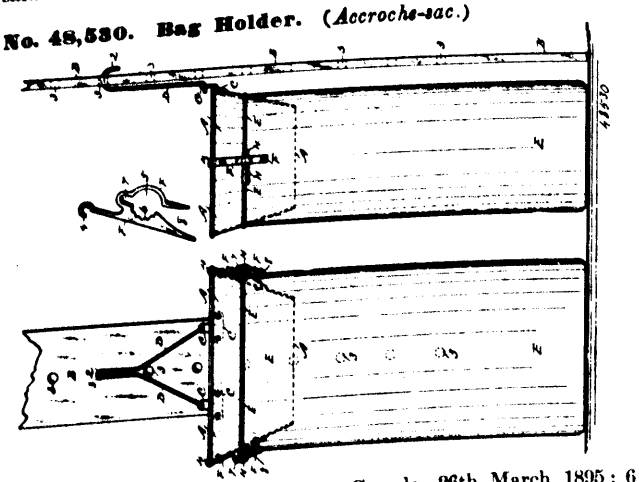
Claim.—1st. In a floor clamp, the combination of a frame, a

pressure shoe, a lever connected thereto at one end, and a vertical operating rod swivelly connected to the other end of said lever and passing up through the frame and adapted to be partially rotated as well as vertically reciprocated, and means for engaging said rod and holding it against endwise movement to lock the parts in their



adjusted position, substantially as described. 2nd. The combination in a floor clamp, of a frame, a pressure shoe, a pivoted lever connected thereto, a vertical operating rod swivelly connected to the other end of said lever and adapted to both reciprocate and rotate, said rod being provided with rounded edges or sides which are adapted to impinge against the frame and lock the rod against endwise movement, substantially as described. 3rd. In a flooring clamp and jack, the combination of a frame, a movable pressure shoe, a lever pivotally connected to the same and to a part of the frame, a link connected to the upper end of said lever, a vertically reciprocating rod swivelly connected to said link, said rod passing up through the frame and having its opposite sides rounded to form cam surfaces, and a pair of rollers journalled in the frame and adapted to vertically guide the rod, substantially as described. 4th. In a flooring clamp, the combination of a frame, a pressure shoe carried thereby, a movable frame or bar, a pair of levers pivoted to said movable frame or bar, and adapted to support the same, the lower end of one of the levers being pivoted to the frame and the lower end of the other lever being pivoted to the shoe, and means for operating said levers, substantially as described. 5th. In a flooring clamp and jack, the combination of a frame consisting of a pair of uprights connected together, one of said uprights being pivotally hung, a shoe carried by the pivoted upright, a pair of crossed levers pivotally connected respectively to the rigid upright and to the shoe, and a movable bar or frame pivotally connecting said levers below their point of intersection, and means for depressing and raising the upper ends of said levers, substantially as described. 6th. The combination of a frame, a pressure shoe movably supported, a pair of crossed levers provided with angular extensions at their lower ends, the lower end of the angular extension of one lever being pivoted to the frame and that of the other to the shoe, a horizontally movable bar pivotally connecting the said levers at a point below where they cross, and means for operating said levers, substantially as described.

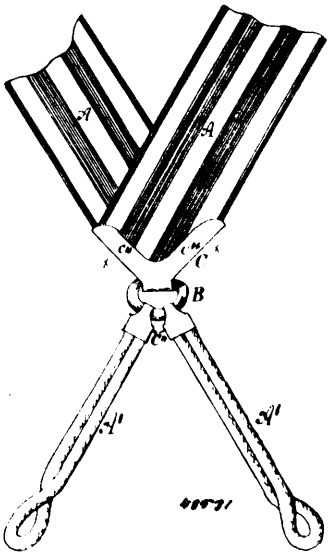
No. 48,530. Bag Holder. (*Accroche-sac.*)



Hugh Cotter, Burlington, Ontario, Canada, 26th March, 1895; 6 years.

Claim.—1st. In a bag supporting device the combination of a metallic oval hopper, provided with and secured thereto, the bag holders F, having upper lips 4, to hook over the upper edge of said hopper, and circular taper openings 5, the inner half of which have corrugations 6, the upper and lower continuous openings 7 and 8, the said openings 8, wider at the lower end to admit the edges of the bag freely, and the taper pins H, to hold edges of the bag in said openings of holder, substantially as described and set forth. 2nd. In a bag supporting device, the combination of the hopper provided with the rigid holders F, having lip 4, and circular taper openings 5, the inner parts of which are corrugated as at 6, and the continuous openings 7 and 8 to admit the upper edges of bag freely, the bag holding taper pins H, the two ears C, secured a certain distance apart to the upper rear part of said hopper, for the insertion of lower end of hanging hook D, the upper end of which is hooked in one of the series of apertures 3, in vertical board B, to adjust said hopper with bag E, to different heights from the floor, substantially as described and set forth. 3rd. The bag holder F, having circular taper opening 5, one half being corrugated as at 6, said opening continued as at 7 and at 8, which is wider at its lower end and verges narrower to the centre of said central opening, in combination with the oval hopper A, substantially as described and set forth.

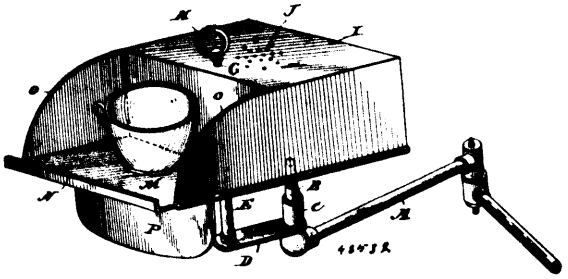
No. 48,531. Suspender. (*Bretelle*).



William L. Doran, Niagara Falls, Ontario, Canada, 26th March, 1895; 6 years.

Claim.—1st. The combination of two webbings A connected by a clasp, a clasp C with a flap C provided with teeth c engaging the web A and connecting or holding the ring B upon which are attached small clasps to engage the ends A^1, substantially as set forth. 2nd. A clasp for connecting webs, the combination of the flaps C bent over on the principal C conforming to the angle of the ends of the webs to be joined and the teeth c on the edges set at right angles to enter the fabric all held in place by the auxiliary flaps c.

No. 48,532. Heating Attachment for Gas Burners.
(*Appareil de chauffage pour brûleurs à gaz.*)

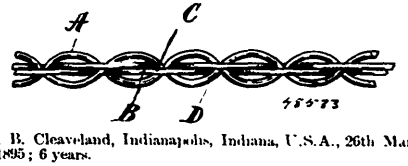


Edith Copland, Washington, Columbia, U.S.A., 26th March, 1895; 6 years.

Claim.—1st. In a heating attachment for burners, a bracket adapted to be removably attached to a gas burner, and a heating box revolubly mounted on said bracket and having an off-standing supporting shelf, substantially as set forth. 2nd. In a heating attachment for burners, the combination of a bracket loosely and detachably mounted on a gas burner, and a heating box revolubly mounted on said bracket and provided with an off-standing supporting shelf, and side shelf flanges inclosing the space above said shelf, substantially as set forth. 3rd. In a heating attachment for burners, the combination with an ordinary gas fixture burner, of a swinging supporting bracket loosely fitted onto said burner, a side and top inclosed heating box pivotally and removably mounted on

said brackets and provided with top heat openings, an off-standing supporting shelf having a retaining flange at its outer edge, and opposite side flanges, substantially as set forth. 4th. In a device of the class described, the combination with a supporting bracket adapted to be fitted onto a gas burner, of a heating box made from a single blank of sheet metal and provided with a supporting shelf for articles to be heated, substantially as set forth. 5th. In a heating attachment for burners, the combination of an attachment arm adapted to be loosely fitted onto a gas burner and provided with an upright supporting post, and a single blank heating box provided with a supporting shelf, a top opening, and a lower perforated bearing flange aligned with said top opening to loosely fit over said supporting post, substantially as set forth. 6th. In a heating attachment for burners, the combination of the attachment arm having a sleeve at one end adapted to fit a gas burner, a shouldered supporting post arising from said arm and having a reduced spindle portion beyond its shoulder, a heater revolubly and detachably fitted onto said spindle, and a reflector attachment detachably fitted onto said spindle beneath said heater, substantially as set forth. 7th. The combination, with a heating attachment for burners having a supporting post, of a reflector plate having a perforated attachment flange detachably fitted onto the supporting post of said attachment, substantially as set forth. 8th. In a heating attachment for burners, the combination, with a supporting bracket adapted to be attached to a gas burner, of a revolible open bottom heating box or drum mounted on said bracket, substantially as set forth.

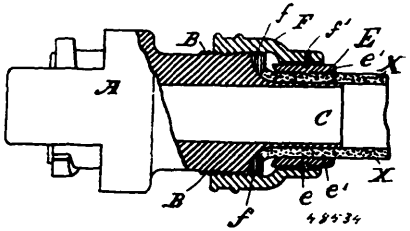
No. 48,533. Fence Wire. (*Fil pour clôtures.*)



John B. Cleaveland, Indianapolis, Indiana, U.S.A., 26th March, 1895; 6 years.

Claim.—The above described fencing wire, consisting of two strands of wire bent into serpentine form and laid side-by-side in parallel planes, but crossing each other to form a series of loops, said pair of strands being bound together by two other like and similarly arranged wire strands, which are interwoven with said loops, passing respectively alternately over and under the first wires at their points of intersection, thus forming a second series of loops in a plane substantially at right angles to the plane of the loops formed by the first mentioned wires, the four strands composing the fencing wire being of like shape, and braided together without twisting, all substantially as set forth.

No. 48,534. Hose Fastening. (*Joint de boyaux*)



Alden Lee Bailey, St. Johnsbury, Vermont, U.S.A., 26th March, 1895; 6 years.

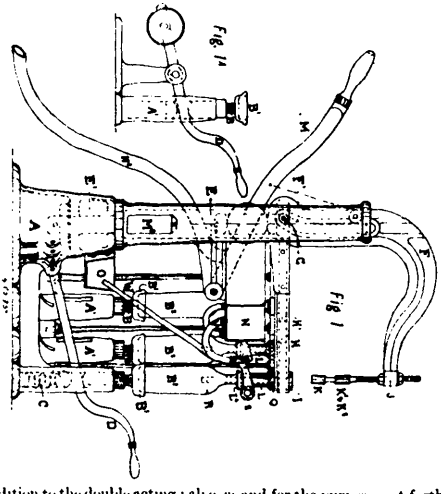
Claim.—A hose fastening comprising a shank having an enlarged externally-threaded portion, and a narrow portion having a constant diameter and separated from said enlarged portion by concave ascensive shoulder, a sleeve consisting of a major and a minor portion each having a constant diameter and a separating shoulder therefor, the said major portion having an internal screw-thread whereby it may be turned upon the enlarged portion of the shank, the minor portion of the sleeve having an independent internally arranged collar provided with an annular groove to loosely receive a pin passed through said minor portion, whereby they may be given a simultaneous longitudinal movement and the said collar may draw a hose-end, passed over the narrow portion of the shank, upon the ascensive shoulder and clamp it there against, said collar having internally arranged projections whereby the said hose-end may remain at all times under the influence of the collar and its actuating sleeve.

No. 48,535. Machine for Filling and Corking Bottles.

(*Machine à emplir et boucher les bouteilles.*)

Joseph Charles Gelly, Tanunda, South Australia, 26th March, 1895; 6 years.

Claim.—1st. A filling device consisting of an inlet and an outlet tube, a bell mouth for the accommodation of necks of bottles, and a double acting valve for opening or closing the passage between inlet and outlet, the said filling device being mounted upon a spindle in such a manner as to move or slide vertically, substantially as described and for the purposes set forth. 2nd. A filling device, substantially as above described and having a spring tappit valve in



addition to the double acting valve, as and for the purposes set forth. 3rd. A metal tube for conducting corks into the necks of bottles, the said tube being sufficiently long and suitably arranged for use as a spindle, on which a filling device as above described may slide by vertical movement. 4th. A metal tube as above described with the addition of a slide valve for the purposes set forth, constructed and arranged substantially as illustrated. 5th. A vertically moving arm, having a diagonal slot at or near its base, and three socket holes at or near its outer extremity, the whole mounted within a hollow vertical standard, as described and for the purposes set forth. 6th. Three adjustable plungers or rams secured to a vertically moving arm substantially as illustrated, and for the purposes set forth. 7th. A cork compressing device in which a distinct and separate movement is given to each compressor block, substantially as hereinbefore described in combination with a diagonally slotted vertically moving arm and vertically moving plungers. 8th. An adjustable cup in combination with a hollow stand, together with handle gear and elevating spring or weight, substantially as described and illustrated and for the purposes set forth. 9th. The hereinbefore described machine, comprising a filling device, a metal tube for conducting or guiding corks into the necks of bottles, together with a vertically moving arm and vertically moving rams or plungers, and a cork compressing block, together with an adjustable cup and stand for bottles, the whole substantially as hereinbefore described and illustrated in drawings, for the purposes set forth as a combination of parts.

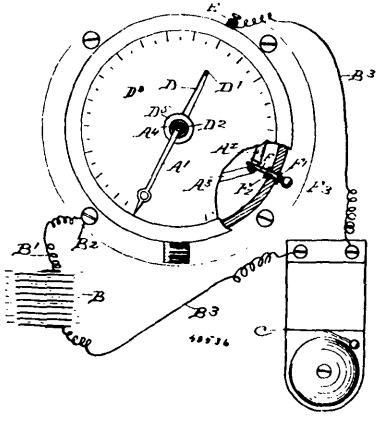
No. 48,536. Electric Alarm for Pressure Gauges.

(*Avertisseur électrique pour jauges à pression.*)

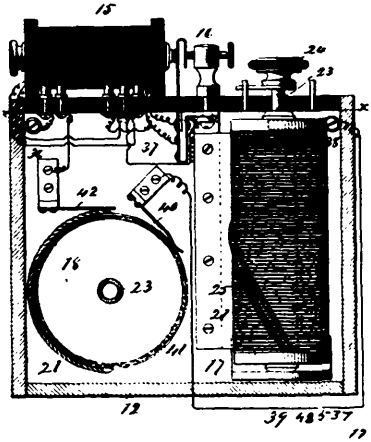
William H. Bradt, Troy, New York, U.S.A., 26th March, 1895; 6 years.

Claim. 1st. In a circuit-closing device for gauges, the combination with the gauge-case, and dial insulated therefrom, of the gauge-index in electrical connection with the case, a contact-hand pivoted concentrically with the index in electrical connection with the dial and offset into the path of the index, a clamp for locking the contact-hand in adjusted positions, and means for connecting the case and dial with the respective poles of an electric battery having an electro-magnetic alarm-signal in circuit, substantially as described. 2nd. The combination, with an electric battery having an electro-magnetic alarm signal in circuit, of a pressure-gauge having its index electrically connected with one pole of the battery, a sleeve inserted in the central aperture in the dial of the gauge, having one end screw-threaded and a shoulder on the other end abutting on the dial, a contact-hand pivoted upon the sleeve and insulated from the index, a finger on the contact hand projecting into the path of the index, an electrical connection between the other pole of the battery and the contact-hand, and a clamping nut upon the threaded end of the sleeve, substantially as described. 3rd. The combination, with a gauge having electrodes arranged to be brought into contact by the

movement of the index-operating mechanism, of a lever fulcrumed upon the case-wall of the gauge and engageable with the index operating mechanism interiorly of the case, and an operating handle on the lever projecting exteriorly of the case, substantially as described.



No. 48,537. Apparatus for Applying Electricity to Medical and Surgical Uses. (*Appareil pour appliquer l'électricité à l'usage de la médecine et de la chirurgie*).

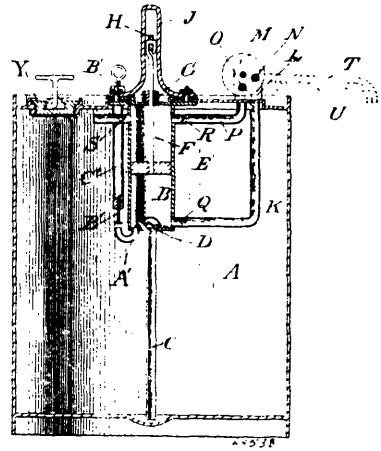


Henry C. Porter, Chicago, Illinois, U.S.A., 26th March, 1895; 6 years.

Claim. 1st. In an apparatus for applying electricity to medical and surgical uses, the combination with a source of current generation of a plurality of current regulators each of which is adapted to be included in circuit with the source of generation, and each one of which is arranged in a circuit independent of the other, with an induction coil included in circuit with one of the current regulators, and which induction coil is independent of the other current regulator whereby in one and the same apparatus either a high tension or low tension current may be interchangeably employed, and each regulated as desired. 2nd. In an apparatus for applying electricity to medical and surgical uses, the combination with a source of current generation of a plurality of current regulators each of which is adapted to be included in circuit with the source of generation of the other, an induction coil included in circuit with one of the current regulators which induction coil is independent of the other current regulator whereby in one and the same apparatus either a high tension or a low tension current may be interchangeably employed and each regulated as desired together with a contact breaker for the induction coil and means for regulating the rapidity of vibration of said contact breaker. 3rd. In an apparatus for applying electricity to medical and surgical uses the combination of the source of current generation, a current regulator or rheostat, an induction coil in circuit with said current regulator adapted to transform the current into a high tension current, which is regulated by the current regulator aforesaid, and another current regulator arranged in a circuit independent of the first mentioned current regulator and the induction coil.

No. 48,538. Oil Can and Filler.

(*Bidon à huile et appareil à remplir.*)



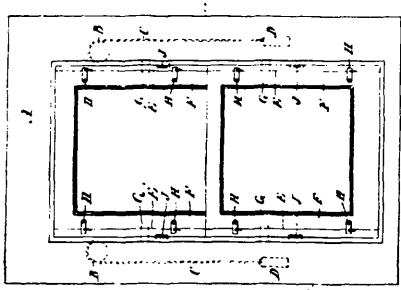
Edwin Webster Luce, Meadville, Pennsylvania, U.S.A., 26th March, 1895; 6 years.

Claim. 1st. The combination with a fluid reservoir, of a pump for discharging the contents thereof into a receiving vessel, said pump comprising a cylinder, a suction pipe extending down into the reservoir, a discharge pipe leading to the reservoir vessel, an inlet pipe leading from the receiving vessel back to the pump cylinder, and an outlet between the cylinder and the interior of the reservoir, substantially as described. 2nd. The combination with the fluid reservoir, of a pump for discharging the contents thereof into a receiving vessel, said pump comprising a cylinder, a solid piston, a suction pipe connected with the cylinder and extending down into the reservoir, a discharging pipe leading from the cylinder on one side of the piston to the receiving vessel, an air inlet pipe leading back from the receiving vessel to the cylinder on the other side of the piston, and an air outlet from the cylinder to the reservoir on the same side of the piston as the air inlet, substantially as described. 3rd. The combination with a fluid reservoir, of a pump cylinder inclosed within the reservoir, a solid piston working in said cylinder, an inlet pipe leading from outside the reservoir into the pump cylinder, said pipe containing a valve opening inwardly toward the cylinder, and an outlet pipe leading from the cylinder to the interior of the reservoir, said outlet pipe containing a valve opening outwardly from the cylinder, substantially as described. 4th. The combination with a fluid reservoir, of a pump cylinder, a suction pipe extending from the cylinder down into the reservoir, a discharge pipe leading from the cylinder outside of the reservoir, an inlet pipe leading from the reservoir into the cylinder, an outlet between the cylinder and the interior of the reservoir, a separate pipe forming communication between the cylinder and the interior of the reservoir, a valve operatable from the outside of the reservoir for controlling a communication between the cylinder and the reservoir through said pipe, substantially as described. 5th. The combination with a fluid reservoir, of a pump cylinder inclosed within the reservoir, communication between the cylinder and reservoir controlled by a valve opening into the cylinder, a discharge pipe leading outside the reservoir and containing a valve opening outwardly from the cylinder, an air inlet pipe leading from outside the reservoir back to the cylinder and containing a valve opening inwardly toward the latter, and an outlet from the cylinder to the reservoir, said outlet being controlled by a valve opening outwardly from the cylinder, substantially as described. 6th. The combination with a fluid reservoir, of a pump cylinder inclosed within the same, a solid piston working in the cylinder, a communication between the cylinder and the reservoir controlled by a normally closed valve opening into the cylinder, a discharge pipe leading from the cylinder on one side on the piston to the outside of the reservoir and controlled by a normally closed valve opening away from the cylinder an outlet pipe leading outside the reservoir back to the cylinder on the other side of the piston and controlled by a normally

closed valve opening toward the latter, and an outlet from the cylinder on the same side of the piston as the inlet outside the reservoir, said outlet being controlled by a normally closed valve opening outwardly from the cylinder, substantially as described. 7th. The combination with a fluid reservoir, of a force pump provided with a suction and discharge pipes, with their respective inwardly and outwardly opening valves, and a vent pipe from the foot of the pump cylinder, provided with a plug stopper controlled by a screw threaded rod extending through the top of the reservoir, substantially as described.

No. 48,539. Window Frame and Sash.

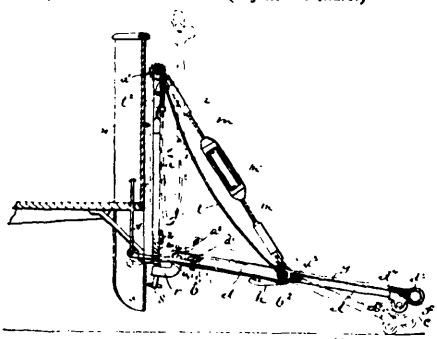
(*Cadre et croisée de fenêtre.*)



Alphonse Dubé, Montreal, Quebec, Canada, 28th March, 1895; 6 years.

Claim.—1st. A sash having removable runners or pieces E, E', fitted to the stiles removably, for the purpose set forth. 2nd. The combination, with a window frame A, or sliding runners E, E', and a sash F, said runners fitted to the stiles of the sash, whereby the sash is removable from the runners, as and for the purpose set forth. *3rd. The combination, with a window frame A, having pulleys B,* B, sash cords C, C, and counterbalance sash weights D, D, of the runners E, E' sliding in said frame, and attached to said cords, and a sash F intervening said runners, and attached thereto removably, as set forth. 4th. The combination, with a window frame of the runners E, E', having stops G, G interlocking with, and a sash F, removable from said runners, to cause said runners and sash to move conjointly, as set forth. 5th. The combination, with a window frame of the runners E, E', and intervening removable sash F, provided with buttons or catches H, for the purpose set forth. 6th. The combination, with a window frame, of the runners E, E', having interlocking fasteners J to hold the runners fixedly, for the purpose set forth.

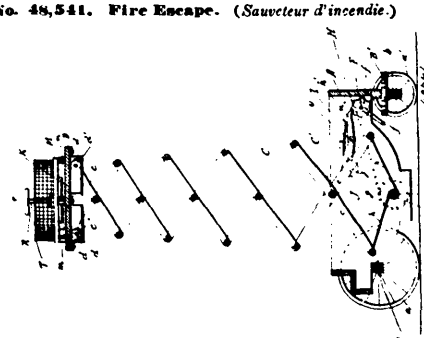
No. 48,540. Car Fender. (*Défense de chars.*)



James Dominique Lamb, James Edwin Chapman and John James Durack, all of Montreal, Quebec, Canada, 28th March, 1895; 6 years.

Claim.—A car fender having stationary back piece and intermediate section pivotally connected therewith, a forwardly projecting frame section pivotally supported about midway of its length and its front and adjustable vertically to different heights relatively to the road level, with means for supporting and a lever for operating and adjusting said forwardly projecting frame section. 2nd. A car fender having a stationary back piece and intermediate section pivotally connected therewith, an oscillatory forwardly projecting frame section pivotally supported about midway of its length and its front end adjustable vertically to different heights relatively to the road level with means for supporting it at its pivoting point and a lever device engaging its rear end for operating and adjusting said forwardly projecting frame section. 3rd. In a car fender, the combination of a stationary back piece with means for securing it to the car, an intermediate section pivotally connected with said back piece, a depressible front portion pivotally connected with said intermediate section, a flexible receiver or net extending between the upper end of said back piece and the forward end of the intermediate section, and the said front portion being partially covered by netting, with means for supporting said intermediate section and depressible front portion. 4th. In a car fender, the combination of a stationary back piece with means for securing it to the car, an intermediate section pivotally connected with said back piece, a depressible front portion pivotally connected with said intermediate section, a flexible receiver or net extending between the upper end of said back piece and the forward end of the intermediate section, and said front portion being partially covered by netting with means for adjustably supporting said intermediate section and yieldingly supporting said depressible front portion. 5th. In a car fender, the combination of a stationary back piece with means for securing it to the car, an intermediate section pivotally connected with said back piece, a depressible front portion pivotally connected with said intermediate section, a flexible receiver or net extending between the upper end of said back piece and the forward end of the intermediate section, and said front portion being partially covered by netting, means for supporting said intermediate section and depressible front portion and means for operating said front portion for the purpose set forth. 6th. In combination with a car fender having a stationary back piece, vertically adjustable laterally projecting auxiliary, protecting guards or wing plates secured to said back piece and to the dash-board of the car, for the purpose set forth. 7th. In a car fender having a stationary back piece or a connection and a forwardly projecting section, with a flexible receiver or net extended between them, a take-up device of roller form to which one end of said net is connected, adapted upon rotation to wind or roll said net upon itself. 8th. In a car fender having a stationary back piece or connection, and a adjustable forwardly projecting section, with a flexible receiver or net extended between them, a take up device of roller form to which one end of said net is connected, adapted upon rotation to wind or roll said net upon itself for the purpose set forth. 9th. In a car fender having a stationary back piece or connection and an adjustable section pivotally connected therewith, extensible hanger rods comprising rod sections *u* and adjustable couplings *u'*, for supporting and adjusting the shaft or axis upon which such adjustable section is pivoted, for the purpose set forth. 10th. In a car fender having a stationary back piece or connection, an intermediate section pivotally connected therewith, and an adjustable frame portion pivotally connected with such intermediate section, rearward extensions from said intermediate section, and adjusting screws carried thereby and adapted to bear beneath said stationary back piece, for the purpose set forth. 11th. In a car fender having a stationary back piece or connection, an adjustable section pivotally connected therewith, extensible hanger rods for supporting and adjusting the adjustable section, rearward extensions from said section and adjusting screws carried thereby and adapted to bear beneath said stationary back piece, for the purpose set forth.

No. 48,541. Fire Escape. (*Sauveteur d'incendie.*)

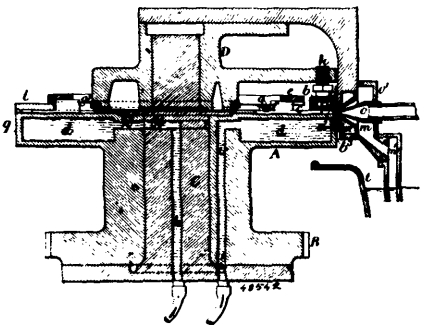


Ubald Belenger, Isle Verte, Quebec, Canada, 28th March, 1895; 6 years.

Claim. 1st. In a fire escape, the combination, with a supporting carriage, of a double lazy tongs pivoted to the carriage and provided with rollers at its top, the top plate provided with guides on its underside engaging with the said rollers, and hoisting mechanism operating to extend the double lazy tongs, substantially as set forth. 2nd. In a fire escape, the combination, with a supporting carriage of a double lazy tongs pivoted to the carriage, a barrel journalled

under the lazy tongs, large drums secured on the ends of the barrel shaft, a shaft provided with handles and journalled in the carriage, the small drums secured on the said shaft, and the cords connecting the said small and large drums and connecting the barrel with the lowest arms of the lazy tongs, substantially as set forth. 3rd. In a fire escape, the combination, with the top plate, the platform, and the distance pieces interposed between the said parts, of an extensible gangway slidable between the said top plate and platform, and winding mechanism for extending the said gangway, substantially as set forth. 4th. In a fire escape, the combination, with the top plate, of the horizontal lazy tongs pivoted thereto, the two sliding plates carried by the lazy tongs and provided with longitudinal slots for the rear pivot pin of the lazy tongs to pass through, a vertical shaft carried by the said top plate and provided with means for revolving it, and cords secured to the said shaft and to the ends of the rear arms of the lazy tongs, substantially as set forth.

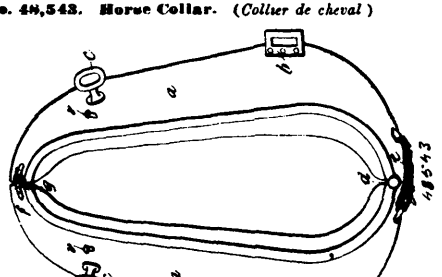
No. 48,542. Type Moulding Machine.
(*Machine à mouler des caractères.*)



Frederick Wicks, Chelsea, London, England, 28th March, 1895; 6 years.

Claim.—1st. In a type moulding machine having the type moulds formed in a horizontally revolving-wheel, cavities in the wheel in the mould cover, and in the nozzle shield for circulation of cooling water, substantially as described. 2nd. In a type moulding machine having the type moulds formed in a horizontally revolving-wheel, the duct m^1, from the nozzle shield extending down into the molten metal, substantially as and for the purpose set forth. 3rd. In a type moulding machine having the type moulds formed in a horizontally revolving-wheel, the beads b^3 and a^4, and the corresponding circular grooves in the mould-wheel forming respectively the nick and the foot notch of the type, substantially as described. 4th. In a type moulding machine having the type moulds formed in a horizontally revolving-wheel, in combination with the chain a, conveying the types, the inclined bands r, and guides r^1, the forks r^2, and galley r^3, substantially as and for the purpose set forth. 5th. In a type moulding machine having the type moulds formed in a horizontally revolving-wheel, in combination with the moulds and stationary matrices, the sliding mould covers b^4, made with beads b^5, and ears b^6, and the stationary cam groove f^2, substantially as and for the purpose set forth.

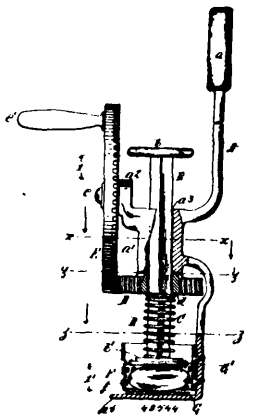
No. 48,543. Horse Collar. (*Collier de cheval*)



Thomas Stanley Philpott and Edward Barber, both of Wellington, New Zealand, 28th March, 1895; 6 years.

Claim.—1st. A collar for animals having metal fronts and a body packed in any usual manner and covered with leather sewn or fastened to the metal fronts, substantially as described herein and illustrated. 2nd. A collar for animals having metal fronts and a body packed with inflated bladders or india-rubber bags, substantially as described and illustrated. 3rd. The fronts of a collar for animals made of thin metal, substantially as described herein

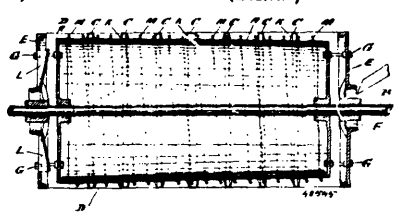
No. 48,544. Nutmeg Grater. (*Râpe à muscade*)



Charles A. Prest, Northborough, Massachusetts, U.S.A., 28th March, 1895; 6 years.

Claim.—As a new article of manufacture, a hand manipulating nutmeg grating machine consisting of the frame A, provided with a handle portion, and a vertical shaft bearing, and bottom grinding plate portion, and a perforated receptacle secured thereto, a vertical shaft loosely fitted in said frame bearing, designed to engage the wheel D, so as to be driven by said wheel and receive a vertical movement through said wheel, and provided with the upper grinding portion, and the handle portion b, the spring C, contacting said wheel D, and the upper grinding portion of the vertical shaft, the wheel D engaging said vertical shaft so as to drive said shaft and permit it to be vertically moved, the wheel E engaging the wheel D, and loosely retained on the frame and provided with the manipulating handle c^1, substantially as described.

No. 48,545. Bolt for Flour. (*Blutoir*)



Henry Baker and Richard Kenneth Baxter, both of Constantinople, Turkey, 28th March, 1895; 6 years.

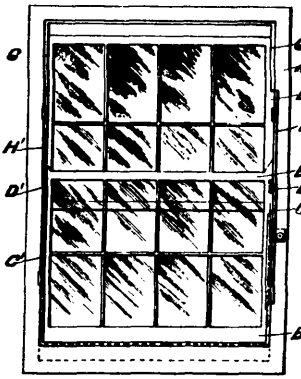
Claim.—1st. In an apparatus for separating or dressing flour or other cereal substances, an external cylinder of silk or cloth, circumferential bands C, brackets K supporting same, and fixed to internal conical zinc cylinder, end plates or discs E mounted on a rotating shaft, spaced from ends of internal cylinder, central orifices therein, and bolts attaching and spacing said discs to ends of zinc cylinder, substantially as described. 2nd. In an apparatus for separating or dressing flour or other cereal substances, a spiral rod-conveyor H, and brackets M, supporting same on internal plate cylinder, and lying midway between internal plate and external silk cylinders, for elevating and conveying the cereals, substantially as described.

No. 48,546. Window Sash and Lock
(*Croisée de fenêtre et serrure.*)

Frank Phelps and Philip Dow, Birmingham, England, 28th March, 1895; 6 years.

Claim.—1st. The construction and arrangement of windows in which one sash is employed to balance the other, with the upper window formed upon or carried within an independent inner sash

or frame which is hinged or pivoted to the ordinary outer frame or sash, substantially as and for the purposes hereinbefore described and as illustrated in the accompanying drawings. 2nd. The



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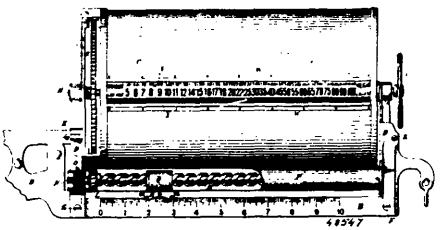
improvements in locking and fastening sliding appliances for securing the sashes of windows from the side, substantially as hereinbefore described and as illustrated in the figures 12 and 13 of the accompanying drawings.

No. 48,547 Computing Mechanism for Scales.

(*Mécanisme à calculer pour balances.*



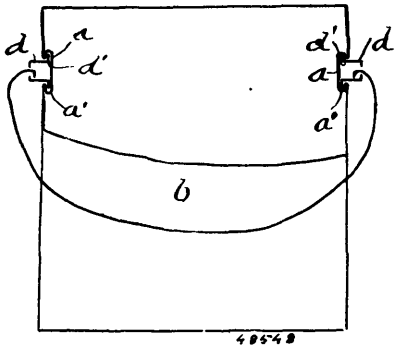
48547

Edward William Wise, East Las Vegas, New Mexico, 28th March, 1895; 6 years.

Claim.—1st. In combination, with a scale beam graduated to indicate amounts of weight and with a balance weight adapted to travel along the beam, a table of computed price figures movably mounted on the beam, a rate scale mounted on the beam in fixed relation to said table, and mechanism operatively connecting the table and travelling weight, whereby the table and weight have conjoint relative motion to exhibit on the beam weight amounts and to exhibit opposite the rate scale price amounts, substantially as set forth. 2nd. In combination, with a scale beam and its movable balance weight, a table of computed amounts movably mounted on the beam, a rate scale mounted on the beam in fixed position relatively to said table, and screw mechanism geared to said table and engaging said weight, whereby the table and weight have conjoint relative motion, substantially as set forth. 3rd. In a computing mechanism for attachment to a scale beam and its balance weight, the combination of supports for removably engaging the beam, a rotating cylinder mounted in said supports and bearing computed amounts, a rate scale fixed to said supports adjacent said cylinder, and mechanism also mounted upon said supports engaging said cylinder and adapted to engage the beam weight, whereby the said cylinder and weight will have conjoint relative motion, substantially as and for the purpose set forth. 4th. In combination, the scale beam and the balance weight movable thereon, a screw arranged parallel with the beam and engaging said weight, a computing cylinder geared to said screw, and a stationary scale adjacent said cylinder, and means for adjusting said screw and the weight engaging the same, as and for the purpose set forth. 5th. In combination, with the scale beam and its sliding weight, the screw engaging said weight and actuated to move the same along the beam, and the indicator adjustably fixed upon said weight, as and for the purpose set forth. 6th. In combination, with the scale beam and the balance weight movable thereon, the screw or worm mounted on said beam and engaging said weight, the casing inclosing said worm and said weight, the computing cylinder journalled in supports on said beam and geared to said worm, the casing inclosing said cylinder and bearing a rate scale, and the hand wheel for rotating said cylinder, arranged substantially as set forth.

No. 48,548. Metallic Connection.

(*Méthode d'attacher les oreilles aux bidons.*)



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James Davidson, Montreal, Quebec, Canada, 28th March, 1895; 6 years.

Claim.—1st. The method of connecting to a body or carrying section, a projecting or inclosing section, which consists in first forming a depression in the body section, then placing the projecting or inclosing section with the edge of its walls adjacent to the walls of the depression and laterally drawing or bending the walls to overlap and interlock. 2nd. The method of connecting to a body or carrying section, a projecting or inclosing section which consists in first forming a depression in the body section, then forming a lateral flange upon the edge of the walls of and placing the projecting or inclosing section with such flange adjacent to the walls of the depression, and laterally drawing or bending the walls of the depression to overlap the flange of the projecting section. 3rd. A can or vessel having its body imperforate and handle receiving ears or projections attached to the sides thereof by bending the metal of the body and the ear to interlock. 4th. A can or vessel having its body imperforate and handle receiving ears formed with flanges on their edges and the metal of the can body bent to overlap such flanges. 5th. A can or vessel having its body imperforate and formed with depressions having walls a^1, adapted to be bent or drawn laterally, and handle receiving ears d, having flanges d^1, adapted to be overlapped by said walls when bent as shown and described.

No. 48,549. Method of Preserving Milk.

(*Méthode de préserver le lait.*)

Wolf Frederick Engelbreth Casse, Copenhagen, Denmark, 28th March, 1895; 6 years.

Claim.—1st. The application and use of lumps of frozen milk (or cream) to the preserving of milk (or cream) in vessels suitably protected by heat insulating material. 2nd. The process of preserving milk (or cream) in vessels suitably protected by heat insulating material consisting in freezing into lumps, a quantity of milk (or cream) equal to a part of the cubic contents of the vessel and putting the said lumps into the vessel which is filled as to the rest of the space with milk (or cream.) 3rd. The process of preserving whole milk in wooden casks consisting in cooling it down to about 50 to 59° F., freezing into lumps a quantity of the milk equal to a part of the cubic contents of the cask, which is filled as to the rest of the space with whole milk, and then placing the cask in saw-dust or other suitable insulating material in the ship or railway wagon. 4th. The process of preserving whole milk consisting in dividing the milk at each milking into two portions one of which is put into the vessel wherein the milk is to be preserved for use or transport, and the other of which is frozen into lumps, and in such manner that the frozen lumps from one milking are put into milk from the next milking whereby a continuous and expeditious manufacture may be carried on.

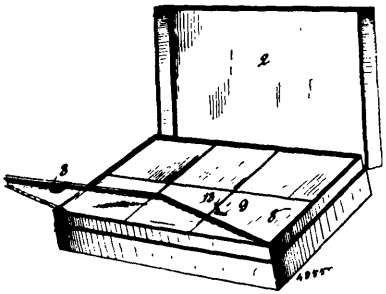
No. 48,550. Automatic Alarm Box.

(*Boîte d'alarme automatique.*)

Jay Hungerford Smith, Rochester, New York, U.S.A., 28th March, 1895; 6 years.

Claim.—1st. A box for counter use, having an opening and closing lid, a gong, a spring-arm carrying a striker, and a spring-arm having elastic jaws to engage and disengage the striker-arm, and a stem adapted to be moved in one direction by closing the box-lid for engaging the elastic jaws with the striker-arm, substantially as described. 2nd. The combination with a box, of an alarm mechan-

ism composed of a gong or bell, a spring-striker, and a spring-arm having a stem and a pair of elastic jaws provided with divergent end



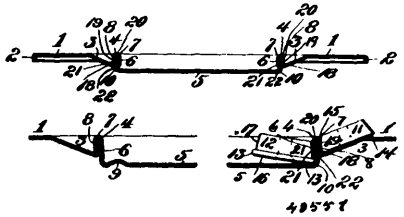
portions, and shoulders arranged opposite each other, substantially as and for the purposes described.

No. 48,551. Hermetic Seal for Cans.

(Sceau hermétique pour bidons.)

Frederick Westerbeck, St. Louis, Missouri, U.S.A., 28th March, 1895; 6 years.

Claim—1st. The method herein described for sealing cans which consists in taking a top having a vertical upturned circumferential flange, placing thereon a lid formed with an expansible bead projecting upwardly near its periphery, a vertical upturned flange, a head curve and a vertical downturned flange and straightening out the



bead by pressing the lower portion of the vertical upturned flange into an underbent curved lip to a position directly beneath the vertical upturned flange of the top, so as to form a tight joint thereunder, substantially as described. 2nd. The combination of the top formed with an inner vertical upturned circumferential flange, and the lid formed with a vertical upturned flange, a head curve, and vertical downturned flange inclosing the vertical upturned flange of the top, and the underbent curved lip located directly beneath the vertical upturned flange of the top so as to form a tight joint thereunder, substantially as described.

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

3875. WILLIAM VALENTINE DAWSON, 2nd five years of Patent No. 34,080, from the 9th day of April, 1895. Book Binding, 2nd March, 1895.

3876. DAVIS AND LAWRENCE CO., (assignees), 3rd five years of Patent No. 21,425, from the 14th day of April, 1895. Plasters for the Skin, 2nd March, 1895

3877. RICHARD BIGLEY, 2nd five years of Patent No. 33,970, from the 20th day of March, 1895. Hot Water Heater, 4th March, 1895.

3878. OTIS BROTHERS AND COMPANY, 2nd five years of Patent No. 33,870, from the 5th day of March, 1895. Elevating Apparatus or Lifts and Safety Attachment therefor, 4th March, 1895.

3879. HERBERT KELLS, 2nd five years of Patent No. 33,868, from the 5th day of March, 1895. Clamp, 5th March, 1895.

3880. JOHN ABELL, 3rd five years of Patent No. 33,944, from the 17th day of March, 1895. Steam Boiler Fire Box for Consuming Straw, 6th March, 1895.

3881. NATHANIEL CHAPMAN MITCHELL, 2nd five years of Patent No. 33,924, from the 15th day of March, 1895. Method of Devulcanizing and Desulphurizing Rubber Waste, 8th March, 1895.

3882. NATHANIEL CHAPMAN MITCHELL, 2nd five years of Patent No. 33,925, from the 15th day of March, 1895. Apparatus for Devulcanizing Rubber, 8th March, 1895.

3883. NATHANIEL CHAPMAN MITCHELL, 2nd five years of Patent No. 33,947, from the 17th day of March, 1895. Rubber Sheeting Mill, 8th March, 1895.

3884. NATHANIEL CHAPMAN MITCHELL, 2nd five years of Patent No. 33,981, from the 21st day of March, 1895. Process of Restoring Rubber and Product of such Process, 8th March, 1895.

3885. FRANCIS GUSTAVUS SUSEMIHL, ASA GILMORE DAILEY and JAMES DUDEY HAWKS, 2nd five years of Patent No. 33,955, from the 18th day of March, 1895. Coal Chute, 9th March, 1895.

3886. PERCIVAL WALTER ST. GEORGE, 3rd five years of Patent No. 21,401, from the 13th day of April, 1895. Street Shaft and Gully, 9th March, 1895

3887. THE MAROM ELECTRIC DRILL CO., 2nd five years of Patent No. 34,142, from the 19th day of April, 1895. Electrically Reciprocated Tool, 11th March, 1895

3888. HOWARD MATRAVERS ASHLEY, 2nd five years of Patent No. 33,907, from the 14th day of March, 1895. Machinery for the Manufacture of Glass Bottles and Similar Hollow Glass Articles. 13th March, 1895.

3889. THE CANADIAN OFFICE AND SCHOOL FURNITURE CO., 2nd five years of Patent No. 33,975, from the 20th day of March, 1895. Fastenings for Slatted Furniture, 13th March, 1894.

3890. GEORGE SCHWEICKHART, 2nd five years of Patent No. 34,020, from the 1st day of April, 1895. Tuyers, 14th April, 1895.

3891. HANNAH FRANCES FERGUSON, 2nd five years of Patent No. 33,968, from the 20th day of March, 1895. Catemenial Sack, 20th March, 1895.

3892. ROBERT WILLIAM KING, 2nd five years of Patent No. 34,135, from the 19th day of April, 1895. Steam Heating Apparatus, 20th March, 1895.

3893. MILO AMOS RICHARDSON AND ROSELL LEWELLYN RICHARDSON, 2nd five years of Patent No. 34,044, from the 3rd day of April, 1895. Baby Tenders, 20th March, 1895.

3894. JAY S. CORBIN, 3rd five years of Patent No. 21,481, from the 21st day of April, 1895. Combined Harrows and Seeders, 22nd March, 1895.

3895. DAVID COLE AND JOSHUA PEDDER, 2nd five years of Patent No. 34,145, from the 19th day of April, 1895. Combined Carbonizer and Drying Machine, 26th March, 1895.

3896. WILLIAM B. DUNNING, 2nd five years of Patent No. 34,017, from the 1st day of April, 1895. Steam Heating Boiler, 27th March, 1895.

3897. ROBERT SAMUEL STRATTON, 2nd five years of Patent No. 34,133, from the 19th day of April, 1890. Combined Infants' Toilet Cases and Baths, 29th March, 1895.

3898. LEWIS H. TARRANT, 2nd five years of Patent No. 34,012, from the 1st day of April, 1895. Gas Absorber and Ventilator, 29th March, 1895.

3899. JEMIMA J. WHELPLEY, (administratrix) 2nd five years of Patent No. 34,085, from the 11th day of April, 1895. Skate, 29th March, 1895.

3900. CHARLES CAMPBELL WORTHINGTON, 3rd five years of Patent No. 21,363, from the 2nd day of April, 1895. Direct Acting Engine, 29th March, 1895

3901. ISAIAH BEST, 2nd five years of Patent No. 34,031, from the 1st day of April, 1895. Shaft Loop, 29th March, 1895.

3902. DANIEL BENJAMIN STEVENS, 2nd five years of Patent No. 34,102, from the 12th day of April, 1895. Electric Gong, 29th March, 1895.

TRADE-MARKS

Registered during the month of March, 1895, at the Department of Agriculture—Copyright and Trade-Mark Branch.

5193 HODGSON BROTHERS, Montreal, Que. Cheese and Butter, 2nd March, 1895.

5194. JOHN TAYLOR, Toronto, Ont. Perfume, 2nd March, 1895.

5195. THE ST. CROIX SOAP MANUFACTURING COMPANY, St. Stephen. N.B. Soap, 2nd March, 1895.

5196. GEORGE WILLIAMS AND HENRY HILTON, Winnipeg, Man. Baking Powder, 2nd March, 1895.

5197. THE SHERWIN-WILLIAMS COMPANY, Cleveland, Ohio, U.S.A. Paints, Colours and Painters Supplies, 2nd March, 1895.

5198. GEORG HEINRICH HERMANN DRECHSEL, Lachine, Que. Dr. E. Weber's Alpine Herb Tea. (Thé végétal de famille du Dr. E. Weber), 4th March, 1895.

5199. JAMES GIBBON FITZPATRICK AND THOMAS FRANCIS SOMERS, New York, N. Y., U.S.A. Corsets, 4th March, 1895.

5200. S. DAVIS & SONS, Montreal, Que. Cigars, 5th March, 1895.

5201. DE LAAGE FILS & CIE., St. Savinien, sur Charente, France. Eaux de Vie de Cognac, 5 mars, 1895.

5202. STEEL, HAYTER & CO., Toronto, Ont. Tea, 6th March, 1895.

5203. JAMES W. WOODS, Toronto, Ont. Celluloid Goods, (collars, cuffs, shirts, shirt fronts and ties), 8th March, 1895.

5204. CHARLES HALFORD THOMPSON, Teignmonth, England. Agricultural Fertilizers, 8th March, 1895.

5205. D. RITCHIE & CO., Montreal, Que. Tobacco, Cigarettes and Cigars, 11th March, 1895.

5206. JOHN F. ROBINSON, Montreal, Que. Medicine, 11th March, 1895.

5207. JOHN H. SANDERSON AND WILLIAM A. SANDERSON, Richmond Hill, Ont. A Compound of Drugs, 13th March, 1895.

5208. P. D. LARIVIERE, Canton de Tingwick, Comté d'Arthabaska, Qué. Un Liniment, 13 mars, 1895.

5209. JAMES LOCHRIE, Toronto, Ont. Bicycles, 14th March, 1895.

5210. ALFRED SAVAGE & SON, Montreal, Que. Laundry Soap, 15th March, 1895.

5211. HENRY IEVERS, Quebec, Que. A Medical Compound, 15th March, 1895.

5212. JOHN TAYLOR, Toronto, Ont. Perfume, 18th March, 1895.

5213. JOHN TAYLOR, Toronto, Ont. Perfume, 18th March, 1895.

5214. D C. APPERLY, CARSON & CO., 5 Cripplegate Buildings, London, E C., England. Woollen Cloth in the Piece, 18th March, 1895.

5215. J. SPENCER TURNER. New York, N.Y., U.S.A. Cotton Duck, 18th March, 1895.

5216. J. SPENCER TURNER, New York, N.Y., U.S.A. Cotton Duck, 18th March, 1895.

5217. J. SPENCER TURNER, New York, N Y., U.S.A. Cotton Piece Goods, 18th March, 1895.

5218. ROBERT HENRY, Brantford, Ont. Washing Powder, 19th March, 1895.

5219. MONTGOMERIE & CO., LD., 142 St. Vincent Street, Glasgow, Scotland. Flavouring Materials for use as ingredients in food, 19th March, 1895.

5220. A. CARRIER & FILS., Lévis, Qué. Farine, 19 mars, 1895.

5221. GEORGE A. WOODS, Toronto, Ont. Dry Goods, such as ladies whitewear, dress goods, underwear and linings, 20th March, 1895.

5222. GEORGE BROWN, Toronto, Ont. A Proprietary Medicine, 21st March, 1895.

5223. JOHN C. McLAUCHLIN, Brooklyn, N.Y., U.S.A. Fabrics, more particularly imitation of Chamois Skin, 22nd March, 1895.

5224.
5225. L. MARTIN & CO., Philadelphia, Pennsylvania, U.S.A. Lamp Black, 22nd
5226. March, 1895.
5227.

5228. THE MEDICAL NOVELTY CO., New York, N.Y., U.S.A. Remedial Preparations, 22nd March, 1895.

5229. YANATAS LIMITED, Hastings House, Norfolk Street, Strand, County of Middlesex, England. A Remedy for Sea-sickness, 22nd March, 1895

5230. FRANCIS, FROST & CO., Toronto, Ont. Ready Mixed Paint, 22nd March, 1895.

5231. WILLIAMS, DAVIS, BROOKS & CO., Detroit, Michigan, U.S.A. Bryant's Root Beer, 22nd March, 1895.

5232. HANCE BROTHERS & WHITE, Philadelphia, Pennsylvania, U.S.A. Medicine for human use, 25th March, 1895.

5233. HANCE BROTHERS & WHITE, Philadelphia, Pennsylvania, U.S.A. Medicated Confections, such as Bronchial Lozenges, Throat Tablets, 25th March, 1895.

5234. JOSEPH ADOLPHE CHRISTIN, Montreal, Que. General Trade Mark, 26th March, 1895.

5235. JOSEPH ADOLPHE CHRISTIN, Montreal, Que. Aerated Waters, artificial and natural, and aerated beverages of all kinds, 26th March, 1895

5236. JOSEPH ADOLPHE CHRISTIN, Montreal, Que. Artificial Mineral Water, 26th March, 1895.

5237. PETER McINTOSH and JAMES McINTOSH, Toronto, Ont. Trading as P. McINTOSH & SON. A Prepared or Cracked Wheat as a Breakfast Food, 26th March, 1895.

5238. PETER McINTOSH and JAMES McINTOSH, Toronto, Ont. Trading as P. McINTOSH & SON. Oatmeal, 26th March, 1895.

5239. FRASER & STIRTON, London, Ont. Cigars, 26th March, 1895.

5240. THE FABRIK VON MAGGIS NAHRUNGSMITTELN, ACTIENGE-
5241. SELLSCHAFT, Kemptthal, Switzerland. Alimentary Preparations, 29th March, 1895.

5242. DANIEL SIMMONS PERRIN, London, Ont. Trading as D. L. PERRIN & CO. Chocolate and other Confections (excepting cough drops), 30th March, 1895.

5243. ALEXANDER YOUNG SCOTT & DANIEL MACMILLAN, Toronto, Ont. Trading as SCOTT & MACMILLAN. Perfumery, Perfumed Soaps and Toilet Preparations, 30th March, 1895.

5244. VILLENEUVE & COMPANY, Montreal, Que. Cigars, 30th March, 1895.
5245.

5246. EVERETT B. PRESTON, Chicago, Illinois, U.S.A. Bicycles, 30th March, 1895.

COPYRIGHTS

Entered during the month of March, 1895, at the Department of Agriculture—Copyright and Trade-Mark Branch.

7790. HONEST JIM. Words and Music by Sanko. Samuel T. Church, Toronto, Ont., 1st March, 1895.

7791. THE STONE CHURCH BELL AND OTHER POEMS. By George Edwin Fairweather, St. John, N.B., 1st March, 1895.

7792. GUIDE MAP OF THE CITY OF WINNIPEG. Prepared for "Stovel's Pocket Directory." By R. C. McPhillips, D. & P.L.S., Winnipeg, Man., 2nd March, 1895.

7793. REV. PÈRE LEFEBVRE. (Photo.) Charles Desautels, Montréal, Qué., 4 mars, 1895.

7794. THE CANADIAN BANKING SYSTEM, 1817-1890. By Roeliff Morton Breckenridge, Ph. B. The Canadian Bankers' Association, Toronto, Ont., 4th March, 1895.

7795. VIRGIL'S ÆNEID. BOOK III. Edited with Introductory Notices, Notes and Complete Vocabulary. By John Henderson, M. A. & E. W. Hagarty, B.A. The Copp, Clark Co. (Ld.), Toronto, Ont., 5th March, 1895.

7796. HER EYES DON'T SHINE LIKE DIAMONDS. (Three Little Lads Love-Story.) Words and Music by David Marion. M. Witmark & Sons, New York, N.Y., U.S., 5th March, 1895.

7797. I LONG TO SEE THE GIRL I LEFT BEHIND. Words and Music by John T. Kelly. M. Witmark & Sons, New York, N.Y., U.S., 5th March, 1895.

7798. THE BIRTH OF THE SHAMROCK. (Lyric.) By Charles D. Bingham, Toronto, Ont., 6th March, 1895.

7799. REVUE CANADIENNE, MARS 1895. C. O. Beauchemin & Fils, Montréal, Qué., 7 mars 1895.

7800. GRAFTON'S VERTICAL PENMANSHIP, Nos. 5, 9, and 13. F. E. Grafton & Sons, Montreal, Que., 7th March, 1895.

7801. THE MERCHANTS MERCANTILE COMPANY'S CIRCULAR A. C. C. Macfarlane (The Merchants' Mercantile Company), Montreal, Que., 7th March, 1895.

7802. THE MERCHANTS' MERCANTILE COMPANY'S CIRCULAR B. C. C. Macfarlane (The Merchants' Mercantile Company), Montreal, Que., 7th March, 1895.

7803. THE MERCHANTS' MERCANTILE COMPANY'S LEGAL AND BANK DIRECTORY, 1895. C. C. Macfarlane (The Merchants' Mercantile Company), Montreal, Que., 7th March, 1895.

7804. LOVELL'S GAZETTEER OF BRITISH NORTH AMERICA. John Lovell & Son, Montreal, Que., 7th March, 1895.

7805. A PRACTICAL GUIDE TO POLICE MAGISTRATES AND JUSTICES OF THE PEACE. By James Crankshaw, B.C.L., Whiteford & Theoret, Montreal, Que., 7th March, 1895.

7806. CHRONOLOGIE DE L'HISTOIRE DES ÉTATS-UNIS D'AMÉRIQUE. Aide-mémoire Historique. Charles Octave Gagnon, Ptre., Québec, Qué., 7 mars 1895.

7807. LIFE AND WORK OF THE RIGHT HONOURABLE SIR JOHN THOMPSON, P.C., K.C.M.G., Q.C., PRIME MINISTER OF CANADA. By J. Castell Hopkins, with a Preface by His Excellency the Earl of Aberdeen, Governor General of Canada. Thos. S. Linscott, Brantford, Ont., 8th March, 1895.

7808. CATALOGUE FROM LAWSON & JONES. DRUGGISTS' LABELS. Frank Lawson and Henry J. Jones, London, Ont., 8th March, 1895.

7809. MISS DEXIE; A ROMANCE OF THE PROVINCES. By Stanford Eveleth. Wm. Briggs (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 9th March, 1895.

7810. SAY AU REVOIR BUT NOT GOOD-BYE. (Ballad.) Words and Music by Harry Kennedy. The Kennedy Publishing Co., Brooklyn, N.Y., U.S., 11th March, 1895.

7811. THE PINKERTON VOWEL INDEX. R. D. Richardson & Co., Winnipeg, Man., 11th March, 1895.

7812. ALL RISKS CLAUSE. (Insurance Policy Clause). The British and Foreign Marine Insurance Co. (L'd.), Liverpool, England, 14th March, 1895.

7813. STEPHENSON'S COMBINED TELEPHONE CALL GUIDE and ADVERTISING CHART. William Andrew Stephenson, Montreal, Que., 14th March, 1895.

7814. THE CHART OF ORANGE DEGREES. Charlotte Elizabeth Clarke, Toronto, Ont., 15th March, 1895.

7815. TAKE BACK THE ENGAGEMENT RING. (Song and Refrain.) Words and Music by W. B. Gray and G. L. Spaulding. Whaley, Royce & Co., Toronto, Ont., 18th March, 1895.

7816. THE FATAL WEDDING. Descriptive Waltz Song. Words by W. H. Windom; Music by Gussie L. Davis. Whaley, Royce & Co., Toronto, Ont., 18th March, 1895.

7817. HISLOP'S MINING MAP of TRAIL and SHEEP CREEKS, THE GREAT GOLD CAMP of SOUTHERN WEST KOOTENAY, BRITISH COLUMBIA. James Hislop, Rossland, B.C., 18th March, 1895.

7818. DR. KEY'S KIDNEY PILLS. (Circular.) John McKay, Toronto, Ont. 19th March, 1895.

7819. CAUSE and CURE OF STAMMERING and STUTTERING. By George Andrew Lewis, Petrolia, Ont., 21st March, 1895.

7820. HISTORY OF THE IRISH CATHOLICS OF QUEBEC—ST. PATRICK'S CHURCH TO THE DEATH OF THE REV. P. McMAHON. Which is now being preliminarily published in Separate Articles in "The Daily Telegraph," Quebec. (Temporary Copyright.) James Manus O'Leary, Ottawa, Ont., 21st March, 1895.

7821. PHOTOGRAPH OF HIS GRACE ARCHBISHOP LANGEVIN. (Marked A.) Anna Lauretta Bennetto, Winnipeg, Man., 22nd March, 1895.

7822. PHOTOGRAPH OF HIS GRACE ARCHBISHOP LANGEVIN. (Marked B.) Anna Lauretta Bennetto, Winnipeg, Man., 22nd March, 1895.

7823. PHOTOGRAPH OF HIS GRACE ARCHBISHOP LANGEVIN. (Marked C.) Anna Lauretta Bennetto, Winnipeg, Man., 22nd March, 1895.

7824. THE DEBRISAY ANALYTICAL LATIN METHOD. (Part III.) By Chas. T. DeBrisay, Toronto, Ont., 23rd March, 1895.

7825. THE HONEY MOON. (March.) By George Rosey. Whaley, Royce, & Co., Toronto, Ont., 23rd March, 1895.

7826. THE CO-OPERATIVE PURCHASING BOOK. Issued by The Buyers' and Merchants' Benefit Association. John Franklin Lawson, Trenton, Ont., 23rd March, 1895.

7827. CANADA BOOKSELLER AND STATIONER. Volume XI, Number 3, March, 1895. The J. B. McLean Publishing Co. (L'd.), Toronto, Ont., 23rd March, 1895.

7828. COURS DE CALLIGRAPHIE COMMERCIALE (en neuf cahiers), avec l. et contenant collection de modeles et supplément. Jean Routhier, Montréal, Que., 23 mars, 1895.

7829. RAUTENBERG'S ELECTION RETURN SCORE CARD FOR THE DOMINION OF CANADA. Bernard Rautenberg, Truro, N.S., 25th March, 1895.

7830. SOMEBODY LOVES ME. (Song.) Words and Music by Hattie Starr. Willis, Woodward & Co., New York, N.Y., U.S.A., 25th March, 1895.

7831. DANCE OF THE SHADOWS. (For the Piano-forte.) By E. L. Newman. The Anglo-Canadian Music Publishers' Association, (L'd.), London, England, 25th March, 1895.

7832. GIVE MY LOVE TO NELLIE. (Song and Chorus.) Words and Music by Wm. Benson Gray. Whaley, Royce & Co., Toronto, Ont., 26th March, 1895.

7833. HIS LAST THOUGHTS WERE OF YOU. Words by Edward B. Marks. Music by Joseph W. Stern. Whaley, Royce & Co., Toronto, Ont. 26th March, 1895.

7834. I RAN A RACE. (Waltz Song.) Words and Music by George M. Cohan. Whaley, Royce & Co., Toronto, Ont., 26th March, 1895.

7835. THE CHURCH ACROSS THE WAY. (Song and Chorus.) Words and Music by Wm. Benson Gray. Whaley, Royce & Co., Toronto, Ont., 26th March, 1895.

7836. THE LITTLE LOST CHILD. Words by Edward B. Marks. Music by Joseph W. Stearn. Whaley, Royce & Co., Toronto, Ont., 26th March, 1895.

7837. WHEN YOU ASK A GIRL TO LEAVE A HAPPY HOME. (Song and Chorus.) Words and Music by Wm. Benson Gray. Whaley, Royce & Co., Toronto, Ont., 26th March, 1895.

7838. WHEN YOU KNOW THE GIRL YOU LOVE, LOVES YOU. Song and Chorus, by W. B. Gray and G. L. Spaulding. Whaley, Royce & Co., Toronto, Ont., 26th March, 1895.

7839. BELL TELEPHONE COMPANY OF CANADA (Ltd.), LONDON EXCHANGE, SUBSCRIBERS' DIRECTORY, ONTARIO DEPARTMENT, FEBRUARY, 1895. The Bell Telephone Company of Canada (Ltd.), Montreal, Que., 26th March, 1895.

78[illegible] ST. ANTOINE DE PADOUE. (Photo.) L. N. C. DeBeaumont, Québec, Qué., 26 mars 1895.

7841. ST. CHRISTOPHE. (Photo.) L. N. C. De Beaumont, Quebec, Qué., 26 mars 1895.

7842. POLL BOOK. S. E. St. O. Chapleau, Ottawa, Ont., 27th March, 1895.

7843. LA PROTECTION AU CANADA. Brochure actuellement en voie de publication par articles dans "Le Quotidien," Lévis, Que. (Droit temporaire d'auteur.) Guillaume Amyot, Québec, Que., 28 mars 1895.

7844. THE PRESBYTERIAN REVIEW ANNUAL AND CLERGY LIST OF THE PRESBYTERIAN CHURCH IN THE DOMINION OF CANADA, 1895. T. R. Clougher, Toronto, Ont., 30th March, 1895.