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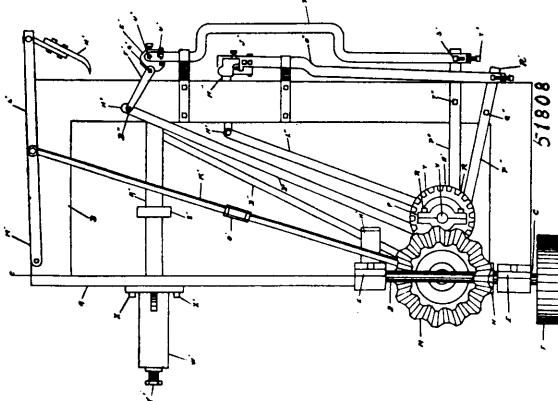
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INVENTIONS PATENTED.

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. 51,808. Swage Gear. (*Engrenage d'estampe.*)



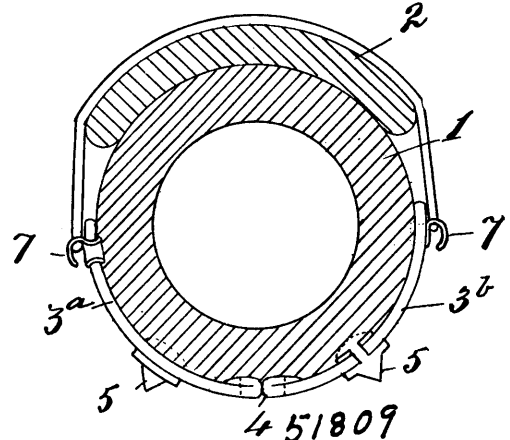
Richard Jones, Bay City, Michigan, U. S. A., 1st April, 1896; 6 years. (Filed 4th March, 1896.)

Claim.—1st. In a swage gear, the combination of the horizontal arm R¹, provided with a swage on its end, the vertical arm P¹, journalled to the supporting frame at T¹¹, with its upper ends journalled to the said horizontal arm at S¹, and provided with an adjusting screw T¹, the coil spring provided at the lower end of the said vertical arm for receding the swage and the means provided at the lower end of the said vertical arm for actuating the same, substantially as described. 2nd. In a swage gear the combination of the horizontal arm O¹, provided with a tooth shaper on its end, the vertical arm P¹¹, journalled to the supporting frame B, near its upper end at Q¹¹, the uppermost end journalled to the horizontal arm O¹¹, at R¹¹, the receding spring provided at the lower end of the said vertical arm and the means for actuating the same, substantially as described. 3rd. In a swage gear, the combination of the shaft U, journalled to the pillow blocks, the gear wheel W, and the crank disc A¹, provided with the crank pin B¹, the reciprocating arm D¹, and the oscillating arm I¹, the said reciprocating arm journalled to the crank pin B¹, and its opposite end journalled to the oscillating arm I¹, at H¹, and the opposite end of the said oscillating arm I¹, secured to the swage clamping screw at

C¹, substantially as described. 4th. In a swage gear, the combination of the shaft U, journalled to its pillow blocks provided with the gear wheel W, and the crank disc Z, provided with the crank pin G¹¹, the reciprocating arm L¹¹, and the oscillating arm F¹¹, the end of the said arm L¹¹, journalled to the crank pin G¹¹, and its opposite end journalled to the lower end of the oscillating arm F¹¹, and the upper end of the said oscillating arm secured to the clamping screw of the said tooth shaper, substantially as described. 5th. In a swage gear, the combination of the counter shaft G, the gear wheels I, and J, the mitre wheel M, the eccentric L, and the disc K, in combination with the shaft U and V, the gear wheels W, and Y, and the crank discs A¹, and Z, substantially as described. 6th. In a swage gear, the combination of the driving shaft D, the driving-wheel F, and the mitre-wheel N, in combination with the counter shaft G, the mitre-wheel M, the said mitre-wheel N, geared to the said mitre-wheel M, substantially as described. 7th. In a swage gear, the combination of the base portion A, provided with the journal boxes E, E, and the pillow blocks O, O, and P, P, and the supporting frame B, in combination with the shaft D, the driving-wheel F, and the mitre-wheel N, substantially as described. 8th. In a swage gear, the combination of the eccentric L, the pin Q, provided therein, the reciprocating arm K¹, and the adjusting nut O¹, in combination with the vertical arm L¹, and the pawl N¹, for actuating the saw, substantially as described. 9th. In a swage gear, the combination of the saw supporting rest W¹, secured to the lower side of the base portion A, provided with a rectangular opening therein, the slide Z¹, with its lower end inserted in the said rectangular opening, the adjusting screw Y¹, for adjusting the said slide Z¹, to the different width saws, the clamping body A¹¹, journalled to the said body W¹, and B¹¹, and the bow spring C¹¹, for pressing the said clamp, against the saw and means for securing the said spring at the journal B¹¹, substantially as described.

No. 51,809. Bicycle Tire Cover.

(*Enveloppe pour bandages de bicycles.*)

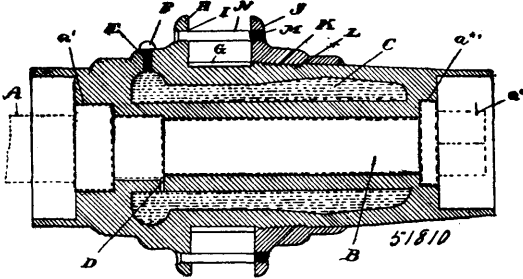


Arthur Laphorn Smith, Montreal, Quebec, Canada, 1st April, 1896; 6 years. (Filed 4th March, 1896.)

Claim.—1st. A tire cover consisting of prepared canvas and pointed studs riveted thereto. 2nd. In a tire stud, the combination of the blunt point, shoulder, washer, and flattened rivet head, as

described. 3rd. In a tire cover, the combination of two rings of prepared canvas firmly sewn together at the outer edges, pointed studs riveted thereto, and lace hooks on the inner edges adapted to attach the cover to the tire.

No. 51,810. Wheel-Hub. (Moyeu de roue.)

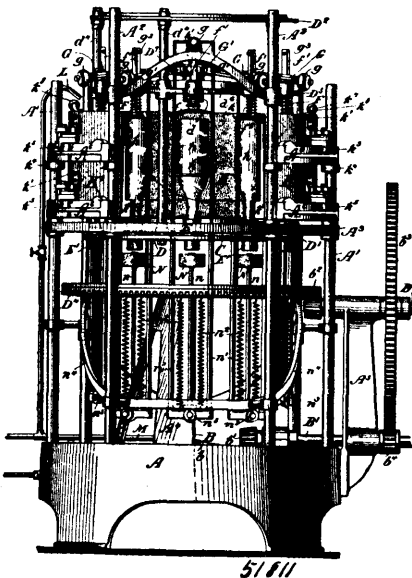


Beauchamp Henry Montgomery, Toronto, Ontario, Canada, 1st April, 1896; 6 years. (Filed 4th March, 1896.)

Claim.—1st. In a wheel-hub, a chamber surrounding the bore, serving as a reservoir to contain the lubricant, and means for feeding the lubricant from the reservoir to the bore, substantially as specified. 2nd. In a wheel-hub, a fixed flange secured to the outer circumference of the wheel-hub, a movable flange immovably secured to the hub, said flanges adapted to securely hold the inner ends of the spokes to the said hub, substantially as specified. 3rd. In a wheel-hub, the combination of a fixed flange, a series of spoke sockets formed medially in the perimeter of the wheel-hub, a fixed flange secured to the perimeter of the wheel-hub at one side of the spoke sockets, a removable flange secured to the perimeter of the wheel-hub at the opposite side of the spoke sockets, bolts passing through the flanges for the purpose of locking them together, substantially as specified. 4th. In a wheel-hub, the combination of a lubricant chamber surrounding the bore, means for communication from the said chamber to the bore, means for filling the said chamber a series of spoke sockets formed medially in the perimeter of the hub, a fixed flange secured to the perimeter of the hub, a movable flange removably secured to the perimeter of the hub at the opposite side of the spoke sockets, and a series of bolts passing through the said flanges for the purpose of securely locking them together, substantially as specified. 5th. In a wheel-hub, the combination of a chamber surrounding the bore means of communication from said chamber to said bore, a fixed flange secured to the outer circumference of the hub, a movable flange immovably secured to the outer circumference of said hub and adapted to be moved to and from the fixed flange, means for dividing the space between the said flanges into any suitable number of compartments, and means for locking together the two flanges, substantially as specified.

No. 51,811. Bottle Washing Machine.

(Appareil à laver les bouteilles.)

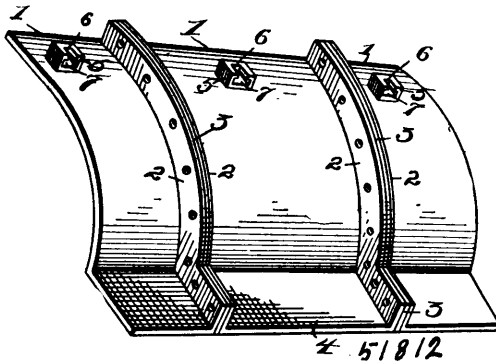


Melvin Donally, Brooklyn, New York, U.S.A., 1st April, 1896; 6 years. (Filed 5th March, 1896.)

Claim.—1st. The combination, with a rotary carrier having upper and lower bars adapted to support a bottle or other like article at both ends with freedom for rotation, and means to rotate said carrier, of brushes supported in proximity to the path of the bottle and on opposite sides thereof, a rotary carrier for one of said brushes concentric with the bottle carrier and means to rotate said brush carrier in the same direction as the bottle carrier but at a greater speed. 2nd. The combination, with a carrier and means to hold a bottle at both ends in a vertical position, with freedom for rotation, of a brush, a support for maintaining said brush in proximity to the path of the bottle, devices acting between said brush and its support to press the brush toward the bottle and to permit it to yield in the opposite direction and means to produce relative movement of the bottle carrier and brush support. 3rd. The combination, with a carrier adapted to receive a bottle, of a brush, a support for maintaining the brush in proximity to the bottle, a swinging arm connecting the brush to its support and a spring to press the brush against the bottle and to permit it to yield in the opposite direction and means to produce relative movement of the bottle carrier and brush support. 4th. The combination, with a carrier adapted to receive a bottle, of a brush, a support for maintaining the brush in proximity to the bottle, an arm pivoted upon said support and having the brush pivotally attached thereto, a spring interposed between the brush and said support and means to produce relative movement of the bottle carrier and brush support. 5th. The combination, with a carrier adapted to receive a bottle, of a series of brushes, a support for maintaining said brushes in proximity to the bottle, devices between each brush and the support to press the brush toward the bottle and to permit it to yield in the opposite direction, a loose connection from each brush to the next whereby the proximate ends of adjacent brushes are caused to move together and means to produce relative movement of the bottle carrier and the brush support. 6th. The combination, with a carrier adapted to receive a bottle, of a series of brushes, a support for maintaining said brushes in proximity to the bottle, a spring interposed between each brush and its support to press the brush toward the bottle and to permit it to yield in the opposite direction, a loose connection from each brush to the next whereby the proximate ends of adjacent brushes are caused to move together and means to produce relative movement of the bottle carrier and brush support. 7th. The combination, with a rotary carrier adapted to receive a bottle and means to rotate said carrier, of a series of brushes, a support for maintaining said brushes concentric with the bottle carrier and in proximity to the path of the bottle, a spring interposed between each brush and the support to press the brush toward the bottle and to permit it to yield in the opposite direction and a loose connection from each brush to the next whereby the proximate ends of adjacent brushes are caused to move together. 8th. The combination with a carrier adapted to receive a bottle, and driving mechanism therefor, of brushes supported in proximity to the path of the bottle and on opposite sides thereof, supports for said brushes, an arm for each brush pivoted on said support and having the brush pivotally attached thereto, and a spring between each brush and its support to press the brush toward the path of the bottle and to permit it to yield in the opposite direction. 9th. The combination with a carrier adapted to receive a bottle, and driving mechanism therefor, of a series of brushes supported at each side of the path of the bottle and in proximity thereto, a support for each of said series of brushes, devices between each brush and its support to press the brush toward the path of the bottle and to permit it to yield in the opposite direction, and a loose connection from each brush of a series to the next, whereby the proximate ends of adjacent brushes are caused to move together. 10th. A carrier for bottle washing machines having upper and lower bars connected together, a rotatable holder to receive the mouth end of the bottle and a flexible, disc-like holder carried by the other bar and pressed yieldingly against the bottom of the bottle to which it is adapted to conform, and held from rotation, whereby as the bottle is rotated its bottom is rubbed by said flexible holder. 11th. The combination with a bottle carrying frame, a spring-pressed holder mounted thereon and adapted to bear against one end of the bottle, a movable guard frame supported by said bottle carrying frame and connected to said holder to move therewith and means to withdraw said holder to release the bottle and at the same time to move said guard frame into position to support the bottle. 12th. The combination with a bottle carrying frame a spring-pressed holder mounted thereon and adapted to bear against one end of the bottle, a movable guard frame supported by said bottle carrying frame and connected to said holder to move therewith and means to drive said bottle carrying frame, of an arm mounted upon said bottle carrying frame and having said holder and guard frame connected thereto and a cam adapted to act upon said arm and thereby to withdraw the holder to release the bottle and at the same time to move the guard frame into position to support the bottle. 13th. The combination with a bottle carrier, of a brush supported by said carrier to move therewith in line with the bottle, means to drive said carrier continuously and a cam adapted to co-operate with a brush holder to move the brush longitudinally into the bottle while the carrier continues its movement. 14th. The combination with a bottle carrier and means to drive the same continuously, of a brush supported by said carrier to move therewith in line with the bottle, devices to move said brush longitudinally into the bottle and to withdraw the same at a predetermined time while the carrier continues its movement, and means to rotate the bottle in the carrier. 15th. The combination with a supporting

frame, of a shaft, mounted therein, a brush carrier secured to said shaft to rotate therewith, a bottle carrier mounted to rotate concentrically with the brush carrier and having upper and lower bars to support a bottle at both ends with freedom for rotation, means to rotate said bottle carrier and brush carriers in the same direction but at different speeds, and stationary brushes supported by said frame on the opposite side of the path of the bottle, whereby the bottles are compelled to rotate as they move with the carrier and are scraped by the brushes at opposite points.

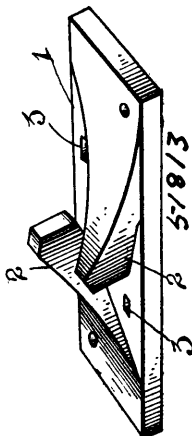
No. 51,812. Furnace. (Fournaise.)



James Moran, Orange, Texas, U.S.A., 1st April, 1896; 6 years. (Filed 5th March, 1896.)

Claim.—1st. A back-plate for steam boiler furnaces, the same comprising several sections separately formed and provided at their meeting edges with angular flanges, a suitable packing of asbestos interposed between said flanges, and suitable fastening devices for firmly uniting said flanges, substantially as described. 2nd. In a back-plate for steam boiler furnaces, a series of arched metal plates similarly shaped in cross-section and formed at their meeting edges with integral angular flanges, whereby said sections are connected, and an integrally formed recessed and slotted boss or lug for each section, substantially as and for the purpose set forth.

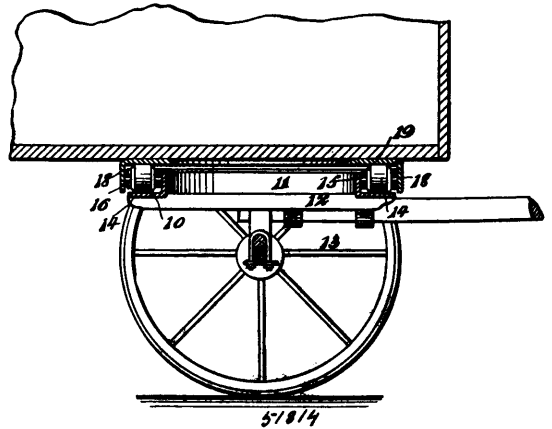
No. 51,813. Rail Fastener. (Attache de rail.)



Charles G. Chamberlain, Pacific Grove, California, U.S.A., 1st April, 1896; 6 years. (Filed 5th March, 1896.)

Claim.—The herein described railway chair, comprising a substantially rectangular base-plate adapted to be interposed between the base of a rail and a tie, a pair of diagonally disposed lugs formed to embrace and bear against the base-flange and head and web of the rail, and arranged in such manner as to permit the chair to be introduced beneath the rail, and a pair of elongated openings or slots, also diagonally disposed and arranged one opposite each lug and in line with the opposite edges of the base of the rail, said openings or slots being extended beneath the base of the rail and adapted to receive tapering spikes whereby the driving of a spike will serve to tightly lock the rail within the chair, substantially as described.

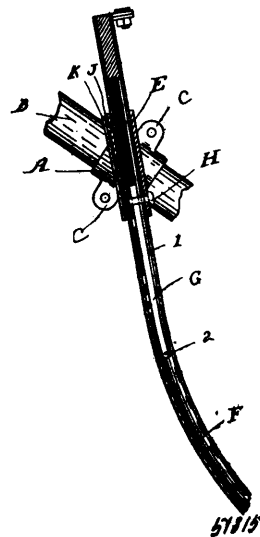
No. 51,814. Fifth-Wheel. (Rond d'avant-train.)



Caleb Richard Turner, Brooklyn, New York, U.S.A., 1st April, 1896; 6 years. (Filed 5th March, 1896.)

Claim.—1st. A fifth-wheel, comprising oppositely arranged circular angle irons forming respectively the upper and lower bearing plates of the fifth-wheel, and a series of rollers arranged between the angle irons, substantially as described. 2nd. A fifth-wheel, comprising oppositely arranged circular angle irons, forming respectively top and bottom bearing plates of the fifth-wheel and with their side flanges concentrically arranged, and a series of bearing rollers arranged between the angle irons and journaled in concentric rings, substantially as described.

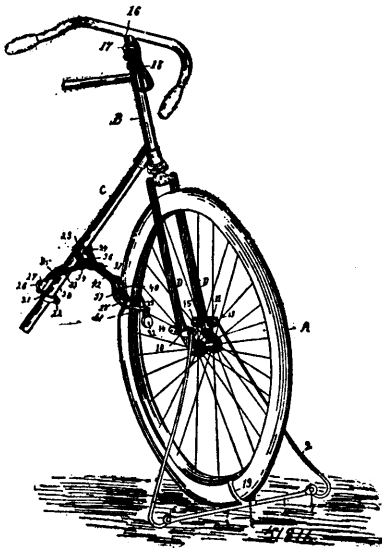
No. 51,815. Bicycle Stand. (Support pour bicyeles.)



Florence Patrick McGovern, Francis William Rabbi and Charles Carleton Cummings, all of Ottawa, Ontario, Canada, 1st April, 1896; 6 years. (Filed 6th March, 1896.)

Claim.—1st. In a bicycle stand a pair of tubular legs, having their lower portions curved, and their upper portions straight, held in sleeves attached by an adjustable clamp to the bicycle frame, arranged to slide vertically through said sleeves and that may be locked in their lowered position by a spring pin attached to said sleeves, and taking into pin holes made in the legs, as shown. 2nd. A bicycle stand provided with curved tubular legs which are movable vertically through sleeves attached to the bicycle frame, said legs being supported by elastic cords placed inside the legs and being attached at their lower ends to the legs, and at their upper ends to pins fixed in the sleeves and projecting into the legs, as shown and described. 3rd. In the above described bicycle stand, the clamp A made in halves secured together by bolts and having the sleeves E; the curved tubular legs F having the spiral slots I, and pin holes N; the elastic cords G attached to one of the sleeves, and provided with the pin J, combined and arranged as shown and for the purpose set forth.

No. 51,816. Bicycle Stand. (Support pour bicycles.)



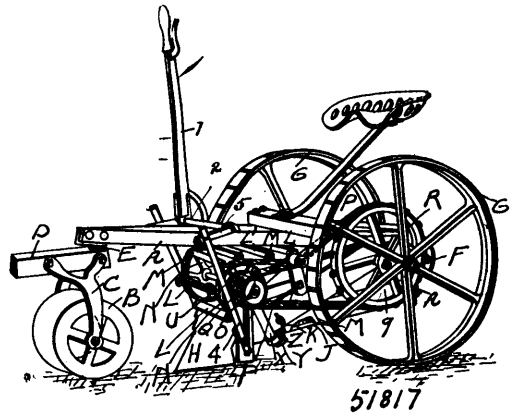
Charles Mee, Cortland, New York, U.S.A., 1st April, 1896; 6 years. (Filed 6th March, 1896.)

Claim.—1st. The arc shaped plate 20, with the bands 21, 23, the bolts or screws 22, 24, the adjustable ring or loop 26, the arms 35, 33, and 42, the spiral spring 36, the bolt and nut 34, the fork shaped shoe 40, the arc shaped bars 28 and 29, the swivel joints 37, and 38, the loop 31, the hole 41, the free ends of the bars 28, and 29, the lock 32, the handle or ferrule 27, attached to and in combination with a bicycle as above described and for the purpose herein described. 2nd. The arc shaped plate 20, with bands 21, 23, and bolts or screws 22, and 24, the adjustable ring or loop 26, the arms 35, 33, and 42, the spiral spring, 36, the bolt and nut 34, the fork shaped shoe 40, the arc shaped bars 28, and 29, the swivel joints 37, and 38, the loop 31, the hole 41, through the free ends of the bars 28, and 29, the lock 32, the handle or ferrule 27, the clamps 10, and 11, the bars 43, and 44, connected with the sections of mud-guard 47, and 48, the sections of the mud-guard 47, and 48, the spiral spring 50, attached to and in combination with a bicycle as hereinbefore described and for the purpose specified. 3rd. In combination the arms 1, 2, 3, and 4, joined together by the joints 6, 7, and 8, with the prongs 9, and 19, the spring clamps 18, attached to and held by the collar 16, having the thumb-screw 17, the swivel joints 12, and 13, attached to the fork D, D, of a bicycle, substantially as and for the purpose herein described and set forth. 4th. In combination with a bicycle the lower arms 1, and 2, upper arms 3, and 4, pivoted to the lower arms at 6, and 7, the said upper arms pivoted at 8, with the prongs 9, and 19, extending therefrom constituting an adjustable clamp, the spring clamps 18 attached to and held by the collar 16, and the thumb screw 17, the clamps 10 and 11, fastened to the bicycle and adjusted to engage by means of the swivel joints 12 and 13, the lower arms aforesaid, the arc-shaped plate 20, with the bands 21 and 23, having the adjustable loop 28 attached to the supporting bar C, and the arms 35, 33 and 42, having the ferrule 27, the loop 31, the spiral spring 36, the bolt and nut 34, the shoe 40, with side extensions, the arc-shaped bars 28 and 29, with the hole 41 in the free end thereof, and connected with said bars by the swivel joints 37 and 38, the lock 32, substantially as and for the purposes herein set forth. 5th. In combination with a bicycle, the lower arms 1 and 2, upper arms 3 and 4, pivoted to the lower arms at 6 and 7, the upper arms pivoted at 8, and having extensions 9 and 19, forming an adjustable clamp, the spring clamp 18, attached to and held by the collar 16, with the thumb-screw 17, the swivel joints 12 and 13, the arc-shaped plate 20, with the bands 21, 23, secured by belts 22, 24, the adjustable loop 26, the arms 33, 35, 42, with the ferrule 27, the spiral spring 36, all secured by the bolt and nut 34, the fork-shaped shoe 40, the arc-shaped bars 28 and 29, turning on the swivel joints 37 and 38, connected with the lock 32, the bars 43 and 44, fastened to the clamps 10 and 11, and the sections 47 and 48 of the mud-guard adjusted by the spiral spring 50, substantially as and for the purpose described and set forth.

No. 51,817. Potato Digger. (Scarificateur à patates.)

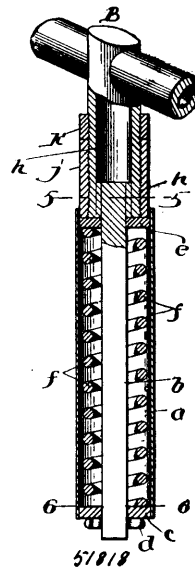
Paul Tiedmann, Cleveland, Ohio, U.S.A., 1st April, 1896; 6 years. (Filed 6th March, 1896.)

Claim.—In a potato digger, the frame A, having the downwardly turned arm A', provided with the slotted portion T, the oscillating grate supported at its rear end upon the downwardly turned arm,



and the frame I, upon which the front end of the grate is supported, combined with the endless carrier L, M, having its rear end journalled in the slotted portion T, so as to be automatically adjustable at this point and mechanisms for operating the carrier and the grate substantially as shown.

No. 51,818. Supporting Post for Bicycles. (Poteau-support pour bicycles.)



Robert F. W. Beardsley, Chicago, Illinois, U.S.A., 1st April, 1896; 6 years. (Filed 6th March, 1896.)

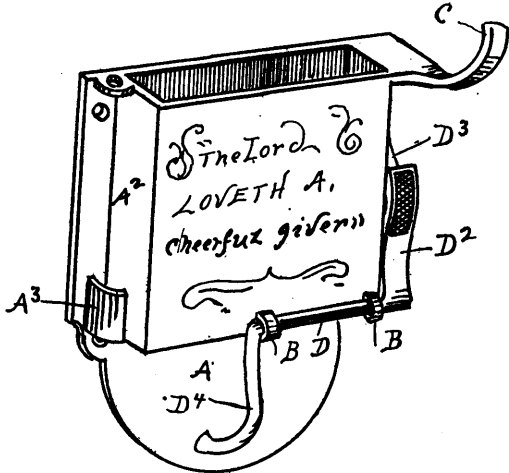
Claim.—1st. A supporting post for bicycles, consisting of the sleeve a, the stem b, guided by suitable means in the bottom of the sleeve and provided with a retaining device to prevent it from being drawn upward out of the same, the head B secured to said stem, the nut j threaded to the head B, and the spring f held under tension between the nut and the bottom of the sleeve, substantially as described. 2nd. In a supporting post for bicycles, the combination of the sleeve a, the post B, having the flat sided stem b, the bottom c, secured to the lower end of the tube and fitted to the stem b, the pin d, the washer e fitted to the interior of the tube, the spring f, and the nut j threaded to the post, substantially as described.

No. 51,819. Combined Card Case, Hat Holder, etc. (Porte-carts, porte-chapeau combinés.)

Niels P. Mickelson, Des Moines, Iowa, U.S.A., 1st April, 1896; 6 years. (Filed 7th March, 1896.)

Claim.—1st. As an improved article of manufacture, a base-plate having a card case at its front, a pencil holder at its side, perforated lugs at the lower end portion of the card holder, and a hook at the upper end of the base-plate at one side of the card holder, cast complete in one piece, a second part comprising a shaft having bearings in said perforated lugs, a lever in one end thereof to be protected

by the card case and the aforesaid hook, and a hook at its other end, and a yielding pressure device for normally holding said lever outwardly from the base-plate, substantially as and for the purposes

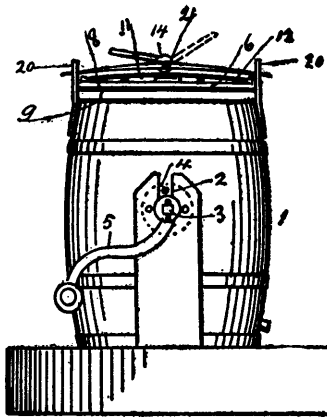


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stated. 2nd. A hat holder for church pews comprising a flat piece or base adapted to be fitted against a flat surface and provided with an integral guard hook projecting horizontally from its top, and a spring-actuated hook pivoted to the base of the guard hook to move in a vertical plane below said guard and hook and to engage the lower end of the base in the manner set forth for the purposes stated.

No. 51,820. Churn. (Baratte.)

Nephi Packard, Springville, Utah, U.S.A., 1st April, 1896; 6 years. (Filed 7th March, 1896.)



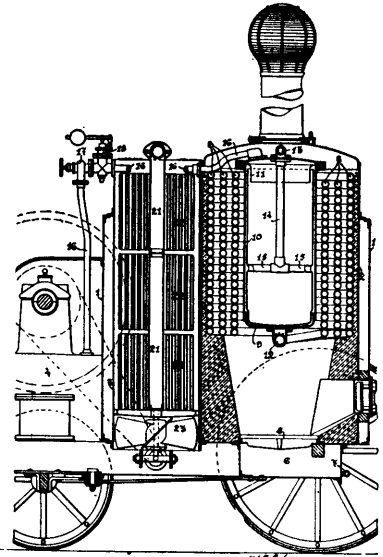
51820

Claim.—1st. The combination with a cylindrical body part, of a plurality of racks therein, tie-bars pivotally secured to one rack and having incline shoulders at their opposite extremities adapted to engage the opposite rack and wedge said racks against the cylindrical body part, and a cover adapted to force the tie-bars in place, substantially as described. 2nd. In a churn, the combination with a cylindrical churn body, of a plurality of racks therein consisting of vertical rack bars and transverse rack bars located alternately, and tie-bars hinged to the upper extremities of the vertical bars of one rack and provided with tongues adapted to engage grooves in the upper extremities of the vertical bars of the other rack, said tie-bars being provided with inclined shoulders adapted to bear against the vertical bars of one rack to wedge the racks securely within the churn-body, substantially as specified. 3rd. The combination with a cylindrical body part, of a plurality of racks therein, tie-bars pivotally secured to one rack and adapted to engage the opposite rack and wedge said rack against the cylindrical body part, a cover adapted to force the tie-bars in place, a spring bar above the cover secured at its opposite ends to the churn-body, and a pivoted cam lever directly pivoted to the spring bar and engaging the cover to

force the same against the tie-bars, substantially as specified. 4th. The combination with a cylindrical body part, of a plurality of racks therein, tie-bars pivotally secured to one rack and having inclined shoulders at their opposite extremities adapted to engage the opposite rack and wedge said racks against the cylindrical body part, a cover adapted to force the tie-bars in place, a spring bar above the cover secured at its opposite ends to the churn-body, and a cam lever pivoted within a slot within a spring bar and engaging the cover to urge the same against the tie-bars, substantially as specified.

No. 51,821. Boiler and Condenser.

(Chaudière et condenseur.)

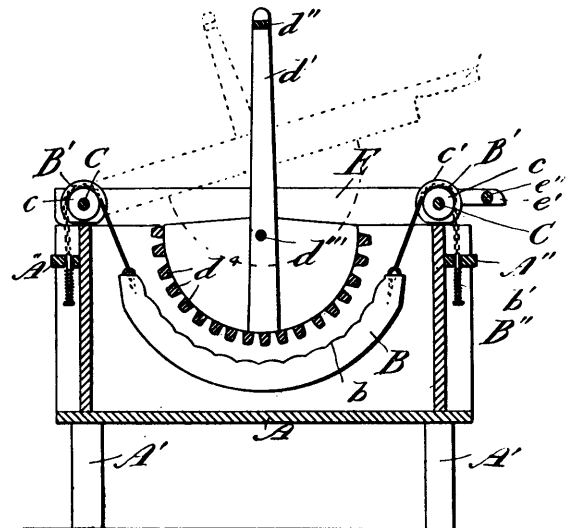


51821

Ernst Buchholtz, Warsaw, Russia, 1st April, 1896; 12 years. (Filed 4th March, 1896.)

Claim.—The combination with an upright steam generator and a condenser of a water tank, substantially as and for the purpose hereinbefore set forth.

No. 51,822. Washing Machine. (Machine à laver.)



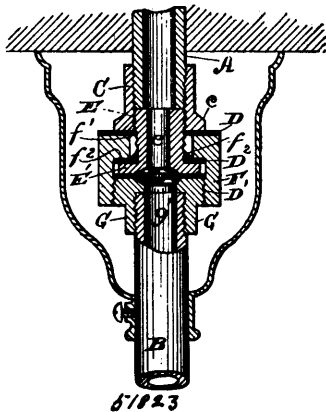
51822

James Scott, Brockville, Ontario, Canada, 1st April, 1896; 6 years. (Filed 7th March, 1896.)

Claim.—1st. In a washing machine, the combination with a tub of a series of segments side by side suspended yieldingly at each end to form a concave flexible and yielding bottom, and a drum having a surface concentric with said bottom and provided with handles, and a frame pivoted at one end to said tub to which said drum is pivoted to have a rocking motion, substantially as set forth. 2nd.

In a washing machine, the combination of a tub A, a series of segments B, having their undulated and concave surface upwards, flexible connections B¹ at the ends of said segments, rollers c secured above the ends of the tub over which said flexible connections pass, a rod b¹ at the end of each flexible connection, a perforated slat A¹, through which said rods pass, a spring B¹¹ upon each rod secured to its end, and the other end abutting against the underside of said slat, substantially as set forth. 3rd. In a washing-machine, the combination of a tub A, a series of segments B suspended side by side within said tub, a chain at each end of each segment passing over a pulley and its end held down by spring or weight, substantially as set forth. 4th. In a washing machine, the combination of a tub A, a series of segments B yieldingly suspended therein, a frame E, e¹¹ pivoted at one end to said tub, a drum D, concentric with the segments B, provided with handles and journalled to said frame E, substantially as set forth.

No. 51,823. Insulating Joint. (Joint isolant.)

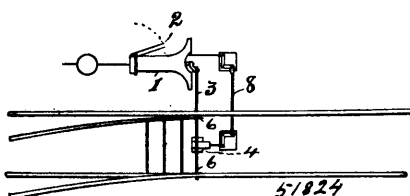


The Chicago Gas and Electric Fixture Manufacturing Company, assignee of George J. Carson, both of Chicago, Illinois, U.S.A., 1st April, 1896; 6 years. (Filed 7th March, 1896.)

Claim.—1st. The combination with a uniting-collar on the ends of two pieces to be joined together, a main locking-collar engaging the collar on one of said pieces, and formed with an opening or chamber provided with an annular rim having teeth or corrugations, and an interior locking-piece, having an annular flange provided with teeth or corrugations to correspond with and engage those of said locking-collar, and adapted to be secured to the other piece to be united, substantially as described. 2nd. In an insulating joint, the combination of the collar C, secured to the supply-pipe, with the collar G on the fixture pipe, the main locking-collar F, having the opening f¹, provided with the annular rim f², formed with teeth or corrugations f, and engaging the collar G, the insulating discs or washers D, and D¹, on the tops of the collars F, and G, respectively, the locking-piece E, having the annular flange E¹, provided with teeth or corrugations e², located within the collar F, and adapted to engage its teeth and the collar G, and the insulating disc or washer D², located between the teeth of the piece E, and the collar F, and adapted to be clamped thereby, substantially as described.

No. 51,824. Switch Stand Attachment.

(Attache pour plate-forme d'aiguille de chemin de fer.)

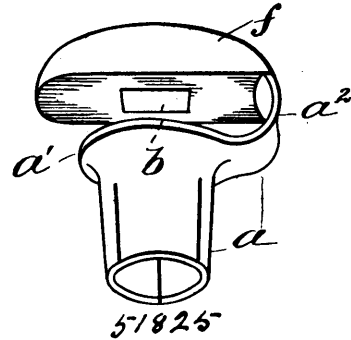


The Canada Switch and Spring Company, assignee of Kennet W. Blackwell, both of Montreal, Quebec, Canada, 1st April, 1896; 6 years. (Filed 4th March, 1896.)

Claim.—1st. The combination of a switch stand with drop arms, and point locking mechanism adapted to be operated by the raising and lowering of the drop arm. 2nd. The combination of a switch

stand with drop arm, and a signal detector and signalling mechanism adapted so that the detector is operated by the raising and lowering of the drop arm. 3rd. The combination of a switch stand with drop arm, adapted to operate derails on a line crossing another line and a signal or signals operated by the raising and lowering of the drop arm. 4th. The method of operating safety devices by the raising and lowering of the drop arm of a switch stand.

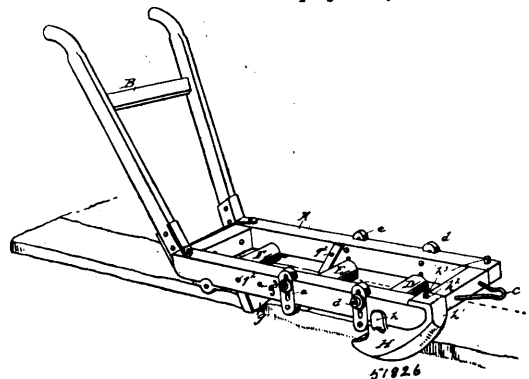
No. 51,825. Lacing Hook. (Agrafe pour lacer.)



Eleazer Kempshall, Newton, Massachusetts, U.S.A., 1st April, 1896; 6 years. (Filed 9th March, 1895.)

Claim.—1st. A lacing hook, comprising in its construction, a head, an attaching member, a neck connecting said head and member, and means to separate said head from a die-plate, or anvil, whereby a covering of plastic material may be moulded about the top and bottom of said head. 2nd. A lacing hook, comprising in its construction, a securing member, a head, a neck connecting said head and member, a part on the under side of said head to engage a die-plate, and a covering of plastic material moulded about said head, and extending under the edge thereof. 3rd. A lacing hook, comprising in its construction, a securing member, a head, a neck connecting said head and member, said head being formed with an aperture and a die engaging part, and a covering of plastic material moulded about the top and bottom of said head and connected through said aperture. 4th. A lacing hook, comprising in its construction, a securing member, a head, a neck connecting said member and head and a die engaging member upon said head. 5th. A lacing hook, comprising in its construction, a securing member, a head, a neck connecting said head and member, said head being formed with a depression adapted to engage a die-plate, and a covering of plastic material moulded about the top and bottom of said head, and covering the edge thereof.

No. 51,826. Sod-Cutter. (Coupe-gazon.)

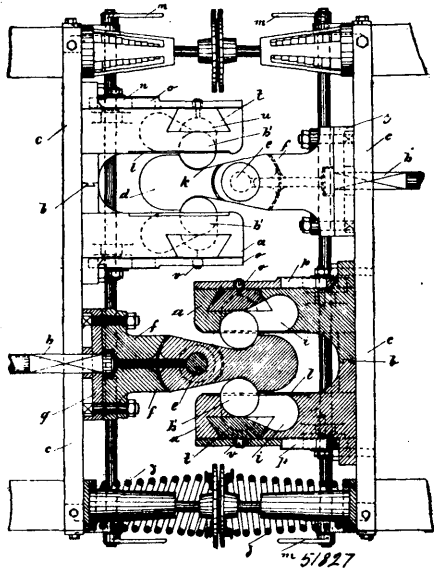


George Lane, Haverford, Pennsylvania, U.S.A., 1st April, 1896; 6 years. (Filed 10th March, 1896.)

Claim.—1st. In a sod-cutter, the combination of the frame A, the knife G having a transverse cutting edge, and vertically adjustable upon said frame, and the transverse roller E mounted nearly over said knife and of equal diameter across its entire length, substantially as described. 2nd. In a sod-cutter, the combination of the frame A, the knife G having a transverse cutting edge, and vertically adjustable upon said frame, and the transverse roller E mounted nearly over said knife of equal diameter across its entire length, and vertically adjustable upon the frame, substantially as described. 3rd. In a sod-cutter, the combination of the frame A, three transverse rollers D, E, F, the latter of which is mounted in a higher plane than the two former, the vertically adjustable knife G having a transverse cutting edge, substantially as described. 4th. In a sod-cutter, the combination of the vertically adjustable knife G, consisting of the transverse portion g, having a straight cutting edge diagonally disposed with reference to the sides of the machine, the vertical portions g¹, g¹, and the angular blades contiguous thereto,

substantially as described. 5th. In a sod-cutter, the vertically adjustable knife G, consisting of the transverse portion *g*, disposed in a horizontal plane and furnished with a sharpened cutting edge, the vertical portions *g*¹, *g*², and the angular plates mounted on the frame of said sod-cutter adjacent to said vertical portions, and forming with said horizontal blade a continuous but angled cutting edge, when said angular plates are properly locked in position for operation, substantially as described. 6th. In a sod-cutter, the reversible knife G, having the transverse portion *g*, with cutting edges upon both its forward and rear side, vertical portions *g*¹, *g*², the revoluble angular plates mounted on the frame of said sod-cutter adjacent to said vertical portions *g*¹, *g*², and having all its edges sharpened to serve as cutting edges, and the central aperture through said plates. 7th. In a sod-cutter, the combination of the frame A, rollers for guiding it in a horizontal path, and an adjustable guide shoe H provided with means for readily affixing it to or removing it from either side of the frame, and the knives in said frame so located as to form horizontal and vertical cutting edges, substantially as set forth.

No 51,827. Car-Coupler. (Atelage de chars.)



Hugo Oberlaenter, Schlossgasse, Leipzig, Saxony, Germany, 1st April, 1896; 6 years. (Filed 9th March, 1896.)

Claim.—1st. In an automatic ball coupling for railway wagons, the combination of two blocks or cheeks connected with each other by means of a prism screwed on to the buffer beam and provided with two slots, with two balls lying in such slots, and with a tongue being revoluble upon a bolt and resting in a casting fastener to the other wagon, as set forth. 2nd. In an automatic ball coupling for railway wagons, the combination of two blocks or cheeks connected with each other by means of a prism, screwed on to the buffer beam and provided two slots, with two balls being slideable in these slots, and with two plates being screwed on to the cheeks and with two movable slides being each provided with a hollowing and receiving its direction in the cheeks, and with an uncoupling device consisting of a hand lever, two cogged-wheels and two racks provided with guiding slots, as and for the purpose set forth. 3rd. In an automatic ball coupling for railway wagons, the combination of a tongue, being provided with two grooves and revoluble upon a bolt, with a casting being attached to a plate by means of screws connected with a drawing-rod underneath the wagon, and with a strong spring resting partly in the said tongue and partly in the said casting, as and for the purpose set forth. 4th. In an automatic ball coupling for railway wagons, the combination of a slide, being provided with a hollowing of the same size as the ball employed with a small roller guided in a slot of the rack of the uncoupling device, as and for the purpose set forth.

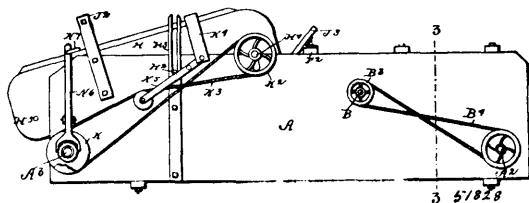
No. 51,828. Band Cutter and Feeder.

(Coupe-hart et alimentateur.)

Nathan Cornish, Garner, Iowa, U. S. A., 1st April, 1896; 6 years. (Filed 10th March, 1896.)

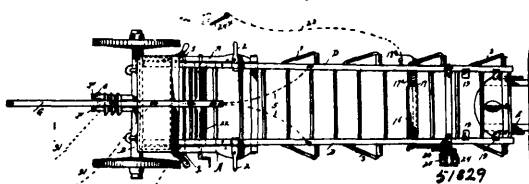
Claim.—In an improved self-feeder for threshing-machines, the combination of a suitable platform, an endless conveyer arranged to travel longitudinally thereof, a second platform above the end of the first, inclined so that the outer ends of the two converge, an endless carrier passing around said platform, a belt wheel loosely mounted

on the shaft of the endless conveyer on the lower frame, means for throwing said wheel in and out of gear with the shaft, a belt wheel on the upper shaft of the top conveyer, a crossed belt connecting the



two, an arm fixed to the top frame, a lever fulcrumed to the lower frame and pivoted to the arm, and a pulley on the opposite end in engagement with said belt, substantially as and for the purposes stated.

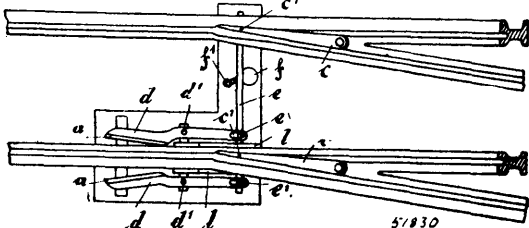
No. 51,829. Ladder. (Echelle.)



Thomas Scoy, Gridley, California, U.S.A., 1st April, 1896; 6 years. (Filed 12th March, 1896.)

1st. In combination with a portable truck, a ladder pivoted to said truck, a standard secured to said truck, a lever pivoted in said standard, and a flexible connection between said lever and ladder, substantially as set forth. 2nd. In combination with a portable truck, a ladder pivoted to said truck, a lever pivoted in said standard, a flexible connection between said lever and ladder, and a hauling rope secured to the rear end of the lever and passing over a pulley on the truck, substantially as set forth. 3rd. In combination with a portable truck and frame, a ladder pivoted in such frame, latches for locking the ladder in line with the frame, and connections for hoisting the ladder when the latches are released, substantially as set forth. 4th. In a ladder, a step or foot-hold pivotally supported, and a spring for holding such step in place, substantially as set forth. 5th. In combination with a ladder, a sheave at one side thereof, and endless belt running on such sheave, and a series of pairs of hooks carried on said belt, the hooks of each pair being turned in opposite directions, substantially as described. 6th. In combination with a ladder, a sheave journaled at one side, an endless belt having a series of pairs of oppositely turned hooks for buckets, and an anchor upon the ladder on the opposite side from said belt for counterbalancing the weights of the buckets, substantially as described. 7th. In combination with a ladder having a sheave or pulley, an endless belt and a hauling rope secured to said belt, substantially as set forth. 8th. In combination with a ladder, a frame carrying a revoluble sheave for an endless belt, and bearings at intervals upon such ladder to receive the frame, substantially as set forth.

No. 51,830. Cutter Head. (Porte-outil.)



Samuel Johnston Shimer, Milton, Pennsylvania, U.S.A., 1st April, 1896; 6 years. (Filed 6th March, 1896.)

Claim.—1st. A cutter-head having four trapezoidal sides or faces. 2nd. A cutter-head having four convex trapezoidal sides or faces. 3rd. A cutter-head having four convex trapezoidal sides or faces. 4th. A cutter-head having four trapezoidal sides or faces in combination with knives secured thereto. 5th. A cutter-head having four trapezoidal sides or faces in combination with knives secured thereto having their edges curved in the form of a segment of an ellipse. 6th. A cutter-head having four trapezoidal convex sides or faces in combination with the knives secured thereto. 7th. A cutter-head having four trapezoidal concaved sides or faces in combination with knives secured thereto having their undersides convex longitudinally. 8th. A knife for a rotary cutter-head convex longitudinally on its underside, and the cutting edge curved

in the form of a segment of an ellipse. 9th. A knife for a rotary cutter-head having its underside convexed longitudinally and provided with a soft metal facing forming a flat surface or seat.

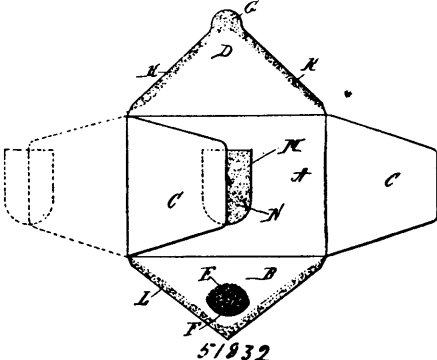
No. 51,831. Enamelling Metal.

(*Art d'émailler les métaux.*)

James Cochran, Brooklyn, New York, U.S.A., 1st April, 1896; 6 years. (Filed 6th February, 1896.)

Claim.—1st. As a new article of manufacture, an iron or steel article containing a binding film of magnetic metal between the body and the enamel. 2nd. As a new article of manufacture, an enameled metallic article having a film of cobalt interposed between the metal body and the enamel. 3rd. As a new article of manufacture, a steel or iron vessel having thereon an electro-deposited coat of magnetic metal and superposed thereupon, a coat of mottled enamel, substantially as described. 4th. In the art of enameling magnetic metals, to which the enamel will not properly adhere, the interposition between the coat of enamel, and the said metal or other article prior to fusing the enamel of a binder of magnetic metal which constitutes a bond between the metal or other article and the enamel when fused. 5th. A metallic vessel or article carrying a perforate superposed film of another metal upon said film the enamel or glaze, substantially as described. 6th. A metallic vessel or article partly oxidized provided with a film of electro-deposited metal, and a superposed layer of enamel or glaze, all arranged so that the enamel or glaze is mottled by the oxidation of the foundation metal, as specified. 7th. As a new article of manufacture, a metallic vessel or article carrying a coat of mottled enamel on a perforate film of metal, as specified. 8th. As a new article of manufacture, a metallic vessel or the like having a porous or perforate metallic sheet interposed between the metallic body and the enamel coating, as described. 9th. As a new article of manufacture, a metallic vessel or the like having a permeable metallic sheet interposed between the metallic body and the enamel coating, as described. 10th. In the art of enamelling metallic articles to which enamel will not readily adhere, the process which consists in first placing upon such metallic article a coating of another metal and an acid which is capable of permeating said coating and oxidizing the body of the article, the resulting oxide in turn permeating said metal, coating and in applying an enamel to the surface of said coating, as described.

No. 51,832. Envelope, (*Enveloppe.*)



Andrew Mortenson, Brooklyn, New York, U.S.A., 1st April, 1896; 6 years. (Filed 7th February, 1896.)

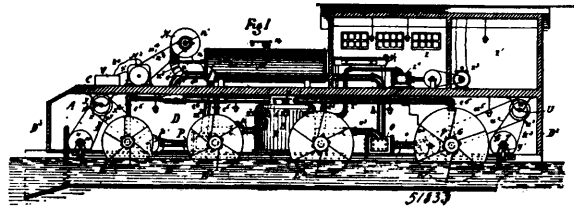
Claim.—1st. An envelope consisting of a blank comprising a body piece, two end pieces, a side and a flap the inner edges of the side of the flap being gummed in the usual manner, and the inner surface of the side being also provided with shellac a slot formed therein, outside of the shellac, and the flap being provided with a tongue adapted to enter said slot the outer surface of which is gummed and adapted to come in contact with said shellac, substantially as shown and described. 2nd. An envelope consisting of a blank, comprising a body piece, two end pieces, a side and a flap, the inner edges of the side of the flap being gummed in the usual manner, and the inner surface of the side being provided with shellac, and a slot formed therein, outside of the shellac, and the inner edges thereof being also gummed, and the flap being provided with a tongue or projection adapted to enter said slot in the side the outer surface of which is gummed and adapted to come in contact with said shellac and a strip or piece one side of which is gummed and in contact with which the ends are folded, substantially as shown and described.

No. 51,833. Apparatus for Compressing and Storing Air. (*Appareil pour comprimer et emmagasiner l'air.*)

Edwin Crane Nichols, Topeka, Kansas, U.S.A., 1st April, 1896; 6 years. (Filed 8th February, 1896.)

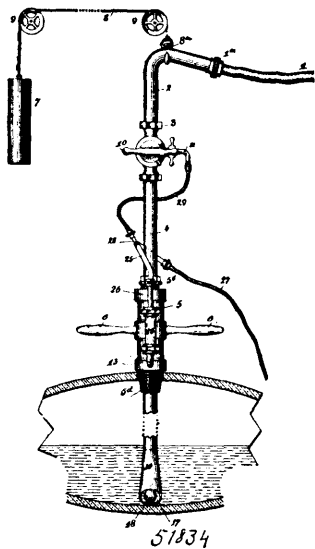
Claim.—1st. An air compressing apparatus comprising a receiver having an opening for the admission of the compressed air and a

self closing valve, a revolving air forcing compartment wheel having separate compartments, and a receiving chamber at the axis of said wheel having an opening to each compartment of said wheel, and a self closing valve, and a conductor of compressed air connected with



self closing valve, a revolving air forcing compartment wheel having separate compartments, and a receiving chamber at the axis of said wheel having an opening to each compartment of said wheel, and a self closing valve, and a conductor of compressed air connected with said chamber and said receiver, substantially as and for the purpose described. 2nd. An air compressing apparatus comprising a receiver having an opening for the admission of the compressed air and a self closing valve, a revolving air forcing compartment wheel having separate compartments, an air conducting pipe at the axis of and connected with said wheel and having openings to each compartment of said wheel and a self closing valve, substantially as and for the purpose described. 3rd. In an apparatus for compressing air a receiver having an opening for the admission of the compressed air and a self closing valve, a sluice and a revolving air forcing compartment wheel in said sluice, and an air conducting pipe connected with said receiver, having air passages and extending in the direction of and through the axis of said wheel and supported upon the sides of said sluice, and an air receiving chamber concentric with said air conducting pipe connected with said wheel and adapted to rotate independently of said air conducting pipe, and having openings to each separate compartment and a self-closing valve to each opening, substantially as and for the purpose described. 4th. In an apparatus for compressing air a receiver having an opening for the admission of the compressed air and a self-closing valve, a sluice and a revolving air forcing compartment wheel in said sluice having separate compartments, and a chamber at the axis of said wheel having openings communicating with each compartment of said wheel, and valves to said openings, a conductor of compressed air connected with said chamber and said receiver, and air suction and force apparatus having a conductor connected with the conductor for compressed air, substantially as and for the purpose set forth. 5th. In an air compressing apparatus a generator of compressed air and a receiver, a conductor connected with said generator and said receiver, and a suction and force apparatus having an induction pipe connected with said conductor of compressed air, as and for the purpose described. 6th. In an apparatus for compressing air a receiver having an opening for the admission of compressed air and a self-closing valve, a storage tank and an air compressor having an eduction pipe connected with said receiver and an induction pipe connected with said storage tank and a compressed air generator having a pipe connected with said receiver, substantially as and for the purpose described. 7th. In an apparatus for compressing air, a generator of compressed air and a receiver having a self-closing valve, and a conductor from the generator to the receiver, and a blast fan having a source of air and a conductor for the air blast having a check valve extending from the said fan, and connected with said conductor of compressed air and means for operating said fan, substantially as and for the purpose described. 8th. In an air compressing apparatus a revolving air forcing compartment wheel having separate compartments, a chamber connected with each compartment concentric with the axis of said wheel having openings for the admission of the compressed air communicating with each compartment, and a self-closing valve to each opening, substantially as and for the purpose described. 9th. In an air compressing apparatus a revolving air forcing compartment wheel having separate compartments, a chamber connected with each compartment concentric with the axis of said wheel and having valve boxes in each compartment provided with openings for the admission of the compressed air at each end and a valve to each opening and a spring for each valve, substantially as and for the purpose described. 10th. In an air compressing apparatus, a revolving air forcing compartment wheel having separate compartments, a chamber connected with each compartment concentric with the axis of said wheel and having valve boxes in each compartment and openings for the admission of the compressed air at each end, yokes connected with the outer side portion and each end of the said valve boxes extending over said openings and a valve carrying rod connected with said yokes and sliding valves on said rod, within said valve box adapted to close said openings and a lug on said rod and a spring on said rod having one end extending against said lug and the other end against one of said valves, substantially as and for the purpose described. 11th. In an air compressing apparatus, a receiver having an opening for the admission of the compressed air and a self closing valve, a revolving air forcing compartment wheel having separate compartments, a chamber connected with each compartment concentric with the axis of said wheel having openings and a slotted tube, said tube and chamber having separately supported concentric sleeves, a valve box extending over each one of said openings in said chamber having a self closing valve and a conductor for the compressed air connected with one of said sleeves and with said receiver, substantially as and for the purpose described.

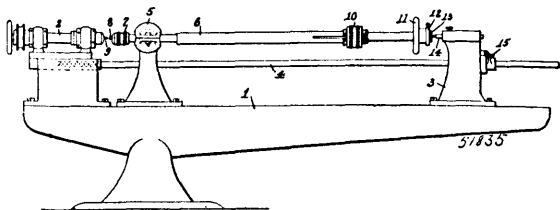
No. 51,834. Apparatus for Charging or Discharging Liquids into or out of Barrels, etc.
(Appareil pour décharger et charger les liquides dans les barils, etc.)



Edgar Friedman, Dobbs Ferry, New York, U.S.A., 1st April, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. In an apparatus for charging liquid into, or discharging it from, a barrel or other package, the combination of the expanded discharge pipe 4 increasing in diameter toward its discharge end, the three-way valve 10 and valve-casing 3, the latter having air inlet 11, the liquid supply pipes 2 and 1, and the bung fitting head 5 wherein the pipe 4 freely slides and having the vent 12, 13, substantially as set forth. In an apparatus for charging liquid into, or discharging it from, a barrel or other package, the combination of the discharge pipe increasing in diameter toward its discharge end and formed with discharge openings in its side, and the ball placed within the discharge end thereof, substantially as set forth. 3rd. In an apparatus for charging liquid into, or discharging it from, a barrel or other package, the combination of the expanded discharge pipe 4 having outlets 17, the ball 18 and headed stem 20, all arranged and adapted to operate, substantially as set forth. 4th. In an apparatus for charging liquid into or discharging it from a barrel or other package, the combination of the discharge pipe having expanded discharge end, a ball confined within the discharge end, side openings in said discharge end, and wire net or gauze covering the openings, substantially as and for the purposes set forth.

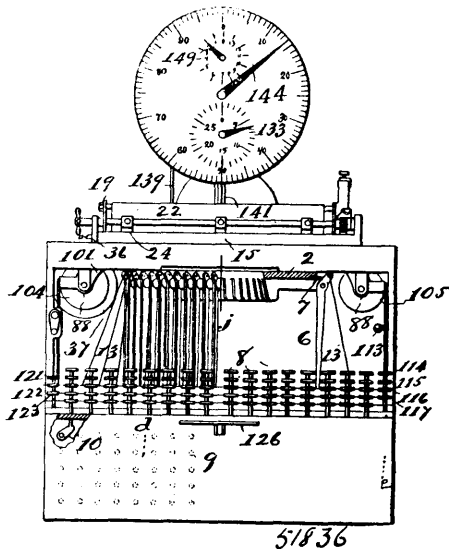
No. 51,835. Type Cutting Machine.
(Machine à découper les caractères.)



Thomas Tinsley Heath, Loveland, assignee of Alois Nicholas Verdin, Glendale, both in Ohio, U.S.A., 1st April, 1896; 6 years. (Filed 8th February, 1896.)

Claim.—1st. A type-cutting machine comprising a universally journalled rod carrying at one end a blank-chuck and at the other end a template-chuck, a changeable guide-pin rigidly supported near the blank-chuck, and devices to move the cutter endwise and measure such movement. 2nd. A type-cutting machine comprising a universally journalled rod carrying at one end a blank-chuck and at the other end a template-chuck, a changeable guide-pin rigidly supported near the template-chuck, an operating cutter rigidly supported near the blank-chuck, additional rods carrying blank-chucks and mounted to move in unison with the first-mentioned blank-chuck, an operating cutter for each of the additional blank-chucks, and mechanism for moving all the cutters endwise and measuring such movement.

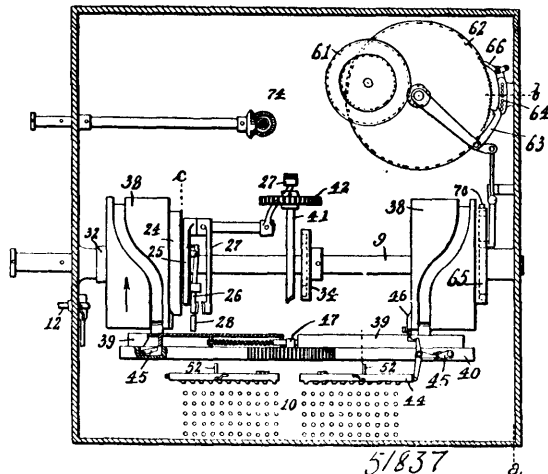
No. 51,836. Typewriter. (Clavigraphie.)



Thomas Tinsley Heath, Loveland, assignee of Alois Nicholas Verdin, Glendale, both in Ohio, U.S.A., 1st April, 1896; 6 years. (Filed 8th February, 1896.)

Claim.—1st. A typewriter provided with variable-degree feed-mechanism and with a word-key, and having an indicator to show the total advance made by the carriage in writing a line, and to also show the number of times the word-key has been operated in writing the line. 2nd. In the art of producing justified printed matter, the employment of uniform word-spaces and varying letter-spaces and a registration of the number of word-spaces and the total line-space consumed as regards one impression of the matter, and the subsequent variable modification of the word-spaces with reference to the said registered total consumption of line-space. 3rd. The circle of type-bars with their pivots engaging open bearings in a radially notched plate and retained by a notched cover-ring. 4th. The perforated ribbon-table arranged to slide back and forth on the shafts of the ribbon-spools and carry the ribbon-spools with it. 5th. The carriage fed by a spring and controlled by a double-fingered rocker having one finger pivoted and working between a fixed stop and selective moveable stops controlled by the keys of the machine. 6th. The carriage having a rocking spider bearing an impression-rib and provided with retaining clips and a feeding roller. 7th. Vertical rows of type-shafts operated by finger-keys and operating the type-bars, and a vertical row of shafts operated from the type-shafts and serving to control the feed-mechanism of the paper-carriage.

No. 51,837. Typographic Machine.
(Machine typographique.)

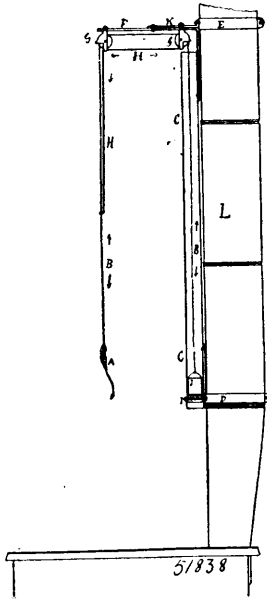


Thomas Tinsley Heath, Loveland, assignee of Alois Nicholas Verdin, Glendale, both in Ohio, U.S.A., 1st April, 1896; 6 years. (Filed 8th February, 1896.)

We claim as our invention:—1st. The skeleton type-box with its sliding trays containing sliding type side by side in groups at each

end of the tray, in combination with mechanism for adjusting the box vertically and sliding endwise in either direction the tray thus brought to the level of the impression point. 2nd. The finger-keys for operating the type-selecting devices, in combination with the shaft and cams for operating the type-moving devices, and segment friction clutch having a toggle and spring, and the stop-pin operated by the finger-keys for restraining and permitting the action of the toggle. 3rd. The clamping strip adapted to engage the vertical edge of the matrix-sheet and be removably inserted from above into the vertical slide of the carriage. 4th. Pawls for giving motion to type-moving parts and matrix-moving parts in combination with pins in series and connected with the finger-keys and adapted to be moved into the paths of the pawls to determine the degree of motion to be imparted by the pawls.

No. 51,838. Suspenders for Stove Lid Lifters. (*Suspendre pour appareil à soulever les couvercles de poêle.*)



Robert Mainer, Orillia, Ontario, Canada, 1st April, 1896; 6 years. (Filed 18th January, 1896.)

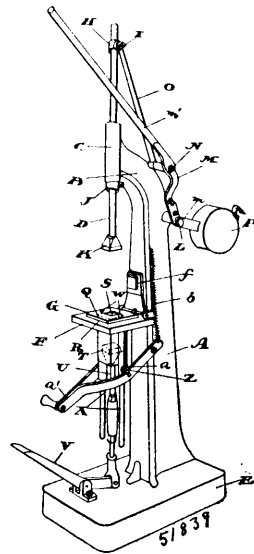
Claim.—1st. In the stove lid lifter suspender device, the combination with the stove pipe L and the bands D E and tube C, for containing weight J, said weight being connected with chain B, working through pulleys G G¹; the lifter A being connected with the free end of chain B in the manner described and for the purposes set forth. 2nd. The combination of the angle bracket FF¹ and brace K secured to band E for the support of pulley bearings O, in the manner described and for the purposes set forth. 3rd. In combination with the pulley bearings O and weight J is a fixed guide wire H, in the manner described and for the purposes set forth. 4th. In combination with the weight J and for a buffer therefor, the bolt N and tubular rubber buffer sleeve I, in the manner described and for the purposes set forth. 5th. The whole of the foregoing devices in working combination, in the manner described and for the purpose set forth.

No. 51,839. Machine for Packing Tea. (*Machine pour l'emballage du thé.*)

Peter Charles Larkin, Toronto, Ontario, Canada, 1st April 1896; 6 years. (Filed 8th October, 1895.)

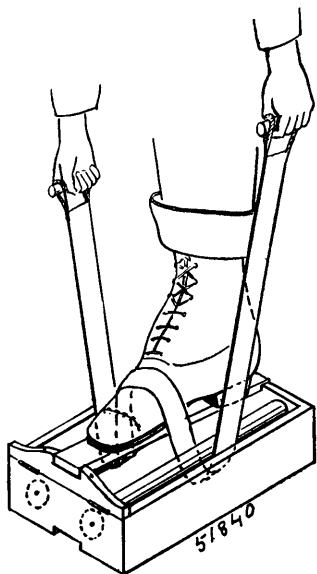
Claim.—1st. A tea-packing machine, consisting of a frame, means for receiving and holding the package and funnel, means for compressing the contents of the package into a reduced bulk, means for removing the funnel from the package after the compression of the contents, and means for pressing the folded top on the contents to securely close the package, substantially as specified. 2nd. A tea-machine, consisting of a frame, means for receiving and holding the package and funnel, means for compressing the contents of the package into a reduced bulk, means for removing the funnel from the package after the compression of the contents, and means for removing the package from the machine, substantially as specified. 3rd. A tea-packing machine, consisting of a frame, means for receiving and holding the package and funnel, means for compressing the contents of the package into a reduced bulk, means for removing the funnel from the package after the compression of the contents, means for removing the package from the machine, and means for pressing the folded top on the contents to securely close the package, substantially as specified. 4th. A tea-packing machine, consisting of a standard, a crane-shaped top for the standard, a ver-

tical guide carried by the crane-shaped top, a packing plunger vertically moveable in the said guides, means for operating the packing plunger, means for removing the funnel from the package



when the packing lever has been operated to reduce the bulk of the contents of the package, and means for discharging the package from the machine, substantially as specified. 5th. In a tea-packing machine, the combination of the frame, means for holding the package, means for compressing the bulk of the contents into the package, a presser leaf hinged to the frame and adapted to press the folded top to securely close the package, substantially as specified. 6th. In a tea-packing machine, the combination with the frame of a means for holding the funnel and package, a means for reducing the bulk of the contents of the package, and a means for separating the funnel from the package when the bulk of the contents has been reduced, consisting of a bifurcated lever pivoted to the frame below the funnel and package, and vertical rods operated by the lever adapted to lift the funnel from the package, substantially as specified. 7th. In a tea-packing machine, the combination with the frame of a means for holding the funnel and package, a means for reducing the bulk of the contents of the package, and a means for separating the funnel from the package when the bulk of the contents has been reduced, consisting of a bifurcated lever pivoted to the frame below the funnel and package, vertical rods operated by the lever adapted to lift the funnel from the package, and means for discharging the package from the tea-packing machine, consisting of a vertical plunger in contact with the bottom of the package and a treadle to operate the plunger, substantially as specified. 8th. A tea-packing machine consisting of a standard, a crane-shaped top for the standard, a vertical guide carried by the crane-shaped top, a packing plunger vertically moveable in the said guide, a table supported by the standard, an opening through the table to receive a funnel, two vertical rods below the table, a bifurcated lever pivoted to the standard below the table, and adapted to operate the vertical rods, a spring connected to the standard and to the bifurcated lever to cause its return to its normal position when the application of power is released, a treadle, a plunger connected to one arm of treadle, adapted to discharge the package from the machine, an L-shaped lever pivoted to the standard above the table, a counter-balance fitted to the short arm of the lever, and a pitman connected to the lever and the packing plunger, substantially as specified. 9th. A tea packing machine consisting of a standard, a crane-shaped top for the standard, a vertical guide carried by the crane-shaped top, a packing plunger vertically moveable in the said guide, a table supported by the standard, an opening through the table to receive a funnel, two vertical rods below the table, a bifurcated lever pivoted to the standard below the table, and adapted to operate the vertical rods, a spring connected to the standard and to the bifurcated lever to cause its return to its normal position when the application of power is released, a treadle, a plunger connected to one arm of the treadle, adapted to discharge the package from the machine, an L-shaped lever pivoted to the short arm of the lever, a pitman connected to the lever and to the packing plunger, and a presser leaf adapted to fold the top of the package on the contents, substantially as specified. 10th. In a tea packing machine, the combination with the tea packing apparatus of a funnel consisting of a sleeve on which the package is adapted to be formed, a funnel-shaped top for the sleeve, lugs connected to the funnel, vertical rods adapted to bear against the lugs, mechanism for operating the vertical rods, and a bifurcated lever to operate the vertical rods, substantially as specified.

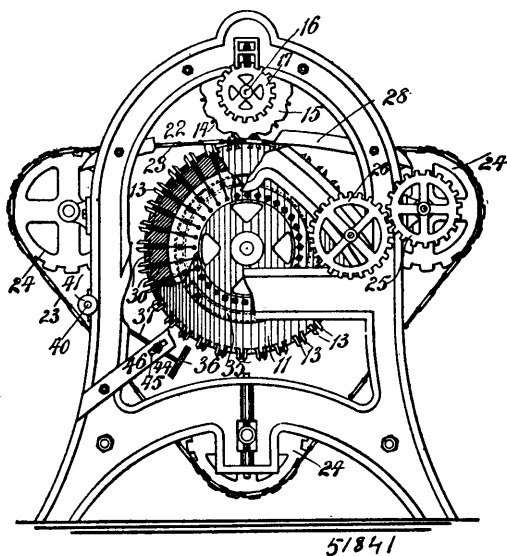
No. 51,840. Machine for Cleaning and Polishing Boots and Shoes. (Machine pour nettoyer et polir les chaussures.)



John White and Robert Jardine, both of St. John, New Brunswick, Canada, 1st April, 1896; 6 years. (Filed 15th July, 1895.)

Claim.—1st. The combination of the box *a*, and the folding head *b*, substantially as and for the purposes hereinbefore set forth. 2nd. The combination with the box *a*, and the folding head *b*, the rollers *d, d*, substantially as and for the purposes hereinbefore set forth. 3rd. The combination with the box *a*, the folding head *b*, the rollers *d, d*, of the foot rest *c*, substantially as and for the purposes hereinbefore set forth. 4th. The combination with the box *a*, the folding head *b*, the rollers *d, d*, and the foot rest *c*, of the flexible band *f*, substantially as and for the purposes hereinbefore set forth. 5th. The combination with the box *a*, the rollers *d, d*, the flexible band *f*, of the foot rest *c*, immovably fixed to the box *a*, substantially as and for the purposes hereinbefore set forth. 6th. The combination with the box *a*, the rollers *d, d*, the flexible band *f*, of a calk or projection *m*, substantially as and for the purposes hereinbefore set forth.

No. 51,841. Stave Machine. (Machine à douelles.)

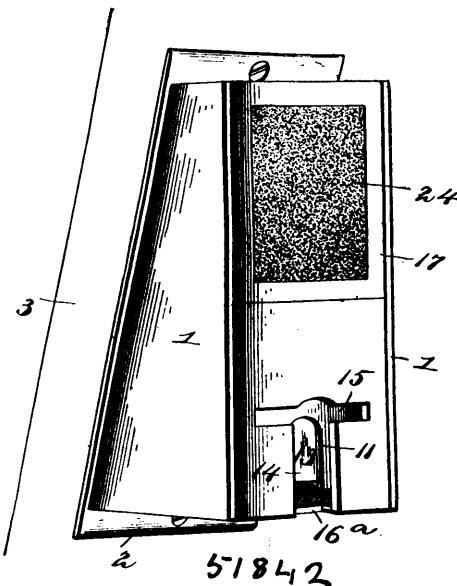


The American Barrel Stave Machine Company, assignee of William F. Hutchinson, both of New York, State of New York, U.S.A., 1st April, 1896; 6 years. (Filed 1st October, 1895.)

Claim.—1st. A stave machine, comprising a revoluble cutting drum having circumferential knives, a bearing for the knives, and a flexible belt-like carrier moving tangentially across the face of the

drum, the said carrier having cross bars to fit between the knives and serve as ejectors, substantially as described. 2nd. In a stave machine the combination with the revoluble cutting drum and its peripheral knives, of the flexible belt-like carrier travelling across the face of the drum and provided with cross bars entering between the knives of the drum, the rollers journaled on the carrier, and the guides at the drum ends to support the rollers, substantially as described. 3rd. In a stave machine the combination of the cutting drum, the peripheral knives, the flexible belt-like carrier travelling across the face of the drum and provided with cross bars entering between the knives, and means as the chains 23^a, for preventing the tipping of the cross bars, substantially as described. 4th. A stave machine, comprising a revoluble cutting drum having peripheral knives arranged in pairs, a carrier traveling across the face of the drum and provided with the cross bars extending between alternate pairs of knives to serve as ejectors, and a second series of supplemental ejectors arranged between the end portions of alternate pairs of knives to eject material from between the said knives, substantially as described. 5th. In a machine of the kind described, the combination with the revoluble cutting drum and its peripheral knives, of the moving ejectors between the knives, pivoted arms supported on the drum and carrying the ejectors, and a cam mechanism to move the arms and ejectors, substantially as described. 6th. The combination with the revoluble cutting drum having peripheral knives, and the radially movable ejectors between the knives, of the swinging arms pivoted to the drum and to the ejectors, the longitudinally movable rods connected to the arms, and a cam mechanism for moving the rods in and out, substantially as described. 7th. The combination with the cutting drum having peripheral knives, of the radially movable ejectors between the knives, the arms pivoted to the drum and to the ejectors, the rods secured to the arms and projecting from the ends of the drum, and means, as the circular cam tracks and the trucks on the rods, for actuating the arms and ejectors by the turning of the drum, substantially as described.

No. 51,842. Match Safe. (Boîte de sûreté pour allumettes.)

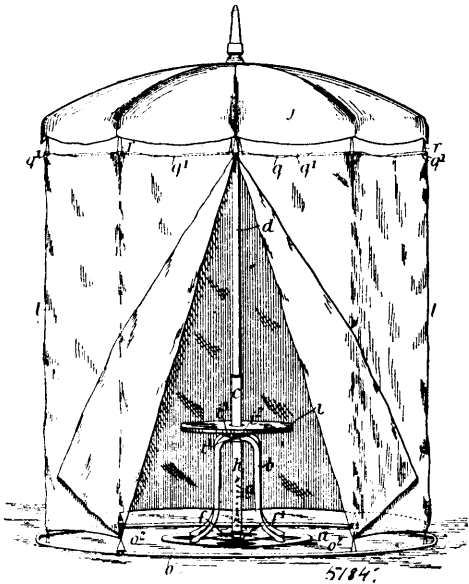


Frank Wittenberg, Little Rock, Arkansas, U.S.A., 1st April, 1896; 6 years. (Filed 6th December, 1895.)

Claim.—1st. A match safe comprising a casing, a T-shaped slot in the front side thereof, said slot having a vertical portion, and a horizontal portion at the upper end of the vertical portion, and a partition plate extending vertically within the casing with its lower edge terminating a short distance above the bottom of said casing, said plate being arranged to divide the interior of the casing into two compartments and having a slot therein aligning with the vertical portion of the T-shaped slot in the front wall of the casing, substantially as described. 2nd. A match safe comprising a casing having a T-shaped slot in its front wall, one part of said slot being horizontal and the remaining part vertical and extending downwardly from the horizontal part, and a partition plate located in the lower portion of the casing and dividing the interior thereof into two compartments, the lower edge of said plate being arranged a slight distance above the lower end of the casing for affording communication between said compartments, for the purpose and substantially as described. 3rd. A match safe comprising a casing having in its lower front side a slot for the removal of the matches and having the upper portion of its front side open, a plate 17 closing said opening and removably secured in place, a plate 18, fixed to the inner upper portion of the plate 17, and binding against the adjacent portion of the casing, and a tongue secured to the lower and

inner side of the plate 17, and projecting below the same, the said tongue being engaged with the upper portion of the rigid front of the casing, substantially as described. 4th. A match safe comprising a casing having a front side, the lower portion of which is rigid, a removable plate closing the remainder of the front, a tongue secured to the lower edge of the removable plate and at the inner side thereof, the said tongue being projected below the lower edge of the removable plate and engaged with the rigid portion of the casing front, a plate 18, rigidly secured to the upper and inner side of the removable plate and engaging with the upper portion of the casing, a plate 11, located within the casing and at the lower portion thereof and near the front side so as to divide that part of the casing into two compartments, the lower edge of the plate 11, being arranged a slight distance above the lower portion of the casing, and a horizontal bar arranged at the upper front side of the plate 11, and filling the space between said plate and the front of the casing, the plate 11, being formed with a vertical slot in its lower portion, which slot registers with the vertical portion of the T-shaped slot formed in the front of the casing, substantially as described.

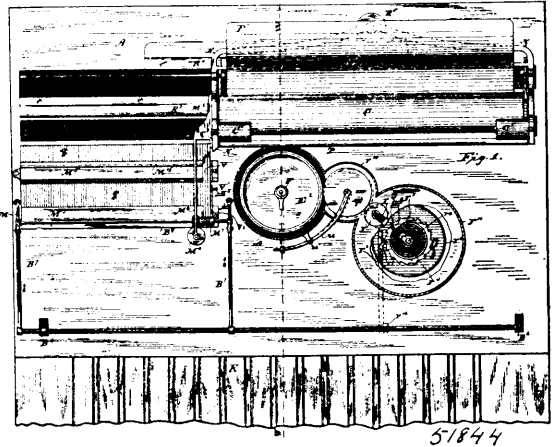
No. 51,843. Umbrella Holder. (Porte-parapluie.)



Robert Irvine, jr., Hartford, England, 1st April, 1896; 6 years.
(Filed 19th November, 1895.)

Claim.—1st. A holder for a tent or other umbrella, consisting of a tubular socket adapted to receive the umbrella stick and mounted in a suitable framing by means of a universal joint so that the holder may be arranged at varying angles, the said joint having in conjunction with it a device for locking the said holder at any suitable angle, substantially as described. 2nd. The combination, with an umbrella holder having a socket arranged in a universal joint, of a central lower nipple or collar for retaining the said socket in a vertical position, substantially as described. 3rd. The combination, with an umbrella holder having a socket for the umbrella stick arranged in a universal joint, of a table mounted upon the framing carrying the said socket, substantially in the manner described. 4th. An umbrella tent, the umbrella of which is mounted in a holder arranged substantially in the manner specified, the lower edge of the sides of the said tent being adapted to be retained in position by means of a ring of metal or other comparatively heavy material to which hooks or other fastening devices on the said edge are connected, substantially as set forth. 5th. In an umbrella tent having a central holder for the umbrella and a weight ring for retaining the sides in position without the use of pegs, the arrangement upon the upper edge of the said sides of a cord running through eyelets and serving to support the said sides at a greater or less distance from the umbrella, substantially as described. 6th. In an umbrella tent wherein the umbrella is supported in a central holder and the sides are connected to a weight ring, providing the weight ring with a cord for permitting the sides to be at a greater or less distance above the ring, substantially as and for the purpose described. 7th. In an umbrella tent having the umbrella supported in a central holder and the sides connected at their lower edge to a weight ring and in which provision is made for leaving ventilating spaces between the umbrella and the sides of or between the sides and the ground, or both, the arrangement, substantially as described for adjusting the height of the umbrella in the holder, for the purpose specified.

No 51,844. Typewriter. (Clavigraphie.)

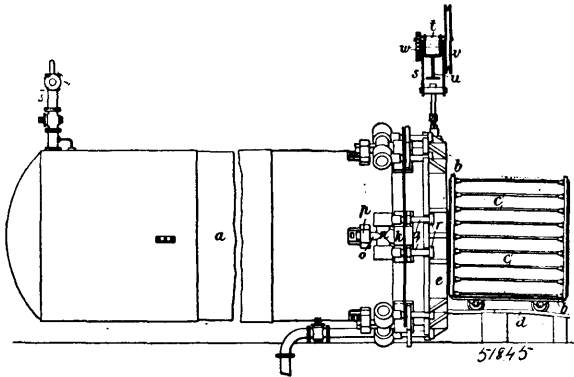


Charles Thomas Moore, Washington, D.C., U.S.A., 1st April, 1896; 6 years. (Filed 11th November, 1895.)

Claim.—1st. In a type writing machine, a type carrier having characters on its periphery, a primary spring for rotating said carrier, a paper carriage and supplemental springs for keeping the primary spring under tension and for operating the paper carriage, substantially as described. 2nd. In a type writing machine in which the type carrier is rotated to position the character in one operation, and the character printed in the succeeding operation by the key operated to position a second character, spacing mechanism for the paper carriage comprising a series of quads normally obstructing the travel of the carriage, and means operated by the keys for withdrawing said quads singly or in series from the line of obstruction whereby a variable letter space movement is imparted to the carriage, substantially as described. 3rd. In a type writing machine in which the type carrier is rotated to position the character in one operation, and the character printed in the succeeding operation by the key operated to position a second character, spacing mechanism for the paper carriage comprising a series of quads normally obstructing the travel of the carriage, and means operated by the keys for withdrawing said quads singly or in series from the line of obstruction whereby a variable letter space movement is imparted to the carriage, and means for restoring the spacing quads to their normal position upon the return of the paper carriage, substantially as described. 4th. In a type writing machine, a type carrier having characters on its periphery, a primary spring for rotating said carrier, a paper carriage and supplemental springs for keeping the primary spring under tension and for operating the paper carriage, an inking roller, a spring for propelling the same and mechanism for winding the spring, substantially as described. 5th. In a type writing machine, a type carrier having characters on its periphery, a primary spring for rotating said carrier, a paper carriage and supplemental springs for keeping the primary spring under tension and for operating the paper carriage, an inking roller, a spring for propelling the same and mechanism for winding the spring, a casing for the spring pressed ink roller, a distributing roller located between the ink roller and the type carrier, substantially as described. 6th. In a type writing machine, a type carrier having characters on its periphery, a primary spring for rotating said carrier, a paper carriage and supplemental springs for keeping the primary spring under tension and for operating the paper carriage, an inking roller, a spring for propelling the same and mechanism for winding the spring, a casing for the spring pressed ink roller, a distributing roller located between the ink roller and the type carrier and means for causing a periodic rotation of the inker shaft, substantially as described. 7th. In a type writing machine, a type carrier having characters on its periphery, a primary spring for rotating said carrier, a paper carriage and supplemental springs for keeping the primary spring under tension and for operating the paper carriage, an inking roller, a spring for propelling the same and mechanism for winding the spring, a casing for the spring pressed ink roller, a distributing roller located between the ink roller and the type carrier and means for causing a periodic rotation of the inker shaft, a stop for arresting the forward movement of the distributing roller and a trip for periodically releasing said roller, substantially as described. 8th. In a type writing machine in which the type carrier is rotated to position, the character in one operation and the character printed in the succeeding operation by the key operated to position a second character, spacing mechanism for the paper carriage comprising a series of quads normally obstructing the travel of the carriage and means operated by the keys for withdrawing said quads singly or in series from the line of obstruction whereby a variable letter space movement is imparted to the carriage, a paper carriage having a stop and a spring operated bracket mounted upon and movable with relation to the carriage, said bracket also having a stop, substantially as described. 9th. In combination with keys and type wheels, the laterally movable frame B², the movable pro-

jection therein of different heights and intermediate connections for shifting the type wheels as the frame changes its position, substantially as described. 10th. In combination with keys and type wheels the laterally movable frame B², the movable projection therein of different heights and intermediate connections for shifting the type wheels as the frame changes its position, the bar B⁴, operated by the projections in the frame B², the spacing mechanism and connections between said bar B⁴, and said spacing mechanism, substantially as described. 11th. In combination with the frame B², and the pins therein, the bar upon which said pins operate and the means for automatically locking and unlocking the pins to said bar.

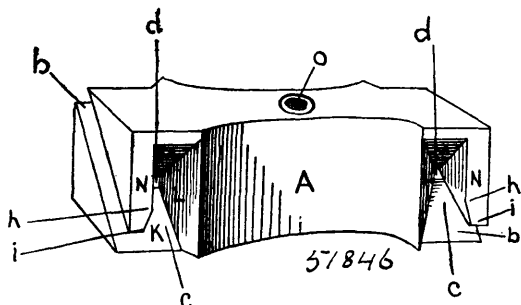
No. 51,845. Method of Curing Meat.
(*Méthode de conserver les viandes.*)



Evan Roberts Down, Gillingham, England, 1st April, 1896; 6 years. (Filed 3rd January, 1896.)

Claim.—1st. A method of curing or salting bacon, hams and other kinds of meat in which the sides or parts to be cured have brine injected into them and are then placed in a chamber which is first exhausted of air and then filled with brine, pressure being subsequently applied, substantially as and for the purpose specified. 2nd. The combination with a vacuum chamber having an end ring *i*, of the door *c*, having the circular recess *b*, and packing *j*, the lugs *f, f*, provided with slots *g, g*, hydraulic ram, cylinders and rams provided with cross heads and means for connecting the rams to the slotted lugs of the door and for operating the rams to tightly close the cover as and for the purpose specified. 3rd. The combination with a vacuum chamber having an end ring *i*, of the door *c*, having the circular recess *b* and packing *j*, the lugs *f, f*, provided with slots *g, g*, hydraulic ram cylinders and rams provided with cross heads, the guide rod *o*, guide *p*, links *q*, screws *q'*, heads *r*, at the free end of the links all arranged as and for the purpose specified. 4th. The combination with the door *c*, and links *q*, pivotally connected to the same, of the carrier *s*, and rollers *t*, and the rail and means for moving the carrier upon the rail as and for the purpose specified.

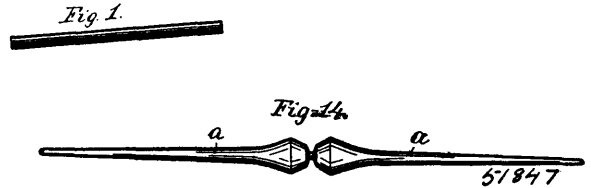
No. 51,846. Cleat for Wires, etc.
(*Taquet pour fil de fer, etc.*)



John Goodwin and John Wright Taylor, both of Ottawa, Ontario, Canada, 1st April, 1896; 6 years. (Filed 27th February, 1896.)

Claim.—1st. A cleat consisting of a homogeneous and undivided block having a quadrangular opening in its two ends at opposite sides thereof, three sides of the said opening decreasing in size or sloping toward the centre of said cleat, the fourth side or outer wall being straight, and separated diagonally by a groove substantially as shown and for the purposes set forth. 2nd. In a cleat the quadrangular openings on opposite sides having the sloping walls K L M the straight wall N the angle of which is bevelled, as shown and for the purpose set forth. 3rd. In a cleat the quadrangular openings K L M the straight wall N the diagonal slot *b* and the single central perforation O for the purpose of affixing said cleat, as shown.

No. 51,847. Horse Shoe Nail. (*Clou de fer à cheval.*)

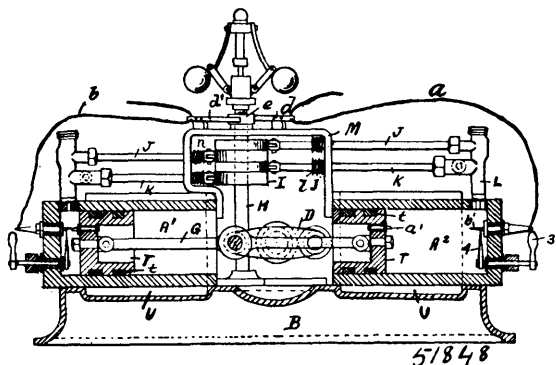


Daniel Edgar Kempster, Boston, Massachusetts, U.S.A., 1st April, 1896; 6 years. (Filed 21st January, 1896.)

Claim.—1st. As a new article of manufacture, the improved horse-shoe nail herein described having a flattened face and back and side edges laterally curved or rounded from the head to substantially midway the shank and the remainder of the side edges sheared or clipped flat, the sheared or clipped flat portions of the shank gradually merging into the laterally curved or rounded edges, substantially as set forth. 2nd. As a new article of manufacture, the improved horseshoe nail herein described characterized by a flattened face, and back, side edges which are curved or rounded laterally from the head to substantially midway the shank, flat side edges from substantially midway the shank to the point, and a point bevelled on its face, substantially as set forth. 3rd. A bevelled-pointed horseshoe nail of greater width than thickness, having the head and shank flattened on the face and back, and the shank tapering widthwise smaller towards the point with two tapers substantially as shown, the tapering part adjoining the head having laterally curved or rounded side edges, and the tapering part adjoining the point having laterally flat or square side edges extending approximately midway the length of the shank and merging into the laterally curved or rounded side edges thereof, substantially as set forth. 4th. A horseshoe nail having the head and part of the shank adjoining the head formed in cross-section with two opposite flat sides and two opposite curved or rounded edges, and the remaining part of the shank formed in cross-section with two flat sides, and two flat edges, substantially as set forth. 5th. A horseshoe nail-blank circular in cross-sectional area throughout, having head and shank forming portions, the shank-forming portion being of greater length than the shank of the finished nail and tapering, substantially as described, the head forming portion and a part of the shank-forming portion adjoining the head, being substantially equal in cross-sectional area to the same parts of the finished nail, and the remaining part of the shank-forming portion being formed larger in cross-sectional area than the same part of the shank of the finished nail, so that when the blank is flattened to the proper thickness edgewise it will leave a margin of metal around the edges to be removed therefrom to produce the tapering point of the finished nail, substantially as set forth. 6th. A duplex horseshoe nail-blank circular in cross-section throughout, having two head and two shank forming portions, the shank-forming portions being of greater length than the shanks of the two finished nails, the head-forming portions and part of the shank-forming portions adjoining the heads, being substantially equal in cross-sectional area to the same parts of the finished nails, and the remainder of the shank-forming portions being larger in cross-sectional area than the same parts of the shanks of the finished nails, for the purpose substantially as set forth. 7th. The herein described headed nail-blank having a shank-forming portion circular in cross-section, the shank of the blank being longer than required for the shank of the finished nail, and the shank being largest in cross-sectional area adjacent to the head, substantially as described. 8th. As a new article of manufacture, a horseshoe nail having a head, the back of which is flat and flush with the back of the shank, which is also flat, the head being also flat on its face, but projecting beyond the flat intersecting face of the nail, the edges of the head and the shank being laterally curved, the face of the nail being bevelled at the point, and the edges inclined at the point for a portion of the length of the shank, above the bevel, these inclines being flat and diminishing upwardly in width and disappearing in the laterally curved edges of the shank, substantially as and for the purpose set forth. 9th. As a new article of manufacture, a horseshoe nail, the shank of which has flattened sides, and the edges of which are laterally convex from the head portion of the shank towards the point thereof, said convex edges being inclined and flat at the point, and the inclines diminishing upwardly until they disappear in the convex edges, a flat side being bevelled at the point, substantially as and for the purpose set forth. 10th. As a new article of manufacture, the improved horseshoe nail herein described, having a flattened face and back, a face bevel, side edges which are curved or rounded laterally from the head towards the point to substantially midway the shank, and clipped side edges which merge and disappear in said rounded edges and extend therefrom to the point, said clipped edges being flat, and the shank rectangular in cross-section above the face bevel towards the middle of the shank, substantially as and for the purpose set forth. 11th. As a new article of manufacture, the improved horseshoe nail herein described, the same having a flat face and back, a face bevel, rounded side edges from the middle portion of the shank towards the head, flat side edges which merge with and disappear in the rounded side edges and extend to the point, the shank being rectangular in cross-section at the point and upwards

above the bevel, approximately octagonal in cross-section above the rectangular cross-section, and of flattened oval cross-section above the octagonal cross-section, all in substance as shown and described and for the purpose set forth. 12th. As a new article of manufacture, a horseshoe nail having a flattened face and back and a bevelled point, the shank tapering with a smaller towards the point with two edge tapers, the tapering part adjoining the head having laterally curved or rounded side edges, and the tapering part adjoining the bevelled part having laterally sheared flat side edges forming a rectangular tapering point of sufficient length to penetrate through the hoof and then merging with the laterally curved edges of the shank so as to gradually change the cross-sectional shape of the hole through the hoof from rectangular to flattish-oval shape, as the nail is completely driven, substantially as and for the purpose set forth. 13th. As a new article of manufacture, the improved horseshoe nail herein described, having a flattened face and back, a shank side edge which is curved laterally, a bevelled point and a flat point end edge which merges above the bevel, with the laterally curved shank side edge, substantially as and for the purpose set forth. 14th. A headed horseshoe nail blank, having its body or shank-forming portion circular in cross-sectional area, and of greater length than the body or shank of the finished nail, for the purpose set forth. 15th. As a new article of manufacture, a horseshoe nail having a head, a shank and point, substantially as shown and described for the purpose set forth.

No. 51,848. Gas Engine. (Machine à gaz.)

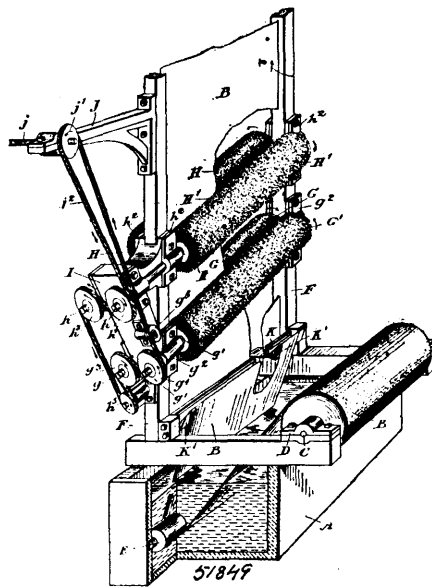


Gibson W. Roth, Richards Post Office, Indiana, U.S.A., 1st April, 1896; 6 years. (Filed 23rd January, 1896.)

Claim.—1st. In combination with the series of cylinders, the pistons and piston rods working therein, the inlet and exhaust valves, the operating rods connected to each of said valves, the vertical shaft between said cylinders operated by the crank shaft and a series of cams carried by said vertical shaft whereby the rotation of said shaft will rotate the cams and operate the valves, substantially as described. 2nd. In combination with the series of cylinders, the pistons working therein, the horizontal shaft rotated by said piston rods, the vertical shaft, the series of cams on said vertical shaft, the casing containing the inlet and discharge valves for said cylinders and the horizontal rods under spring tension connected to said valves and operated by said cams to open said valves, substantially as described. 3rd. In combination, the cylinder, the stationary electrodes secured in the head thereof, the reciprocating piston carrying an electrode adapted to contact and break contact with said stationary electrodes to form a spark and the supplemental means for forming a spark when the piston is inactive, substantially as described. 4th. In combination, the cylinder, the piston reciprocating therein carrying an electrode, the stationary electrodes secured in the cylinder head adapted to contact with said electrode carried by the piston, the supplemental electrode and the means for manually operating said supplemental electrode when said piston is inactive to form a spark, substantially as described. 5th. In combination, the cylinder, the piston reciprocating therein carrying an electrode, the two stationary electrodes secured in the cylinder head, the supplemental forked electrode provided with an operating handle outside the cylinder head, said handle being adapted to be turned to cause the arm to contact and break contact with the stationary electrodes for forming a spark, substantially as described. 6th. In a gas engine having two pairs of cylinders, the electrodes secured in the heads of each cylinder, the common wires connecting the electrodes of each pair of cylinders, the independent contact spring for each pair of cylinders and the cam alternately closing the circuit through each pair of cylinders, substantially as described. 7th. In a gas or gasoline engine, the combination with two or more cylinders, of a piston in each cylinder, the crank shaft connected with said pistons, valves for controlling the supply of explosive materials to each cylinder and also controlling the exhaust, a vertical shaft operating from the crank shaft, operatively connected with said supply and exhaust valves, the devices for igniting the charge of explosive materials in each of the cylinders successively and a circuit breaker operated by a cam for each set of cylinders to close the circuit to cause a spark in each of the cylinders at the proper time and means for producing a spark

when the engine is not running, substantially as described. 8th. In combination, the chamber A, having the outlet pipe leading therefrom for the gas and air, the air inlet valve within the chamber, the governor, the rod extending down through the casing chamber A to control the movement of the air valves, said rod being connected to the governor, the gas supply pipe, the gas valve and its chamber, the said controlling rod also extending through said gas valve chamber and connecting with the gas valve to control the same, substantially as described. 9th. In combination, the chamber A, the air valve therein, the gas valve chamber, surmounting the chamber A and connected therewith by a passage in line with the air inlet valve, the gas valve in said chamber and a rod passing through the gas valve chamber connected to the gas valve and having its lower depending free end extending through the conduit leading to the chamber A, and in line with the air valve to control the same. 10th. In combination, the valve chamber and valves, the valve rod, the igniting arms K, L, having the yielding contact, the governor, the lever connection G between governor and valve rod, said lever extending transversely by the contact arms and arranged to separate the same when the valve mechanism is closed.

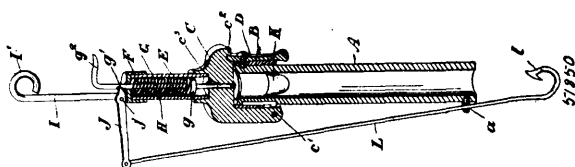
No. 51,849. Machine for Painting Cloth. (Machine pour peindre la toile.)



Robert E. Menzie, Toronto, Ontario, Canada, 1st April, 1896; 6 years. (Filed 30th January, 1896.)

Claim.—1st. In a machine for painting cloth, the combination with the dipping tank and means for guiding the cloth as it passes out therefrom, of a pair of circular brushes obliquely set on each side of the cloth and designed to come in contact therewith and means for driving such brushes, as and for the purpose specified. 2nd. In a machine for painting cloth, the combination with the dipping tank and means for guiding the cloth as it passes out therefrom, of a pair of circular brushes suitably journaled and set obliquely to the edge of the cloth and caused to rotate as to direction against the cloth and a supplemental pair of brushes suitably journaled and set obliquely to the edge of the cloth and parallel with the other pair and caused to rotate with the cloth, as and for the purpose specified. 3rd. The combination with the dipping tank designed to receive the roll and means for guiding the cloth outwardly therefrom, of the obliquely set circular brushes G, and G', and H, and H', secured on the spindles g, and g', and h and h', respectively, pulleys for each spindle and guiding pulleys g^b, and h^b, and driving pulley j, and the endless rope j², as and for the purpose specified.

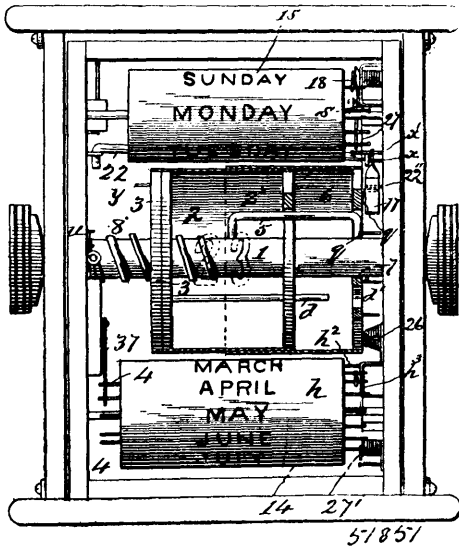
No. 51,850. Bait Gun. (Fusil-appâté.)



James Roger Booth, Barrie, Ontario, Canada, 2nd April, 1896; 6 years. (Filed 1st February, 1896.)

Claim.—1st. A bait set-gun comprising a barrel and a spring-pressed firing pin supported at the butt end normally free from the cartridge, a bait hook supported in front of the muzzle of the gun and means connecting the bait hook to the firing pin for the release of such pin upon the bait hook being drawn upon, as and for the purpose specified. 2nd. A bait set-gun comprising a barrel and a spring-pressed firing pin supported at the butt end and having a notch in the same, a lever having the inner end pointed to engage with such notch, so as to normally hold the firing pin from contact with the cartridge and a rod connected to the outer end of the lever and having a barbed hook at one end and a loop near the muzzle of the gun for holding such hook in position in front of the muzzle, as and for the purpose specified. 3rd. A bait set-gun comprising a barrel, and a spring-pressed firing pin supported at the butt end normally free from the cartridge, a bait hook supported in front of the muzzle of the gun and means connecting the bait hook to the firing pin for the release of such pin upon the bait hook being drawn upon and a rod with an eye at its upper end connected to the butt of the gun as and for the purpose specified. 4th. A bait set-gun comprising a barrel, a tube held to the barrel at the butt end in alignment therewith, a firing pin extending through such tube and having a disc secured to it, a cap for the tube, a spring between the disc and the cap, and means for releasing the firing pin as and for the purpose specified. 5th. The combination with the barrel the tube and spring-pressed firing pin, of a breech having jaws extending each side of a lug attached to or forming part of the barrel and pivoted thereon, and a catch for the breech at the opposite side as and for the purpose specified. 6th. The combination with the barrel, the tube, and spring-pressed firing pin, of a breech having jaws extending each side of a lug attached to or forming part of the barrel and pivoted thereon, a dovetailed notch at the opposite side and a pivoted catch designed to be swung into such notch as and for the purpose specified. 7th. In combination, the barrel, the sleeve, the lug, the breech having an arm pivoted on a lug on the sleeve, the dovetailed notch at the opposite side and the pivoted catch for engaging such notch as and for the purpose specified.

No. 51,851. Calendar. (Calendrier.)

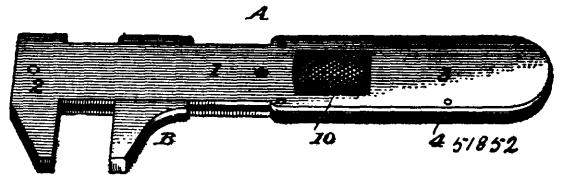


Thomas Humphrey Havenden, Ingersoll, Ontario, Canada, 2nd April, 1896; 6 years. (Filed 5th February, 1896.)

Claim.—1st. In combination with the telescoping unit and decimal cylinders on the shaft, a separate month cylinder, a pawl for operating the same, a pin carried by the decimal cylinder and arranged to advance through the head of the unit cylinder, and offset arranged to be moved by the said pin and connections between said offset and the pawl which moves the month cylinder, substantially as described. 2nd. In combination with the telescoping unit and decimal cylinders and the month cylinder and with mechanism for moving the month cylinder, operated from the decimal cylinder, a variable stop latch regulated by pins on the month cylinder and arranged to oppose a pin on the decimal cylinder, substantially as described. 3rd. In combination, the main shaft, a unit cylinder fixed thereon, a decimal cylinder movable longitudinally on the shaft telescoping with the unit cylinder, and both bearing the month day numbers, and turning with said shaft, a month cylinder separate therefrom, a pin on one end of the decimal cylinder, arranged to operate the turning mechanism for the month cylinder and a pin on the other end of said decimal cylinder arranged to act as a stop for the said cylinders, substantially as described.

4th. In combination with the unit and decimal cylinders, having pins on the end of the unit cylinder, a separate week day cylinder having similar pins, a push pawl operated by the pins of the unit cylinder and a pawl operated by the push pawl, to impel the week day cylinder, substantially as described. 5th. In combination in a calendar, the casing, the shaft therein, the unit and decimal cylinders carrying the month day numbers and arranged on the said shaft and adapted to telescope, the month and week day cylinders arranged on separate shafts and connections from said telescoping decimal and unit cylinders respectively to the month and week day cylinders, substantially as described.

No. 51,852. Wrench. (Clé à écrou.)



The Mossberg Wrench Company, assignee of Frank Mossberg, both of Attleboro', Massachusetts, U.S.A., 2nd April, 1896; 6 years. (Filed 8th February, 1896.)

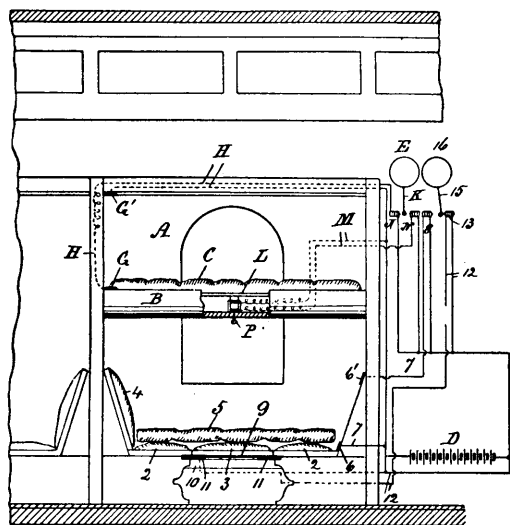
Claim.—1st. A wrench consisting of two plates riveted together and each formed to constitute a part of the head, stem and handle of the wrench, and an intervening movable jaw and its operating means, the plates being held separate by a distance piece secured between them to form part of the head, and by intermediate ribs at the edges of the handle portion, substantially as described. 2nd. A wrench consisting of two similar plates of metal each formed to constitute part of the head, stem and handle, the stem portions of each plate being provided with bearing surfaces and the handle portions with said ribs arranged to maintain the plates separate to form a space between them, a distance piece interposed between the head portions of the plates, a movable jaw working in the space between the plates, and means for adjusting the movable jaw, substantially as described. 3rd. A wrench consisting of two similar side plates of metal, each formed to constitute part of the head, stem and handle, the stem portions of each plate being provided with bearing surfaces and the handle portions with side ribs arranged to maintain the plates separate to form a space between them, a distance piece interposed between the head portions of the plates, a movable jaw working in the space between the plates, said jaw being provided with shoulders which engage the opposite bearing surfaces of the stem portions, and means for adjusting the movable jaw, substantially as described. 4th. The combination in a wrench, of the separated side pieces connected together, a jaw having a web extending between said side pieces and provided with a recess *x*, a plate *9*, for operating the jaw having a head spread within the said recess substantially as set forth. 5th. The combination in a wrench, of a stationary jaw, stem and handle, a recess *w* formed in the stem at both sides, a sliding jaw having a web and recess *x*, a plate *9* having a head extending into said recess *w*, and means for operating said plate, substantially as set forth. 6th. In a wrench, the combination with a stationary jaw, of a sliding jaw or head provided with a recess, a plate having a head spread or distended within said recess to form a jointed connection, and means for moving the said plate, substantially as described. 7th. The combination in a wrench, of the stationary head or jaw, stem, handle, openings *y, y*, movable jaw, screw plate *9*, a nut adapted to said plate, and turning in said openings *y, y*, and a projection upon the plate extending into a groove in the handle, substantially as set forth. 8th. In a wrench, the combination with a handle provided with a groove, of a stem and stationary head or jaw, a movable jaw having a plate with a lug adapted to engage the groove in the handle, and means for operating the plate, substantially as described.

No. 51,853. Electric Register for Sleeping-Car Berths. (Registre électrique pour couchettes de char dortoir.)

Stephen C. Skanks and Walter W. Peay, both of Toronto; George Fee, Samuel L. Brown, Oscar Legros and John J. Mackey, all of North Bay, all in Ontario, Canada, 2nd April, 1896; 6 years. (Filed 30th December, 1895.)

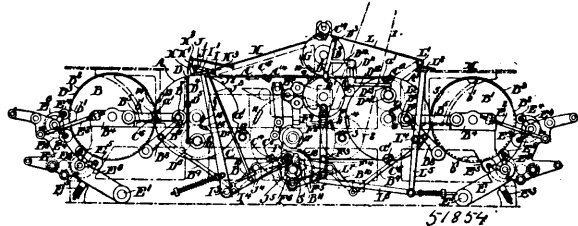
Claim.—1st. The combination in a sleeping-car berth, having a let-down flap forming the mattress of an upper berth, of two make-and-break electric metallic circuits, a magnet in each circuit and a registering clock mechanism having a pendular lever or armature moved in one direction by the magnet of one circuit and in the other direction by the magnet of the other circuit, one circuit including a plate secured to a fixed portion of the berth and another plate secured to the edge of the let-down flap, both plates when in contact connecting the circuit when the berth is shut up and the other circuit connected through a make-and-break key in the mattress, as set forth. 2nd. In a sleeping-car, in which a removable seat-back of a day seat connects two seats to make the bottom of the lower berth, of two electric or metallic circuits having a magnet included in each and a registering device having a pendulum lever or armature moved in one direction by the magnet of one circuit and in the opposite

direction by the magnet of the other circuit, one magnet energized by placing the removable seat-back in position for day use, and the other magnet energized when the seat-back is placed for night service, said seat-back having metallic strips to connect the terminals



of each circuit when in the day and night position, respectively as set forth. 3rd. In a sleeping-car, in which the lower berth is made up of two seats and an interveningly placed section, which in day service makes a removable back to one of the seats, the combination of two metallic circuits severally broken and completed by the seat-back when removed and replaced, said seat-back having metallic strips to connect the ruptured ends of the respective circuits when placed in either position, and a registering device having a clock escapement and a pendulum lever or armature, influenced in one direction by a magnet in said circuit, energized when the other circuit is broken, and when said broken circuit is remade and the former circuit broken, the pendulum or armature is influenced by the magnet of the remade circuit to effect registration, as set forth. 4th. In a sleeping-car, the combination with the lower berth of a removable and adjustable seat-back, making or breaking an electric metallic circuit, including a battery and magnet and a register recording the making or breaking of said electric circuit by shifting said seat-back, substantially as set forth. 5th. In a sleeping-car, the combination with an upper berth, of a metallic circuit including a battery and a magnet, a make-and-break key located in the bottom of the mattress of said berth, and a register recording the making or breaking of the electric circuit by said key, substantially as and for the purpose set forth.

No. 51,854. Printing Press. (Presse à imprimer.)



William Henry Reynell Toye, Robert Brown and Edward L. Bailey, all of Philadelphia, Pennsylvania, U.S.A., 2nd April, 1896; 6 years. (Filed 6th February, 1896.)

Claim.—1st. In a printing machine the combination of one or more type cylinders and one or more impression cylinders having forms and impression surfaces adapted to co-act together in pairs in printing, and an endless flexible carrier passing between each co-acting type and impression cylinder and following the path of one member of each printing couple for a time and distance equal to that required for the sheet to be printed between them, said flexible carrier having a series of equidistant grippers secured to it, one more in number than the number of printing couples, and the length of the carrier exceeding the length of the circumference or circumferences of the cylinders around which it passes by an amount equal to the distance between the centre lines of adjacent platens so as to cause each gripper to register in turn with each printing couple while the carrier is making two or more revolutions. 2nd. In a printing machine the combination of one or more

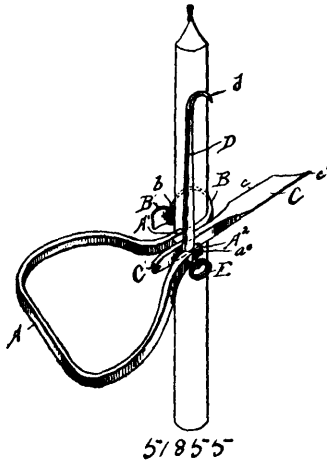
cylinders and one or more impression cylinders having forms and impression surfaces adapted to co-act together in pairs in printing, an endless flexible carrier passing between each co-acting type and impression cylinder and following the path of one member of each printing couple for a time and distance equal to that required for the sheet to be printed between them, said flexible carrier having a series of equidistant grippers secured to it, one more in number than the number of printing couples, and the length of the carrier exceeding the length of the circumference or circumferences of the cylinders around which it passes by an amount equal to the distance between the centre lines of adjacent platens so as to cause each gripper to register in turn with each printing couple while the carrier is making two or more revolutions, an independent printing couple having one member on each side of the carrier and adapted to register with each gripper in turn, said members being arranged in the opposite order to the main series of printing couples and so as to print on the back of the sheet, and mechanism whereby said couples are brought to operative position so as to act once on each sheet passing through the machine. 3rd. In a printing machine the combination of one or more impression cylinders with two or more type cylinders, said cylinders having impression surfaces and forms adapted to co-act in pairs and form a series of printing couples, means whereby each type cylinder in turn is moved away from its co-acting impression cylinder so as to receive a double inking without stopping the machine and so as to permit the passage of the sheet being printed without impression when it is to be acted on by another type cylinder, a flexible carrier passing around the impression cylinder or cylinders and following the path thereof through the distance or distances corresponding to the passage of the sheet between each printing couple, and a series of equidistant grippers attached to the flexible carrier and one more in number than the number of printing couples, said carrier being of a length exceeding the length of the circumference or circumferences of the cylinders around which it passes by an amount equal to the distance between the centre lines of adjacent platens so that each gripper will register with each printing couple in turn while the carrier is making two or more revolutions. 4th. In a printing machine the combination with one or more type cylinders and one or more impression cylinders having forms and impression surfaces adapted to coact together in pairs in printing, of an endless carrier passing between the co-acting type and impression cylinders, said carrier having a series of grippers secured to it and acting to carry sheets of paper between the printing couples, and a supplemental paper feeding device moving with a speed regulated by that of the cylinders and so that each sheet is gripped while at rest and fed forward in the same direction as the carrier so as to be engaged by a gripper thereon while in motion. 5th. In a printing machine, the combination of one or more type cylinders and one or more impression cylinders having forms and impression surfaces adapted to co-act together in pairs in printing, an endless flexible carrier passing between each co-acting type and impression cylinder and following the path of one member of each printing couple for a time and distance equal to that required for the sheet to be printed between them, said flexible carrier having a series of equidistant grippers secured to it, one or more in number than the number of printing couples, and the length of the carrier exceeding the length of the circumference or circumferences of the cylinders around which it passes by an amount equal to the distance between the centre lines of adjacent platens so as to cause each gripper to register in turn with each printing couple, while the carrier is making two or more revolutions, and a supplemental paper feeding device moving with a speed regulated by that of the cylinders whereby each sheet is gripped while stationary and fed forward to the gripper on the carrier so as to be seized by it while in motion. 6th. In a printing machine a sectional type cylinder and sectional impression cylinder carrying respectively type forms and corresponding impression platens forming a series of printing couples, whereby the impression cylinder is driven by or through the type cylinder or its gearing, means for throwing the impression cylinder out of gear with the type cylinder and at the same time positively arresting its motion, a flexible carrier inclosing and driven by the impression cylinder, said carrier following the path of the impression platens at the point where they meet the type sections and for a distance beyond equal to the length of the sheet, and a series of equidistant grippers carried on the flexible carrier and one more in number than the number of printing couples, said carrier and grippers being arranged to bring each gripper in turn in register with each printing couple.

No. 51,855. Miner's Pocket Tool. (Outil de mineur.)

Frank Dudley Holton, Chicago, Illinois, Robert E. Moss, San Antonio, Texas, both in the U.S.A., 2nd April, 1896; 6 years. (Filed 8th February, 1896.)

Claim.—In a miner's pocket tool, the combination with the spring frame A having the parallel holding arms A^1 and A^2 provided with the longitudinal concave surfaces a^1 and a^2 on their inner sides, one of said arms having a smooth hole therethrough, and the other having a screw-threaded hole therethrough, of the spring candle-holder B provided with finger catch B^1 for springing same open, the knife-blade C having flat cutting edge c and sticker point c^1 , and having its shank elongated and formed into the screw-driver C^1 , and the pointed hook D^1 , the said candle-holder, knife-blade, and pointed hook all pivoted in said frame between said holding arms, and

provided with locking faces, and a clamp screw passing through a smooth hole in the shank of each and in one of said holding arms,



5/855

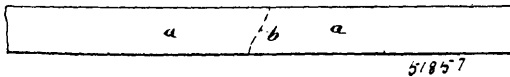
and screwing into a screw-threaded hole in the other holding arm, and adapted to clamp the parts firmly together between said holding arms, substantially as described.

No. 51,856. Artificial stone. (Monolithe artificiel.)

George Alexandre François Romain Janin, Montréal, Québec, Canada 7 Avril, 1896; 6 ans. (Déposé le 26 Octobre, 1895.)

Résumé.—Un monolithe artificiel composé de mâchefer lavé et tamisé, de débris de verre, de ciment à prise rapide de chaux hydraulique et de sable dans les proportions indiquées, le tout tel que décrit dans la spécification précédente.

No. 51,857. Foot Wear. (Chaussure.)

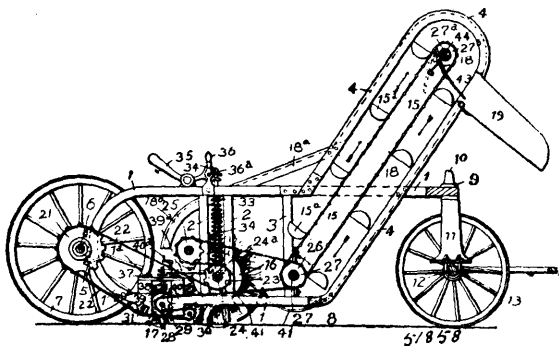


5/857

Charles Leander Higgins, Montreal, Quebec, Canada, 7th April, 1896; 6 years. (Filed 10th April, 1894.)

Claim.—1st. In the manufacture of foot wear of the class described, two like knitted leg portions, having curved bottom edges cut from a length of straight stock on a transverse dividing line common to both as shown and for the purpose set forth. 2nd. Foot wear of the class described, having the leg portions cut on a line corresponding with the contour of the foot portion to which it is to be attached and formed from straight stock for the purpose set forth. 3rd. A foot covering of the class described, composed of a leg portion cut from straight knitted stock and a rubber foot portion secured to same, the cut being of a contour to accommodate the shape of the foot portion.

No. 51,858. Street Sweeper. (Balayeuse de rue.)

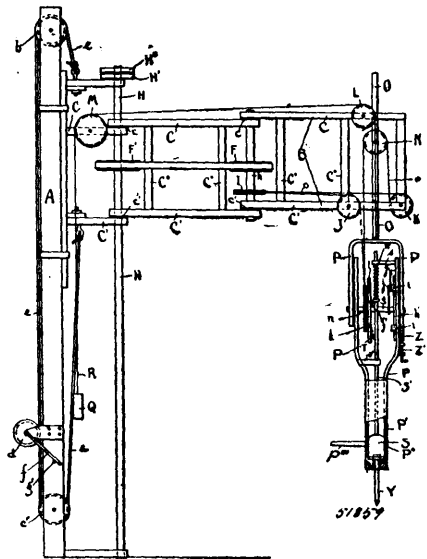


5/858

Napoleon B. Miller and Frederick Mohle, both of Omaha, Nebraska, U.S.A., 7th April, 1896; 6 years. (Filed 11th November, 1895.)

Claim.—1st. A street sweeping machine, comprising a U-shaped frame supported at its rear end upon a driving-wheel shaft connected at its forward upper ends by a plate which carries a pivot bearing, a forward wheel truck having a bolt supported in said bearings, a trunk frame secured to the main frame, inclined forwardly and upwardly, an elevator supported and inclosed therein, and a brush supported upon a shaft having bearings in the main U-shaped frame intermediately thereof, substantially as described. 2nd. A street sweeping machine having a main frame comprising U-shaped horizontal side pieces, the upper arms of which project forwardly beyond the lower arms and are connected by a bearing block plate to support the forward truck frame, and an inverted U-shaped trunk frame secured to the main frame to project upwardly and forwardly therefrom, suitable connecting bars and posts upon said main and trunk frames in combination with a main driving-wheel axle secured by strap bearings to the middle of the bowed end of the main frame, a brush supported upon said frame and a conveyor supported upon the trunk frame, substantially as described. 3rd. A street sweeping machine, comprising frame pieces 1, 2, 3, 4, 8, 9, truck wheel 13, drive-wheel 7, conveyor 15, a forward bottom 16, shaft 24 supported in bearings adjustable between posts 2, 2, and spout 19, substantially as described. 4th. A street sweeping machine, comprising a main frame, a driving axle, and wheels supported at the rear end thereof, truck wheels pivoted at the forward end thereof, main brooms 16, trailing broom 17, sprocket-chain gearing connecting the driving-wheel and brooms, and also connected to and operating an elevator projecting upwardly and forwardly from the brooms, substantially as described. 5th. A street sweeper, comprising U-shaped frames connected at the middle of their bow-shaped ends by straps with the axle of driving-wheels, vertical guide and brace posts connecting the parallel ends of the said frame, a broom supported upon a shaft having bearing blocks fitted between said vertical guide posts, a lifting rod secured to said block, a spring incircling the same, to bear upon the said bearing blocks, and a lever pivoted to the frame and connected with the said rod to elevate and hold the same, substantially as described. 6th. A street sweeping machine, comprising a frame carrying a driving axle at its rear end, a broom supported in bearings therein, an upwardly and forwardly inclined endless belt, elevator and trunk, a double system of sprocket-chain gearing, one upon each side of the machine, and connecting both ends of the axle, broom shaft, and conveyor shaft, and spring actuated ratchet-blocks secured to the driving axle, and interlocking ratchets upon the faces of the hubs of the supporting wheels, substantially as described.

No. 51,859. Stone Working Machine. (Machine à travailler la pierre.)



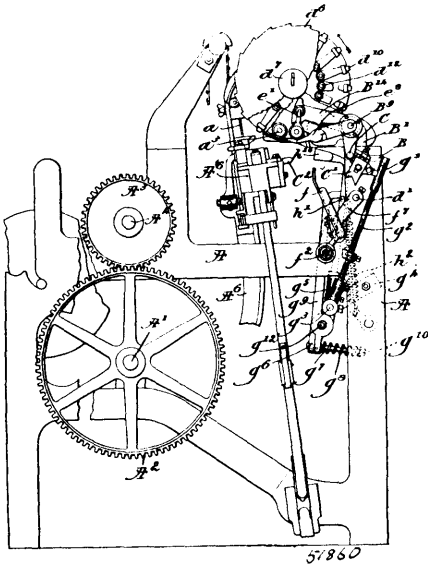
5/859

Stephen Herson, Barré, Vermont, U. S. A., 7th April, 1896; 6 years. (Filed 17th October, 1895.)

Claim.—1st. In a stone-working machine, the combination set forth of a horizontally-arranged frame comprising two girders arranged in the same vertical plane and connected to each other by braces and provided with joints respectively arranged opposite each other between each set of braces; vertical driving shaft H, a pendant frame supporting the tool-reciprocating mechanism, suspended at the free end of the horizontal frame and arranged at its lower end to receive a stone-working tool, a hammer arranged within the independent frame and adapted to be reciprocated to strike the stone-working tool; an upwardly extending rod secured to such hammer and provided with the cam-engaging pin, arranged in the path of

the revolving cam, such cams journaled upon a shaft secured to a bar h^1 , which can slide upward or downward in the collars i , secured to the frame P. 2nd. In a stone-working machine, the combination of a horizontally arranged frame comprising two girders arranged in the same vertical plane and connected to each other by braces and pivoted with joints respectively arranged opposite each other between each set of braces, a vertical driving shaft H, a pendant frame supporting the tool reciprocating mechanism, a suitable stone-working tool, having its handle arranged to reciprocate in such pendant frame, and suitable tool reciprocating mechanism arranged in such pendant frame and adapted to reciprocate such tool, suitable means operatively connecting the driving shaft with the tool reciprocating mechanism, and suitable means for rotating the driving shaft. 3rd. A stone-working machine, comprising the combination of a horizontally arranged jointed frame secured at one end to a suitable support pivoted along its length with joints adapted to allow horizontal movement of such frame and having its other end free and arranged to swing in the arc of a circle parallel with the horizon, a vertical driving shaft H, a pendant frame supporting the tool reciprocating mechanism and suspended to the free end of the horizontally arranged frame, suitable tool reciprocating mechanism arranged in such pendant frame and adapted to reciprocate a stone-working tool, such tool and suitable means connecting the tool reciprocating mechanism with the horizontal frame.

No. 51,860. Loom. (*Métier à tisser.*)



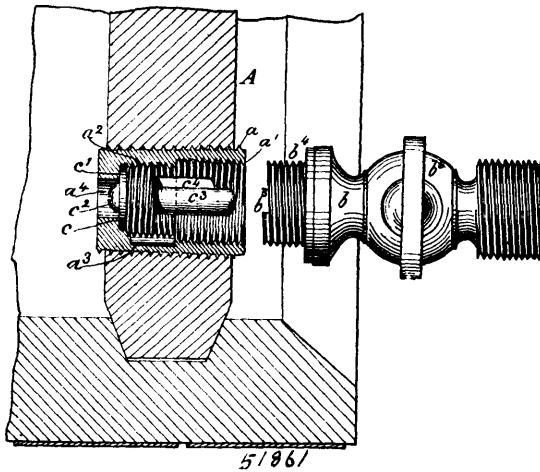
James Henry Northrop, Hopedale, Massachusetts, U.S.A., 7th April, 1896; 6 years. (Filed 25th November, 1895.)

Claim.—1st. The combination and use in a loom containing a lay, a shuttle-box, a shuttle therein slotted for the passage into and through it of a filling-carrier by the action of a pusher, of a filling-feeder having means to engage and positively hold both ends of a series of filling-carriers arranged substantially parallel each to the other, said feeder being moved intermittently to bring one after another of the series of filling carriers contained therein into position between the pusher and the shuttle in the shuttle-box, so that the pusher when moved is made to transfer a filling-carrier from the feeder into the shuttle in the shuttle-box, the incoming filling-carrier acting upon a filling-carrier then in the shuttle to eject the same therefrom, substantially as set forth. 2nd. The combination and use in a loom having a lay, a shuttle-box, and a pusher, of a filling-feeder having an intermittent rotary motion and adapted to place one filling-carrier after another carried by it between the said pusher and a shuttle in the said shuttle-box, substantially as set forth. 3rd. The use in a loom, of a rotating filling-feeder provided with pockets or notches for the reception of the heads of a series of filling-carriers, said feeder having co-operating with it a guard which serves to prevent the escape of filling-carriers therefrom except at the proper point where the said guard is omitted, as set forth. 4th. The use with a rotatable filling-feeder having a series of pockets or notches to receive the heads of a series of filling-carriers, of a stop, against which the filling-carrier next to be removed from the feeder rests, as set forth. 5th. The use in a loom, of a rotating filling-feeder composed of a plate having a series of pockets or notches to receive the heads of a series of filling-carriers, and a plate having a series of holders for the tips or small ends of said filling-carriers, substantially as set forth. 6th. The use in a loom, of a circularly moving filling-feeder adapted to receive and hold both the heads and small or tip ends of a series of filling-carriers, of a circularly moving filling end-support, substan-

tially as set forth. 7th. The use in a loom, of a circularly moving filling-feeder having appliances to receive and hold both the heads and tips of a series of filling-carriers, of a pusher adapted to act on the filling-carriers at or near both ends in ejecting the latter from the filling-feeder, substantially as described. 8th. The use in a loom having a circularly moving filling-feeder, and a pusher adapted to act upon the filling-carriers held therein at both ends to remove them from said feeder, of a locking device co-operating with said feeder to restrain its rotation during the time that the pusher is acting to remove a filling-carrier therefrom, substantially as set forth. 9th. The use in a loom having a sliding filling-fork pivoted in a carrying slide, and a knock-off lever to release a shipper-handle, of a latch mounted on said slide, a latch actuating device or wedge to act against and move the latch upon a first failure of filling at the filling-fork, the said latch engaging the usual knock-off lever, however, only after a second failure of the weft at the filling-fork, substantially as set forth. 10th. The use in a loom having a shipper-handle, a holding device therefor, a filling-fork, a carrying-slide on which the fork is pivoted, a latch pivoted on said slide, of an independent actuating device or wedge to act against and lift the latch upon a first failure of filling at the filling-fork, a knock-off lever adapted to be turned by the action of the positioned latch on a second failure of filling at the filling-fork, and a hammer device adapted to engage the filling-fork tail-piece when not tilted to thus move the filling-fork carrying-slide, and to also act to restore the latch to its first or normal position when the filling-fork is tilted by filling as the hammer is being moved towards the breast-beam, substantially as set forth. 11th. The use in a loom adapted to automatically supply a shuttle with a filling-carrier while the shuttle is in the shuttle-box, of the following instrumentalities, viz.:—a lay having a shuttle-box provided with an opening for the discharge of a filling-carrier through it from the shuttle therein, the latter being slotted in such a manner as to let a filling-carrier be passed into it at one side and out at another side, a pusher to push a filling-carrier into the shuttle from a suitable filling-feeder, a trip device co-operating with the pusher and adapted to be struck by a bunter as the lay is moving toward the breast-beam, a knock-off lever, a filling-fork pivoted upon a movable carrying slide, a latch also mounted on said slide and movable therewith toward and from said knock-off lever, a device to positively move said latch upon or with relation to said slide, a rock-shaft, and connecting devices between said slide and said rock-shaft and between said rock-shaft and said trip, whereby at the first outward movement of the filling-fork slide after the failure of the filling to tilt the filling-fork, the said latch will be turned but will not cause the knock-off lever to be moved to stop the loom, the said slide in its said movement effecting, however, the rocking of the said rock-shaft sufficiently to cause it by its connection with said trip to put the latter in operative position to be struck and effect the movement of the pusher whereby at a second outward movement of said filling-fork slide by the absence of filling, as stated, the said latch will be made to act and move the knock-off lever to effect the release of the latter and the stopping of the loom, substantially as set forth. 12th. The use with a lay having a shuttle-box slotted for the passage of a filling-carrier through it from a shuttle, of a yielding spring-controlled chute supported entirely independent of the lay, and devices to move said chute toward the lay, to conduct a filling-carrier away from the shuttle-box, substantially as set forth. 13th. The use with a lay having an open shuttle-box for the discharge through it of a filling-carrier, of a rod under the control of a filling-fork, a chute, and connecting devices between it and said rod, whereby when the filling fails the chute will be moved toward the lay and be put into position to conduct a filling-carrier away from the shuttle-box, substantially as described. 14th. The use with a lay having a shuttle-box, open for the discharge of a filling-carrier, of a yielding chute supported independently of the lay and adapted to be moved thereby for a part only of its forward stroke, substantially as set forth. 15th. The use with a filling-feeder, and a co-operating pusher to transfer a filling-carrier from said feeder into a shuttle in the shuttle-box of the lay, of a yielding support or finger adapted to enter the shuttle-chamber and lie under and guide the small or tip end of the filling-carrier into position in the said shuttle-chamber, substantially as set forth. 16th. The use in a loom having a lay provided with a shuttle-box slotted for the passage through it of a filling-carrier, and adapted to receive a shuttle slotted also at two sides for the passage through it of a filling-carrier, of a pusher, a bunter, co-operating trip, and stop motion devices co-operating with said shuttle to put said trip into its inoperative position when the shuttle to be supplied with a filling-carrier is not in its proper position in the shuttle-box, substantially as set forth. 17th. The use in a loom to automatically supply a shuttle with a filling-carrier while the shuttle is in the shuttle-box, of the following instrumentalities, viz.:—a filling-fork, its slide, a pusher, a lay having a shuttle-box provided with a slot for the passage outwardly thereof of a filling-carrier, a bunter, a trip interposed between said pusher and bunter, and connecting devices between said trip and said slide to ensure a movement of the pusher when the shuttle is in proper position in the shuttle-box and filling is not presented to the filling-fork-substantially as set forth. 18th. The use in a loom adapted to automatically supply a shuttle with filling, of the following instrumentalities, viz.:—a lay having a shuttle-box slotted for the discharge of a filling-carrier, a shuttle therein slotted for the discharge through it of a filling-carrier, a pusher to push a filling-carrier into said shuttle, a detector mechanism operating in connection with the

pusher to render the latter inoperative when the shuttle is not in proper position to receive a filling-carrier, substantially as set forth. 19th. The use of parts of a loom for weaving whereby each filling or thread carrier of the series is brought positively under the pusher, each filling or thread carrier being received and supported independently by an intermittently operated filling-feeder, said feeder having a movement and construction such that the head and tip of the carrier shall be correctly held and so that when the loom is running regularly it shall stand with a filling carrier directly in line with the pusher, substantially as set forth. 20th. The use in a loom for weaving, of devices whereby, in case the shuttle is not in correct position to receive a filling carrier the pusher will not be actuated, substantially as set forth. 21st. The use in a loom for weaving of appliances whereby the filling fork mechanism not only controls the movement of the pusher but also effects by its movement, the stopping of the loom when derangement of the normal conditions requires it, substantially as set forth. 22nd. The use in a loom for weaving having a pusher to push a filling carrier into a shuttle in a shuttle box, with a stop motion, whereby, when the shuttle is not in proper position in the shuttle-box to receive a filling carrier, the pusher cannot be operated, substantially as shown and described.

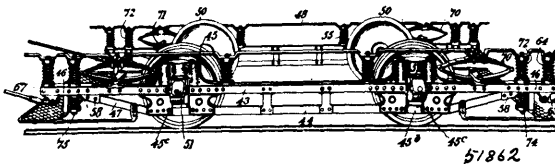
No. 51,861. Bung. (Bonde.)



Edward Joseph Gleman, New York, and Martin Joseph Reilly, Brooklyn, both in New York, U.S.A., 7th April, 1896; 6 years. (Filed 2nd December, 1895.)

Claim.—1st. The combination of a sleeve having a rear inlet orifice and a rear left hand inner thread, which is mutilated to form interior ports, with a solid valve plug adapted to engage said thread, and with a faucet adapted to engage the plug, substantially as specified. 2nd. The combination of a sleeve having an inner right and left hand screw thread, a rear orifice and rear ducts with a threaded valve plug having a forwardly extending stem and feather, and with a faucet having a central bore, a communicating groove, surrounding longitudinal ducts, and a rear bevelled face, substantially as specified.

No. 51,862. Car Truck. (Châssis de char.)



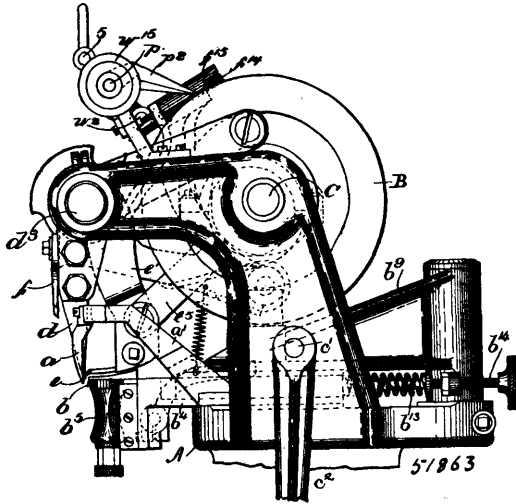
Edgar Peckham, New York, State of New York, U.S.A., 7th April, 1896; 6 years. (Filed 5th March, 1896.)

Claim.—1st. In a car truck, the combination with the yoke of the truck, an extended end beam, an under truss therefor, and a spiral spring mounted on said end beam, of an elliptic spring likewise mounted on said end beam between said spiral spring and the yoke and contiguous to the yoke. 2nd. In a car truck, the combination with the yoke of the truck, an extended beam and a duplex spiral spring mounted on said end beam, of an elliptic spring made stiffer than said spiral springs and likewise mounted on said end beam, between said duplex spiral spring and yoke and contiguous to the yoke. 3rd. In a car truck, the combination with the yoke of the truck, an extended end beam and a series of spiral springs mounted on said end beam, of an elliptic spring likewise mounted on said end beam between said yoke and spiral springs and contiguous to the yoke. 4th. In a car truck, the combination with the side frames including the yokes, and spiral springs mounted on said frames near

their ends, of four elliptic springs made stiffer than said spiral springs and mounted on the side frames between the yokes and said spiral springs and contiguous to the yoke. 5th. In a car truck, the combination with the side frames including yokes and horizontal end beams and spiral springs mounted on said end beam, of an upper chord or sill and four elliptic springs secured to the said end beams, between the yoke and said spiral springs, and also firmly secured to said upper chord or sill. 6th. In a car truck, the combination with the side frames including yokes, and horizontal end beams and trusses under said end beams, of an upper frame or chord, spiral springs between the end beams and the upper chord, and elliptic springs secured to said end beams between the yokes and said spiral springs, and also secured to the upper frame or chord. 7th. In a car truck, the combination with the yoke of the truck, an axle-box and a spiral spring located between the top of the yoke and the axle-box, of an extended end beam, a spiral spring mounted on said end beam and an elliptic spring made stiffer than said last mentioned spiral spring and likewise mounted on said end beam between the yoke and spiral spring on the end beam and contiguous to the yoke. 8th. In a car truck, the combination with the yoke of the truck, an extended end beam and an elliptic spring mounted on said end beam near the yoke, of a spiral spring likewise mounted on said end beam in advance of the elliptic spring and a spiral tension spring arranged on the rod or spindle of said spiral spring beneath the under surface of said extended end beam. 9th. In a car truck, the combination with the yoke, an extended end beam, upper chord, and an elliptic spring mounted on said end beam and connected to said upper chord and arranged contiguous to the yoke, of a spiral spring on the end beam in advance of the elliptic spring, a bolt connected to said upper chord and extending through said spiral spring and beneath the end extension beam, a spiral tension spring on the lower end of said bolt and a cushioning nut. 10th. In a car truck, the combination with an extended end beam and an upper longitudinal chord or sill, of a supporting truss connected to said upper chord or sill and passing below said extended end beam at its outer end and extending outwardly and upwardly beneath the car-body. 11th. In a car truck, the combination with the yoke of the truck, an extended end beam and an elliptic spring mounted on said end beam contiguous to the yoke, of a spiral spring likewise mounted on said end beam in advance of the elliptic spring and having its rod or spindle extended below said end beam and provided with a tension spring, and a supporting truss at the end of said end beam connected to the sill or upper longitudinal chord of the truck frame, extending downward the said end beam and projecting outward and upward beneath the car-body. 12th. A car truck frame having extended end beams and spring-supported sills or upper longitudinal chords on which to mount a car-body, and provided at its ends with supporting trusses connected to said sill or upper longitudinal chord of the truck frame at its outer ends and extending beneath the end beams of the truck, and having a connection or bearing thereon, and extending upwardly beneath the car-body beyond the ends of the spring-supported sill. 13th. In a car truck, the combination with the sill or upper longitudinal member of the truck frame provided with a bracket, as 66, and a longitudinal beam, as 46, of a spiral spring between said upper member and said beam, and a spindle connected to said bracket and extending beneath said beam 46, said bracket, spring and spindle being at the end of the truck frame, and a supporting truss extending from the lower end of said spindle and inclined upwardly beneath the car-body. 14th. In a car truck, the combination with the extended end beam 46 and a bracket, as 66, provided with a roller, as 62, of a supporting truss connected to the sill or upper longitudinal member of the truck frame and operating through said bracket in contact with said roller and extending outward and upward beneath the car-body. 15th. In a car truck, the combination with an extended end beam provided at its outer end with a bracket carrying a roller, of a supporting truss connected to the sill or upper longitudinal member of the truck frame, extending through said bracket in contact with said roller and outward and upward beneath the car-body and provided with means for adjusting its length. 16th. In a car truck, the combination with an extended end beam 46 provided at its end with a bracket carrying a roller, a rod or spindle connected to the upper longitudinal member of the truck frame and passing through said bracket in contact with said roller, and a spiral spring surrounding said rod above the bracket, of a supporting truss extending from the lower end of said rod or spindle outward and upward beneath the car-body. 17th. In a car truck, the combination with an extended end beam, a yoke, a bracket, as 56, secured to said extended end beam and an under truss, as 47, riveted or bolted at one end in contact with the bottom of the yoke and having its other end socketed in the aforesaid bracket, of an elliptic spring mounted on said extended end beam contiguous to the yoke, a spiral spring likewise mounted on said beam in advance of the elliptic spring and having its spindle projecting through said bracket beneath said end beam and provided with a spiral tension spring beneath the end beam. 18th. The combination with the duplex extended end beam 46, of bracket 59, bolted between the members of said beam and provided with a collar at its top which rests on the upper edges of said beam, and also provided with a depending bracket projecting below the lower edges of said beam and having a roller, as 62, and a supporting truss operating through said bracket and projecting upward beneath the car-body. 19th. In a car truck, the combination with the extended end beam, as 46, and the under sup-

porting trusses 47, of the bars 81 rigidly secured to said under supporting trusses and connected to the end extension beams 46 by hangers, and the life guard, as 83, pivoted near the outer ends of the bars. 20th. The bracket 59 herein described consisting of a casting provided with a collar 60 at its top and with a depending part 61 at its bottom provided with a roller, as 62. 21st. In a car truck frame, the combination with a horizontal beam, as 46, forming an extended spring base, of under truss beam 47, connected to said horizontal beam and terminating at the side of the yoke nearest the end of the frame at which point it is bolted in place, and springs located between said extended base and the car-sill, and decreasing in stiffness toward the ends of such sill. 22nd. In a car truck frame, the combination of two side structures connected laterally, each containing yokes supported on axle boxes, such yokes inserted between and fastened to the members of duplex beams 43, and 46, and also made to form shoes for the ends of beams 44 and truss beams 47. 23rd. In a car truck, the combination with the axles, axle-boxes, side supporting frames having end extensions with springs mounted thereon and also including yokes 45 supported on said axle-boxes, of detachable retaining pieces, as 45 *b*, secured to the yokes and entering sockets in the axle-boxes for supporting the latter at their bottoms and confining them in position with reference to the side supporting frames. 24th. In a car truck, the combination with two frames, one supported upon the running gear and the other movable and adapted to receive the car-body, or forming the car-sill, and springs placed in pairs so as to bring one spring on each side of the connection of the running gear, and additional springs placed near the ends of the car-body or car-sill. 25th. In a car truck, an integrally formed end portion of the side frame comprising a yoke structure circular in ground plan and consisting of a horizontal top portion and downwardly extending hollow side portions, an attaching flange at one side provided with a spring socket, and a truss extension at the other side, the horizontal portion of which is duplex, combined with a removable casting at its end and a spring held in said casting. 26th. In a car truck, an end portion of the side frame comprising a yoke structure, an attaching flange at one side thereof provided with a seat or socket for a spring with a vertical perforation for a bolt passing through said seat or socket, and a two-part truss extension at the other side, each part provided with a socket for a spring and each socket perforated vertically for a bolt, the whole formed integrally. 27th. In a car truck, an end portion of the side frame comprising a yoke structure, at attaching flange at one side thereof and a truss extension at the other side, the horizontal member of which is provided in the under surface of its outer end with a spring seat or socket, the whole formed integrally. 28th. In a car truck, an end portion of the side frame comprising a yoke structure having downwardly extending vertically perforated members, and side extensions for supporting springs, in combination with removable hard metal bushings inserted in the upper ends of said perforations, screws 99 and tie-bolts passing through said bushings. 29th. In a car truck, the combination with an end portion of the side frame comprising a yoke structure, the downwardly extending members whereof are perforated and provided with removable hard metal bushings, in their upper ends, and screws 99, holding said bushings in place, of upper chord 48, lower longitudinal beam 44a, axle-box 51 and bolts passing through said perforations and bushings of the yoke structure and connected to said upper chord and lower beam. 30th. The combination with an end portion of the side frame of a truck comprising a yoke structure and a laterally extending end truss consisting of horizontal member 46a, and inclined member 47a, provided respectively with perforated spring sockets, of upper chord 48, lower beam 44a, spiral spring as 92, counter-spring as 94, and tie-bolt. 31st. The combination with an end portion of the side frame, of a truck comprising a yoke structure and a laterally extending end truss consisting of a horizontal member and inclined member, and provided in the under surface of its outer end with a spring socket as 95, of upper chord 48, spiral spring as 97, and its spring socket riveted to the beam, counter-spring as 96, and tie-bolt. 32nd. In a brake mechanism for car trucks, the combination with movable brake bars and their operating devices, of brake-bar supports or guides having vertical members, whereby said supports or guides are secured to the truck frame, and lateral members having longitudinal slots or openings to receive the ends of the brake bars, and removable bearing plates placed closely in the said supports or guides beneath the ends of the brake-bars received in said horizontal slots or openings. 33rd. In a brake mechanism for car trucks, the combination with movable brake-bars and their operating devices, of brake-bar supports or guides having vertical members, whereby said supports or guides are secured to the truck-frame, and lateral members having horizontal slots or openings to receive the ends of the brake bars. removable metallic bearing-plates in the said supports or guides beneath the ends of the brake-bars received in said horizontal slots or openings, and non-metallic plates or cushions beneath said metallic bearing-plates, to prevent rattling of the latter. 34th. In a brake mechanism for wheeled trucks, the combination with movable brake-bars and their operating devices, of the brake-bar supports or guides having vertical members whereby said support or guides are attached to the truck frame, and horizontal members having slots or openings to receive the ends of the brake-bars, said horizontal members having below said openings, grooves or slots, and removable metallic bearing-plates in said supports below said openings, and having at their ends projections fitting in said grooves or slots. 35th. In a brake mechanism for car trucks, the

combination with the movable brake-bars and their operating devices, of brake-bar supports or guides having vertical members whereby said supports or guides are attached to the truck frame, and horizontal member 103 *b* having slots or openings to receive the ends of the brake-bars, said members 103 *b* having below said openings, grooves or slots, removable metallic bearing plates in said supports below said openings and having at their ends projections fitting in said grooves or slots, and non-metallic plates or cushions placed below said metallic bearing-plates and serving to prevent the latter from rattling. 36th. The combination with an electric motor pivotally connected at one end to the axle of the truck, of longitudinal motor hangers pivotally connected between their ends to the sides of the motor and supported at each end from the frame of the truck. 37th. The combination with a car truck having longitudinal side beams, of transverse beams, one connected to said side beams at the rear and the other in advance of the axle of the truck, an electric motor pivotally connected at one end to the truck axle, and longitudinal hangers extending between said transverse beams and in engagement with the sides of the motor to support the same. 38th. The combination with a car truck having longitudinal side beams, of transverse beams on both sides of the axle of the truck, an electric motor pivotally connected at one end to the axle of the truck, longitudinal hangers having their outer ends connected to one of said transverse beams and their inner ends connected to the other of said transverse beams, and elastic connections between the last-named transverse beam and the truck frame, the said hangers pivotally connected to the sides of the electric motor. 39th. The combination with a car truck having longitudinal side beams, of a transverse end beam, a second transverse beam elastically supported from the truck frame near the longitudinal end thereof, and depressed motor hangers supported by the transverse beams and pivotally connected to the motor in a plane beneath the car axle. 40th. In a motor truck, the combination with the axle and an electric motor provided with bearings which pivotally embrace said axle, of a metallic collar, as 156, rigidly pressed on the axle and coaxing with the bearing of the motor. 41st. The combination with the truck axle and an electric motor provided with bearings which pivotally embrace said axle, of a pair of steel collars rigidly pressed on the axle between the wheels of the truck and co-operating with the motor hangers. 42nd. The combination with the motor axle, provided with flanged motor collars rigidly pressed thereon, of sectional metallic washers bolted to the flanges of said motor collars. 43rd. The combination with the motor axle provided with flanged motor collars rigidly pressed thereon, of sectional metallic washers bolted to the flanges of said motor collars and packing of fibre, leather or the like, inserted between the flanges of the motor collars and said washers. 44th. The combination with an axle-box provided at its rear entrance with a circumferential recess or groove for a packing band, and with a rib or elevation at the bottom of the entrance at the rear of the axle-box, of a packing band fitted within the aforesaid recess or groove with its ends resting upon the said rib or elevation in the path of the groove. 45th. The combination with an axle-box provided with a circumferential groove or recess at its rear entrance, to receive a packing band, and with a rib or elevation at the bottom of said entrance at the rear of the axle-box, the said rib or elevation provided with a depressed or concave top surface, of an axle-journal with which said packing band co-operates, the depressed or concave surface of the aforesaid rib or elevation being separated from said axle-journal, and thus providing an opening between the latter and said rib or elevation. 46th. The combination with an axle-box provided at its rear end with a circumferential recess or groove intercepted at its bottom by a rib or elevation having bevelled or inclined side walls, of an axle-journal and a packing-band fitted within said recess or groove of the axle-box and adapted to bear upon the axle-journal, the ends of said packing band bevelled to conform to the side walls of the aforesaid rib or elevation and co-operate therewith. 47th. In an adjustable life and wheel guard, the combination with an elastic platform provided with rearwardly extended horizontal bars, as 120, having at their ends attachments for connecting said bars to a truck frame to permit of vertical adjustment of the ends of said bars, of a transverse beam, as 127, provided with brackets near its ends, vertical bolts playing through said brackets and having their lower ends connected to transverse bar 122 of the frame of the elastic platform, spiral springs surrounding said bolts and means for exerting tension on said springs. 48th. The combination with the truss beams 47 of the truck, of an elastic platform provided with horizontally extended rear bars, as 120, forked angular attachments at the ends of said bars provided with holes whereby the same may be adjustably connected to the said truss beams, brackets for receiving yielding and adjustable supporting devices for the central part of the elastic platform, a transverse bar, as 136, connected to said horizontal bars 120 of the elastic platform at the rear of the yielding supports of said platform, and lever mechanism connected to said transverse bar 136 and extending to the car platform. 49th. The combination with the truck frame and the transverse beam 127 connected to the same and provided with T-shaped brackets, of an elastic platform having rearwardly extending horizontal bars which are adjustably connected at their ends to the truck frame, vertical bolts playing through the horizontal members of said brackets with their lower ends connected by suitable fittings to the elastic platform, spiral springs surrounding said bolts and means for adjusting the tension of said springs.

No. 51,863. Trimming and Channelling Machine.*(Machine à dégrossir et échancre.)*

Zachary Taylor French and William Christian Meyer, both of Boston, Massachusetts, U.S.A., 7th April, 1896; 6 years. (Filed 9th March, 1896.)

Claim.—1st. In a machine for operating upon the soles of boots and shoes, two independent guides, one working along the shank portion and the other around the fore-part, substantially as described. 2nd. In a machine for operating upon the soles of boots and shoes, a shank guide working along the shank portion, and an independent fore-part guide normally held out of engagement with the boot or shoe, and means for bringing it into engagement with the boot or shoe around the fore-part, substantially as described. 3rd. In a sole trimming machine, a trimming knife, and two successively operating guides therefor, one working in the crease along the shank portions, and the other against the upper drawn over the last around the fore-part, whereby as the sole is trimmed the knife is guided by the in-seam or crease along the shank portion, and by the last around the fore-part. 4th. In a sole trimming machine, a trimming knife, a stationary crease guide which enters the in-seam or crease along the shank portion, and a movable last guide, which when brought into contact with the upper drawn over the last moves the boot or shoe more or less away from the crease guide, and serves to guide the knife by the last around the fore-part, said guides working successively around the boot or shoe as the sole is trimmed. 5th. In a sole trimming machine, a trimming knife, a stationary crease guide which enters the in-seam or crease along the shank portion, and a movable last guide, which when brought into contact with the upper drawn over the last moves the boot or shoe more or less away from the crease guide, and serves to guide the knife by the last around the fore-part, said guides working successively around the boot or shoe as the sole is trimmed, and a treadle connected with said movable last guide. 6th. In a sole channelling machine, a channelling knife, and two successively operating guides therefor, one working in the crease along the shank portion, and the other against the upper drawn over the last around the fore-part, whereby as the sole is channelled the knife is guided by the in-seam or crease along the shank portion, and by the last around the fore-part. 7th. In a sole channelling machine, a channelling knife, a stationary crease guide which enters the in-seam or crease along the shank portion, and a movable last guide, which when brought into contact with the upper drawn over the last moves the boot or shoe more or less away from the crease guide and serves to guide the knife by the last around the fore-part, said guides working successively around the boot or shoe as the sole is channelled. 8th. In a sole channelling machine, a channelling knife, a stationary crease guide which enters the in-seam or crease along the shank portion, and a movable last guide, which when brought into contact with the upper drawn over the last moves the boot or shoe more or less away from the crease guide and serves to guide the knife by the last around the fore-part, said guides working successively around the boot or shoe as the sole is channelled, and a treadle connected with said movable fore-part guide. 9th. In a sole channelling and trimming machine, a channelling and a trimming knife, and two successively operating guides therefor, one working in the crease along the shank portion, and the other against the upper drawn over the last around the fore-part, whereby as the sole is trimmed and channelled the knives are guided by the in-seam or crease along the shank portion, and by the last around the fore-part. 10th. In a machine for operating upon the soles of boots and shoes, the combination of a work-support, at the welt side of the sole, a four-motion plate also acting upon the welt side of the sole, a vibrating sole support acting against the bottom of the sole and co-operating with the four-motioned plate to feed along the shoe while held against the work-support, substantially as described. 11th. In a machine for

operating upon the soles of boots and shoes, a vibrating sole-support having at its forward end a roller turning on a vertical axis, and a four-motion feeding plate, acting intermittently upon the welt at the opposite side of the sole. 12th. In a machine for operating upon the soles of boots and shoes, reciprocating clamp-feeding mechanism consisting of a sole-support having a roller, adapted to bear against one side of the work, and a feeding plate adapted to bear against the opposite side, and a guide. 13th. In a machine for operating upon the soles of boots and shoes, a yielding oscillating arm acting as a sole-support, and a four-motion plate acting intermittently upon the welt at the opposite side of the sole. 14th. In a machine for operating upon the soles of boots and shoes, a yielding oscillating arm, having a roller at its forward end turning on a vertical axis, and a feeding plate acting intermittently upon the welt at the opposite side of the sole, co-operating with said arm to feed along the material. 15th. In a machine for operating upon the soles of boots and shoes, a vibrating rearwardly movable sole-support acting upon one side of the sole, and a plate acting intermittently upon the other side, a treadle and intermediate connections between said treadle and vibrating sole-support for moving it rearwardly. 16th. In a machine for operating upon the soles of boots and shoes, a rearwardly sliding vibrating sole-support acting upon one side of the sole, and a reciprocating plate acting upon the other side thereof. 17th. In a machine for operating upon the soles of boots and shoes, a spring pressed vibrating sole-support, a work-support or guide, and an intermittently acting feeding plate. 18th. In a machine for operating upon the soles of boots and shoes, a vibrating sole-support, acting upon one side of the sole, and a work-support and plate movable one with relation to the other, and acting alternately upon the other side to hold and assist in feeding the work. 19th. In a sole channelling machine, means for holding and feeding the boot or shoe, the channelling knife *b*, its holder, rack *n*¹ secured to the holder, tooth sector *n*², arm *n*³ secured to the shaft of said sector, and means for moving said arm to thereby vertically move the channelling knife to cut the channel more or less distant from the edge. 20th. In a channelling machine, a channel knife, and means for holding and feeding the boot or shoe, a shank guide and a fore-part guide, adjusting devices for vertically adjusting the channelling knife connected with the operating devices of said last guide. 21st. In a channelling machine, a rearwardly sliding channel knife holder, a channelling knife, and means for holding and feeding the sole, a shank guide and a fore-part guide, and means for moving the channelling knife, loosely connected with the means employed for operating the last guide, substantially as described. 22nd. In a channelling machine, a channel knife and a guide movable toward and from each other, and adjusting devices for adjusting said channel knife toward and from the guide, connected with the means employed for moving said guide toward and from the channel knife, substantially as described. 23rd. In a channelling machine, a channel knife and a guide movable toward and from each other, an operating device for said guide, moving it toward and from the channel knife, and adjusting devices for adjusting said channel knife toward and from the guide, connected with and operated by the means employed for moving said guide, substantially as described. 24th. In a trimming and channelling machine, a trimming knife, a guide freely movable with relation to the trimming knife during the trimming operation, and a channel knife, and adjusting devices therefor connected with the means employed for moving said guide, substantially as described. 25th. In a channelling machine, a combined vibrating sole-support and a channel-knife holder at one side of the work, a work-support or guide, and an intermittently acting plate, at the other side of the work, substantially as described. 26th. In a sole channelling machine, a sole-support, consisting of the vertical post *b*² recessed at its upper end, and a roller *b*³ thereon, inclosing the upper recessed end, and a block *b*¹ fitting said recess, and secured to the post, and having a channelling knife. 27th. In a sole trimming machine, a work-support or guide, a spring pressed sole-support, an intermittently moving cutting block, and a vibrating trimming knife. 28th. In a machine for operating upon the soles of boots and shoes, a work-support, a movable sole-support, a plate which acts in conjunction with the sole support to feed along the shoe, and which also serves as a cutting block, located between the outside bearing points of the work-support, and a vibrating trimming knife movable toward and from the cutting block, substantially as described. 29th. In a machine for channelling and trimming the soles of boots and shoes, the combination of a guide against which the work is pressed, bearing upon the welt side of the sole, a movable sole-support carrying a channelling knife, a plate at the welt side of the sole acting in conjunction with said sole support to feed along the work, which also serves as a cutting block, and a vibrating trimming knife acting against said cutting block. 30th. In a machine for channelling and trimming the soles of boots and shoes, the combination of a work-support or guide, at the welt side of the sole, a movable sole-support at the opposite side of the sole carrying the channelling knife, a plate acting upon the welt side of the sole and in conjunction with the sole support to feed along the shoe, said plate also serving as a cutting block, a vibrating trimming knife acting against said cutting block, the channel being cut upon the return movement of the sole-support and during the trimming operation. 31st. In a machine for trimming and channelling the soles of lasted boots and shoes, the combination of a channelling knife, a trimming knife, and a guide freely movable with relation to said knives during the trim-

ming and channelling operation, to positively move the work with relation to the trimming and channelling knives, while the channelling knife is in the sole, and thereby varying the distance from the last that the trimming knife shall trim the sole, and an independent clamp-feeding device, substantially as described. 32nd. In a machine for operating upon the soles of lasted boots and shoes, the combination of a trimming knife, and a guide one of which parts is freely movable with relation to the other during the trimming operation, to vary the width of the projecting edge of the sole, a channel knife and its support, and means for moving it toward and from the trimming knife during the trimming operation, substantially as described. 33rd. In a machine for operating upon the soles of boots and shoes, the combination of an intermittently acting sole-support at the bottom of the sole, an intermittently acting feeding plate at the welt side of the sole, and a work-support also at the welt side of the sole which co-operates with the sole-support to hold the work while the feeding plate returns, substantially as described. 34th. In a machine for operating upon the soles of boots and shoes, clamp feeding mechanism and means for operating it to engage and feed along the work and return, and a work-support co-operating with one member of said clamp-feeding mechanism to hold the work while the other member thereof returns, substantially as described. 35th. In a machine for operating upon the soles of boots and shoes, clamp-feeding mechanism having an intermittently movable feeding plate at the welt side of the sole, combined with a work support crossing the lower end of said feeding plate, and presenting bearing points beyond the limit of motion of said feeding plate, substantially as described. 36th. In a machine for operating upon the soles of boots and shoes, a work support combined with independent clamp-feeding mechanism acting within the outside bearing points of said work-support, substantially as described. 37th. In a machine for operating upon the soles of boots and shoes, a work-support, a clamp-feeding mechanism acting within the outside bearing points of said work-support, a sole trimming knife moving to and fro substantially in line with the centre of said work-support, and acting against a cutting block also located substantially in line with the centre of said work support, substantially as described. 38th. In a machine for operating upon the soles of lasted boots and shoes, the combination of a trimming knife and a guide, one of which parts is freely movable with relation to the other during the trimming operation, to vary the distance from the last that the trimming knife shall trim the sole, substantially as described. 39th. In a machine for operating upon the soles of lasted boots and shoes, the combination of a trimming knife, and a guide freely movable with relation thereto, during the trimming operation, to hold the work in different positions with relation to the trimming knife, and thereby vary the distance from the last that the trimming knife shall trim the sole, substantially as described. 40th. In a sole trimming machine, a trimming knife, a guide, support therefor, and automatic means for automatically varying the relative positions of the knife and guide during the trimming operation. 41st. In a sole trimming machine, a trimming knife, a guide support therefor, and a reversible cam for automatically varying the relative positions of the guide and trimming knife during the trimming operation. 42nd. In a sole trimming machine, a guide, a guide support and a guide actuating cam for automatically moving the guide relatively to the knife during the trimming operation. 43rd. In a sole trimming machine, a trimming knife, a guide, support therefor, and an intermittently operated cam for automatically varying the relative positions of the guide and trimming knife during the trimming operation. 44th. In a sole trimming machine, a trimming knife, a guide, support therefor, and an intermittently operated reversible cam for automatically varying the relative positions of the guide and trimming knife during the trimming operation. 45th. In a sole trimming machine, a trimming knife, the work-support and crease guide α , the last guide f , movable into and out of operative position, and mechanism for varying the relative positions of the last guide f , and knife during the trimming operation. 46th. In a sole trimming machine, the guide f , its support, and a guide-actuating cam m^2 . 47th. In a sole trimming machine, the guide, its support and reversible guide-actuating cam m^2 . 48th. In a sole trimming and channelling machine, sole trimming and channelling knives, a guide at the welt side of the sole, support therefor, and automatic means for automatically varying the relative positions of the guide, and the trimming and channelling knives, during the trimming and channelling operation. 49th. In a sole trimming and channelling machine, a trimming knife, a channelling knife, a guide at the welt side of the sole, support therefor, and a reversible guide-actuating cam acting to vary the relative positions of the guide and trimming and channelling knives during the trimming and channelling operation. 50th. In a sole trimming machine, a trimming knife and guide, support therefor, and means for automatically varying their relative positions, consisting of the reversible guide-actuating cam m^2 , latch f^{14} , bevelled faced finger p^2 , and longitudinally movable rod p . 51st. In a sole trimming machine, a knife and guide, support therefor, a reversible guide-actuating cam acting automatically to vary the relative positions of the guide and knife, means for rotating said cam intermittently, thrown into action automatically when turning the cam one way, and manually when turning it the other, substantially as described. 52nd. In a sole trimming machine, a knife and guide, support therefor, a reversible guide-

actuating cam acting to vary the relative positions of the guide and knife, notched collar n , latch f^{14} , and means for reversing said latch each time it is thrown into engagement with the notched collar, substantially as described. 53rd. In a sole trimming machine, a trimming knife, a guide, and an automatic lifting device for one of said parts, whereby their relative positions is varied. 54th. In a sole trimming machine, a trimming knife, a guide, and an automatic lowering device for one of said parts, whereby their relative positions is varied. 55th. In a sole trimming machine, a trimming knife, a guide, and support therefor, and an automatic lifting device for said guide. 56th. In a sole trimming machine, a trimming knife, a guide, and support therefor, and an automatic lowering device for said guide. 57th. In a sole trimming and channelling machine, trimming and channelling knives, a guide and support therefor, and an automatic lifting device for said guide. 58th. In a sole trimming machine, trimming and channelling knives, a guide and support therefor, and an automatic lowering device for said guide. 59th. In a sole trimming machine, a knife and guide, and movable support therefor, the guide-actuating cam m^2 and latch, the finger p^2 , and the rotatable rod p , having stops to hold it in one or its other position. 60th. In a sole trimming machine, a trimming knife, a crease guide, and an adjustable last or fore-part guide, said guides working successively around the shoe, to guide the knife along the shank and fore-part. 61st. In a sole trimming machine, a trimming knife, a guide, support therefor, and means, as a treadle connected with the guide, for moving it into and out of operative position, and a guide-actuating cam for automatically moving the guide relatively to the knife while held in its operative position, substantially as described. 62nd. In a sole trimming machine, a trimming knife, a guide, support therefor, and means, as a treadle connected with the guide, for moving it into and out of operative position, and automatic means, for automatically varying the relative positions of the knife and guide during the trimming operation, substantially as described. 63rd. In a sole trimming machine, a trimming knife, a guide, support therefor, and means, as a treadle connected with the guide, for moving it into and out of operative position, and a reversible cam for automatically varying the relative positions of the guide and trimming knife during the trimming operation, substantially as described. 64th. In a sole trimming machine, a trimming knife, a guide, support therefor, and means, as a treadle connected with the guide, for moving it into and out of operative position, and an automatic supplementary lifting device for said guide, substantially as described. 65th. In a sole trimming machine, a trimming knife, a guide, support therefor, and means, as a treadle connected with the guide, for moving it into and out of operative position, and an automatic supplementary lowering device for said guide, substantially as described. 66th. The combination of a channelling knife, a guide, support therefor, and automatic means for varying the relative positions of said channelling knife and guide, substantially as described. 67th. The combination with a channelling knife, a guide, support therefor, and a guide-actuating cam for automatically moving the guide with relation to the channelling knife, substantially as described. 68th. The combination of a channelling knife, crease guide α , last guide f , movable into and out of operative position, and mechanism for varying the relative positions of the last guide and channelling knife during the channelling operation, substantially as described. 69th. In a machine for operating upon the soles of lasted boots and shoes, the combination of feeding mechanism, a trimming knife, and a guide acting externally upon the lasted boot or shoe, which is freely movable transversely to the direction of the feed, and means for actuating said guide during the operation of the machine, substantially as described. 70th. In a machine for operating upon the soles of lasted boots and shoes, the combination of feeding mechanism, a trimming knife and a channelling knife and a guide acting externally upon the lasted boot or shoe, which is freely movable transversely to the direction of the feed, and means for actuating said guide during the operation of the machine, substantially as described.

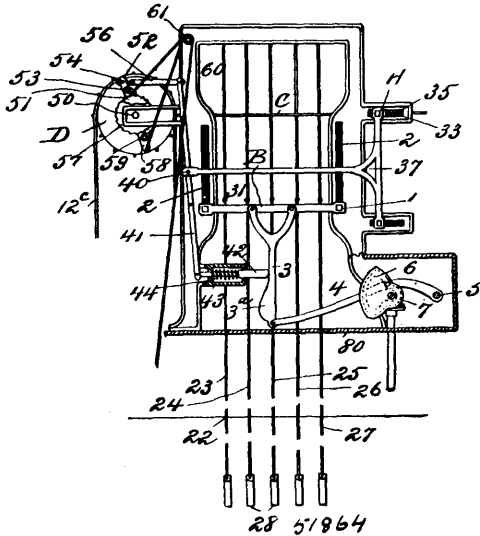
No. 51,864. Jacquard Mechanism for Looms.

(*Mécanisme Jacquarde pour métiers.*)

The Weaver Jacquard and Electric Shuttle Company, assignee of William Weaver, both of Norwalk, Connecticut, U.S.A., 7th April, 1896; 6 years. (Filed 9th October, 1895.)

Claim.—1st. In Jacquard mechanism for looms, the combination with suitable lifting mechanism, of shifting needles, warp supporting devices arranged in series, each series being under the control of a single shifting needle, and pattern devices controlling the movements of the shifting needles, the shifting needles being adapted to move different distances to bring any one warp-supporting device of each series of warp-supporting devices into position for engagement with the lifting mechanism substantially as described. 2nd. In Jacquard mechanism for looms, the combination of the lifting mechanism provided with slots of varying widths and lengths, suitable warp-supporting devices, the shifting needles provided with bearings of different lengths, arranged to shift the warp-supporting devices into engagement with the lifting mechanism, and the needle-engaging devices for regulating the forward movement of the shifting needles, substantially as described. 3rd. In Jacquard mechanism for looms, the combination of the lifting-board provided with slots of varying widths and lengths, means for operating the lifting-board warp-supporting devices, the shifting needles provided with bear-

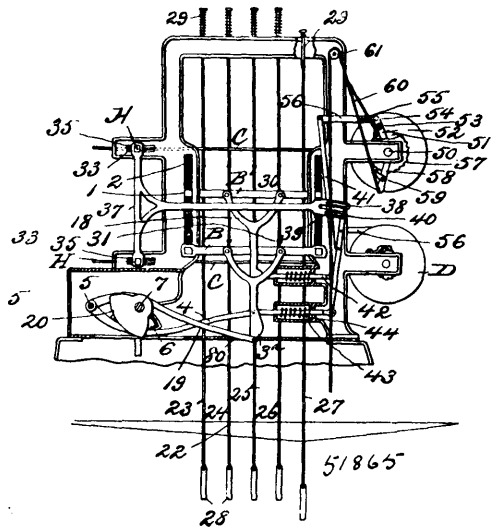
ings arranged to shift the warp-supporting devices in the slots of the lifting board and pattern devices for regulating the movement of the shifting needles, substantially as described. 4th. In Jacquard mechanism for looms, the combination of the lift-



ing-board provided with slots of varying widths and lengths, means for operating the lifting-board, warp-supporting cords, the shifting-needles provided with bearings of different lengths arranged to shift the warp-supporting cords in the slots of the lifting-boards, and pattern-devices for regulating the movement of the shifting-needles, substantially as described. 5th. In Jacquard mechanism for looms, the combination of a lifting-board provided with slots of varying widths and lengths, means for operating said lifting-board, the reciprocating shifting needles provided with slots of varying lengths, the warp-supporting cords engaging the slots of the shifting-needles and lifting-board, and means for reciprocating the shifting needles to cause them to shift the warp-supporting cords in the slots of the lifting-board, substantially as described. 6th. In Jacquard mechanism for looms, the combination of a lifting-board provided with series of slots of different widths and lengths, means for operating the lifting-board, warp-supporting cords engaging the slots of the lifting-board, and means for shifting the warp-supporting cords in the slots of the lifting-board, substantially as described. 7th. In Jacquard mechanism for looms, the combination of the shifting needles having stepped ends, and each being provided with bearings of varying lengths, warp-supporting devices engaging said bearings, pattern devices for regulating the movement of the shifting needles, and mechanism adapted to operate the warp-supporting devices as they are brought into engagement therewith, substantially as described. 8th. In Jacquard mechanism for looms, the combination of a pattern device provided with perforations of different sizes, the shifting needles having stepped ends and each provided with bearings of varying lengths, warp-supporting cords engaging said bearings, and the lifting-mechanism adapted to lift the warp-supporting cords as they are brought into engagement therewith, substantially as described. 9th. In Jacquard mechanism for looms, the combination of the lifting-board provided with slots of varying widths and lengths, means for operating the lifting-board, a series of shifting needles having bearings of different lengths, warp-supporting cords engaging the bearings of the shifting needles and lifting-board, pattern-devices, adapted to be engaged by the shifting needles and means for moving the shifting needles into and withdrawing them from engagement with the pattern devices, substantially as described. 10th. In Jacquard mechanism for looms, the combination of the lifting-board provided with transverse series of slots, the slots forming a series being of different widths and lengths, means for operating said lifting-board, pattern devices arranged adjacent to the lifting board, a series of shifting needles having bearings of different lengths, the movement of which is regulated by the pattern devices, and the warp supporting cords engaging the bearings of the shifting needles and lifting board respectively, substantially as described. 11th. In Jacquard mechanism for looms, the combination of suitable lifting mechanism, the shifting needles, the warp-supporting cords arranged in series, each series being under the control of a single shifting needle, said shifting needles being provided with bearings of different lengths whereby the warp-supporting cords are brought successively into engagement with the lifting mechanism, and pattern devices for regulating the movement of the shifting needles, substantially as described. 12th. In Jacquard mechanism for looms, the combination of suitable lifting mechanism provided with slots of different widths and lengths, warp-supporting devices engaging the

slots of the lifting mechanism and means for shifting the warp-supporting devices in the slots of the lifting mechanism, substantially as described. 13th. In Jacquard mechanism for looms, the combination of the lifting mechanism, provided with slots of varying widths and lengths, the warp-supporting devices, the shifting needles provided with bearings of different lengths arranged to shift the warp-supporting devices successively into engagement with the lifting mechanism, and pattern devices for regulating the movement of the shifting needles, substantially as described. 14th. In Jacquard mechanism for looms, the combination of a pattern device provided with perforations of different sizes, the shifting needles having stepped ends, the warp-supporting device and lifting mechanism provided with slots of varying widths and lengths, substantially as described. 15th. In Jacquard mechanism for looms, the combination of the lifting mechanism, suitable warp-supporting devices arranged in series, each series being under the control of a single shifting needle, the shifting needles provided with bearings of different relative lengths whereby the warp-supporting devices are moved successively into engagement with the lifting mechanism, and pattern devices adapted to move the shifting needles to predetermined points to cause the desired warp-supporting device to be moved into engagement with the lifting mechanism, substantially as described.

No. 51,865. Jacquard Mechanism for Looms.
(Mécánisme Jacquarde pour métiers.)

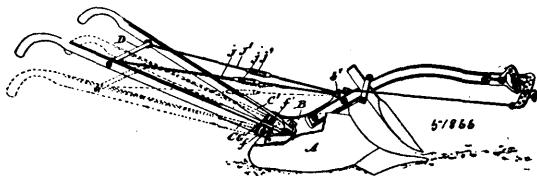


The Weaver Jacquard and Electric Shuttle Company, assignee of William Weaver, both of Norwalk, Connecticut, U.S.A., 7th April, 1896; 6 years. (Filed 9th October, 1895.)

Claim.—1st. In Jacquard mechanism for looms, the combination of the lifting and depressing boards, each provided with slots of varying widths and lengths, means for operating the lifting and depressing boards, the warp-supporting cords engaging the slots of the lifting and depressing boards, and pattern controlled devices for shifting the warp supporting cords in the slots of the lifting and depressing boards, substantially as described. 2nd. In Jacquard mechanism for looms, the combination of the lifting and depressing boards, means for operating the same, the shifting needles arranged adjacent to said boards and provided with bearings of different lengths, pattern devices for regulating the movement of the shifting needles, and the warp-supporting cords, substantially as described. 3rd. In Jacquard mechanism for looms, the pattern cylinder provided with recesses of uniform depth and thimbles of varying depths engaging said recesses, substantially as described. 4th. In Jacquard mechanism for looms, the combination of the warp supporting devices, suitable lifting and depressing mechanism, the shifting needles, provided with bearings of different lengths, and needle engaging devices of different depths, substantially as described. 5th. In Jacquard mechanism for looms, the combination of the needle engaging devices of different depths, the shifting needles adapted to be regulated in their movement by said devices, each of said needles being provided with bearings of different lengths, the warp supporting cords, the lifting and depressing boards, provided with slots of varying widths and lengths, and means for operating the lifting and depressing boards, substantially as described. 6th. In Jacquard mechanism, the combination of the warp supporting cords, suitable lifting and depressing mechanism, pattern devices, the shifting needles adapted to be regulated in their movement by said pattern devices, each of said needles being provided with bearings of different lengths, substantially as described. 7th. In Jacquard mechanism for looms, the combination of the lifting and depressing boards

provided with slots of varying widths and lengths, means for operating the lifting and depressing boards, the warp supporting cords, the pattern devices, and the shifting needles regulated in their movement by the pattern devices, each of said needles being provided with bearings of different lengths, substantially as described. 8th. In Jacquard mechanism, the combination of the rods 29, the springs encircling said rods, the warp supporting cords connected to said rods, and means for lowering said cords and rods against the action of said springs, substantially as described. 9th. In Jacquard mechanism, the combination of the warp supporting cords, lingoes to which the lower ends of said cords are connected, the spring-controlled rods to which the upper ends of said cords are connected, and lifting and depressing mechanism for elevating and lowering said cords, substantially as described. 10th. In Jacquard mechanism for looms, the combination of the lifting and depressing boards, means for operating the same, the warp supporting cords each provided with enlargements arranged above and below the lifting and depressing boards respectively, and pattern controlled mechanism for shifting the warp supporting cords into engagement with the lifting and depressing boards, substantially as described. 11th. In Jacquard mechanism for looms, the combination of the lifting and depressing boards provided with slots of varying widths and lengths, means for operating the lifting and depressing boards, respectively, the pattern controlled mechanism for shifting the warp supporting cords in the slots of the lifting and depressing boards, substantially as described. 12th. In Jacquard mechanism for looms, the combination of the lifting and depressing boards, means for operating the same alternately, pattern devices arranged adjacent to the lifting and depressing boards respectively, mechanism for rotating said pattern devices alternately as the lifting and depressing boards are elevated and lowered, the shifting needles adapted to engage the pattern devices, the warp-supporting cords, and means for simultaneously withdrawing the shifting needles from engagement with the pattern devices at each elevation or depression of the lifting and depressing boards, substantially as described. 13th. In Jacquard mechanism for looms, the combination of the warp supporting devices, means for operating the same, the shifting needles provided with bearings of different lengths, and needle-engaging devices of different depths, substantially as described.

No. 51,866. Plough. (Charrue.)



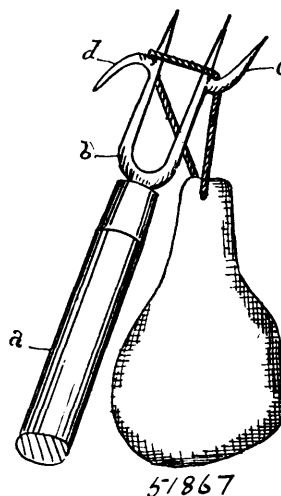
The Verity Plough Company, assignee of Robert Henry Verity, both of Brantford, Ontario, Canada, 7th April, 1896; 6 years. (Filed 11th March, 1896.)

Claim.—1st. In a plough, the combination with the adjustable handles and a fulcrum for the same between the head and mould board of the plough, of an adjustable quadrantal holding device attached to or forming part of the mould board and head and designed to hold the handles in position, as and for the purpose specified. 2nd. In a plough, the combination with the adjustable handles and a fulcrum for the same between the head and mould board of the plough, of a quadrantal holding device attached to or forming part of the mould board and head and designed to hold the handles in position and adjustable means for supporting the handles extending between the rear end of the handles and the front of the plough, as and for the purpose specified. 3rd. In a plough, the combination with the adjustable handles and a fulcrum for the same between the head and mould board of the plough, of the quadrantal serrated face plates secured to the sides of the handles and quadrantal engaging plates secured to the head and mould board, slots in the latter plates and bolts extending through the slots and serrated face plates on the sides of the handles, as and for the purpose specified. 4th. In a plough, the combination with the handles one of which is provided with a tapered end, and a loop extending inwardly from the head into which the tapered end fits, a bolt extending through the end of the other handle and a slotted lug forming part of a bracket attached to the inner side of the mould board, of the quadrantal serrated face plates secured to the sides of the handles and quadrantal engaging plates secured to the head and mould board, slots in the latter plates and bolts extending through the slots and serrated face plates on the sides of the handles, as and for the purpose specified. 5th. In a plough, the combination with the adjustable handles and a fulcrum for the same between the head and mould board of the plough, of an adjustable quadrantal holding device attached to or forming part of the mould board and head and designed to hold the handles in position and the connecting rods having eye-shaped ends through the rear eyes of which the cross

bar D of the handles extends, and through the front eyes of which the bolt b^1 extends, and the turn buckles j, j^1 on the rods, as and for the purpose specified.

No. 51,867. Lifting Fork for Hams.

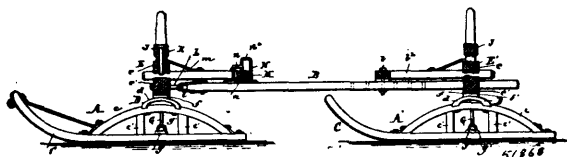
(*Fourche pour accrocher les jambons.*)



Ezra A. Cozens and William H. Crawford, both of Toledo, Ohio, U.S.A., 7th April, 1896; 6 years. (Filed 12th March, 1896.)

Claim.—A lifting fork, comprising the handle, a two pronged fork secured thereto, a branch projecting forwardly from one of said prongs, and a rearwardly curved branch projecting from the other of said prongs, said prongs and said branches lying substantially in the same plane, substantially as and for the purpose specified.

No. 51,868. Sled. (Traineau.)

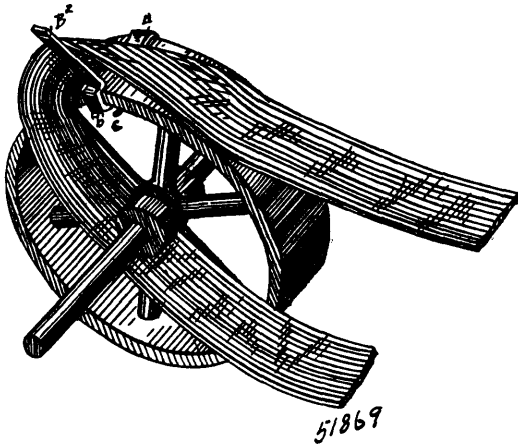


John Ledman and Walter Irving Lanphere, both of Silver Creek, New York, U.S.A., 7th April, 1896; 6 years. (Filed 13th March, 1896.)

Claim.—1st. The combination with the runner and the cross-beam, of an arch secured to the runner, a rider plate secured upon the arch and provided with a curved face and a groove having stops or shoulders at its ends, a rider block secured to the cross-beam and provided with a curved face bearing against the face of the rider plate, a rib formed on the rider block, and adapted to engage with its sides against the sides of said groove to hold the rider block against lateral movement and against the stops or shoulders at the ends of the groove to limit the lengthwise movement of the rider block on the rider plate, and a rod movably connecting the cross-beam and the runner, substantially as set forth. 2nd. The combination with the runner and the cross-beam, of an arch secured to the runner, a rider plate secured to the arch and provided with a curved face, a rider block secured to the beam and bearing against the rider plate, a loop secured to the runner, and a rod connected with its upper end to said beam and provided at its lower end with an eye which is pivoted on said loop, the bearing faces of the rider plate and rider block being concentric with the pivotal connection between the rod and loop, substantially as set forth. 3rd. The combination with the runner and the cross-beam, of an arch secured with its ends to the upper side of the runner, vertical braces connecting the intermediate portion of the arch with the runner, a curved rider plate secured to the arch, a curved rider block secured to the beam and bearing against said plate, and a rod movably connecting the runner with the beam, substantially as set forth. 4th. The combination with the runner and the cross-beam, of an arch secured with its ends to the runner and provided in its crown with a longitudinal slot, a rider plate secured upon said arch and provided with a convex face and with a longitudinal slot in line with the slot of the arch, a rider block secured to said cross-beam and provided with a concave face bearing against the convex face of the rider plate, a vertical tie rod arranged in the slots of the arch

and the rider plate and secured with its upper end to the beam and a loop secured to the runner and passing loosely through an eye formed on the lower end of the tie rod, substantially as set forth.

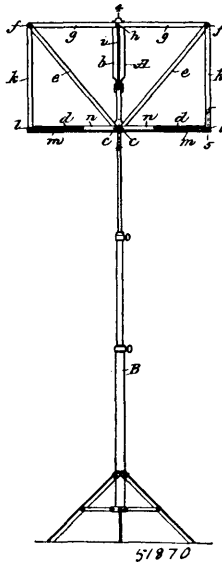
No. 51,869. Belt-Replacer. (Embrayage de courrois.)



Daniel Brion, jr., Bozeman, Montana, U.S.A., 7th April, 1896; 6 years. (Filed 11th March, 1896.)

Claim.—The belt-replacer described consisting of the portion A, in the form of a hook with a part at right angles thereto and provided with an opening, a separate part B, with right-angled portion with opening and bent to form an oppositely-disposed hook and an integral inclined guide arm extending from the upper portion of the hook, a bolt passed through said openings, and a nut on said bolt between the two right-angled portions, as and for the purpose set forth.

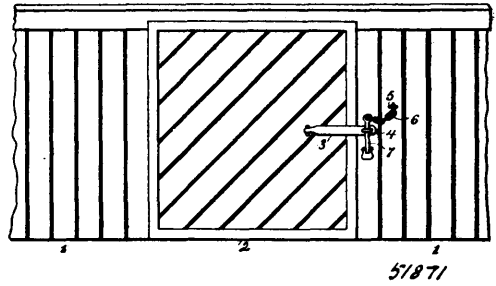
No. 51,870. Music Rack. (Porte-musique.)



Joseph Rockwell, Stoughton, Massachusetts, U.S.A., 7th April, 1896; 6 years. (Filed 9th March, 1896.)

Claim.—In a folding music-rack, the combination of the central bar *b*, provided with a longitudinal slot *i*, the oppositely extending base-bars *d, d*, pivoted to the bar *b*, and each provided with a longitudinal slot *m*, the top-bars *g, g*, each formed of a single piece without a joint and connected together and to the central bar *b*, by a single rivet adapted to slide within the slot *i*, of the bar *b*, the side-bars *k, k*, each formed of a single piece without a joint and pivoted at their upper ends to the top-bars *g, g*, and connected at their lower ends to the base-bars by pivot pins adapted to slide within the slots *m, m*, of said base-bars, and the diagonal bars *e, e*, pivoted to the lower end of the central bar *b*, and to the top-bars and side-bars at the points where they are jointed together, all constructed to operate substantially as and for the purpose set forth.

No. 51,871. Seal Lock. (Serrure à cachet.)

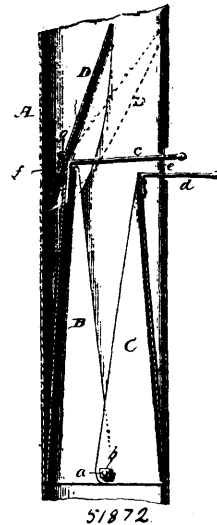


Patrick H. Conger, Waterloo, Iowa, U.S.A., 7th April, 1896; 6 years. (Filed 11th March, 1896.)

Claim.—1st. In a seal lock, the combination with a bolt having a slot extending across its end, said slot being rounded at its inner end so as to form an under-cut surface, of a spring-pressed locking latch seated in the bottom of the slot, and a seal having a notched rounded upper end, adapted to be inserted in said slot and locked in position therein, substantially as described. 2nd. In a seal lock, the combination with a bolt 7, having a slot 8, extending across its end, said slot being rounded at its inner end 9, so as to form an under-cut surface, of a spring-pressed locking latch 10, seated in the bottom of the slot, and a seal 12 having a rounded upper end, one face 14, of which is inclined, and in which the notch 15 is cut, adapted to be inserted in said slot and locked in position therein, substantially as described.

No. 51,872. Stove Pipe Damper. (Clé de tuyau de poêle.)

(Clé de tuyau de poêle.)



Henry Theorus Smith, Kent, Illinois, U.S.A., 7th April, 1896; 6 years. (Filed 11th March, 1896.)

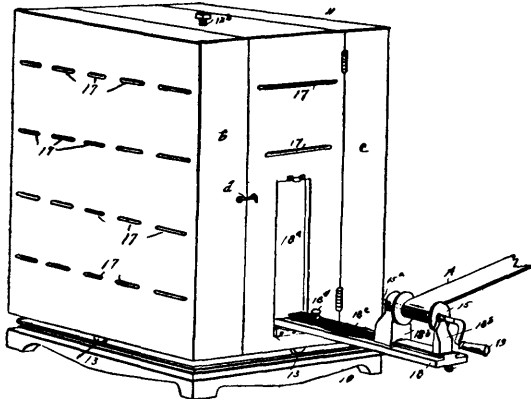
Claim.—1st. A sectional-cone shaped damper and an automatically operating supplemental damper pivotally connected to one of the sections of the cone-shaped damper at its free or smaller end, and means for opening or closing the sections of the cone-shaped damper, substantially as and for the purpose set forth. 2nd. A cone shaped damper for stove pipes, consisting of two hinged or pivoted sections and means for operating them, and a supplemental damper pivotally connected to one of the sections at its free or smaller end and adapted to have both a rocking and a sliding motion, substantially as and for the purpose described.

No. 51,873. Rotary Cabinet. (Commode tournante.)

James E. Stephens, Ochlochnee, Georgia, U.S.A., 7th April, 1896; 6 years. (Filed 12th March, 1896.)

Claim.—1st. The combination with a base-board, and a central post thereon, of a rotary case comprising a central section mounted on the said post, and two side sections hinged to the central section and adapted to be swung open, each of the said sections having slits in its walls, and rotatable spools removably supported in the said sections opposite the slits, a screw bolt adjustably secured in the top wall of the central section and a pivot stud and socket connection

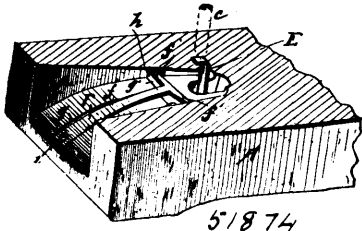
between the adjustable screw bolt and the top of the said post, substantially as described. 2nd. The combination with a base-board, and a post arranged centrally thereon and having a pivot stud at its top, of a rotary case having slits in its walls and rotatable spools re-



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movably supported within the case opposite the slits in the walls, the said case being mounted on the said post and provided with casters adapted to move on the said base-board, and a cupped screw bolt adjustably secured within the top wall of the case and engaging the pivot stud on the top of the post, substantially as described. 3rd. The combination with a cabinet having an aperture formed in one of its walls, of a spool rotating device comprising a bed-piece hinged to fold in the said aperture of the case and close the same, and spool supporting standards arranged on the bed-piece, one of said standards being adjustable thereon, substantially as shown and described. 4th. In a lace or embroidery cabinet substantially as described, the combination with an apertured wall of the cabinet case, of a spool rotating device, comprising a bed-piece hinged to fold in the aperture of the case, and spool supporting standards on the bed-piece, one standard having an adjustable arm and adapted thereby for longitudinal adjustment on the bed-piece, substantially as described. 5th. In a lace or embroidery cabinet, the combination with an apertured wall of the cabinet case, of a spool rotating device, comprising a bed-piece hinged to the lower margin or edge of the said aperture and adapted to fold therein, and spool supporting standards erected on the bed-piece, and the other having a slotted arm and adapted thereby for longitudinal adjustment on the bed-piece and a clamping bolt extending through the slotted arm and engaging the bed-piece, substantially as described.

No. 51,874. Car Coupler. (Attelage de chars.)



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William T. Ellis, Forest City, Arkansas, U.S.A., 7th April, 1896; 6 years. (Filed 12th March, 1896.)

Claim.—1st. In a car coupling, the combination with the draw-head, of a spring link support consisting of a shank *f* secured to the lower forward face of the mouth of the draw-head and provided at its rear end with oppositely and laterally projecting arms *f'* projecting across the mouth of the draw-head in front of the coupling pin, and means for holding the rear end of the link, substantially as described. 2nd. In a car coupling, the combination with the draw-head provided upon the rear lower face of its mouth with a transverse groove *g'*, and in its opposite sides with recesses *h*, of a link support consisting of a spring shank *f* secured at its forward end to the lower face of the mouth of the draw-head and provided at its rear end with laterally and oppositely extending arms *f'* projecting across the rear of the mouth of the draw-head and having its ends disposed in the recesses *h*, and a spring detent *E* having a horizontally and forwardly extending end *e'* adapted to support the rear end of the link, substantially as described.

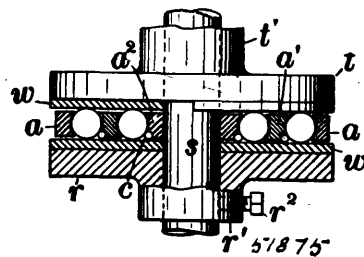
No. 51,875. Anti-Friction Bearing.

(*Coussinet de tourillon sans friction.*)

Benjamin Franklyn Sparr, Newark, New Jersey, U.S.A., 7th April, 1896; 6 years. (Filed 12th March, 1896.)

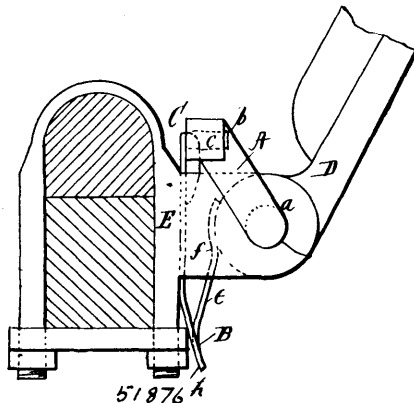
Claim.—1st. In an anti-friction bearing constructed of two or more concentric rings confining interposed series of spherical balls,

the combination, with one or more of said rings formed each with a peripheral groove, of an auxiliary split ring fitted to said groove and adapted to offer a barrier to the relative displacement of said ring



and contiguous series of balls, as and for the purpose set forth. 2nd. The anti-friction member composed of concentric confining rings having channelled adjacent peripheries, and interposed annular series of spherical balls with a portion thereof intermediate to said confining ring exposed, as and for the purpose set forth.

No. 51,876. Thill Coupling. (Armon de limonière.)



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Chauncey Cicero Brown, Lowville, New York, U.S.A., 8th April, 1896; 6 years. (Filed 13th March, 1896.)

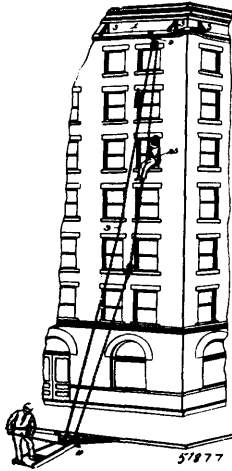
Claim.—1st. An improved shaft coupling constructed and arranged substantially as herein shown and described, consisting of a coupling pin and a tongued spring connected, by means of a pivot, to a lever by means of which the device is made operative as set forth. 2nd. In a shaft coupling, an operating lever provided with dependent shoulders for insertion in the clevis recess whereby sidewise strains on the parts are prevented, as set forth. 3rd. In a shaft coupling, a coupling pin constructed and arranged to be pivoted to an operating lever provided with reverse bands, as and for the purpose set forth. 4th. In a shaft coupling a plate spring adapted to be pivoted to an operating lever and provided with a tongue having a hump or knuckle as set forth. 5th. In a shaft coupling the combination of a coupling pin provided with reverse bends, of tongue plate *B*, and operating lever *C*, provided with shoulders, all arranged and operating as herein set forth.

No. 51,877. Fire Escape. (Saweteur d'incendie.)

Eric O. Sjolander, Cedar Bayou, Texas, U.S.A., 8th April, 1896; 6 years. (Filed 12th March, 1896.)

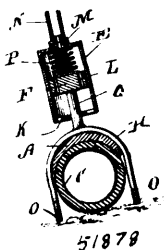
Claim.—1st. In a fire escape, the combination of a horizontal track-bar T-shaped in cross-section, brackets for supporting the track-bar, composed of an L-shaped portion and an inclined brace having their adjacent terminals secured to the vertical flange of the track-bar, and a hanger provided with a pair of rollers arranged on the track-bar at opposite sides of the vertical flange, substantially as described. 2nd. In a fire escape, the combination of a track-bar, a hanger mounted thereon, an endless chain connected with the hanger, and a windless frame carrying a drum to receive the endless chain and composed of two angularly disposed sections adapted to receive the weight of the operator, whereby the chain is maintained taut, substantially as described. 3rd. In a fire escape, the combination of a track, a hanger, an endless chain connected with the hanger, a windless frame carrying a drum to receive the endless chain and composed of two sections detachably connected, arranged at an angle and adapted to receive the weight of the operator to maintain the chain taut, and a brake lever fulcrumed on the windless frame and arranged to engage the chain adjacent to the drum, substantially as described. 4th. In a fire escape, the combination of a track, a hanger, an endless chain connected with the hanger, a windless frame carrying a drum to receive the endless chain and composed of two sections detachably connected, arranged at an angle and adapted to receive the weight of the operator to maintain

the chain taut, a brake lever fulcrumed on the windlass frame and arranged to engage the chain adjacent to the drum, and a spring-actuated pulley slidingly connected with the windlass frame and arranged to engage the chain, substantially as described. 5th. In a



fire escape, the combination of a windlass frame, a drum journaled thereon, a shaft arranged in suitable ways and located adjacent to the drum, a pulley mounted on the shaft, substantially U-shaped springs located at the ends of the shaft, provided with eyes for the reception of the latter and secured at their outer terminals to the windlass frame, substantially as described. 6th. In a fire escape, the combination of a windlass frame composed of two sections detachably connected and arranged at an angle, a drum mounted on one of the sections, a crank handle connected with the drum, curved guides mounted on the windlass frame, located at opposite sides of the drum and adapted to prevent an endless chain from becoming twisted, a brake lever fulcrumed on the windlass frame and arranged adjacent to the drum, and a spring-actuated pulley located adjacent to the latter, substantially as described. 7th. In a fire escape, the combination with an endless chain, means for operating the same, and a life belt or support composed of two sides, one of the sides being provided at intervals with eyes and hooks located at opposite ends of the sides, one of the hooks being adapted to engage the endless chain and the other to engage said eyes, substantially as and for the purpose described.

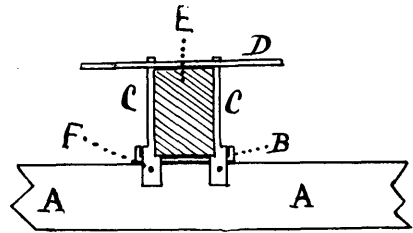
No. 51,878. Bicycle. (*Bicycle.*)



Walter Alonzo Osborn, New York, U.S.A., 8th April, 1896; 6 years. (Filed 13th March, 1896.)

Claim.—The combination with the wheel of a bicycle, provided with a pneumatic tire, of an air pump consisting of a cylinder which is secured to the wheel, one end of said cylinder being provided with a tube which is in communication with the tire and said cylinder being also provided with a spring-operated piston having perforations therethrough, and said piston being provided with a shaft which extends through the end of the cylinder and which is also provided with a yoke adapted to surround or enclose the tire and the rim of the wheel and which is also adapted to come in contact with the ground, substantially as shown and described.

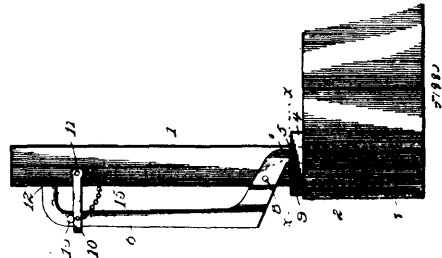
No. 51,879. Bob-Sleigh. (*Traineau-jumeau.*)



Valentine Mitchell, Oak Lake, Manitoba, Canada, 8th April, 1896; 6 years. (Filed 13th March, 1896.)

Claim.—The pins C, used to connect the benches to the runners and which pass through the rave and the iron plate B, used in connection therewith.

No. 51,880. Car Standard. (*Epee pour chars.*)

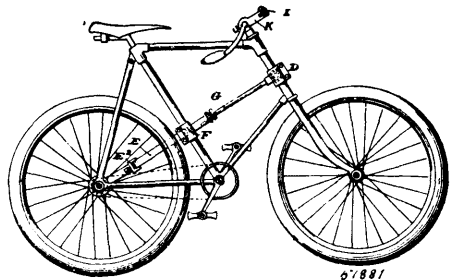


William John Holmes, Pembine, Wisconsin, U.S.A., 8th April, 1896; 18 years. (Filed 12th March, 1896.)

Claim.—1st. The combination with a car or other vehicle, of a standard pivoted thereto, a lever disposed above the vehicle floor and pivotally connected with said standard and bifurcated or provided with parallel arms embracing said standard and adapted to engage with the car for upholding said standard in its normal position, and means for engaging the upper end of said lever with the standard, substantially as described. 2nd. The combination with a car or other vehicle, of a pair of standards hinged thereto, a pair of levers pivotally connected with said standards and bifurcated or provided with parallel arms embracing said standards and formed with shouldered extremities, and a pair of keeper plates for said levers, arranged at opposite sides of the car and connected by a strap, substantially as described. 3rd. The combination with a car or other vehicle, of a standard hinged thereto, a lever pivotally connected with said standard and bifurcated or provided with parallel arms embracing said standard and formed with shouldered extremities for engaging notched or recessed plates secured to the body of the car or vehicle and disposed upon opposite sides of said standard, and means for engaging the opposite end of said lever, substantially as described.

No 51,881. Device for Coupling Bicycles Together.

(*Appareil pour joindre ensemble deux bicycles.*)

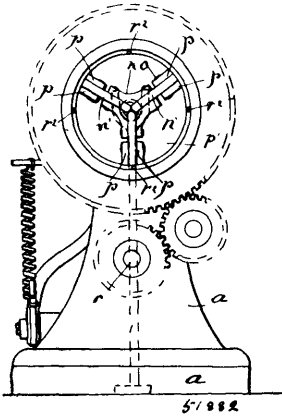


Thomas Stoddard Taylor, San Rafael, California, U.S.A., 8th April, 1896; 6 years. (Filed 11th June, 1895.)

Claim.—1st. The herein described coupling device for connecting two bicycles together, consisting of a coupling-frame of transverse bars having clamps on their outer ends, by which they are secured to the bicycle frame, and a longitudinal reach or bar uniting the said transverse bars together. 2nd. The combination, with two bicycles placed side by side for joint use and operation, of a coupling-frame or means composed of the transverse brace-bars secured at the ends to the bicycle frames by clamping means, the longitudinal reach-bar connecting the two brace-bars together, and a rigid bar connecting the tiller of one bicycle with the tiller of the other for joint and simultaneous operation. 3rd. A means for coupling two bicycles together side by side for joint operation, consisting of the extensible front brace-bar provided with clamps on its outer ends for

securing it to the front standards of the bicycles, the extensible rear brace-bar having similar means for securing it to the rear part of the bicycle frames, the extensible reach or longitudinal centre-bar connecting together the said two brace-bars, and the fixed arms on the tillers and the rod connecting said arms together, substantially as described.

No. 51,882. Machine for Forming the Heels of Lamp Chimneys. (*Machine pour former les talons des cheminées de lampes.*)



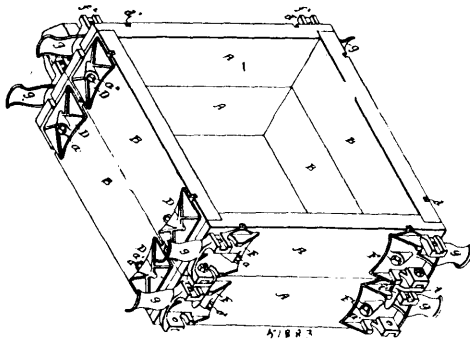
George James Gaubert, Richmond, Quebec, Canada, 8th April, 1896; 6 years. (Filed 23rd October, 1895.)

Claim.—1st. A chimney heel forming machine having an expansible rotary spreader for acting interiorly upon the glass of the bulb forming the heel, with means for forming indentations in the edge of such heel and for supporting and operating such spreader. 2nd. In a chimney heel forming machine, the combination of a frame, a rotating shaft, a reciprocal spindle carried by and rotating with such shaft, a number of centrifugally movable spreader fingers pivotally connected with such spindle, one or more pin projections from such frame and means for reciprocating such spindle, for the purpose set forth. 3rd. In a chimney heel forming machine, the combination of a frame, an expansible rotary spreader formed of a number of centrifugally movable fingers nominally converging to a central point, one or more pin projections from such frame and means for carrying such fingers, means for retaining them in their normal position, and means for rotating the spreader, for the purpose set forth. 4th. A chimney heel forming machine having an expansible rotary spreader for acting interiorly, and an outer rotary former for acting exteriorly, upon the glass of the bulb forming the heel, said spreader and former rotating independently of each other and means for supporting and operating such spreader and former, for the purpose set forth. 5th. In a chimney heel forming machine, the combination of a frame, a rotating shaft, a reciprocal spindle carried by and having an operating connection with such shaft, a number of centrifugally movable spreader fingers pivotally connected with such spindle, an outer former rotatable independently of said spindle and carried by such frame, and means for reciprocating said spindle, and means for rotating such outer former independently of said spindle and means for rotating said spindle, for the purpose set forth. 6th. A chimney heel forming machine having an interiorly acting rotary former and an outer former for acting exteriorly, upon the glass of the bulb forming the heel, said formers rotating independently of each other and means for supporting and operating said formers, for the purpose set forth. 7th. A chimney heel forming machine, the combination of a frame, providing bearings for a main shaft, and a counter shaft, an expansible rotary spreader carried by said main shaft, a rotary former carried by said frame and encircling such spreader and means for rotating said spreader and former, for the purpose set forth. 8th. A chimney heel forming machine, the combination of a frame, providing bearings for a main shaft and a counter shaft, an expansible rotary spreader formed of a number of centrifugally movable fingers carried by said main shaft, a rotary former carried by said frame and encircling such spreader and means for rotating said spreader and former, for the purpose set forth. 9th. In a chimney heel forming machine, the combination of a frame, an expansible rotary spreader formed of a number of centrifugally movable fingers, normally converging to a central point, one or more pin projections from such frame, a rotary outer former carried by such frame, and means for carrying such fingers, means for retaining them in their normal position, and means for rotating the spreader and outer former, for the purpose set forth. 10th. A chimney heel forming machine having an expansible rotary spreader for acting interiorly, and an outer former for acting exteriorly upon the glass of the bulb forming the heel, with means for forming indentations in the edge of such heel, and for supporting and operating such spreader. 11th. In a chimney heel forming machine, the combination of a frame, a rotating shaft, a

reciprocal spindle carried by and rotating with such shaft, a number of centrifugally movable spreader fingers pivotally connected with such spindle, an outer rotary former carried by such frame, one or more pin projections from such frame, and means for reciprocating such spindle and for rotating such outer former, for the purpose set forth. 12th. A chimney heel forming machine having an expansible rotary spreader for acting interiorly upon the glass of the bulb forming the heel, with means for supporting and operating such spreader. 13th. In a chimney heel forming machine, the combination of a frame providing bearings for a tubular main-shaft and a counter-shaft, a reciprocating spindle carried within such tubular main-shaft, and having a feather and groove connection therewith, an expansible rotary spreader formed of a number of movable fingers carried by a hub section mounted on the forward end of such spindle, a rotary former carried by such frame, means for rotating such spreader and outer former, and means for reciprocating said spindle, for the purpose set forth. 14th. In a chimney heel forming machine, the combination of a frame providing bearings for a tubular main-shaft and a counter-shaft located below such main shaft, a reciprocating spindle carried within such tubular main shaft, and having a feather and groove connection therewith, an expansible rotary spreader formed of a number of movable fingers carried by a hub section mounted on the forward end of such spindle, a rotary former carried by such frame, means for rotating such spreader and outer former, and means for reciprocating said spindle, for the purpose set forth. 15th. In a chimney heel forming machine, the combination of a frame providing bearings for a tubular main shaft and a counter shaft, a reciprocating spindle carried within such tubular main shaft projecting beyond each end of same and having a feather and groove connection therewith, a pair of fixed collars carried by the rear end of such spindle, a bell crank lever fulcrumed to the rear standard and having one arm forked and engaging a loose collar between such collars, the other arm being connected to a treadle, an expansible rotary spreader formed of a number of movable fingers carried by a hub section mounted on the forward end of such spindle, a rotary former carried by such frame, and means for rotating such spreader and outer frame, for the purpose set forth. 16th. In a chimney heel forming machine, the combination of a frame, providing bearings for a tubular main shaft and a counter shaft, a reciprocating spindle carried within such tubular main shaft and having a feather and groove connection therewith, an expansible rotary spreader formed of a number of movable fingers carried by a hub section mounted on the forward end of such spindle, a rotary former carried by such frame and means for rotating such spreader and former, and means for reciprocating such spindle, for the purpose set forth. 17th. In a chimney heel forming machine, the combination of a frame, providing bearings for a tubular main shaft and a counter shaft, a reciprocating spindle carried within such tubular main shaft and having a feather and groove connection therewith, an expansible rotary spreader formed of a number of movable fingers carried by a hub section mounted on the forward end of such spindle, one or more pin projections carried by the frame, a rotary former carried by such frame, and means for rotating such spreader and outer former, and means for reciprocating said spindle, for the purpose set forth. 18th. In a chimney heel forming machine, the combination of a frame providing bearings for a tubular main shaft and a counter shaft, a reciprocating spindle carried within such tubular main shaft, and having a feather and groove connection therewith, an expansible rotary spreader formed of a number of movable fingers carried by a hub section mounted on the forward end of such spindle, a rotary former consisting of an annular section or ring rotatably carried by such frame and encircling such spreader, and means for rotating such spreader and outer former, and means for reciprocating said spindle, for the purpose set forth. 19th. In a chimney heel forming machine, the combination of a frame providing bearings for a tubular main shaft and a counter shaft, a reciprocating spindle carried within such tubular main shaft and having a feather and groove connection therewith, an expansible rotary spreader formed of a number of movable fingers carried by a hub section mounted on the forward end of such spindle, one or more pin projections carried by the frame, a rotary former consisting of an annular section or ring rotatably carried by such frame and encircling such spreader and means for rotating such spreader and outer former, and means for reciprocating said spindle, for the purpose set forth. 20th. In a chimney heel forming machine, the combination of a frame comprising a base plate and front and rear standards, such standards providing upper bearings for a tubular main shaft and a counter shaft located below such main shaft, a reciprocating spindle carried within such tubular main shaft, projecting beyond each end of same and having a feather and groove connection therewith, a pair of fixed collars carried by the rear end of such spindle, a bell-crank-lever fulcrumed to the rear standard and having one arm forked and engaging a loose collar carried between such collars, the other arm being connected to a treadle, an expansible rotary spreader formed of a number of movable fingers carried by a hub section mounted on the forward end of such spindle, a rotary former carried by such frame, and means for rotating such spreader and outer former, for the purpose set forth. 21st. In a chimney heel forming machine, the combination of a frame comprising a base plate and front and rear standards, such standards providing bearings for a tubular main shaft and a counter-shaft located below such main shaft, a reciprocating spindle carried within such tubular main shaft, pro-

jecting beyond each end of same and having a feather and groove connection therewith, a pair of fixed collars carried by the rear end of such spindle, a bell-crank-lever fulcrumed to the rear standard and having one arm forked and engaging a loose collar between such collars, the other arm being connected to a treadle, an expansible rotary spreader formed of a number of centrifugally movable fingers carried by a hub section mounted on the forward end of such spindle, a rotary former carried by such frame, and encircling such spreader, and means for rotating such spreader and outer former, for the purpose set forth. 22nd. In a chimney heel forming machine, the combination of a frame comprising a base plate and front and rear standards, such standards providing bearings for a tubular main shaft and a counter-shaft located below such main shaft, a reciprocating spindle carried within such tubular main shaft, projecting beyond each end of same and having a feather and groove connection therewith, a pair of fixed collars carried by the rear end of such spindle, a bell-crank-lever fulcrumed to the rear standard and having one arm forked and engaging a loose collar between such collars, the other arm being connected to a treadle, an expansible rotary spreader formed of a number of centrifugally movable fingers carried by a hub section mounted on the forward end of such spindle, one or more pin projections carried by the frame, a rotary former carried by such frame, and means for rotating such spreader and outer former, for the purpose set forth. 23rd. In a chimney heel forming machine, the combination of a frame comprising a base plate and front and rear standards, such standards providing bearings for a tubular main shaft, a reciprocating spindle carried within such tubular main shaft, projecting beyond each end of same and having a feather and groove connection therewith, a pair of fixed collars carried by the rear end of such spindle, a bell-crank-lever fulcrumed to the rear standard and having one arm forked and engaging a loose collar between such collars, the other arm being connected to a treadle, an expansible rotary spreader formed of a number of centrifugally movable fingers carried by a hub section mounted on the forward end of such spindle, a rotary former consisting of an annular section or ring rotatably carried by such frame and encircling such spreader, and means for rotating such spreader and outer former, for the purpose set forth. 24th. In a chimney heel forming machine, the combination of a frame comprising a base plate and front and rear standards, such standards providing bearings for a tubular main shaft, a spindle carried within such tubular main shaft, projecting beyond each end of same and having a feather and groove connection therewith, a pair of fixed collars carried by the rear end of such spindle, a bell-crank-lever fulcrumed to the rear standard and having one arm forked and engaging a loose collar between such collars, the other arm being connected to a treadle, an expansible rotary spreader formed of a number of centrifugally movable fingers carried by a hub section mounted on the forward end of such spindle, one or more pin projections carried by the frame, a rotary former consisting of an annular section or ring rotatably carried by such frame and encircling such spreader and means for rotating such spreader and outer former, for the purpose set forth.

No. 51,883. Moulder's Flask. (Châssis de moulage)



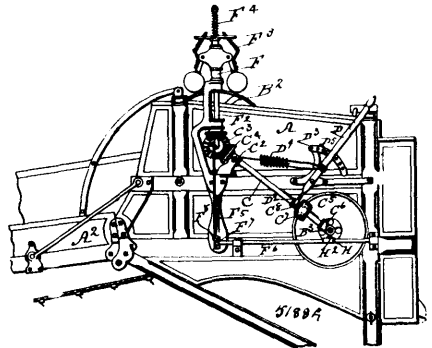
James Barker, Philadelphia, Pennsylvania, U.S.A. 8th April, 1896; 6 years. (Filed 17th December, 1895.)

Claim.—1st. A moulder's flask, comprising wooden bars or strips connected at the corners by means of diagonal bolts passing through the strips, and metallic plates bearing upon the outer sides of the strips at the corners of the flask, upon which plates the said bolts have their bearings, substantially as specified. 2nd. A moulder's flask, consisting of wooden bars or strips, each grooved in its outer face near the corners of the flask, metal plates bearing upon the outside of the strips near the corners and having abrupt lugs engaging with the grooves in the strips and diagonal bolts passing through the strips and plates and having their bearing upon the latter, substantially as specified. 3rd. A moulder's flask, consisting of wooden bars or strips connected at the corners by diagonal bolts passing through said strips and metal plates on the outer sides of the same through which said bolts pass, one of said plates having a projecting web serving as a handle, substantially as specified. 4th. The combination of the two parts of a moulder's flask, each connected by

means of a bolt passing diagonally through the wooden strips of the flask and outer metal bearing plates thereon through which the bolt passes, plates of one part of the flask having projecting flanges with tapered notches, and the corresponding plates of the other part of the flask having projecting flanges to which are secured plates having pins adapted to said notches, substantially as specified. 5th. The combination of the two parts of a moulder's flask, each connected at the corners by means of bolts passing diagonally through the wooden strips of the flask and outer metal bearing plates thereon through which the bolts pass, plates of one part of the flask having secured thereto projecting plates with notched ribs and plates of the other part of the flask having secured thereto projecting plates with ears connected by transverse pivot pins adapted to said notched ribs, substantially as specified. 6th. The combination of the two parts of a moulder's flask, plates on one part of the flask having projecting flanges with tapered notches, plates on the other part of the flask having projecting flanges and pins adapted to the notches of the plates of one part of the flask, said pins having right angled heads pivoted to the projecting flanges of the plates on the other part of the flask, substantially as specified. 7th. The within described bearing plate for a moulder's flask, said plate having a central bearing with inclined face for a securing bolt and upper and lower flanges each having a tapered notch in it, substantially as specified. 8th. The within described bearing plate for a moulder's flask, said plate having a central bearing with inclined face for a securing bolt, and projecting lugs with abrupt faces for engagement with a groove in the wooden strip or bar of the flask, substantially as specified. 9th. The within described bearing plate for a moulder's flask, said plate having a central bearing with inclined face for a securing bolt, and a central projecting web serving as a handle, substantially as specified. 10th. The within described bearing plate for a moulder's flask, said plate having a central bearing with inclined face for a securing bolt, and a central projecting web serving as a handle, substantially as specified. 11th. The combination of the wooden strip of a moulder's flask, with a metal bar rigidly secured thereto adjacent to the lower outer corner and projecting beyond the outer face of the strip, substantially as specified.

No. 51,884. Band Cutter and Feeder.

(Coupe hart et alimentateur automatique.)



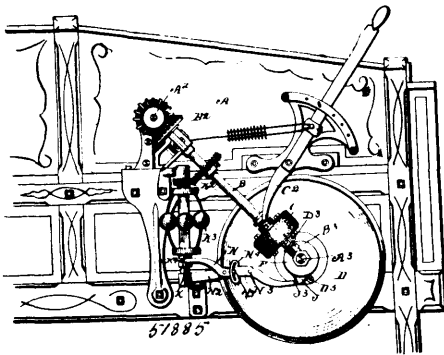
George W. Parsons, William Christ Bergman, August Henry Bergman, and Fred Lewis Maytag, all of Newton, Iowa, U.S.A., 8th April, 1896; 6 years. (Filed 10th March, 1896.)

Claim.—1st. In a band cutter and feeder for threshing machines, the combination of a suitable frame, a shaft adapted to be driven from the threshing machine mounted therein, band cutting mechanism connected with said shaft, a second shaft mounted therein, mechanism connected therewith for feeding grain to a threshing machine, a shaft geared to one of said shafts, a brush well feathered thereon having an annular groove in its hub, a brush wheel connected with the remaining one of said shafts normally in contact with the aforesaid brush wheel and a lever fulcrumed to a part of the machine frame and having a bifurcated end inserted in said annular groove, for the purposes stated. 2nd. In a band cutter and feeder for threshing machines, the combination of a suitable frame, a shaft adapted to be driven from the threshing machine mounted therein, band-cutting mechanism connected with said shaft, a second shaft mounted therein, mechanism connected therewith for feeding grain to a threshing machine, a shaft geared to the first mentioned shaft, a brush wheel feathered thereon having an annular groove in its hub, a brush wheel fixed to the end of the second shaft normally in contact with the aforesaid brush wheel and a lever fulcrumed to a part of the machine frame and having a bifurcated end inserted in said annular groove, a perforated segment in juxtaposition to the lever, a pin adapted to enter said perforations and a spring adapted to exert a yielding pressure on said lever. 3rd. In a band cutter and feeder, the combination of a suitable frame, a shaft mounted thereon adapted to be driven from the threshing machine, band cutting mechanism connected with the said shaft, a second shaft mounted therein, mechanism connected therewith for feeding grain to a threshing machine, a shaft geared to the first mentioned shaft, a brush wheel fixed thereto, a brush wheel fixed to the second shaft

normally in contact with the first brush wheel, a centrifugal ball governor geared to the first mentioned shaft and means connected therewith whereby the brush wheels are held in contact when the first mentioned shaft rotates at or above a certain speed and when the balls fall below a certain point, the brush wheels will be disengaged, for the purposes stated. 4th. In a band cutter and feeder, the combination of a suitable frame, a shaft rotatably mounted therein, band cutting mechanism connected therewith, a second shaft, means connected therewith for advancing grain, a shaft geared to the first shaft, a suitable bearing to support the upper end thereof, a T-bearer mounted on the second shaft and having the connecting shaft inserted therein and having two pins on its under side, a brush wheel fixed to said second shaft, a brush wheel feathered to the connecting shaft, means for sliding the feathered brush wheel, a governor geared to the first mentioned shaft, a rod attached thereto and arranged to be forced downwardly when the governor is rotated, a rock shaft mounted in suitable bearings at the side of the machine frame, and having an inwardly projecting arm attached to said rod and a lug on its other end interposed between the two aforesaid pins on the T-bearer for the purposes stated. 5th. The combination with a band cutting device comprising a crank shaft and a number of bars pivoted thereto, of a hanger at the rear end of each bar pivoted to an elevated support and to the bar and projecting below the same a frame having one or more knife blades thereon pivoted to said hanger beneath the bar and projecting rearwardly and downwardly beyond the bar, a spring attached to the upper end of the bar and rods for connecting the spring and said frame, substantially as and for the purposes stated. 6th. In a band cutter and feeder, the combination with a shaft in the rear end of the machine having two sprocket wheels on its ends, and an endless carrier passing through the machine and driven by said shaft, of two arms pivoted to said shaft and extended rearwardly, a platform fixed to the top of said arms, a shaft mounted in the outer end of said arms, sprocket wheels on the ends of said shaft having said carrier passed thereover, a rack pivoted to said shaft and a pin fixed to the machine frame to be engaged by said rack, for the purposes stated. 7th. In a band cutter and feeder, the combination with a shaft in the rear end of the machine having two sprocket wheels on its ends and an endless carrier passing through the machine and driven by said shaft, of two arms pivoted to said shaft and extended rearwardly, a platform fixed to the top of said arms, a shaft mounted in the outer end of said arms, sprocket wheels on the ends of said shaft having said carrier passed thereover, a rack pivoted to said shaft and a pin fixed to the machine frame to be engaged by said rack, and means for longitudinally adjusting said arms for the purposes stated.

No. 51,885. Band Cutter, Feeder and Governor.

(*Coupe-hart, alimentateur et gouverneur.*)

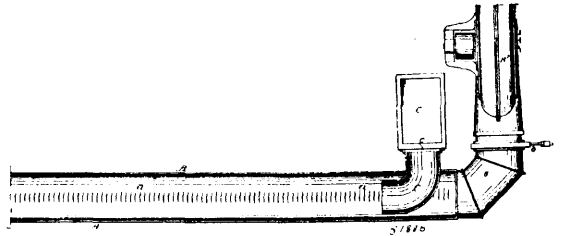


George W. Parsons, William Christ Bergman, August Henry Bergman and Fred Lewis Maytag, all of Newton, Iowa, U.S.A., 8th April, 1896; 6 years. (Filed 10th March, 1896.)

Claim.—1st. In a band-cutter and feeder for thrashing-machines, the combination of a shaft mounted therein to operate the feeding mechanism, a wheel loosely mounted thereon, and having a lateral projection near its central portion, means for driving said wheel by power derived from the thrashing machine, a disc fixed to said shaft in juxtaposition to the said wheel, a spring-actuated trip device, substantially as described, pivoted to said disc, and having a lug thereon, adapted to normally engage said projection on the wheel, a ball governor, adapted to be operated by power derived from the thrashing machine, and a lever connected therewith, and adapted to engage said trip device, and hold it out of engagement with the projection on the wheel when the rotation thereof falls below a certain predetermined speed, for the purposes stated. 2nd. In a band-cutter and feeder for thrashing machines, the combination of a shaft mounted therein, to operate the feeding mechanism, a wheel loosely mounted thereon, and having a lateral projection near its central portion, means for driving said wheel by power derived from the thrashing machine, a disc fixed to said shaft, in juxtaposition to the said wheel, a spring-actuated trip device substantially as described, pivoted to said disc, and having a lug thereon adapted to normally engage said projection on the wheel, a ball governor adapted to be operated by

power derived from the thrashing machine, a lever connected therewith and adapted to engage said trip device and hold it out of engagement with the projection on the wheel, when the rotation thereof falls below certain predetermined speed, a joint in said lever and means for adjusting its outer end relative to its inner end, for the purposes stated. 3rd. In a band-cutter and feeder the combination of a suitable frame, a shaft mounted therein, to operate the band cutting mechanism, and adapted to be driven from the thrashing machine, a second shaft therein, to operate the feeding mechanism, a shaft mounted on the side of the machine frame, geared to the first shaft, a brush wheel feathered to its other end, a second brush wheel, rotatably mounted on said feeding-shaft, normally in engagement with the first, one or more anti-friction rollers, on said large wheel, a disc fixed to the feeding shaft, in juxtaposition to the brush wheel, a spring-actuated trip device, as shown and described, on said disc, to normally engage one of said anti-friction rollers, a centrifugal ball governor, geared to the first mentioned shaft, and carrying an annularly grooved collar, a lever fulcrumed to the machine frame, having one end in said annular groove, and its other normally in engagement with the said trip device, and having a joint in its central portion, and means for adjusting the outer end of the lever, relative to the other end, for the purposes stated.

No. 51,886. Process of and Apparatus for Conveying Material. (*Process et appareil pour transporter différents objets.*)

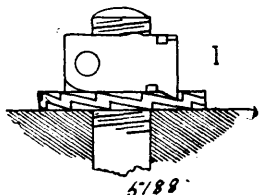


James Mapes Dodge, Philadelphia, Pennsylvania, U.S.A., 8th April, 1896; 6 years. (Filed 20th December, 1895.)

Claim.—1st. As an improvement in the art of conveying material, which consists in feeding the material to the conveyor, leaving it unconfined and subjecting it, at successive intervals in its path, to the lifting or buoying action of air or other fluid escaping from pressure, substantially as described. 2nd. The process herein described of conveying material, said process consisting in feeding the material to the conveyor, leaving it unconfined and impelling the material by the impact of fluid escaping from pressure at successive intervals in its path, substantially as set forth. 3rd. The combination of an open conveyor bed, with a conductor for fluid under pressure, said conductor having a series of openings at different points along the bed so that the material will be impelled by the impact of fluid which freely escapes from the openings, substantially as described. 4th. The combination in a conveyor, of the open bed having openings therein, a conductor for fluid under pressure extending along the bed and communicating with said openings so that the material will be impelled along the bed by the fluid which freely escapes through the openings, substantially as described. 5th. The combination in a conveyor, of the open bed having a series of openings inclined in the direction of travel along the bed, a conductor for fluid under pressure communicating with said openings so that the material will be impelled along the bed by the impact of fluid which freely escapes from the openings, substantially as described. 6th. The combination in a conveyor, of the open trough having a series of openings inclined in the direction of travel of the material along the trough, a conductor for fluid under pressure communicating with said openings so that the material will be impelled along the trough by the fluid which freely escapes from the openings, the conductor being larger at the inlet end than at the opposite end, substantially as described. 7th. The combination in a conveyor, of a bed composed of one or more plates having slots therein, the plate at one side of each slot being depressed, with a conductor for air so arranged in respect to the bed that fluid under pressure in the conductor will escape through the openings in the bed, substantially as described. 8th. The combination in a conveyor, of the trough, a conductor for fluid under pressure, said trough having passages therein communicating with the conductor, and a hood enclosing the

trough, substantially as described. 9th. As a means for conveying material, the combination of a conveyor bed having a series of openings along the length thereof, means for forcing fluid under pressure through said openings so that the fluid escaping from the openings will impel the material by impact along the conveyor, and means for regulating the pressure of such fluid so as to vary the blasts, whereby the length of the pile of material at the discharge end of the conveyor may be increased, substantially as described.

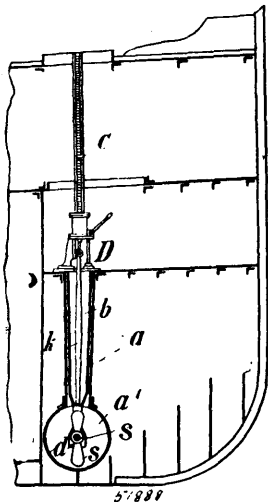
No. 51,887. Nut. (Ecrou.)



Charles Schoening, Pincher Creek, Alberta, North-west Territory, Canada, 8th April, 1896; 6 years. (Filed 11th January, 1896.)

Claim.—1st. The combination of the nut II, with click IV, and spring III, substantially as and for the purpose hereinbefore set forth. 2nd. The ratchet washer, with the recessed upper side, and recessed under side, substantially as and for the purpose hereinbefore set forth.

No. 51,888. Steering Apparatus. (Appareil à gouverner.)



Jochain Johannsen, Lubeck, Germany, 8th April, 1896; 6 years. (Filed 15th January, 1896.)

Claim.—1st. In a steering apparatus, the combination of a casing *b*, capable of being lifted in a vertical well *a*, and lowered into a transverse channel *a'* of the vessel, of hollow arms *b'* projecting from the said casing and being closed at the bottom ends by means of caps *d*, forming the bearings for a crank-shaft *s*, of a steering-propeller *s* fixed to the crank-shaft and arranged between the said hollow projecting arms *b'*, and of a motor *D* for driving the crank-shaft and steering-propeller, substantially as described. 2nd. In a steering-apparatus, the combination of a casing *b*, capable of being lifted in a vertical well *a*, and lowered into a transverse channel *a'* of the vessel, of hollow arms *b'* projecting from the said casing and being closed at the bottom ends by means of caps *d*, forming the bearings for a crank-shaft *s*, of a steering-propeller *s* fixed to the crank-shaft and arranged between the said hollow projecting arms *b'*, and of a motor *D* for driving the crank-shaft and steering-propeller, of a movable car *f'*, having wedge-shaped arms *f*, adapted to act upon the correspondingly shaped gland *e* of the stuffing box, and of guide-pieces *g* for the said arms *f*, substantially as specified.

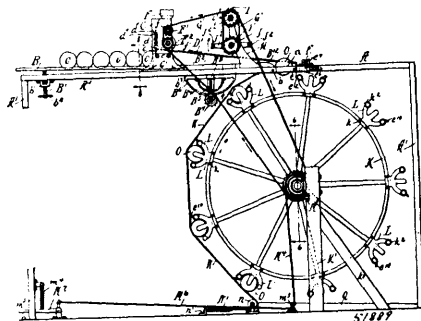
No. 51,889. Can Labelling Machine.

(*Machine à étiqueter les pots.*)

Silas R. Tayer, Chicago, Illinois, U.S.A., 8th April, 1896; 6 years. (Filed 27th January, 1896.)

Claim.—1st. In a label attaching machine, the combination with a feed table, of a vertically movable gate located above the table in the path of the incoming can and adapted to be moved out of said path by the passing can, of a locking device adapted when in en-

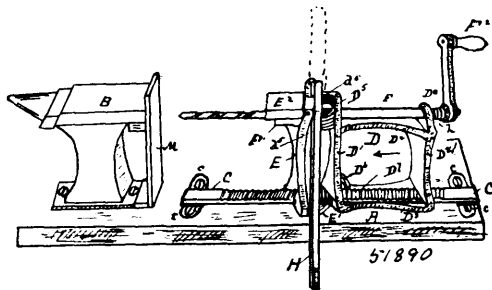
gagement with the gate, for maintaining the latter in the path of the can, and means for withdrawing the locking device at a desired time, substantially as described. 2nd. In a label attaching machine, the combination with a feed table, of a vertically movable gate posi-



tioned above the feed table in the path of the incoming can, a locking device for holding the gate in its normal position in said path, means for withdrawing the locking device at a desired time whereby said gate will be raised out of said path by the passing can, and means for returning said gate to its normal position in front of the next incoming can, substantially as specified. 3rd. In a can labelling machine, comprising a stationary frame, a stationary label holder provided with a movable bottom, a nut secured to said bottom, an adjusting screw rotatably secured to said frame, a revoluble can carrier, and suitable mechanism connecting said can carrier and said screw for actuating the latter, substantially as and for the purpose set forth. 4th. In a machine for applying labels to rotatable cans, the combination with the machine frame, of an adjustable inclined feed table, and a pasting device adjustably supported above the feed table in standards supporting a vertically movable gate, whereby the adjustment of the pasting device and said gate will be simultaneously effected, substantially as described. 5th. A label attaching machine, comprising a feed board, a spring returned, vertically movable front stop slide, a spring returned and horizontally movable rear stop slide, and a locking bar permanently connected to the rear slide and separably connected to the front slide, substantially as set forth. 6th. In a machine for attaching labels to rotatable cans, the combination with a vertically movable front stop slide located in the path of the incoming can, of a horizontally movable rear stop slide, a locking bar permanently connected to the rear slide and separably engaging the front slide, a retaining bar separably engaging the rear slide, and means for engaging and actuating said retaining bar, to unlock the rear slide, substantially as described. 7th. In a machine for attaching labels to rotatable cans, the combination with a suitable frame and mechanism for pasting and applying the label, of a rotating carrier frame having pockets or recesses adapted to receive the cans, a slide adapted to retain the labelled cans in the main frame, and a retaining bar engaging said slide provided with a depending arm or lug, said carrier frame being also provided with projecting arms adapted severally to engage the depending arms of said bar as the carrier is rotated, whereby the detained can may by its own weight move said slide and drop from the frame into one of the pockets in the carrier, substantially as described. 8th. In a label attaching machine, the combination with mechanism for pasting and applying the label to a rotatable can, of a revoluble carrier frame provided with a plurality of pockets or can holders, consisting of bearing rollers upon which the cans rest, and a flexible band arranged adjacent to and in the path of said carrier frame, whereby the cans carried thereon will press against said band and be given thereby an independent rotary movement as the carrier rotates, substantially as and for the purpose specified. 9th. A label attaching machine for cans and other rotatable receptacles comprising means for pasting and applying the labels, a rotatable carrier, can holders or pockets mounted on the periphery of said carrier and each provided with anti-friction bearings adapted to engage cans therein, and a flexible tension band so located adjacent to the carrier as to bear against the cans in said holders, and thereby, as said carrier rotates, press the label firmly against the can by a rotary movement of the latter, substantially as described. 10th. In a label attaching machine, a revoluble carrier for the labelled cans provided on its periphery with a plurality of pockets, the latter consisting of rollers upon which the can rests, a leaf guiding spring at each end of the pocket engaging the end of the can, and a suitable surface in engagement with said labelled can, substantially as and for the purpose specified. 11th. In a label attaching machine, the combination with means for pasting and applying the labels to the cans, of a revoluble carrier adapted to receive the cans on its periphery and arranged to be rotated by the weight of the cans thereon, a brake adapted to act on said carrier, and suitable connections whereby the label applying mechanism is actuated by said revoluble carrier, substantially as set forth. 12th. In a label attaching machine, the combination with means for pasting and applying the labels to the cans, of a revoluble carrier adapted to receive the cans on its periphery, and arranged to be rotated by the weight of the cans thereon, a brake adapted to act on said carrier, and a sprocket chain connecting the carrier with the

label applying mechanism, whereby the latter is actuated, substantially as described. 13th. In a machine for applying labels to cans, the combination with a revoluble can carrier adapted to receive the cans upon its periphery and arranged to be rotated by the weight of the cans thereon, a label holder and label feeding devices, of sprocket gears mounted upon the said feeding devices, and the carrier, respectively, and a sprocket chain engaging said gears, whereby the feeding of the labels is regulated by the revoluble carrier, substantially as described. 14th. A label attaching machine, comprising a suitable frame, an adjustable inclined feed board pivotally mounted thereon, a label holder carried by the feed board, fountain rolls for applying paste to a can mounted adjustably upon the frame, a paste brush for applying paste to the label also mounted upon said frame, a vertically movable front stop slide, a horizontally movable rear stop slide, a locking bar permanently connected to the rear side and separably engaging the front slide, and means for actuating said locking bar, substantially as and for the purpose set forth. 15th. In a label attaching machine, a revoluble carrier for the labelled cans provided on its periphery with a plurality of pockets, the latter consisting of rollers upon which the can rests, a flexible surface against which the labelled cans in said pockets are pressed, substantially as and for the purpose specified.

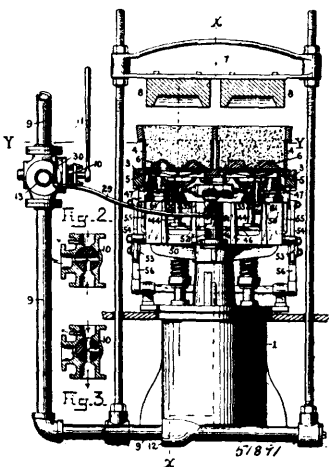
No. 51,890. Anvil Vise and Drill.
(*Enclume étiau et forêt.*)



James Weathers, Indianapolis, Indiana, U.S.A., 8th April, 1896; 6 years. (Filed February, 1896.)

Claim.—1st. In a combined anvil, vise, and drill, a stationary block made in the form of an anvil and adapted to be used as such and also to serve as one of the jaws of the vise and as a bearing for the material to be drilled, a stationary guide bar, a movable block sliding upon said guide bar, a cam whereby the block may be locked to the guide bar, a standard sliding upon the guide bar and forming the other jaw of the vise and placed between the standard and the block operated by a lever, whereby the standard may be moved independently of the block, and a drill journaled to the movable block and a crank to operate the said drill, all combined substantially as described and for the purpose specified. 2nd. The stationary anvil B arranged to form one of the jaw of a vise and the stationary guide bar C in combination with the movable block D having the cam D¹, the extensions D⁵ and D⁸ and the sloping lugs d⁵, the standard E having the slotted foot E¹ and the extension E², the lever H shaft F having the socket F¹ spring h and crank F², all substantially as described and for the purpose specified.

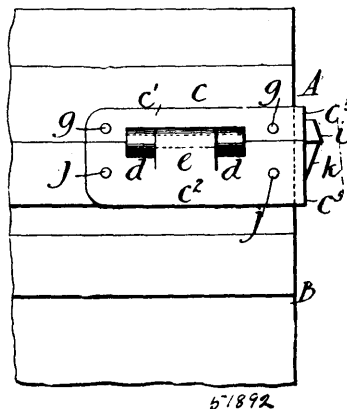
No. 51,891. Moulding Apparatus.
(*Appareil pour mouler.*)



Harris Tabor, Elizabeth, New Jersey, U.S.A., 8th April, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. In a moulding apparatus, the combination of a flask-supporting frame, a pattern-holding plate independent thereof and movable laterally in a horizontal plane with relation thereto, and a power device for agitating the plate and frame relatively to each other, substantially as and for the purpose specified. 2nd. In a moulding apparatus, the combination of a flask-supporting frame, a pattern-holding plate independent thereof, and a laterally yielding support for said plate, substantially as set forth. 3rd. In a moulding apparatus, the combination of a flask-supporting frame, a pattern-holding plate independent thereof, a yielding support for said plate, and a device for agitating the plate and frame relatively to each other, substantially as and for the purpose specified. 4th. In a moulding apparatus, the combination of a flask-supporting frame, a pattern-receiving plate independent thereof, movable laterally in a horizontal plane with relation thereto and provided with a projecting arm, and a device mounted on said arm, for agitating the plate, substantially as and for the purpose specified. 5th. In a moulding apparatus, the combination of a ramming-head, a flask-supporting frame, a pattern-receiving plate independent of said frame, said frame and plate being movable to and from the head, means for moving the frame and plate toward the head, a device for agitating the plate and frame relatively to each other, and means for automatically bringing said device into action during such movement of said plate, substantially as set forth. 6th. In a moulding apparatus, the combination of a flask-supporting frame, a pattern receiving plate, and a support for the spruce-plug, which is independent of said plate, substantially as set forth. 7th. In a moulding apparatus, the combination of a piston, a flask-supporting frame, and a pattern-receiving plate mounted on said piston and movable with relation to each other, springs upon which said pattern-plate is supported by the piston, and guides and stops for defining the movement of said plate relatively to the piston, substantially as set forth. 8th. In a power moulding apparatus, the combination of a cylinder, a piston mounted therein, a flask-supporting frame and a pattern receiving plate mounted on said piston independent of each other, a yielding support for said plate, and means for securing a differential, downward movement of said frame and plate, substantially as set forth. 9th. In a fluid-power moulding-apparatus comprising a cylinder, a piston mounted therein, a flask-supporting frame, and a pattern-receiving plate mounted on said piston, a valve located in the exhaust-passage, from said cylinder, having an adjustable spring for seating the valve, and a leak-orifice, whereby the piston is cushioned in its descent, substantially as set forth.

No. 51,892. Hinge. (*Charnière.*)



William Andrew Truesdale, Manchester, New Hampshire, U.S.A., 8th April, 1896; 6 years. (Filed 10th February, 1896.)

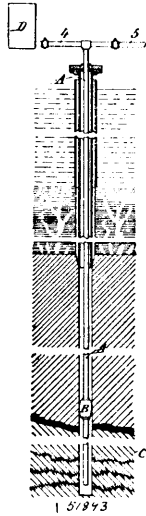
Claim.—A hinge for trunks and the like comprising two leaves pivoted together, one of said leaves being secured to the top of the body, and having a downwardly extending portion secured to the side of said body, said portion having a recess, and the other leaf being secured to the top of the cover and having a downwardly extending portion secured to the side of the cover, said portion having a bolt engaging the recess in the other portion when the cover is lowered, substantially as and for the purpose set forth.

No. 51,893. Method of Increasing the Flow of Oil Wells. (*Méthode d'augmenter l'écoulement des puits d'huile.*)

Herman Frasch, Cleveland, and John Wesley Van Dyke, Lima, both in Ohio, U.S.A., 9th April, 1896; 6 years. (Filed 22nd January, 1896.)

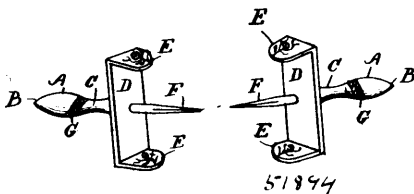
Claim.—1st. The method of increasing the flow of oil wells in limestone formations, by introducing into the well a large quantity of a chemical reagent which attacks the rock, and allowing said reagent to act upon the walls of the well, substantially as described.

2nd. The method of increasing the flow of oil wells in limestone formations, by introducing into the well a large quantity of a chemical reagent which attacks the rock, and subjecting such reagent in the well to strong pressure, substantially as described. 3rd. The



method of increasing the flow of oil wells in limestone formations, by introducing into the well a large quantity of a chemical reagent which is solvent of the rock (such as hydrochloric acid), and allowing said reagent to act upon the walls of the well, substantially as described. 4th. The method of increasing the flow of oil wells in limestone formations, by introducing into the well a large quantity of a chemical reagent which is solvent of the rock (such as hydrochloric acid), and subjecting such reagent to strong pressure, substantially as described. 5th. The method of increasing the flow of oil wells in limestone formations, by introducing into the well a large quantity of a chemical reagent which attacks the rock, and allowing said reagent to act upon the walls of the well, and also introducing a neutral or cheap liquid such as water into the well to force the said chemical reagent further into the rock, substantially as described. 6th. The method of increasing the flow of oil wells in limestone formations, by introducing into the well a large quantity of a chemical reagent which is solvent of the rock (such as hydrochloric acid), and allowing said reagent to act upon the walls of the well, and also introducing a neutral or cheap liquid such as water into the well to force the said chemical reagent further into the rock, substantially as described. 7th. The method of increasing the flow of oil wells in limestone formations, by introducing into the well first a chemical reagent to attack the rock forming the walls, then a neutral or cheap liquid such as water to force the reagent into the rock and finally a neutralizing liquid, substantially as described. 8th. The method of increasing the flow of oil wells in limestone formations by introducing into the well a large quantity of a chemical reagent which attacks the rock, confining said reagent to the lower or oil or oil-yielding portion of the well hole, and forcing it by pressure into the rock, substantially as described. 9th. The method of increasing the flow of oil wells in limestone formations by introducing into the well a large quantity of a chemical reagent which attacks the rock, forcing it by pressure into the rock, removing the pressure, and cleaning out the solid particles which are brought into the well hole, substantially as described.

No. 51,894. Corn Holder. (Porte-blé d'inde.)

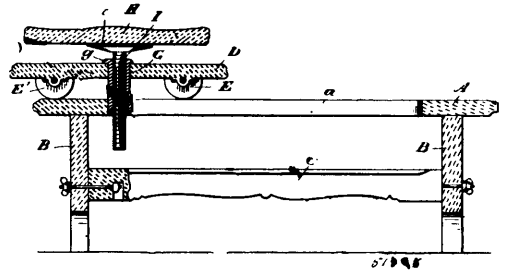


Mary Frances Postley, New York, State of New York, U.S.A., 9th April, 1896; 6 years. (Filed 12th February, 1896.)

Claim.—1st. A corn holder of the character described, consisting of an elliptical handle provided with a pointed or tapered shank, the plate mounted on said shank, said shank being adapted to be inserted into the ends of the ear of corn to support the same, substantially as described. 2nd. A corn holder substantially as herein shown, consisting of an elliptical handle, one end of which is secured

a pointed shank, a plate mounted on said shank adjacent to the handle, said plate having the ends thereof directed inwardly at right angles thereto, whereby when the holder is attached to the ends of the ear of corn the same may be supported in a horizontal position, substantially as described. 3rd. A corn holder consisting of a handle provided with an elliptical portion adjacent to one end thereof, the handle being enlarged at the opposite end, a cylindrical shank secured in said enlarged opposite end, said shank being provided with a tapered portion, a rectangular plate mounted on said shank adjacent to the enlarged opposite end of the handle, said plate having the ends thereof directed inwardly at right angles thereto, to form supports for the holders, substantially as described.

No. 51,895. Seat. (Siège.)

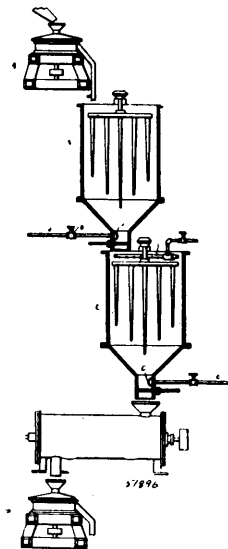


The Laughlin Hough Drawing Table Company, assignee of Samuel John Laughlin and James Hough, all of Guelph, Ontario, Canada, 9th April, 1896; 6 years. (Filed 11th September, 1895.)

Claim.—1st. The combination, with a bench provided with a suitable top, of a carriage provided with a central sleeve and a seat provided with a screw spindle extending downwardly from the bottom thereof and screwed into the sleeve, as and for the purposes specified. 2nd. The combination, with a bench having a suitable top and a guide rail located thereon, of a carriage D, provided with front grooved wheels E, E', and suitable sleeve G, in the centre of the carriage provided with a flange g, and a seat having a threaded spindle which is screwed into the sleeve, as and for the purpose specified. 3rd. The combination, with a bench having a suitable top A, and longitudinal slot a, thereon, of a carriage D, provided with a sleeve G, extending downwardly into the slot a, and designed to support a rotatable seat, as and for the purpose specified. 4th. The combination, with a carriage and seat, of the top A, and means between the top of the carriage for limiting its longitudinal movement, as and for the purpose specified.

No. 51,896. Manufacture of Flour.

(Fabrication de farine.)

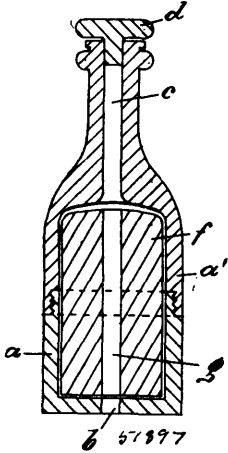


Augustus Daniel Bergtold, assignee of Frank Perew Van Denbergh, both of Buffalo, New York, U.S.A., 9th April, 1896; 6 years. (Filed 13th December, 1895.)

Claim.—1st. The herein described bean flour, consisting of starch, gluten and inherent phosphates and albuminoids of beans uncombined with legumin, conglutin and gluten casein, substantially as set forth. 2nd. The herein described method of producing flour from beans, which consists in disintegrating or coarsely reducing the

whole beans, steeping the beans, directly after reduction, in an alkaline solution whereby the hulls are detached and the legumin, conglutin and gluten casein are extracted from the bodies of the beans, separating the remaining portions of the bodies from the hulls and solution, neutralizing the alkali remaining in the bodies, drying the bodies and finally reducing the same to flour, substantially as set forth.

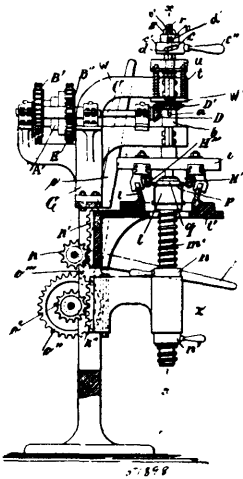
No. 51,897. Apparatus for Inhaling, Disinfecting, etc. (*Appareil pour aspirer des désinfectants, etc.*)



Otto Johann Julius Witt, Hamburg, Germany, 9th April, 1896; 6 years. (Filed 11th February, 1896.)

Claim.—An inhaling disinfecting and perfuming device consisting of a capsule made in two parts suitably connected and having an opening or perforation in each part and forming an internal cavity adapted to hold a core, and a core having a perforation communicating with the perforations in the parts of the capsule and made of material adapted to yield the desired vapours or emanations, substantially as set forth.

No. 51,898. Machine for Sealing Metal Cans. (*Appareil pour sceller les boîtes métalliques.*)



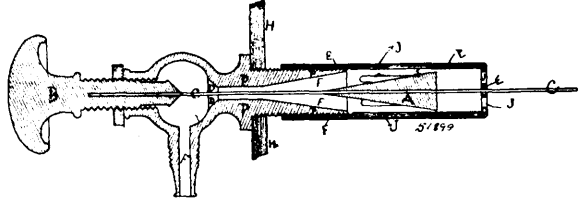
Emil Keitzner and August Urban, both of Berlin, Germany, 9th April, 1896; 6 years. (Filed 11th February, 1896.)

Claim.—1st. A machine for sealing metal cans for preserving food distinguished by the guide plate *c*, fitted to the lower end of the hollow shaft *b*, and provided with slits or apertures *e*¹, in which are carried two sliding blocks *f*, *f*¹, having two working rollers *H*¹¹, *H*¹¹, revolvably mounted thereon and furnished with grooves *g*, *h*, *h*¹, conical ways engaging a conical guiding rim *i*, forming a track, all arranged to operate substantially as in the manner described. 2nd. In a machine for sealing metal cans for preserving food, of the kind indicated, the combination of the ring *c*¹, loose on the rod *r*, and having a cam groove *c*, engaging a pin *d*, on said rod *r*, for the purpose of lowering the hollow shaft *b* thereon, and

springs *t* for raising said shaft, arranged to operate substantially in the manner and for the purpose hereinbefore described. 3rd. In a machine for sealing metal cans for preserving food of the kind indicated, the combination of the rack *k*¹, on the table *i*¹, the pinion *k*, and hand lever *k*¹¹, together with the rack *K*¹¹, and the gear wheels *o*¹, *o*¹¹ and *o*¹¹¹, and hand lever *o*, arranged to operate, substantially in the manner and for the purposes hereinbefore described.

No. 51,899. Valve for Boilers, Etc.

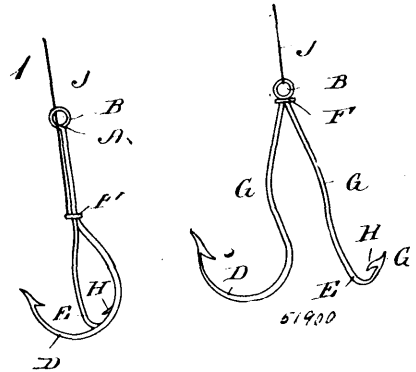
(*Soupage pour chaudières, etc.*)



John Harrison, Winnipeg, Manitoba, Canada, 9th April, 1896; 6 years. (Filed 15th November, 1894.)

Claim.—1st. The combination of the conical valve *A* and needle *C* with the hollow cylinder *E* with holes *J* and bore for needle *C*, for the purposes hereinbefore set forth. 2nd. The combination of needle *C* and valve *A* to cock *P* and spindle *B*, hereinbefore set forth.

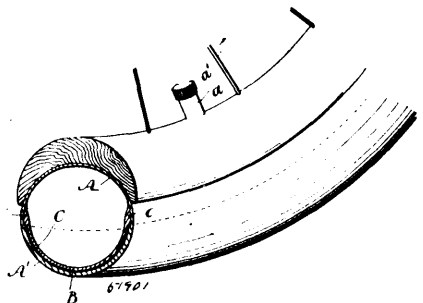
No. 51,900. Fish Hook. (*Hameçon.*)



Frank Masters Robinson, Pawling, New York, U.S.A., 9th April, 1896; 6 years. (Filed 12th February, 1896.)

Claim.—1st. A spring snap fish hook composed of a single piece of spring wire bent to form an eye or loop at or near the middle thereof, and said end of the wire being formed into a hook the points of which extend in different directions and a ring mounted on the shanks thereof and adapted to slide thereon, and when in its lowest position to hold the shanks together, the curves of the hooks being such that when the ring is in its lowest position the point of one of the hooks will lie adjacent to the curve of the other hook, substantially as shown and described. 2nd. A fish hook formed from a single piece of spring wire and having an eye *B* at the middle thereof, a hook formed on each end of the wire, the straight portions adjacent to the eye and a ring arranged on said straight portion to be connected to the line and adapted when in its lowest position to leave one of the hooks wholly exposed and retain the other hook in a concealed position alongside a straight portion in rear of the bar *B* and point of the exposed hook, substantially as described.

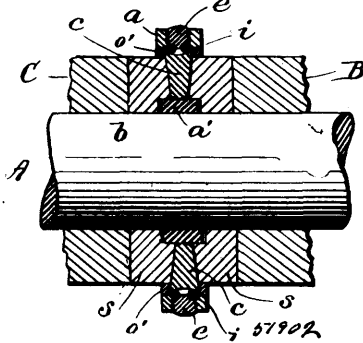
No. 51,901. Pneumatic Tire (*Bandage pneumatique.*)



William Frederic Goerdes, Brooklyn, New York, U.S.A., 9th April, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. A pneumatic tire having an annular guard secured to the inner portion of its tread by means of an annular strip of flexible material which is cemented to the inner walls of the tube, substantially as shown and described. 2nd. In a pneumatic tire, the combination of an annular ring and a flexible tube with an annular strip which is cemented to the inner wall of said tube, substantially as shown and described. 3rd. The combination of a pneumatic tire comprising an outer tube, an annular guard and an annular securing strip with the felly of a wheel, substantially as shown and described.

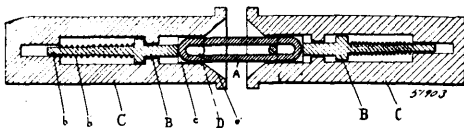
No. 51,902. Roller Bearing. (Cousinet anti-frottant.)



Frank Mossberg, Attleborough, Massachusetts, U.S.A., 9th April, 1896; 6 years. (Filed 6th March, 1896.)

Claim.—1st. In a roller bearing to receive the end thrust of shafts, a cage to hold the rolls, consisting of a series of tapering radial bars having concave sides and a solid connection between said bars at their inner ends, tapering rolls fitted to turn between said bars and means for holding said rolls in place, substantially as described. 2nd. In a roller bearing for end thrust of shafts, a cage to hold the rolls, consisting of a series of tapering radial bars having a solid connection between said bars at their inner ends, tapering rolls fitted to turn between said bars, a ring made in two parts fitted to clamp on the outer ends of said bars to keep the rolls in place, substantially as described. 3rd. In an end thrust roller bearing, a cage to hold the rolls, constructed with tapering radial bars, having a solid connection between said bars at their inner ends, a series of tapering rolls fitted to turn between said bars, hardened washers, having their inner faces bevelled to agree with the taper of said rolls, and placed one on each side of the cage and rolls, substantially as described. 4th. In an end thrust roller bearing, a cage to hold the rolls constructed with tapering radial bars having a solid connection between said bars at their inner ends, tapering rolls fitted to turn between said bars, a ring made in two parts fitted to clamp on the outer ends of said bars, screws fitted radially in said ring and having their inner ends grooved or tapered, with balls placed between the ends of the rolls and the inner ends of the screws, substantially as described. 5th. In an end thrust roller bearing, a cage to hold the rolls constructed with tapering radial bars having a solid connection between said bars at their inner ends, a series of tapering rolls fitted to turn between said bars, substantially as described.

No. 51,903. Car Coupler. (Attelage de chars.)



Siméon Grenier, St. Césaire, Quebec, Canada, 9th April, 1896; 6 years. (Filed 12th March, 1896.)

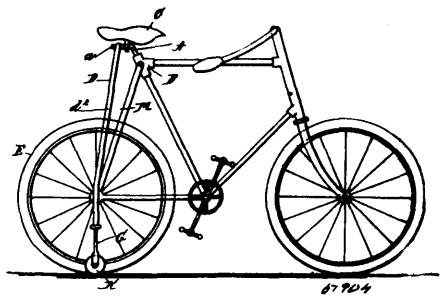
Claim.—1st. In a car coupling, the combination, with the bolster, of a rectangular block slidable in the bolster and provided with a jaw at its front end, a spring pressing forward the said block, a spring-operated pin slidable vertically in holes in the bolster, and normally supported by the upper part of the said jaw, and a link operating to enter the jaw and force back the block, thereby permitting the said pin to descend, substantially as set forth. 2nd. In a car coupling, the combination, with a bolster provided with bevelled guide portions at its front end, of a rectangular block slidable in the said bolster and provided with a jaw at its front end also having guide portions, a spring pressing forward the said block in the bolster, a spring operated pin slidable vertically in holes in the bolster, and normally supported by the upper part of said jaw, and a link operating to enter the jaw and force back the block, thereby permitting the said pin to descend, substantially as set forth.

No. 51,904. Support for Bicycles.

(Support pour bicycles.)

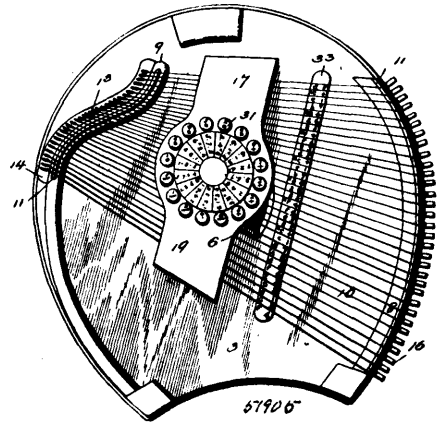
Grosvenor Williams Barry, New York, State of New York, U.S.A., 9th April, 1896; 6 years. (Filed 13th March, 1896.)

Claim.—1st. The combination with the frame of a bicycle, of a supplemental frame or yoke which is connected with the seat support, and the sides of which extend downwardly and outwardly at each side of the drive wheel, said sides being tubular in form and



provided at their lower ends with vertically movable shafts which are mounted therein, each of which is provided at its lower end with a wheel, substantially as shown and described. 2nd. The combination with the frame of a bicycle, of a supplemental frame or yoke which is adapted to support the same, said supplemental frame or yoke being connected with the seat support of the bicycle, and the sides thereof, being extended downwardly at each side of the drive wheel, said sides being tubular in form, and each being provided in its lower end with a vertically movable shaft in the lower end of which is mounted a wheel, the tubular sides of the supplemental frame or support being each provided with springs on which the shaft located therein bears, substantially as shown and described.

No. 51,905. Harp. (Harpe.)



George B. Shearer, Oneonta, assignee of Elvin Anderson, Sidney, both in New York, U.S.A., 9th April, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. In a stringed instrument of the type described, the combination with the sounding board, the base board, and the separating rim between the two boards, of the bridges for the strings located at opposite sides of the instrument and lying partially over the rim separating the two boards and extending or lapping upon the sounding board beyond the point of contact between the sounding board and said rim, substantially as and for the purposes described. 2nd. In a stringed instrument of the type described, the combination with the sounding board, the base board, and the separating rim between the two boards, of the bridges for the strings located at opposite sides of the instrument, a portion of said rim beneath the sounding board and said bridges being cut away or bevelled so as to separate the sounding board and rim at such portion, substantially as and for the purposes described. 3rd. In a stringed instrument of the type described, the combination with the sounding board, the base board, and the separating rim between the two boards, of the bridges for the strings located at opposite sides of the instrument, one of said bridges being bent or curved inwardly from the edge of the instrument, the separating rim between the two boards having a portion extended beneath the inwardly bent or curved bridge and separated from the sounding board at such point and adapted to receive the pins which bind the strings to said bridge, substantially as and for the purposes described. 4th. In a stringed instrument of the type described, the combination with the sounding board, the base board, and the separating rim between the two boards, of the bars or rods extending across the space or chamber between the two boards with their ends bearing at opposite points against said rim, said rods or bars being out of contact with the sounding board, substantially as and for the purposes described. 5th. In a stringed instrument of the type described, the combination with the sounding board, the base board, and the separating rim between the two boards, of the

bridges for the strings located at opposite sides of the instrument, one of said bridges being bent or curved inwardly from the edge of the instrument, and the strings passing over both bridges and diverging from the inwardly turned or curved portion of one bridge towards the opposite bridge so that the strings will cover a gradually increasing area of sounding board surface from the inwardly bent or curved bridge to the opposite bridge and thus produce a magnifying of tone, substantially as and for the purposes described.

6th. In a stringed instrument of the type described, the combination with the strings, of a series of independently fulcrumed levers one for each string, provided with dampers normally out of contact with the strings, a series of bars or plates extended transversely across said levers, each bar or plate being adapted to move certain of the levers so as to throw their dampers into contact with certain strings to mute the same and formed with notches or recesses adapted to receive certain other levers so that said levers may remain in position to hold their dampers out of contact with their respective strings to permit the strings to vibrate, and means for actuating said bars or plates, substantially as and for the purposes described.

7th. In a stringed instrument of the type described, the combination with the strings, of a series of independently fulcrumed levers, one for each string, provided with dampers normally out of contact with the strings, a bar provided with slots in which said levers are fulcrumed, a series of bars or plates extended transversely across said levers, each bar or plate being adapted to move certain of the other levers so as to throw their dampers into contact with certain strings to mute the same and formed with notches or recesses adapted to receive certain other levers so that said levers may remain in position to hold their dampers out of contact with their respective strings to permit the strings to vibrate, and means for actuating said bars or plates, substantially as and for the purposes described.

8th. In a stringed instrument of the type described, the combination with the strings, of a series of independently fulcrumed levers, one for each string, provided with dampers normally out of contact with the strings, a series of bars or plates extended transversely across said levers, each bar or plate being adapted to move certain levers so as to throw their dampers into contact with certain strings to mute the same and formed with notches or recesses adapted to receive certain other levers so that said levers may remain in position to hold their dampers out of contact with their respective strings, to permit their strings to vibrate, and a series of fulcrumed key-levers connected with said notched or recessed bars or plates, one with each, for moving said bars or plates, substantially as and for the purposes described.

9th. In a stringed instrument of the type described, the combination with the strings, of a series of independently fulcrumed levers, one for each string, provided with dampers normally out of contact with the strings, a series of bars or plates extended transversely across said levers, each bar or plate being adapted to move certain of the levers so as to throw their dampers into contact with certain strings to mute the same and formed with notches or recesses adapted to receive certain other levers so that said levers may remain in position to hold their dampers out of contact with their respective strings, to permit the strings to vibrate, and a series of fulcrumed key-levers arranged in a circle and connected with said notched or recessed bars or plates, one for each, for moving said bars or plates, substantially as and for the purposes described.

10th. In a stringed instrument of the type described, the combination with the strings, of a series of dampers adapted to mute certain strings and to leave other strings free to vibrate, a scale provided with markings or characters to denote the tone of the different strings, keys arranged in a circle and from which motion is transmitted to said dampers to actuate the same, signatures for the various keys indicating the chord produced by actuation of each key, and markings or characters arranged inside of the circle described by the keys, said markings or characters being opposite to the various keys and corresponding with certain of the markings or characters on said scale to indicate the particular strings influenced by the actuation of any particular key, substantially as and for the purposes described.

11th. In a stringed instrument of the type described, the combination with the strings, of a series of independently fulcrumed levers, one for each string, provided with dampers for muting certain strings while other strings are free to vibrate, and the springs for restoring said levers to their normal position after they have been moved therefrom, said springs being loosely looped around their respective levers to form a sliding connection therewith in the movement of the levers, substantially as and for the purposes described.

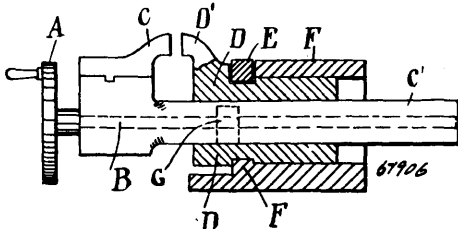
12th. In a stringed instrument of the type described, the combination with the strings, of a series of levers provided with dampers for muting certain strings while other strings are free to vibrate, and elastic or resilient cushions for said levers so as to facilitate the levers yielding to the vibration of the strings when the dampers are in contact with the strings, substantially as and for the purposes described.

13th. In a stringed instrument of the type described, the combination with the strings, of the bridges, one of which is curved inwardly over the sounding board, a metal plate located to bear against the outer side of said bridge, hitch pins passed through said plate, and the tuning pins located in the opposite side of the instrument below the bridge at that side, so as to put the tension on the tuning pin ends of the strings over the edge of the instrument at such an angle as will tend to prevent the pins being loosened by the pull of the strings thereon, substantially as and for the purposes described.

14th. In a stringed instrument

of the type described, the combination with the strings, the sounding board, the base board and the separating rim between the two boards, of the bridges one of which is located over the separating rim in line with the outer edge of the instrument and provided with a metallic outer edge, the tuning pins located in the side of the instrument below the bridge, so as to put the tension on the tuning pin ends of the strings upon the bridge over the separating rim and over the edge of the instrument to prevent jarring of the strings and at such an angle as will tend to prevent the pins being loosened by the pull of the strings thereon, substantially as and for the purposes described.

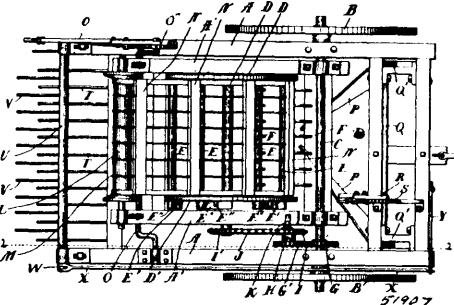
No. 51,906. Vise. (Etau.)



William J. Wanless, Helen F. Coman and Samuel Meister, all of Bay City, Michigan, U.S.A., 9th April, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. In a revolving vise of the character described, the combination of the shaft, threaded and screwed into and through the stationary nut G, the stationary nut G attached to the lower inner surface of the hub F, said nut being adapted to receive the shaft into which it screws, the sleeve C¹ slotted on its lower surface so as to permit it to pass over said nut, said sleeve being partly enclosed in the hub F, the back jaw D¹ swivelled in the hub F, the bolt F¹ passing through an opening in the flange of the hub and back jaw, said bolt threaded and made to engage the nut E¹, substantially as described and for the purposes herein before stated.

No. 51,907. Bean Harvester. (Moissonneuse pour fèves.)



Frank Eugene Brown and John Schler, both of Grand Rapids, assignees of Albert Frederic Fowler, Chauncey, Clarence Winfield Crossman, Chauncey, all of Michigan, U.S.A., 9th April, 1896; 6 years. (Filed 13th March, 1896.)

Claim.—1st. In a bean harvester, the combination of vertically movable posts having racks, inwardly inclined knives and fingers attached to said posts, pinions engaging said racks, a transverse shaft supporting said pinions, a lever on said shaft, having a latch engaging a notched sector, substantially as described.

2nd. In a bean harvester the combination of vertically adjustable and inwardly inclined knives and fingers, an inclined elevator, and a receptacle consisting of fixed and movable bars at the rear of said elevator, and means for periodically opening said receptacle and discharging its contents, substantially as described.

3rd. In a bean harvester, the combination of the knives for severing the vines, the fingers for conducting the vines toward the middle of the machine, the rotating series of fingers for picking said vines up, the carrier upon which the vines are deposited by said last-mentioned fingers, and the basket into which the vines are deposited by the carrier, substantially as described.

4th. In a bean harvester, the combination of vertically adjustable knives for severing the vines, the adjustable rotating fingers for picking said vines up, and the carrier upon which the vines are deposited by the fingers, substantially as described.

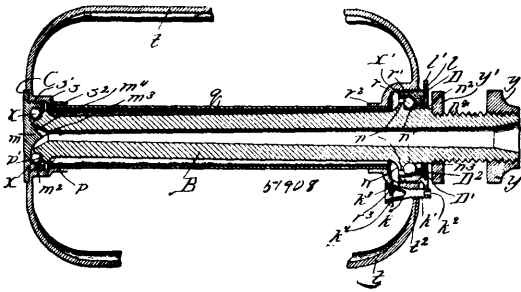
5th. In a bean harvester, the combination of vertically adjustable knives for severing the vines, and the vertically adjustable fingers for conducting the vines toward the middle of the machine with the adjustable rotating fingers for picking said vines up, and the carrier upon which the vines are deposited by said latter fingers, substantially as described.

6th. In a bean harvester, the combination with the carrier, the adjustable carrier frame, the shaft D, having discs near each end, the rock-shafts connecting said discs and the fingers upon said rock-shafts, said fingers being adjusted by adjusting said carrier frame, of adjustable cutting knives, substantially as described.

7th. In a bean harvester, the combination with

vertically adjustable posts, of cutting knives conducting fingers, and guards attached to and adjustable with said posts, substantially as described.

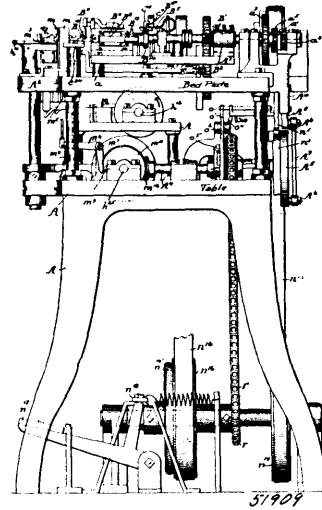
No. 51,908. Ball Bearing. (Coussinet à roulettes.)



George Graham Bradenburg, Chicago, Illinois, U.S.A., 9th April, 1896; 6 years. (Filed 14th March, 1896.)

Claim.—1st. In a ball-bearing, the combination with the shaft and hub surrounding the shaft and the inner bearing surface for the balls upon the shaft, an outer bearing comprising a nut having screw-threads to engage screw-threads in the hub and provided with a peripheral ratchet, a threaded screw-hole and an oiling opening in the hub, and a screw working in said screw-hole across the said oiling-opening and engaging the said ratchet, whereby it closes the said oiling-opening and locks the said nut, substantially as and for the purpose set forth. 2nd. In a ball-bearing, in combination with the shaft and hub surrounding the shaft and the inner-bearing surface for the balls upon the shaft, an outer-bearing comprising a nut having screw-threads to engage screw-threads in the hub and provided with a peripheral ratchet, a threaded screw-hole and an oiling-opening in the hub, a screw *k*, having a hollow flaring end *k*³, and slot *k*⁴, the screw passing through the said screw-hole to engage the said ratchet and lock the nut and extending across the oiling opening, the screw being operative to register at its slot *k*⁴ with the said oiling opening, substantially as and for the purpose described. 3rd. In a ball-bearing, the combination of a shaft provided with a ball-bearing surface, a hub provided with an internal ball-bearing surface, and the interposed balls, the hub having a socket on its inner side about the shaft, extending in a plane at right-angles to the shaft, and a metallic dust-washer fitting closely about the shaft and of less diameter than the base of said socket, and fitting in said socket in a manner to rotate freely and have play therein in the direction at right-angles to the shaft, substantially as and for the purpose set forth. 4th. In a ball-bearing, the combination with the shaft provided with the inner bearing-surface for the balls, of a hub loosely surrounding the shaft and provided with an end socket, an adjustable nut in the said socket, forming an outer bearing for the balls, and provided with an inner circumferential recess, a metallic dust-washer fitting closely upon the shaft and extending loosely into said recess and of less diameter than the recess to have play therein in the direction at right-angles to the shaft, a dove-tailed collar receiving recess in the outer face of the nut, and a chamfered washer retaining collar receiving recess, substantially as and for the purpose set forth. 5th. In a bicycle-pedal, the combination of a crank-pin provided with an inner ball-bearing surface *p*¹, at its outer end and an inner ball-bearing surface *n*¹ toward its opposite end, a pedal-frame having a cylinder *q*, an outer-bearing cup at one end and an internally threaded socket *r*¹ at its opposite ends, balls *X* between said bearing cup and the bearing surface *p*¹, a bearing-nut *D* adjustably secured in the socket *r*¹, balls *x*¹ between the said nut and bearing-surface *n*¹, an inner circumferential shoulder *l*³, and recess *l*³ in the nut, a metallic dust-washer fitting closely upon the crank-pin and extending loosely into the recess *l*³, and of less diameter than said recess to have play therein in the direction at right-angles to the crank-pin, a dove-tailed collar receiving recess in the outer face of the nut, and a chamfered washer-retaining collar fastened in the said collar-receiving recess, substantially as and for the purpose set forth. 6th. In a ball-bearing, the combination with the shaft and hub surrounding the shaft and the inner bearing surface for the balls upon the shaft, of an outer bearing nut *D*, having screw-threads to engage screw-threads in the hub and provided with an inner bearing-shoulder *l*³, recess *l*³, and dove-tailed recess *l*⁴, and a dust-washer in the recess *l*³, and a chamfered washer retaining collar in the dove-tailed recess, the parts being constructed and arranged to operate, substantially as described. 7th. A bicycle pedal comprising a pedal-frame *A*, of comparatively soft metal provided with internally threaded socketed end flanges *r*, *s*, a housing cylinder *q*, extending at opposite ends into and secured to the said socket-flanges, a hard metal bearing-cup *C* externally threaded to fit the socket *s*, a hard metal bearing nut *D*, having screw-threads to engage the threads of the socket-flange *r*, in combination with the crank-pin *B*, provided with ball-bearing surfaces *n*¹ *p*¹, and the balls, all constructed and arranged to operate, substantially as and for the purpose set forth.

No. 51,909. Machine for Providing Lacings with Wire Tips. (Machine pour ferrer les bouts de lacets.)



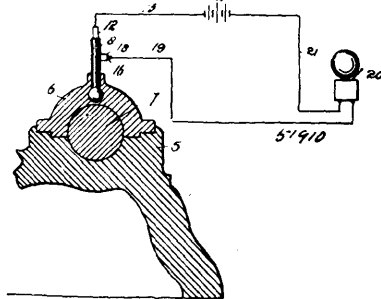
Samuel Lee Pratt, Hingham, Massachusetts, U.S.A., 9th April, 1896; 6 years. (Filed 16th March, 1896.)

Claim.—1st. In a machine for putting tips upon lacings, the following instrumentalities, viz.: a clamp to hold a lacing and devices to put but one end of a tip-forming wire through said lacing in position to be twisted to form a tip, substantially as described. 2nd. In a machine for putting tips upon lacings, the following instrumentalities, viz.: a clamp to hold a lacing, devices to put but one end of a wire through said lacing while held in said clamp, and devices to sever the wire between the lacing and the source of supply of the wire, substantially as described. 3rd. In a machine for putting tips upon lacings, the following instrumentalities, viz.: a clamp to hold a lacing, a wire-feeding device to thrust but one end of a wire through said lacing, a wire-pulling device to engage the end of said wire and draw it further through the lacing, substantially as described. 4th. In a machine for putting tips upon lacings, the following instrumentalities, viz.: a clamp to hold a lacing, and a wire-feeding device to thrust but one end of a wire through said lacing, a wire-pulling device to engage the end of said wire and pull it further through said lacing, and cutting mechanism to sever the wire preparatory to twisting the same to form a tip, substantially as described. 5th. In a machine for putting tips upon lacings, the following instrumentalities, viz.: a clamp to hold a lacing, devices to provide said lacing with a wire of a length to form a tip, and a twisting device to engage the wire at each side of said lacing and twist it to form a tip, substantially as described. 6th. In a machine for putting tips upon lacings, the following instrumentalities, viz.: a clamp to hold a lacing, devices to supply the lacing with a wire, wire-cutting mechanism to sever the wire into proper lengths and a twisting device to operate, substantially as described. 7th. In a machine for putting tips upon lacings, the following instrumentalities, viz.: a lacing clamp, a rotating wire-twisting device, and devices to grasp parts of the tip wire close to each side of the lacing, and devices to separate the twisting device from the said clamp during the operation of twisting said tip about the end of the lacing substantially as described. 8th. In a machine for putting tips upon lacings, the following instrumentalities, viz.: a lacing clamp, a rotating wire-twisting device; devices to change the relative positions of the said clamp, and twisting device during the twisting operation; a wire feeding device to thrust the end of the wire through the lacing, a wire-pulling device to engage the end of the wire thrust through the lacing and draw it from the wire-feeding device, and wire-cutting mechanism, substantially as described. 9th. In a machine for putting tips upon lacings, the following instrumentalities, viz.: a lacing clamp, a rotating wire twisting device, devices to change the relative positions of the said clamp and twisting device during the twisting operation, a wire feeding device to thrust the end of the wire through the lacing, and a wire pulling device having a dog to engage the end of the wire thrust the lacing and draw it from the wire feeding device, combined with a releasing device to effect the release of the dog of the wire pulling device from the wire, substantially as described. 10th. In a machine for putting tips upon lacings, the following instrumentalities, viz.: a clamp, a rotating wire-twisting device, and a bender carried thereby, the bender acting to bend between its extremities the wire held in the clamp for the tip, the said lacing and wire being held firmly during the action of the twisting device, substantially as

described. 11th. In a machine for providing lacings with wire tips, a clamp to hold the lacing, combined with a rotating wire-twisting head having arms provided with holes through which the wire is threaded preparatory to being twisted, substantially as described. 12th. In a machine for providing lacings with wire tips, a clamp to hold the lacing, combined with a rotating wire-twisting device having arms provided with guides or holes through which the wire is threaded, and with a bender to provide the wire with a preliminary bend at its junction with the lacing preparatory to twisting the wire to form a tip, substantially as described. 13th. In a machine for providing lacings with wire tips, a clamp to hold the lacing, and a rotating wire-twisting device composed of two arms pivoted together and adapted to grasp the lacing between them, combined with a device to keep the lacing-holding arms of the twisting device closed while twisting the wire to form a tip, substantially as described. 14th. In a machine for providing lacings with wire tips, a wire-twisting device composed of pivoted movable jaws, and a threaded rotatable spindle carrying said jaws, combined with a threaded nut co-operating with threads of said threaded spindle to effect the reciprocation of said spindle and said twisting-device while the spindle is being rotated, substantially as described. 15th. In a machine for providing lacings with wire tips, a wire twisting device composed of movable jaws pivoted upon an externally threaded spindle, and a relatively stationary nut to embrace the threaded parts of said spindle, combined with means to rotate said spindle first in one and then in the other direction, to operate, substantially as and for the purpose described. 16th. In a machine for providing lacings with wire tips, a wire-twisting device composed of two movable jaws pivoted upon a rotatable spindle, combined with devices carried by said spindle to positively close said jaws upon a lacing during the twisting operation, substantially as described. 17th. In a machine for providing lacings with wire tips, a rotatable and longitudinally movable spindle, and a wire-twisting device composed of movable jaws pivoted thereon, combined with a sliding collar B¹⁴ connected with the said jaws by links, and with a catch to arrest said collar and open said jaws during the longitudinal movement of the spindle in one direction, substantially as described. 18th. In a machine for providing lacings with wire tips, a rotatable and longitudinally movable spindle, a wire-twisting device composed of movable jaws pivoted thereon, having openings for the reception of the wire and a sliding collar B¹⁴ on said spindle, combined with a device to act against one end of said collar and slide the same longitudinally upon or with relation to said spindle to effect the holding together of the jaws of the twisting device, for the purposes set forth. 19th. In a machine for providing lacings with wire tips, a longitudinally movable and rotatable spindle having mounted upon it movable jaws constituting a twisting device, combined with a bender carried by said twisting device, slide bars d⁴ operatively connected to said bender, and devices to actuate said slide bars to operate the bender, substantially as described. 20th. In a machine for providing lacings with wire tips, a lacing clamp to hold a lacing, a rotatable and reciprocable hollow spindle having pivoted upon it jaws to constitute a twisting device, said jaws being grooved at their inner sides, and a bender fitted to slide between the said jaws, combined with devices to reciprocate said bender with relation to said jaws and project said bender from between said jaws into the space between the jaws of the lacing clamp then holding the lacing, said bender bending the tip wire in said clamp preparatory to twisting said wire to form a tip, substantially as described. 21st. The hollow spindle and its attached twisting device having jaws provided with openings B¹⁰ for the reception of the wire, and feeding mechanism to feed a wire through said openings and through the lacing then between the jaws of the twisting device, combined with a plunger to act upon a secant surface carried by said spindle and position the spindle with the openings B¹⁰ in its jaws in line with the wire, substantially as described. 22nd. In a machine for providing lacings with wire tips, a twisting device having holes or openings to receive and guide a wire being threaded through a lacing, combined with a clamp carrier having a plurality of lacing clamps, and with devices to move said carrier to place one and then another of said clamps provided with a lacing opposite the said twisting device, substantially as described. 23rd. In a machine for providing lacings with wire tips, a twisting device to engage a wire threaded into the end of a lacing, and a clamp carrier having a plurality of jaw-like lacing clamps, and devices to move said carrier to place one and then another of said clamps with a lacing opposite said twisting device, combined with devices to automatically close said lacing clamps, substantially as described. 24th. In a machine for providing lacings with wire tips, a twisting device to engage a wire threaded into the end of a lacing, and a clamp carrier having a plurality of jaw-like lacing clamps, and devices to move said carrier to place one and then another of said clamps with a lacing opposite said twisting device, combined with devices to automatically open said lacing clamps, substantially as described. 25th. In a machine for providing lacings with wire tips, a twisting device to engage a wire threaded into the end of a lacing, and a clamp carrier having a plurality of jaw-like lacing clamps and devices to move said carrier to place one and then another of said clamps with a lacing opposite said twisting device, combined with devices to automatically close and open said lacing clamps, substantially as described. 26th. In a machine for providing a lacing with wire tips, a movable carrier having a plurality of lacing clamps, means to move said carrier, and devices to thread a wire through a lacing while held by one of said clamps,

combined with a twisting device adapted to engage said wire and twist the same to form a tip, substantially as described. 27th. In a machine for providing a lacing with a wire tip, a movable carrier having a plurality of lacing clamps, means to move said carrier, devices to thread a wire through a lacing while held by one of said clamps, and a twisting device adapted to engage said wire and twist the same to form a tip, combined with a cutting device to cut the twisted wire tips to uniform length, substantially as described. 28th. In a machine for providing lacings with wire tips, a lacing clamp composed of jaws one of which has a finger or projection to sustain the lacing when the acting ends of the jaws are open, substantially as described. 29th. In a machine for providing lacings with wire tips, a carrier, a lacing clamp mounted thereon and composed of jaws, a wedge bar, and devices to adjust the same, substantially as described, to adapt the clamp to hold lacings of different thickness. 30th. In a machine for providing lacings with wire tips, a carrier, a lacing clamp mounted thereon composed of jaws, combined with devices to positively open and to positively close said jaws, substantially as described. 31st. In a machine for providing lacings with wire tips, a wire-feeding device, a wire-pulling device having a dog to grasp the free end of the wire presented to it by the wire-feeding device, and means to simultaneously move said wire-feeding and wire-pulling devices towards and then away from each other, substantially as described. 32nd. The herein described method of providing lacings with wire tips, which consists in passing the tip-making wire through the lacing near its end, bending the wire sharply close to each side the lacing, to thereby establish the points at which the wire outside the lacing shall commence to twist, and thereafter twisting closely together the wire legs at each side the lacing to form a taper-pointed tip, substantially as shown and described.

No. 51,910. Electrical Indicating Mechanism for Journal Boxes. (Mécanisme indicateur électrique pour coussinets de tourillon.)

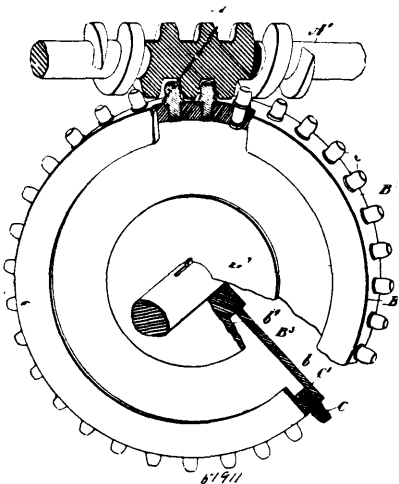


William B. Chockley, Denver, Colorado, U.S.A., 9th April, 1896; 6 years. (Filed 11th September, 1895.)

Claim.—1st. An electric alarm indicator for hot journals, comprising a suitable glass tube containing a heat-expanding and conducting fluid, a cap sealed to the top of said tube, a contact terminal adjustable longitudinally in the tube through said cap, an insulating casing inclosing the lower portion of said tube, an electrode in the bottom of said tube and extending through said casing and in contact with the expanding fluid, a circuit, one wire of which is connected with said cap contact terminal, means for connecting the tube and casing to the journal box or cap, alarm mechanism located in the circuit and means for electrically connecting the fluid in the bottom of the tube with the other circuit wire, substantially as described. 2nd. An electric alarm indicator for heated journals, comprising a suitable glass tube containing a heat-expanding and conductive fluid, a cap sealed to the top of said tube, an adjustable contact terminal in said cap and extending into said tube, an electric source, one pole of which is connected with said contact terminal, a casing partially inclosing said tube, a projection on said casing having a threaded perforation therethrough, a threaded plug fitting said threaded projection and extending into the casing, means for connecting the other pole of the electric source with said plug, a contact pole piece secured in said tube in the path of the expanding fluid and arranged to register with said plug, and suitable indicating or alarm mechanism located in the circuit, substantially as described. 3rd. The combination, with a glass tube arranged and adapted to hold a heat-expanding and conductive fluid, preferably mercury, a cap sealed to the top of said tube, a contact terminal adjustable longitudinally in said cap, a central perforation in the end of said contact terminal, an aperture through the terminal piece into said perforation and a binding screw threaded in the cap to extend through the said aperture into the perforation, as set forth. 4th. The combination, with the journal box and shaft, of a tube having a bulb or enlarged portion at its lower end, mercury in said tube, a cap secured to its upper extremity, a conducting stem threaded to screw through said cap, a hole extending into said stem, a binding screw threaded to screw through said stem into said hole, a non-conducting socket or casing inclosing a portion of said tube, a projection on said socket or casing a contact terminal substantially as shown and extending through said projection into the path of the mercury, a battery circuit wire connected to said terminal, an annunciator also in said circuit and a

perforation through said journal box or cap to the shaft, or similar means for securing the socket and tube in juxtaposition to the shaft, as set forth. 5th. The combination, with the tube having a cap and an adjustable contact terminal, of a non-conductive socket or casing inclosing a portion of said tube, one or more projections on said socket, perforations through said projections an adjustable plug inserted in each perforation and adapted to extend through it, a hole in the plug extremity, a binding screw inserted in said hole, conductive pole pieces located in said tube in the path of the mercury and arranged to register with said contact plugs, and a battery circuit and annunciator apparatus in electric contact with said terminal as set forth. 6th. The combination with the main circuit, of an electro receptive or translating device connected in multiple with said circuit, and means for automatically cutting out the portion of the main circuit between the intersection of the translating-device-circuit with the main circuit and one pole of the battery or other electric source, as soon as the current passes to the said translating-device-circuit, said means consist of an armature normally bridging a break in the main circuit, and an electro-magnet whose coils are in the translating-device-circuit, substantially as described. 7th. The combination with the main circuit, of a number of translating or electro receptive devices connected in multiple with said circuit, and means for breaking the main circuit between one pole of the battery or other source and the circuit of the last translating device to which the current passes, said means consisting of electro-magnets whose coils are interposed in the circuits of their corresponding translating devices, and corresponding translating devices, and corresponding armatures each of which normally bridges a break in the main circuit, substantially as described.

No. 51,911. Worm Gear. (Engrenage à vis.)

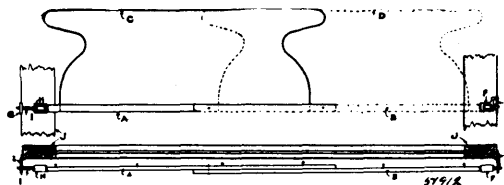


Oliver William Ketchum, Toronto, Ontario, Canada, 9th April, 1896; 6 years. (Filed 16th April, 1894.)

Claim.—1st. A worm and worm wheel the teeth of the worm wheel being comprised of a series of rollers suitably journaled in the rim of the wheel, as and for the purpose specified. 2nd. A worm and worm wheel, the teeth of which are comprised of rollers, C, having shanks, C¹, which are journaled in the ball-bearings c, and c¹, in the rim of the wheel, as and for the purpose specified. 3rd. A worm wheel, the teeth of which are comprised of rollers C, each of the rollers having a shank C¹, of less diameter than the rollers C, and the washer C², for ming a partial seat for the inner ball bearings connected to the shank C¹, by the screw D, and designed to retain the roller and shank in position, as and for the purpose specified. 4th. A worm wheel, the teeth of which are comprised of rollers C, each of the rollers having a shank C, of less diameter than the rollers C, and the washer C², forming a partial seat for the inner ball bearings connected to the shank C¹ by the screw D, designed to retain the roller and shank in position, and the porous washer E, secured by the metal washer F, within the rim so as to cover the annular opening around the bearings of the roller, as and for the purpose specified. 5th. The combination with the form of the worm wheel provided with roller teeth journaled in the rim, as specified, and having the disc web connected to the hub and rim and the inwardly extending flange b, as and for the purpose specified. 6th. The combination of the worm and the worm wheel, having the roller teeth journaled in the rim, as specified, of the casing C, inclosing both the worm and the worm wheel and forming a reservoir for the lubricating oil, as and for the purpose specified. 7th. The combination with the worm and the worm wheel having the roller teeth secured in the rim and otherwise constructed as specified, and the casing G, forming a reservoir for oil and having a lip g, extending into the open face of the worm wheel, as and for the purpose specified.

No. 51,912. Pillow-Sham Holder.

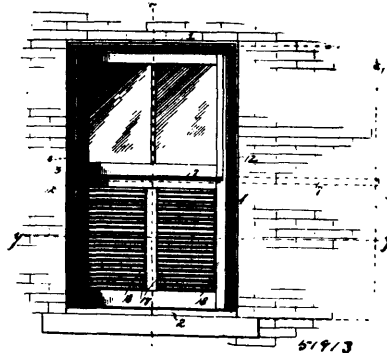
(Porte-garniture d'oreiller.)



John Symons, Montreal, Quebec, Canada, 9th April, 1896; 6 years. (Filed 13th April, 1895.)

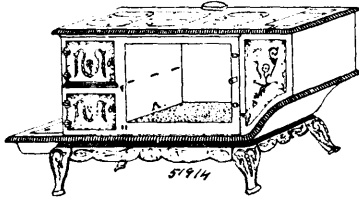
Claim.—1st. In combination with a bedstead, of a pillow-sham holder pivotally mounted upon the head of said bedstead and having its ends terminating in trunnions, a locking device carried by one of such ends and adapted to interlock with a bracket carried by said bedstead. 2nd. In combination with a bedstead having brackets mounted on opposite sides of the head thereof, of a pillow-sham holder having its ends terminating in trunnions of different lengths adapted to take into openings in said brackets, a helical spring encircling the longer of said trunnions and bearing between the end of said holder and the bracket that supports same and a locking device for locking said holder in its upright position. 3rd. In combination with a bedstead having brackets mounted on opposite sides of the head thereof, of a pillow-sham holder having its ends terminating in trunnions of different lengths, adapted to take into openings in said brackets, a helical spring encircling the longer of said trunnions and bearing between the end of said holder and the bracket that supports same, an off-set finger carried by one end of said holder, a shoulder formed upon the edge of the bracket adjacent thereto and said bracket having a slotted opening therein extending in length in the direction of said shoulder, for the purpose set forth. 4th. The combination of a pair of adjustably connected rods A, B, a wire frame projecting laterally from each rod, a pair of trunnions O, M, of different lengths mounted on the free ends of said rods, an off-set finger N formed on the end of the rod B and projecting in a parallel line with the trunnion M; a bracket G¹ secured to one edge of the head of the bedstead and having an opening G therein to receive the end of trunnion O, a helical spring I encircling said trunnion and bearing between the end of the rod A and the bracket G; a bracket E having a vertical slot E¹ therein to receive trunnion M and shoulders K and L on the upper and lower edges therefrom and an off-set finger N adapted to engage the shoulder K, for the purpose set forth.

No. 51,913. Window and Blind. (Fenêtre et store.)



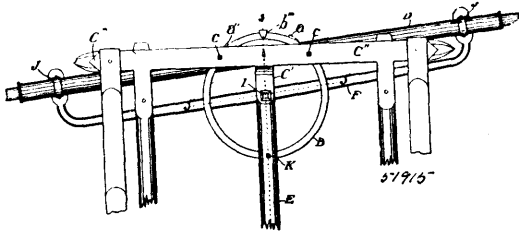
August Sommerfeld, Hermann, Missouri, U.S.A., 10th April, 1896; 6 years. (Filed 14th March, 1896.)

Claim.—1st. A window casing having a lateral extension or pocket in combination with a horizontal supporting and guiding rail located about centrally of the casing, and a pair of horizontally-movable sashes or blinds provided in the contiguous edges of their meeting-rails with grooves corresponding to the cross-sectional shape of and adapted to partially embrace and slide upon said horizontal supporting and guiding rail, substantially as and for the purpose described. 2nd. A window-casing having a lateral extension or pocket, in combination with a horizontal supporting and guiding rail located about centrally of the casing, and a pair of horizontally-movable sashes or blinds provided in the contiguous edges of their meeting-rails with grooves corresponding to the cross-sectional shape of and adapted to fit over and slide upon said horizontal supporting and guiding rail, the said meeting-rails also having an independent tongue-and-groove engagement, substantially as and for the purposes specified. 3rd. A window-casing having a lateral extension or pocket, in combination with a horizontal supporting and guiding rail located about centrally of the casing and removably supported therein, and a pair of horizontally-movable sashes or blinds grooved in their meeting-rails to receive and slide upon said supporting and guiding rail, all arranged substantially as and for the purpose specified.

No. 51,914. Cook Stove and Range. (Poêle de cuisine.)

William Buck, Brantford, Ontario, Canada, 10th April, 1896; 6 years. (Filed 1st February, 1896.)

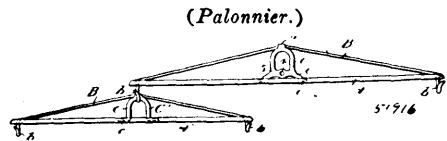
Claim.—1st. The use of stamped corrugated steel or iron plates in the construction of stoves and ranges. 2nd. The use of stamped corrugated steel or iron in cast cookstoves and ranges, as and for the purpose hereinbefore set forth.

No. 51,915. Wheel for Vehicles. (Roue de voiture.)

Thomas George Read, Los Angeles, California, U.S.A., 10th April, 1896; 6 years. (Filed 13th March, 1896.)

Claim.—1st. The combination of the lower circular ring-plate provided in front of its centre with the two countersunk bolt holes, and with the two stops arranged in front of such bolt holes, the upper circular ring-plate provided in front of its centre with countersunk bolt holes and provided in front of such bolt holes and midway between the same with the clip-lug and stop, the head fastened to the upper ring-plate by bolts passed through the bolt holes in such plate, the axle fastened to the lower ring-plate by the bolts passed through the bolt holes in such lower plate, the reach fastened to the head, the bridle-stay fastened at its ends to the axle and projecting rearwardly therefrom and provided at its middle with the king-bolt hole and extending across the lower ring-plate midway between its front and rear and fastened to such ring-plate on opposite sides of the king-bolt hole, the reach keeper-stay fastened to the underside of the reach and provided with the loop embracing the rear of the two ring-plates, and also provided at its front end with the king-bolt hole, the axle keeper-stay fastened to the axle and provided at its rear end with the king-bolt hole, the head keeper-stay fastened to the head and projecting rearward therefrom and provided with the king-bolt hole, and the king-bolt inserted through the reach, the bridle-stay and the bolt-holes of the three keeper-stays. 2nd. The combination set forth of the axle, the reach, the head fastened to the reach, the lower circular ring-plate fastened to the axle with its centre behind the axle, and having in front of the axle two stop-lugs, the upper circular ring-plate fastened to the head in front of its centre, and to the reach behind its centre and provided in front of the head with clip-lug and stop which extends downward in front of and partially embraces the lower ring-plate between the stop-lugs, the bridle-stay fastened to the axle and to the lower ring-plate and provided in its middle with the king-bolt hole, the rear keeper-stay provided with the loop, fastened to the underside of the reach and arranged embracing the two ring-plates at the rear of the centre thereof, and provided with the king-bolt hole, the front axle keeper-stay and the king-bolt inserted through the reach, the bridle-stay and rear and front keeper-stays. 3rd. The combination set forth of the axle, the head and the reach fastened to the axle with its centre behind the axle and having in front of the axle two stop-lugs, the upper circular ring-plate fastened to the head in front of its centre and to reach behind its centre, and provided in front of the head with the clip-lug stop which extends downward in front of and partially embraces the lower ring-plate between the stop-lugs, the bridle-stay fastened to the axle and the lower ring-plate, and provided with the king-bolt hole co-axial with the lower ring-plate, the rear keeper-stay fastened to the reach and provided with the king-bolt hole and with the loop arranged embracing the two ring-plates at the rear of the centre thereof, and the king-bolt inserted through the reach, the bridle-stay and the keeper-stay. 4th. The combination of the circular ring-plate fixed to the axle, and having an arc thereof projecting in front of the axle and provided with two stops one on each side of the middle of such arc; the upper circular ring-plate resting on the lower ring-plate and fixed to the reach and bolster and having an arc thereof projecting in front of the bolster and provided with a clip-lug-and-stop arranged in the middle of such arc to project down in front of and to

embrace the lower ring-plate between the stop-lugs thereof; and the loop fixed to the reach and embracing the two ring-plates diametrically opposite the clip-lug-and-stop.

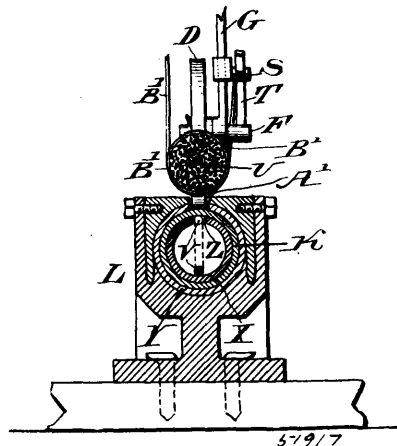
No. 51,916. Double Trees and Whiffle-Trees. (Palonnier.)

Benjamin Bear, Doon, Ontario, Canada, 10th April, 1896; 6 years. (Filed 18th March, 1896.)

Claim.—1st. In a double tree or whiffle-tree, the combination of a channel bar, a truss rod having its ends pass through eyes in the ends of said channel bar and the projecting parts of said ends formed into hooks and a centre piece consisting of legs with flat feet secured upon the inner face of the channel bar and a head having lips between which the truss rod is received and over which they are bent or clinched, substantially as set forth. 2nd. In a double tree or whiffle-tree, the combination of a channel bar, cast end pieces with eyes fitting in and hooking over the ends of said channel bar, a centre piece butting on the inner face of said bar and having lips adapted to receive a truss rod and to be clinched thereon and a truss rod passing over said centre piece and through the end pieces and having its ends upset on the latter, substantially as set forth. 3rd. In a double tree or whiffle-tree, the combination of a channel bar, of a truss rod having its ends secured to said channel bar and a centre piece keeping the centre of the said bar and rod apart and having at its head lips which are bent or clinched around said truss rod, substantially as set forth. 4th. In a centre piece for a trussed double tree, the combination of legs and feet adapted to abut on the front bar, a head having lips adapted to receive the truss rod and over which they may be bent or clinched and a central hub with eye between and connected with said legs, substantially as set forth.

No. 51,917. Electric Railway. (Chemin de fer électrique.)

(Chemin de fer électrique.)

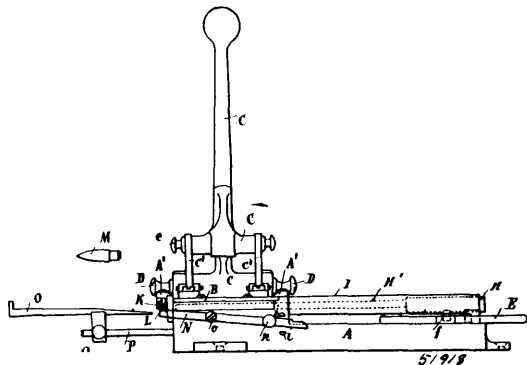


William Burrage Purvis and Mylert M. Armstrong, both of Philadelphia, Pennsylvania, U.S.A., 10th April, 1896; 6 years. (Filed 2nd May, 1895.)

Claim.—1st. A tube composed of insulated sections, inside and outside tubes formed of non-conducting material and slotted, and a loose electric wire within said inside tube, said parts being combined substantially as described. 2nd. A car with hangers, axles mounted on rods guided in said hangers, springs on said rods, wheels on said axles, a bar carrying brushes contacting with said axles, and a magnet on said bar, said parts being combined substantially as described. 3rd. A car, the spring-controlled wheels E and F, supported by said car, the cross-bar S, the electro-magnet U, suspended from said bar, the motor C, and the wires B¹ and B², said parts being combined substantially as described. 4th. A car with hangers, a motor on said car, spring-controlled wheels depending from said car, an electro-magnet suspended from said car, a switch-board and wires substantially as described connecting said magnet, motor and switch-board, said parts being combined substantially as described. 5th. A car provided with the motor C, the switch-board W, the bar S, the magnet U, the wire B¹, leading from the bar S to the magnet and switch-board W, the wire B², leading from said switch-board to said motor, and the wire P² leading from a battery to said magnet, substantially as described. 6th. A car provided with the motor

C, the switch-board W¹, the wire C², the wire B¹, connected with said wire C², and the wire D² leading from said switch-board to said motor, a magnet, wheels on said cars, a bar connected with the bearings of said wheels, and brushes on said bearings, in combination with a conduit having a tube with which said wheels are in contact, and a raising and lowering electric conductor in said tube, substantially as described. 7th. A car provided with the wheels D, E, the bar S connecting the bearings of said wheels, the brushes T on said bar, contacting with the studs F of said bearings, the wire B¹, a magnet which is connected with said wire and said bar, and a motor in combination with a conduit tube and an electric conductor therein, said tube being exposed to said wheels D and E, substantially as described.

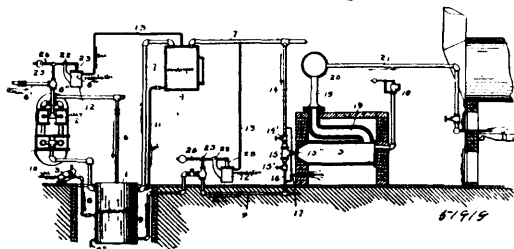
No. 51,918. Machine for Filling Cigarette Paper Tubes. (*Machine pour remplir les tubes en papier pour cigarettes.*)



Antony Bruandet, assignee of Louis Jean Baptiste Duployer, both of Paris, France, 10th April, 1896; 6 years. (Filed 17th June, 1895.)

Claim.—1st. The combination with a frame of a plate B, having a concave edge adapted to slide in said frame, a fixed counter plate B¹, having also a concave edge, a lever C, pivoted to the frame, and bars C¹, connecting lever C, to plate B, substantially as described. 2nd. The combination with a plate B¹, a movable plate B, and means for causing said plates to approach and recede from each other, of a piston H, guided longitudinally parallel to the edges of plates B, B¹, having an extension H¹, adapted to enter and slide between plates B, B¹, and means for moving said piston in the manner and for the purposes specified. 3rd. The combination with plates B, B¹, having concave edges, and piston H, with extension H¹, of a concave blade J, in prolongation of piston extension H¹, for the purpose set forth. 4th. The combination with levers C and E, bars C¹, plates B, B¹, and piston H, with extension H¹, of a tube K, a spring L, adapted to press on said tube, and lever N, adapted to be depressed by lever E, and to lift said spring for the purposes described.

No. 51,919. Manufacture of Gas. (*Fabrication du gaz.*)

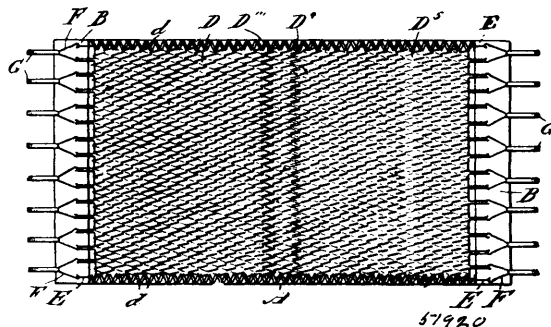


George Henry Harvey, Pittsburg, Pennsylvania, and Samuel M. Darsagh, Wheeling, West Virginia, both in the U.S.A., 10th April, 1896; 6 years. (Filed 2nd December, 1895.)

Claim.—1st. The art of making gas from oil which consists in carbureting air, conveying it under pressure to a mixing device, conveying oil to said mixer by means of pressure in the carbureter, spraying the oil by the pressure of the carburetted air into a heated retort, the previously carburetted air being used to inject and atomize the residual oil from the carbureter and conveying the cooked vapors to a main or the like, substantially as set forth. 2nd. The combination of the carbureting oil tank, a device for mixing carburetted air and oil, a retort, means for forcing air through said tank, said means being adapted to force the carburetted air through pipes to the mixing device and thence to the retort and also to force residual oil from the carbureter tank to said mixing device and retort, means for heating the retort, and a gas main or the like, substantially as set forth. 3rd. The combination of the carbureting oil tank, a device for mixing carburetted air and oil, a retort, devices for maintaining a constant level of oil in said tank, means for forcing air there-

through, said means being adapted to force the carburetted air through pipes to the mixing device and thence to the retort and also to force residual oil from the carbureter tank to said mixing device and retort means for heating the retort and a gas main or the like, substantially as set forth. 4th. The combination of the carbureting oil tank, a device for mixing carburetted air and oil, a retort, means for forcing air through said tank, said means being adapted to force the carburetted air through pipes to the mixing device and thence to the retort and also to force residual oil from the carbureter tank to said mixing device and retort, a regulator operated by the pressure in the carburetted air pipes and connections and adapted to control the air-forcing apparatus to limit such pressure, and devices adapted to cut off the oil supply to the retort when the pressure in the carbureter tank and communicating pipes falls below that predetermined whereby oil is positively cut off from the retort, means for heating the retort and a gas main or the like, substantially as set forth. 5th. The combination of the oil tank, means for forcing air therethrough and thence through pipes to a retort, said means being adapted to force residual oil from the tank to the same retort, an air and oil mixing device, said retort, and a compression and condensation chamber communicating with the pipes for carburetted air, substantially as set forth.

No. 51,920. Spring Mattress. (*Sommier à ressort.*)



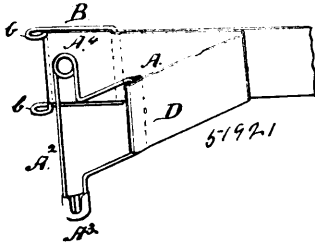
Adelbert Henry Gale, Waterville, Quebec, Canada, 10th April, 1896; 6 years. (Filed 19th September, 1895.)

Claim.—1st. In a spring mattress, the combination of a pair of side rails, a bracket secured to one end of each side rail adapted to carry a stationary end or cross-rail, a bracket secured to the other end of each side rail adapted to carry an end or cross-rail adjustably, an end or cross-rail secured to each pair of said brackets, a series of end springs secured to each end or cross-rail having their upper end above the upper surface and approximately even with the outer edge of said end rails so as to have a vertical and horizontal motion and adapted to engage and hold directly or indirectly the end coil of a woven wire fabric consisting of coils running transversely from side to side and having their ends caught in longitudinal coils and the end coils of which are directly or indirectly secured to the end springs, substantially as set forth. 2nd. In a spring mattress, the combination of a pair of side rails and a pair of end or cross-rails secured thereto by means of brackets and forming a rectangular frame therewith, brackets secured to the ends of the side rails and carrying said cross-rails and each consisting of a bearing surface raised above the upper surface of the side rail and having one leg extended down the end of said side rail and another short leg with a flat foot secured to the upper surface of said side rail, a sliding piece fitted to the underside of each of one pair of said brackets carrying one of the cross-rails each turned up and projecting through a slot in said bearing surface and having a head above said bearing surface forming an abutment for the cross-rail which is bolted to the tail end of said sliding piece through another slot in said bearing surface, and an adjusting screw-threaded in the short end of said bracket and bearing against said sliding piece, substantially as set forth. 3rd. In a bracket for spring mattresses adapted to carry the end rail adjustably, the combination of a bearing surface raised above the surface to which it is to be secured, a leg extending down the end of the rail to which it is to be secured, a short end extending to the upper surface of said rail and provided with a flat foot bearing upon said surface and adapted to be secured thereto, two slots in said bearing surface, a sliding piece on the underside of said bearing surface having an upturned neck projecting through the slot near the short end of said bracket and having a projecting head forming an abutment for the cross-rail end, a tail end with a bolt hole under the other slot through which the bolt securing the cross-rail passes, a perforated and threaded hub on the short end of the bracket and an adjusting bolt passing through said threaded hub and bearing against the end of said sliding piece, substantially as set forth. 4th. In a woven wire fabric for a spring mattress, the combination of coiled wires running transversely from side to side each convolution of one coil interlocking with a convolution coil and a longitudinal coil of multiple wires at each side taking up the ends of the transverse coils, substantially as set forth. 5th. In a woven wire spring mattress, the combination of a woven wire fabric composed of interlocked coiled wires running transversely or from side to side, a longitudinal multiple wire coil taking up the

ends of the coils, a series of end springs approximately C-shaped holding the end coils, hooks interposed between said end springs and end coils, and each passing through several convolutions and end rails suitably supported to which said end springs are secured to support said fabric above their surface, substantially as set forth. 6th. In a woven wire fabric for mattresses, the combination of uniform transverse coils each convolution of which interlocks with a convolution of each adjacent coil, interposed coils of greater or lesser thickness or increased or diminished strength, and a multiple wire longitudinal coil at each side taking up the ends of the transverse coils, substantially as set forth.

No. 51,921. Garment Supporter and Fastener.

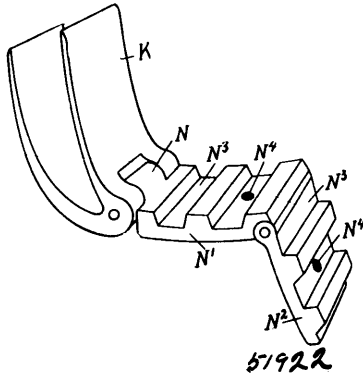
(Support et attache de vêtement.)



Agnes Ernestine Harris, New York, New York, U.S.A., 10th April, 1896; 6 years. (Filed 21st October, 1895.)

Claim.—1st. A garment fastener and supporter consisting of a pin and eye or eyes complementary thereto, substantially as and for the purpose herein set forth. 2nd. A separable supporter for garments or like articles consisting of a safety pin and a frame bearing one or more eyes through which eye or eyes, the pin passes and is lodged when in use, substantially as and for the purpose herein set forth. 3rd. In a garment fastener and supporter the combination of a safety pin provided with a preferably rectangular frame forming an integral portion thereof, and a preferably rectangular frame having one or more eyes integral therewith, said eye or eyes adapted to admit of the puncturing portion of the safety pin passing through and lodging adjustably therein, substantially as and for the purpose herein set forth.

No. 51,922. Adjustable Collar. (Collier.)

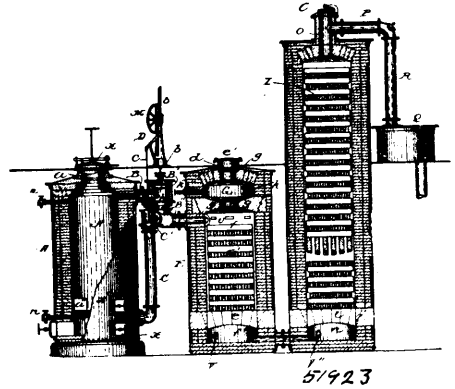


Joseph Atkinson, Florence, Ontario, Canada, 10th April, 1896; 6 years. (Filed 25th October, 1895.)

Claim.—1st. The adjustable block E, in combination with the body sides A, A, and means for firmly holding the parts at the position to which they may be adjusted, substantially as and for the purpose set forth. 2nd. The adjustable block E, in combination with the body sides A, A, one of which is formed with the tongues or tenons G, G, and the other with the grooves or mortises H, H, substantially as and for the purpose set forth. 3rd. In an adjustable collar, the block E, formed in three sections e¹, e², e³, substantially as and for the purpose set forth. 4th. The adjustable block E, formed in three sections e¹, e², e³, and with the tongues or tenons G, G, and the pins I, in combination with the body sides A, A, in which the grooves or recesses H, H, are formed, the clasps J, J, and bolt F, substantially as and for the purpose set forth. 5th. The couplings N, M, one of which is formed in two parts N¹, N², hinged or pivotally secured together, and the other of which is formed with side flanges M¹, and with the elongated slots M², and each formed with alternate corresponding projections and recesses N³ and M³, respectively, and means for holding the couplings at the position to which they are adjusted, in combination with the straps K, K, and body sides A, A, substantially as and for the purpose set forth. 6th. The couplings N, M, one of which is formed in two parts N¹, N², hinged or pivotally secured together, and the other of which is formed with side flanges M¹, and with elongated slots M², and each formed with alternate corresponding projections

and recesses N³, and M³, respectively, the eye bolts L, pins O, and eccentric clamps T, in combination with the strap K, K, and the body sides A, A, substantially as and for purpose set forth. 7th. The adjustable bow or block E, the body sides A, A, and hames B, in combination with the straps K, couplings M, N, eye bolts L, pins O, and eccentric clamps T, substantially as and for the purpose set forth.

No. 51,923. Water-Gas Apparatus. (Générateur à gaz.)

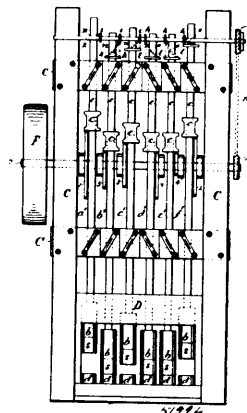


Olaf Nicalaus Guldlin, Fort Wayne, Indiana, U.S.A., 10th April, 1896; 6 years. (Filed 11th November, 1895.)

Claim.—1st. The combination with a water-gas generator, of a carbureting and fixing chamber, having a separate oil vapourizing chamber at the top, free from checker-brick and provided with a lateral oil atomizing or spraying device and a solid annular floor or hearth having a central opening, communicating with the fixing chamber below, a combustion chamber below said vapourizing chamber and above the fixing chamber, a pipe for gas leading from the generator, and a separate air inlet pipe, both connecting with said combustion chamber, whereby the atomizing device will be protected from excessive heat and whereby the oil vapour or gas passing down through said central opening will be enveloped by the current of inflowing water gas and intimately mixed therewith, thereby preventing the hydro-carbon vapours from being destructively decomposed by excessive heat of the brick work, substantially as described. 2nd. In a water-gas apparatus, the carbureting and fixing chamber constructed with a separate oil vapourizing and heating chamber having an inclined floor or hearth and an opening into the fixing chamber below, and one or more oil supply pipes or injectors in the circumferential wall, in combination with a gas inlet pipe connecting with the fixing chamber below said vapourizing chamber, substantially as described. 3rd. The combination with a water-gas generator, of a carbureting and fixing chamber containing a separate oil vapourizing chamber at the top, free from checker-brick and provided with a lateral atomizer or supply pipe and a solid annular hearth having a central opening communicating with the fixing chamber below, a combustion chamber below said vapourizing chamber and above the fixing chamber, a pipe for gas leading from the generator, and a separate air inlet pipe both connecting with said combustion chamber, a separate super-heater, as L, and a pipe connecting the base of the carbureting and fixing chamber with the base of said super-heater, substantially as described.

No. 51,924. Stone and Ore Crusher. (Machine à broyer.)

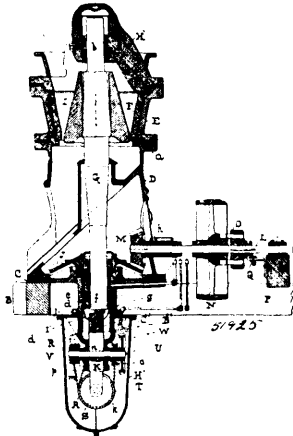
(Machine à broyer.)



George W. Stuart, Truro, Nova Scotia, 10th April, 1896; 6 years. (Filed 4th December, 1895.)

Claim.—1st. A stone and ore crusher of the class herein described, comprising upright stamps, having a vertical sliding motion, and at the same time a positive and continuous rotary motion, substantially as and for the purpose herein described and set forth. 2nd. A stone and ore crusher of the class herein described, comprising upright stamps, having a vertical sliding motion, and also having a positive and continuous rotary motion of a part of the stamps in one direction, and having a positive and continuous rotary motion of the remainder of the stamps in an opposite direction, substantially as and for the purpose hereinbefore described. 3rd. A stone and ore crusher of the class herein described, comprising upright stamps, having a vertical sliding motion, and also having a positive and continuous rotary motion of a part of the stamps in one direction, and having a positive and continuous rotary motion of the remainder of the stamps in an opposite direction, and having cams so placed on the cam shaft that the rotary motion imparted by them to the stamps while in contact with each other, will correspond with the positive rotary motion of the stamps, substantially as and for the purpose hereinbefore described. 4th. In a stone and ore crusher of the class herein described, the combination of the cam *l*, with the stam *a*¹, the cam 2, with the stam *f*¹, the cam 3, with the stam *e*¹, the cam 4, with the stam *e*¹, the cam 5, with the stam *b*¹, and the cam 6, with the stam *d*¹, substantially as and for the purpose hereinbefore described. 5th. In a stone and ore crusher of the class herein described, the combination of the cam shaft *E*, the sprocket-wheel *f*, the sprocket-chain *m*, the sprocket-wheel *g*, the clutch *a*, and the counter shaft *p*, with the sprocket-wheels *i i i*, *h h h*, the sprocket-chains *n n n*, *o o o*, the sprocket-wheels *k k k*, *l l l*, and the stamps *a*¹, *b*¹, *e*¹, *d*¹, *e*¹, *f*¹, all substantially as and for the purpose hereinbefore set forth and described.

No. 51,925. Crushing Mill. (Moulin à broyer.)

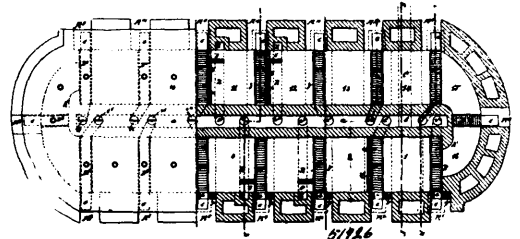


John Walker, Chicago, Illinois, U.S.A., 10th April, 1896; 6 years. (Filed 13th December, 1895.)

Claim.—1st. In a crushing mill, the gyratory spindle carrying the crusher head, combined with a supporting shaft for the spindle, sheave mechanism attached to the lower end of the supporting shaft, a chain to sustain the sheave mechanism, and devices to wind and unwind the said chain so as to practically shorten and lengthen it and thereby raise and lower the crusher head, substantially as specified. 2nd. In a crushing mill, the gyratory spindle carrying the crusher head, combined with a supporting shaft, a pair of sheaves attached to the lower end of the supporting shaft, a looped chain to sustain the sheaves, and mechanism to wind and unwind the chain and thereby raise and lower the crusher head, substantially as specified. 3rd. In a crushing mill, the gyratory spindle carrying the crusher head, combined with a non-revoluble shaft having a transverse slot therein, a shaft which passes loosely through the said slot having at one end a winding drum, and at the other a loose-grooved sheave and a worm wheel, a shaft carrying a worm in gear with the worm wheel, a shaft at the lower end of the supporting shaft having grooved wheels, a chain attached at one end to the winding drum and at the other to some stationary part of the mill, with its intermediate portion or loop passes under the grooved wheels and over the grooved sheave, and means to revolve the said worm shaft, and thereby raise or lower the said gyratory spindle, substantially as specified. 4th. In a crushing mill, the gyratory spindle carrying the crusher head, combined with a supporting shaft, a pair of sheaves attached to the lower end of the supporting shaft, a looped chain to sustain the sheaves, mechanism to wind and unwind the chain and thereby raise and lower the crusher head, and hood which incloses the sheaves chain and winding mechanism, substantially as specified. 5th. In a crushing mill, a supporting shaft for the gyratory spindle having a transverse slot and provided at its lower end with a pair of wheels, a suitably supported revoluble

shaft extending through the transverse slot of the supporting shaft having at one end a winding drum and at the other a loose sheave, mechanism to revolve the said revoluble shaft, and a chain rove under the wheels and over the sheave and with one end attached to the said winding drum and the other to some fixed part of the mill, substantially as specified. 6th. A sustaining shaft for the spindle of a crushing mill having a removable head piece, combined with an oil pan, the bottom of which is confined between the sustaining shaft proper and the head piece, substantially as specified.

No. 51,926. Kiln for Burning Earthenware. (Four pour cuire de la poterie.)



Charles Dubois D'Eughieu, and Silvani Dubois D'Eughieu, Henneres, Belgium, 10th April, 1896; 6 years. (Filed 14th November, 1895.)

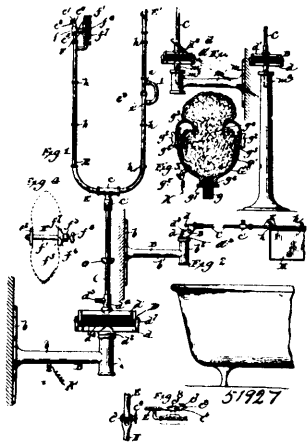
Claim.—1st. A continuous firing kiln comprising a plurality of compartments of suitable dimensions, separated by a fire grate, a smoke flue leading from the compartments and placed between the two galleries of the kiln the opening *e*, the sheet iron plate *f*, the ash pit *C*, which acts as a conduit, the opening *h* and the damper *i* as shown and for the purpose specified. 2nd. A continuous firing kiln comprising a plurality of compartments of suitable dimensions, separated by a fire grate, the draught and smoke chamber placed between the two galleries of the kiln into which the gasses are drawn from the exterior side of the kiln by an opening *J* formed by a small wall *D* and a fire clay slab *D*¹, passageway *K*, conduit *R* and the damper *i* as specified. 3rd. A continuous firing kiln comprising a plurality of compartments of suitable dimensions including two galleries united at each end by a circular compartment occupying at its point of departure the whole width of one gallery and contracted where it opens into the other gallery, the circular compartment being divided into two or more divisional compartments, and a draught flue of required size for the compartments. 4th. A continuous firing kiln comprising a plurality of compartments of suitable dimensions, having two parallel galleries divided into compartments rectangular and circular, the draught opening *J* formed by a little wall *D* and a fire clay slab, the passageway *V*¹ provided with end damper *Z*, the conduit *X* and the principal smoke flue *Y*. 5th. A continuous firing kiln comprising a plurality of compartments of suitable dimensions having two parallel galleries divided into compartments separated by a fire grate, the draught of these compartments being made from the exterior side of the opening *e*, the passageway *V*¹ the sheet-iron plate *f*, the conduit *X*, and the smoke flue *Y*. 6th. A continuous firing kiln comprising a plurality of compartments separated by a fire grate the draught of these chambers being made from the exterior side by the spaces between the grate bars, the conduit *d*, the damper *l* and the conduit *Y*. 7th. An intermittent firing kiln formed of two galleries divided into a plurality of compartments of suitable dimensions corresponding to the continuous firing kiln. 8th. An intermittent firing kiln forming but one gallery divided into a plurality of compartments of suitable dimensions, draught flues for the compartments, the first compartment being provided with no draught flue and the draught being made in the last by a flue parting from the centre of the end wall. 9th. An intermittent firing kiln with but one gallery having its first compartment provided with no draught flue, as and for the purpose specified. 10th. A continuous or intermittent firing kiln divided into compartments between which is formed a fire grate opposite to each doorway of the kiln, an opening to receive the fuel formed in the base of the wall and closing the doorway of the kiln, and a door divided into two parts for closing the opening, as and for the purpose specified. 11th. A continuous or intermittent firing kiln divided into compartments, between which is situated a fire grate formed of the equal series of grate bars those of each series being spaced apart in the proportions specified.

No. 51,927. Bath Apparatus. (Appareil de bain.)

Michael John Lyons and Levi Beemer, both of Duluth, Minnesota, U.S.A., 10th April, 1896; 6 years. (Filed 17th December, 1895.)

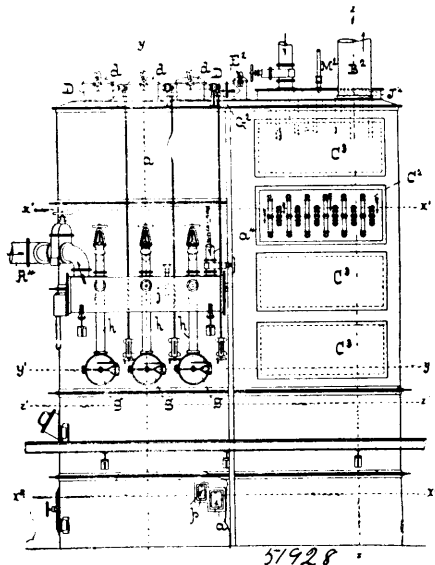
Claim.—1st. In a bath brush apparatus, the combination of a suitable support, a hollow lever pivotally mounted on the same and having suitable water inlet and spray outlets, a scrubbing device mounted on said lever, and a handle for operating said lever, substantially as described. 2nd. In a bath brush apparatus, the combination of a suitable support, a hollow lever pivotally mounted on

the same and having a water inlet, suitable spray outlets, and an automatic supply and cut-off valve, and a scrubbing device mounted on said lever and a handle for operating said lever, substantially as described. 3rd. In a bath brush apparatus, the combination of a



suitable support, a hollow lever pivotally mounted on the same and having a water inlet and suitable spray outlets, a scrubbing device mounted on said lever and a handle for operating said lever and an electric supply having connection with the scrubbing device and said lever, substantially as described. 4th. In a bath brush apparatus, the combination of a suitable support, a hollow lever pivotally mounted on the same, and having a water supply inlet and suitable spray outlets directly to the brush or sponge, and to the human body, a spring connecting said support and said lever, whereby the latter moves under spring tension, a scrubbing device holder constructed to admit water directly to the brush, and an operating handle on said lever, substantially as described. 5th. In a bath brush apparatus, the combination of a suitable support, a hollow lever pivotally mounted on the same and having a suitable water inlet and suitable spray outlets, a spring connecting said support and said lever, whereby the latter moves under spring tension, a scrubbing device and an operating handle on said lever, and an electric supply having connection with the scrubbing device and said lever, substantially as described. 6th. In a bath brush apparatus, the combination of a suitable support, a hollow lever pivoted thereon and having a water inlet, a hollow perforated yoke connected to said lever and an operating handle on one arm and a scrubbing device on the other arm of said yoke, substantially as described. 7th. In a bath brush apparatus, the combination of a suitable support, a hollow lever pivoted thereon and having a water inlet, a hollow perforated yoke connected to said lever, and an operating handle on one arm and a scrubbing device on the other arm of said yoke, and an electric supply having connection with the scrubbing device and said lever, substantially as described. 8th. In a bath brush apparatus, the combination with a suitable support, a hollow lever provided with a spring hinge, and a water inlet, a stem on said hinge engaging said support so that said apparatus has a swivel action on said support, a hollow perforated yoke connected to said lever, and an operating handle on one end and a scrubbing device on the other end of said yoke, substantially as described. 9th. In a bath brush apparatus, the combination with a suitable support, of a lever pivotally mounted thereon, a yoke on said lever, an operating handle on one end of said yoke, a detachable sponge cup adapted to be attached to the other end of said yoke, and consisting of a cup having an attaching stud and an apertured detachable cover adapted to be secured in position on the top of said cup, substantially as described. 10th. In a bath brush apparatus, the combination with a suitable support, of a lever pivotally mounted thereon, a yoke on said lever, an operating handle on one end of said yoke, and a brush clamp adapted to be secured to the opposite end of said yoke, and consisting of a clamping yoke having an attaching stud, a stationary clamp block and an adjustable clamp block, substantially as described. 11th. In a bath brush apparatus, the combination of a suitable support, a spring hinge having swivel connection with the said support, a hollow lever connected to said hinge and provided with a water inlet, a hollow perforated yoke connected to said lever, pendent aprons on each side of said yoke, and a scrubbing device and operating handle on the arm of said yoke, substantially as described. 12th. In a bath brush apparatus, the combination of a suitable support, a lever pivotally mounted thereon, a yoke on said lever, an operating handle on one end of said yoke, a detachable sponge cup having an insulating stud and adapted to be attached to the other end of said yoke, and an electric supply having connection with the scrubbing device and said handle, substantially as described.

No. 51,928. Apparatus for the Manufacture of Oil-Gas. (*Appareil pour la fabrication de gaz à huile.*)



Frederick Mayer, Baltimore, Maryland, U.S.A., 10th April, 1896; 6 years. (Filed 13th December, 1895.)

Claim.—1st. In an apparatus for carbureting water gas, the combination of a retort chamber containing a series of vertical retorts, a furnace situated under the retort chamber and separated from it by a perforated arch, a body of brickwork in the rear of the furnace having circuitous passages therein through which the products of combustion from the retort chamber pass to heat it, a vapourizing chamber erected over the said brick work having circuitous passages therein, which form a continuation of those in the said brick work, and which lead finally to a stack, gangs of vapourizing pipe which are partially or wholly within the said vapourizing chamber, leading ultimately to the upper ends of the retorts, to convey hydro-carbon vapours from the top of the vapourizing chamber to the top of the retorts, substantially as specified. 2nd. In an apparatus for carbureting water-gas, a furnace covered by a perforated arch, combined with a retort chamber erected over the said arch, a system of vertical retorts situated in the said retort chamber, having wings which are cut away at certain points to give continuity to the various spaces exterior of the retorts and between them and the brickwork of the retort chamber, and plates which form partitions in the retort chamber, between the rows of retorts therein, provided with spaces or openings through which the products of combustion ascend to the upper portion of the retort chamber, substantially as specified. 3rd. In an apparatus for carbureting water-gas, the combination of a vapourizing chamber, and a series of vapourizing pipes within the said chamber with their ends projecting from it, a box to which the ends of the said vapourizing pipes are connected, a supply pipe supported within the said box having knife-edged, or conducting plates, the points of which are over the ends of the said pipes, and overflow apparatus, and a pipe for conducting hydro-carbon to the said supply pipes, substantially as specified. 4th. In an apparatus for carbureting water-gas, the combination of a series of vapourizing pipes connected to a box at their ends, a supply pipe in the said box having knife-edged or triangular plates on its lower side with the points over the ends of the said vapourizing pipes, a conveying pipe to feed the supply pipe, and sustaining bolts which pass through stuffing boxes in the top of the said box, and are adjustable in length whereby the said supply pipe may be levelled in the said box without reference to its position, substantially as specified.

No. 51,929. Ladies' Cycling Skirt.

(*Jupe pour dames bicyclistes.*)

Alice Louisa Bygrave, Brixton, Surrey, England, 10th April, 1896; 6 years. (Filed 18th December, 1895.)

Claim.—In combination with the skirt, the elevating cord attached at the centre of the front lower edge, the clip at the top and



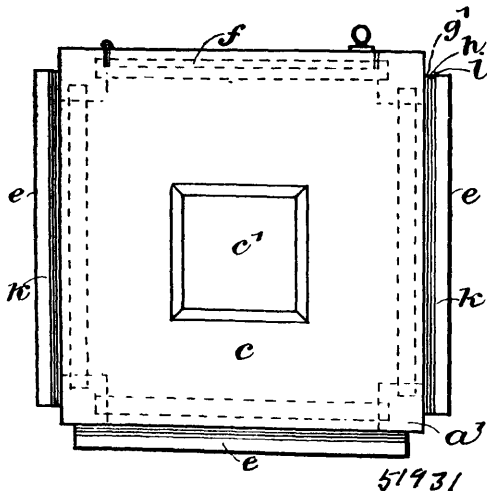
centre of the skirt, the double cord attached at the centre of the back and extending up and around the hips towards the front and the clips for holding the free ends of the double cord, said clips being over the hips, substantially as described.

No. 51,930. Process of Treating and Desulphurizing Petroleum Distillates. (*Procédé pour le traitement et désulfuration de distillates de pétrole.*)

Otto Paul Amend, New York, and Josiah Henry Macy, Harrison, both in New York, U.S.A., 10th April, 1896; 6 years.

Claim.—The process of eliminating sulphur or organic sulphur compounds from petroleum oil or distillate which consists in subjecting the oil or distillate containing sulphur or organic sulphur compounds to the action of an oxide or hydrate of an alkali or alkaline earth or to a combination of both oxide and hydrate by bringing the same in contact with each with the other and agitating them or one of them, in heating the oil or distillate and the contents thereof, in affecting the dehydration of the oil or distillate by introducing therein and agitating therewith one or more dehydrating agents, terra alba (oxide of alumina), calcium oxide or hydrate or other dehydrating agent, but preferably one that will combine with sulphur, thus precipitating the new sulphur compounds which are formed by the action of the alkali or alkaline earth upon the sulphur or organic sulphur compounds in the oil and then separating the oil or distillate from the precipitate, substantially as described.

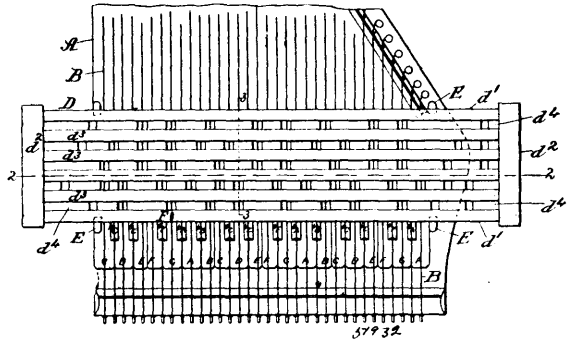
No. 51,931. Cool Safe and Cool Storage. (*Réfrigérateurur.*)



James Goddard Lamb, Wellington, New Zealand, 10th April, 1896; 6 years.

Claim.—1st. The combination to form a cool safe or store of a reservoir supplying liquid to evaporating walls or panels, such as described. 2nd. A cool safe or store having walls made of metal with canvas and material with extended surface stretched at the exterior of the metal and supplied with liquid to cool the metal by evaporation. 3rd. An evaporating panel for stores, safes, vans, trucks or chambers consisting of a quickly conducting metal plate with material on the outside to evaporate liquid and cool the interior, substantially as described. 4th. A safe, store or van with walls of evaporating panels supplied with liquid through pipes from a tank on the top of the safe store or van, as and for the purposes substantially as described.

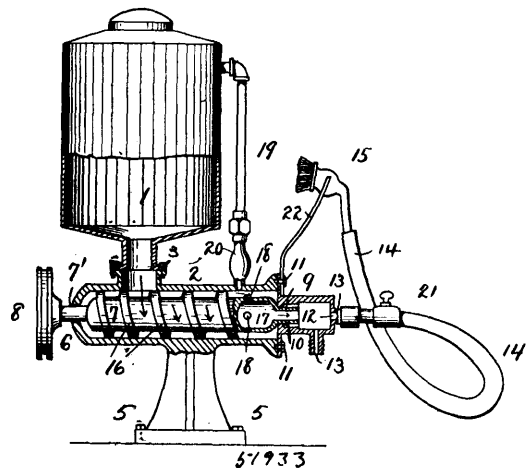
No. 51,932. Attachment for Stringed Instruments. (*Attache pour instruments à cordes.*)



Flagg Manufacturing Company, Portland, Maine, assignee of John Cornelius St. John, Boston, Massachusetts, both in the U.S.A., 11th April, 1896; 6 years. (Filed 26th December 1895.)

Claim.—1st. In combination a stringed instrument, a bridge extending above and across the strings of the instrument and having a series of parallel rows of openings to expose certain strings, and supports for the bridge, substantially as shown and described. 2nd. In combination a stringed instrument, a bridge extending above and across the strings of the instrument and consisting of a series of parallel ribs secured together at their ends, supports for that bridge and a plurality of damping strips of resilient material, attached by one edge to one of the parallel ribs and pierced at suitable intervals by openings to uncover certain strings, substantially as described. 3rd. A bridge for stringed instruments composed of end pieces and a series of parallel ribs each made of sheet metal doubled upon itself and strips of resilient material held and supported by said doubled over ribs, the resilient material being pierced by opening at suitable intervals to expose the strings of the instrument, substantially as described. 4th. The bridge for stringed instruments above described, consisting of a bridge carrying a plurality of rows of keys, each key consisting of a hammer extending below the bridge, and a finger piece projecting above the bridge, and each provided with a spring by which is held normally above and clear of its string in a position to strike a blow on its string when moved on its axis through the finger piece against the force of its spring and the released, substantially as described. 5th. The key G composed of a hammer and a finger piece, notched as shown, in combination with the spring strip g', substantially as described.

No. 51,933. Cementing Apparatus. (*Appareil à cimenter.*)



Harry Monroe Cushing, Henry F. Browne, John Stowell, all of Freeport, Maine, and John B. Emery, Lynn, Massachusetts,

all in the U.S.A., 11th April, 1896; 6 years. (Filed 28th December, 1895.)

Claim.—1st. A cementer comprising a cement tank communicating with a chamber having a revoluble worm-feeding mechanism, conduit from the said chamber with an applying brush upon its end, and a means for revolving the said revoluble worm-feeding mechanism, substantially as described. 2nd. A feed mechanism for cementers, comprising an elongated cylindrical feed-chamber, a revolubly journalled worm fitting the same, a chamber in one end of such worm-shaft, openings from the feed-chamber to the shaft-chamber, and an axial passage in one journal from said shaft-chamber, substantially as described.

No. 51,934. Carpet Sweeper. (Balayeuse de tapis.)

Thomas Stewart White, Thomas Friant, Gains William Perkins and Charles James Reed, assignees of Thomas Friant and Allen Benjamin Ginn, all of Grand Rapids, Michigan, U.S.A., 11th April, 1896; 6 years. (Filed 30th December, 1895.)

Claim.—1st. In a carpet sweeping machine, a vertically flexible bar extending through vertically elongated openings in the ends of the case, a bale and brush shaft supported by said bar, means for vertically adjusting the middle of the bar and elevated supports on the top of the case engaging said bar at each side of its middle and between the same and its ends, substantially as described. 2nd. In a carpet sweeping machine, a case having vertically elongated openings in its ends, a continuous flexible bar extending through said openings, hangers attached to the respective ends of said bar, a bale pivoted to said hangers, a brush shaft journalled on the same, a bolt passing through the case and through the middle of said bar, a transverse bar on said bolt, and an upwardly projecting flange having steps, and engaging said bar, and blocks at each side of said bolt and at a distance therefrom and engaging said bar, substantially as described. 3rd. In a carpet sweeping machine, a case having vertically elongated openings in its ends, a vertically flexible continuous bar passing through said openings, hangers attached to the respective ends of said bar, a bale pivoted to said hangers, and engaged by the ends of said bar, a brush shaft journalled on said bar, blocks engaging said bar at each side of its middle, and at a distance therefrom, a bolt passing through said bar and case, an upwardly projecting flange surrounding said bolt, having steps of different elevations, a transverse bar rotatively engaging said steps and the head of said bolt and provided with a thumb piece, substantially as described. 4th. In a carpet sweeping machine, a case, a dust pan pivoted to the same at each end, a spring wire having a substantially right angle bend located near the pivot of said pan, one arm of said wire being rotative on its axis and extending through the case, the other arm of said wire engaging the pan at one side of the axial line of the same and pressing upon the same, substantially as described. 5th. In a carpet sweeping machine, in combination with a case and a dust pan pivoted to the same at each end, a spring wire bent at substantially right angles and passing through the pan near the pivot and near the angle in said wire, one arm of said wire extending through the case and provided with a thumb piece, and a post attached to said pan, having a slotted opening engaging said wire, substantially as described. 6th. In a carpet sweeping machine, in combination with the case, guard bars divided longitudinally throughout part of their length and having the lower of said divisions detached at one end and bent downward forming arms, driving and supporting wheels journalled on pins attached to said arms and a brush engaged by said wheels, substantially as described. 7th. In a carpet sweeping machine, in combination with a case, guard bars secured near their ends to the sides of said case, a brush journalled on studs adjacent to said bars, and driving and supporting wheels journalled on spring arms having right angle bends and formed of portions of said guard bars, whereby said wheels are held in contact with said brush, and said case and brush are lowered by pressure, substantially as described. 8th. In combination with a casing, a brush, driving and supporting wheels, and guard bars, flexible arms out from the lower edges of said bars and extending from near the ends of the same to points intermediate their angles, guide plates on said arms, pins secured to said arms and forming journals for said wheels and studs near said guard bars forming journals for said brush, substantially as described. 9th. In a carpet sweeping machine, guard bars divided longitudinally in part, to form spring arms, driving and supporting wheels journalled on the free ends of said spring arms, and brush shaft engaged and rotated by said wheels, substantially as described. 10th. In a carpet sweeping machine, in combination with the case, driving wheels and brush shaft, guard bars longitudinally divided in part and having spring arms forming flexible connections between the case and the working parts, substantially as described.

No. 51,935. Table Napkin Holder.

(Porte-serviette de table.)

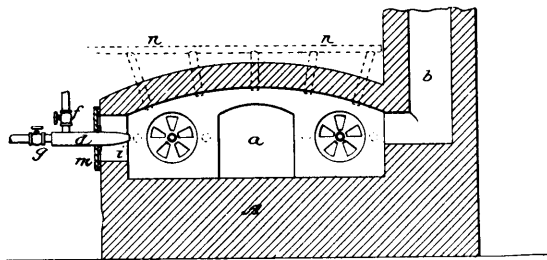


George A. Barrett, New Westminster, British Columbia, 11th April, 1896; 6 years. (Filed 13th January, 1896.)

Claim.—A table napkin holder comprising the body A, spring B, which holds the napkin, pin G, attached to or integral with the body A, all formed as and for the purpose set forth.

No. 51,936. Converting Iron into Steel.

(Méthode pour acierier le fer.)

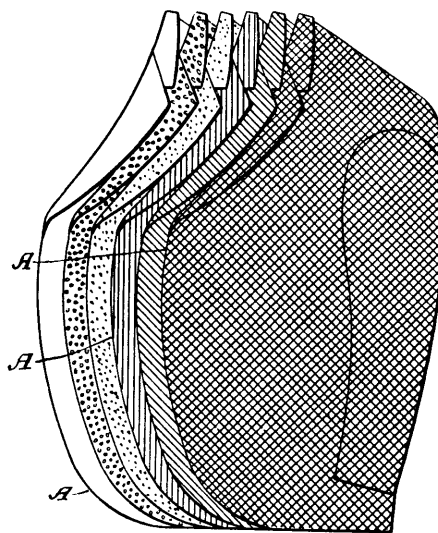


Samuel Hufty, Camden, New Jersey, Joseph Kay Caldwell, Philadelphia, Pennsylvania, both in the U.S.A., 11th April, 1896; 6 years. (Filed 23rd January, 1896.)

Claim.—The mode herein described of treating solid forms of cast iron for the purpose of converting the same into malleable iron or steel, the said process consisting in first heating the said articles in an open hearth furnace by a reducing flame to a temperature somewhat below the point of fusion, and, after the iron has reached the desired temperature, and while it is still subjected to the action of the said reducing flame, bringing into direct contact with the iron, a decomposable oxygen-bearing fluid in such volume, that by its decomposition, oxygen is freed in volume sufficient to combine with and eliminate carbon from the heated iron, substantially as specified.

No. 51,937. Dummy Garment Sample.

(Echantillon de vêtement.)

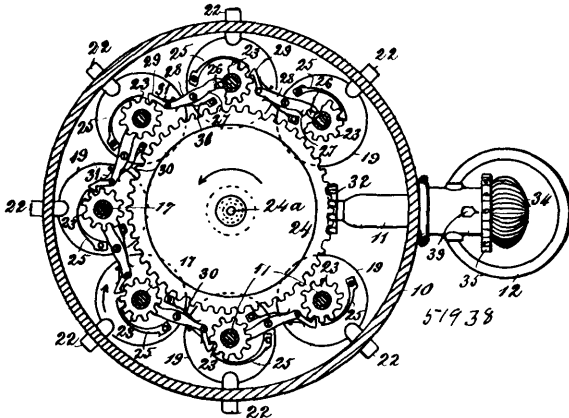


Marcus Aaron Adler, New York, State of New York, U.S.A., 11th April, 1896; 6 years. (Filed 24th January, 1895.)

Claim.—1st. A series of dummy garment samples each consisting of a narrow strip of goods finished at one edge to exhibit the profile cut of a garment and unfinished on the other edge, said samples being superimposed and provided with means whereby they may be readily attached and detached, and said samples being arranged so that their finished edges are free and exposed and their unfinished edges are concealed, substantially as set forth. 2nd. A series of dummy garment samples each consisting of a narrow strip of goods finished at one edge to exhibit the profile cut of a garment and unfinished on the other edge, said dummy samples being superimposed and attached together near the front finished edges thereof, but arranged so that said finished edges are free and exposed, while the unfinished edges are concealed in combination with an outer sample applied to said dummies and finished to exhibit a whole side or other extended portion of the garment, substantially as set forth whereby the appearance of a series of whole samples is simulated. 3rd. A series of dummy garment samples each consisting of a narrow strip of goods finished at one edge to exhibit the profile cut of a garment and unfinished on the other edge, said dummy samples being superimposed so that their finished edges are free and exposed, in combination with

an outer sample applied to said dummies and finished to exhibit a whole side or other extended portion of the garment, said outer sample having its profile edge arranged above and parallel with the profile edge of said dummy samples and concealing all unfinished edges thereof, all of said samples being provided with means whereby they may be readily attached together near their front edges, or detached when desired, substantially as set forth. 4th. A series of dummy garment samples each consisting of a narrow strip of goods finished at one edge to exhibit the profile cut of a garment and unfinished at the other edge, said dummy samples being superimposed so that their finished edges are free and exposed, in combination with an outer sample applied to said dummies and finished to exhibit a whole side or other extended portion of the garment, said outer sample having its profile edge arranged above and parallel with the profile edge of said dummy samples, and concealing all unfinished edges thereof, substantially as set forth.

No. 51,938. Calculating Machine. (Calculateur.)



Charles S. Labofish, Williamsport, Pennsylvania, U.S.A., 11th April, 1896; 6 years. (Filed 22nd January, 1896.)

Claim.—1st. A calculating machine, comprising a suitable case having sight slots therein, a central driving gear in the case, a plurality of number wheels arranged around the driving gear and movable in and out in relation to the gear, pinions connected with the number wheels and adapted to engage the gear wheel, a stem on one side of the case, a revoluble crown head mounted on the stem, and an operative connection between the stem and the gear wheel, substantially as described. 2nd. A calculating machine comprising a case having a plurality of circumferentially arranged sight slots in its face, number wheels slidable radially and arranged to turn beneath the sight slots, pinions connected to the number wheels and adapted to engage the gear wheel, push buttons arranged around the case opposite the number wheels, means for throwing the number wheels into gear with the driving gear by pressing the push buttons, a revoluble spindle on one side of the case, and an operative connection between the spindle and the driving gear, substantially as described. 3rd. The combination of the case, having sight slots therein, the central driving gear in the case, means for throwing each number wheel into gear with the driving gear, a spindle mounted on one side of the case and geared to the gear wheel, a crown head on the outer end of the spindle, the crown head having a numbered collar thereon, and a detent to hold the crown head in a definite position, substantially as described. 4th. The combination of the main driving gear, the number wheels slidable in and out and adapted to be driven by the main gear, the revoluble stem in one side of the case, the stem being geared to the main gear, a crown head on the outer end of the spindle, the crown head having a numbered collar thereon, the means, as the spiral spring, for returning the crown head and spindle to normal position, substantially as described. 5th. The combination, with the case having sight slots therein, the back plate in the case, the revoluble central driving gear in the case, the sliding bases held to move on the back plate, the push buttons connected with the bases, and the number wheels journaled on the bases beneath the sight slots and provided with pinions to engage the central gear wheel, substantially as described.

No. 51,939. Slipper Sole. (Fausse semelles.)

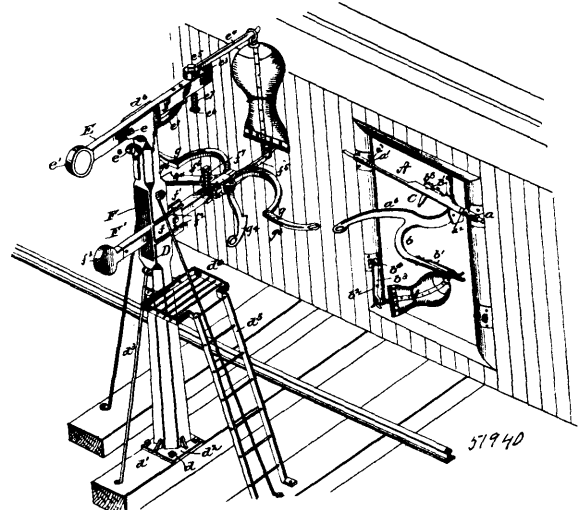


Samuel Borchart, New York, State of New York, U.S.A., 11th April, 1896; 6 years. (Filed 27th January, 1896.)

Claim.—1st. A lamb's-wool or slipper sole having its bottom section wider than the other sections and provided with a marginal

draw string, as and for the purpose set forth. 2nd. A lamb's-wool or slipper sole having its bottom strip or section wider than the other portions thereof, carried upward and provided with a marginal draw-string, the said string serving to shape the sole, and likewise serving as a reinforcement therefor at the point where the upper is to be attached, as and for the purpose specified. 3rd. A lamb's-wool or slipper sole, comprising an upper strip of a soft material, a stiffening strip secured to the upper strip, and a fastening strip of leather or like material cemented to the stiffening strip, the finishing or bottom strip being wider than the other strips and provided with a draw-string at its margin, whereby the finishing strip of the sole may be drawn upward at its margin, concealing the corresponding margins of the other strips forming the sole, and whereby also the margin is reinforced and need not be attached to the remaining portion of the sole, but presents a suitable surface for the attachment of the upper, as and for the purpose set forth.

No. 51,940. Mail Bag Receiving and Delivering Apparatus. (Attrapese sac de malle.)



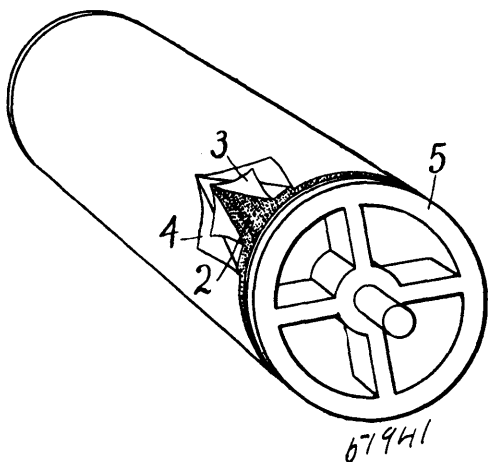
Augustus Philip Hauss, New Albany, Indiana, U.S.A., 11th April, 1896; 6 years. (Filed 30th January, 1896.)

Claim.—1st. A metallic post, an arm or bar pivoted on the upper end thereof, a second arm or bar pivoted to said post below said former arm, each of said arms having a counterbalancing weight at one end and an upturned portion or flange at its other end, and bars or fingers pivotally connected to said arms or bars and designed to bear on said flanges, substantially as and for the purpose set forth. 2nd. A metallic post, an arm or bar pivoted on the upper end thereof, a second arm or bar pivoted to said post below said former arm, each of said arms having a counterbalancing weight at one end and an upturned portion or flange at its other end, a bar or finger designed to bear against each of said flanges, pivot bolts for said bars or fingers, and coil springs encircling said pivot bolts, substantially as and for the purpose set forth. 3rd. A metallic post having flanges at its upper end, an arm or bar pivotally mounted between said flanges, a second arm or bar extended through said post and below said former arm, brackets or flanges in which said latter arm or bar is pivoted, each of said arms or bars being provided with a counterbalancing weight at one end and a flange at its other end, bars or fingers designed to bear against each of said flanges, pivot bolts for securing said bars or fingers to said arms or bars, and coil springs encircling said pivot bolts, substantially as and for the purpose set forth. 4th. A metallic post having flanges at its upper end, an arm or bar pivotally mounted between said flanges, a second arm or bar extended through said post and pivotally mounted below said former arm or bar, each of said arms or bars being provided with a counterbalancing weight at one end and a flange at its other end, bars or fingers designed to bear against each of said flanges, pivot bolts for securing said bars or fingers to said arms or bars, coil springs encircling said pivot bolts, and a plate or leaf spring secured to the underside of said lower arm or bar, substantially as and for the purpose set forth. 5th. A mail bag catcher, comprising a metallic post, an arm or bar pivoted thereto, a rigid arm secured to the outer end of said arm or bar, a second arm pivoted to the end of said arm or bar and designed to bear against said rigid arm, and means for holding said former pivoted arm or bar in a horizontal position. 6th. A mail bag catcher, comprising a metallic post, an arm or bar pivoted thereto, and having an enlargement at the outer end thereof, a rigid arm secured to the said enlargement, a second arm pivoted to said enlargement and designed to bear against said rigid arm, and means for holding said former pivoted arm or bar in a horizontal position, substantially as set forth. 7th. A mail bag catcher, comprising a metallic post, an arm or bar pivoted thereto, and having an enlargement at the outer end thereof, one or more rigid arms projecting from said enlargement, said arms being of approximate hook-shape,

one or more arms pivoted to said enlargement and designed to bear against said rigid arms, and means for holding said former pivoted arm or bar in a horizontal position, substantially as set forth. 8th. A mail bag catcher, comprising a metallic post, an arm or bar pivoted thereto and having an enlargement at the outer end thereof, one or more rigid arms of approximate hook-shape projecting from said enlargement, ears or lugs also projecting from said enlargement, movable arms also of approximate hook-shape pivoted between said ears or lugs and designed to bear against said rigid arms, and means for holding said former pivoted arm or bar in a horizontal position, substantially as set forth. 9th. A metallic post, an arm or bar pivoted to the upper arm thereof, a second arm or bar pivoted on said post below said former arm or bar, each of said arms or bars being provided with a counterbalancing weight at one end and a spring-held bar or finger pivoted to the other end thereof, rigid arms secured on the outer end of said lower arm or bar, and pivoted arms designed to bear thereagainst, substantially as and for the purpose set forth. 10th. The herein-described apparatus for receiving and delivering mail pouches, comprising a pivoted bar provided with an enlarged portion having a recess or chamber formed therein, a locking clamp pivoted within said chamber, said clamp being composed of an upper ratchet portion projected through a slot in said recess or chamber, and two lower retaining arms, a spring-pressed pawl, sliding in said chamber and adapted to engage said ratchet portion, a receiving arm projecting from said pivoted bar, and a delivering arm formed integral with said receiving arm, substantially as set forth. 11th. The herein-described apparatus for receiving and delivering mail pouches, comprising a pivoted bar provided with an enlarged portion having a recess or chamber formed therein, a locking clamp pivoted within said chamber, said clamp being composed of an upper ratchet portion projected through a slot in said enlargement, and two retaining arms, a spring-pressed pawl sliding in said chamber and adapted to engage said ratchet portion, a receiving arm projecting from said pivoted bar and extending beneath said clamp, a delivering arm formed integral with said receiving arm, a spring clamp secured on said delivering arm at its outer end, and a second spring clamp secured to an adjacent portion of the car, substantially as set forth. 12th. A metallic post, having upper and lower crane arms pivotally mounted therein, said lower arms having an enlarged end portion provided with holes or openings therein, the receiving arms having reduced ends inserted in said openings, and spring-keys for securing said receiving arms in said holes or openings, substantially as set forth. 13th. A mail pouch handling device, comprising a crane-post having an upper arm pivoted thereto, flanges projecting from the outer edges of said post and provided with a vertical series of adjusting apertures, and a lower crane-arm adjustably pivoted between said flanges by a removable pivot bolt, said arm being also projected through a slot or opening in said post, substantially as set forth. 14th. A mail pouch handling device, comprising a crane-post, pivoted upper and lower crane arms supported by said post, and a spring buffer secured to said post, said buffer having an upper curved portion and a lower elongated portion, substantially as set forth.

No. 51,941. Art of and Apparatus for Printing.

(Presse à imprimer.)

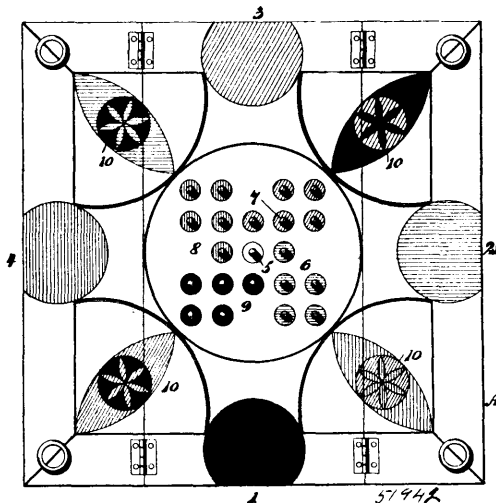


Melvin Linwood Severy, Boston, Massachusetts, U.S.A., 13th April, 1896; 6 years. (Filed 15th February, 1896.)

Claim.—1st. A bed or surface for platens for printing presses and like machines, composed of a number of fixed, independently-yielding, elastic bristles or wires, substantially as set forth. 2nd. A bed or surface for platens for printing presses and like machines, composed of a number of fixed, independently-yielding, elastic bent wires or bristles, substantially as set forth. 3rd. In a printing press or like machine, a platen, impression cylinder or the like, having a surface composed of a multiplicity of independently-yielding areas, substantially as set forth. 4th. In a printing press or machine, a platen or

impression cylinder having under the tympan-sheet or covering, an even surface formed by the ends of a number of fixed, independently-yielding, elastic wires or bristles, substantially as and for the purpose set forth. 5th. In a printing press or machine, the combination, substantially as set forth, with the platen or impression cylinder, of a covering formed by a number of independently-yielding elastic wires or bristles, fixed in a suitable material.

No. 51,942. Game Board. (Jeu avec damier.)

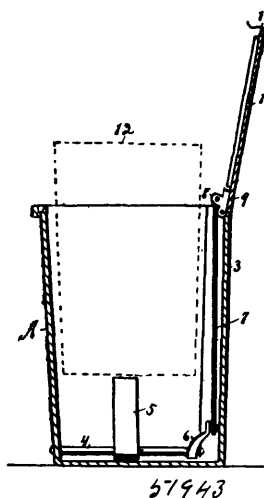


Volney King Coffill, Brooklyn, New York, U.S.A., 13th April, 1896; 6 years. (Filed 13th February, 1896.)

Claim.—1st. A game comprising a board having a field at each of its side edges, and sets of pins in the central portion of the board, one set for each field, substantially as specified. 2nd. A game comprising a board having a field at each of its side edges, a central or king pin, and sets of pins arranged around said king pin, substantially as specified. 3rd. A game comprising a board having a field at each of its side edges, the colour of one field differing from that of all the other fields, a central or king pin, sets of pins grouped around the king pin, the pins of a set corresponding in colour to the field opposite which it is placed, and a number of rings, substantially as specified.

No. 51,943. Ink-Well and Drinking Cup Holder.

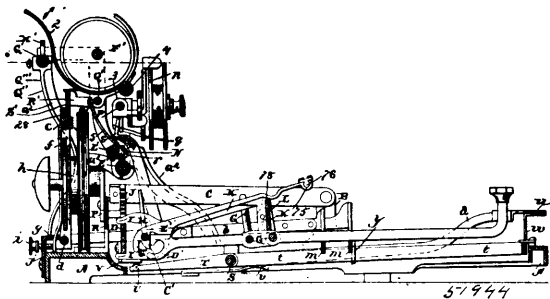
(Encrier et porte-coupe à boire.)



Horace M. Evans, Valparaiso, Indiana, U.S.A., 13th April, 1896; 6 years. (Filed 7th February, 1896.)

Claim.—The combination with an ink-well or drinking-cup, of the herein described receptacle or holder, provided interiorly and beneath the cup with a rock-shaft 4, the oscillating lever 5, and the crank 6 attached to the said rock-shaft, and the pitman 7 having its ends connected respectively to the said crank and the lid of the said receptacle, substantially as and for the purpose herein set forth.

No. 51,944. Type Writer. (Clavigraphie.)



James Denny Daugherty, Kittanning, Pennsylvania, U.S.A., 13th April, 1896; 6 years. (Filed 5th February, 1896.)

Claim.—1st. In a type-writing machine, the combination of a printing mechanism, two carriage supporting bars, one in a vertical line below the printing point of the platen, and the other behind the platen and in a horizontal line with the printing point thereof, and a propelling device connected with the carriage equi-distant from said supporting bars for the purpose described. 2nd. In a type-writing machine, the combination of a printing mechanism, a carriage carrying a platen, a supporting bar for the carriage below the platen and practically in a line drawn vertically from the printing point of the platen, a second supporting bar in rear of said carriage and practically in a horizontal line drawn from the printing point of the platen, and a propelling device for the carriage connected therewith practically midway between the supporting bars, and practically equi-distant from the printing point and said supporting bars. 3rd. In a type-writing machine, the combination of a printing mechanism, a carriage carrying a platen, two parallel bars, one practically in a vertical line drawn from the printing point and the other practically in a horizontal line drawn from the printing point, a propelling and feeding device each connected to or engaging the said carriage practically on a line drawn from one bar to the other. 4th. In a type-writing machine, the combination of a carriage carrying a rotating platen, a ratchet-wheel secured to the platen at one end thereof, an operating lever having one end pivoted in rear of the journal of the platen and extending thereunder to the front of the platen, a stop upon the lever above the upper end of the carriage and resting thereon, and a line regulator horizontally pivoted to the end of the carriage and having an L-shaped recess forming a shoulder adapted to be turned under the said stop. 5th. In a type-writing machine, the combination of a carriage carrying a rotating platen, a ratchet-wheel therefor, an operating lever carrying an operating pawl, a retaining pawl, a device for holding the operating lever upward for single spacing, and a device having a cam surface and two notches adapted to engage the retaining pawl, the parts operating substantially as specified. 6th. In a type-writing machine, the combination of a printing mechanism including a universal frame, a tilting frame pivotally supported midway the length of said platen, and an arm extending upward from one side of said universal frame and curved inward and engaging the said centrally supported tilting frame. 7th. In a type-writing machine, the combination of a printing mechanism, a spring drum, a universal frame forming a part of said printing mechanism, the said frame having substantially a horizontal portion extending under the key levers, and a vertical arch extending over said spring drum. 8th. In a type-writing machine, the combination of a platen, a printing mechanism, a universal frame forming part of said printing mechanism and consisting of a portion extending under the key levers and a vertical portion, a vertical spring having its lower end suitably connected and its upper end engaging the upper end of said vertical portion of the universal frame. 9th. In a type-writing machine, the combination of a shifting frame carrying type bars and division plates, the latter having widened ends with projecting prongs, and the end piece for said frame having recesses or slits in its upper and lower edges to receive the prongs of said division plates. 10th. In a type-writing machine, the combination of a shifting frame carrying type bars and division plates with vertical outer ends, the said frame carrying an end piece for holding the inner ends of said plates, and a piece having vertical recesses in its inner side for receiving and holding the outer vertical ends of the plates. 11th. An end piece for the shifting frame of a type-writing machine consisting of a piece forming a portion of a vertical circle having rearwardly extending ears at its ends with longitudinal recesses in their outer faces, radiating slits or recesses in its upper edges, and rearwardly extending lugs or projections between the said ears. 12th. In a type-writing machine, a substantially horizontally pivoted outwardly ex-

tending type bar, in combination with a substantially horizontal inwardly extending intermediately pivoted key lever having its inner end engaging directly the type bar at a point between its type and pivotal point, all combined to operate as described. 13th. In a type-writing machine, the combination of an outwardly extending pivoted type bar, and an inwardly extending key lever beneath said bar, the said bar and lever having approximately parallel engaging surfaces between the pivotal point of the bar and its type, the said engaging surface being cut away, for the purpose described. 14th. In a type-writing machine, the combination of a type-bar and key lever having a longitudinal variable engaging surface between the pivotal point and type of said bar. 15th. In a type-writing machine, the combination of an inwardly extending key lever, and a type-bar extending over the key lever in an opposite or approximately opposite direction, the type-bar having an engaging surface between its type and pivotal point which engages the inner end of the key lever, and a projection nearer its pivotal point than said surface for the purpose described, and the key lever having a projection engaging the type-bar projection. 16th. In a type-writing machine, the combination of a type-bar and key lever, the latter engaging the former near its pivotal point for operating it, and the type-bar and key lever having abutting surfaces exerting an endwise pressure upon the key lever by the rebound of the bar, for the purpose described. 17th. In a type-writing machine, the combination of a type-bar and a key lever for operating it, the said bar and lever having substantially straight abutting surfaces when in their normal position to prevent rebound of the type-bar. 18th. In a type-writing machine, the combination of a type-bar and a key lever, the key lever having a socket, the type-bar having a projection entering said socket and a second projection forming with the first a socket to receive the lower projection of the key lever socket to prevent the type-bar travelling ahead of the key lever. 19th. In a type-writing machine, the combination of a printing mechanism, a platen, a shifting frame carrying the type-bars of the printing mechanism, a transverse shaft carrying an arm for lifting the said frame, a spacing frame pivoted upon the said shaft and carrying a spacing bar at its outer end, and an arm at each end of the shaft outside of the spacing frame, each arm carrying a shift plate at its outer end at each end of the spacing bar, the inner ends of said shift bars being rigidly connected with the said shaft. 20th. In a type-writing machine, the combination of a carriage and its rack bar, with two endwise moving dogs, one pivoted at one end and one depressible at the opposite end. 21st. The combination, with a propelled carriage and its rack bar, of a dog carrier moving transverse the said rack bar, and two longitudinally moving escape dogs carried by the said carrier, and adapted to alternately engage the rack by the transverse movement of the carrier, and a rocking bar intermediately pivoted between said dogs and having its opposite ends engaging them respectively, for the purpose described. 22nd. In a type-writing machine, the combination of a block having a longitudinal groove, a feed dog moving in said groove, the dog being pivoted at one end and depressible at the other. 23rd. In a type-writing machine, the combination of a printing mechanism, two parallel supporting bars, one above and in rear of the other, a carriage having its lower portion resting upon the lower bar and supporting the weight of the carriage, and a wheel at the opposite or upper end of the carriage engaging the upper bar to support the carriage laterally. 24th. In a type-writing machine, the combination of a printing mechanism, parallel supporting bars one above and in rear of the other, a carriage carrying wheels at its lower portion which rest upon the lower bar and support the carriage, and a wheel at the upper rear portion of the carriage engaging the upper bar, and projections from the carriage also engaging the said bar. 25th. In a type-writing machine, the combination of a printing mechanism, parallel supporting bars one above and in rear of the other, a carriage having its lower portion resting upon the lower bar and supported thereby, and a centrally located wheel at the upper rear portion of the carriage engaging the upper bar, and a projection extending from the carriage at each side of said wheel which also engage the said bar.

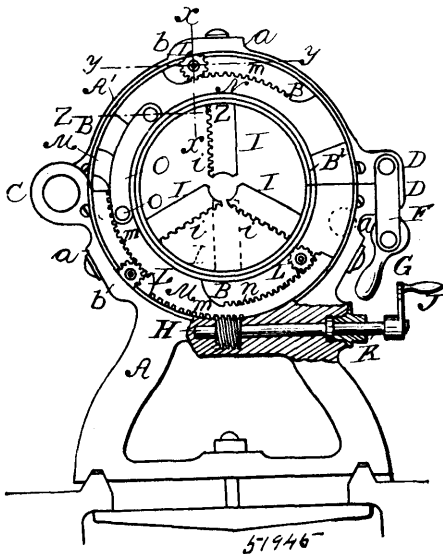
No. 51,945. Cutter Rest for Lathes.

(*Appui pour tours.*)

George Frederick Rabus, Cedar Rapids, Iowa, U.S.A., 13th April, 1896; 6 years. (Filed 17th February, 1896.)

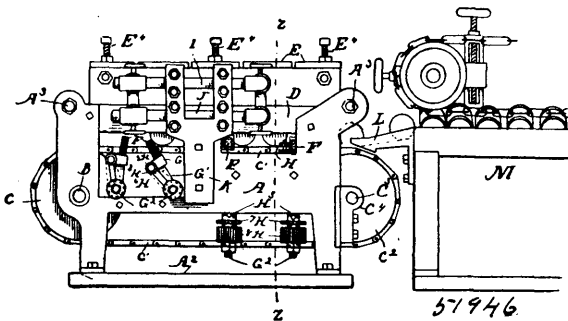
Claim.—1st. In a cutter-rest for lathes, the combination of a standard having a divided guide-ring, toothed guides mounted therein, segments engaging directly therewith, and connected by a pivoted connection, and means for rotating said connected segments whereby concurrent radial movement is imparted to the guides. 2nd. In a cutter-rest for lathes, the combination of a standard having a divided guide-ring, toothed guides mounted radially therein, pinions engaging with said segmental racks mounted in said guide-ring adjacent to the guides, and engaging said pinions, a link connecting said racks, a worm engaging teeth formed on one of said segmental racks, and a crank-shaft for said worm, substantially as and for the purpose set forth. 3rd. In a cutter-rest for lathes, the combination of a standard having a divided guide-ring, toothed guides mounted radially therein, pinions engaging each guide, a pair of segmental racks connected by a link, and adapted to turn a limited distance in an annular recess formed in said guide-ring, external gear teeth on one of said racks engaging one pinion, an external and an internal set of gear teeth on the other rack, engaging

two other pinions, respectively, and a worm engaging with a worm-gear on one of the racks, whereby concurrent radial movement is imparted to the guides as described. 4th. In a cutter-rest for lathes, the combination of the divided guide-ring A, A¹, having an annular



recess B, the guides I, I, I, mounted radially therein adjacent to said recess, the segments M, and N, provided with racks m, m, n, the pinions L, L, L, engaging said racks and also said guides, the link O, connecting said segments, the semicircular plates P, P¹, the worm H, engaging the worm-gear m¹, and a crank-shaft connected to said worm, all substantially as and for the purpose set forth.

No. 51,946. Soldering Machine. (Machine à souder.)

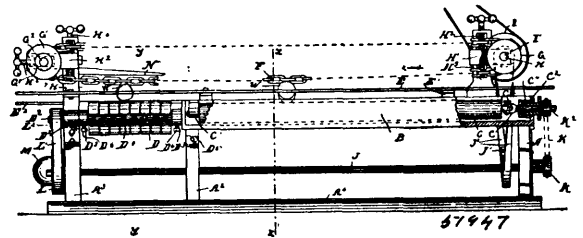


Mathias Jensen and the Jensen Can Filling Machine Company, both of Astoria, Oregon, U.S.A., 13th April, 1896; 6 years. (Filed 18th February, 1896.)

Claim.—1st. The combination, in a soldering machine, of a carrier for the cans, oscillating wipers in the path of the can arms carrying said wipers, shafts for said arms and springs acting on the shafts for holding the wipers in normal and yielding contact with the cans, means whereby the arms may be moved and the wipers adjusted to and from the cans, and mechanism for operating the carrier. 2nd. The combination with an endless carrier whereby the cans are advanced and revolved, of a pressure device situated above the cans, whereby they are retained in contact with the chain, so as to be advanced and revolved thereby, and wipers adapted to engage the end seams of the cans, so as to remove surplus solder therefrom, and suitable means whereby the mechanism is actuated. 3rd. The combination of an endless carrier adapted to advance and rotate the cans, of a pressure device or plate above the cans, fixed oscillating wipers adapted to engage the end seams of the cans, and a heating chamber in contact with which the cans move, whereby the solder is prevented from becoming hard while it is being removed by the wipers. 4th. The combination of an endless chain adapted to carry cans on its upper line, with a fixed straight plate below said line of chain to keep it straight, a pressure device between which and the chain the cans pass, whereby the latter are advanced and rotated, wipers fixed yieldingly to engage the end seams of the cans while so advanced, and suitable means for actuating the mechanism. 5th. The combination of an endless carrier adapted to rotate and advance the cans, so that the lower surfaces are continually advancing with relation to the upper surfaces, wipers yieldingly mounted upon arms so as to move in contact with the seams of the cans as they

pass, and thumb collars connecting with spur wheels by intermediate devices, whereby the wipers may be adjusted to or from the cans while the machine is in operation.

No. 51,947. Soldering Machine. (Machine à souder.)

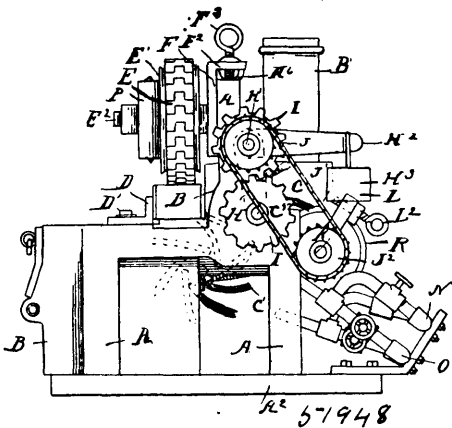


Mathias Jensen and the Jensen Can Filling Machine Company, both of Astoria, Oregon, U.S.A., 13th April, 1896; 6 years. (Filed 18th February, 1896.)

Claim.—1st. The combination, of a frame, a solder tank extending longitudinally along the same, a rotatable roller submerged in the molten solder, and supporting one end of the can whereby the solder is applied to the end seam of the can, said can having its opposite end supported by the tank, an endless chain whose lower fold travels in contact with the upper surface of the can and causes the can to be rolled forward in a direction at right angles with the direction of rotation of the roller, and means for operating the chain. 2nd. In a soldering machine, a frame, a tank containing molten solder, extending parallel with the length of the frame, a plain surfaced metal roller mounted in said tank, said roller rotating in the solder and having its upper surface forming a support for the end of the can to be soldered, the opposite end of the can being supported by the frame of the tank, an endless chain mounted above the tank and essentially parallel therewith, having its lower fold to travel in contact with the upper side of the can, and thereby roll the can forward along the roller and in a plane at right angles with the rotation of said roller, and means for operating the chain. 3rd. In a soldering machine for soldering the end seams of circular cans, the combination, of a solder trough, a plain surfaced metal roller rotating in the molten solder and having its upper part serving as a support for the end of the can having the seam to be soldered, and an endless chain above and extending parallel with the length of the roller, and receiving the can between it and the roller whereby the lower fold of the chain by resting in direct contact with the upper surface of the can rolls said can along the roller so that the solder may be delivered from the roller to the end seam of the can, and means for operating the chain. 4th. In a soldering machine, a frame having a solder tank extending longitudinally along it, a plain surfaced rotatable roller extending lengthwise of the tank, a longitudinally extending endless chain above the tank and roller and forming a space or guide through which the cans pass, said chain having its lower fold bearing upon the upper side of the can while the lower side of the can is supported at its opposite ends by the top surface of the roller and upper surface of the tank respectively. 5th. In a soldering machine for soldering the end seams of circular cans, a solder tank extending lengthwise of the machine, having a plain surfaced metal roller journaled in the tank so as to rotate in the solder, the opposing rails E above the tank and secured thereto, and forming a guide for the can, said rails engaging the opposite heads of the can and said roller forming an unyielding support for the under surface of the seam end of the can to be soldered, and an endless chain operating in the direction of the length of the machine, with its lower fold in contact with the upper surface of the can whereby the can is rolled forward at right angles with the direction of rotation of the roller. 6th. In a soldering machine, a frame, a tank extending parallel along the upper part of the same and adapted to contain molten solder, a plain surfaced metal roller within said tank and rotating in the contents thereof, guide plates E on opposite sides of the tank forming a guide for the cans while said cans are supported from below by the roller and tank respectively, an endless chain operating in the direction of the length of the tank and frame, having its lower fold to engage the upper surface of the can body and roll the can along in a plane at right angles with the rotation of the roller whereby the latter supplies solder to the end seam, a wiper in the path of the cans for removing the surplus solder, means for rotating the roller and wiper, and means for operating the chain. 7th. In a soldering machine, the combination of a revolving wiper operating in a plane at right angles with the plane of rotation of the cans, having a series of flexible leaves secured at one end, in rows on its periphery, for removing the surplus solder from the cans, and an endless chain above and extending parallel with the machine and at right angles with the rotation of the wiper, having its lower fold in contact with the top surface of the can whereby the can is rolled forward by the action of the chain, and means for operating the chain and revolving the wiper. 8th. In a soldering machine, a frame, a soldering tank, a plain surfaced metal roller journaled to rotate therein with its lower portion dipping into the molten solder, opposing plates E on the tank forming guides for the ends of the can, said can being supported from below by the roller at one end and the top of the tank at the other end, a flexible wiper in

line with the roller, a plate or bar E2 for supporting one end of the can while passing over the wiper, means for rotating the roller and wiper, and an endless chain above said roller and wiper having its lower fold to engage the upper portion of the can and roll the can along the roller and wiper in a plane at right angles with the plane of rotation of said roller and wiper. 9th. In a soldering machine, the combination of a revolving wiper, a means for supporting the can in a horizontal position above the same, an endless chain having its lower fold to engage the upper surface of the can and roll the can forward in a plane at right angles with the plane of rotation of the wiper, and a shield or arm extending over the wiper close above the lower fold of the chain, to prevent the wiper throwing the cans out of place. 10th. A device for soldering can bodies, consisting of a plane surfaced metal rotating roller dipping into molten solder, guides between which can bodies are retained above and at right angles with the axis of the roller, with their end seams in contact with the top thereof, an endless chain whereby the cans are caused to roll from one end of the roller to the other, revolving flexible wipers over which the seams pass after leaving the roller, the pivoted arms carrying said wipers and the adjusting device for the arms, said wipers rotating upon an axis in line with that of the roller. 11th. A device for soldering can bodies, consisting of a plane surfaced metal rotating roller dipping into molten solder, guides between which the can bodies are held above the roller with their axes at right angles thereto, and the circular end seams in contact with the top of the roller, an endless chain travelling above the can bodies and parallel with the axis of the roller whereby the can bodies are rolled along the top of the roller, a series of flexible revolving wipers rotating upon an axis in line with the axes of the roller, and over which cans are caused to travel after leaving the roller. 12th. A device for soldering can bodies consisting of a plane surfaced metal rotating roller dipping into molten solder, guides between the cans are retained above the roller with their axes at right angles thereto, and the circular end seams in contact with the top of the roller, an endless travelling chain by which the cans are caused to roll from end to end of the roller, revolving wipers consisting of a series of flexible leaves adapted to remove the surplus solder from the seams, and having their axes of rotation in line with the axes of the roller, and an arm or bar extending above the cans and the actuating portion of the chain whereby the cans are prevented from being lifted as they pass over the wipers. 13th. In a device for soldering can bodies, a solder trough, a plain surfaced metal roller extending from end to end of said trough having one end journaled in a box or bracket within the trough, and a socket piece within which the opposite journal pin is held, a stem extending outwardly from the socket piece in line with said journal pin and passing through the end of the solder trough, a stuffing-box surrounding said stem with an indestructible packing material whereby the solder is prevented from escaping, and mechanism exterior to the pan whereby the roller is caused to rotate within the molten solder.

No. 51,948. Soldering Machine. (Machine à souder.)

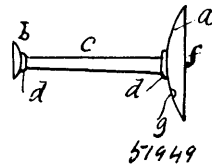


Mathias Jensen and the Jensen Can Filling Machine Company, both of Astoria, Oregon, U. S. A., 13th April, 1896; 6 years. (Filed 18th February, 1896.)

Claim.—1st. The combination with an endless carrier adapted to revolve the cans, of revolving wipers rotating in contact with the soldered surfaces, and a heater or heaters with which the cans form contact after leaving the solder bath and while they are being advanced whereby the solder is prevented from hardening. 2nd. The combination with an endless carrier to continuously revolve the cans forward, of oppositely revolving wipers out of line with each other adapted to wipe the ends and sides respectively and successively, without engagement with each other, whereby each wiper discharges the solder independently and clear of the other, and suitable means for actuating the carrier and wipers. 3rd. The combination with an endless carrier to revolve the cans, of a heated plate to engage the cans and prevent the solder thereon from stiffening, a revolving wiper to remove the solder from the end seams of the cans while so

carried, revolved and heated, and means to actuate the carrier and wiper. 4th. The combination of an endless carrier to revolve the cans forward, a heated plate to engage the cans, a revolving wiper to remove the solder from the ends of the cans while the heated plate is engaged with their sides, and a second revolving wiper to remove the solder from the sides of the cans, after the ends have been wiped. 5th. The combination of an endless carrier to revolve the cans forward, of a heated plate in contact with which the cans are moved, revolving wipers mounted successively, one of said wipers being adapted to wipe the solder from the ends of the cans, and the other from the sides, and pipes adapted to convey a spray of steam and water upon said wipers, and mechanism whereby the carrier and wipers are actuated. 6th. An apparatus for wiping the end seams of cans after they have been soldered, consisting of an endless travelling carrier adapted to rotate and advance the cans, a heated plate with which the side of the can forms contact while it is being advanced, a revolving wiper adapted to wipe the end of the can, which is presented thereto as it passes, a second heated plate with which the end of the can forms contact after having been wiped and a support to retain the end of the can in contact with said plate as it advances, a second revolving wiper out of line with the first one, adapted to wipe the solder from the side of the can while the latter is rotated in contact with the wiper, and mechanism whereby the carrier and wipers are actuated. 7th. A device for wiping the end seams of cans after they have been soldered, consisting of an endless travelling chain by which the cans are rotated and advanced, a heated plate in contact with which the sides of the cans travel, a wiper revolving in contact with the ends of the cans, adapted to remove the solder therefrom, a second heated plate with which the ends of the cans form contact after having been wiped, a second revolving wiper by which the solder is removed from the sides of the cans after the ends have been wiped, and a device whereby the wipers are moved to adjust them to larger or smaller cans, and to regulate their contact therewith. 8th. A device for wiping the seams of cans after having been soldered, consisting of an endless travelling carrier by which the cans are revolved and advanced, a heated plate in contact with which the cans move during their advance after leaving the solder bath, revolving wipers forming contact successively with the ends and with the sides of the cans, whereby the solder is first wiped from the ends and then from the sides, and guides by which the cans are retained in position between themselves and the heated plates as they are advanced over the plates and wipers. 9th. A device for wiping the seams of cans after they have been soldered, consisting of an endless travelling carrier adapted to rotate and advance the cans, heated plates in contact with which the cans are rotated, revolving wipers whereby the solder is successively removed from the ends and the sides of the cans, said wipers consisting of curved, elastic arms projecting outwardly from a central hub, having their wiping surfaces composed of cloth or fabric, secured to said arms, so that the rotation of the wipers will force the wiping surfaces against the passing can bodies.

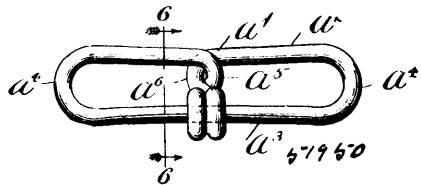
No. 51,949. Artificial Ear Drum. (Tympan artificiel.)



Addison V. Sanford, Elmira, New York, U.S.A., 13th April, 1896; 6 years. (Filed 17th February, 1896.)

Claim.—An artificial ear drum, consisting of a flexible tube, plates at opposite ends integral therewith, one plate fitting the natural tympanum, the other resting outside the auditory passage and having a perforation in its back, and a vibratory diaphragm stretched across the outer plate, as shown and described and for the purposes specified.

No. 51,950. Link for Metal Chains. (Anneau de chaîne.)



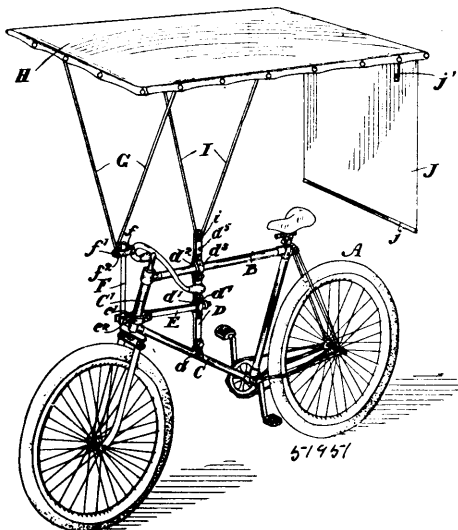
Henry L. Ferris, Harvard, Illinois, U.S.A., 13th April, 1896; 6 years. (Filed 18th February, 1896.)

Claim.—1st. As a new article of manufacture, an elongated link, comprising a single piece of malleable metal, the end portions whereof are twisted together, extended across the link proper in the same direction, and then coiled about one of the side members, substantially as set forth. 2nd. A single piece of malleable metal for-

med into an elongated link, the end portions of the metal being brought together at one side of the link, twisted together side by side, extended transversely across the link in the same direction, and the extreme ends coiled about the opposite side member, substantially as set forth. 3rd. A chain link, comprising a single piece of malleable metal formed into an elongated link having substantially parallel sides and rounded ends, the end portions of the metal being brought together at one side of the link, interlocked side by side by a half twist, extended across the link in the same direction and the extreme ends coiled about one of the side members, substantially as set forth.

No. 51,951. Weather Top for Bicycles.

(*Couverture de bicyclette.*)



John Ritchie, Otterville, Ontario, Canada, 13th April, 1896; 6 years. (Filed 17th February, 1896.)

Claim.—1st. The combination with a bicycle and frame thereof, of a weather top of suitable material provided with a rear curtain designed to extend down behind the seat and supports forward of the seat for connecting the top to the bicycle, as and for the purpose specified. 2nd. The combination with a bicycle and frame thereof, of the weather top, supporting braces G and I, the standards O and F secured in front and to the rear of the turning standard of the front wheel, and means for securing the stem and standard to the frame, as and for the purpose specified. 3rd. In combination, the bicycle and frame, the standard D provided with forked lower end d, depressions d¹ d², straps d³ d⁴, bar E, with strap e², stem F supported at the forward end of the bar E, the supports G and I secured to the upper ends of the standards, and the weather top secured at the upper ends of the supports, as and for the purpose specified. 4th. The combination with the bicycle and frame thereof, of a standard and stem supported respectively to the rear and in front of the turning standard of the wheel, the supports, adjustable connections of such supports to the top of the standard, and stem, and the top secured in the tops of the supports, as and for the purpose specified. 5th. A bicycle weather top comprising the side bars and front and rear bars with plugs in their ends fitting into the ends of the side bars and covering for same as specified. 6th. A bicycle weather top comprising the side bars and front and rear bars removably connected to the same and the arched cross bars fitting into sockets in the side bars and covering for same, as and for the purpose specified.

No. 51,952. Manufacture of Steel and Iron.

(*Fabrication d'acier et de fer.*)

Benjamin Pryor Stockman, Grosvenor Mansions, Westminster, London, England, 13th April, 1896; 6 years. (Filed 18th February, 1896.)

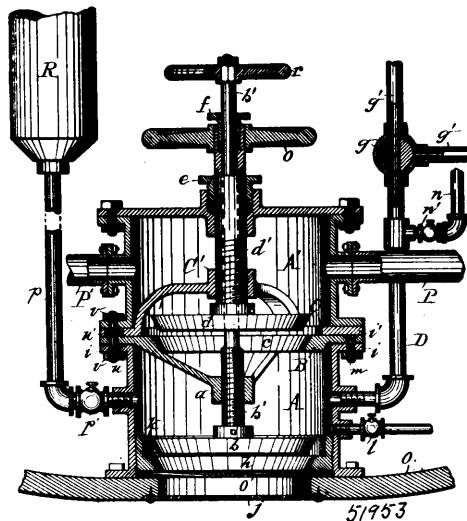
Claim.—1st. The herein described process for the manufacture of steel and iron from crude pig iron, by subjecting the molten pig iron in a converter to the action of a mixture of nitrate of soda and iron sand. 2nd. For carrying out the process above referred to, the use of iron sand in admixture with fire clay or lime for lining surfaces exposed to the action.

No. 51,953. Sea Cock for Vessels.

(*Robinet de prise d'eau à la mer.*)

Pardon Fillinghast Perkins and Thomson Kingsford, both of Oswego, New York, U.S.A., 13th April, 1896; 6 years. (Filed 21st February, 1896.)

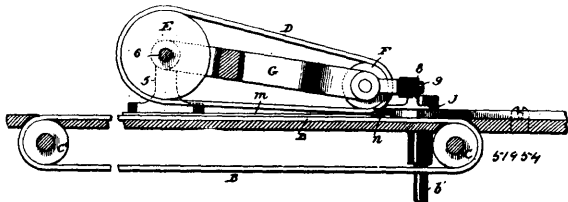
Claim.—1st. The within described safety-sea-cock for a vessel, said cock comprising a case provided with a water-inlet from the exterior of the vessel and a service-pipe connected to the case above said inlet, two independently operating valves in the case between



said inlet and service-pipe for controlling the flow of water, an inlet for incongealable sealing fluid to the space between the valves and a water-waste-cock communicating with said space as set forth. 2nd. A vessel's sea-cock, consisting of a case provided with a water-inlet from the exterior of the vessel, and a service-pipe connected to the case above said inlet, a primary valve for opening and closing the inlet and opening inward therefrom, a secondary valve operating independently of said primary valve and interposed between the same and service-pipe, an inlet for incongealable fluid to the space between the valves, a water-cock tapping said space, and an air-vent in the top of the case as set forth. 3rd. A vessel's sea-cock, consisting of a case composed of detachable sections secured endwise one upon the other, a water inlet in the lower section, a valve for opening and closing said inlet, a valve seat at the junction of the case-sections, a valve on said seat and adjustable to control the communication between the interiors of the two sections, a waste-cock and an inlet for incongealable fluid tapping the lower section, service-pipes connected to the upper section, and an air vent in the top of the case as set forth. 4th. The combination with a sea-cock case provided with a water inlet-valve, a strainer spanning the inlet opening, and means for opening and closing the valve, a steam-induction pipe connected to said case to admit thereto steam under pressure for clearing the strainer as set forth. 5th. A sea-cock composed of a case formed of sections detachably united, a primary water inlet-valve in one section, water outlet-pipes connected to the other section, a valve between the two sections, and an auxiliary water-outlet connected to the case between the two valves to receive water through one section of the case independent of the other section thereof. 6th. The improved sea-cock composed of a case formed of an upper and lower section detachably united and provided with a water-inlet valve at the base of the lower section, water outlets in the upper section, a valve sustained on the lower section independently of the upper section and controlling the flow of water to the latter section, an auxiliary water outlet connected to the lower section separate from the outlets in the upper section, and a valve for controlling said auxiliary outlets, as set forth. 7th. The combination of the case, composed of an end section, provided with a water-inlet valve at the base, two skeleton diaphragms secured to the top of said section and each provided with a screw-threaded eye in its centre and the lower diaphragm provided with a valve-seat, a valve for said seat provided with a screw-threaded tubular stem passing through the eye of the upper diaphragm and through the top of the case, a screw-threaded stem attached to the aforesaid water-inlet valve and passing through the eye of the lower diaphragm and through the aforesaid tubular stem, a case section over the upper diaphragm and detachably secured to the lower case-section and separator water-outlets connected to the respective sections, as set forth. 8th. In combination with the lower case section A, and diaphragm B, secured to the top thereof, the diaphragm C mounted on the rim of the diaphragm B, the case-section A¹, mounted on the rim of the diaphragm C, and bolts u, formed with the central head u¹, countersunk in the rim of the latter diaphragm and having their end portions passing through the rim of the diaphragm B, and flanges of the case sections and provided with nuts on opposite ends, as set forth and shown. 9th. The combination, with the detachably united case-sections A, A¹, provided with the valves b, d, and having outlets P, P¹, connected

to the upper section, the auxiliary outlet pipe D, connected to the lower section and provided with a valve for controlling the passage of water through said pipe, and the steam induction pipe n, connected to the pipe D, between the valve thereof and the case, and provided with a stop-cock, as and for the purpose set forth.

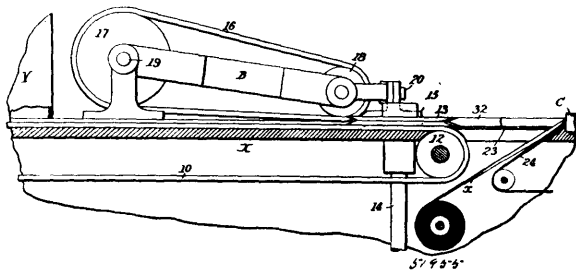
No. 51,954. Manufacture of Cigarettes.
(Fabrication de cigarettes.)



Bernhard Baron, New York, State of New York, U.S.A., 13th April, 1896; 6 years. (Filed 20th February, 1896.)

Claim.—1st. The combination in a cigarette machine, of horizontal grooved wheels arranged in line opposite each other to compress and carry the tobacco between them, a belt travelling beneath and in contact therewith, a stationary plate extending across and above the wheels to cover the moulding space between them, and means for pressing the tobacco as it approaches the stationary plate, substantially as set forth. 2nd. The combination in a cigarette machine, of the travelling belt B, wheels a, a', plate J, and means for compressing the tobacco upon the said belt to bring the upper surface of the tobacco below the plane of the upper surfaces of the wheels and below that of the plate to prevent it from swelling above the wheels, substantially as set forth. 3rd. The combination with the travelling belt B, and grooved wheels a, a', of a feed band D, supported in position, to bring its lower face below the plane of the upper faces of the wheels to compress and prevent the rising of the tobacco above the wheels, substantially as set forth. 4th. The combination with the belt B, wheels a, a', and plate J, of a swinging frame, pulleys thereon, a band carried by the pulleys, and connections between the frame and the plate, substantially as described. 5th. The combination of the belt B, grooved wheels a, a', swinging frame G having pulleys, E, F, and band D, and plate J connected adjustably with the frame, substantially as specified.

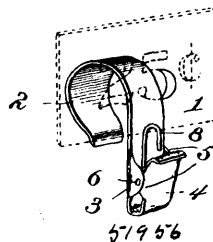
No. 51,955. Cigarettes and Machine for Making them.
(Machine à cigarettes.)



Bernhard Baron, New York, State of New York, U.S.A., 13th April, 1896; 6 years. (Filed 20th February, 1896.)

Claim.—1st. The within described improvement in the art of making elliptical cigarettes, the same consisting in reducing a mass of tobacco directly to the form of a continuous rod elliptical in cross section, in moulding a wrapper strip into a continuous elliptical tube, and inclosing the rod therein, the tobacco being maintained under compression in its elliptical shape during and after the wrapping, moulding and pasting of the wrapper strip, substantially as described. 2nd. The combination, with means for feeding a continuous stream of tobacco, of devices for operating upon the tobacco to convert it into a continuous rod elliptical in cross section, means for applying a wrapper strip to the rod, and for forming the strip into a tube elliptical in cross section, and means for maintaining the rod under unyielding compression in its elliptical shape during and after the folding and pasting of the strip, substantially as described. 3rd. The combination of two moulding wheels, grooved to form a substantially elliptical moulding space at the meeting point of their peripheries, means for feeding the continuous stream of tobacco to said wheels, a wrapping trough beyond the wheels having a bottom with a flattened curved face and an overhanging flange with its under face similarly curved and a continuous belt travelling through said trough, substantially as set forth. 4th. As a new article of manufacture a cigarette consisting of a condensed and solidified mass of tobacco forming a filler substantially elliptical in cross section confined within and tightly fitting an elliptical wrapping tube, substantially as described. 5th. As a new article of manufacture a continuous cigarette rod consisting of a solidified and condensed mass of tobacco forming a continuous filler substantially elliptical in cross section confined within and tightly fitting a continuous elliptical wrapping tube, substantially as described.

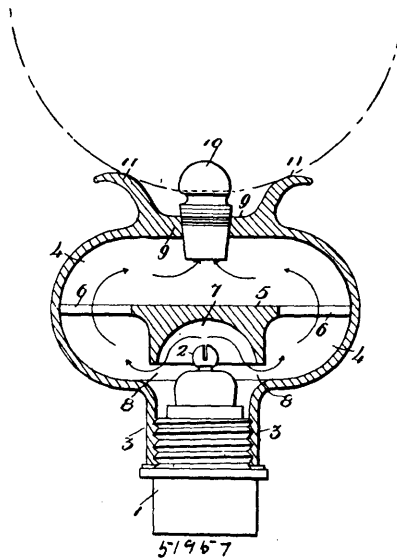
No. 51,956. Display Hook. (Crochet d'étalage.)



Walter J. Pitkin, Corinth, New York, U.S.A., 14th April, 1896; 6 years. (Filed 20th February, 1896.)

Claim.—A display hanger comprising a hook member, a pivoted jaw member hinged thereto, and a spring disposed between said members in such manner as to force their extremities together, one of the terminals of said spring being extended to form a clasp which lies between the hook member and the pivoted jaw, substantially as and for the purpose specified.

No. 51,957. Gas Burner. (Bec de gaz.)

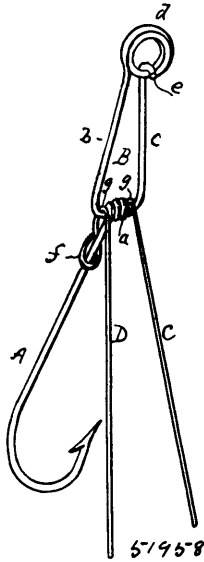


John Friedlander, St. Louis, Missouri, U.S.A., 14th April, 1896; 6 years. (Filed 20th February, 1896.)

Claim.—1st. A gas burner comprising a tubular body portion, an enlarged chamber in communication with the same, an opening in the top of said chamber, a tip adapted to be inserted in said opening, lateral solid arms located on top of the chamber and on either side of the tip, against which the base of the flame impinges for heating the arms and chamber, and at the same time for preserving the temperature of incandescence of the carbon of the flame, a screw-base passed into the tubular portion, the upper end of which projects into the chamber, and a tip carried by the upper end of said screw-base for supplying gas to the burner, substantially as set forth. 2nd. A gas burner comprising a tubular body portion, an enlarged chamber in communication with the same, a diaphragm located in the chamber and having suitable openings formed in the same, an opening formed in the top of the chamber for the reception of a suitable tip, lateral solid arms forming a part of the chamber and disposed on either side of the top thereof against which the flame can impinge and thus heat the said arms and chamber and superheat the gas passing through the latter, a screw-base passed into the tubular portion of the chamber, the upper end of which screw-base projects into the chamber, and a gas-supplying tip at the end of the screw-base, substantially as set forth. 3rd. A gas burner comprising a suitable screw-base and tip, a casing or extension adapted to be passed over the same, a chamber forming an enlarged continuation of the extension, a perforated diaphragm dividing the chamber into two sections, a deflecting cup facing the lower section, formed with the diaphragm and adapted to be superposed over the tip, a contracted passage formed between the lower edge of the cup and the inner surface of the lower section of the chamber, a

central opening formed in the upper section of the chamber, an annular ridge bounding said opening and adapted to retain a terminal tip, lateral arms forming a part of the upper section of the chamber, said arms being diametrically disposed with reference to each other and adapted to have the lower edge of the flame impinge against them, whereby the same are heated and the gas within the upper section of the chamber expanded, substantially as set forth.

No. 51,958. Guard for Fish-Hook. (Hameçon.)

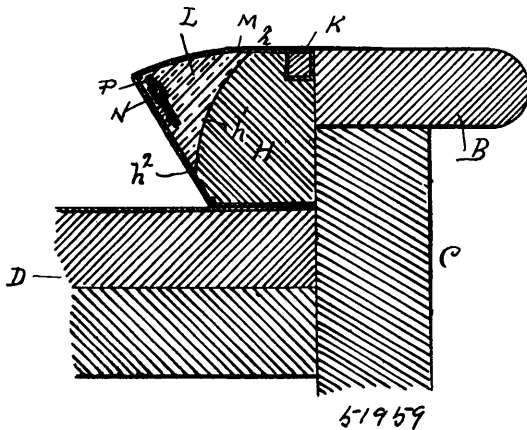


Benjamin F. Burgess, Jackson, Michigan, U.S.A., 14th April, 1896; 6 years. (Filed 22nd February, 1896.)

Claim.—1st. The combination with a fish-hook, of a spring-bail having its arms detachably connected with each other, and a guard having its arms detachably connected to the bail and hook, substantially as and for the purpose set forth. 2nd. A guard for fish-hooks, consisting of the spring arms having a yoke for the shank of the fish-hook, and eyes for attaching it to a suitable bail, substantially as and for the purpose set forth. 3rd. The combination with a fish-hook, of a bail having its arms detachably connected to each other, and a guard consisting of spring arms having eyes for connecting it to the bail, and a yoke for connecting it to the fish-hook, substantially as and for the purpose set forth.

No. 51,959. Billiard Table Cushion.

(Bande pour tables de billiard.)

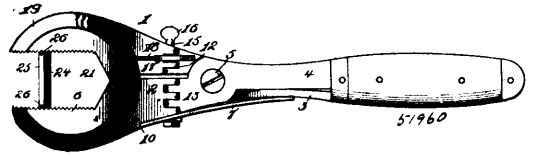


Berton H. Fogg, Somerville, Massachusetts, U.S.A., 14th April, 1896; 6 years. (Filed 22nd February, 1896.)

Claim.—1st. In a billiard table a cushion and a cushion rail so formed and united that the cemented junction between the two shall form a curved plane which forms a small angle with the front plane of the cushion, whereby the cemented joint shall offer the greatest resistance to the tearing action of the ball, substantially as and for the purposes set forth. 2nd. In a billiard table cushion the combination of a metallic strip embedded therein; with a guard of

thin flexible material attached to the said metallic strip and having a member extending above said metallic strip toward the front edge of the cushion whereby the shock of the ball upon the rubber will not be transferred directly to the junction of the rubber and the metallic strip, but will be warded off by said member, substantially as and for the purpose set forth.

No. 51,960. Wrench. (Clé à écrou.)

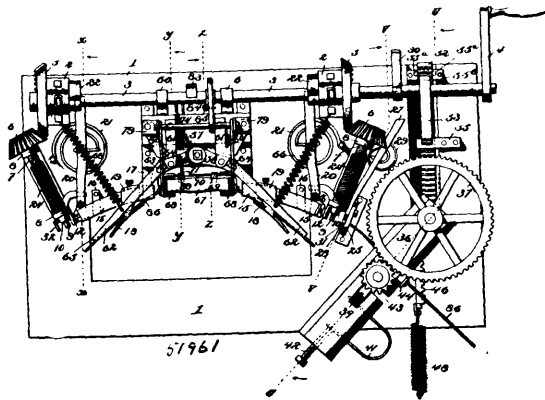


Gustaf F. Johnson, West Superior, Wisconsin, U.S.A., 14th April, 1896; 6 years. (Filed 24th February, 1896.)

Claim.—1st. In a wrench, the combination of pivotally connected members comprising the shanks and jaws carried thereby, the jaws being hinged to the shanks, and means for securing the jaws at any angular adjustment with relation to the shanks, substantially as specified. 2nd. In a wrench, the combination of pivotally connected members having shanks and jaws carried thereby, the jaws being hinged respectively to the shanks, and means for locking the jaws at the desired angular adjustment, such means consisting of latches carried by the shanks, and racks carried by the jaws and engaged by the latches, substantially as specified. 3rd. In a wrench, the combination of pivotally connected members having shanks and jaws carried thereby, one of the shanks being fitted in a groove in the other shank and the jaws being hinged respectively to the shanks and adapted to be arranged in angular positions with relation to the shanks, a pivot pin for one of the hinges extending beyond the lateral edge of the member, a plate spring bearing at its free end against the shank of the other member and slotted to receive the projecting end of said pin, the extremity of the spring adjacent to the pin being bevelled to engage a bevelled shoulder on the member by which the spring is carried, and a nut for locking the spring in the desired position, substantially as specified. 4th. In a wrench, the combination of pivotally connected members having shanks and jaws carried thereby, the jaws being hinged to the shanks and adapted to occupy an angular position with relation thereto, a spring pivotally mounted upon one of the members to engage the other and hold the members in their normal positions, and a limiting screw forming the pivot of the hinge between one of the jaws and its shank and adapted to be adjusted to limit the movement of the jaws under the pressure of said spring, substantially as specified. 5th. In a wrench, the combination of pivotally connected members having shanks and jaws carried thereby, the jaws being interiorly toothed, a spring for maintaining the jaws in their normal positions, a rotary head having a groove for the reception of the jaws, the bottom of the groove being toothed for engagement by the teeth of the jaws, said head having an opening provided with oppositely-disposed roughened or serrated sides, substantially as specified. 6th. In a wrench, the combination of pivotally-connected spring-actuated members having shanks and jaws carried thereby, the jaws being interiorly toothed, a rotary head engaged by the jaws and provided with teeth to interlock with those on the jaws, said head having an opening which extends to one side thereof, and adjustable means for varying the operative space of the opening to fit objects of different sizes, substantially as specified. 7th. In a wrench, the combination with pivotally-connected spring-actuated members having interiorly toothed jaws, of a rotary head arranged between the jaws and toothed for engagement thereby, said head having an opening extending to the side thereof, and a reducing gage fitted in said opening to contract the same for the reception of objects of reduced size, substantially as specified. 8th. In a wrench, the combination with pivotally-connected spring-actuated members having interiorly toothed jaws, of a rotary head arranged between the jaws and toothed for engagement by the teeth thereof, said head having a parallel-sided opening extending to one side of the head, a gage plate mounted to slide in said opening, and means for locking said plate at the desired adjustment, substantially as specified. 9th. In a wrench, the combination with pivotally connected spring-actuated members having interiorly-toothed jaws, of a rotary head arranged between the jaws and toothed for engagement by the same, the head being provided with a parallel-sided opening extending to one side thereof, a gage-plate mounted to slide in said opening and provided with projections engaging grooves in the parallel sides of the opening, and means for locking the gage-plate at the desired adjustment, substantially as specified. 10th. In a wrench, the combination, with pivotally-connected members having interiorly toothed jaws, of a rotary head arranged between the jaws and toothed for engagement thereby, said head having a parallel-sided opening, a gage-plate mounted to slide in the opening in the head, mutilated threads at opposite sides of the opening, and a button provided with threads or ribs to engage said mutilated threads, the gage-plate being adapted to be forced inward upon an object when the button is turned to engage the mutilated threads, substantially as specified.

No. 51,961. Machine for Making Wire Handles.

(Machine pour faire les anses en fil de fer.)

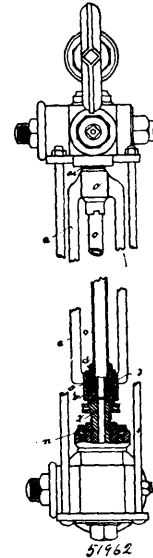


Dan L. Hill, Keene, New Hampshire, U.S.A., 14th April, 1896; 6 years. (Filed 24th February, 1896.)

Claim.—1st. A machine for forming wire bails or handles, comprising oppositely-disposed guides, formers placed opposite to the guides, a wire-feeding mechanism for supplying the wire in proper lengths to the guides, a cutting mechanism for severing the wire, wire coilers at the outer ends of the guides for giving the required shape to the extremities of the wire forming the bail or handle, and arms for removing the end portions of the wire from the guides and shaping the same about the said formers, substantially as set forth for the purpose described. 2nd. In a machine for forming wire bails and handles, the combination of a hopper, wire-receiving guides placed upon opposite sides of the hopper, and wire crimpers operating in the space between the inner ends of the guides and opposing sides of the hopper for crimping the wire at the ends of the wooden handle, substantially as set forth for the purpose described. 3rd. In a machine for forming wire bails and handles, the combination of oppositely-disposed guides, mandrels disposed in proximate relation to the outer extremities of the said guides, levers independent of and co-operating with the mandrels and the said guides to grip the end portions of the wire, and wire coilers for bending the extremities of the wire about the mandrels, substantially as set forth for the purpose described. 4th. In a machine for forming wire bails and handles, the combination of oppositely-disposed guides having their upper portions overhanging or projecting at their outer ends, mandrels arranged in proximate relation to the projecting end portions of the guides, levers for gripping the ends of the wire between the mandrels and the projecting portions of the guides, and wire coilers for bending the extremities of the wire about the mandrels, substantially as set forth. 5th. In a machine for forming wire bails and handles, the combination of oppositely-disposed guides, formers placed opposite the open sides of the said guides, wire coilers at the outer ends of the guides, and arms having their end portions operating in the space between the wire coilers and the outer ends of the guides and extending across the path of the wire to engage with the latter and bend it about the said formers, substantially as set forth. 6th. In a machine for forming wire bails and handles, the combination with the hopper for receiving the wooden handles, and wire crimpers, of spacers adapted to be projected across the ends of the wooden handles and receive the thrust of the crimpers during the operation of crimping the wire at the ends of the handles, substantially as set forth. 7th. In a machine for forming wire bails and handles, the combination with the hopper and wire crimpers, of spacers adopted to work in vertical grooves formed in the outer walls of the hopper and having outwardly-extending projections working in slots in the sides of the hopper, and arms engaging with the said projections for operating the spacers simultaneously, substantially as set forth. 8th. In a machine for forming wire bails and handles, the combination with the hopper for receiving a pile of wooden handles, of a rocking retainer having nibs for supporting the handles within the hopper and adapted to feed one at a time into proper position, and actuating mechanism for oscillating the said retainer, substantially as set forth for the purpose described. 9th. In a machine for forming wire bails and handles, the combination with the hopper, of a shaft located at the lower end of the hopper, pallet-shaped retainers carried by the said shaft, and actuating mechanism for rocking the shaft in its bearings, whereby the handles are fed one at a time, substantially as set forth for the purpose described. 10th. In a machine for forming wire bails and handles, the combination of grooved wheels, a shaft supporting one of the grooved wheels, a connected ratchet wheel and pinion loosely mounted upon the said shaft, a spring-actuated ratchet bar meshing with the pinion, and a spring-actuated pawl operatively connected with the said shaft and adapted to engage with the said ratchet wheel, substantially as set forth for the purpose described. 11th. A machine for forming wire bails and handles, the same comprising a hopper, guides disposed upon opposite sides of the hopper, formers placed opposite the open sides of the said guides, wire coilers at the outer ends of the

guides, levers disposed to grip the end portions of the wire during the operation of the wire coilers, a wire cutter disposed in proximate relation to one of the wire coilers, a wire feeding mechanism in proximate relation to the said cutter, retainers for supporting the pile of wooden handles in the hopper and releasing and feeding the same one at a time, spacers at the lower end of the hopper, wire crimpers for crimping the wire at the ends of the wooden handles, and arms having their end portions extending across the path of the wire to remove the latter from the said guides and shape it about the said formers, substantially in the manner set forth for the purpose described.

No. 51,962. Water-Gauge. (Robinet-jauge.)



Joseph Pissinger, Munich, Bavaria, Germany, 14th April, 1896; 6 years. (Filed 24th February, 1896.)

Claim.—1st. In a water-gauge, the combination with the gauge cocks of a frame consisting of boxes adapted to hold the gauge glass connected by rods or arms, annular screw guides stopping the inner ends of the boxes around the gauge glass, a packing around each end of the gauge glass and held by said screw guides, tubular follower screws in the outer ends of the said boxes bearing upon the packing, each having a concavo-spherical outer end, tubular connecting screws each having a convexo-spherical end fitting into the corresponding concavo-spherical end of the follower, a gland in the gauge cock adapted to receive the stem of one of the connecting screws adjustably, substantially as set forth. 2nd. In a water-gauge, the combination with the gauge cocks, of a frame consisting of boxes *o*, connected by rods or arms *v*, annular screw guides *p* stopping the inner ends of the boxes and surrounding the gauge glass, packings *r* around the ends of the gauge glass butting against said guides, tubular followers screws *q* covering the ends of the gauge glass and compressing the packing and having concavo-spherical outer ends, a tubular connecting screw *w* screwed fast in one of the gauge cocks and having a convexo-spherical end adapted to fit the concavo-spherical end of one of the follower screws, a tubular adjustable connecting screw *t* having a convexo-spherical end fitting the concavo-spherical end of the other follower screw and having a screw stem passing into a gland *u* on the other gauge cock adapted to receive the stem of the adjustable connecting screw, substantially as set forth. 3rd. In a water gauge, the combination of a frame consisting of a pair of boxes adapted to hold the ends of the gauge glass and connected by rods or arms, annular screw guides in the inner ends of the boxes adapted to surround the gauge glass and to form the abutments for packings and tubular follower screws adapted to cover the ends of the gauge glass within said boxes and to press upon the packing and having concavo-spherical outer ends adapted to receive the convexo-spherical ends of the screws, substantially as set forth.

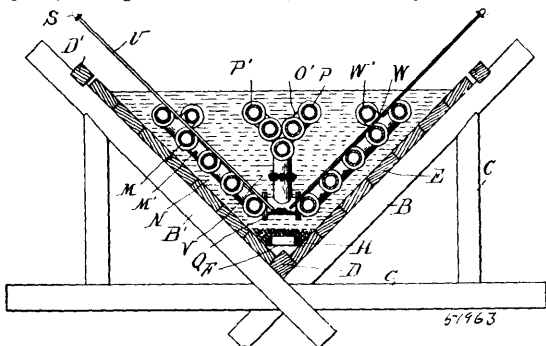
No. 51,963. Apparatus for Manufacturing Salt.

(Appareil pour la fabrication du sel.)

Thomas Craney, Bay City, Michigan, U.S.A., 14th April, 1896; 6 years. (Filed 24th February, 1896.)

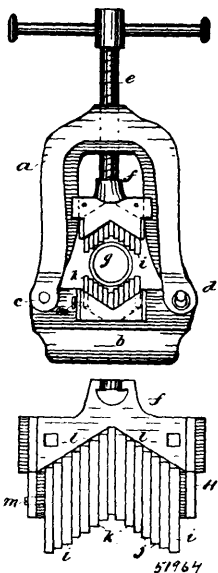
Claim.—1st. In an evaporating apparatus, the combination with an open V-shaped pan, of oppositely inclined series of heating pipes arranged parallel with the sides, but separated therefrom, a trough at the bottom of the pan, and a carrier in the trough, substantially as described. 2nd. In an evaporating apparatus, the combination with an open V-shaped pan, of oppositely inclined series of heating

pipes arranged parallel with the sides but separated therefrom, of a central series of heating pipes parallel with the side series but separated therefrom to leave free passages between, for cleaning purposes, a trough at the bottom, and a conveyor in the trough,



substantially as described. 3rd. In an evaporating apparatus, the combination with an open V-shaped pan, of oppositely inclined series of heating pipes arranged parallel with the sides, air supply pipes on each side, branch pipes therefrom extending over the heating pipes, and having jets discharging toward the bottom of the tank, substantially as described. 4th. In an evaporating apparatus, the combination with an open V-shaped pan of a series of heating pipes on each side parallel with the bottom and separated therefrom, a steam generator for supplying the pipes with steam, air heating pipes in the stack of said generator, air supply pipes leading from the heating pipes to over the tank, branch air pipes into the tank above the heating coils, having jets discharging towards the bottom of the tank, substantially as described.

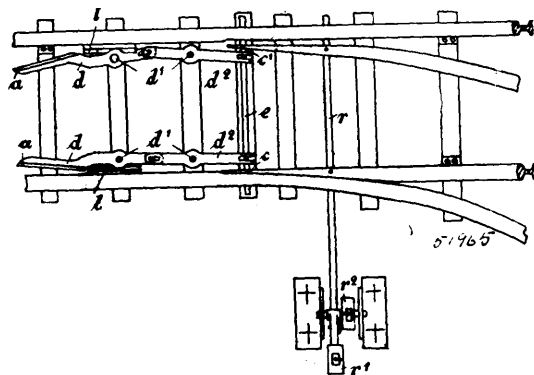
No. 51,964. Vise. (Etau.)



Charles J. Jackson, Erie, Pennsylvania, U.S.A., 14th April, 1896; 6 years. (Filed 24th February, 1896.)

Claim.—1st. A vise or gripping instrument having one or more gripping jaws formed of several reversible metal sections, each section having flat parallel sides and both ends at right angles to the sides, and held to form a stepped gripping surface. 2nd. A vise or gripping instrument having one or more gripping jaws formed of several reversible metal sections of uniform length, each section having flat parallel sides and both ends at right angles to the sides, and held to form a stepped gripping surface. 3rd. A vise having, in combination, stepped gripping jaws, and means for causing the same to grip an object placed between them, said jaws consisting of suitable holders containing several metal sections with flat parallel sides and flat right angle ends. 4th. A vise having, in combination, stepped gripping jaws and means for causing the same to grip an object placed between them, said jaws consisting of suitable holders containing several metal sections of equal length with flat sides and flat right angle ends. 5th. The combination in a gripping jaw, of a holder having a rear wall *l*, of approximately the contour of the gripping surface, and several sections of metal of equal length and with right angle ends held in said holder, the rear ends bearing against said wall and the forward ends forming a stepped gripping surface.

No. 51,965. Railroad Switch. (Aiguille de chemin de fer.)



Henry Bartz, Charlottenburg, Prussia, Germany, 14th April, 1896; 6 years. (Filed 27th February, 1896.)

Claim.—1st. A switch adjusting apparatus comprising two cheek pieces *a, a*, placed one at each side of the rail, connections therefrom to the switch tongue, an adjusting wheel *b*, on the car, adapted to engage the cheek pieces with means for raising and lowering said wheel, substantially as described.

No. 51,966. Obstetrical Forceps. (Forceps obstétrique.)



Frank Wagner, Mansfield, Ohio, U.S.A., 14th April, 1896; 6 years. (Filed 4th March, 1896.)

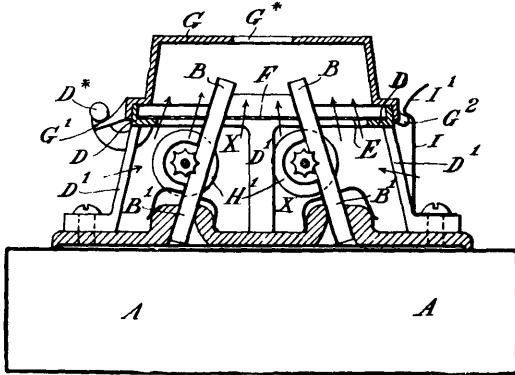
Claim.—1st. Obstetrical forceps consisting of arms and blades, with a socket formed in one of the arms, a ball fitting in the socket with the opposite arm slidable in an aperture formed in the ball, for the purpose described. 2nd. In a device of the character described, the combination with a socket the walls of which are split and carry a blade and handle rod, a ball in the socket having a central aperture in which the opposite blade rod is slidable, for the purpose described. 3rd. Obstetrical forceps having blade arms provided with joints which allow the end of one blade to move beyond the end of the opposite blade and simultaneously turn, for the purpose described.

No. 51,967. Lamp Burner. (Bec de lampes.)

Walter Darby, Ion Darby and John Henry Punched, all of King's Cross, London, England, 14th April, 1896; 6 years. (Filed 24th February, 1896.)

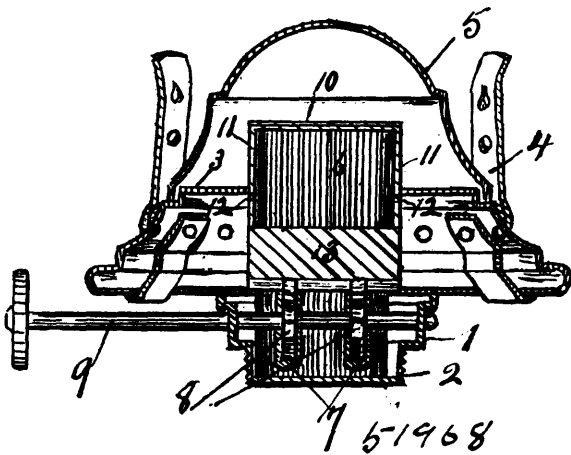
Claim.—1st. In a burner for hydro-carbon oils, the combination with a reservoir or oil tank such as *A*, of two inclined wick tubes such as *B*, a hood over same such as *G*, carried in a support or frame such as *D*, and horizontal restrictors such as *E* and *F*, arranged in said frame *D*, these parts *D*, *E*, and *F*, being mounted near the upper end of said wick tubes *B*, thus providing a clear air space between the underside of said frame *D*, and the reservoir *A*, so as to admit air endwise between and all round said wick tubes *B*, *B*, substantially in the manner and for the purposes hereinbefore described and illustrated in figs 1 to 3 of the drawings hereunto annexed. 2nd. In a burner for hydro-carbon oils, the combination with a res-

ervoir or oil tank such as A, of two inclined wick tubes such as B, with one or more vertical tubes such as B, thereinbetween a hood over same such as G, carried in a support or frame such as D, and horizontal restrictors such as



E and F, arranged in said frame D, these parts D, E, and F, being mounted near the upper end of said wick tubes, thus providing a clear air space between the underside of said frame D, and the reservoir A, so as to admit air endwise between and all round said wick tubes B, B, substantially in the manner and for the purposes herebefore described and illustrated in fig. 4 of the drawings hereunto annexed. 3rd. The improved arrangement and construction of burners for hydro-carbon oils substantially in the manner and for the purposes herebefore described and illustrated in the drawings hereunto annexed.

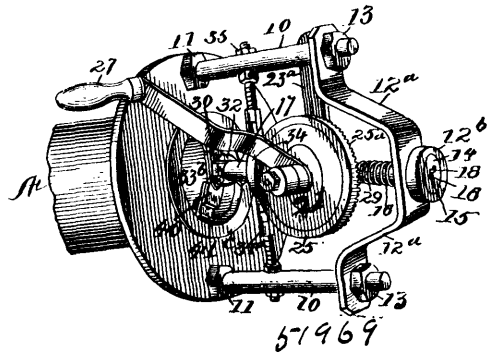
No. 51,968. Lamp Burner. (Bec de lampes.)



Hartwell A. Crosby and William C. Renne, both of Calais, Maine, U.S.A., 14th April, 1896; 18 years. (Filed 24th February, 1896.)

Claim.—1st. In a burner, the combination of a shell, a wick tube, a wick-raising device comprising spur-wheels arranged to engage the wick, a pivoted arm, and a trimming plate, carried on the arm and arranged to pass across the upper end of the wick tube, said arm being arranged to be engaged by the teeth of the spur-wheel, to swing the arm pivotally to move the plate across the end of the wick tube, substantially as set forth. 2nd. In a lamp burner, the combination of a shell, a wick tube, a wick raising device comprising a spur-wheel to engage the wick, an arm pivoted adjacent to the wick and having its lower end weighted and arranged to be engaged by the teeth of the spur-wheel of the wick-raising device, and a trimming plate carried on the upper end of the arm and arranged to move across the upper end of the wick tube, substantially as set forth. 3rd. In a burner, the combination of a shell, a wick tube, a wick-raising device comprising a spur-wheel to engage the wick arms pivoted at their central portions at the end walls of the wick tube, and having their lower ends weighted, a tie, which also acts as a stop, connecting the lower ends of the arms, said tie being arranged to be engaged and moved by the teeth of the spur-wheels to swing the arms pivotally, and a trimming plate carried on the upper ends of the arms and arranged when the arms are swung pivotally to pass across the upper end of the wick tube, the tie or cross-piece which acts as a stop being carried in against the wall of the wick tube thereby preventing the wheels or discs from being turned and the wick lowered any further into the reservoir, substantially as set forth.

No. 51,969. Machine for Grinding Ball and Socket Joints. (Machine pour polir les joints à boulet et joint sphérique.)



The Champion Steam Joint Reamer and Grinder Company, assignee of Frederick Brandes, both of Rondout, New York, U.S.A., 14th April, 1896; 6 years. (Filed 11th February, 1896.)

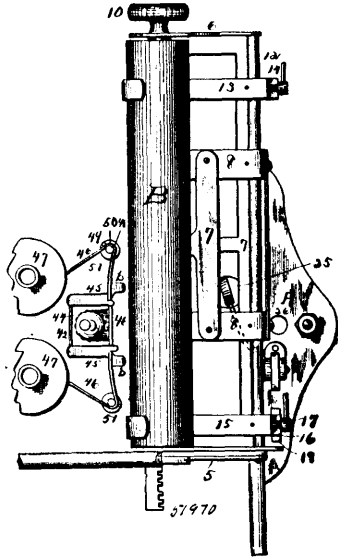
Claim.—1st. In a grinding machine of the class described, a stationary frame having an eccentric bearing, a sectional loosely jointed grinding shaft, one section of which is mounted at one end in said eccentric bearing and the other section of which carries a chuck or holder, and means for rotating the two sections of the shaft at different velocities, substantially as set forth. 2nd. In a grinding machine of the class described, the combination of a sectional grinding shaft carrying a chuck or holder at one extremity, means for rotating the separate sections of the shaft at different velocities, and separate means for imparting to the sectional shaft an oscillating motion, substantially as set forth. 3rd. In a grinding machine of the class described, the frame having an eccentric bearing, a bearing sleeve or collar supported within said frame, a longitudinally movable grinding shaft mounted intermediately in said bearing sleeve or collar and fitted at one end in said eccentric bearing, a chuck or holder mounted on the end of the shaft opposite the eccentric bearing, a spring arranged on the shaft to normally and yieldingly move the same in one direction, and means for rotating and oscillating said shaft, substantially as set forth. 4th. In a grinding machine of the class described, a stationary frame provided at one end with a bearing collar, a rotary bearing bushing turning in said collar and provided with an eccentric bearing opening, an intermediately arranged bearing sleeve or collar supported within said frame, a sectional loosely jointed grinding shaft mounted to turn within said bearing sleeve or collar and having the extremity of one section fitted in the eccentric bearing opening of said rotary bearing bushing, a holder or chuck mounted on one end of one of the shaft sections, a spring arranged on one of the shaft sections to normally move the shaft longitudinally in one direction, and means for rotating the separate shaft sections at different velocities, substantially as set forth. 5th. In a grinding machine of the class described, a stationary frame comprising opposite parallel bolt rods, and a frame bar connecting one end of said rods and provided with a central bearing collar, a rotary bearing bushing turning in said collar and provided with an eccentric bearing opening therein, an intermediate bearing sleeve or collar provided with diametrically opposite bolt studs, a hanger bar or link loosely connected at one end to one of said bolt studs and adjustably at its other end to one of the frame bolt rods, a bevelled gear wheel journaled on the other of said bolt studs, and provided at one side with separate concentric gear portions, a sectional grinding shaft loosely jointed at an intermediate point and turning in said sleeve or collar, one hand of said sectional shaft fitting in said rotary bushing and the other end carrying a chuck or holder, bevelled gear pinions mounted on each of the shaft sections and meshing with the separate gear portions of said gear wheels, a spring arranged on one of the shaft sections to move the shaft in one direction, and a supplemental bearing box provided with an enlarged convex bearing opening receiving one of the shaft sections and with opposite bolt arms adjustably connected to said bolt rods, substantially as set forth. 6th. In a grinding machine of the class described, the combination with the shaft having a squared head or plate at one end; of a chuck or holder having a bifurcated hook plate at one side adapted to engage over said squared head or plate, and with a series of radially disposed adjustable chuck arms having chuck plates at their outer ends, and a swinging latch plate pivotally mounted within the open side of said bifurcated hook plate to provide for detachably locking said hook plate on said squared head or plate of the shaft, substantially as set forth.

No. 51,970. Type-Writer. (Clavigraphie.)

The Crandall Typewriting Company, of New York, assignee of Edwin Earle Barney, both of Groton, New York, U.S.A., 14th April, 1896; 6 years. (Filed 10th February, 1896.)

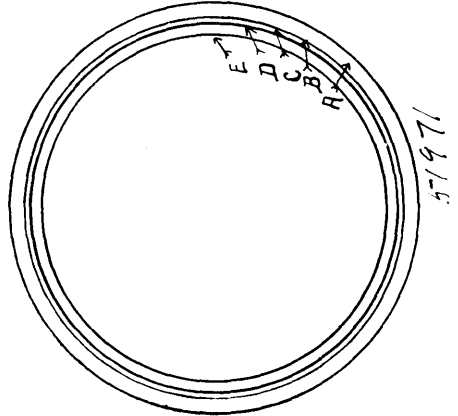
Claim.—1st. The combination with the carriage, impression platen and the bell, of a paper guide adjustably mounted upon said carriage,

a pawl upon said guide, a trip with which said pawl engages, a hammer carried by said trip and a stop with which said pawl engages after passing said trip. 2nd. The combination with the key levers, of a bail, a shaft rotated thereby, a primary cam secured to said



shaft, a secondary cam actuated by the primary one, a spindle frame, a spring bar engaging with it and provided with arms through which the ribbon is guided. 3rd. The combination with the carriage, the piston and its shaft journaled therein, of a plate pivoted upon the carriage and slotted as shown, a pawl upon said plate, a ratchet secured upon said shaft, and means to lift said plate to rotate said platen. 4th. The combination with the carriage, the platen and its shaft journaled therein, of a plate pivoted upon the carriage and slotted as shown, a pawl upon said plate, a ratchet secured upon said shaft, a stop pawl mounted upon said plate, and means to lift said plate. 5th. The combination with the carriage, the platen and its shaft journaled therein, of a plate pivoted upon the carriage and slotted as shown, a pawl upon said plate, a ratchet secured upon said shaft, a stop pawl adjustably mounted upon said plate, and means to lift said plate. 6th. In a typewriting machine, the combination with the lift-key-levers and a curved fulcrum rod upon which they are journaled, of a straight bail upon the line of a chord to the circle of said fulcrum rod with which said levers engage to raise it, and a type-sleeve lifted thereby when a lever is operated. 7th. In a typewriting machine, the combination with the lift-key-levers and a curved fulcrum rod upon which they are journaled, of a straight bail upon the line of a chord to the circle of said fulcrum rod with which said levers engage with varying fulcrum, and a type-sleeve lifted by said bail when a lever is operated. 8th. In a typewriting machine, the combination with a traversing carriage and a chain under tension of a spring wheel in the usual manner and connected to said carriage, of a stop normally out of engagement with said chain but with the chain engages at a given point in the line of travel of said carriage, and is disconnected from it. 9th. In a typewriting machine, the combination with a travelling carriage, of a spring-wheel and a chain connecting them, and means to automatically disconnect said chain from the carriage at a given point in the travel thereof without removing the tension upon the chain. 10th. In a typewriting machine, the combination with a movable carriage and a spring-wheel and chain connected thereto for shifting it, of jaws with which the chain engages at a fixed point in the line of travel of said carriage, to release the carriage from the tension of the spring-wheel and stop its movement. 11th. The combination with the carriage of a typewriting machine and a spring-wheel, of a chain secured to the spring-wheel, and connected to the carriage in such manner as to be detached therefrom at a given point by its forward movement, and become re-engaged therewith by its backward movement. 12th. The combination with an impression platen and its supporting carriage, of a spring-wheel and chain under tension therefrom and normally connected to said carriage, and means to release the carriage therefrom without losing such tension in the chain, and to re-connect them when the movement of the carriage is reversed. 13th. The combination with the carriage of a spring-wheel and a chain permanently connected to the spring-wheel and to the carriage in such a manner as to be detached therefrom by the forward movement of the carriage without losing the tension of the spring-wheel, leaving the carriage free to be moved by hand.

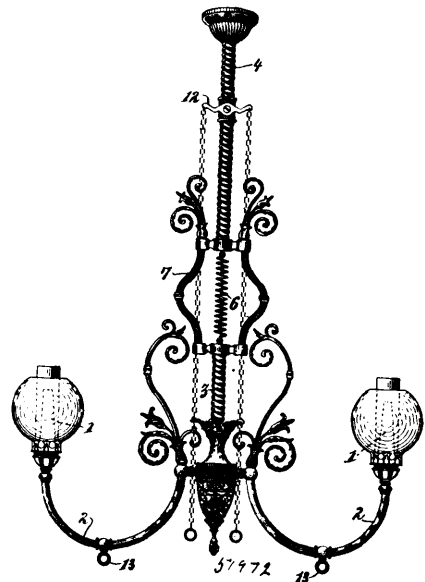
No. 51,971. Construction of Bicycle and Vehicle Wood Rims. (*Fabrication de jante de roue de bicyclette et voiture.*)



John H. Kydd and John B. Mitchel, both of Bowmanville, Ontario, Canada, 14th April, 1896; 6 years. (Filed 27th February, 1896.)

Claim.—1st. An improved wheel rim composed of the inner, outer and central layers, the grain of which run lengthwise, and the intermediate layers the grain of which run crosswise, substantially as shown and described. 2nd. An improved wheel rim having an inner, outer and central layer, the inner layer being thinner than the outer one, and the central one thinner than the inner one, substantially as shown and described. 3rd. An improved wheel rim having an inner, outer and central rim, and the intermediate layers arranged upon opposite side on the inner rim, and thinner than said rim, substantially as shown and described. 4th. An improved wheel rim, having a series of layers, said layers being composed of different coloured wood, substantially as shown and described. 5th. An improved wheel rim composing the inner, outer and central layers, all of one colour, and having the grain longitudinal, and the intermediate layers of a different colour, and having the grain transverse or crosswise, substantially as shown and described. 6th. An improved wheel rim composed of the inner, outer and central layers, and the intermediate layers, the central layer being thinner than the inner layer, and the intermediate layers thinner than the central layer, substantially as shown and described. 7th. An improved wheel rim composed of the inner, outer and central layers, all of one colour, and having the grain lengthwise, and the central layer being thinner than the inner layer, and the intermediate layers having the grain crosswise, said layers being thinner than the central layer and of darker wood, substantially as shown and described.

No. 51,972. Support for Incandescent Mantles. (*Applique pour gaz, etc.*)

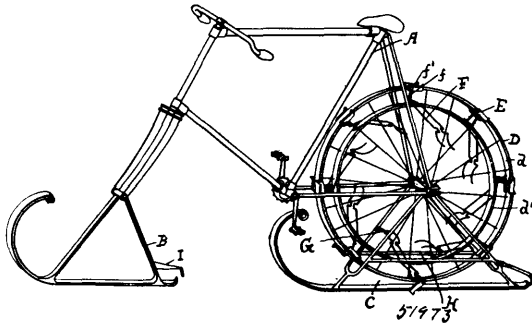


John Wesley McKnight, Philadelphia, Pennsylvania, U.S.A., 15th April, 1896; 6 years. (Filed 19th October, 1895.)

Claim.—The combination, in a gas fixture, for supporting incandescent mantles, of a spring support for the fixture constructed to

prevent vertical and lateral vibration of the mantles, and a flexible connection for supplying gas to the burners without interfering with the described action of the spring support.

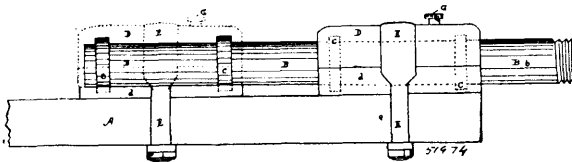
No. 51,973. Ice Velocipede. (Vélocipède.)



Charles Cecil Casselman, Orillia, Ontario, Canada, 15th April, 1896; 6 years. (Filed 18th February, 1896.)

Claim.—1st. A velocipede to run on packed snow or ice propelled by grapples attached to a wheel that depends for its direct support on the frame of the hind runner, and which shall revolve without touching the snow, the lowest part being a few inches above the runner. 2nd. An arrangement of arms pivoted on the wheel, attached to the grapples by springs and to run over rollers to press the grapples in the snow or ice with a greater force than is applied to the machine for that purpose, to prevent the grapples from slipping. 3rd. An arrangement of arms pivoted to the wheel, attached to the grapples by chains and to run under rollers, to raise the grapples out of the snow or ice, without having to overcome the resistance of springs, to prevent chipping and clogging.

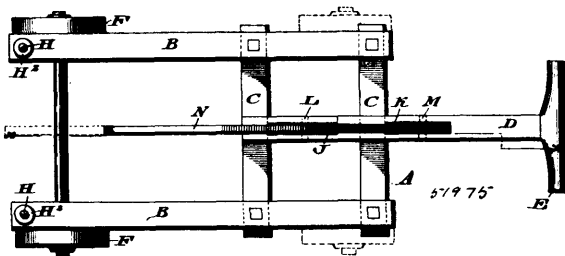
No. 51,974. Carriage Axle. (Essieu de voiture.)



Hedley A. Patton, Oxford, Nova Scotia, 15th April, 1896; 6 years. (Filed 24th February, 1896.)

Claim.—1st. The combination of the stock or bed A A, the revolving axle B B, the collars C C, the boxes D D, the straps E E, and the oilers G G, substantially as and for the purposes hereinbefore set forth.

No. 51,975. Truck. (Camion.)



Wilbert Richman, Harry Jones Richman, both of Salem, William Henry Stehle and Somers Loudham Doughty, both of Atlantic City, all in New Jersey, U.S.A., 15th April, 1896; 6 years. (Filed 18th March, 1896.)

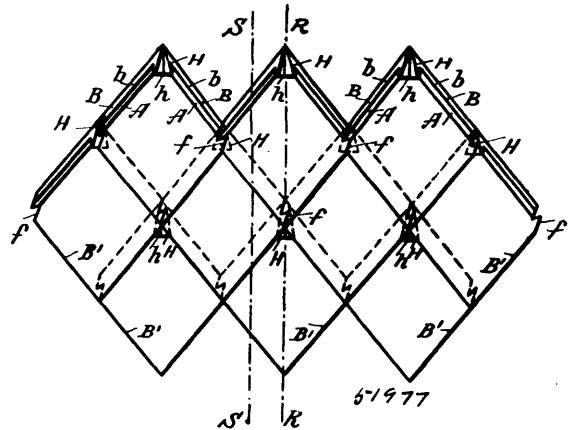
Claim.—1st. A truck having a stationary transverse pin on the handle thereof, and a cant hook which is formed with a T-shaped slot consisting of the inlet portion Q and the longitudinally extending portion R, the latter adjustably receiving said pin, and having its walls interlocked with said pin, substantially as described. 2nd. A truck provided with spurs at its forward end, and a swinging cant hook at its rear end, said hook having an open T-shaped slot which freely receives a stationary pin on the truck, substantially as described.

No. 51,976. Filaments and Carbons for Electric Lamps. (Charbon et carbone pour lampes électriques.)

John Hadden Douglas Willan, 16 St. Helens Place, London, assignee of Peter Stiens, 15 Carroun Road, Chapham Road, both in England, 15th April, 1896; 6 years. (Filed 17th March, 1896.)

Claim.—1st. Filaments and carbons for electric lamps prepared with burnt boric acid. 2nd. The treatment of filaments and carbons in course of manufacture by boiling them with burnt boric acid. 3rd. The treatment of filaments in course of manufacture consisting in impregnating them with burnt boric acid and then heating them by the electric current in the presence of carbonaceous vapour or gas.

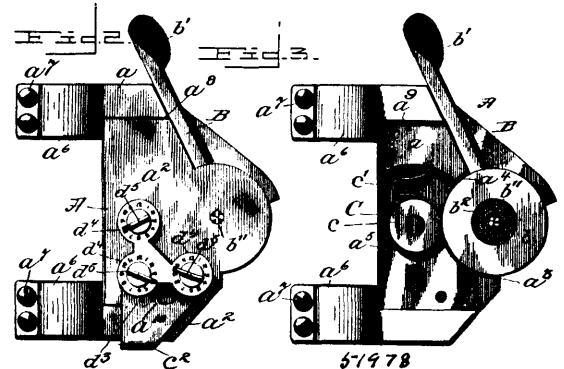
No. 51,977. Tile. (Tuile.)



Julius Theodor Kohler, assignee of Heinrich Bröcker, both of Limbach, Sachsen, Germany, 15th April, 1896; 6 years. (Filed 16th March, 1896.)

Claim.—An improved tile in the shape of a rhombus or rhomboid, provided with ridges B B' and A A' respectively, the latter being inclined towards the outer ridges so as to form an angular recess, to permit of retaining a waterproof joint with expansion or contraction of said tile, the said tile being also provided with the grooved projection H for the purpose of leading off any water that may run through the joint f of adjacent tiles substantially as described and illustrated.

No. 51,978. Bicycle Lock. (Serrure à combinaison pour bicyclette.)



Charles Westall, Middlebury, Vermont, U.S.A., 15th April, 1896; 6 years. (Filed 18th March, 1896.)

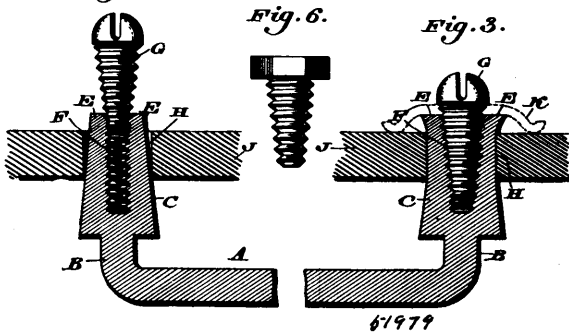
Claim.—1st. A locking bar, having a limited movement about a pivotal centre, and a friction ring, seated in an angular recess, in a manner, to normally engage the bar, whereby the bar will move freely in one direction and be locked against movement in the opposite direction, as specified. 2nd. A locking bar, having a limited movement about a pivotal centre and provided with a disc-like enlargement, and a friction ring, seated in an angular recess and held by a spring, engaging the periphery of the disc-like enlargement of the bar, whereby the bar will freely rotate in one direction and be locked against rotation in the opposite direction, as specified. 3rd. A locking bar, pivoted at one of its ends and having a limited movement about its pivotal centre, and a friction ring seated in an angular recess and held, by a spring, engaging the bar, and combination mechanism, controlling the ring, whereby it may be disengaged, to release the bar, as specified. 4th. A spring actuated locking bar, with a disc-like extremity and having a limited movement about a pivotal centre concentric with this disc, a friction ring, seated in an angular recess, and held by a spring, engaging the periphery of the disc-like extremity of the bar, and combination mechanism controlling the friction ring, as specified. 5th. A lock, comprising a casing, a locking bar, provided with a disc-like extremity and having a limited movement about a pivotal centre concentric with the disc, the outer end of the bar being padded for engagement with the wheel, a friction ring, seated in an angular recess of the casing

and held, by a spring, engaging the periphery of the disc-like extremity of the bar, whereby the bar will move freely in one direction and be locked against movement in the opposite direction, and combination mechanism controlling the friction ring, as specified. 6th. A wheel lock, comprising a casing secured adjacent the periphery of the wheel, a tire engaging bar projecting from the casing and mounted therein, to have a limited movement about a pivotal centre, means for retaining the bar locked against the periphery of the wheel, and combination mechanism controlling the release of the bar, as specified.

No. 51,979. Bonding Device for Electric Railways.

(Appareil à lier pour chemin de fer électrique.)

Fig. 3.



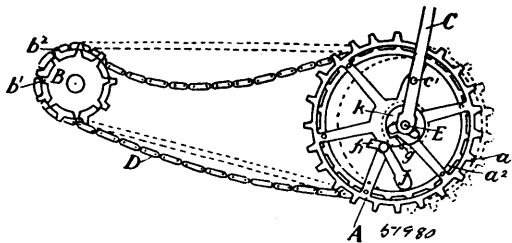
51979

Wilson Brown, Camden, New Jersey, U.S.A., 15th April, 1896; 6 years. (Filed 9th March, 1896.)

Claim.—1st. A bond terminal having a screw-threaded opening, lengthwise slotted, and means to enter and expand said opening, substantially as described. 2nd. In a bond for an electrical conductor, an internally screw-threaded head which is adapted to enter an opening in the conductor, and is formed with expandible jaws, and a screw adapted to enter said head and expand said jaws, substantially as described. 3rd. A bond having a head on the limb thereof, and longitudinal divisions in said head forming jaws thereon, and a conical screw adapted to enter a threaded opening in said head and expand said jaws, substantially as described. 4th. A bond for an electric conductor, formed of a body with internally screw-threaded heads on the limbs thereof, and conical screws entering said heads, which latter are formed with jaws which are adapted to be actuated by said screws, substantially as described. 5th. A bond for an electric conductor consisting of a body with limbs on its ends, internally screw-threaded divided heads on said limbs forming jaws, and screws for expanding said jaws, said jaws having openings in their inner faces, and said screws entering said openings, the parts named being combined substantially as described. 6th. A bond for an electrical conductor, having a divided head forming expandible jaws, and a cap adapted to rest on the conductor, and having an opening for an expanding device of said jaws, said parts being combined substantially as described.

No. 51,980. Gearing for Bicycles, etc.

(Engrenage de bicyclette, etc.)



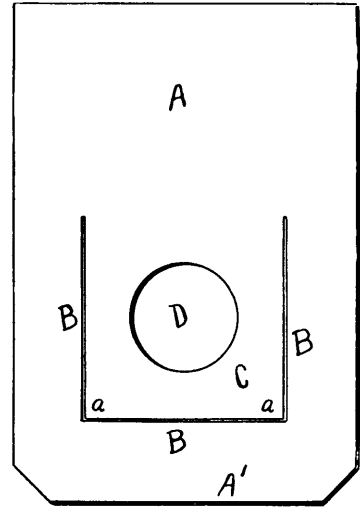
51980

Robert Scott Anderson, Toronto, Ontario, Canada, 15th April, 1896; 6 years. (Filed 12th March, 1896.)

Claim.—1st. In a bicycle, more than one set of gearing-wheels or rims, each set differing from the other in grade of gear and adapted to be driven with the same chain, substantially as described. 2nd. In a bicycle gear, a gearing-wheel adapted to be moved when desired horizontally toward the corresponding wheel of the gear, the bearings of the sprocket and the driving-wheel remaining stationary, substantially as described. 3rd. In a bicycle gear, a gearing-wheel, the central axle hole of which is slotted thus allowing the gearing-wheel to be moved toward the corresponding wheel of the gear, substantially as and for the purpose set forth. 4th. In a bicycle gear composed of more than one set of gearing-wheels or rims, each set differing from the other in grade of gear but adapted to be driven by the same chain, a gearing-wheel adapted to be moved when desired horizontally towards the corresponding-wheel of the gear, the bearings of the sprocket and driving-wheel remaining stationary, substantially as described. 5th. In a bicycle gear com-

posed of more than one set of gearing-wheels or rims, each differing from the other in grade but adapted to be driven by the same chain, a gearing-wheel, the central axle hole of which is slotted thus allowing the gearing-wheel to be moved toward the corresponding wheel of the gear, the bearings of the sprocket and driving-wheel remaining stationary, substantially as described.

No. 51,981. Nut Lock. (Arrête-écrou.)

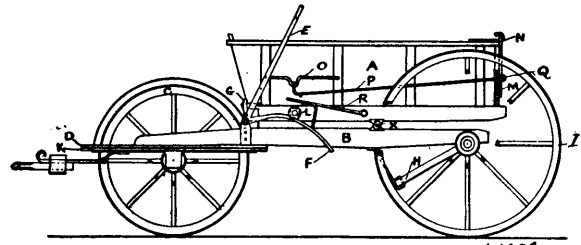


51981

Thomas Heard, St. Thomas, Ontario, Canada, 15th April, 1896; 6 years. (Filed 16th March, 1896.)

Claim.—1st. The combination in a nut-lock of the washer or bearing plate C, punched or drilled to receive a bolt, with the pendent portion A¹, and the incisions B, B, B, substantially as and for the purposes hereinbefore set forth. 2nd. The combination of the bearing plate C, the pendent part A¹, and the incisions B, B, B, with the angles or corners a, a, substantially as and for the purpose hereinbefore set forth.

No. 51,982. Dumping Wagon. (Wagon à bascule.)



51982

John William Douglas Aitken, Londonderry, Nova Scotia, 15th April, 1896; 6 years. (Filed 16th March, 1896.)

Claim.—1st. The combination of the forward wheel C, and the rings or discs D, D, and, K, substantially as and for the purpose hereinbefore set forth. 2nd. The setting of the hind cranked axle H, H, at an angle forward, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of lever E, catch G, cam F, and roller L, substantially as and for the purpose hereinbefore set forth. 4th. The combination of levers R, R, rod P, hangers N, N, and catch O, also their further combination with the lever E, catch G, cam F, and roller F, substantially as and for the purpose hereinbefore set forth.

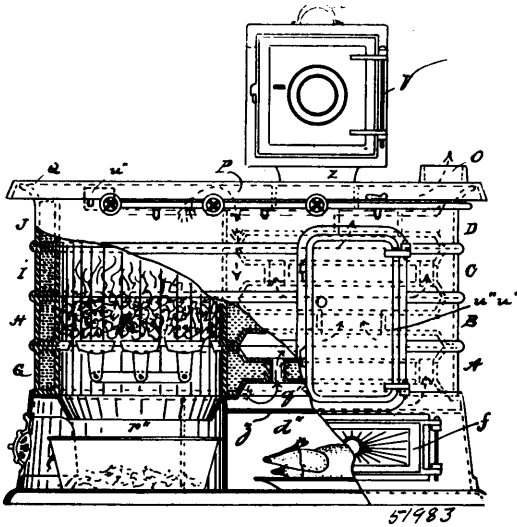
No. 51,983. Hot Water Cooking Stove.

(Poêle de cuisine à eau chaude.)

Eugene S. Manny, Montreal, Quebec, Canada, 15th April, 1896; 6 years. (Filed 16th March, 1896.)

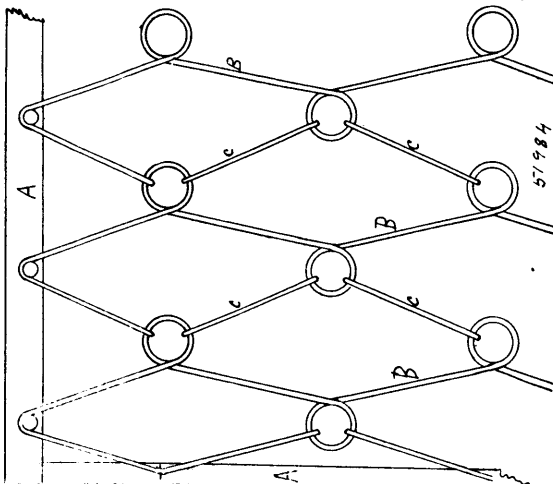
Claim.—1st. In a hot water cooking stove, the combination of the hollow circles G, H, I, J, forming the fire-pot K, in parallel and direct connection with the hot water sections A, B, C, D, substantially as and for the purposes hereinbefore set forth. 2nd. In a hot water cooking stove, the combination of the sections A, B, C, D, with the rings G, H, I, J, the connecting openings E, F, and the division plate G¹, substantially as and for the purpose hereinbefore set forth. 3rd. In a hot water cooking stove, the sections A, B, C, D, having the opening K, for the fire-pot, the straight vertical openings

L, L, and the openings M, N, cast in opposite directions the one to the other, substantially as and for the purpose hereinbefore set forth. 4th. In a hot water cooking stove, the top Q, supported a small distance above the top section D, so as to allow a space or flue P, for



the transmission of the heat of the fire-pot to the hot water sections A, B, C, D, as well as to the oven V, substantially as and for the purpose hereinbefore set forth. 5th. In a hot water cooking stove, the flue or space P, divided by the division plate R, so as to isolate the holes S, T, one from the other, and store up the heat in the hot water sections, substantially as and for the purpose hereinbefore set forth. 6th. In a hot water cooking stove, the combination of the damper U, with the opening in the division plate R, substantially as and for the purpose hereinbefore set forth. 7th. In a hot water cooking stove, the warm closet d¹¹, situated under the sections A, B, C, D, and covered with the heating plate Z¹¹, substantially as and for the purpose hereinbefore set forth. 8th. In a hot water cooking stove, the combination of the portable oven V, surrounded by the space X, such space being partly divided by plate Y, the bottom having two holes provided with collars Z, Z, substantially as and for the purpose hereinbefore set forth. 9th. In a hot water cooking stove, the combination of the gas pipe n¹¹, the valve m¹¹, with the pipe s¹¹, and the burner o¹¹, by means of the gas jet pipe v¹¹, and the loose connection k¹¹, substantially as and for the purpose hereinbefore set forth. 10th. In a hot water stove, the combination of the burner o¹¹, being attached and being supported solely by the grate ring p¹¹, substantially as and for the purpose hereinbefore set forth. 11th. In a hot water cooking stove, the combination of the burner o¹¹, having access to the gas jet pipe v¹¹, through the opening t¹¹, substantially as and for purpose hereinbefore set forth. 12th. In a hot water cooking stove the combination of the slide u¹¹, with the hole t¹¹, substantially as and for the purpose hereinbefore set forth.

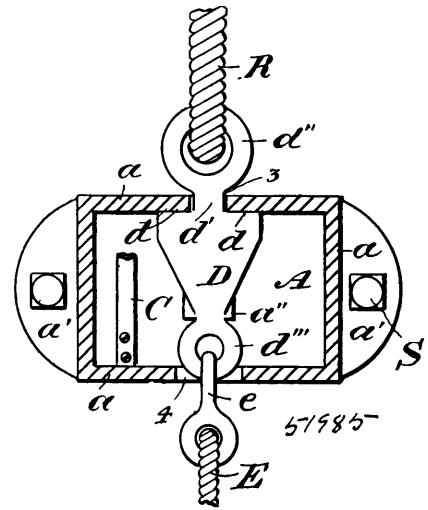
No. 51,984. Spring Mattress. (Sommiere à ressort.)



Robert George Vincent, Harriston, Ontario, Canada, 15th April, 1896; 6 years. (Filed 16th March, 1896.)

Claim.—The formation on combination of strands B, B, and B, and links C, C, and C, in a wire mattress, substantially as and for the purpose hereinbefore set forth.

No. 51,985. Electric Lamp Hanger. (Porte-lampe électrique.)



William Alexander Thompson, Toronto, Ontario, Canada, 15th April, 1896; 6 years. (Filed 16th March, 1896.)

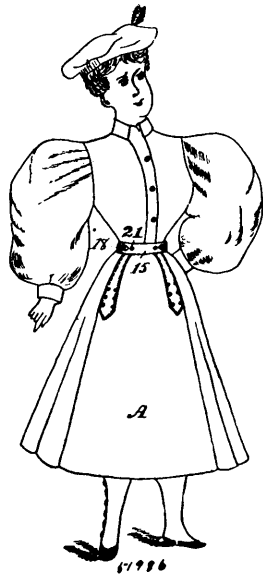
Claim.—1st. The combination of a rimmed back provided with lugs for securing it on a pole or other support, a lid or cover hinged to said rim allowing a space between itself and the back, a lock on said lid adapted to secure it against interference, a spring tending to close said lid, a notch in the upper part of the rim at which the lid opens adapted to receive the neck of a catch, a notch in the lower part of the rim and lid allowing access to the lower part of the catch, and a catch consisting of a downwardly tapered body having an upper square shoulder adapted to abut against the inner face of the upper part of the rim, a neck on said shoulder adapted to project through the notch in said rim and two eyes or rings one at each end of said catch, a rope permanently secured to the upper end of said catch and a light rope or cord adapted to be removably secured to the lower end of said catch, substantially as set forth. 2nd. In an electric lamp hanger lock, the combination of a casing adapted to be secured to the pole or other support and provided with a rim, a lid hinged to the lower part of the rim so as to leave a space between itself and the back and adapted to be locked into position when closed, a catch consisting of a tapered body having at its upper end a square shoulder adapted to abut on the inner face of the upper part of the rim and a neck projecting through a notch in said rim and terminating in an eye or ring at each end, notches in the lower part of the rim and lid giving access to the lower eye of the catch, substantially as set forth. 3rd. The combination of a rope from which an electric lamp may be suspended, a catch D secured to the free end of the suspension rope having a narrow neck and a square shoulder adapted to abut upwardly against a notched projection adapted to receive the neck and provided at its lower end with an eye or ring, a light rope or cord with snap adapted to engage the said eye or ring and a casing adapted to receive and retain said catch when closed and having notches in its upper and lower parts of the rim to receive the neck of the catch and give access to the lower end and provided with hinged and lockable lid adapted to prevent said neck to leave its notch when closed and to allow it to escape when open, substantially as set forth.

No. 51,986. Bicycle Skirt. (Jupe pour bicyclistes.)

Julius Newton Lewinson, New York, State of New York, U.S.A., 15th April, 1896; 6 years. (Filed 16th March, 1896.)

Claim.—1st. A skirt for use in bicycling and similar exercises, provided with an opening in the rear, flaps adapted to normally close the said opening, and an apron adapted to cover and conceal the said flaps, as and for the purpose set forth. 2nd. A skirt for use in bicycling and other exercises, provided with a vertical opening at the central portion of the back thereof, flaps attached to the side edges of the skirt at the said opening, adapted for engagement with each other and provided with fastening devices, the said flaps being of sufficient size to practically close the said opening, an apron attached to the lower wall of the opening and adapted for locking engagement with the skirt, and means, substantially as shown and described, for securing the said apron to the waist band of the skirt, as and for the purpose specified. 3rd. A skirt adapted for use in bicycling or other exercises, provided with a vertical opening at the central portion of its back, the said opening being continued through the waist band, the waist band of the said skirt having slots formed therein, flaps attached to the side edges of the skirt at the rear opening thereof, means for connecting the flaps over the said opening, an apron located at the upper edge of the said rear skirt opening, a

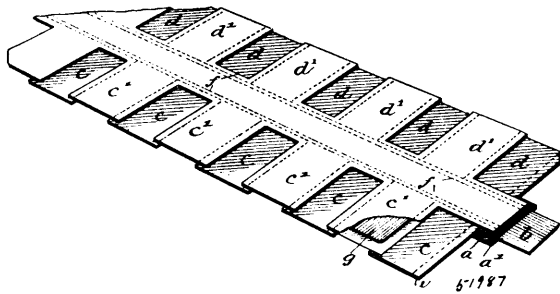
band attached to the said apron, and devices for connecting the apron with the skirt at the outside of the flaps, the ends of the apron band being adapted to be passed through the slots in the waist band of the skirt, as and for the purpose specified. 4th. A skirt for use



in bicycling and for other exercises, the said skirt being provided with a central vertical opening at the back, flaps secured to the side edges of the skirt at the said opening and arranged to engage with each other, and to be secured to each other at their point of engagement, a waist band attached to the body of the said skirt and to the upper portions of the said flaps, an apron attached to the lower edge of the rear skirt opening, the said apron being of such dimensions that when carried upward it will extend to the waist band and cover the said flaps, and means, substantially as described, for attaching the apron to the skirt and to the waist band thereof, as and for the purpose set forth.

No. 51,987. Puncture Proof Pneumatic Tire.

(*Bandage pneumatique.*)



Abram Lent Smith, Brooklyn, New York, U.S.A., 15th April, 1896; 6 years. (Filed 17th March, 1896.)

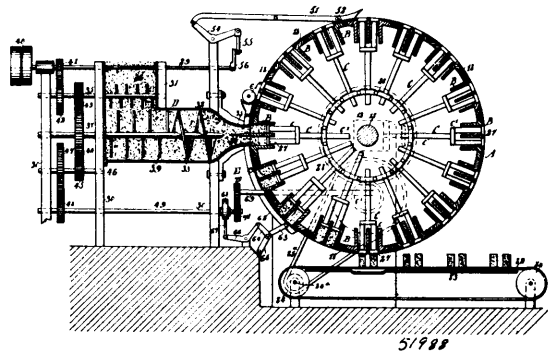
Claim.—1st. A puncture proof strip for pneumatic tires consisting of a backbone in combination with ribs projecting laterally from each edge, the ribs being hinged to the backbone, substantially as described. 2nd. A puncture proof strip for pneumatic tires, consisting of a backbone in combination with two or more series of ribs projecting laterally from each edge thereof, said ribs overlapping each other and the backbone and being hinged to the backbone, substantially as described. 3rd. A puncture proof strip for pneumatic tires, consisting of a backbone in combination with ribs projecting laterally from each edge, the said backbone and ribs being inclosed in pockets or envelopes of flexible material which are hinged together, as set forth.

No. 51,988. Brick Machine. (*Machine à brique.*)

Charles Stevenson Meyers, Albert E. Johnson and George I. Core, all of Sharpburg, Pennsylvania, U.S.A., 15th April, 1896; 6 years. (Filed 16th March, 1896.)

Claim.—1st. The combination with a rotary part carrying brick moulds and plungers movable in said moulds and adapted to exert an interior pressure on the moulds, of the plate conforming to the curvature of the rotary part and comprising a fixed portion and a

pivoted lower section for exerting external pressure on the material in the mould, connections between a rotary shaft and said pivoted section for imparting motion to the section, and the oiling device supported by the fixed portion of said plate, substantially as



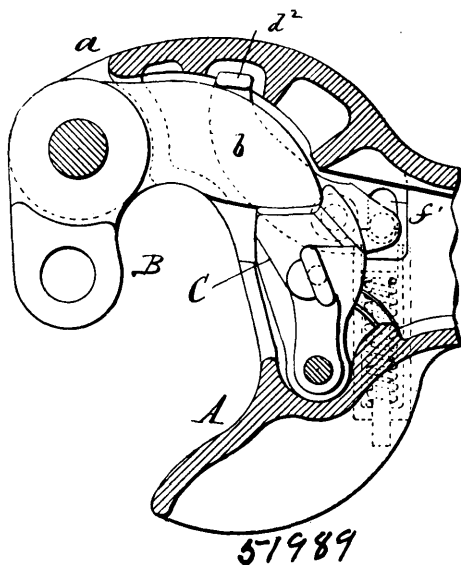
specified. 2nd. A brick machine, comprising a mould carrying-wheel, plungers movable in said moulds, a feeder, an external pressure plate for material in a mould and co-acting with the plunger in said mould which has an outward movement against the inner side of the material, the rotary shaft, an eccentric thereon, a pitman extended from the eccentric, a sliding head block engaging loosely on the plunger, and the connections between the head block and pitman whereby said block is caused to exert an outward pressure on the plunger, substantially as specified. 3rd. In a brick machine, a mould-wheel comprising a disc-like body, a ring spaced apart from and concentric with the body, plates connecting the ring to the body, said plates extending across the space between the ring and body at the periphery of the mould-wheel, and forming between them spaces to receive the moulds, the said moulds arranged in said spaces and having flanges to engage the inner sides of said plates, and means for securing said moulds in place, substantially as set forth. 4th. In a brick machine, the combination of a mould-wheel having plates extending across its periphery and spaced apart to receive between them the moulds, the said mould arranged in said spaces, and having flanges engaging the inner sides of said plates and fastening devices on said plates engaging said flanges to hold the moulds, substantially as set forth. 5th. In a brick machine, the combination of a mould-wheel provided with a mould having two cavities, followers arranged to fit said cavities, a perforated guide ring projecting from the mould-wheel, and a plunger having its body arranged to slide in the perforation in the guide ring and having a bifurcated end, the forks of which extend into the respective cavities of the mould and are connected to the followers therein, substantially as set forth. 6th. In a brick machine, the combination of a mould-wheel having a disc-like body provided with an annular projecting guide ring, moulds secured to the periphery of the mould-wheel, plungers arranged to play in the moulds, and having their inner ends arranged to slide through perforations in said guide ring, and means for actuating said plungers, substantially as set forth. 7th. In a brick machine, the combination of a moving part having moulds, a pug mill having its outlet abutting against the surface of the moving part and adapted to feed the moulds, plungers arranged to play in the cavities of the moulds, means to actuate said plungers to discharge the moulded clay therefrom, and a roller arranged adjacent to the outlet of the pug mill, and arranged to engage the ends of the plungers and hold the same flush with the surface of the moving part in position to pass the outlet of the pug mill, substantially as set forth. 8th. In a brick machine, the combination of a moving part having moulds, a compressing plate to close the open ends of the moulds, two links pivoted together to form a toggle, one link being connected to the compressing plate and the other to an adjacent fixed part, a rotative shaft, and an eccentric on said shaft connected to and arranged to operate said toggle, substantially as set forth.

No. 51,989. Car Coupling. (*Attelage de chars.*)

The Gould Coupler Company, New York, assignee of Willard Fillmore Richards, Buffalo, both of New York, U.S.A., 15th April, 1896; 6 years. (Filed 16th March, 1896.)

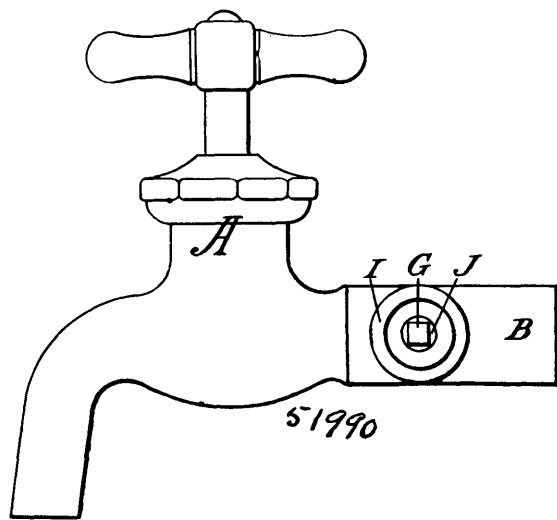
Claim.—1st. The combination, with the draw-head, a movable coupling, jaw and a lock, of a shifting lever pivoted between its ends to the draw-head and having its front arm arranged to bear against the coupling jaw, and a spring operating against the rear arm of the shifting lever, substantially as set forth. 2nd. The combination, with the draw-head, a swinging coupling jaw having a locking arm, and a lock, of a shifting lever pivoted within the draw-head and arranged to bear against the locking arm of the coupling jaw and a spring arranged on the underside of the draw-head and operating against said shifting lever, substantially as set forth. 3rd. The combination, with the draw-head, having a slot in its bottom, a swinging coupling jaw having a locking arm and a lock, of a shifting lever pivoted within the draw-head, arranged to bear against the locking arm of the coupling jaw and provided with an operating pin or projection passing through the slot of the draw-head, and a

spring bolt arranged on the underside of the draw-head and bearing against the actuating pin of the shifting lever, substantially as set forth. 4th. The combination with the draw-head, having a slot in its bottom, a swinging coupling jaw having a locking arm and a



lock, of a horizontally swinging shifting lever arranged within the draw-head, pivoted between its ends and having its front arm provided with a lug adapted to bear against the locking arm of the coupling jaw, and its rear arm with an actuating-pin extending through the slot of the draw-head, and a transverse spring bolt or rod guided on the underside of the draw-head and bearing against the actuating pin of the shifting lever, substantially as set forth.

No. 51,990. Chantepleure. (Tap.)



Pierre Etienne Guérard, susdit, Montréal, Québec, Canada, 15 avril 1896; 6 ans. (Déposé le 25 Février, 1896.)

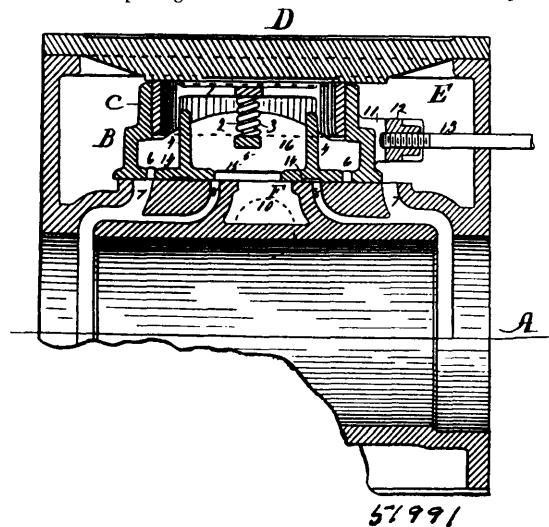
Résumé.—La combinaison d'une chantepleure ordinaire A percée d'un trou C, avec un cylindre F, dans lequel sont pratiquées deux entailles g, une rondelle H, s'appliquant sur le dit cylindre, et le couvert T, servant à maintenir cylindre et rondelles en position, le tout tel que représenté par les dessins et décrit dans la spécification.

No. 51,991. Valve. (Soupape.)

The Brownell and Company, assignee of Harry C. Clay, both of Dayton, Ohio, U.S.A., 16th April, 1896; 6 years. (Filed 14th March 1896.)

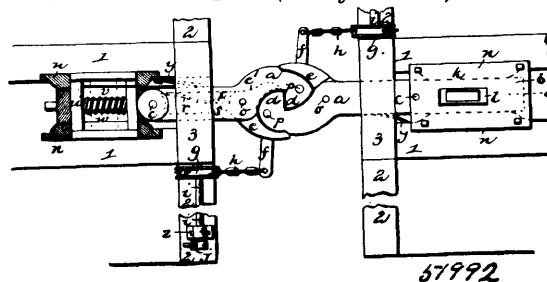
Claim.—In a steam engine the combination of the cylinder provided with two series of ports terminating in end ports and the cen-

tral live-steam port, the compound balanced slide valve provided with central opening coincident with said live-steam port and



the ports near the ends, which are adapted to alternately open to said outer and inner ports, said outer ports serving for the exhaust at the ends of said valve, substantially as shown and described.

No. 51,992. Car Coupler. (Attelage de chars.)

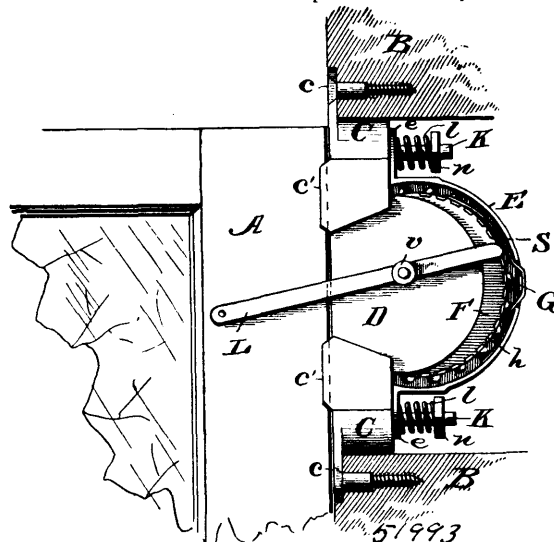


James Depew and James Fitzpatrick, both of Peekskill, New York, U.S.A., 16th April, 1896; 6 years. (Filed 13th March, 1896.)

Claim.—The combination in a car coupling of the draw-head a provided with the head d, hook e e', spring r within the chamber in said draw-head and acting upon said hook, pivot c, slotted block b having extensions m m, and carrying bars u u', spring v and rod w, hook plates n n, plates k k', slotted to receive the projections m m, timbers 1, 2, 3, shoulders 6, and spring y, arm f and chain operating mechanism, substantially as herein shown and described.

No. 51,993. Sash Lock and Balance.

(Arrêt de sûreté et contrepois de croisée.)



Robert Knox Brown, Whitinsville, Massachusetts, U.S.A., 16th April, 1896; 6 years. (Filed 17th March, 1896.)

Claim.—1st. The herein described sash balance for windows, consisting of a casting or shell adapted to be secured in a recess in the window frame, a barrel rotatably mounted in said casting, and provided with means on its periphery for engaging the side of the window sash, a spring pawl normally locking the barrel against rotation, and a lever arm pivoted to one side of the axis of the barrel normally out of engagement with said pawl and arranged to lift the pawl out of engagement with the barrel, substantially as described. 2nd. The herein described sash balance for windows, consisting of a shell or casting provided with guide lips on each end in alignment with the box strip of the window frame, a spring barrel rotatably mounted in the casting and having an engaging device on its periphery for engaging the side of a window sash, with mechanism for locking and unlocking the sash balance, substantially as described. 3rd. The herein described sash balance, consisting of a shell or casting adapted to be secured within a recess in a window frame, a spring operated barrel, rotatably mounted in said casting, the said barrel having on its periphery an engaging device for engaging with the side of a window sash, and a set of locking teeth, a pawl normally in engagement with said teeth, and a lever normally out of operative engagement with the pawl for lifting and holding said pawl out of contact with said teeth to permit the barrel to rotate, substantially as described. 4th. In a sash balance, the combination with the window frame provided with a recess, of a casting or shell having flanges projecting within the recess, a spring operated barrel rotatably and adjustably mounted between the flanges and having in its periphery a device for engaging the side of the window sash, and a set of teeth for locking the barrel, a spring pawl normally in contact with the teeth to lock said barrel, and a lever arm pivoted to one side of the axis of the barrel, upon one of the flanges of the casting and adapted to raise the pawl and unlock the barrel, substantially as described. 5th. In a sash balance, the combination with the window frame having a recess therein, of a casting or shell provided with a set of flanges secured to the frame and a pair of parallel flanges projecting at right angles thereto within the recess of the frame, a spring operated barrel mounted in the casting between said flanges, a pair of guide lips extending from the casting so as to be quickly aligned with the box strip of the window frame, the inner portions of said lips being tightly raised above the shell side and barrel supporting flange forming a recess, a lever pivoted upon the barrel supporting flange having one end extending through the rear between the lips and the other end into the recess of the frame, a pawl normally locking the barrel against rotation, with which pawl the said lever arm is adapted to engage and lift it out of contact with the barrel, substantially as described. 6th. In a sash balance, the combination with the shell or casting having parallel supporting flanges therein, one of said flanges being provided with a centering recess on its inner side, an annular casing closed on one side provided with a centrally projecting hub and adjustably mounted in the casting, a cup-shaped barrel having a spindle fitting in the said hub and provided on its closed side with a circular projection meshing with the recess on the supporting flange, substantially as described. 7th. In a sash balance, the combination with the shell or casting C provided with parallel flanges extending from the base thereof, an operating barrel supported between said flanges, and projecting through the base of the shell E to engage the side of the window sash, a cup-shaped shell enclosing the barrel, a spring pawl having its body portion confined by notches on the periphery of the shell E and its free end normally holding the barrel against rotation, a lever pivoted on one of the flanges, one end of said lever being normally out of operative engagement with the pawl and adapted to be brought into contact therewith to disengage the pawl from the barrel, substantially as described.

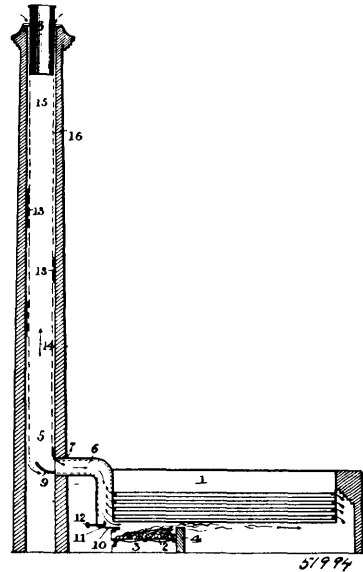
No. 51,994. Apparatus for Producing Combustion.

(Appareil pour la production de combustion.)

Paul Joseph Schlicht, Summit, New Jersey, U.S.A., 16th April, 1896; 6 years. (Filed 17th March, 1896.)

Claim.—1st. The improvement in the art of producing combustion which consists in causing a supporter of combustion to flow to a place of combustion in contact with a current of products of combustion, substantially as set forth. 2nd. The improvement in the art of producing combustion which consists in causing a supporter of combustion to flow by gravity to igneous fuel in contact with products of combustion, substantially as set forth. 3rd. The improvement in the art of producing combustion which consists in feeding to the place of combustion below the top of the fuel a portion only of the air required for combustion, and in causing the remainder of the air required for combustion to flow to the place of combustion in contact with a current of the products of combustion flowing therefrom throughout a substantial part of the length of said current, substantially as set forth. 4th. The combination with a furnace or place of combustion, of means for feeding a supporter of combustion to the furnace or place of combustion, so as to come in contact with and be heated by products of combustion, substantially as set forth. 5th. The combination with a furnace or combustion chamber, of a chimney and means for causing a supporter of combustion to enter the chimney and flow to said furnace or combustion chamber, so as to come in contact in said chimney with the hot products of combustion flowing from the furnace or combustion chamber, substantially as set forth. 6th. The combination with a combustion ap-

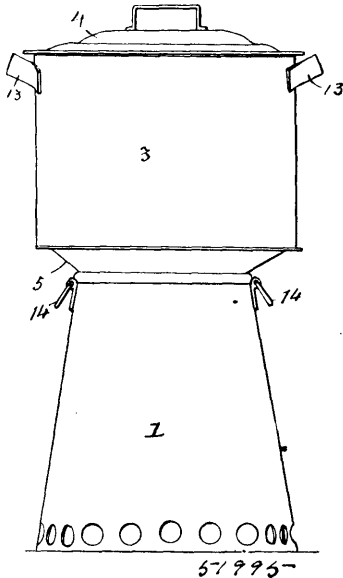
paratus, of means for feeding air by gravity to the said apparatus through the stack, flue or chimney thereof, so as to cause the air to come in contact in said stack, flue or chimney with the hot products of combustion escaping from the combustion chamber, substantially



as set forth. 7th. The combination with a furnace and stack, of a deflector situated in or upon the stack, and adapted to produce an air current in the stack in a direction opposite to the direction of motion of the products of combustion, and to separate the initial portion of such air current from the products of combustion, substantially as set forth. 8th. The combination with a chimney or stack, of an air deflector conforming to the shape of the same and of such a size as to enter the top of the chimney or stack and leave a space between it and the chimney or stack, and supported so as to extend above the chimney or stack, substantially as set forth. 9th. The combination with a chimney, of a deflector consisting of a tube extended a part of the way down within the top of the same to direct an entering current of air downward therein, substantially as set forth. 10th. The combination with a combustion chamber, of means for admitting below the top of the fuel in said chamber a portion only of the air required for combustion, and a chimney or flue connected with the combustion chamber and provided with means for causing the remainder of the air required for combustion to enter the chimney or flue and flow through the same to the combustion chamber in contact with the escaping products of combustion, substantially as set forth. 11th. The combination with a chimney or stack of means for causing a current of air to move downward within said chimney or stack in contact with the products of combustion, and a chimney or stack extender adapted to lengthen the passage through which the products of combustion flow, substantially as set forth. 12th. As a new article of manufacture, a chimney attachment provided with means for causing a current of air to flow downward through a chimney or flue, substantially as set forth. 13th. As a new article of manufacture, a chimney attachment having a wall which divides the same into two flues, one of said flues being adapted to initiate a downwardly moving air current, and the other flue being adapted to receive an upwardly moving current of products of combustion, substantially as set forth. 14th. The combination with a chimney or stack, of an air inlet pipe extending into the chimney or stack, and adapted to introduce a current of air and direct it towards the place of combustion, substantially as set forth. 15th. The combination with a chimney or stack, of means for causing a current of air to move downward within said chimney or stack in contact with the products of combustion, and an air heating device adapted to receive heat from the said combustion products and to deliver heated air to said means, substantially as set forth. 16th. The combination with a chimney or stack, of means for initiating a downwardly moving current of air within said chimney or stack, so that it will flow downward in contact with the products of combustion, and an air heating device consisting of a chimney or stack protector adapted to protect the chimney or stack from the external atmosphere and to deliver heated air to said means, substantially as set forth. 17th. The combination with a chimney or stack, of means for initiating a downwardly moving current of air within said chimney or stack so that it will flow downward in contact with the products of combustion, and an air heating device adapted to receive heat from the combustion products within the chimney or stack and deliver heated air to said means, and a wind guard adapted to protect said current from the wind, substantially as set forth. 18th. The combination with a chimney or stack, of means for causing a current of air to move downward within said chimney or stack in contact with the

products of combustion, and a wind guard adapted to protect said current from the wind, substantially as set forth. 19th. As a new article of manufacture, a chimney or globe provided with means for causing air to flow downward within the same to the place of combustion in contact with the products of combustion, substantially as set forth. 20th. As a new article of manufacture, a lamp chimney or globe increasing in diameter below the top, so as to form an enlarged portion or chamber, and provided with a deflector increasing in diameter towards its lower end, and thereby adapted to cause a current of air to enter the chimney or globe, and pass downward along the sides of the chimney or globe to the place of combustion, substantially as set forth.

No. 51,995. Ash Sifter. (*Crible à cendres.*)



Paul Richard Krasel, Montreal, Quebec, Canada, 16th April, 1896; 6 years. (Filed 17th March, 1896.)

Claim.—1st. An ash sifter having an upper section with a screen of large mesh and a lower part with a screen of finer mesh in combination with a suitable support and receptacle for the ashes sifted through such screens for the purpose set forth. 2nd. An ash sifter having a screen of large mesh and a screen of finer mesh beneath same, for the purpose set forth. 3rd. In an ash sifter, the combination of the supporting receptacle 1, the cylindrical vessel 3 with suitable cover and hopper-shaped bottom 5 having opening 6 and flange 7, the fine screen 8 and the removable section 10 with screen 9 of larger mesh and suitably supported in said vessel 3, all substantially as and for the purpose set forth. 4th. An ash sifter comprising an annular support and a sifting receptacle proper with an inclined bottom resting on such support and having an opening therein and provided with a flange, the latter adapted upon the rocking of such receptacle to strike against the support, for the purpose set forth.

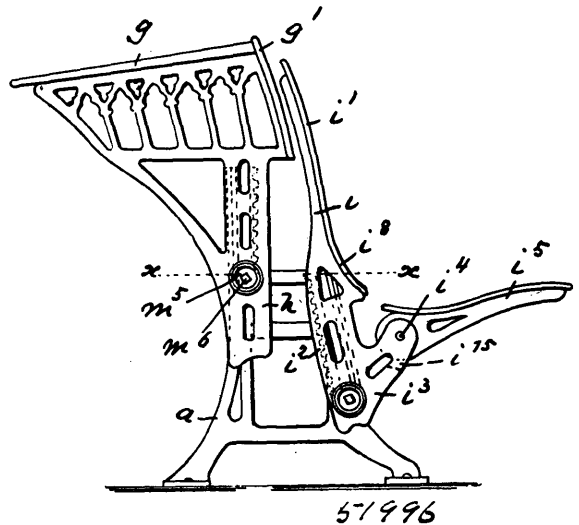
No. 51,996. School Desk and Seat.

(*Pupitre et siége d'école.*)

Warren Lafayette Starkey, Paterson, New Jersey, U.S.A., 16th April, 1896; 6 years. (Filed 17th March, 1896.)

Claim.—1st. An adjustable desk and seat combined, consisting of two sets of legs or standards, of the desk proper vertically adjustable on said standards, a back to said desk, a seat adjustably arranged on said standards and movable at an acute angle to the desk, and a back forming part of the seat, said back being independent of the back of the desk and clearing the same, substantially as and for the purposes described. 2nd. An adjustable desk and seat combined, consisting of two sets of legs or standards, of the desk proper vertically adjustable on said standards, a back to said desk, a seat adjustably arranged on said standards and movable at an acute angle to the desk, a back forming part of the seat, being independent of the back of the desk, and means for adjusting the desk and seat independently of each other, substantially as and for the purposes described. 3rd. An adjustable desk and seat combined, consisting of two sets of legs or standards, each standard being provided with a vertical slot, a rack bar on one side of said slot, the desk proper provided with a back and having on each side a depending arm engaging the legs or standards, a rod passing through said arms and provided with screw threaded ends, a blind nut on one end of said rod, a clamping nut on each end of said rod, a hollow shaft on said rod and secured with one end to the blind

nut, a pinion secured near each end of said hollow shaft engaging its respective rack bar, a seat adjustably arranged on the standards and movable at an acute angle to the desk, and having a back independent of the back of the desk and clearing the same, and means for locking said



seat in the standards, substantially as and for the purposes described. 4th. An adjustable desk and seat combined, consisting of two sets of legs or standards, each standard being provided with a vertical slot and with a slot at an acute angle to the vertical slot, a desk adjustably arranged in said vertical slot, and provided with a back, a seat adjustably arranged in the other slot and adapted to be moved in a plane at an acute angle to the desk, a back forming part of said seat, said back being independent of the back of the desk, and clearing the same, and means for adjustably securing the desk and seat independently of each other, substantially as and for the purposes described. 5th. An adjustable desk and seat combined, consisting of two sets of legs or standards, each standard being provided with a vertical slot and with a slot at an acute angle to the vertical slot and having wedge-shaped outer sides, a rack bar on one side of each slot, a desk provided with a back and having depending arms, each of said arms having inwardly extending wedge-shaped sides adapted to engage the wedge-shaped sides of the standards, a horizontally arranged rod connecting said depending arms of the desk, clamping nuts on the outer ends of said rod, a hollow shaft on said rod, a pinion on each end of said hollow shaft and engaging the rack bars of the vertical slot, a seat provided with a back independent of the back of the desk and having on each side a depending arm with inwardly projecting wedge-shaped flanges adapted to engage the wedge-shaped outer sides of the standards (on each side of the inclined slot), a rod connecting the depending arms of the seat, clamping nuts on each end of the rod, a hollow shaft on said rod and a pinion on each end of the hollow shaft and engaging the rack bars of the inclined slot, all said parts substantially as and for the purposes described. 6th. In an adjustable desk, the combination with the legs or standards, each provided with a slot, of a rack bar on one side of said slot, the desk proper having depending arms, adapted to bear against the legs or standards, a rod connecting said arms and provided with screw-threaded ends, a hollow clamping nut on each end of said rod, a hollow shaft on the rod, and a pinion on each end of the hollow shaft and engaging the rack bars of the slots, and adapted to bear against the legs or standards, when the clamping nut is tightened, all said parts substantially as and for the purpose described. 7th. In an adjustable desk, the combination with the legs or standards, each provided with a slot, of a rack bar on one side of said slot, the desk proper having depending arms, adapted to bear against said legs or standards, a rod connecting said arms and provided with screw-threaded ends, a hollow shaft on said rod, a blind nut on one end of said rod and secured to said hollow shaft, a pinion on each end of said hollow shaft and engaging the rack bars of the slot, and adapted to bear against the legs or standards, and a hollow clamping nut on each end of the rod and bearing against the outer faces of the depending arms, all said parts substantially as and for the purposes described.

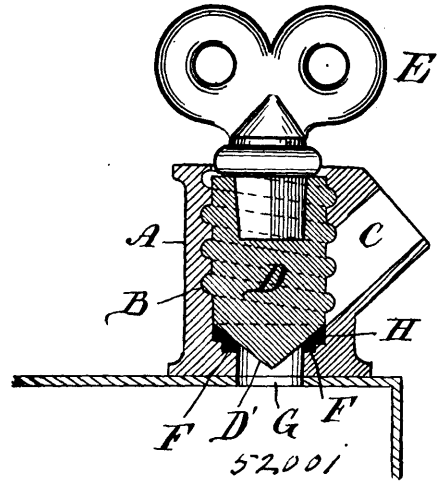
No. 51,997. Plough Stock. (*Semelle de charrue.*)

John F. Peele, Brightsville, South Carolina, U.S.A., 16th April, 1896; 6 years. (Filed 18th March, 1896.)

raised above the floor of the car, and means for closing the openings between said partitions and the floor of the car, for the purpose specified. 6th. The combination, with a car having openings in the sides thereof, of posts located along said sides and having floor-openings between them, slats pivoted in front of the floor-openings and adapted to close the openings in the sides of the tight partitions secured to the lower portions of said posts on the inside thereof, the lower edges of said partitions being raised above the floor of the car, and tight partitions located on the floor of the car inside of said partitions secured to the posts, substantially as and for the purpose specified. 7th. The combination, with a car having openings in the sides thereof, of posts located along said sides and having floor-openings between them, slats pivoted in front of the floor-openings and adapted to close the openings in the sides of the car, tight partitions secured to the lower portions of said posts on the inside thereof, the lower edges of said partitions being raised above the floor of the car and removable tight partitions located on the floor of the car inside of said partitions secured to the posts, substantially as and for the purpose specified. 8th. The combination, with a car having openings in the sides thereof, of side posts having vertically disposed floor-openings between them, screens covering the openings in the sides of the car and placed outside of the floor-openings, pivoted slats adapted to close the openings in the sides of the car and located outside of the screens, and tight partitions located between said floor openings and the lower portion of the body of the car, the lower edges of said partitions being raised above the floor of the car, for the purpose specified. 9th. The combination, with a car having openings in the sides thereof, of screens covering said openings, vertical slats pivoted at their ends in front of said openings, means for opening and closing said slats, and a ventilator in the top of the car, whereby an upward draught may be produced through either one or both sides of the car. 10th. The combination, with a car having openings in the sides thereof, of side posts having vertically-disposed floor-openings between them, vertical slats pivoted at their ends in front of the floor-openings and adapted to close the openings in the sides of the car, and a ventilator opening in the top of the car, whereby an upward draught may be produced either through the side or the bottom of the car. 11th. The combination, with a car having openings in the sides thereof, of side posts having floor-openings between them, slats pivoted in front of the floor-openings and adapted to close the openings in the sides of the car, tight partitions secured to the lower portions of said posts on the inside thereof, and a ventilator in the top of the car, substantially as and for the purpose specified. 12th. The combination, with a car, of revolvable elbow flues located opposite each other in the walls of the car, and a rod connecting the inner ends of each pair of oppositely located flues, for the purpose specified. 13th. The combination, with a car, of revolvable elbow-flues located opposite each other in the walls of the car, a bar extending across the mouth of each flue, and a rod connecting the inner ends of each pair of oppositely located flues and having its ends secured in said bars, substantially as and for the purpose specified. 14th. The combination, with a car, of revolvable elbow-flues located opposite each other in the walls of the car, each flue having a section extending through a wall of the car and a depending section on the outside of the car, and a rod divided into sections and connecting the inner ends of each pair of oppositely located flues, the adjacent ends of said rod-sections being connected by swivel joints adapted to regulate the tension of the rods, substantially as specified. 15th. The combination, with a car, of a flue extending through a wall of the car, a valve adapted to slide over the mouth of the flue, a spring connected with one end of the valve, and means for overcoming the tension of the spring, for the purpose specified. 16th. The combination, with a car, of flues located opposite each other in the walls of the car, a rod connecting the inner end of each pair of flues, a valve adapted to slide over the mouth of each flue and having a slot therein engaged by the rod, an end of each valve being connected with a spring, and means for overcoming the tension of the spring, for the purpose specified. 17th. The combination, with a car, of flues located opposite each other in the walls of the car, a rod connecting the inner ends of each pair of flues, a valve adapted to slide over the mouth of each flue and having an open ended slot therein engaged by the rod, a stationary tongue engaging the open end of each slot, an end of each valve being connected with a spring, and means for overcoming the tension of the spring, for the purpose specified. 18th. The combination, with a car, of flues located opposite each other in the walls of the car, a rod connecting the inner ends of each pair of flues, a valve adapted to slide over the mouth of each flue and having an open ended slot therein engaged by the rod, a stationary tongue engaging the open end of each slot and having shoulders thereon adapted to engage the jaws forming said slot, an end of each valve being connected with a spring, and means for overcoming the tension of the spring, for the purpose specified. 19th. The combination, with a car, of a series of flues located in a side thereof, each flue having a section extending through the wall of the car and a depending section on the outside of the car, a series of connected valves adapted to close said flues, a spring connected with said series of valves, and means for overcoming the tension of the spring, for the purpose specified. 20th. The combination with a car, of series of revolvable flues located opposite each other in the sides of the car, rods connecting opposite flues, a series of connected valves located on each side of the car and adapted to close the flues, a spring

connected with an end of each series of valves, a transverse bar connected with the other ends of said series of valves, and means for actuating said bar to overcome the tension of the springs, for the purpose specified. 21st. The combination with a car, of series of revolvable flues located on opposite sides of a car, rods connecting opposite flues, a series of connected sliding-valves located on opposite sides of the car and adapted to close the flues, each valve having an open ended slot engaged by one of said rods, a tongue engaging the open end of each of said slots, a spring connected with one end of each of the series of valves, and means for overcoming the tension of the springs, for the purpose specified.

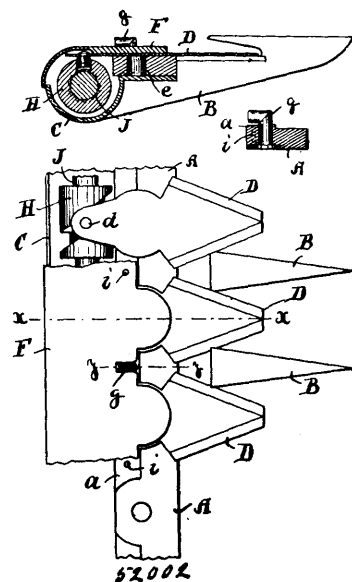
No. 52,001. Tap for Creamers. (Robinet pour crèmes.)



Thomas McAvity and Sons, assignees of William Henry Barlow, both of Saint John, New Brunswick, Canada, 16th April, 1896; 6 years. (Filed 26th February, 1896.)

Claim.—In a creamer tap, the screw plug D, having a conical end D¹, and the shell A, provided with a washer H to form a conical seat for the plug, as set forth.

No. 52,002. Cutter-Bar for Mowing Machines. (Souche de lames pour faucheuses.)



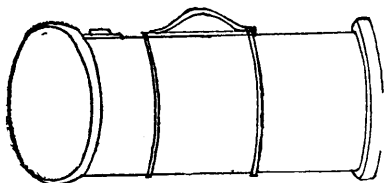
George A. Hall, Deering, Maine, U.S.A., 16th April, 1896; 6 years. (Filed 18th March, 1896.)

Claim.—1st. The herein described cutter bar for mowing machines consisting of a finger bar, knives having substantially straight upper surfaces journaled on the top of said finger bar, and each having a

rearward extension for reciprocating said knife, a guard plate resting over said knives and extending rearward to cover the rear portion thereon, pins in said finger bar fitting corresponding holes in said guard plate and a button pivoted to said finger bar having a horizontal projection on its upper end adapted to be turned rearward over the edge of said guard plate to hold it down. 2nd. The herein described cutter bar for mowing machines consisting of a finger bar having reciprocating knives pivoted on the upper surface thereof, the rear portion of said finger bar being provided with raised projections between said knives which come flush with their upper surface and a guard plate resting on said projection and extending over the tops of said knives and secured to said finger bar.

No. 52,003. Valise, Seat, etc.

(*Valise et siége combinés.*)



Philip Nicolle, Toronto, Ontario, Canada, 20th April, 1896; 6 years. (Filed 17th September, 1895.)

Claim.—The combination of the tube supporting seats, seats, lunch vessel inclosed in tubes, inside inner tubes placed one within the other, one end of each forming its own seat, and I also claim the outmost ends inclosing the valise, the straps, lock fastenings and covering, the whole forming a portable valise complete, lunch vessel and seats combined, as herein set forth and specified.

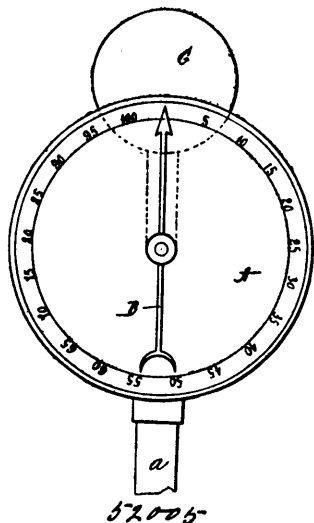
No. 52,004. Process of Treating Sugar and other solutions. (*Procédé pour le traitement du sucre et autres solutions.*)

Ferdinand Gerhard Wiechmann, New York, State of New York, U.S.A., 20th April, 1896; 6 years. (Filed 30th October 1895.)

Claim.—1st. The herein described process of defecating and purifying sugar and other solutions, which consists in subjecting such solutions to the action of a filtering agent having the general characteristics of diatomaceous earth, then to the action of a salt, of which P O is the acid radical, and which is soluble in water, and a chemical of the character indicated, which will combine with said salt to form an insoluble precipitate, and finally removing the mechanically suspended particles from said solution. 2nd. The herein described process of defecating and purifying sugar and other solutions, which consists in subjecting said solutions to the action of a filtering agent having the general characteristics of diatomaceous earth, a salt of which P O is the acid radical, soluble in water and an alkaline earth such as calcic hydrate. 3rd. A step in the process of treating sugar and other solutions, which consists in introducing into said solutions a dry preparation composed of diatomaceous earth, and a salt of which P O is the acid radical, and which is soluble in water.

No. 52,005. Alarm Attachment for Steam Gauges.

(*Avertisseur pour indicateurs de la vapeur.*)

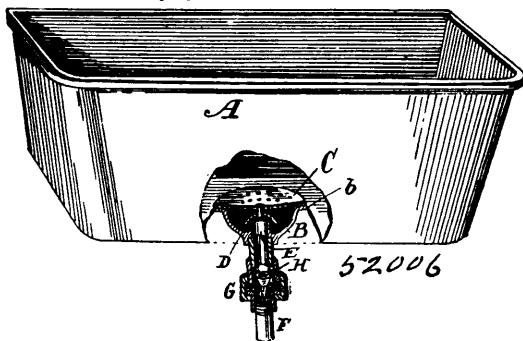


Harry Browning and William John Browning, both of New York, State of New York, U.S.A., 20th April, 1896; 12 years. (Filed 19th March, 1896.)

Claim.—1st. The combination with a steam gauge, provided with a scale on its front and back, and with pointers or indicators which operate jointly, of an alarm which is connected with a shaft revolvably mounted in said gauge, said alarm consisting of a casing provided with a spring drum and gear wheels in operative connection therewith, and a lever which is adapted to operate an alarm gong, the support of the alarm casing being also provided with a crank lever, which is adapted to hold the lever by which the gong is supported out of the connection therewith, said crank lever being adapted to be operated by one of the pointers or indicators substantially as shown and described. 2nd. The combination with a steam gauge provided with the usual scale and pointer or indicator, of an alarm which is connected therewith, and adapted to be turned to any point on the scale, said alarm comprising a gong, and operative devices which are adapted to be set in motion when the pointer or indicator reaches the point at which the alarm is set, substantially as shown and described. 3rd. A steam gauge provided with a scale and pointers or indicators, on its front and back, said pointer or indicator on each side being mounted on the same shaft, and operated jointly, and an alarm device being connected with a lever or arm which is revolvable, independent of the pointers or indicators, and which is adapted to be set, at any desired point on the scale, said alarm device being adapted to be operated by one of the pointers or indicators, when it reaches the point at which the alarm is set, substantially as shown and described.

No. 52,006. Watering Trough.

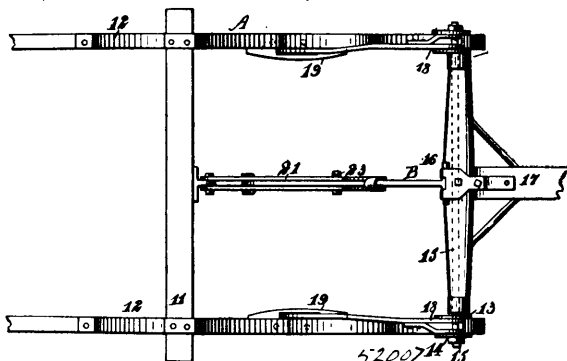
(*Auge pour abreuver le bétail.*)



Jabez S. Woodward, Lockport, New York, U. S. A., 20th April, 1896; 6 years. (Filed 13th March, 1895.)

Claim.—1st. In a stock watering tank, the combination with a coupling, of a valve seat held therein and a hollow double conical rubber valve, closed at the bottom and adapted to rest with said closed end downward, substantially as shown and described. 2nd. In a stock watering tank, the combination with a coupling, of a valve seat arranged therein and a hollow soft rubber double conical valve consisting of a broad upper portion and a narrow lower portion closed at its lower end, substantially as shown and described. 3rd. In a stock watering tank, the combination with the coupling made in two parts, of the valve seat and packing rings, and a hollow soft rubber double conical valve closed at its lower end, substantially as shown and described.

No. 52,007. Sleigh Brake. (*Frein de traineau.*)

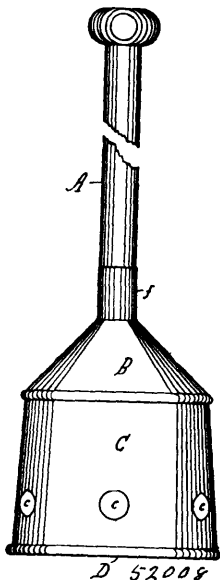


Adelbert Mecham, Edinburgh, North Dakota, U.S.A., 20th April 1896; 6 years. (Filed 19th March, 1896.)

Claim.—1st. The combination, with sleigh runners and the cross-head, of the draw-bar having pivotal connection with said cross-head, the brake-bars having pivotal connection with the cross-head, and the lever having a slotted pivotal connection with the draw-bar and a pivotal connection with a portion of the sleigh, whereby the draw-bar and the brake-bars may be simultaneously lifted, substantially as specified. 2nd. The combination, with a sleigh runner, of the links pivoted to the forward end of the runner, a shaft pivoted

in the upper ends of the links, the brake-bar having the bifurcate upper end between said links and pivoted on the shaft, and the guide on the runner through which the brake-bar extends, substantially as specified.

No. 52,008. Washing Machine. (Machine à laver.)

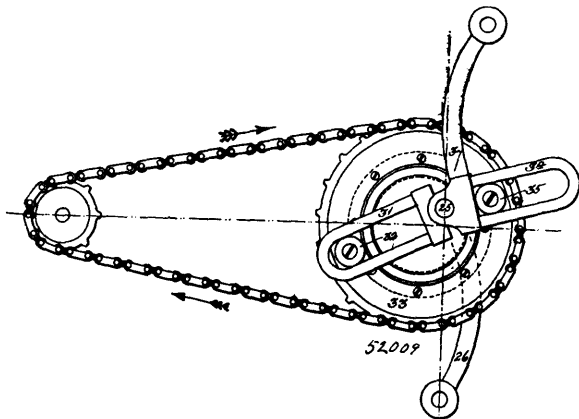


Robie Crowe, Truro, Nova Scotia, 20th April, 1896; 6 years. (Filed 19th March, 1896.)

Claim.—1st. A clothes washing machine resembling an inverted funnel with straight or slightly flaring sides or walls extending from the base of the cone perforated with circular holes and having a handle inserted in the neck, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the handle A, and the socket f, with the cover or cone B, the diaphragm g, the body or walls C, and the circular apertures c, c, c, c, c, substantially as and for the purpose hereinbefore set forth.

No. 52,009. Bicycle Driving Mechanism.

(Mécanisme conducteur pour bicycles.)

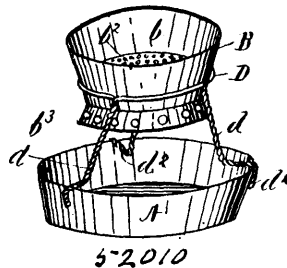


William W. Green, Chicago, Illinois, U.S.A., 20th April, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. In a bicycle, a driving mechanism thereof, consisting of two cranks having pedals thereon, a driving sprocket-wheel adapted to rotate about a given axis and two drive arms for the sprocket-wheel adapted to rotate about another axis which is positioned forward of the axis of the sprocket-wheel aforesaid. 2nd. In a bicycle, a driving mechanism thereof consisting of a driving sprocket-wheel rotating about a given axis, pedal levers and drive arms for the sprocket-wheel together forming bell crank levers and means whereby the axis of rotation of the pedal levers and drive arms constituting said bell crank levers are located forward of the axis of the sprocket-wheel aforesaid to obtain a compound leverage. 3rd. In a bicycle, a driving mechanism thereof consisting of a driving sprocket-wheel rotating about a given horizontal axis, a crank shaft disposed in a different horizontal plane from that of the axis of the sprocket-wheel, cranks or pedal levers secured on either end of the crank shaft and sprocket-wheel drive arms each of which

is connected to the sprocket-wheel and operated respectively by each crank or pedal lever, the axis of rotation of the cranks or pedal levers being in advance of the axis of rotation of the sprocket-wheel whereby a compound leverage is obtained. 4th. In a bicycle, a driving mechanism thereof consisting of a crank shaft, cranks or pedal levers, drive arms rigidly secured to each of the cranks at the same angle, one of said cranks or pedal levers, and its drive arm being rigidly secured to the crank shaft and the other crank or pedal lever and drive arm loosely mounted thereon, a sprocket-wheel, and a sprocket shaft held stationary and mounted loosely and eccentrically upon the crank shaft, said sprocket-wheel travelling about the sprocket-wheel shaft, whereby the pivotal centre of the cranks or pedal levers is in advance of the centre of rotation of the sprocket-wheel and a compound leverage obtained.

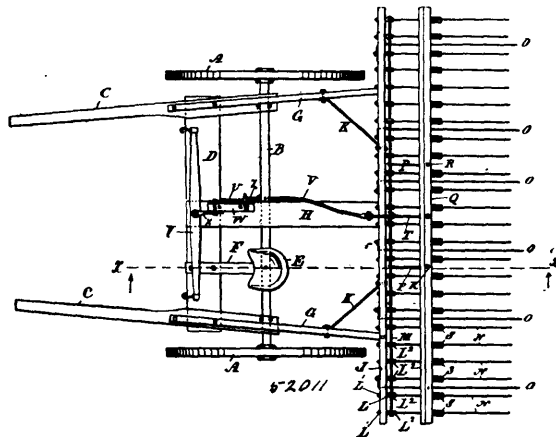
No. 52,010. Sieve and Strainer. (Tamis et couloir.)



Thomas S. Fair, Detroit, Michigan, U.S.A., 20th April, 1896; 6 years. (Filed 19th March, 1896.)

Claim.—1st. A frame or holder for sieves or strainers, comprising a ring which is adapted to inclose the body portion thereof and legs connected with said ring the lower ends of which are provided with hooks which are adapted to rest upon a pan or other receptacle, substantially as shown and described. 2nd. A frame or holder for sieves or strainers, comprising a ring or body portion in which the sieve or strainer is adapted to rest, and said ring or body portion being provided with legs which are adapted to be connected with or to rest upon the pan or other receptacle, substantially as shown and described.

No. 52,011. Horse Rake. (Râteau à cheval.)



Alexander Robinson, East Templeton, Quebec, Canada, 20th April, 1896; 6 years. (Filed 20th March, 1896.)

Claim.—1st. A horse rake, having a bar J, connecting the shafts rearwardly of the wheels, and the rake head pintled to said bar, and extending outwardly from the wheels, as set forth. 2nd. A horse rake, having the shafts extended rearwardly of the wheels, a bar J, secured to the shaft rearwardly of the wheels, and carrying clearer teeth O, a rake head pintled to said bar J, and a lifting bar Q, and lever U, for dumping the rake, as set forth.

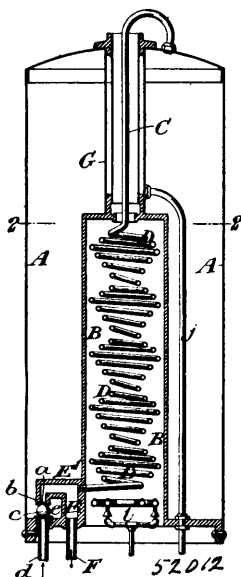
No. 50,012. Apparatus for Heating Water.

(Appareil pour chauffer l'eau.)

John Seely Coe, Paterson, New Jersey, U.S.A., 20th April, 1896; 6 years. (Filed 20th March, 1896.)

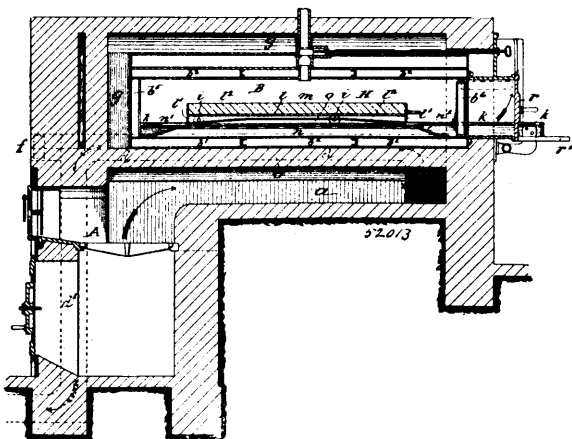
Claim.—1st. The combination, with a boiler tank, a heating chamber within said tank, a heating pipe within said chamber in communication with the upper and lower parts of the tank respectively and a delivery pipe for heated water at the bottom of said tank in constant communication with the lower end of the heating

pipe, of a valve arranged at the communication between the heating pipe and the lower portion of the tank for automatically closing said communication by the draft of water through the delivery pipe, substantially as herein described. 2nd. The combination of a boiler



tank, a heating chamber within said tank, a heating pipe within said chamber in communication at one end with the tank, a delivery pipe for heated water, a water box through which the other end of the heating pipe is in constant communication with the delivery pipe, and in which there is an opening to the tank, a valve seat at said opening, a supply pipe communicating with the tank through a valve seat arranged opposite the first mentioned valve seat, and a valve which works automatically between the two valve seats to change the direction of the flow of water through the heating pipe according as the delivery pipe is open or closed, substantially as herein described. 3rd. The combination, with the boiler tank and the heating chamber therein, of a heating pipe arranged within said chamber and consisting of an upright coil, the convolutions of which are alternately reversed frustums of cones, substantially as herein described.

No. 52,013. Baking Oven. (Four de boulangerie.)

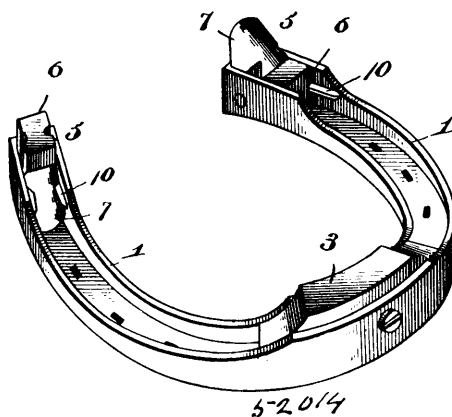


Adolph Rauber, Munich, Bavaria, Germany, 20th April, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. A baking oven for continuous baking, comprising a longitudinal conduit *a*, a fire proof vault covering the conduit and made redhot by the fire gases passing through the conduit, serving as a constant source of strong ground heat for the baking space located above the same, and side pipes leading from the flue *a*, substantially as described. 2nd. A baking oven comprising a fire place *A*, the conduit *a*, the fire proof vault *C*, the pipe *d*, and a jacketed baking room *B*, substantially as described. 3rd. A baking oven comprising a baking room *B*, air spaces surrounding the same, side pipes *d*, and spaces *a* running along the longitudinal sides and over the baking room *B*, in which the heat radiated by the pipes *d*, rises

and is stored over the same in order to produce sufficient heat for the top part thereof and an exterior jacket *g*, surrounding the baking room, substantially as described. 4th. In a baking oven, the combination of the fire place *A*, the conduit *a*, the fire proof vault *C*, the pipes *d*, and the baking room *B*, with a movable baking hearth *H*, consisting of a chamotte hearth plate *m*, substantially as described. 5th. In a baking oven, the combination of the fire place *A*, the conduit *a*, the fire proof vault *C*, the pipes *d*, and the baking room *B*, with a movable baking hearth *H*, consisting of a chamotte hearth plate *m*, and a hearth frame made of sheet metal plates inclosing a hollow space open in the centre towards the bottom but closed at the sides in order to let the rising ground heat penetrate under the middle of the chamotte hearth plate *m*, and to retain the same there. 6th. In a baking oven, the combination of the fire place *A*, the conduit *a*, the fire proof vault *C*, the pipes *d*, and the baking room *B*, with a baking hearth *H*, and a removable chamotte hearth plate *m*, substantially as described. 7th. In a baking oven, the combination of the fire place *A*, the conduit *a*, the fire proof vault *C*, and pipes *d*, with a baking room divided in two by a longitudinal partition *p*, and a removable baking plate in each division, substantially as described. 8th. In a baking oven, the combination with the fire place *A*, the conduit *a*, the fire proof vault *C*, the pipes *d*, the baking room *B*, and the movable hearth plate *H*, with a horizontal triangular plate *r*¹, fixed to the vertically movable locking door *r*¹, of the oven, projecting forward and provided with a lateral surface for removing the bread, substantially as described.

No. 52,014. Horse-Shoe. (Fer à cheval.)



Crutcher Duty Shepherd, Orlando, Florida, U.S.A., 20th April, 1896; 6 years. (Filed 23rd March, 1896.)

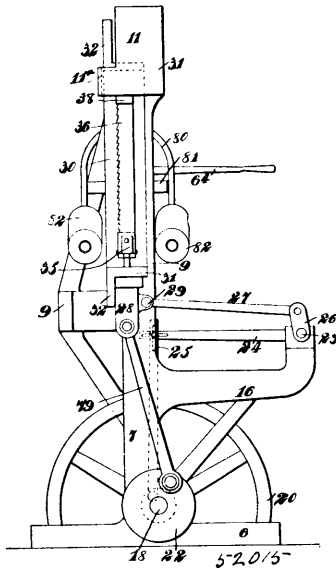
Claim.—1st. The herein described horse-shoe formed with a U-shaped channel upon its under side and provided with inwardly extending longitudinal ribs formed integrally therewith, in combination with a calk formed in its opposite side faces with grooves and adapted to be inserted within such channel and have its grooves engaged by said inwardly projecting ribs, and means for preventing longitudinal movement of said calk, substantially as described. 2nd. The herein described horse-shoe formed in its under side with a U-shaped channel and closed at the heel ends by transverse webs and also provided with oppositely disposed inwardly projecting integral ribs, in combination with a reversible calk having a smooth face and a spike face at right angles to such smooth face, and formed in its opposite side faces with grooves disposed at right angles to each other and adapted to be alternately engaged with said inwardly projecting ribs, substantially in the manner and for the purpose specified. 3rd. The herein described horse-shoe formed in its under side with a U-shaped channel and provided with oppositely disposed inwardly projecting integral ribs, in combination with a reversible calk fitting within said channel and provided in its opposite side faces with grooves disposed substantially at right angles to each other and adapted to engage said ribs, and a fastening device inserted through aligning perforations in the shoe and calk, substantially as and for the purpose specified.

No. 52,015. Saw-Mill. (Scierie.)

William H. Inglish, East Tawas, Michigan, U.S.A., 20th April, 1896; 6 years. (Filed 23rd March, 1896.)

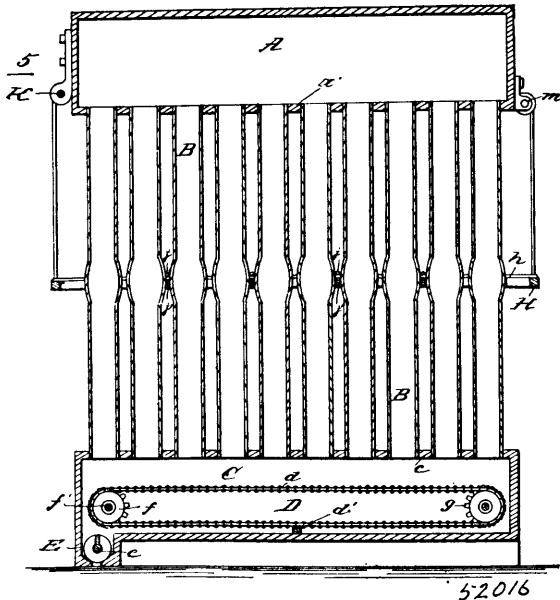
Claim.—1st. In a saw-mill, the combination with a frame, of a sash, means for operating the sash, a saw blade carried by the sash, a forked lever fulcrumed on the frame and embracing the same, and a roller carried by each arm of the lever, said rollers being adapted to guide the work, substantially as described. 2nd. In a saw-mill, the combination with a frame, of a sash, saw blades carried by the sash, means for adjusting the blades, a threaded shaft geared with said means and for imparting operating movement thereto, means for driving the threaded shaft, a threaded ring co-operating with the threads of the threaded shaft and having an indicating point, and a graduated plate along which the said indicating point is movable, substantially as described. 3rd. In a saw-mill, the combination with a frame, of a sash, the sash consisting of a U-shaped side member

with a transverse edgewise disposition and edge members projecting at right angles from the inner edges of the side member, blades carried by the edge members one blade being movable, a shaft connected with each end of the movable blade and rotatably mounted on the side member, a second shaft extending at right angles to the



first shafts and geared therewith the second shaft being also mounted in the side member, and means for driving the second shaft, substantially as described. 4th. In a saw-mill, the combination with an upright frame, of a sash, means for driving the sash, blades strained on the sash, a forked lever fulcrumed on the frame and having its arms embracing the sash, and rollers carried by the arms of the fork on the lever, substantially as described. 5th. In a saw-mill, the combination with a frame having a vertical standard formed with a horizontally extending arm at its upper portion and a box at approximately its middle, of a sash partly confined by the arm, means for operating the sash, an adjustable blade on the sash, a shaft carried by the sash and geared with the blade to adjust the same, a shaft journaled in the frame and extending through the box, a friction disc fixed to the shaft, a bracket projecting downwardly from the box, a lever fulcrumed in the bracket, two friction discs carried by the lever, the lever being capable of movement to alternately engage its friction discs with the first friction disc, and means for oppositely driving the friction discs on the lever, substantially as described.

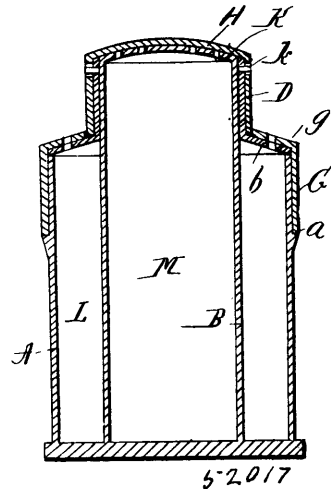
No. 52,016. Dust Collector. (*Aspirateur de poussière.*)



Ezra Miller, Canal Dover, Ohio, U.S.A., 20th April, 1896; 6 years. (Filed 24th March, 1896.)

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 having a contact surface recessed transverse the tube, which impinges against the outside of said tube, or passage, squeezing or contracting the tube or passage to open the meshes, and adapted to agitate the tube when 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 group of flexible cylindrical 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 having a contact surface recessed transverse the tubes, that embrace and impinge against the outer sides thereof, squeezing or contracting the tube to open the meshes, and thereby disengage the dust from the inside of the tube, and a mechanism whereby the cleaner frame is moved along the tubes or passages, substantially as set forth. 3rd. In a dust collector, the combination with a chamber into which the dust laden air is blown, flexible tubes or passages extending down 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 members between said tubes, having serrated or scalloped edges which form recesses that embrace and impinge against the outer side of the tube, squeezing or contracting the tubes to open the meshes, and thereby disengage the dust gathered on the inside of the tubes, and mechanism whereby said cleaner frame is moved up and down along the tubes, between said two chambers, substantially as set forth. 4th. In a dust collector, the combination with series of cylindrical flexible tubes or passages into which the dust laden air is delivered, of a vibratable cleaner, comprising a supporting frame, formed with a series of apertures, of a less diameter than the tubes or passages that embrace said tubes and squeeze them in on all sides, to open the meshes to dislodge the dust and mechanism, whereby said cleaner is moved along the tubes or passages, substantially as set forth. 5th. 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 on all sides simultaneously and impinging against the same, and squeezing or contracting to open its meshes, and mechanism whereby the cleaner is moved along the tube or passage, substantially as set forth. 6. In a dust collector, the combination with the upright filtering tubes or passages, of a cleaner impinging all around the tubes or passages against the outer sides of said tubes or passages, and squeezing or contracting the same to open their meshes, 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.

No. 52,017. Salt and Pepper Box. (*Salière et poivrière.*)

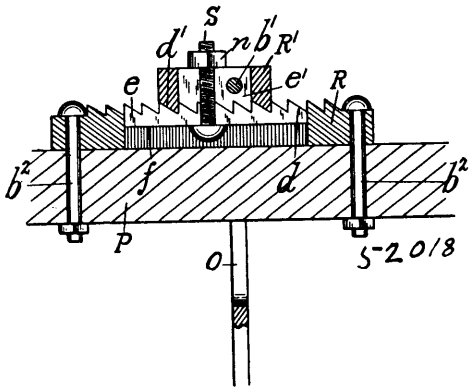


David Macarn Kittle, Syracuse, New York, U.S.A., 20th April, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. A combined salt and pepper box, composed of an outer cylindrical casing and an inner cylindrical casing, arranged therein, the inner casing being higher than the outer one, a rim or band mounted on the upper end of the inner casing and provided with a perforated rim or flange which extends outwardly, to the top of the outer casing, a ring or band mounted on the upper part of the outer casing, and provided with a perforated rim or flange, which extends inwardly to the first named ring or band, a perforated cap provided with a depending flange or rim which is secured to the ring or band mounted on the top of the inner casing, and a perforated plate below said perforated cap, substantially as shown and described. 2nd. A com-

bined salt and pepper box, composed of an outer cylinder casing, and an inner cylindrical casing arranged therein, the inner casing being higher than the outer one, a ring or band mounted on the upper end of the upper casing and provided with a perforated rim or flange which extends outwardly to the top of the outer casing a ring or band mounted on the upper part of the outer casing, and provided with a perforated rim or flange, which extends inwardly to the first named ring or band, a perforated ring or cap provided with a depending flange or rim which is secured to the ring or band mounted on the top of the inner casing, and a perforated plate below said perforated cap, and means for turning said perforated plate, so that the perforations therein, and in the cap will register, substantially as shown and described. 3rd. A combined salt and pepper box, composed of an outer cylindrical casing, and an inner cylindrical casing, arranged therein, the inner casing being higher than the outer one, a ring or band mounted on the upper end of the inner casing and provided with a perforated rim or flange which extends outwardly to the top of the outer casing, a ring or band mounted on the upper part of the outer casing, and provided with a perforated rim or flange which extends inwardly to the first named ring or band, a perforated flange or rim which is secured to the ring or band mounted on the top of the inner casing, and a perforated plate below said perforated cap, and means for turning said perforated plate, and in the cap will register and means for turning the ring or band mounted on the upper end of the inner casing, substantially as shown and described.

No. 52,018. Pump. (Pompe.)

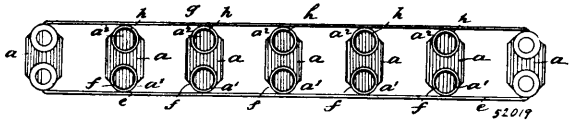


Henry A. Sheldon, Aylmer, Ontario, Canada, 20th April, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. The plunger C, formed with the screw threads C³, in combination with the yoke H, in which the screw threads H¹, are formed, substantially as and for the purpose set forth. 2nd. The valve G, in combination with and working on the upper end of the plunger C, and the yoke H, substantially as and for the purpose set forth. 3rd. The valve G, in combination with and working on the upper end of the plunger C, and the packing ring G², of leather or other suitable material interposed between the valve and the upper end of the plunger C, substantially as and for the purpose set forth. 4th. The valve G, and the plunger C, in combination with the yoke H, and the bridge stop H², substantially as and for the purpose set forth. 5th. In a pump, a plunger C, in which a recess C¹, is formed, in combination with the cylinder D, and the metallic spring packing ring E, substantially as and for the purpose set forth. 6th. The plunger C, provided with the bridge guide C², in combination with a valve F, provided with an elongated stem F¹, and the cylinder D, substantially as and for the purpose set forth. 7th. The bails N, N, in combination with and pivotally secured to the rods O, O, substantially as and for the purpose set forth. 8th. The handle P, the rods O, O, pivotally connected therewith and to the bails N, N, and the bails N, N, pivotally secured to and in combination with the cylinders D, D, substantially as and for the purpose set forth. 9th. The blocks R, R¹, the adjacent faces of which are provided with the teeth or serrations d, d¹, respectively, and formed with the openings e, e¹, respectively, in combination with the bolt S, and means for securing these blocks to the handle P, substantially as and for the purpose set forth. 10th. The handle P, the blocks R and R¹, formed with teeth or serrations d and d¹, and with the openings e and e¹, respectively, and the bolt S, in combination with the rods O, O, forked at their upper ends and their lower ends pivotally secured to the bails N, N, substantially as and for the purpose set forth. 11th. The handle P, the rods O, O, connected therewith, the bails N, N, pivotally secured to the rods O, O, in combination with the cylinders D, D, plungers C, C, valves F, and G, yoke H, pump barrel J, coupling K, branch K¹, air chamber L, and discharge pipe M, substantially as and for the purpose set forth. 12th. The yoke H, in which the screw threads H¹, are formed in combination with the plunger C, formed with the screw threads C³, and the inclosing and operating cylinder D, substantially as and for the purpose set forth. 13th. The yoke H, and the valve G, in combination with and working on the upper end of the plunger C, and the enveloping and operating cylinder D,

substantially as and for the purpose set forth. 14th. The yoke H, and the valve G, in combination with and working on the upper end of the plunger C, and the packing ring G², of leather or other suitable material interposed between the valve and the upper end of the plunger C, and the enveloping and operating cylinder D, substantially as and for the purpose set forth. 15th. The valve G, in combination with the yoke H, the bridge stop H², the plunger C, and the enveloping and operating cylinder D, substantially as and for the purpose set forth.

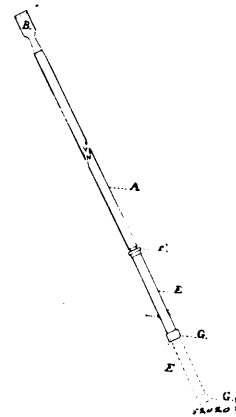
No. 52,019. Outdoor Seat or Chair. (Siège ou chaise.)



Thomas Wilson Robertson, Belfast, Ireland, 20th April, 1896; 6 years. (Filed 25th March, 1896.)

Claim.—1st. The improved outdoor seat or chair substantially as hereinbefore described. 2nd. In outdoor seats or chairs, the reversible seating consisting of laths hinged at one edge to a framing and at the other to a connecting-rod or strip, all constructed and operating substantially as and for the purposes hereinbefore described and shown in the accompanying drawings.

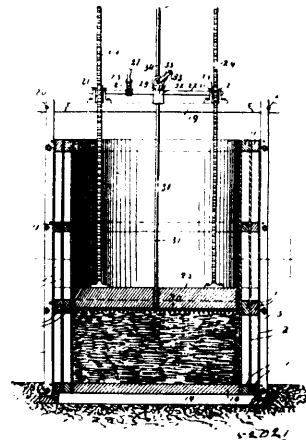
No. 52,020. Tree Pruner. (Sécateur.)



Arthur Clinton Smith, Mount Pleasant, Ontario, Canada, 20th April, 1896; 6 years. (Filed 24th February, 1896.)

Claim.—The combination of the chissel B, and shaft or rod A, with the tubular ram as shown in Figure 3, substantially as and for the purpose hereinbefore set forth.

No. 52,021. Silo. (Silo.)

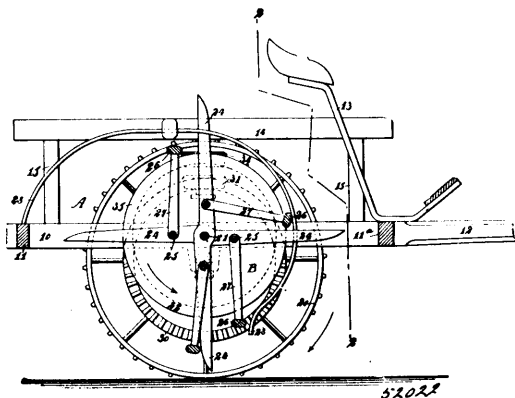


William A. Van Deusen, Sprout Brook, New York, U.S.A., 20th April, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. A silo having double walls, hoops to strengthen the walls, a piston reciprocating within the silo and a revolvable rake

arranged on the underside of the piston, substantially as described. 2nd. The combination with a silo provided with a series of doors arranged one above the other for the removal and insertion of the ensilage, of the reciprocating piston within the silo, and the revoluble rake arranged on the underside of the piston to keep the ensilage level, substantially as described. 3rd. The combination, with the silo having the reciprocating piston and the revoluble rake arranged on the underside of the piston, of the cross-bars arranged above the top of the silo, the driving shaft on the cross-bars, and a gear connecting between the driving shaft and the piston, substantially as described. 4th. The combination, with the silo and the reciprocating piston therein, of the revoluble rake arranged on the underside of the piston to keep the ensilage level, substantially as described. 5th. The combination, with the silo and the reciprocating piston therein, of the revoluble rake arranged on the underside of the piston to keep the ensilage level, the shaft secured to the rake and extending upward through the piston and a crank and gear mechanism for turning the shaft, substantially as described. 5th. The combination, with the silo, and the reciprocating piston, of the cross-bars arranged above the top of the silo, a support carried by said cross-bars, a rake provided with a shaft extending upward through the piston and the said support, a pinion keyed to the rake shaft and through which the said shaft is adapted to slide, and a second pinion meshing with the first pinion and provided with a crank, substantially as described. 6th. The combination with the silo, and the reciprocating piston, of the cross bars arranged above the top of the silo a support carried by said cross bars, a rake provided with a shaft extending upward through the piston and the said support, a pinion keyed to the rake shaft and through which the said shaft is adapted to slide, and a second pinion meshing with the first pinion and provided with a crank, substantially as described.

No. 52,022. Machine for turning Swaths. (Machine pour tourner les andains.)



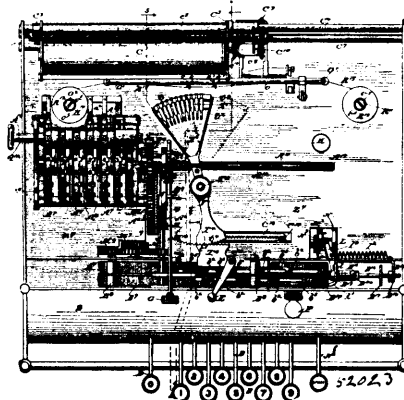
George Emanuel Nelson, Auburn, Oklahoma, U.S.A., 20th April, 1896; 6 years. (Filed 26th March, 1896.)

Claim.—1st. The combination of a frame having ground wheels, an axle journaled in the frame, heads on said axle, rake bars having opposite pointed ends forming teeth and provided with central perforations to receive the axle, said rake bars being arranged with their teeth forming parallel longitudinal series, the teeth of alternate series being arranged out of alignment with and between the teeth of these series with which they alternate, rods secured at their ends to the heads with their intermediate portions passing through the respective series of rake bars on opposite sides of the axle, whereby the rake bars are held in position, and means for driving said axle, substantially as set forth. 2nd. The combination of a frame having a vertically adjustable axle, a ground wheel on said axle, a gear connected to said axle and driven from the ground wheel, a rake rotatively mounted in the frame, and having a gear, a shaft, journaled in the frame between the rake and the gear on the axle, a gear on said shaft meshing with that on the rake, a gear adapted to rotate with and slide on said shaft and meshing with the gear on the axle, and a connection between said sliding gear and the axle whereby when said axle is adjusted vertically, said gear is slid longitudinally on the shaft, substantially as set forth. 3rd. The combination of a frame, an axle having a ground wheel, a rotative rake, means for changing the elevation of the rake above the ground, a gear connected to the axle and driven from the ground wheel, a shaft, two gears on said shaft, one meshing with the gear connected to the rake and other meshing with the gear connected to the axle, and means for adjusting the position of one of the gears on said shaft whereby the rake is driven from the ground wheel when set in either of its positions, substantially as set forth. 4th. The combination of a frame, an axle having a ground wheel, a rotative rake, means for changing the elevation of the rake above the ground, a gear connected to the axle and driven from the ground wheel, a gear connected to the rake, a shaft, two gears on said shaft, one meshing with the gear connected to the rake and the other with the gear connected to the axle, and means controlled by the changing of the

elevation of the ground wheel for moving one of the gear wheels on the shaft to hold the same in engagement with the gear with which it meshes, substantially as set forth. 5. The combination of a frame having a vertically adjustable axle, a ground wheel on the axle, a gear connected to the axle and driven from the ground wheel, a rotative rake carried on the frame, a gear connected to the rake, a shaft journaled in the frame, a gear on the shaft meshing with the gear connected to the rake, another gear on the shaft arranged to rotate therewith but capable of sliding movement thereon, and an arm on the axle arranged to engage said last mentioned gear on the shaft and move the same longitudinally when the axle is adjusted vertically, said last mentioned gear on the shaft being arranged to mesh with the gear connected to the axle, substantially as set forth.

No. 52,023. Combined Adding and Printing Machine.

(Machine à additionner et imprimer combinées.)



George Wilson Dudley, Charleston, West Virginia, U.S.A., 21st April, 1896; 6 years. (Filed 21st February, 1896.)

Claim.—1st. In a key operated adding machine, the combination with the adding wheels and a motor for actuating them; of a set of key levers, a set of stop pins operated upon by the key levers, a reciprocating gauge slide having slots of different lengths corresponding to the size of the digits and adapted to be penetrated by the stop pins and a gearing connecting this reciprocating gauge slide to the train of gears between the motor and adding wheels to regulate the extent of movement of the adding devices by each key, substantially as and for the purpose described. 2nd. In a key operated adding machine, the combination with the adding wheels, a motor for actuating them and a set of key levers; of a throw regulating device consisting of a reciprocating gauge bar having a range movement equal to one-half of the actual throw of the adding wheels and geared to permit movement of the adding devices both on the advance and return stroke of the gauge slide, substantially as and for the purpose described. 3rd. In a key operated adding machine, the combination with the adding wheels, a motor for actuating them and a set of key levers, of a throw regulating device consisting of a reciprocating gauge bar having slots of varying length corresponding to the size of the digits, a set of stop pins adapted to be protruded through said slots by the key levers, said gauge slide being geared to the actuating motor and arranged to allow it to expend its power in the same direction, both on the forward and backward movement of the gauge slide, substantially as and for the purpose described. 4th. A throw regulating device for an adding or printing machine, consisting of a reciprocating slide with slots of varying length, stop pins corresponding to each of said slots and adapted to penetrate the same one at a time to limit the throw of said slide, and a set of key levers corresponding to and acting upon the stop pins to operate them, substantially as shown and described. 5th. The combination with the reciprocating gauge slide having slots of different lengths, stop pins penetrating said slots and key levers operating the pin, of means for reciprocating the gauge slide consisting of a horizontal double rack bar having an up and down adjustment a pinion arranged in said rack bar to engage alternately with opposite sides thereof, and a shaft carrying said pinion and geared to the motor, substantially as and for the purpose described. 6th. The combination of the reciprocating gauge slide having slots of different lengths, stop pins penetrating said slots, a horizontal double rack bar having an up and down movement in the gauge bar, a pinion arranged on the rack bar and geared to the motor, a rocking frame with lift arms and means for connecting with the rack bar for giving its up and down movement, and key levers having each two tappet arms, one engaging with the stop pins and the other with the rocking frame and rack adjusting mechanism, substantially as and for the purpose described. 7th. The rack bar adjusting mechanism consisting of the combination with the key levers having tappet arm b^1 , of the rocking frame B^2 , B^3 , B^4 , having lift arms B^3 , the yoke frame B^6 , B^7 , B^8 , with springs B^{10} , connected to the rack bar, substantially as and for the purpose

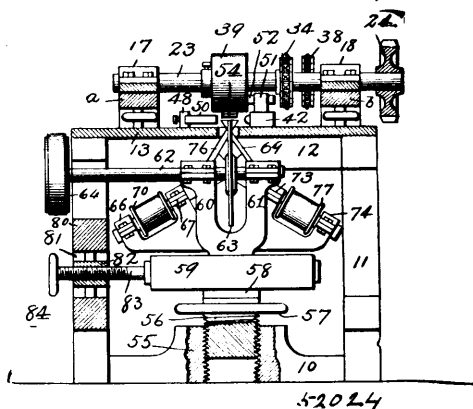
described. 8th. In adding or printing machine having a reciprocating gauge slide or variable throw, the combination with the reciprocating gauge slide of an adjustable bumper adapted to limit the return stroke of the slide and adjust it in relation to its co-operating parts, substantially as shown and described. 9th. In an adding or printing machine having a reciprocating gauge slide, or variable throw, the combination with said slide of a bumper consisting of a cylinder having an internal flange B²², and a cushion at its end, a screw stem B¹⁶, with collar B²⁰, and milled disc B¹⁷, a spiral spring arranged in the cylinder between the flange B²², and the collar B²⁰, of the stem and a supporting frame embracing the cylinder at one end and having a screw threaded nut B¹⁶, at the other end engaging with the threaded stem, substantially as and for the purpose described. 10th. The combination with the oscillating type carrier, of the gauge slide having slots of different lengths in the same, gearing for connecting the type carrier to the gauge slide, stop pins adapted to penetrate the slots in the gauge slide, and key levers for operating said stop pins, substantially as and for the purpose described. 11th. The combination of the Z-shaped type levers T, the type carrier T¹, with curved axial shaft t³, and rest t², the sleeves T², secured at its upper end to the type carrier and having an arm T⁴, with segment teeth t⁴, at its lower end, an axial post T³, and the gauge slide B¹³, having attached to it an arm T⁶, with segment teeth t⁶, arranged to mesh with and oscillate the arm of the type carrier, substantially as and for the purpose described. 12th. The combination in an adding machine of the adding key levers and a subjacent adjustable locking bar arranged crosswise beneath the levers and having slots registering with said levers normally but adapted to be thrown out of registration to lock said levers against depression by the longitudinal movement of the locking bar, substantially as and for the purpose described. 13th. In an adding machine, the combination of the adding devices, the adding key levers a locking bar for the same, and automatic mechanism, connected to the adding devices and also to the locking bar and arranged to adjust the latter to its locking position when the adding devices are moved back to the starting point substantially as and for the purpose described. 14th. The combination with the adding key levers B, of the sliding and slotted locking bar W² arranged beneath the levers, the rock shaft W having arm W¹ at its front end engaging the locking bar and arm w¹ at its back end, a spring for rocking said shaft in one direction and the rack bar A¹⁷ with lug w for acting upon the arm w¹ of the rock shaft and moving it in the other direction, said rack bar being connected to the adding devices, substantially as shown and described. 15th. In an adding machine, the combination with the denomination wheels representing units, tens, hundreds ect., of a separate set of supplementary receiving wheels, and carrying devices operating thereon to cause the numbers to be carried to be separately registered on said receiving wheels without causing one denomination wheel to turn the next denomination wheel substantially as and for the purpose described. 16th. The combination of the denomination wheels A⁷ having rigid diametrical bar A⁸, the separate set of receiving wheels A⁹ having notched flange a² operated upon by the bar A⁸ and means for setting the wheels A⁹ back to zero substantially as and for the purpose described. 17th. The combination of the denomination wheels A⁷ having rigid diametrical bar A⁸, the separate set of receiving wheels A⁹ having notched flanges a² operated upon by the bar A⁸ and also a lug a⁷ on its side and a second series of receiving wheels A¹⁰ of higher denomination, and means for setting these receiving wheels to zero substantially as and for the purpose described. 18th. The adjusting mechanism for adding, subtracting, or throwing out of gear these devices consisting of the pull rod G with arm g⁴ slotted sleeve A² with pinions A and A¹, actuating shaft M¹⁰ having a slot and key connection with the sleeve, the crown wheel A³ and spur wheel A⁴ connected with the adding wheels, and the motor for rotating shaft M¹⁰ substantially as and for the purpose described. 19th. The means for locking the adding wheels consisting of the combination with the pull rod G having pin g¹ of a slotted arm g⁶, rock shaft g⁷ rigidly attached to said arm and bearing a pawl g⁸ adapted to engage one of the gear wheels in the adding train substantially as and for the purpose described. 20th. The escapement mechanism for delivering the power of the motor intermittently to the printing and paper feeding devices, consisting of the rocking depressible frame B³⁰, B³, R, acted on by the keys and carrying rigid pallet arms N⁵, N⁶, countershaft N¹⁸, with loose hollow disc N⁷, having teeth n, and a coil spring N⁹, connecting the discs to the shaft gear-wheel N⁸, rigidly fixed on the countershaft, the motor shaft C²², with rigid disc N⁴, having pins m¹⁰, m¹¹, loose disc N², detachably locked to disc N⁴, and the escapement arm M¹⁰, carried by the rocking frame B³⁰, B³, R, substantially as and for the purpose described. 21st. The combination with the escapement mechanism described having rigid disc N⁴, with pins m¹⁰, m¹¹, and ratchet tooth n⁸, the loose disc N², having notch d¹⁰, and detent lever m⁶, the articulated escapement arm M¹⁰, with lugs m⁷, m⁸, and arm D⁴, having pin d¹¹, and the spacing lever N, with toothed end N¹, adapted to act on pin d¹¹, and also enter the notch d¹⁰, and disengage the lever pawl m⁶, substantially as and for the purpose described. 22nd. The combination of the hollow disc N⁹, with teeth n, spring N⁹, and gear N⁸, the rocking frame B³⁰, B³, R, with rigid pallet arms N⁵, N⁶, the disc N², with notch d¹⁰, lever pawl M¹⁰, and pin k⁵, the lever K⁴, with forked end k⁴, the spring actuated stem K¹, jointed thereto and the pawl k⁶, mounted on the lever K⁴, and adapted to engage and

temporarily hold the teeth n, substantially as and for the purpose described. 23rd. The combination with the impact bar of the printing devices, of the actuating bar M³, having lug n¹, and a suspending hanger link n⁴, and the escapement disc N⁷, with teeth n, adapted to catch against lug n¹, and pull back bar M³, and then allow the latter to automatically disengage itself, substantially as shown and described. 24th. The combination with the reciprocating gauge slide B¹³ operating to move the adding devices by both its forward and backward movements, of a spacing mechanism, a lever detent for holding it against spacing, said detent being arranged at the end of the return stroke of the gauge slide to be operated thereby and release the spacing devices after the throw of the adding devices, substantially as and for the purpose described. 25th. The combination with the reciprocating gauge slide B¹³, operating to move the adding devices by both its forward and backward movements, a spacing mechanism as described consisting of an intermittingly acting escapement with pin l⁴, a detent lever L for holding said pin, said lever being arranged at the end of the return stroke of the gauge slide and operated by it in one direction, and having a spring l², for operating it in the other direction substantially as and for the purpose described. 26th. A combined adding and printing machine, comprising a set of adding wheels with carrying devices arranged in fixed relation to the other parts, a printing mechanism for printing the figures added consisting of laterally adjustable paper feed rolls and a single oscillating type carrier with pivoted levers bearing printing faces, a single impact bar acting on any one of the type levers, a feed mechanism and a set of keys connected to both the adding mechanism and the printing mechanism and a gauge bar with slots of different lengths and stop pins adapted to move said adding and printing devices a distance commensurate with each other, but varying for each of the keys, substantially as shown and described. 27th. A combined adding and printing machine, comprising an adding mechanism, a printing mechanism, a set of keys connected to an operating both at the same time, and feed mechanism for the printing mechanism, consisting of a series of gears with an elongated pinion C¹⁸, interposed and rack bar C¹³, and means to feed vertically when adding the columns vertically and means to feed horizontally when printing the totals horizontally and an adjusting device for changing the feed from vertical to horizontal or *vice versa*, substantially as shown and described. 28th. In an adding machine, the combination with the wheels A⁷, having internal notches a, notches n⁶, and diametrical bars A⁸, on their sides, detents a¹⁴, the slotted axial shaft A⁶, with central slide rod A¹¹, having locking bit a¹, standard A¹⁹, the slide rod A¹⁸, and rack bar A¹⁷, provided with a cam A¹⁶, adapted to unlock the detents A¹⁴, the rod A¹⁸, being provided with an index plate a¹², adapted to show through openings in the case, the said slide rods A¹⁸, A¹¹, being connected together and adjustable from one denomination wheel to another, substantially as shown and described. 29th. A type-writing attachment, consisting of a printing ribbon and guides embracing and arranged upon both sides of the plane of the printing ribbon, combined with the printing keys, a back thrust bearing for the paper, and mechanism connecting the keys with the printing ribbon guides to positively move the printing ribbon and its guides latterly both to and from the back thrust bearing and at right angles to the direction of feed of said ribbon at each operation of a key, substantially as shown and described. 30th. The combination, with a set of paper feeding rolls, of a type carrier pivoted or fulcrumed to oscillate in front of the paper feeding rolls, independent type levers pivoted or fulcrumed upon the type carrier, and a reciprocating impact bar arranged in fixed guides to deliver a blow upon any one of the type levers whenever the carrier is made to move and bring any one of its type levers in line with the impact bar, substantially as shown and described. 31st. A type-writing attachment, consisting of feed rolls and an oscillating carrier for the type levers, a series of type levers mounted upon and pivoted to the same, a reciprocating impact bar, operating keys adapted to swing the type levers into alignment with the impact bar, and means for imparting a blow to the impact bar, substantially as and for the purpose described. 32nd. A type writing attachment, comprising a set of feed rolls, a carrying frame having a rack bar for longitudinal adjustment, gear wheels for moving said rack bar, other gear wheels for rotating the feed rolls, adjusting devices for throwing one set of gears into action and the other set out of action, printing key levers and a depression bar or rocking frame adapted to be struck by the key levers to transmit a step by step feed in either a vertical or horizontal direction, substantially as and for the purpose described. 33rd. A type-writing attachment, consisting of a set of feed rolls for the paper, the roll on one side of the printing position being a spring tension roll, and those on the other side being provided with positively acting gears, and key levers connected therewith for feeding the paper positively in either direction, substantially as shown and described. 34th. In a type writer attachment, the combination of a hollow spring roller, having a longitudinal slot an internal, eccentric pinch bar for securing the edge of the paper, an external lever handle for operating the pinch bar having an enlarged end or head, and the frame work having a notch adapted to receive the head of the lever to lock the roller against its spring tension while inserting the paper, substantially as and for the purpose described. 35th. In an adding and printing machine, the mechanism for feeding vertically or horizontally consisting of the combination of the thumb piece F, slide rod C¹⁴, rock shaft c¹⁰, with crank arm c¹⁷, and toothed segment c¹⁶, sliding and

corrugated sleeve c^{12} , bearing double bevel gears c^{11} , bevel gear wheels c^9 and c^{10} arranged to be alternately operated upon by the double bevel gear, the long pinion C^{12} , the gear wheels c^3 , c^4 , and attached feed rolls C^3 , C^4 , a horizontally adjustable frame carrying these rolls, a yoke with rack teeth C^{13} connected to said frame, and gear wheel c^7 connecting the same with bevel gear c^9 , substantially as shown and described. 36th. The mechanism for reversing the feed consisting of the combination of the paper feeding rolls C^3 , C^4 , the laterally adjustable frame with yoke and rack teeth C^{13} , gears c^7 and c^9 , and gears c^3 , c^4 , c^{10} , and long pinion C^{12} , the double bevel gear c^{11} with adjustable sleeve and means for actuating it, the vertical shaft C^{13} , bevel gears C^{16} , C^{19} , shaft C^{17} , with attached wheel C^{18} , corrugated sleeve C^{21} , with bevel gears C^{10} and C^{20} , toothed segment c^{22} , rock shaft c^{23} , and reversing lever E and a shaft C^{22} , with driving motor, said shaft being connected to the sleeve C^{21} , by a feather and groove connection, substantially as and for the purpose described. 37th. The combination of the key levers B , and the depression bar B^{30} , B^{32} , thrust bar 2^5 , spring pawl 7^4 , ratchet-wheel R^2 , and feed shaft R^6 , with bevel gears at its ends operating the ribbon spools substantially as and for the purpose described. 38th. The combination of the adding devices and the rack bar A^{17} , for feeding from one denomination to the next, the paper feed shaft C^{17} , with loose pinion P , the clutch P^1 , P^2 , and means for operating said clutch through the slide rod C^{14} , and thumb piece F , substantially as and for the purpose described.

No. 52,024. Wood Working Machine.

(Machine à travailler le bois.)

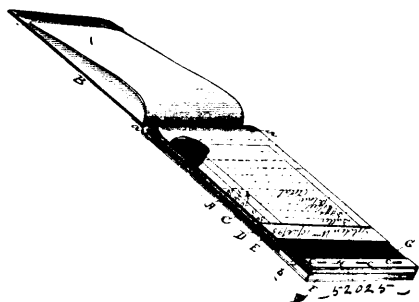


John Richard Schelosky, St. Louis, Missouri, U.S.A., 21st April, 1896; 6 years. (Filed 29th February, 1896.)

Claim.—1st. The improved dovetailing machine constructed with a series of circular saws (as two or three) mounted in differential planes, and a single saw-frame upon which all the arbors of said saws are mounted, and said saw-frame simultaneously adjustable vertically and horizontally with respect to the main stationary frame of the machine, in combination with a suitable main stationary frame, whereby all of the saws and their arbors may be simultaneously adjusted either vertically or horizontally, substantially as herein specified.

No. 52,025. Manifold Account and Sale Book.

(Livre de comptes et vente.)

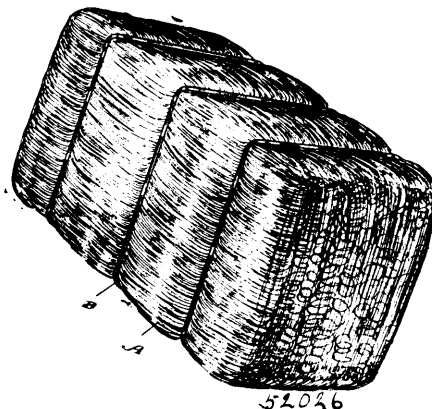


Henry D. Keih, Mansfield, Ohio, U.S.A., 21st April, 1896; 6 years. (Filed 29th February, 1896.)

Claim.—1st. A manifold account and sales book, consisting of two independent leaf-sections attached at the opposite ends of a suitable back, a suitable cover therefor, a block connected to the outer end of said back to form a support to the upper one of the sections at the end thereof, and a carbon sheet secured over the upper leaf-section, substantially as and for purpose set forth. 2nd. A manifold account and sales book, consisting of a suitable back and cover, two inde-

pendent leaf-sections attached at their outer ends, a block secured to the outer end of the back, an interposed support between the leaf-sections, and a carbon sheet above the upper one of said sections, substantially as and for the purpose described. 3rd. A manifold account and sales book, consisting of a suitable cover and back connected by a flexible hinge, a block connected to the outer end of the back, two independent leaf-sections connected to the hinge and block respectively, an interposed support between the leaf-sections, a carbon sheet above the upper one of said sections which section is of decreased length to leave a space or margin on the under section at the attached end thereof for the purpose of providing space for carrying forward the total of past account, substantially as and for the purpose set forth. 4th. A manifold account and sales book, consisting of a suitable back and cover, two independent leaf-sections attached at their outer ends as shown, a block secured to the outer end of the back, and an interposed support between the sections, a carbon sheet above the upper one of said sections, the leaves of which are perforated transversely, and a binder to hold the perforated ends of the leaves together, substantially as and for the purpose set forth.

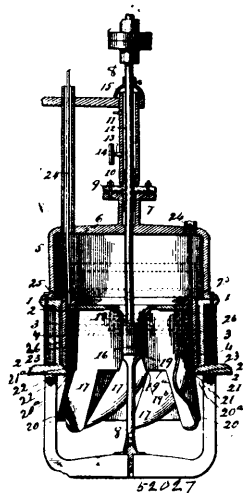
No. 52,026. Fuel. (Combustible.)



Harman Bunker, Barrie, Ontario, Canada, 21st April, 1896; 6 years. (Filed 16th September, 1895.)

Claim.—A fuel consisting of straw impregnated with oil and tar in the proportion of one ton of straw to two gallons of oil, and two gallons of tar compressed into suitable blocks and rigidly bound by metallic bands, substantially as described.

No. 52,027. Turbine Water Wheel. (Turbine.)



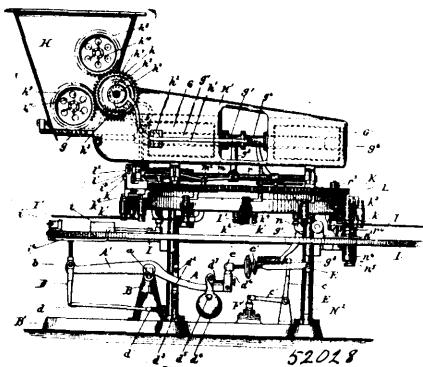
John H. Staple, York, Pennsylvania, U.S.A., 21st April, 1896; 6 years. (Filed 30th January, 1896.)

Claim.—1st. In a turbine water wheel, the combination with a casing having suitable openings therein for the admission of water to the interior thereof, of the wheel proper consisting of a hub having a drive shaft mounted in suitable bearings connected thereto, said hub being cut away at its lower end, forming a passage for the water downwardly through the centre, and blades or buckets secured to or integral with said hub, recessed at points adjacent to the cut-away portion of said hub, and having their upper faces for receiving the horizontal impact of the water, convex, and their lower faces for receiving the downward impulse of the water, con-

cave, substantially as and for the purpose described. 2nd. In a turbine water-wheel, the combination with a casing having suitable openings therein for the admission of water to the interior thereof, of the wheel proper consisting of a hub having a drive-shaft mounted in suitable bearings connected thereto, said hub being cut away at its lower end, forming a passage for the water downwardly through the centre, and blades or buckets secured to or integral with said hub, recessed at points adjacent to the cut-away portion of said hub, and having their upper faces for receiving the horizontal impact of the water, convex, and turned upon a spiral from the hub outwardly, and their lower faces, for receiving the downward impulse of the water, concave, and turned upon a spiral, substantially as and for the purpose described. 3rd. In a turbine water-wheel, the combination with a casing formed of parallel annular rings and pitch-water blades integral therewith, the lower ring being formed with an internally projecting flange, of the wheel proper mounted in said casing upon suitable bearings, and an annular band connected to, or formed integral with the blades of said wheel, the said band being of larger diameter at its lower end than at its top, and formed at its upper end with an outwardly extending flange bevelled downwardly and inwardly and moving in close relation to the flange on said ring, whereby a free passage of dirt or grit is provided beneath said flanges and grinding of the parts prevented, substantially as described. 4th. In a turbine water-wheel, the combination with a casing formed of parallel annular rings and pitch-water blades integral therewith, the lower ring being formed with an internally projecting flange hollowed out annularly and formed with a ledge and a water-wheel proper located centrally of the casing, of an annular gate provided with means whereby the same may be raised or lowered for regulating the quantity of water admitted to the wheel, the said gate having a flange at its upper outer end provided with an inclined under surface, which, when the gate is closed, is adapted to rest upon and bear against the upper edge of the casing, a shoulder upon its lower end resting upon the ledge of the flange on said lower ring, and a cut-away portion adapted to fit the cut-away portion of said flange, substantially as and for the purpose described. 5th. In a turbine water-wheel, the combination with a casing having suitable openings therein for the admission of water to the interior thereof, and a water-wheel proper located centrally of said casing, of an annular gate provided with means whereby the same may be raised or lowered for regulating the quantity of water admitted to the wheel, the said gate being provided on its inner surface with a series of horizontal parallel grooves, substantially as and for the purpose described. 6th. In a turbine water-wheel, the combination with a casing formed of parallel annular rings and pitch-water blades integral therewith, the lower ring being formed with an internally projecting flange, having a horizontal ledge on its upper surface, and the corner of said flange cut out annularly on a curve, and a wheel proper mounted centrally within said casing upon suitable bearings, of an annular gate between said wheel and said casing provided with suitable means for raising and lowering the same to regulate the quantity of water admitted to said wheel, the said gate having an annular shoulder formed upon its lower edge corresponding with the ledge on said flange, and cut away along the remainder of said edge corresponding to the cut-out portion of said flange, whereby when said gate is closed a perfectly water-tight joint is formed between said gate and said flange, and whereby when said gate is opened, the flow of water to the wheel is permitted in an unbroken mass, substantially as described.

No. 52,028. Weighing and Package Filling Machine.

(Machine à peser et emplir les paquets.)



William Henry Doble, Quincy, assignee of George Weston Watson, Boston, both in Massachusetts, U.S.A., 21st April, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. In a weighing and package filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a gate opening and a gate-closing solenoid having cores connected with each other and with the gate, a source of electrical supply, an electrical circuit through each solenoid, a contact mechanism forming a part of each circuit, automatic mech-

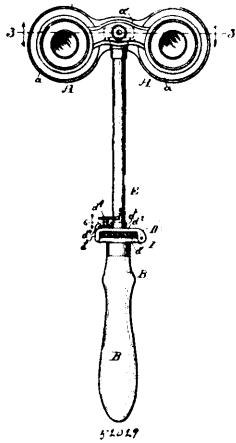
anism which carries a package to the scales, automatic mechanism which then closes the contact in the circuit through the gate-opening solenoid whereby the gate is opened, and mechanism which again opens said contact before the gate-closing solenoid becomes operative, automatic mechanism which closes the contact in the circuit through the gate-closing solenoid when the package is filled whereby the gate is closed, and automatic mechanism which opens said contact again before the gate-opening solenoid becomes operative, substantially as described. 2nd. In a weighing and package filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a gate-opening and a gate-closing solenoid having cores connected with each other and with the gate, a source of electrical supply, an electrical circuit through each solenoid, a contact mechanism forming a part of each circuit, automatic mechanism which carries a package to the scales, automatic mechanism which then closes the contact in the circuit through the gate-opening solenoid whereby the gate is opened, and mechanism which opens said contact again before the gate-closing solenoid becomes operative, automatic mechanism which closes the contact in the circuit through the gate-closing solenoid when the package is filled, whereby the gate is closed, and mechanism which opens said contact again before the gate-opening solenoid becomes operative, the package carrying mechanism removing the package from the scales, substantially as described. 3rd. In a weighing and package filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a gate-opening and a gate-closing solenoid having cores connected with each other and with the gate, a source of electrical supply, an electrical circuit through each solenoid, a contact mechanism forming a part of each circuit, automatic mechanism which carries a package to the scales, automatic mechanism which then closes the contact in the circuit through the gate-opening solenoid whereby the gate is opened, and mechanism which opens said contact again before the gate-closing solenoid becomes operative, mechanism operated by the tipping of the scale beam the package is filled which closes the contact in the circuit through the gate-closing solenoid whereby the gate is closed, and mechanism which opens said contact again before the gate-opening solenoid becomes operative, substantially as described. 4th. In a weighing and package filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a gate-opening and a gate-closing solenoid having cores connected with each other and with the gate, a source of electrical supply, an electrical circuit through each solenoid, a contact mechanism forming a part of each circuit, automatic mechanism which carries a package to the scales, automatic mechanism which then closes the contact in the gate-opening circuit allowing the gate to be opened and mechanism which opens said contact again before the gate-closing solenoid becomes operative, mechanism actuated by the tipping of the scales when the package is filled, which closes the contact in the gate-closing circuit allowing the gate to be closed and intermediate mechanism operated by the sliding core of the solenoid which again opens said contact, substantially as described. 5th. In a weighing and package filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, automatic mechanism which carries a package to the scales, intermediate mechanism operated by the package as it moves to the scales which causes the gate to open, and intermediate mechanism operated by the tipping of the scales when the package is filled, whereby the gate is closed, substantially as described. 6th. In a weighing and package filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, an automatic intermittently moving package carrier, mechanism actuated by the package carrier as it moves to the scales which causes the gate to open, intermediate mechanism actuated by the tipping of the scales when the package is filled whereby the gate is closed, automatic mechanism which removes the filled package and mechanism which again presents an empty package to the scales, substantially as described. 7th. In a weighing and package filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a gate-opening and a gate-closing solenoid having cores connected with each other and with the gate, a source of electrical supply, an electrical circuit through each solenoid, a contact mechanism in each circuit, an automatic intermittently moving package carrier, mechanism actuated by the package carrier as it moves to the scales which closes the contact in the gate-opening circuit, allowing the gate to be opened, intermediate mechanism operated by the sliding core of the solenoid which opens said contact again before the gate-closing solenoid becomes operative, mechanism actuated by the tipping of the scales when the package is filled which closes the contact in the gate-closing circuit, allowing the gate to be closed, and intermediate mechanism operated by the sliding core of the solenoid to again open said contact, substantially as described. 8th. In a weighing and package filling machine, the combination of a hopper, a weighing scale, a gate which controls the flow of goods from the hopper, an automatic package carrier, mechanism actuated by the package carrier as it moves a package to the scales which causes the gate to open, mechanism which prevents the gate-opening mechanism from being actuated, except when a package is brought to the scales, and mechanism actuated by the tipping of the scales when the package is filled, whereby the gate is closed, substantially as described. 9th.

scribed. 19th. In an automatic weighing and package-filling machine, the combination of a hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a reciprocating rod which opens and closes said gate, a source of energy which supplies power to reciprocate said rod, an automatic package carrier, mechanism which moves the rod in a direction to open the gate and mechanism which moves it in a direction to close the gate, a medium with a make and break device through which force is transmitted from said source of energy to the mechanism for opening the gate, a lever connected with said make and break device having a spring which tends to keep the circuit closed, and a compound latch device which holds the circuit open, the latch being partially released by mechanism actuated by the package as it moves toward the scales, after which the latch is further released by mechanism actuated by the package carrier, the circuit then becoming closed and the reciprocating rod moving to open the gate, a device connected with the reciprocating rod which, when the gate opens, actuates the make and break lever to break the circuit and re-sets the latch, a medium with a make and break device through which force is transmitted from said source of energy to the mechanism for closing the gate, a lever connected with said make and break device having a spring which tends to keep the circuit closed, and a latch device which holds the circuit open, the latch being released by the tipping of the scales when a package is filled, the circuit then becoming closed and the reciprocating rod moving to close the gate, a lever connected with the reciprocating rod which when the gate closes actuates the make and break lever to break the circuit and re-set the latch, substantially as described. 20th. In a weighing and package filling machine, the combination of a reciprocating rod which opens and closes the feed gate, a source of energy which supplies power to reciprocate said rod, an automatic package carrier, a medium with a make and break device through which force is transmitted to close the gate, a lever connected with said make and break device having a spring which tends to keep the circuit closed, a slide rod¹² and a link¹⁵ connecting the make and break lever with said slide rod, a cam stud k⁷ having pivoted thereto an arm¹¹ which bars the forward movement of the slide rod¹² and prevents the closing of the make and break device, a cam-lever mounted in the package carrier which lifts said cam stud and the bar¹¹ whereby the slide rod¹² is free to move forward under the bar¹¹ and the make and break lever spring is effective to close the circuit, guides between which a package passes before reaching the scales, one of said guides being pivoted at the entrance end and spread by the package as it moves toward the scales, pivoted arm¹³ which prevents the lifting movement of the stud k⁷ until a package enters the guide-way, intermediate mechanism actuated by the package in passing through the guide-way which releases the arm¹³ and leaves the stud free to rise by the action of the cam lever, and the circuit to be closed, whereupon the reciprocating rod opens the feed gate, a push pin carried with the reciprocating rod and actuating the make and break lever to open the circuit, retracing the slide rod¹² and allowing the cam stud k⁷ to return to its first described position, and a spring which moves the arm¹³ back to its first described position, substantially as described. 21st. In a weighing and package filling machine, an intermittently moving carriage, a series of package moving fingers fixed on shafts having bearings in the carriage, a cam lever fixed on each of said shafts, a movable stud with which said cam levers engage, mechanism set in operation by the movement of said stud which opens the feed gate, a cam track on which the cam lever rides before engaging with the stud and during the engagement, a spring which holds the cam lever on the track, and causes the shaft on which the cam lever and finger are fixed to rotate slightly backward and remove the finger from contact with the package when the cam lever passes from the cam track, substantially as described. 22nd. In a weighing and package filling machine, the combination of a weighing scale, a main scale beam having one arm which sustains the load and another arm which sustains the weight, an auxiliary beam pivoted independently of the main scale beam and having one end engaged by the weighted arm of the main scale beam and lifted by it when the latter is tipped by a load, a gate which controls the flow of goods to the scales, mechanism which closes said gate when the scale beam tips, a source of energy and a medium with a make and break device through which force is transmitted from said source to operate the gate-closing mechanism, a pivoted lever to one arm of which is pivoted the make and break device of the gate-closing circuit, a spring which tends to hold the make and break device closed, a latch which holds the lever from yielding to its spring, the tipping of the scale beam operating to trip the lever and allow the make and break device to close the circuit and thereby close the gate, substantially as described. 23rd. In a weighing and package-filling machine, an intermittently moving package carrier which carries a package to the scales and withdraws from contact with the package while the package is being filled, and then removes the filled package from the scales, substantially as described. 24th. In a weighing and package filling machine, the combination of a continuously revolving driving ring which drives the package carrier, a package moving ring, mechanism for automatically locking the package moving ring to the driving ring and unlocking them intermittently, a series of package moving fingers attached to the package moving ring, and a stationary package supporting table on which the packages are moved by said fingers to the scales, substantially as described. 25th. An electrical contact mechanism consisting of a cup composed of two sec-

tions of conducting material insulated from each other and from the base and having outwardly flaring interior walls, and a plunger of non conducting material having a tapering collar of some conducting material which snugly fits in said cup, substantially as described. 26th. In a weighing and package a filling machine, the combination of a continuously revolving driving ring, a package moving ring, mechanism for automatically locking the two rings together and unlocking them whereby the two rings move together until a package reaches the scale when the two rings become unlocked, a detent which restrains the package moving ring from movement while the package is being filled, and mechanism which releases the detent and allows the two rings to again become locked and move together after the package is filled and removed, substantially as described. 27th. In a weighing and package filling machine, the combination of a continuously revolving driving ring, a package moving ring, a series of spring seated pins on one of the rings, a series of sockets in the other ring, and mechanism which causes one of the spring pins to enter one of the sockets and lock the two rings together and cause them to travel together until a package reaches the scale pan, when the two rings become unlocked, a detent which stops the package ring from further movement while the package is being filled, and mechanism which then releases the detent and allows the two rings to again become locked and move together, substantially as described. 28th. In a weighing and package filling machine, the combination of a continuously revolving driving ring, a package moving ring, below the driving ring, a series of sockets in the driving ring, a series of spring seated locking pins in the package moving ring which come into alignment with the sockets during the revolution of the driving ring, a spring-actuated push-plug which aligns with the locking pins in turn as the package ring revolves, a detent which holds down said push-plug while a package is on the scales being filled, mechanism actuated by the tipping of the scales which removes the detent from the push-plug, a spring, which then actuates the push-plug to thrust one of the locking pins into a socket in the driving ring, a track plate which holds the locking pin to its engagement so that the rings move together during a part of a revolution until another package reaches the scales, at which time the locking pin leaves the track plate and the rings become unlocked and a detent which at the same time stops the revolution of the package ring, substantially as described. 29th. In a weighing and package filling machine, the combination of a reciprocating rod which opens and closes the feed gate, a continuously revolving driving ring which drives the package carrier, a package moving ring below the driving ring, a series of sockets in the driving ring, a series of spring seated locking pins in the package moving ring which come into alignment with the sockets during the revolution of the driving ring, a spring-actuated push-plug which aligns with the locking pins in turn as the package ring revolves, a spring-controlled lever¹⁶ which holds back the push-plug while a package is on the scales being filled, a shaft¹⁷ on which said lever is fixed, a lever¹⁸ also fixed on said shaft, mechanism which slides the reciprocating rod and closes the gate when a package is filled, a hooked cam lever¹⁹ pivoted to an arm on a shaft attached to said reciprocating rod which, when the gate is opened by the reciprocating rod, engages with a stud on said lever¹⁸, and which when the gate closes pulls the lever¹⁶ from engagement with the push-plug, a spring which then actuates the push-plug to thrust one of the locking pins into a socket in the driving ring, a track plate¹ which holds the locking pin to its engagement so that the two rings move together during a part of a revolution until another package reaches the scales, at which time the locking pin leaves the track plate and the rings become unlocked, and a stop lever^{14, 15} fixed on a rock shaft which is actuated by the push-plug through intermediate mechanism to remove its restraint when the rings are locked, and which is actuated by the locking pin through intermediate mechanism as it travels over the track plate to return to its position in readiness to stop the package ring when another package is on the scales, substantially as described. 30th. The combination of a reciprocating rod, a source of energy which applies power to reciprocate said rod, mechanism which moves said rod, a medium with a make and break device through which force is transmitted from said source of energy to the mechanism for reciprocating the rod, a pivoted angle bar lever to one arm of which is pivoted the make and break device, a spring which tends to hold the make and break device closed, a lever fulcrumed at a point between its two ends, pivoted at one end to the reciprocating rod, and carrying a spring-seated push pin at its other end, the push pin lever operating to turn the make and break lever on its pivot and open the circuit when the rod reciprocates in one direction, the make and break lever spring turning it back again and closing the circuit when the rod reciprocates in the reverse direction and withdraws the push pin from its engagement, substantially as described. 31st. In a weighing and package filling machine, the combination of a hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a reciprocating rod which opens and closes said gate, a source of energy which supplies power to reciprocate said rod, mechanism which moves said rod in a direction to open the gate and mechanism which moves said rod in a direction to close the gate, a medium with a make and break device through which force is transmitted from said source of energy to the mechanism for opening the gate and a medium with a make and break device through which force is transmitted to close the gate, a pivoted angle bar lever to one arm of which is pivoted the make and break device of the gate closing circuit, a

spring which tends to hold the make and break device closed, a catch attached to the scale beam which holds the angle bar from yielding to its spring, and a lever fulcrumed at a point between its two ends and pivoted at one end to the reciprocating rod and carrying a push pin at its other end, the tipping of the scale beam operating to trip the angle bar and allowing it to yield to its spring, thereby closing the circuit through the gate-closing medium whereby the reciprocating rod moves to close the gate, and turn the push pin lever which then operates to lift the make and break lever and open the circuit again, substantially as described. 32nd. In a weighing and package-filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a gate-opening and a gate-closing solenoid, having cores connected with each other and with the gate, a source of electrical supply, an electrical circuit through each solenoid, a contact mechanism forming a part of each circuit, a package-moving ring, a continuously revolving ring which drives the package-moving ring, mechanism for automatically locking the two rings together and causing them to move together until a package is moved to the scale pan and then unlocking them and stopping the package-moving ring, mechanism which is actuated to close the contact in the gate-opening circuit when the package moves to the scale pan, allowing the gate to be opened, intermediate mechanism operated by the sliding core of the solenoid which opens said contact again before the gate-closing solenoid becomes operative, mechanism actuated by the tipping of the scales when the package is filled which closes the contact in the gate-closing circuit, allowing the gate to be closed, intermediate mechanism operated by the sliding core of the solenoid to again open said contact, and mechanism for again locking the two rings together, whereby the filled package is removed from the scales and an empty package is brought to the scales, substantially as described.

No. 52,029. Opera Glass. (Lorgnette.)



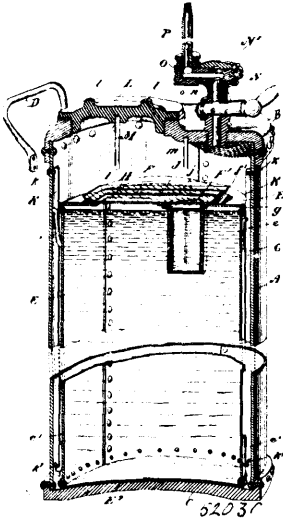
Jeremiah Murphy, Oscar F. Engwall and Charles A. Tiden, all of Chicago, Illinois, U.S.A., 21st April, 1896; 6 years. (Filed 8th February, 1896.)

Claim.—1st. In an opera glass holder consisting of a cylindrical body part and a handle, a yoke joining the handle and body part, such yoke consisting of bars connected together at one end by a pivot and at the other end by a catch, whereby the yoke can be separated and the handle and body part folded, a spindle rotatably mounted in the cylindrical body part of the handle, a connection between the spindle and the focussing mechanism of the opera glass, and a thumb wheel on the spindle at the end thereof extending into the yoke, substantially as described. 2nd. In an opera glass, a bar extending between the bars connecting the barrels of the opera glass, washers fitting over the ends of the bar and to the connecting bars, a passage way in the first named bar, a bar fitting movably in the passage way, a geared rack on the last named bar, a rotatably mounted geared pinion mounted on the first named bar engaging with the geared rack, and a holder removably attached to the first named bar, such holder consisting of a body part and a handle joined together by a separable yoke, a rotatable spindle in the body part engaging with the rotatable pinion when the holder and opera glass are joined together, and a thumb wheel on the spindle within the yoke, substantially as described. 3rd. In an opera glass, a bar extending between the bars connecting the barrels of the opera glass, a passage way in the first named bar, a bar fitting movably in the passage way, a geared rack on the last named bar, a rotatably mounted pinion engaging with the geared rack mounted on the first named bar, a spring in the passage way abutting against the bars, a cylindrical sleeve, a spindle rotatably mounted on the sleeve, a thumb wheel on the spindle and an engagement between the spindle and rotatable pinion, and means for removably attaching the sleeve to the first

named bar, substantially as described. 4th. In an opera glass, a frame extending between the bars connecting the barrels of the opera glass and attachable to such bars, a geared pinion forming a driving gear rotatably mounted on the frame, a connection between such geared pinion and the extensible tubes of the opera glass, and a holder removably attached to such frame, such holder having a rotatable spindle therein engaging with the rotatable pinion when the holder and frame are joined together, a thumb wheel on the spindle and a yoke composed of separable bars extending around the thumb wheel and connecting the handle and the body part of the holder together, substantially as described. 5th. In an opera glass holder, a handle and a cylindrical body part, a separable yoke connecting such handle and body part together, a rotatable spindle mounted in the holder, a thumb-wheel on the spindle and within the yoke, and means for attaching the holder to the frame of an opera glass with a connection between the ends of an opera glass, with a connection between the ends of such rotatable spindle and the focussing mechanism of the opera glass, substantially as described. 6th. In an opera glass holder, a rotatable spindle, a cylindrical body part in which the spindle is mounted, a handle, a yoke between the handle and a body part, a thumb-wheel on the spindle within such yoke, a bevelled flange on the end of the body part, such flange having portions thereof cut-away, and abutments on the bar of an opera glass between the barrels thereof, such abutment extensible through the openings formed therefor by the cutting away of the portions of the bevelled flange, and fitting against the bevelled flange when the body part of the holder is turned into position, substantially as described. 7th. In an opera glass holder, a rotatable spindle, a cylindrical body part within which the spindle is mounted, a handle, a yoke between the handle and the body part, such yoke consisting of bars connected together by a pivot at one end thereof, and by a catch at the other end, a thumb-wheel on the spindle and within such yoke, and means for attaching the holder to the frame extending between the bars connecting the barrels of the opera glass, a squared end on the spindle engaging with the rotatable pinion in the frame, and a connection between the rotatable pinion and the focussing mechanism of the opera glass, substantially as described. 8th. In an opera glass, a frame extending between the bars connecting the barrels of the glass, such frame having a passage-way therein, a bar connected to one end thereof to the bar connecting the tubes of the opera glass and longitudinally movable in the passage-way, a geared rack on such longitudinally movable bar, a geared rotatable pinion mounted in the first named frame to engage with the geared rack, and a holder attachable to such frame, such holder having a rotatable spindle therein engaging with the rotatable pinion when the holder and opera glass are joined together, and a thumb-wheel thereon midway of the holder, whereby it can be rotated by the thumb and the forefinger of the hand grasping the handle, substantially as described. 9th. In an opera glass, a frame extending between the bars connecting the barrels of the glass, such frame having a passage-way therein, a bar connected at one end thereof to the bar connecting the tubes of the opera glass and longitudinally movable in the passage-way, a geared rack on such longitudinally movable bar, a geared rotatable pinion mounted in the first named frame to engage with the geared rack, a spring abutting against the first named frame and against the bar longitudinally movable therein, a holder and mechanism in the holder for turning the pinion, the driving wheel of such mechanisms being midway of the two ends of the holder, substantially as described. 10th. The combination of a three part holder, one of such parts rigidly secured to an opera glass frame, one of the parts removably or adjustably secured to the first named part, and remaining part, forming the handle, adjustably secured to the second named part, with mechanism rotatably mounted in the several parts whereby the opera glass can be focussed by the thumb and forefinger of the hand grasping the handle part of the holder, substantially as described. 11th. The combination of a three part holder, one of such parts rigidly secured to the opera glass, a second part removably or adjustably secured to the first named part, and a third part forming a handle to the holder adjustably secured to the second named part, with a spindle rotatably mounted in the first named part, a pinion on the spindle engaging with a corresponding rack of the focussing mechanism of the opera glass, a spindle rotatably mounted in the second named part, the ends of such spindle being, respectively, yieldingly held in an extended position, and a thumb wheel in the handle part of the holder, the intermediate spindle being arranged to engage with the spindle of the thumb wheel and the spindle of the pinion, substantially as described. 12th. The combination, with an opera glass of a three part holder, one of such parts secured to the opera glass, the adjacent part adjustably secured to the first named part, and the remaining part adjustably secured to the second named part, with mechanism rotatably mounted in the several parts whereby the opera glass can be focussed by turning a thumb wheel in the last named part and adjacent to the second named part by the thumb and forefinger of the hand grasping the third named part, substantially as described. 13th. The combination, with an opera glass, of a holder consisting of a tube secured to the frame of the opera glass, a spindle rotatably mounted therein, a pinion on the spindle engaging with a rack, a rack secured to the bar connecting the tubes of the opera glass, a tube connecting with the first named tube, a spindle rotatably mounted in the second named tube, such spindles engaging rotatably with each other and being independently longitudinally movable in the tube, means for

yielding holding the spindle in an extended position relative to the tube, and a handle connecting with the second named tube, with a spindle having a thumb wheel thereon mounted in such handle, all of such spindles being rotatably connected when the several parts of the holder are in an operative position, substantially as described. 14th. In a three part opera glass holder, the combination of a thumb wheel rotatably mounted in the handle part of the holder, a spindle rotatably mounted in the part of the holder adjacent to the handle part, such spindle consisting of two shafts connected together so as to rotate in unison and to move longitudinally independently of each other, a spring yieldingly holding both of such shafts in an extended position, and a spindle mounted in the remaining part of the holder, and all of such spindles coming in contact at the ends thereof adjacent to each other when the holder is in position for use and engaging so as to rotate in unison, substantially as described.

No. 52,030. Fire Extinguisher. (Extincteur d'incendie.)

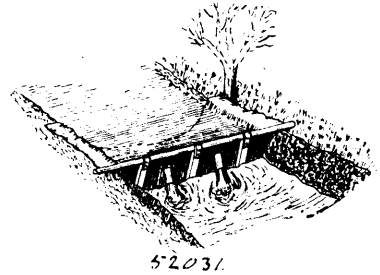


The Wilson Fire Extinguisher Company of Toronto, assignee of Charles Colley Foster and Louis Henry Moffatt, assignee of Daniel D. Wilson, all of Toronto, Ontario, Canada, 21st April, 1896; 6 years. (Filed 18th June, 1894.)

Claim.—1st. In a hand fire extinguisher, the outer receptacle, the inner receptacle having sliding movement thereon, the guides on the sides of outer receptacle, the stops in the outer receptacle and the pins on the inner receptacle projecting into the said guides whereby the inner receptacle will be held against rotary movement with the fragile portion in line with the breaking means and will be limited in its sliding movement after the fragile portion has been broken, to maintain an upper space, substantially as described. 2nd. In combination the outer cylinder, the inner cylinder capable of longitudinal movement therein, the fragile diaphragm, the guideways, studs extending into said guideways, and bent pins engaging with said studs whereby the movement of the said inner cylinder is prevented until the outer cylinder is entirely reversed, substantially as described. 3rd. In combination, the outer cylinder, an inner cylinder capable of longitudinal movement within the outer cylinder, a fragile diaphragm secured to the head, and normally separating the ingredients, two guideways secured to the outer cylinder situated diametrically opposite each other, bent pins secured to the inner cylinder and extending into the guideways, the retarding bosses k^1 formed on each side of the guideways near the bottom end, and means whereby the fragile diaphragm is broken, as and for the purpose specified. 4th. In combination, the outer cylinder, an inner cylinder fitting the same with the exception of an upper space and capable of longitudinal movement within the outer cylinder, a fragile diaphragm secured to the head and normally separating the ingredients, two guideways secured to the outer cylinder situated diametrically opposite each other, bent pins secured to the inner cylinder and extending into the guideways, and the stops k extending into the opposite ends of the guideways to limit the movement of the inner cylinder to maintain an upper space and means whereby the fragile diaphragm is broken, as and for the purpose specified. 5th. The combination, with the outer cylinder of the inner cylinder provided with a fragile diaphragm H , extending over the openings F and F^1 , the opening F^1 , having a depressed ledge f^1 , formed around it, the acid receptacle G , having the rim g , by which it is supported upon the ledge f^1 , the layer j , of plaster of paris, situated between the top of the rim of the acid receptacle and the fragile diaphragm and the bead J , of plaster of paris or other suitable material surrounding the edge of the fragile diaphragm, as and for the purpose specified.

8th. In a fire extinguisher, in combination the outer cylinder A , the inner cylinder, the fragile diaphragm for normally separating the ingredients, as specified, and the screwed plug eccentrically situated in the head, and the faucet N , also eccentrically situated in the head and provided with the nozzle P , hinged in the enlarged end of the faucet N , as and for the purpose specified. 7th. In a fire extinguisher, the combination, with the cylinder and the head of the screwed plug L , with the lugs l , arranged as shown and for the purpose specified. 8th. In a fire extinguisher, the combination, with the cylinder and head of the faucet N , and nozzle P , continuing the passage-way from the faucet and hinged by the socket O , within the enlarged end of the faucet, as and for the purpose specified.

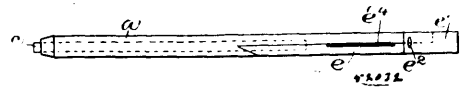
No. 52,031. Portable Dam. (Digue portative.)



Philip S. Witcher, Granger, Utah, U.S.A., 21st April, 1896; 6 years. (Filed 12th February, 1896.)

Claim.—1st. A portable dam comprising a pole, and an apron of flexible material attached thereto, substantially as described. 2nd. A portable dam comprising a pole, and an apron attached to said pole provided with openings adapted to allow the passage of the water thereto when the same reaches a predetermined limit, substantially as described. 3rd. A portable dam comprising a pole, an apron attached to said pole and provided with openings near the upper edge of said apron, and flaps adapted to permit the passage of water through said holes, or to close said holes, as may be desired, substantially as described. 4th. In a device of the character described, the combination with a pole, and a plurality of swinging braces connected thereto and free at their lower ends, of an apron made of flexible material connected at its upper edge to said pole, and free at its lower edge and side edges, substantially as and for the purposes described. 5th. In a portable dam of the character described, the combination with a log adapted to span the ditch or stream, of a canvas apron provided with a hem along its upper edge through which the hem passes a rope or wire, which rope or wire is secured at its ends to eyebolts on said log, and a plurality of braces hinged to said log and adapted to support the back of said canvas apron when in use, substantially as described.

No. 52,032. Pencil. (Crayon.)

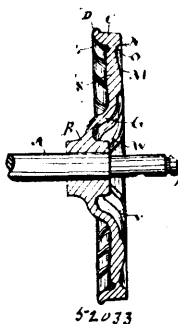


Elmer Egbert Monroe, Boston, Massachusetts, U.S.A., 21st April 1896; 6 years. (Filed 24th February, 1896.)

Claim.—1st. In a combined pencil and sharpener, the combination of two longitudinal sections a , e , one adapted to hold the lead and the other the file, and means for attaching said sections together, substantially as described. 2nd. In a combined pencil and sharpener, the combination of two longitudinal sections a , e , and advancing contrivance therefor held by one of said sections, and the file e^4 held by the other section, and means for attaching said sections together, substantially as described. 3rd. In a combined pencil and sharpener, the combination of two longitudinal sections, one adapted to hold lead, and the other adapted to hold a file, and means for attaching said sections together, and a contrivance for advancing the lead in the lead-holding section, consisting of a tube a^2 , containing the lead, slotted longitudinally as at a^4 , and notched as at a^5 , and a spring clip contained in said tube, having a right angular follower adapted to enter one or another notch, substantially as described. 4th. In a pencil, a lead-holder consisting of lead-receiving tube, a sheath in which it is freely movable, and means for locking said parts together by an inward movement of the lead-receiving tube, substantially as described. 5th. In a pencil, a lead-holder consisting of a lead-receiving tube, a sheath in which it is freely movable, a locking device for said parts, the co-operative parts of which are brought into engaging position when the lead-receiving tube is turned a short distance axially, substantially as described. 6th. In a pencil, a lead-holder consisting of a lead-receiving tube, a sheath in which it is freely movable, a locking device for said parts, and means for turning the lead-receiving tube axially automatically as it leaves the sheath to bring the co-operative parts of the locking device into engaging position, substantially as described. 7th. In a pencil, a lead-holder consisting of a lead-receiving tube, a sheath in which it is freely movable, and

from which it is detachable, and a lead-advancing contrivance in the lead-receiving tube, accessible when said tube is more or less withdrawn from its sheath, substantially as described. 8th. In a pencil, a lead-holder consisting of a lead-receiving tube having a tapering fin, a sheath containing said tube, slitted longitudinally for the passage of said fin, and having a cut away portion for the fin permitting axial movement of said tube, said fin engaging the edge of said cut-away portion to lock the parts together, substantially as described. 9th. In a pencil, a lead-holder consisting of a lead-receiving tube having a tapering fin, a sheath containing said tube, slitted longitudinally for the passage of said fin, and having a cut-away portion for the fin, the lower end of which has a cam portion causing axial movement of said tube, said fin engaging the edge of the cut-away portion to lock the parts together, substantially as described. 10th. In a pencil, a lead-receiving tube having a longitudinal opening, one side of which is formed with notches, and a spring clip contained in said tube and movable freely therein having a detent to engage said notches, substantially as described. 11th. In a combined pencil and sharpener, a file carrying section having one end bevelled, and the other end provided with one or more notches, a lead-carrying section having an under-cut portion for the bevelled end of said file-carrying section, and having at its outer end one or more notches, and a rotatable ferrule having one or more inward projections, substantially as described. 12th. In a combined pencil and sharpener, a file-carrying section bevelled at one end, a lead-holding section having an under-cut portion which receives said bevelled end, and a locking device for said parts, the movable member of which is borne by one of said sections, and adapted to engage the other when operated, substantially as described.

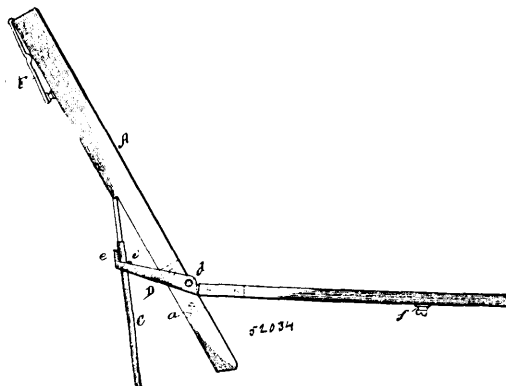
No. 52,033. Car Wheel. (Roue de char.)



The General Electric Company, Schenectady, New York, assignee of Elmer Ambrose Sperry, Cleveland, Ohio, both in the U.S.A., 21st April, 1896; 6 years. (Filed 14th February, 1896.)

Claim.—1st. In a wheel for a vehicle, a hub, a tread, a lateral face with a certain thickness of metal backing same disposed between the read and hub forming a portion of the web of the wheel, and a contracted portion less in thickness both exterior and interior thereto and between the face and the hub and the face and the tread. 2nd. In a wheel for a vehicle, a tread, a flange, a hub, and a portion between the tread and the hub presenting a lateral face, the contour of the face of the wheel near the rim being such that the face of the flange swings inward and undercuts the said flange before reaching the portion bearing the lateral face. 3rd. In a wheel for a vehicle, a tread, a flange, a hub, and a portion between the tread and the hub presenting a lateral face, the contour of the face of the wheel near the rim being such that the face of the flange swings inward and undercuts both the flange and the tread before reaching the portion bearing the lateral face. 4th. In a wheel for a vehicle, a tread, a flange, a hub, and a portion between the tread and the hub presenting a lateral face, the contour of the faces of the wheel near the rim being such that the faces of the flange and tread swing inward from each side or edge and undercut such flange and tread before reaching the portion bearing the lateral face. 5th. In a wheel for a vehicle, a hub, a tread, a lateral face, with a certain thickness of metal backing same disposed between the tread and hub forming a portion of the web of the wheel, the back face of the said portion being thinner at or near its outer circumference and thicker at or near its inner circumference, substantially for the purpose specified. 6th. In a wheel for a vehicle, a hub, a chilled tread, a lateral face with a certain thickness of metal backing same disposed between the tread and hub forming a portion of the web of the wheel, and a contracted portion less in thickness both exterior and interior thereto and between the face and the hub and the face and the tread. 7th. In a wheel for a vehicle, a hub, a chilled tread, a lateral face with a certain thickness of metal backing same disposed between the tread and hub forming a portion of the web of the wheel, and a contracted portion less in thickness both exterior and interior thereto and between the face and the hub and the face and the tread. 8th. In a wheel for a vehicle, a hub, a chilled tread, a lateral face with a certain thickness of metal backing same disposed between the tread and hub forming a portion of the web of the wheel and a portion curved as to section interior thereto and between the face and the hub.

No. 52,034. Portfolio. (Porte-feuille.)



Levi W. Yaggy, Lake Forest, Illinois, U.S.A., 21st April, 1896; 6 years. (Filed 28th February, 1896.)

Claim.—1st. The combination, in a combined portfolio, easel and desk, of a body portion adapted to stand upon one of its edges as an easel, a leaf C, hinged to the body portion so as to open away from its lower edge to form a leg or support for the body portion and having no lateral motion, and a leaf B, secured to the opposite side of the body portion by a hinge located near the lower edge thereof and adapted to open downwardly to serve as a desk, substantially as described and for the purpose set forth. 2nd. In a portfolio, the combination with a body portion, of two leaves upon opposite sides of the body portion and hinged thereto so that one of them opens upwardly and the other opens downwardly, and mechanical connection between the leaves so that they open and close together, substantially as described and for the purpose set forth. 3rd. In a portfolio, the combination with a body portion, of a downwardly-openable leaf B, an upwardly-openable leaf C, and an arm fixed to the leaf B, and projecting beyond the axial line upon which it swings and having sliding contact with the leaf C, substantially as described and for the purpose set forth. 4th. The combination in a portfolio, with the body portion or case, of the rigid leaf B, hinged to the body portion above its lower edge so as to swing downwardly, the rigid leaf C, hinged to the opposite side of the body portion so as to open upwardly, and arms D, fixed to the leaf B, and extending backwardly therefrom across the axis upon which it swings, and having sliding engagement with the leaf C, substantially as described and for the purpose set forth. 5th. The combination in a portfolio, with the body portion or case, of a downwardly-openable leaf B, to form a desk, and an upwardly-openable leaf C, to form a support for the body portion, and rigid arms fixed to and projecting beyond the hinged end of the leaf B, and lateral fingers at the end of the arms spaced apart to receive the edge of the leaf C, whereby the movement of the leaf C is controlled by the leaf B, substantially as described and for the purpose set forth. 6th. The combination in a portfolio, with the body portion or case, of a downwardly-openable leaf B, to form a desk, and an upwardly-openable leaf C, to form a support for the body portion, and rigid arms fixed to and projecting beyond the hinged end of the leaf B, and lateral fingers at the end of the arms spaced apart to receive the edge of the leaf C, the outer finger being offset from the arm so that the arm may have an angular movement with reference to the leaf C, substantially as described and for the purpose set forth. 7th. The combination in a portfolio, of a body portion adapted to stand upon one of its edges as an easel, a leaf C, hinged to the body portion so as to open away from its lower edge to form a leg or support for the easel, and a leaf B, secured to the opposite side of the body portion by a hinge located near the lower edge thereof and adapted to open downwardly to serve as a desk, and mechanical connection between the leaves whereby they open and close together, substantially as described and for the purpose set forth.

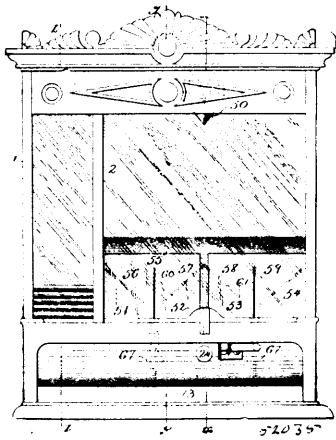
No. 52,035. Advertising and Vending Machine.

(Appareil de vente et d'annonce.)

Siegfried Silberberg, assignee of Frank Morton Archer, both of New York, State of New York, U.S.A., 21st April, 1896 years. (Filed 28th February, 1896.)

Claim.—1st. A machine of the class described, constructed substantially as described, and for the purposes set forth. 2nd. In a machine of the class described, the combination with means for inserting a coin or counter, of a merchandise compartment, mechanism for releasing the articles in the merchandise compartment, one by one upon the insertion of coins or counters, mechanism for fortuitously directing the coins or counters, into a plurality of compartments, a counter or registering device for registering the number of articles delivered from the merchandise compartment, and a counter or registering device for registering the numbers of coins or counters in one of the coin-receiving compartments, substantially as shown and described. 3rd. In a machine of the class described, the combination with means for inserting a coin or counter, of a mer-

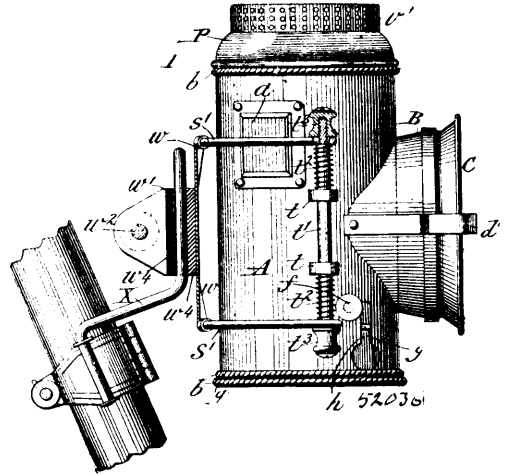
chandise compartment, mechanism for releasing the articles in the merchandise compartment, one by one, upon the insertion of coins or counters, mechanism for fortuitously directing the coins or counters into a plurality of compartments, and a counter or registering



device for registering the number of coins or counters in one of the coin-receiving compartments, substantially as shown and described. 4th. In a machine of the class described, the combination with means for inserting a coin or counter, of a merchandise compartment, mechanism for releasing the articles in the merchandise compartment, one by one, upon the insertion of coins or counters, mechanism for fortuitously directing the coins or counters into a plurality of compartments, and a counter or registering device for registering the number of articles of merchandise delivered by the machine, substantially as shown and described. 5th. A combined advertising and vending apparatus comprising compartments for the reception of coins or counters and other spaces for allowing the coins or counters to pass through the said other spaces being choked by catches supporting the floors of the said compartments, a separate chamber for the articles of merchandise in combination with a coin passage choked by a lever upon a rocking shaft, a push-rod adapted to tilt the said lever and shaft through the medium of the coin or counter, a channel leading to the space above the said compartments, and a spring at the bottom of the said channel, the said spring being released when the push-rod has been fully operated, whereby one of the articles of merchandise may be dropped, and at the same time the coin or counter be carried into a position to fall into one of the said compartments or into one of the spaces behind the same, and a counter or registering device for registering the number of articles of merchandise delivered, substantially as shown and described. 6th. A combined advertising and vending apparatus comprising compartments for the receipt of coins or counters and other spaces for allowing the coins or counters to pass through, the said other spaces being choked by catches supporting the floor of the said compartments, a separate chamber for the articles of merchandise in combination with a coin passage choked by a lever upon a rocking shaft, a push-rod adapted to tilt the said lever and shaft through the medium of the coin or counter, a channel leading to the space above the said compartments, and a spring at the bottom of the said channel, the said spring being released when the push-rod has been fully operated, whereby one of the articles of merchandise may be dropped, and at the same time the coin or counter be carried into a position to fall into one of the said compartments, or fall into one of the spaces behind the same, and a counter or registering device for registering the number of articles of merchandise delivered, and a counter or registering device for registering the number of coins or counters passing through the passages choked by catches, substantially as shown and described. 7th. A combination vending and advertising apparatus, comprising a chamber having a support for a number of articles of merchandise, and a chamber constituting the advertising portion of the machine, the chambers being arranged adjacent to each other and being separated by a suitable partition, in combination with a coin or counter passage choked by a lever upon a rocking shaft, a push-rod adapted to tilt the said lever and the shaft through the medium of a coin or counter, a vertical coin or counter channel leading up into the advertising chamber and a spring at the bottom of the said channel, the said spring being released when the push-rod has been fully operated, whereby one of the articles of merchandise is dropped, and at the same time the coin is thrown up through the vertical channel into the upper portion of the advertising chamber, and a counter or registering device for registering the number of articles of merchandise delivered by the machine, substantially as shown and described. 8th. In a machine of the class described, the combination with a plurality of compartments, of a deflector 50 capable of adjustment in all directions in a horizontal plane located above the compartments, and means for throwing coins or counters against the deflector so as to deposit the same fortuitously in the

various compartments, substantially as shown and described. 9th. In a machine of the class described, a coin or counter deflector 50, supported by a sliding-piece 110, which piece 110, is moved in and along a sliding-piece 113 by a screw 112, the sliding-piece 113 being supported in and moved along a support 114 in another direction by a screw 115, substantially as shown and described, and for the purposes set forth.

No. 52,036. Lantern. (Lanterne.)

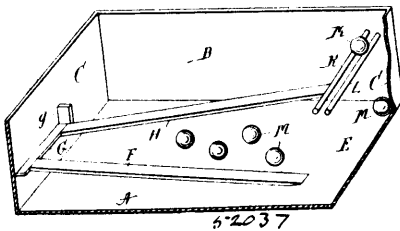


Benonie Ernest Percy Creighton, New York, State of New York, U.S.A., 21st April, 1896; 6 years. (Filed 28th February, 1896.)

Claim.—1st. In a lantern, the combination with the outer casing or body, of a font, a transverse tubular chamber constituting a chimney within which the font wick extends, a back reflector at the inner end of the tubular chamber, and a conical reflecting spreader, separated from the walls of the tubular chamber by an intervening space, substantially as described. 2nd. In a lantern, the combination with the outer casing or body, of a font, a transverse tubular chamber constituting a chimney within which the font wick extends, a back reflector at the inner end of the tubular chamber, and an independent conical reflecting spreader fitted removably within the outer end of the tubular chamber, substantially as described. 3rd. In a lantern, the combination with the outer casing or body, of a font, a transverse tubular chamber constituting a chimney within which the font wick extends, a back reflector at the inner end of the tubular chamber, and a conical reflecting spreader, separated from the walls of the tubular chamber by an intervening space, said conical spreader having a reflecting surface on both its inner and outer periphery, so as not only to project the light rays from the lantern but to irradiate the interior of the chamber in advance of the inner edge of the spreader, substantially as described. 4th. In a lantern, the combination with the burner, of a wick deflecting step, extending beneath the wick tube and adapted to deflect the depending portion of the wick out of line with the wick tube, and bind said depending portion between the wick tube and step, substantially as described. 5th. In a lantern, the combination with the top, having exit openings for heated air and inlet openings for cold air, of a plurality of open work discs, located below said openings and separated from each other by an intervening space, substantially as described. 6th. In a lantern, the combination with the top, having exit openings for heated air and inlet openings for cold air, of a plurality of open work discs, located below said openings and separated from each other by an intervening space, said top being provided with an annular pocket to receive and evaporate water drippings from the top disc, substantially as described. 7th. In a lantern, the combination with the main body portion, of the upper and lower bails, a strip of sheet metal connecting said bails and having projections or lugs integral therewith and bent to form an inclosing clasp for a bracket arm, and means for clamping the bent projections upon a bracket arm or releasing them therefrom, substantially as described. 8th. The combination in a lantern, of the body, the top having its lower portion fitted to the body, the deflector having an inverted depending conical portion provided with openings, said deflector and top being removably connected by bayonet locks, substantially as described. 9th. In a lantern substantially as described, the combination with the body provided at approximately opposite points with a plurality of lugs arranged, one above the other, upper and lower and lower bails extending around the back part of the lantern and arranged one above the other, pins or rods connecting the end of the upper and

lower bails and passed through the lugs on the lantern body, nuts securing said rods to the bails, springs bearing between said bails and the lugs, and a connection between the rear portions of the bails, substantially as described. 10th. The lantern herein described composed of the body having an opening in its front and a back reflector within the body opposite said opening, and having a rim, the tubular chamber or chimney fitting at its inner end within the rim of said back reflector, the top having a detachable inverted conical deflector, the font, and a casing surrounding the font and connected therewith and fitted and secured in the bottom of the body, substantially as described. 11th. In a lantern substantially as described, the combination of the body having an opening, a reflector located within said body opposite said opening, a tubular chamber or chimney inserted through said opening into the body and backing against the reflector therein, said tubular chamber having openings for the wick and for the passage of the products of combustion, and the door closing the opening in the body and securing the tubular chamber in position, substantially as described. 12th. In a lantern substantially as described, the combination of the body having an opening, a reflector located within said body opposite said opening, a tubular chamber or chimney inserted through said opening into the body and backing against the reflector therein, said tubular chamber having openings for the wick and for the passage of the products of combustion, and the door closing the opening in the body and securing the tubular chamber in position, and a conical reflecting spreader fitting into the forward end of the chamber or chimney, substantially as described. 13th. In a lantern substantially as described, the combination of the body having an opening, a back reflector in said body opposite such opening and provided with a forwardly projecting rim flange, the tubular chimney having upper and lower openings and fitting at its inner end within the cup-like rim flange of the back reflector, and the lens-carrying door securing the outer end of the tubular chimney and pressing the said tubular chimney in contact with the back reflector whereby the said tubular chimney is secured in position so that the proper relationship of the lens to the back reflector is assured, substantially as described. 14th. In a lantern, substantially as described, the combination with the body, of the back reflector having an edge rim, the tubular chamber of chimney fitted at its inner end removably within the edge rim of the back reflector, a conical reflecting spreader fitted within the chimney, and means for securing the other end of the tubular chimney, substantially as described. 15th. In a lantern, substantially as described, the combination of the body, the font provided with an attached casing surrounding the font and having a continuous annular space surrounding the font and open at the bottom and provided at the top with a series of perforations for the passage of the air to the flame, such annular air space being closed at its outer side, substantially as and for the purpose set forth. 16th. In a lantern, the combination of the body, the top fitted removably to said body and the inverted conical deflector carried by and held removably to said top, substantially as described. 17th. A lantern provided with a deflector having an inverted conical portion provided near its top with a series of perforations and having at such top a flange plate provided with a series of perforations outside of and surrounding those in the body portion of the deflector, the said two series forming separate passages for the hot and cold air, substantially as and for the purposes set forth.

No. 52,037. Puzzle. (Jeu de patience.)

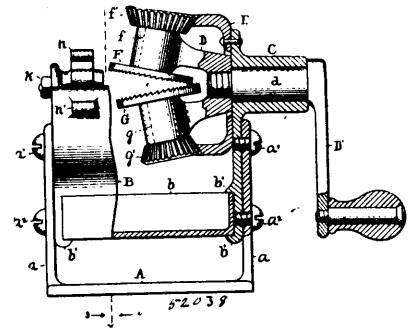


Charles Moulton Fitz, Oakland, California, U.S.A., 21st April, 1896; 6 years. (Filed, 28th February, 1896.)

Claim.—1st. A puzzle, comprising a box or casing and having upwardly inclined plates or strips which extend across one side, across or partway across one end and back again to near the other end, where the end of the last plate or strip is supported by parallel bars or other devices, and a plurality of balls or spherical bodies placed within said box or casing, substantially as shown and described. 2nd. In a puzzle, a box of casing which is oblong in form and composed of a bottom and vertical sides and end pieces, and inclined strip or plate one end of which rests upon the bottom near one end of the box, said strip being arranged adjacent to one side, and connected with an inclined strip or plate which extends upwardly and longitudinally of the box, and the upper end of which connects with a cross-bar or rod, adjacent to which is another cross-bar or rod, and said box or casing being also provided with a plurality of balls or spherical bodies, substantially as shown and described. 3rd. In a puzzle, a box or casing composed of a bottom, and vertical ends and sides, said box or casing being provided with plates or strips which connect with each other, the end of one of

said plates or strips resting upon the bottom, and the end of the last being near the top of the box or casing and supported by a rod or bar adjacent to which is a similar rod or bar, substantially as shown and described.

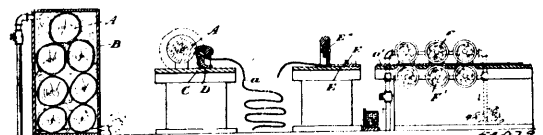
No. 52,038. Pencil-Sharpening Machine. (Taille-crayon.)



The A. B. Dick Company, Chicago, Illinois, assignee of George Frederick Ballou, New York, both of U.S.A, 21st April, 1896; 6 years. (Filed 28th February, 1896.)

Claim.—1st. In a pencil-sharpening machine, the combination with two rotary cutters or grinders adapted to work on opposite sides of a pencil, of means for giving a planetary motion to said cutters, and a guide for holding a pencil, substantially as set forth. 2nd. In a pencil-sharpening machine, the combination with two rotary cutters or grinders adapted to work on opposite sides of a pencil, the axial centre of one being in advance of the axial centre of the other, of means for giving a planetary motion to said cutters or grinders, and a guide for holding a pencil, substantially as set forth. 3rd. In a pencil-sharpening machine, the combination with two overlapping rotary cutters or grinders adapted to work on opposite sides of a pencil, and the axial centre of one being in advance of the axial centre of the other, of means for giving a planetary motion to said cutters, and a guide for holding a pencil, substantially as set forth. 4th. In a pencil-sharpening machine, the combination, with two rotary cutters or grinders adapted to work on opposite sides of a pencil, of a yoke having bearings for the spindles of said cutters or grinders, gear-wheels on said spindles engaging with a stationary gear, a spindle upon which the yoke is mounted and a crank for rotating said spindle whereby a planetary motion of the cutters or grinders is produced, and a guide for the pencil, substantially as set forth. 5th. In a pencil-sharpening machine, the combination with a rotary cutter or grinder, of a guide for the pencil, consisting of two pivoted L-shaped levers, a link connecting said levers, and a spring acting upon said levers whereby a pencil inserted between said levers will be so held that its axial centre will pass through the axial centre of the spindle carrying the cutter or grinder, and means for adjusting said levers to permit the insertion and withdrawal of a pencil, substantially as set forth. 6th. The combination, with a tool carried by a rotating spindle, of a work-holding device consisting of two pivoted levers, a link connecting said levers, and a spring acting upon said levers, whereby the work inserted between said levers will be so held that its axial centre will pass through the axial centre of the tool or its spindle, and means for adjusting said levers to permit the insertion and withdrawal of the work, substantially as set forth. 7th. In a pencil-sharpening machine, the combination, with the case B, of a stationary gear carried thereby, a bearing for a rotating spindle provided with a yoke carrying two revolving cutters or grinders, said cutters or grinders being provided with gear-wheels meshing with the stationary gear whereby a planetary motion of the cutters is produced, a pencil guide mounted on the opposite side of the case, and an adjustable supporting bracket for said case, substantially as set forth.

No. 52,039. Manufacturing Cloth Boards. (Fabrication de planche pour draps.)

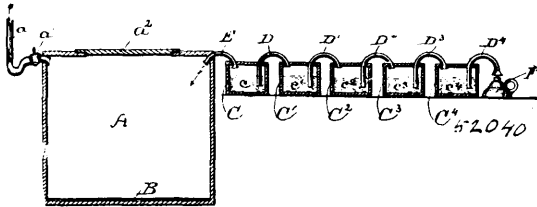


William Herbert Marcon, Toronto, Ontario, Canada, 21st April, 1896; 6 years. (Filed 8th November, 1896.)

Claim.—The method of producing cloth boards herein shown and described consisting in first slicing the wood from the periphery of a log rendered soft in a continuous wavy or undulating flexible form of length of desired thickness, then gauging and cutting cross-wise into strips of desired width the flexible length of wood, and then subjecting each strip so separated cross-wise from end to end to

pressure, then applying suitable cutters to the edge of the board, so as to round off the corners and finally sand-papering the board as set forth.

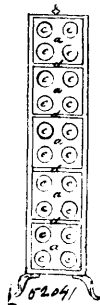
No. 52,040. Process of Preserving Perishable Articles. (*Procédé pour préserver des objets périssables.*)



Cornelius Fitzgerald Buckley, San Francisco, California, U.S.A., 22nd April, 1896; 6 years. (Filed 13th April, 1896.)

Claim.—1st. The process of sterilizing air which consists in passing the air through a germ-destroying liquid or liquids, and subsequently washing the same to remove the noxious products of such sterilization. 2nd. The process of sterilizing air which consists in a preliminary heating of the same and passing the air through a germ-destroying liquid or liquids, and subsequently washing the same to remove the noxious products of such sterilization. 3rd. The improvement in preserving perishable articles which consists in first sterilizing ordinary air by passing it through a germ-destroying liquid or liquids, then in removing from it any noxious properties left by the noxious treatment, then in causing it to take up and carry a vapour of an innocuous volatile sterilizing substance or compound, and finally in causing said vapour-carrying sterilized air to enter the compartment in which the materials to be preserved are confined and to displace ordinary air therein. 4th. The improvement in preserving perishable articles which consists in first subjecting ordinary air to heat, then in sterilizing it by passing it through a germ-destroying liquid or liquids, then in removing from it any noxious properties left by the sterilizing treatment, then in causing it to take up and carry a vapour of an innocuous volatile sterilizing substance or compound, and finally in causing said vapour carrying sterilized air to enter the compartment in which the materials to be preserved are confined and to displace the ordinary air therein. 5th. The process of sterilizing air which consists in passing the air through bichloride of mercury and perchloride of iron to destroy its germs, and subsequently washing the air to remove the poisonous or other objectionable products of such sterilization, substantially as described. 6th. The improvement in preserving perishable articles, which consists in first sterilizing ordinary air by passing it through bichloride of mercury and perchloride of iron to destroy its germs, then in washing the air to remove from it any noxious properties left by the sterilizing treatment, then in causing it to take up and carry a vapour of an innocuous volatile sterilizing substance or compound, and finally in causing said vapour-carrying sterilized air to enter the compartment in which the materials to be preserved are confined, and to displace the ordinary air therein.

No. 52,041. Radiator for Heating and Other Purposes. (*Calorifère.*)



Edward Henry George Gunson Hay, Portage la Prairie, Manitoba, 22nd April, 1896; 6 years. (Filed 11th December, 1895.)

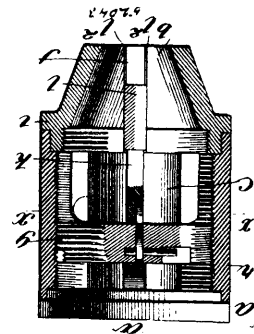
Claim.—1st. The combination of the pipes *c*, *e* and *f*, with the head *a*, *b*, in the oblong radiator, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the pipes *c*, *e* and *f*, with the head *a*, *b*, in the cylindrical radiator, substantially as and for the purpose hereinbefore set forth.

No. 52,042. Nitro-Compound. (*Composé nitrique.*)

Walter Francis Reid, Fieldside, Addestone, Surrey, and Edward John Vavasour Earle, 119 Cheapside, London, both in England, 22nd April, 1896; 6 years. (Filed 3rd December, 1895.)

Claim.—1st. As a new and useful product, or nitro-compound nitrated linolein or ricinolein. 2nd. As a new and useful product nitrated linolein or ricinolein combined with nitro-cellulose. 3rd. In the process of producing nitro-compounds such as described, first subjecting the oil to the action of a nitrous element, then incorporating the resulting compounds with solid and finely pulverized carbonates of the alkalis or alkaline earths in excess of the amount required to neutralize the free acid remaining in the nitro-compound and finally after heating the latter removing such excess of carbonate, substantially as described.

No. 52,043. Drill Chuck. (*Mandrin de foret.*)



David Weir and Chauncey Rhodes, both of Hartford, Connecticut, U.S.A., 22nd April, 1896; 6 years. (Filed 2nd March, 1895.)

Claim.—1st. In a drill chuck in combination, a chuck body having jaw sockets, a bearing piece having a tapered bearing surface and fastened to the chuck body on which it is firmly held against rotation, lengthwise sliding jaws located in the sockets, a rocking shoe interposed between the back of the jaw and the bearing piece fast to the chuck body, jaw feeding mechanism and pivotal connecting means uniting each jaw, and the jaw feeding devices, all substantially as described. 2nd. In combination in a drill chuck, a chuck body having radial jaw sockets, reciprocating jaws mounted in said jaw sockets, a rocking shoe interposed between the back of each jaw and the inner face of a non-rotary conical shell fast to the chuck body, a sliding ring having a peripheral thread, a rotary sleeve mounted on the chuck body and with an interior thread engaging the thread on the sliding ring, and a link pivotally connecting the ring and each chuck jaw, all substantially as described. 3rd. In a drill chuck in combination, a chuck body having radial jaw sockets, reciprocating jaws mounted in said jaw sockets, a rocking shoe interposed between the back of each jaw and the inner face of a conical shell fast to the chuck body, the said shoe having a socket in the chuck body broader than the socket for the chuck jaw, means for loosely connecting the bearing piece and the chuck jaw and holding the latter against any radial movement independent of the shoe, a sliding ring mounted on the chuck body and having a peripheral thread sleeve mounted on the chuck body and held between fixed shoulders thereon with an interior thread engaging the thread on the sliding ring, and a link pivotally connecting each chuck jaw and said sliding ring, all substantially as described. 4th. In combination in a drill chuck, a chuck body terminating at one end in a cone, said cone having radial jaw sockets extending through its periphery, shoulders in each of said jaw sockets as a bearing for a shoe, a conical shell fitting and secured to the conical end of the chuck body, a cap secured to the other end of the chuck body and having an inward facing shoulder, a rotary sleeve held between said shoulder and the cap and the end of the shell, a plural number of chuck jaws each located in its respective socket and having a holding face and a rounded socket in the tapered back of the jaw, a shoe having a rounded projection fitting said socket in the jaw with a space between the shoe and the back of the jaw whereby a rocking action of the parts upon each other is permitted, a rounded socket in one end of each jaw near its inner end, a link pivoted to a sliding ring at one end and having on the other end a rounded head fitting the said socket in the end of the chuck jaw, and the sliding ring having a peripheral thread fitting the thread on the inner surface of the rotary sleeve, all substantially as described.

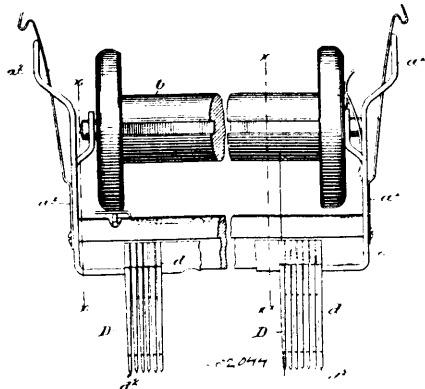
No. 52,044. Tuft Inserting Device for Looms.

(*Appareil pour insérer les touffes pour métiers.*)

The Crompton Loom Works, assignee of John Alleson Clark, both of Worcester, Massachusetts, U.S.A., 22nd April, 1896; 6 years. (Filed 29th February, 1896.)

Claim.—1st. In a tuft yarn carrier for looms, a cross-bar having a guard or shoulder to cover the inner top edges of the tubes or quills, combined with a series of tubes or quills, composed of blanks folded to form said tubes or quills, and having their central upper ends partially covered by said guard, or shoulder, substantially as described. 2nd. In a loom for weaving tufted fabrics, the within des-

cribed tuft yarn tube or quill, composed of a sheet metal blank, provided with a depending central projection, as d^2 , and having its side edges overlapped at the front of the tube or quill, substantially as described. 3rd. In a loom for weaving tufted fabrics, the



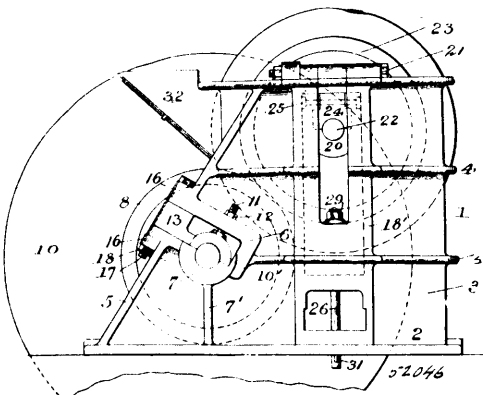
within described tube or quill for the tuft yarns, composed of a sheet metal blank having central of its upper end a projection, as d_1 , and central of its lower end a projection, as d^2 , and folded with its side edges overlapped to form a tube, substantially as shown and described. 4th. In a loom for weaving tufted fabrics, the within described tube or quill for the tuft yarns, provided with a depending and rearwardly extended point pinched or compressed to better enable it to enter between the warp threads, substantially as described. 5th. The within described tube or quill for the tuft yarns employed in looms for weaving tuft fabrics, said tube or quill being composed of a sheet metal blank folded to form the tube or quill, the edges of said blank being folded over and joined one to the other at one edge of the tube or quill, the latter at its opposite edge and lower end being pinched to better enable it to enter between the warp threads, substantially as described. 6th. In a loom for weaving tufted fabric, the within described tube or quill for the tuft yarns, composed of a sheet metal blank folded to form the tube or quill and presenting a depending and rearwardly extended point pinched or compressed, substantially as and for the purpose set forth.

No. 52,045. Process for Manufacturing a Solution of Sulphurous Acid for Curative Purposes.
(*Procédé pour la fabrication de solution d'acide sulfurique pour objets curatifs*)

Dr. Franz Hartmann, Hallein, Salezburg, Austria-Hungary, 22nd April, 1896; 6 years. (Filed 18th November, 1895.)

Claim.—A process for manufacturing a solution of sulphurous acid, and making it suitable for curative purposes, said process consisting in heating, under pressure, in closed vessels, portions of plants containing ætheric oils (terpenes, camphenes and other similar organic combinations) together with alkaline or earth-alkaline bisulphites, and condensing in coolers the resulting vapours, after which, when required, the liquid thus obtained is exposed to the air, in order to impregnate the latter for inhaling purposes, substantially as described.

No. 52,046. Ore-Crusher. (Machine à broyer le minerai.)

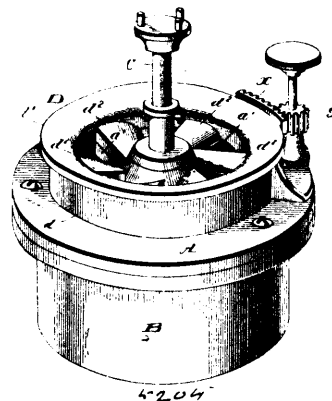


John Roger, Denver, Colorado, U.S.A., 22nd April, 1896; 6 years. (Filed 22nd November, 1895.)

Claim.—1st. In an ore-crushing machine, the combination with the main frame provided with guides, of a crusher roll journaled in the main frame, a yoke frame mounted to slide between said guides, a crusher roll journaled in the yoke frame above the first named crusher roll, blocks seated in the bearings of said yoke frame and having their concave faces

bearing against the axis of the upper roll, and cross-bolts for securing said blocks in position, substantially as set forth. 2nd. In an ore crushing machine, the combination with a main frame provided with vertical guides and a hollow yoke frame mounted to slide between said guides, of a crusher roll journaled in the main frame, a crusher roll journaled in the yoke frame, rods secured to the main frame against vertical movement and projecting upwardly into the yoke frame and springs located in said yoke frame and confined between the upper end of said rod and the bottom of the yoke frame. 3rd. In an ore-crushing machine, the combination with the main frame having U-shaped extensions provided with journaled bearings, a roll having its shaft seated in said bearings, journal caps and set screws for clamping them around said shaft, blocks seated in said extensions with one end against the shoe and projecting forward, ears formed on the frame above and below the extensions, bolts passed through apertures in the ears and block, and vertically movable roll supported above said first named roll.

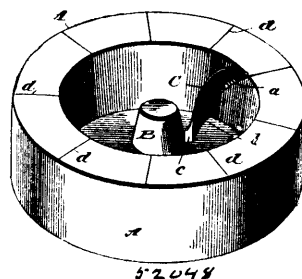
No. 52,047. Turbine Water Wheel. (Turbine.)



John Buchanan McCormick, jr., and James Dixon, both of York, Pennsylvania, U.S.A., 22nd April, 1896; 6 years. (Filed 29th February, 1896.)

Claim.—1st. The register gate D formed with the levelled arms d^2 and annular flaring cur d^1 merging into said arms in combination with the top ring provided with openings corresponding to those in the register, the front edges of the arms being inclined relatively to the front edges of the openings in the top ring closed by said arms in the manner described, the parts being constructed and arranged as hereinbefore shown and set forth. 2nd. The rim F and hub G in combination with the buckets E of substantially the form shown secured to the hub at their upper inner corners only, and along their outer edges to the rim, as and for the purposes hereinbefore shown and described.

No. 52,048. Method of Casting Turbine Wheels.
(*Méthode de couler les turbines.*)

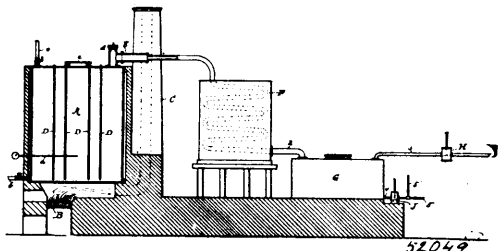


John Buchanan McCormick, jr., and James Dixon, both of York, Pennsylvania, U.S.A., 22nd April, 1896; 6 years. (Filed 29th February, 1896.)

Claim.—1st. The improvement in the art of making turbine wheels which consists in fitting into a mould box having a central boss or hub, buckets at stated intervals apart with their inner lower corners against the hub and their bottom and outer edges in contact with and bearing against the bottom and side walls of the box, then ramming the box with sand, then inverting the box and withdrawing it from the sand and buckets bedded therein, and finally placing a flask in position around the sand mould and casting the hub and rim of the wheel upon the buckets, substantially as hereinbefore set forth. 2nd. The mould box formed with flaring walls and a central tapering or frustro-conical hub rising from the bottom of

the box to a height required to form the mould cavity for the wheel hub and constructed and adapted to be used in connection with the buckets C substantially as and for the purposes hereinbefore set forth.

No. 52,049. Process of obtaining Asphaltic Products and Purified Distillates from Petroleum.
(*Produits d'asphalte et distillates purifiés de pétrole.*)

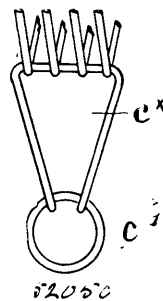


Francis Xavier Byerley, Cleveland, Ohio, U.S.A., 22nd April, 1896; 6 years. (Filed 5th August, 1895.)

Claim.—1st. The process of making asphaltic products by prolonged exposure of petroleum tar to a pitch-forming non-coking temperature in a still, with agitation of said tar and exposure of the same to air, substantially as described. 2nd. The herein described new asphaltic petroleum products, soluble in benzine, varying in hardness at atmospheric temperatures from a rubber-like consistency to a mass of a hardness and conchoidal fracture like the natural asphaltums, the less hard having also conchoidal fracture at lower temperatures, melting at from about 200° Fahrenheit to about 400° Fahrenheit according to hardness, and in general having characteristics belonging to asphaltic residual products from a prolonged exposure of petroleum tar to a pitch-forming non-coking temperature in a still with agitation of said tar and exposure of the same to air in contradistinction to previously known natural or artificial products of a more or less asphaltic character, substantially as described. 3rd. The process of making asphaltic products by prolonged exposure of petroleum tar to a pitch-forming non-coking temperature in a still, with exhaustion of the products of distillation agitation of the tar, and exposure of said tar to air, substantially as described. 4th. The process of making asphaltic products, by distilling a mixture of petroleum, tar and rosin, and subjecting the mixture or the residue thereof to a prolonged exposure to a pitch-forming non-coking temperature in a still, with agitation of the liquid and exposure of the same to air, substantially as described. 5th. The improvement in making asphaltic or pitchy bodies by distilling a mixture of petroleum, tar or mineral tar (or petroleum or tar-forming mineral oil) and rosin, the distillation of such mixture or the residue thereof being continued at a pitch-forming or a pitch-forming non-coking temperature, substantially as described. 6th. The process of making asphaltic or pitchy bodies by prolonged exposure of petroleum tar to a pitch-forming temperature in a still, with agitation of said tar and exposure of the same to air, substantially as described. 7th. The process of making asphaltic or pitchy bodies by prolonged exposure of petroleum tar to a pitch-forming temperature in a still, with exhaustion of the products of distillation, agitation of said tar and exposure of same to air, substantially as described. 8th. The process of making asphaltic or pitchy bodies by subjecting pitch-yielding tar to a pitch-forming non-coking temperature, with agitation of the tar, and exposure of the same to air, substantially as described. 9th. The process of making asphaltic or pitchy bodies, by subjecting pitch-yielding tar to a pitch-forming non-coking temperature, with exhaustion of the products of distillation, agitation of the tar, and exposure of the same to air, substantially as described. 10th. The process of distilling petroleum or pitch-forming oil (including tar), by heating the same in a still, with exhaustion of the products of distillation, agitation of the oil, and exposure to air, the temperature of said oil being gradually increased during the distillation to a pitch-forming non-coking temperature and continued at such temperature until a solid or product solidifying on cooling is obtained, substantially as described. 11th. A distilling apparatus, comprising a still with a fire-chamber for external heating and a number of inside pipes descending through the vapour space into the liquid space of the still and terminating near the bottom in openings, the full diameters of the pipe bores, and means for introducing aeriform fluid through said pipes, the said pipes being adapted for the admission and passage through them of a clearing tool, substantially as described. 12th. A distilling apparatus, comprising a still with a fire-chamber for external heating and a number of inside pipes communicating with the atmosphere outside the still and descending through the vapour space into the liquid space of the still, the said pipes terminating near the still bottom in openings, the full diameters of the pipe bores and being adapted for the admission and passage through them of a clearing tool, in combination with a condenser communicating with the vapour space of the still, and an air pump also communicating therewith, substantially as described. 13th. The process of obtaining purified distillates from

Canadian soil, or in other words from oil containing the impurities which are characteristic of the petroleum from the western part of the province of Ontario, Canada, and which resists removal by sulphuric acid and alkali or so-called Pennsylvania treatment, the said process consisting in distilling such oil at a low temperature with the aid of an exhaustion of the vapours, and during such distillation subjecting the said impurities to the action of the air in volume sufficient to effect a substantial conversion thereof, as indicated by the loss of the characteristic malodor of the aforesaid oil, as set forth. 14th. The process of obtaining purified distillates from Canadian oil, or in other words oil containing the impurities which are characteristic of the petroleum from the western part of the province of Ontario, Canada, and which resists removal by the sulphuric acid and alkali or so-called Pennsylvania treatment, the said process consisting in distilling such oil at a low temperature with the aid of an exhaustion of the vapours, and during such distillation agitating the oil and subjecting the said impurities to the action of air in volume sufficient to effect a substantial conversion thereof, as indicated by the loss the characteristic malodor of the aforesaid oil, as set forth. 15th. The process of obtaining purified distillates from Canadian oil, or in other words from oil containing the impurities which are characteristic of the petroleum from the western part of the Province of Ontario, Canada, and which resist removal by the sulphuric acid and alkali or so-called Pennsylvania treatment, the said process consisting in distilling such oil at a low temperature with the aid of an exhaustion of the vapours, and during such distillation introducing streams of air into the body of oil in distillation, thus by the same air agitating the oil and subjecting the said impurities to the action of air in volume sufficient to effect a substantial conversion thereof, as indicated by the loss of the characteristic malodor of the aforesaid oil, as set forth. 16th. The process of obtaining purified distillates from Canadian oil, or in other words from oil containing the impurities which are characteristic of the petroleum from the western part of the Province of Ontario, Canada, and which resist removal by the sulphuric acid and alkali or so-called Pennsylvania treatment, the said process consisting in distilling such oil at a low temperature with the aid of an exhaustion of the vapours, during such distillation subjecting the said impurities as to the action of air in volume sufficient to effect a substantial conversion thereof, as indicated by the loss of the characteristic malodor of the aforesaid oil, and afterwards driving off the light products with the aid of an aeriform fluid, and subjecting the resulting or burning oil residue to the sulphuric acid and alkali treatment, as set forth. 17th. The process of obtaining purified distillates from Canadian oil, or in other words from oil containing the impurities which are characteristic of the petroleum from the western part of the Province of Ontario, Canada, and which resist removal by the sulphuric acid and alkali or so-called Pennsylvania treatment, the said process consisting in distilling such oil at a low temperature with the aid of an exhaustion of the vapours, during such distillation subjecting the said impurities as to the action of air in volume sufficient to effect a substantial conversion thereof, as indicated by the loss of the characteristic malodor of the aforesaid oil, and afterwards driving off the light products and aerating the resulting or burning oil residue, and subjecting such aerated residue to the sulphuric acid and alkali treatment, substantially as described.

No. 52,050. Woven Wire Mattress and Frame Therefor. (*Sommier en fil de fer tissé et cadre.*)

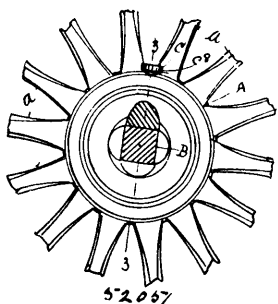


Francis Gilbert Gale, Waterville, Quebec, Canada, 22nd April, 1896; 6 years. (Filed 2nd October, 1895.)

Claim.—1st. The combination with a suitable frame, of a mattress therefor composed of a series of transverse interlocking spirally twisted wires and springs connecting the outside or end spiral wires with said frame, substantially as described. 2nd. The combination with a suitable frame, of a mattress therefor composed of a series of interlocking spirally twisted wires, the turns of the said spirals being elliptical in shape to thereby present a flattened mattress surface, substantially as described. 3rd. The combination with a suitable frame, of a mattress therefor, composed of a series of spirally twisted wires, adjacent wires having their spiral turns interlocked each pair of interlocking turns of two wires normally contracting at two points to furnish thereat a lateral support for the said wires, substantially as described. 4th. The combination with a suitable

frame, of a mattress therefor composed of a series of transverse interlocking spirally twisted wires, springs connecting the outside or end spiral wires with said frame, and selvage spirals running at right angles to said transverse spirals and connected with the latter, substantially as described. 5th. The combination with a suitable frame, of a mattress therefor, composed of a series of transverse interlocking spirally twisted wires U-shaped holders engaging the outside or endmost spiral wires, and springs connecting said holders with said frame, substantially as described. 6th. The combination with a suitable frame, of a mattress therefor composed of a series of transverse interlocking spirally twisted wires U-shaped holders engaging the outside or endmost spiral wires, and springs connecting said holders with said frame, substantially as described. 7th. The combination with a suitable frame, of a mattress therefor, composed of a series of transverse interlocking spirally twisted wires U-shaped holders engaging the outside or endmost spiral wires, springs on said frame and ^-shaped holders joining the said U-shaped holders to said springs, substantially as described. 8th. The combination with a suitable frame of a mattress therefor composed of a series of spirally twisted and interlocking wires of springs connected with said frame and supporting the said interlocking wires and acting transversely upon the latter, substantially as described. 9th. The combination with the mattress and the end rails to which the same is connected, of the side rails, the supports *f* and bolts *f*¹, and *f*², and the nut *f*³, operating substantially as described.

No. 52,051. Lubricator. (Graisseur.)



Lewis F. Longmore, James H. Pindor, Edward T. Rowell and F. C. Murray, all of Lowell, Massachusetts, U.S.A., 22nd April, 1896; 6 years. (Filed 16th March, 1896.)

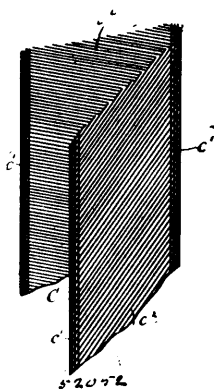
Claim.—1st. The combination of the hollow cylinder, having an external screw-thread and adapted to be secured thereby in a shaft-box or axle-box and having a discharge-opening, a plunger or valve, adapted to close said opening and having a plunger rod, and a follower, having an external screw-thread to engage an internal thread with which said cylinder is provided, to force grease placed in said cylinder out of said discharge-opening, and having a central orifice through which said plunger slides said plunger and follower having locking means adapted to engage each other, as and for the purpose specified. 2nd. The combination of the hollow cylinder, having an external screw-thread and adapted to be secured thereby in the hub of a wheel and having a discharge-opening, a plunger or valve, adapted to close said opening and having a plunger-rod, and a follower, having an external screw-thread to engage an internal thread with which said cylinder is provided, to force grease placed in said cylinder out of said discharge-opening, said follower surrounding and guiding said plunger-rod, said plunger and follower having locking means adapted to engage each other, as and for purpose specified. 3rd. The combination of the hollow cylinder, having an external screw-thread and adapted to be secured thereby in a shaft-box or axle-box and having a discharge-opening, a plunger or valve, adapted to close said opening, and having a plunger rod and a follower, having an external screw-thread to engage an internal thread, with which said cylinder is provided, to force grease placed in said cylinder out of said discharge-opening, said follower surrounding and guiding said plunger-rod. the lower face of said follower and the upper face of said plunger having projections to engage each other and to enable said follower to be turned by turning said plunger-rod, as and for the purpose specified.

No. 52,052. Pneumatic Tire. (Bandage pneumatique.)

Willard Arthur Warren and Melvin Fayette Warren, all of Buffalo, New York, U.S.A., 22nd April, 1896; 6 years. (Filed 23rd March, 1896.)

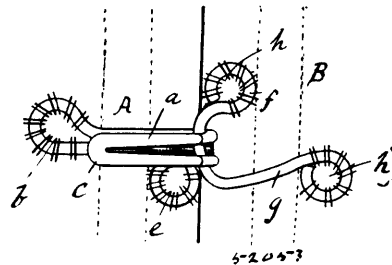
Claim.—1st. A sheath or cover for pneumatic tires having a lining composed of superposed plies of warpless fabric, each ply consisting of a marginal selvages and loose weft threads running diagonally from one selvage to the other and interwoven with said selvages, the diagonal threads of one ply crossing the diagonal threads of the other ply without being interwoven therewith, substantially as set

forth. 2nd. A sheath or cover for pneumatic tires provided with a lining composed of a double strip of warpless fabric having marginal selvages, an intermediate selvage, and loose weft threads running



diagonally from one marginal selvage to the other, whereby upon doubling said strip, the weft threads of one ply cross the corresponding threads of the other ply, substantially as set forth.

No. 52,053. Hook and Eye. (Crochet et aillet.)



The Singer Safety Hook and Eye Company, assignee of Julius Berkey, both of Grand Rapids, Michigan, U.S.A., 22nd April, 1896; 6 years. (Filed 30th September, 1895.)

Claim.—1st. A hook and eye, each formed with legs or shanks of unequal length, and each leg or shank having securing loops at their ends. 2nd. A hook, consisting of a shank, a tongue, an attaching loop on the end of the shank, and a short shank at the end of the hook, having a laterally extending eye, located on a plane between the ends of the tongue, substantially as described.

No. 52,054. Process of Tanning Hides.

(*Procédé pour tanner les peaux.*)

Charles Knees, Oshawa, and David Watson Alexander, Toronto, both in Ontario, Canada, 22nd April, 1896; 6 years. (Filed 16th November, 1895.)

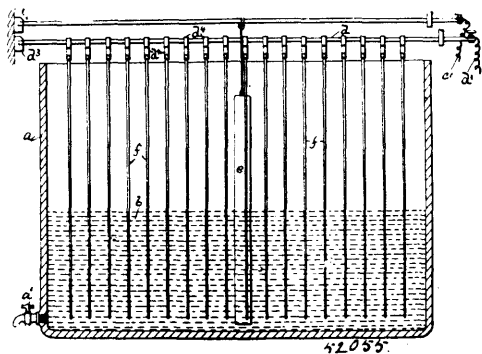
Claim.—A process of tanning skins or hides which consists, first, in subjecting the previously prepared skins or hides to the action of a composition comprising five per cent of the weight of the hide of bi-chromate of potash, two and one-half per cent of sulphuric acid and five per cent of neat's-foot oil, and sufficient water to float the hide, and secondly subjecting the skins or hides thus treated to a further composition consisting of ten per cent of the weight of the hide of hypo-sulphide of soda, sulphuric acid, neat's-foot oil and water, as set forth.

No. 52,055. Process of and Apparatus for Shaping Metallic Articles. (Procédé et appareil à façonner des objets en métal.)

William Hall and Henry Skerrett, both of Birmingham, England, 22nd April, 1896; 6 years. (Filed 12th November, 1895.)

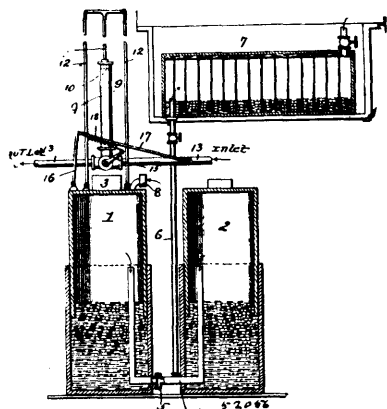
Claim.—1st. A process of shaping metallic articles through the agency of electrolysis, the characteristic feature being that the varying lengths of time to which the different parts of the articles are treated is effected by raising or lowering the surface of the electrolyte or by lowering into or lifting out of such solution the articles forming the anode. 2nd. The process of tapering and shaping metallic lengths or metallic articles, by degree or timed exposure to the action of a solution, or a dissolving or consuming solution under the influence of an electric current, as set forth. 3rd. The process of tapering and shaping metallic lengths or metallic articles, or a part or parts thereof by exposing the same to the action of an uniformly or anternitantly retiring or advancing, or an ascending or descending solution or dissolving or consuming solution under the influence of or in conjunction with an electric current, entering the said solu-

tion by an article or the articles under treatment, substantially as described and set forth. 4th. The process of tapering and shaping metallic lengths or metallic articles, or a part or parts thereof, by lowering



them into or lifting them from (in a continuous or gradual intermittent manner) a solution, or a dissolving or consuming solution, under the influence of an electric current which enters the said solution by the articles under treatment, substantially as described and set forth. 5th. The process of tapering and shaping metallic lengths or metallic articles, by degree or, timed exposure to the action of a dissolving or consuming solution, substantially as set forth. 6th. The tapering or shaping of metallic articles or lengths by the process or processes and means, substantially as described and set forth.

No. 52,056. Gas Machine. (Machine à gaz.)

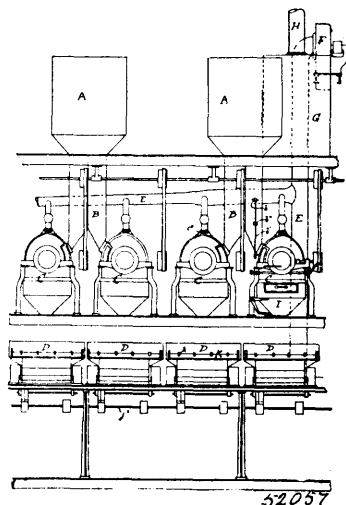


Lawrence W. Swem and Jesse Y. Postwait, both of West Liberty, Iowa, U.S.A., 22nd April, 1896; 6 years. (Filed 22nd November, 1895.)

Claim.—1st. In a carburetting apparatus, the combination of a main accumulator and a supplemental accumulator, the main accumulator being weighted heavier than the supplemental accumulator and being provided with an inlet valve, a pipe 4 connecting the two accumulators and being provided with a check valve opening toward the other accumulator, a carburetter connected to the pipe 4 at a point beyond the check valve, and means for raising the upper section of the main accumulator, as and for the purposes set forth. 2nd. In a carburetting apparatus, the combination of a carburetter and an air accumulator connected thereto, a cylinder and a piston working therein, means connecting said piston to the movable section of the air accumulator. a supply pipe connected to one end of said cylinder, a valve in the supply pipe, and devices connecting the movable section of the air accumulator to said valve whereby it is opened and closed by the movable section of the accumulator, substantially as described. 3rd. In a carburetting apparatus, the combination of a carburetter and an air accumulator connected thereto, a cylinder and a piston working therein, means connecting the piston to the upper section of the accumulator, a supply pipe connected to one end of the cylinder, a two-way valve at the junction of the cylinder and pipe, a valve carrying an arm, a part projecting upward from the accumulator, and a retracting spring connecting said part to the arm of the valve, as and for the purposes set forth. 4th. In a carburetting apparatus, the combination of a carburetter, a pair of accumulators connected thereto, the accumulators being connected by a valved pipe, and the main one being weighted heavier than the other one and provided with an inlet valve, a hydraulic cylinder and a supply pipe connected to one end thereof, a two-way valve in the supply pipe where it connects to the cylinder, said valve carrying an arm on its stem, a piston in the cylinder and connected to the upper section of the main accumulator, a part pro-

jecting upward from the said movable section, and a spring connecting the end of said part to the valve arm, substantially as and for the purpose set forth.

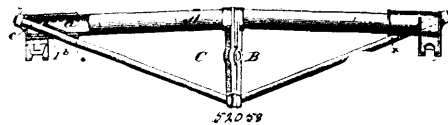
No. 52,057. Method of Roasting Coffee. (Méthode de rôtissage du café.)



Joseph Baker & Sons, assignees of Beeston Tupholme, all of London, England, 22nd April, 1896; 6 years. (Filed 11th January, 1896.)

Claim.—1st. The combination and arrangement of plant for roasting coffee and like substances consisting principally of roasters, coolers and chaff or flight arresters together with the connecting pipes, hoppers, &c., substantially as shown in figs. 1 and 2 of the accompanying drawings and described hereinbefore. 2nd. The roasters for coffee and the like, the internal partitions or baffle plates or the like, to economize the heat in the manner and for the purpose set forth. 3rd. The construction and arrangement of coffee roaster as shown in figs. 10, 11 and 12, more particularly as regards the cylinder C', partition c, outer casing c' together with the means for charging and discharging, substantially as described. 4th. In coolers for coffee berries and the like, arranged to be rocked, rotated or otherwise mechanically moved, the construction thereof with hollow trunnions or similar passages through which air can be drawn or forced, for the purpose of hastening the cooling of the berries. 5th. The combination of mechanically operated coolers with exhausting or blowing fans, for the purposes hereinbefore set forth. 6th. The construction and arrangement of rocking cooler, substantially as set forth in figs. 3, 4, 5, 6 and 7 of the accompanying drawings and as described. 7th. The arrangement and construction of chaff or flight arrester, substantially as shown in figs. 8 and 9 of the accompanying drawings, and as described.

No. 52,058. Brake Beam. (Sommier de frein.)

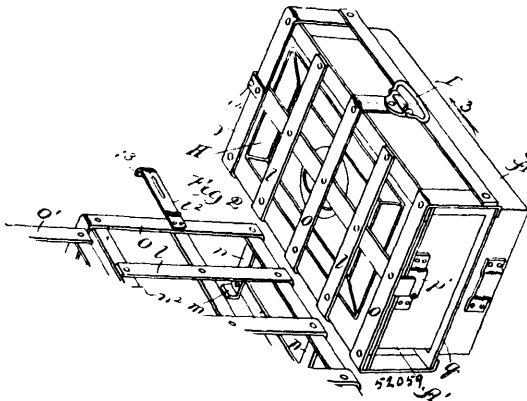


The Chicago Railway Equipment Company, Chicago, Illinois, assignee of Henry Bengeman, Robischung, Kalamazoo, Michigan, both in the U.S.A., 23rd April, 1896; 6 years. (Filed 24th March, 1896.)

Claim.—1st. The combination, with a trussed brake beam having a strut, a compression member, and a tension member which enters the compression member, of a reinforce ring which encompasses the compression member within the point where the said tension member enters, substantially as and for the purposes specified. 2nd. The combination, with a trussed brake beam having a slotted compression member, a strut and a tension member which enters the compression member, of a slotted reinforce ring which encompasses the compression member and whose slot is arranged to coincide or register with the slot at the front of the compression member where the tension member enters the compression member, substantially as and for the purposes specified. 3rd. The combination, with a trussed brake beam having a compression member, a strut, and a tension member which passes through the compression member of a slotted cup-sleeve which encompasses the end of the compression member

and extends inward beyond the point at which the tension member enters the compression member, substantially as and for the purposes specified.

No. 52,059. Cooking-Outfit. (Ustensile de cuisine.)



Francis Henry Buzzacott and William G. Hubbard, jr., both of Chicago, Illinois, U.S.A., 23rd April, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. The combination with a pan, of a metal grating having a top and sides extending therefrom to embrace said pan, and forming a skeleton stove and also a protective cage for the pan and such other utensils as may be contained therein, means on the stove and pan for securing them in this relation, and a supplemental grating provided with means for connecting it with said grating to extend the service-area of the stove, substantially as described. 2nd. The combination with a pan, of a metal grating having a top and sides extending therefrom to embrace said pan and forming a skeleton stove and also a protective cage for the pan and such other utensils as may be contained therein, means on the stove and pan for securing them in this relation, and a supplemental grating affording an extension of said stove and forming two sides of a rectangle composed of transverse angle-bars o^1 , having hook-extensions n^2 at which to engage a bar of said stove, and longitudinal bars k^1 and h^1 , said supplemental grating being adapted to nest in said pan, substantially as described. 3rd. A stove comprising a metal grating having a top and sides extending therefrom and formed with legs provided with inwardly projecting catches, a stop-lug at one end of the grating and a hinged catch at the opposite end thereof, in combination with a pan having an outwardly projecting marginal flange adapted to be received between the legs of the stove and to be engaged by said catches and stop-lug, substantially as and for the purpose set forth. 4th. In combination, a stove comprising a metal grating having a top and sides extending therefrom and formed with legs provided with inwardly projecting catches, the pans A and A^1 of relative dimensions to nest one within the other and for one, inverted position, to overlap the edge-portion of the other and form a close oven, and a marginal flange about the larger of said pans to be engaged by said catches, substantially as described. 5th. In combination, a stove comprising a metal grating having a top and sides extending therefrom and formed with legs provided with inwardly projecting catches, a stop-lug at one end of the grating, and a hinged hasp-catch at the opposite end thereof, the two pans A and A^1 of relative dimensions to nest one within the other and for one, inverted position, to overlap the edge portion of the other and form a close oven, a marginal flange about the larger of said pans to be engaged by said catches, and locking means on said larger pan for engagement with said hasp-catch, substantially as described. 6th. In combination with a pan, a loop p on the inner surface of a side thereof and adapted to be engaged by a lifter C , substantially as and for the purpose set forth. 7th. A camp cooking-outfit comprising, in combination, a pan A having a flange q , a pan A^1 nesting in said pan A and adapted to be overlapped at its upper edge by the latter when inverted, utensils, substantially as described, including the supplemental grating F^1 , stowed in said pan A^1 , a cover H over said pan A^1 , and a metal grating E formed with legs n having the inwardly projecting catches m , a stop-lug i^1 at one end of the grating and a hinged catch at the opposite end thereof, said grating E extending over the covered pan A^1 and engaging at its said catches and lug the flange q about the pan A , the whole being constructed and arranged to be operated substantially as and for the purpose set forth.

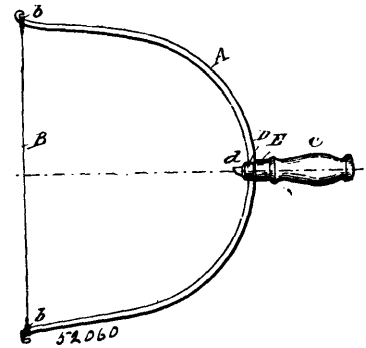
No. 52,060. Butter and Cheese Cutter.

(*Couteau pour beurre et fromage.*)

Edwin G. Bennett and Simon A. Freeman, both of Everett, Massachusetts, U.S.A., 23rd April, 1896; 6 years. (Filed 16th December, 1895.)

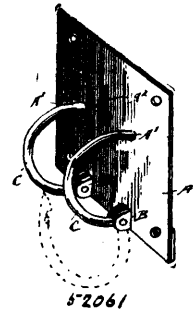
Claim.—1st. In a butter and cheese cutter, a spring bow made preferably of square spring steel bent somewhat into the form of the letter U, and drawn smaller towards the ends thereof, and ter-

minating in suitably formed hooks, which are adapted to be connected with a cutting wire B, and a shank piece D^1 , having a head D, as described, together with a delta-shaped cutting dye or blade suitably attached to the inner end of the head D, and adapted to be



used to cut through the cloth or hard rind of a cheese so as to admit of the passage of the cutting wire, substantially as and for the purposes set forth. 2nd. In a cheese cutter, a spring bow made preferably of square spring steel somewhat into the form of the letter U, and drawn small towards the ends, and terminating in suitably formed hooks, a cutting wire as B attached to said hooks, said wire being provided at each end with an eyelet composed of a tubular portion provided with a flange and said wire being held thereon, by bending down the flange, the wire being completely covered by the material of the eye, and a handle connected with said bow as described, and a delta-shaped cutting blade, located in the inner end of the shank piece of the handle and adapted for use in cutting through the cloth or hard rind of a cheese so as to admit of the working of the wire, substantially as and for the purpose set forth.

No. 52,061. Key-Board. (Plaque pour serrures.)

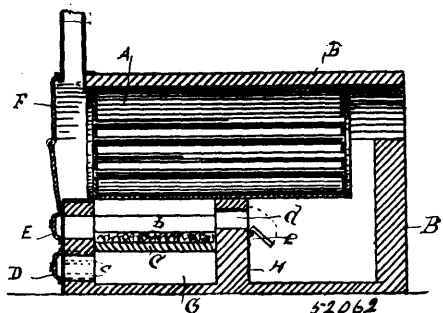


Richard Hensley, Salem, Oregon, U.S.A., 23rd April, 1896; 6 years. (Filed 5th March, 1896.)

Claim.—A key-board comprising a face plate, having a key-hole formed therein, a strip of metal secured to the rear surface of the face plate and having a lug extended through an opening in the face plate, a key hook pivoted to the said lug, and a lock for the hook, substantially as specified.

No. 52,062. Steam Boiler Furnace.

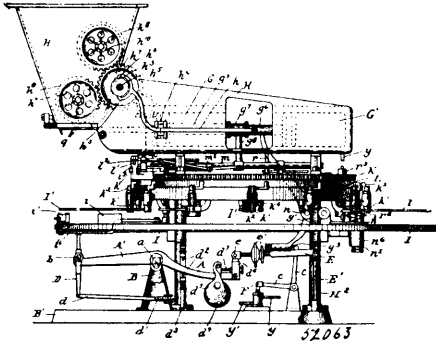
(*Fournaise de chaudière à vapeur.*)



Thomas York, Portsmouth, Ohio, and James E. York, Duluth, Minnesota, both in the U.S.A., 23rd April, 1896; 6 years. (Filed 26th March, 1896.)

Claim.—The combination in a steam boiler furnace, of the casing inclosing the boiler, the funnel at the front end of the boiler, the grate beneath the boiler, at the front end of the casing, the pair of draft doors beneath the grate, in the front face of the casing, the pair of stoking doors above the grate, in the front face of the casing, the cross-wall in rear of the grate, extending upward from the floor of the casing, closely engaging the shell of the boiler, and having the pair of outlets above the grate level, each provided with a valve-stopper, and the partition-wall longitudinally bisecting the grate, extending upward from the floor of the casing to a close engagement with the boiler shell, provided with the horizontal aperture in the upper part of said wall and the vertical chamber within said wall, and having also the draft-holes in the front face thereof, the whole constructed and arranged substantially as and for the purpose described.

No. 52,063. Weighing and Package Filling Machine.
(*Machine à peser et remplir les paquets.*)

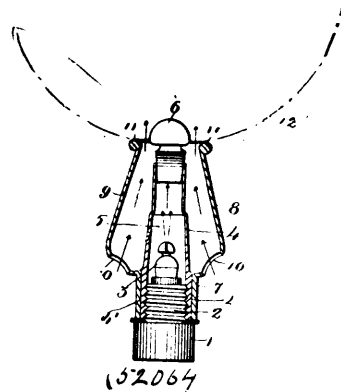


William Henry Doble, Quincy, assignee of George Weston, Boston, both of Massachusetts, U. S. A., 23rd April, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. In a weighing and package filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a piston and cylinder whose piston is connected with the gate, a reservoir supply of fluid pressure, pipes leading from the reservoir into said cylinder at opposite sides of the piston, gate opening and gate closing valves in said pipes, and mechanism connected with the scales whereby when a can is brought to the scale pan the gate-opening valve is opened, admitting pressure to the gate-moving piston cylinder whereby its piston is reciprocated to open the gate, and mechanism whereby when the scale beam tips the gate-opening valve is closed and the gate-closing valve is opened admitting pressure to the gate sliding cylinder on the opposite side of the piston whereby the piston is reciprocated to close the gate, substantially as described. 2nd. In a weighing and package filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a piston and cylinder whose piston is connected with the gate, a reservoir supply of fluid pressure, pipes leading from the reservoir into said cylinder at opposite sides of the piston, gate-opening and gate-closing valves in said pipes, and mechanism connected with the scales whereby when a can is brought to the scales, the gate-opening valve is opened admitting pressure to that portion of the piston cylinder whereby its piston is reciprocated to open the gate, mechanism which again closes valve and opens a vent from the cylinder to the outer air whereby the pressure on the piston is equalized before the gate-closing valve is opened, mechanism which opens the gate-closing valve when the package contains the predetermined weight admitting pressure to that portion of the cylinder whereby its piston is reciprocated to close the gate, and mechanism which closes said gate-closing valve and opens a vent from the cylinder to the outer air whereby the pressure on the piston is equalized before the gate-opening valve is again opened, substantially as described. 3rd. In a weighing and package filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a piston and cylinder whose piston is connected with the gate, an air-pump, pipes leading from the air-pump into said cylinder at opposite sides of the piston, gate-opening and gate-closing valves in said pipes, and mechanism connected with the scales whereby when a can is brought to the scales pan the gate-opening valve is opened, opening the passage from the air-pump to one portion of the gate moving piston cylinder by which its piston is reciprocated to open the gate, and mechanism whereby when the package contains the required weight the gate-opening valve is closed and the gate-closing valve is opened making a clear passage from the air-pump to the other portion of the gate-moving piston cylinder whereby its piston is reciprocated to close the gate, substantially as described. 4th. In a weighing and package filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a double piston and cylinder whose pistons are connected with each other and with the gate, an air-pump, a pipe line from the air-pump to each of said cylinders, a piston valve in each pipe line, and mechanism connected with the scales by which

when a can is brought to the scale pan the gate-opening valve is opened making the passage open from the air-pump to one of the cylinders whereby its piston is reciprocated to open the gate, mechanism which again closes said valve and opens a vent from said cylinder to the outer air so that the pressure on the piston is equalized before the gate-closing valve is opened, mechanism which opens the gate-closing valve when the package contains the predetermined weight of goods, making the passage open from the air-pump to the other piston cylinder, whereby its piston is reciprocated to close the gate, and mechanism which closes said gate-closing valve and opens a vent from the last mentioned piston cylinder to the outer air so that the pressure on its piston is equalized before the gate-opening valve is again opened, substantially as described. 5th. In a weighing and package filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a piston and cylinder whose piston is connected with the gate, an air-pump, pipe lines leading from said air-pump into said cylinder at opposite sides of the piston, a gate-opening valve in one of the pipe lines and a gate closing valve in the other pipe line, an automatic intermittently moving package carrier, mechanism, actuated by the package carrier as it moves to the scales which opens the valve in the gate-opening line admitting pressure to the piston cylinder and causing the piston to reciprocate in a direction to open the gate, intermediate mechanism operated by the reciprocating piston which closes the valve in the gate-opening line again and equalizes the pressure on the piston before the valve in the gate-closing line is opened, mechanism operated by the tipping of the scales when the package is filled, which opens the valve in the gate-closing line admitting pressure to the piston cylinder and causing the piston to reciprocate in the reverse direction and close the gate, and mechanism operated by the said piston to again close the gate-closing valve and equalize the pressure on the piston, substantially as described. 6th. In a weighing and package filling machine, the combination of a feed hopper, a weighing scale, a gate which controls the flow of goods from the hopper, a double piston and cylinder whose pistons are connected with each other and with the gate, an air-pump, a pipe line from the air-pump to each of said cylinders, a gate-opening piston valve in one pipe line, and a gate-closing piston valve in the other line, an automatic intermittently moving package carrier, mechanism actuated by the package carrier as it moves to the scales which opens the valve in the gate-opening line making the passage open from the air-pump to one of the cylinders whereby its piston is reciprocated to open the gate, mechanism operated by the reciprocating piston which closes the valve in the gate-opening line and opens a vent from said cylinder to the outer air whereby the pressure on the piston is equalized before the gate-closing valve is opened, mechanism operated by the tipping of the scales when the package is filled which opens the valve in the gate-closing line, making the passage open from the air-pump to the other piston cylinder whereby its piston is reciprocated in a direction to close the gate, and mechanism operated by said piston to again close the gate-closing valve and open a vent from the last mentioned piston cylinder to the outer air whereby the pressure on its piston is equalized before the gate-opening valve is again opened, substantially as described.

No. 52,064. Gas Burner. (*Brûleur de gaz.*)

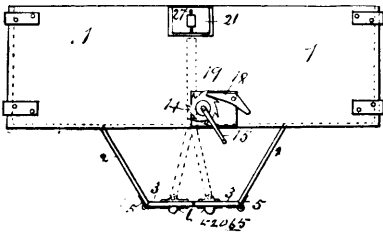


John Friedlander, St. Louis, Missouri, U.S.A., 23rd April, 1896; 6 years. (Filed 6th March, 1896.)

Claim.—1st. In a gas burner, a suitable base, a hollow pillar mounted over the same, and a detachable cup carried by the pillar, substantially as set forth. 2nd. In a gas burner, a suitable screw-base adapted to be secured to the gas pipe and carrying a supply tip, a hollow pillar passed over the screw-base and carrying a terminal burner tip, and a cup surrounding the pillar and having an upper edge adapted to come in contact with the base of the frame issuing from the burner tip, substantially as set forth. 3rd. In a gas burner, a suitable screw-base adapted to be secured to the gas pipe and hav-

ing a supply tip of one capacity, a hollow pillar passed over the screw base and carrying a terminal burner tip of a different or greater capacity, and a cup surrounding the pillar and having an upper circular edge adapted to come in contact with the base of the flame issuing from the burner tip and forming a hot air-chamber about said pillar, and suitable openings in the walls of the cup for conducting air into said hot air-chamber, substantially as set forth. 4th. A gas burner comprising a suitable screw-base adapted to be secured to the gas pipe, a screw-threaded extension forming a part of the same and carrying a supply tip of one capacity, a hollow pillar carried by said screw-threaded extension and carrying a terminal burner tip of a different or greater capacity, a conical cup having a reduced cylindrical extension adapted to be passed over the outer smooth surface of the base of the pillar which is secured to the screw-threaded extension of the screw-base, said cup forming a hot air-chamber between the pillar and the inner walls of the cup, a terminal circular edge formed at the open reduced or narrow end of the cup and adapted to come in contact with the base of the flame issuing from the burner tip, and suitable openings formed in the walls of the cup at the base thereof or at the expanded end of the same for the admission of air into the hot-air chamber, whereby the gas in the pillar chamber is heated and the flame is steadied by the influx of air into the air-chamber and past the base of the flame issuing from the burner tip, substantially as set forth. 5th. In a gas burner a suitable cup, and means for forming part of the same whereby it may be passed over a suitable base and tip carried by the same, substantially as set forth. 6th. In a gas burner, a suitable conical shaped cup, a cylindrical extension forming part of the same whereby it may be passed over the ordinary burner base, and whereby an air chamber may be formed around the pillar carried by said base, substantially as set forth. 7th. In a gas burner, a suitable burner tip, and a continuous edge forming a part of said burner against which the base of the flame issuing from the burner tip can come in contact, substantially as set forth.

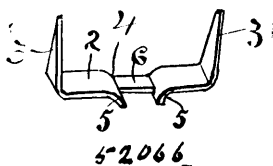
No. 52,065. Car for Transporting Coal, etc.
(Chars pour le transport du charbon, etc.)



Silas Fader, Vancouver, British Columbia, Canada, 23rd April, 1896; 6 years. (Filed 26th March, 1896.)

Claim.—1st. In a drop bottom car, the inclined sides contiguous to the door opening, the doors hinged to the lower edge of said inclined sides, and the bracing bars parallel with the axis of the hinges of the said doors and attached by their ends to the doors at points between the hinges and free ends of the doors, in combination with mechanism attached to the said bracing bars for closing and securing the doors said mechanism being centrally applied in the length of the said braces, substantially as and set forth. 2nd. In doors for drop bottom cars a bracing bar, arranged to distribute the stress from points contiguous to the hinges of said door, a lug passing centrally through said door and provided with a pin and washer for the purpose of facilitating the opening of said door in combination with links connecting said lug pivotally with a rack and pinion arranged to operate the same substantially as set forth. 3rd. In a drop bottom railway car an extensible and contactible brace, arranged to extend removably through the sides of said car, and to be retracted therefrom, and provided with a pivot, whereby the same can be placed lengthwise of the car substantially as and for the purpose set forth.

No. 52,066. Box Fastener. (Fermeture de boîtes.)

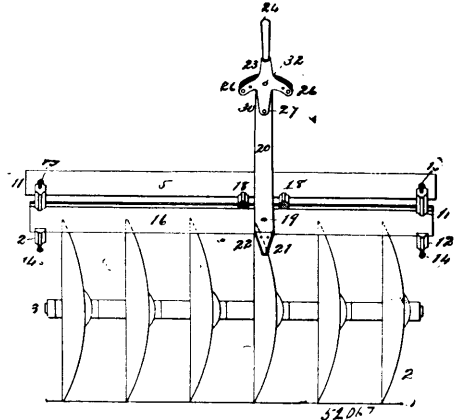


William Beck, Montreal, Quebec, Canada, 23rd April, 1896; 6 years. (Filed 19th March, 1896.)

Claim.—1st. In combination with the cover A and front side B of a box, a recess l, in the underside of such cover, a strip provided with securing prongs presenting a bar 6, across the opening of such recess and a stud 7 in the edge of said front side B of the box, substantially as shown and described. 2nd. In combination with the cover A and front side B of a box a recess l, in the underside of such cover, a

strip provided with securing prongs presenting a bar 6 across the opening of such recess and having guards 5 and a stud 7 in the edge of said front side B of the box, substantially as shown and described.

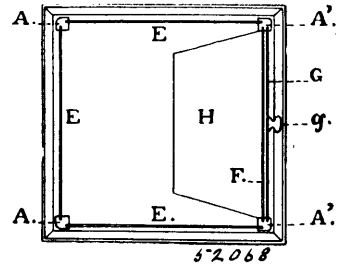
No. 52,067. Disc Harrow Sharpener.
(Appareil pour affûter les disques.)



John W. Simpson and Jephth J. Kendrick, both of Kansas, Missouri, U.S.A., 23rd April, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—A disc harrow sharpener, comprising a pair of brackets, having horizontal slotted arms, inclined slotted heads and vertical shoulders, clamping-bolts projecting through said slotted arms and the framework of the harrow, nuts engaging the threaded ends of said bolts, a bridge bar having grooves at its upper and lower edges and projecting through the slots of said inclined heads, set screws carried by said brackets and engaging the grooves of said bar, an adjustable bracket upon said bar, and a lever pivotally carried by the same and provided with a sharpening knife at its lower end, substantially as set forth.

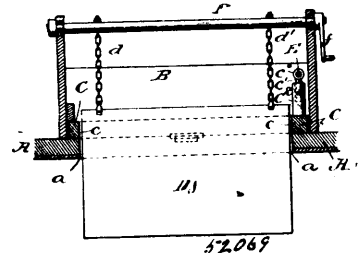
No. 52,068. Show Case. (Montre de magasins.)



Samuel Richard Waldron, Brantford, Ontario, Canada, 23rd April, 1896; 6 years. (Filed 28th February, 1896.)

Claim.—1st. The combination of the show case constructed with glass sides E, E, E, & F, and door G, with the inside pocket, formed by the top H, and sides I, I, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the show case containing an inner pocket, with the adjustable metal slide M, substantially as and for the purpose hereinbefore set forth.

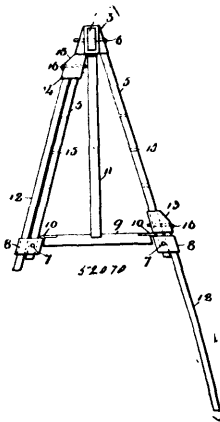
No. 52,069. Centreboard. (Semelle de vaisseau.)



Atkins Stover, Brooklyn, New York, U.S.A., 23rd April, 1896; 6 years. (Filed 3rd March, 1896.)

Claim.—The combination with the elongated centre-board trunk, of a centre-board supporting piece mounted within the trunk and consisting of a central broadened portion forming a pivot and narrower portions extending in opposite directions from the broadened portion, the centre-board mounted in vertical adjustment in the said supporting piece, means for swinging the said supporting piece laterally on its central portion as a pivot and means for vertically adjusting the centre-board, substantially as set forth.

No. 52,070. Knock-down Trestle. (Tréteau pliant.)



Enoch Sprague, St. Louis, Missouri, U.S.A., 23rd April, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—In a trestle, suitable main supporting-legs, a stationary guide box carried at the lower end of each leg and embracing the same, a movable shoe passed over each leg above the stationary guide-box, an extension-leg passed through the guide-box on the outside of the main supporting-leg, an inclined or bevel upper end for each extension-leg, an inclined upper supporting-wall forming a part of the movable shoe located adjacent to the outer face of the leg and adapted to come in engagement with the bevel end of the extension-leg and force the same in close contact with the supporting-legs, a series of openings formed in the main supporting legs, and a pin passed through the several parts to secure the extension-legs at any convenient point along the length of the main supporting-legs substantially as set forth.

No. 52,071. Bottle. (Bouteille.)

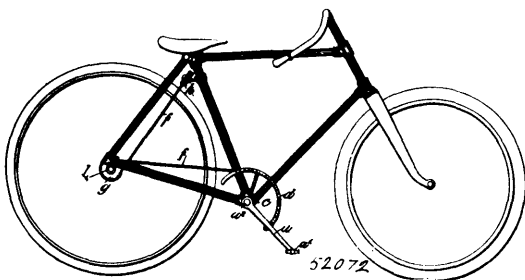


William C. Jerome, Mayfield, New York, U.S.A., 23rd April, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—As an improved article of manufacture, a bottle A, having a neck B, formed with an external bead b, a supplemental neck of substantially the same length as the neck B, the internal diameter of said supplemental neck being contracted at the upper end, the lower end being formed with a semi-circular groove E, the bottom of the said groove being in the same plane of the top bead, and a filling G, adapted to be poured into the neck C, upon a cork H, held in neck B, said filling extending into the groove and prevented from being withdrawn by the contracted upper end, substantially as shown and described.

Ny. 52,072. Driving Mechanism for Safety Bicycles.

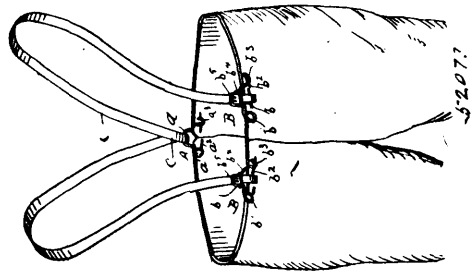
(*Mécanisme conducteur pour bicycles.*)



Laverux Nelson Dyhrberg, Walter William Curties and Albert Crum, all of Cathedral Square, Christchurch, New Zealand, 23rd April, 1896; 6 years. (Filed 25th March, 1896.)

Claim.—1st. The improved driving mechanism for safety bicycles, substantially as and for the purposes herein described and illustrated. 2nd. In driving mechanism for safety bicycles, a pedal lever fulcrumed in bearings in the bottom bracket and attached to a quadrant lever, substantially as and for the purposes described. 3rd. In driving mechanism for safety bicycles, a single flexible cord or chain passing round and arranged to revolve the drum of a clutch-gear upon each side of the driving wheel of the machine, substantially as and for the purposes described. 4th. In a driving mechanism for safety bicycles, the employment of a separate flexible driving cord chain upon each side of the machine, each cord being passed round and arranged to revolve the drum of a clutch gear and running in a groove formed in the periphery of a wheel, to which it is secured and which acts as a lever to pull or be pulled by the driving cord in either direction, substantially as and for the purposes described. 5th. In driving mechanism for safety bicycles, the arrangement of bevel wheels whereby the vibration of the pedal lever upon one side of the machine is communicated to the pedal lever upon the other side in the opposite direction, substantially as and for the purposes described. 6th. In combination, the pedal levers a, b, the bevel wheels s, w, connected by the intermediate wheel t, as and for the purposes described. 7th. In combination, the pedal levers a, b, the quadrant levers d, e, the flexible cord f, the drums g, k, and the guide pulley h, substantially as and for the purposes described.

No. 52,073. Suspender Device. (Bretelles.)

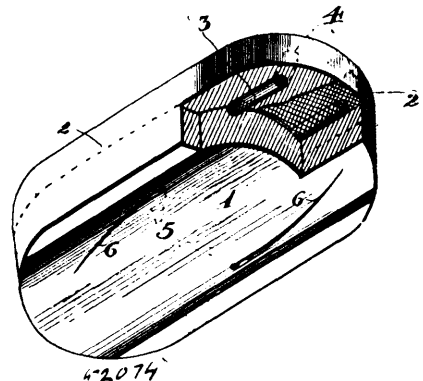


Emil L. Krebs, Dexter, Texas, U.S.A., 23rd April, 1896; 6 years. (Filed 26th March, 1896.)

Claim.—1st. A fastening device having a central loop, a coil, a keeper and a pin extending from the coil and engaging the keeper all formed from one piece of wire, in combination, with a slide having a linked portion surrounding and vertically movable on the central loop, and having a pair of ends or prongs projecting upward between the loop and the linked portion of the slide to form tongues, substantially as described. 2nd. As an article for manufacture, a suspender for pantaloons having a rear fastening device formed from one piece of wire comprising a central loop, a coil, a pin and a keeper, a webbing inserted through the loop and folded in its central portion, a pair of front fastening devices for attachment to the ends of said webbing, said devices having loops, pins, coils and keepers, the loops of said devices being provided with a vertically movable slide surrounding and movable on the said loop and having a pair of prongs projecting upward between the linked portion of the slide and said loop, the pins of said fastening devices arranged to be inserted in the pantaloons.

No. 52,074. Soft Metal Bearing for Axles, etc.

(*Coussinet en métal mou pour essieux, etc.*)



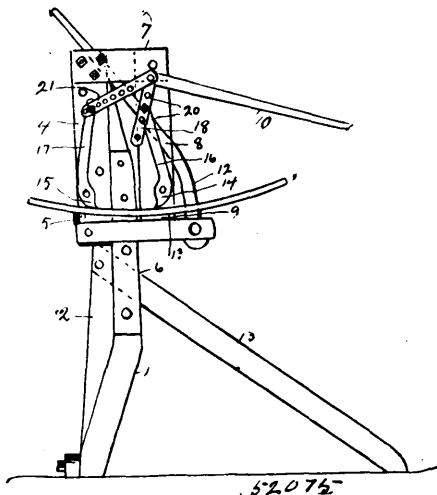
William Leatch, Canal Dover, Ohio, U.S.A., 23rd April, 1896; 6 years. (Filed 25th March, 1896.)

Claim.—1st. In combination with the babbitt metal of an axle bearing, metallic reinforcements cast into the body of the same

consisting in tubes traversing the bearing, provided with outer inlet openings and passages leading from said tubes to the surface of the bearing, substantially as set forth. 2nd. In a soft and brittle metal bearing for axles the combination with the metal composing the bearing, of tough metal reinforcements therefor, cast therein embracing continuous tubes provided with inlet and outlet openings, substantially as described.

No. 52,075. Tire-Shrinker.

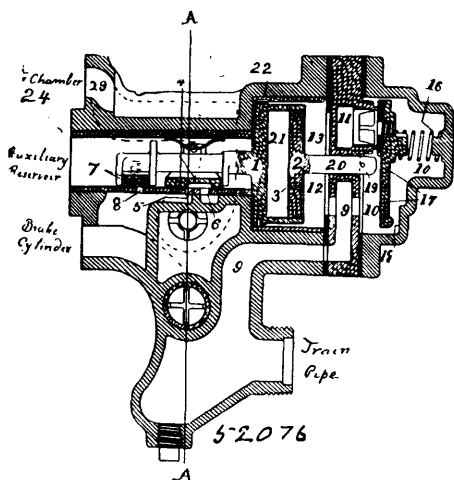
(Appareil de rétrécissement pour bandages.)



Mortimer D. Gould, sr., Salida, Colorado, U.S.A., 23rd April, 1896; 6 years. (Filed 4th March, 1896.)

Claim.—In a tire, the combination with a suitable framework made up of a pair of uprights and supporting beams, one of said uprights being longer than the other, the lower upright having an anvil formed upon its upper end, a plate rigidly secured to the longer upright having a serrated plate secured to the forward extension of the same, a cross-beam secured to the upper end of said plate, a downwardly depending plate pivoted to the outer end of said cross-beam, a serrated plate secured to the lower end of said downwardly depending plate, a sleeve secured to said downwardly depending plate, an eccentric having an operating lever upon its outer end fitting said sleeve, a pair of laterally extending arms pivoted to a stationary part of the framework in which said eccentric is pivotally mounted, a pair of dogs having serrated cam lower faces, pivoted respectively, in a stationary part of the framework and in said downwardly depending plate, upwardly extending arms on said dogs, a lever having a right angle extension adjustably secured to the upper end of one of said arms, and a link pivoted to the angular portion of said lever and adjustably secured to the upper end of the other arm, substantially as and for the purpose described.

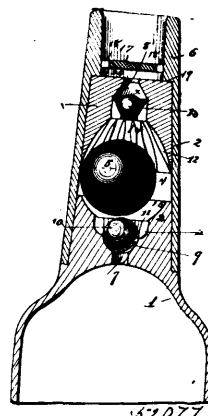
No. 52,976. Air Brake. (Frein atmospherique.)



Albert P. Massey, Watertown, New York, U.S.A., 23rd April, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. In an automatic brake system normally operated by a triple valve, the combination with a vent valve between the train pipe and the atmosphere, of a piston located in the line of flow from the vent valve to the atmosphere, so as to be actuated by a quick discharge of fluid from the vent valve to cause opening movement to a valve controlling a passage from the auxiliary reservoir, or a portion thereof, to the brake cylinder, substantially as set forth. 2nd. In an automatic brake system normally operated by a triple valve, which controls a passage from the auxiliary reservoir to the brake cylinder, an auxiliary reservoir divided into two parts with an always open passage between them and a check valve opening in one direction combined with a valve controlling a separate passage from one portion of the auxiliary reservoir to the brake cylinder, substantially as et forth.

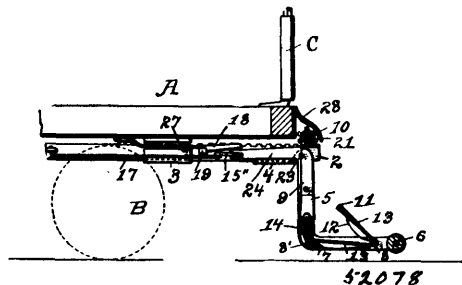
No. 52,077. Bottle. (Bouteille.)



William M. Breck, Cleveland, Ohio, U.S.A., 23rd April, 1896; 6 years. (Filed 25th March, 1896.)

Claim.—1st. In a bottle a neck provided with a central chamber inclosing a large ball and provided with concave upper and lower surfaces and passages cut in the upper surface for liquids, a direct passage leading through said neck above and below said chamber, a smaller ball seated in the entrance to the passage below the chamber and an expansion of said upper passage, inclosing a ball of less specific gravity than liquid, substantially as described. 2nd. In a bottle, means for preventing its refilling consisting in the combination with solid portions 2 and 3 of the neck provided with concave inner faces of a chamber 4 separating these portions—passages 16 on the lower face of the upper portion passages 7 and 8 leading from said chamber through the neck, a central enlargement of the upper passage, inclosing a ball of low specific gravity, a small ball 10 seated in an expansion of the lower passage, passages 12 leading therefrom, a large ball in the chamber 4, and means for preventing the introduction of a tool into the neck to dislodge the balls, substantially as described. 3rd. In combination with the neck of a bottle means for preventing its refilling, consisting in the combination with liquid passages and valve seats in the neck, of ball valves so arranged as to engage said seats and close the passages when the bottle is tipped, substantially as described. 4th. In a bottle means for preventing its refilling consisting in liquid passages, provided with valve seats in the neck, and ball valves of varying specific gravity movably secured in said passages whereby the passages are closed when the bottle is tipped, substantially as described. 5th. In a bottle, the combination with the neck, and fluid passages therethrough of valve mechanism whereby said passages will be closed when the bottle is tipped, as in the manner described.

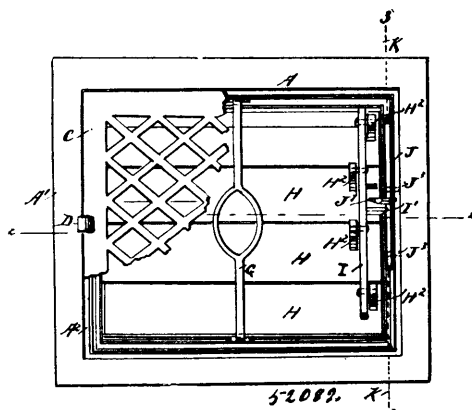
No. 52,078. Car-Fender. (Defense de chars.)



Obadiah Cullison, York, Pennsylvania, U.S.A., 24th April, 1896; 6 years. (Filed 26th March, 1896.)

steam jacket 22, and the steam chest 3, and valve 5, in which the recess 6 is formed, and means for operating said valve, in combination with the piston head 19, and piston rod 20, secured to the piston head or rod of the engine, substantially as and for the purpose set forth. 4th. The attached cylinder 17, and the cylinder 9, in which the passages 11 and 18, and outlet ports 13 and 23 respectively are formed, and the passage 12, in cylinder 9 closed, the steam pipe 16, the piston heads 19 and 14, and piston rods 20 and 15, in combination with the steam chests 1 and 3, and valves 4 and 5, or their equivalent, in each of which the recess 6 is formed, and means for supplying steam to the steam chest 1, and for operating valves 4 and 5, substantially as and for the purpose set forth. 5th. The attached flanged cylinder 17, and the cylinder 9, in which the passages 11 and 18, and outlet ports 13 and 23, respectively, are formed, the steam pipe 16, the piston heads 19 and 14, and the piston rods 20 and 15, in combination with the steam chests 1 and 3, and valve 4 and 5, or their equivalent, in each of which the recess 6, is formed, and means for supplying steam to the steam chest 1, and for operating valves 4 and 5, substantially as and for the purpose set forth. 6th. The attached cylinder 17, and the flanged cylinder 9, in which the passages 11 and 18, and outlet ports 13 and 23, respectively are formed, and the passage 12, in cylinder 9, closed, the steam pipe 16, the piston heads 19 and 14, and piston rods 20 and 15, in combination with the steam chests 15, 1 and 3, and valves 4 and 5, or their equivalent, in each of which the recess 6, is formed, and means for supplying steam the steam chest 1, and for operating valves 4 and 5, substantially as and for the purpose set forth. 7th. The attached flanged cylinder 17, and the flanged cylinder 9, in which the passages 11 and 18, and outlet ports 13 and 23, respectively, are formed, steam jacket 22, the steam pipe 16, the piston heads 19 and 14, and piston rods 20 and 15, in combination with the steam chests 1 and 3, and valves 4 and 5, or their equivalent, in each of which the recess 6, is formed, and means for supplying steam to the steam chest 1, and for operating valves 4 and 5, substantially as and for the purpose set forth.

No. 52,082. Combination Dust-pan and Ventilator.
(*Porte-ordure et ventilateur combinés.*)



Francis Marion Rector, Eddyville, Iowa, U.S.A., 24th April, 1896; 6 years. (Filed 27th March, 1896.)

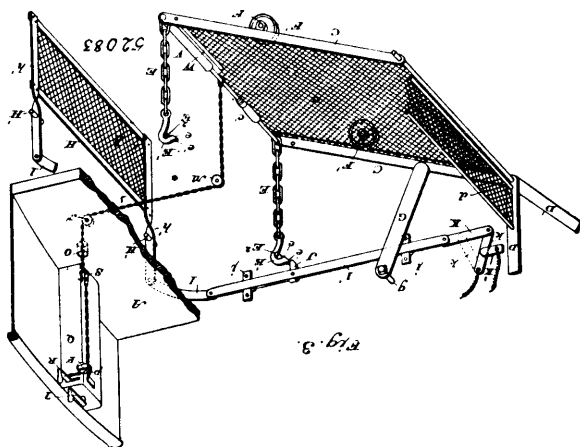
Claim.—1st. A device of the class described, comprising a casing adapted to be set in a floor or wall of a building having a grated top and a box in the said casing and provided with a slatted bottom adapted to be opened and closed, substantially as shown and described. 2nd. A device of the class described, comprising a casing adapted to be set in the floor or wall of a building, a removable grated top for the said casing, and provided with a bottom made of slats, and means, substantially as described, for opening and closing the said slats, as set forth.

No. 52,083. Life Guard, etc. (Defense pour chars.)

Roscoe Dittrick, Cleveland, Ohio, U.S.A., 24th April, 1896; 6 years. (Filed 27th March, 1896.)

Claim.—1st. The combination of the apron located beneath the car, the pivotal supports at its rear edge, and the chain supports at its front edge, the chain hooks and the stud pins which they engage, the trip guard or fender pivotally suspended in front of the apron and means whereby it may trip the hooks of the apron chains off their supporting pins substantially as set forth. 2nd. The combination of the apron pivotally supported beneath the car, the chains at its front edge having hooks which engage supporting stud pins, the trip guard pivotally suspended in front of the apron, the sliding bars with their striker blocks to engage the chain hooks, and the links connecting the bars to the trip guard, substantially as described. 3rd. The combination of the apron pivotally supported at its rear edge beneath the car, means for supporting its front edge that will allow it to be lowered, dogging levers pivotally supported above the apron with their free lower ends resting thereon substantially as

and for the purpose hereinbefore set forth. 4th. The combination of a car, and an apron suspended therefrom from the front edge of which drops to the surface of the roadway to scoop under an object, with a roller or series of rollers extending along the front edge of th



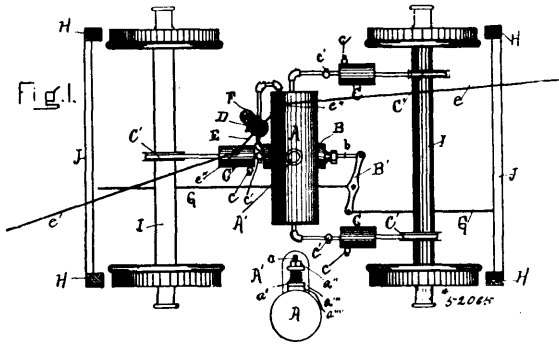
apron substantially as set forth. 5th. The combination of the apron pivotally supported at its rear edge beneath the car, the chain supports for its front edge with hooks which take over stud pins, a guard fender pivotally suspended in front of the apron and means whereby it may trip the chain hooks off their stud pins with the dogging levers pivotally supported above the apron and having their free lower ends resting thereon, substantially as described. 6th. The combination of the apron located beneath the car and supported at its rear edge while its front edge is supported by chains with trip hooks, the rollers secured to the under side of the apron and located above each rail of the track, and the dogging levers pivotally suspended above the apron with their lower ends resting upon it, with means for tripping the chain hooks off from their supports substantially as hereinbefore set forth. 7th. The combination of the apron located beneath the car body and supported substantially as described, the guard fender suspended from the car body in front of the apron, the sliding trip bars connected to the guard fender and provided with means for tripping the apron, and the electric cut-off switch connected to the sliding trip-bar all arranged so that the movement of the guard fender which trips the apron also cuts the current off from the motor, substantially as set forth. 8th. The combination of the apron located beneath the car body, and suspended as described, the electric cut-off switch, the guard fender pivotally suspended in front of the apron and connected to mechanism whereby it will trip the apron into action and throw the switch to cut off the current from the motor, with a lever for controlling the motor circuits connected to the apron in such manner as to be actuated thereby, all arranged and operating so that the movement of the guard fender trips the apron, cuts the current off the motor, and after a brief space turns it on again, the dropping of the apron meanwhile acting upon the controlling lever to reverse the motor circuits substantially as set forth. 9th. The combination of the apron suspended beneath the car, with means whereby its front edge may be tripped and allowed to the level of the roadway, a lever for controlling the motor circuits, with means for connecting it to the apron in such manner that the fall of the apron reverses the position of the lever and the motor circuits, and then disconnects the apron from the controlling lever so as to leave the latter free substantially set forth. 10th. The combination of the apron located beneath the car, with means for tripping and allowing it to fall in operative position, and a motor-circuit-controlling lever, connected by a chain to the apron so that upon the motor circuits will be reversed, with a detaching hook in the chain which will open and part the chain after the controlling lever has been moved sufficiently to reverse the motor circuits, substantially as set forth. 11th. The combination of the apron located beneath the car, with means whereby its front edge may be tripped and allowed to fall to the level of the roadway, a motor-circuit-controlling lever connected by a chain to the front edge of the apron, said chain passing through an aperture in the floor of the car and provided with a detaching hook, which upon being drawn through the aperture will trip and part the chain, substantially as and for the purpose hereinbefore set forth.

No. 52,084. Composition for Coating Roofs.
(*Composition pour toitures.*)

Issac H. Culp, Hamilton, Ontario, Canada, 24th April, 1896; 6 years. (Filed 28th March, 1896.)

Claim.—The herein described composition of matter to be used as a coating for roofs, consisting of scalded oil-cake, japan drier, litharge and sharp sand, substantially in the proportions and for the purposes set forth.

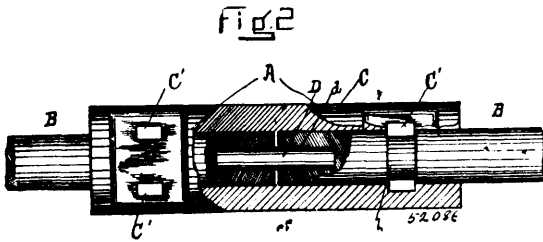
No. 52,085. Air-Brake. (Frein atmosphérique.)



Francis C. Crean, Joliette, William T. Costigan, Montreal, both in Quebec, Canada, Francis P. McColl, Brooklyn, New York, U.S.A., and Geo. A. Cowan, Montreal, aforesaid, 24th April, 1896; 6 years. (Filed 2nd April, 1896.)

Claim.—1st. The combination, with a car axle of an eccentric made one with the axle and arranged to operate an air pump to fill a reservoir, the pressed air in said reservoir being applied by the complementary mechanism to a brake-shoe, substantially as described. 2nd. The combination, with a car-axle having an eccentric to operate an air pump of a reservoir to store the pressed air and allow its application through a cylinder fitted with a piston, the protruding rod of which is articulated to a lever which through a link or pitman applies the air pressure to a brake-shoe, substantially as described. 3rd. The combination, with a brake-shoe suspended from the car body and held away from the periphery of the car wheel by a spring of a lever moved by a piston rod actuated by compressed air supplied from a reservoir, substantially as described. 4th. The combination, with a pressed air reservoir of a three way valve, to make a connection through pipes between the reservoir and the cylinder, and the cylinder and the external air, and to close the connection between the reservoir and the cylinder and an operating mechanism, as set forth. 5th. The combination, with a three way valve having a muffle, of the handle bar holding the communication between the reservoir and the cylinder through means of a spring, said handle bar moved to open and close the communication between the reservoir and the cylinder, by means of a brake handle and the accessory links of the members whereby the brake-shoe is constantly applied to the wheel, when the brake handle is not held, substantially as set forth. 6th. An air-brake, substantially as hereinbefore set forth.

No. 52,086. Car-Axle. (Essieu de chars.)



Francis C. Crean, Joliette, William T. Costigan, Montreal, both in Quebec, Canada, Francis P. McColl, Brooklyn, New York, U.S.A., and Geo. A. Cowan, Montreal, aforesaid, 24th April, 1896; 6 years. (Filed 2nd April, 1896.)

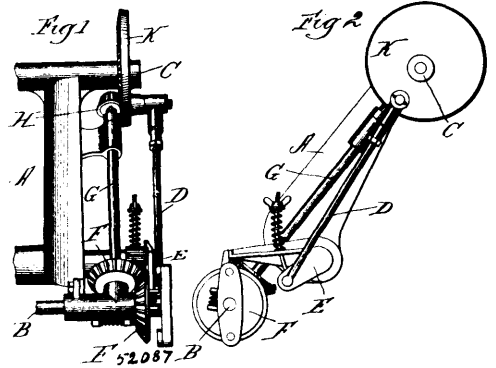
Claim.—The herein described mechanism consisting of the severed axles, having the grooves *b*, the centre pin *D*, inserted into the holes *d*, and the sleeve *C*, having key-ways *C'*, keys *c*, and retaining key bolts or set screws *c'*, all combined and arranged substantially as and for the purposes set forth.

No. 52,087. Grain Binder. (Lieuse à grain.)

Maurice Kane, Austin, Illinois, U.S.A., 24th April, 1896; 6 years. (Filed 28th March, 1896.)

Claim.—1st. In a grain binder, the combination of a needle shaft and mechanism for operating the same, including an eccentrically mounted gear and a movable concentric gear meshing therewith and imparting motion thereto, substantially as and for the purpose set forth. 2nd. In a grain binder, the combination of a needle shaft and mechanism for operating the same, including an eccentrically mounted bevel wheel, and another bevel wheel meshing therewith and imparting motion thereto, said bevel wheel mounted concentric with and adapted to move longitudinally upon its supporting shaft, substantially as and for the purpose set forth. 3rd. In a grain binder, the combination of a needle shaft and mechanism for operating the

same, including an eccentrically mounted wheel, another wheel mounted concentrically upon its supporting shaft and meshing with the eccentric wheel and adapted to slide upon its shaft so as to compensate for the variable distance from the centre of the teeth upon



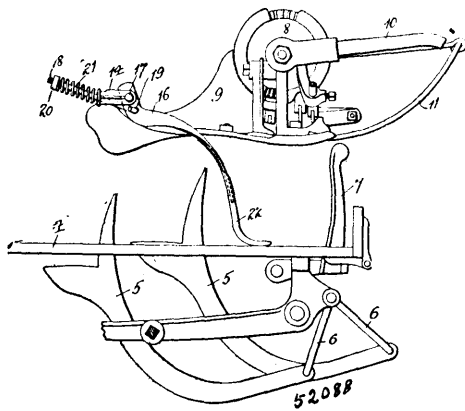
the eccentric wheel, substantially as and for the purpose set forth. 4th. In a grain binder, the combination with a packer shaft and a needle shaft, of a system of gears for communicating motion between such shafts, one of which gears is eccentrically mounted, and another meshing therewith is concentrically mounted and adapted to move longitudinally upon its supporting shaft, and means for keeping said gears in mesh with each other, notwithstanding the variable motion of the eccentric gear, substantially as and for the purpose set forth. 5th. In a grain binder, the combination with a packer shaft, a knotted driving shaft and a needle shaft, of a system of bevel gears for communicating motion between the packer shaft and the knotted driving shaft, one of which is eccentrically mounted, and constituting one of a pair, the other member of which is concentrically mounted upon its shaft and adapted to be moved thereon, and means for automatically effecting such movement without disengaging the gears, as and for the purpose set forth. 6th. In a grain binder, the combination with a packer shaft, a knotted driving shaft and a needle shaft, of a system of bevel gears communicating motion between such packer shaft and knotted driving shaft, one of said gears mounted eccentrically and another meshing therewith mounted concentrically and adapted to be slid along its shaft to adjust its position to the portion of the eccentric gear presented to it, and means upon the eccentric gear for effecting the sliding adjustment of the other gear, substantially as and for the purpose set forth. 7th. In a grain binder, the combination of a packer shaft, a knotted driving shaft and a needle shaft with a system of bevel gears for communicating motion from the packer shaft to the knotted driving shaft, one of which is mounted eccentrically and the other concentrically, with respect to its supporting shaft, meshing with the eccentric gear and secured to its shaft by a spline or feather, whereby it can move longitudinally therewith, so as to continually remain in mesh with the eccentric gear, notwithstanding its eccentricity, substantially as and for the purpose set forth. 8th. In a grain binder, the combination of a packer shaft, a knotted driving shaft, and a needle shaft with a system of bevel gears for communicating motions between the packer shaft and the knotted driving shaft, one of which is eccentrically mounted with the outer and inner ends of its teeth bounded by concentric flanges, and another bevel gear meshing therewith is splined to its shaft, and thereby adapted to a back and forth movement, corresponding to the variable motion of said eccentric gear, substantially as and for the purposes set forth. 9th. In a grain binder, the combination of a packer shaft, a knotted driving shaft and a needle shaft, of a system of bevel gears for communicating motion from the packer shaft to the knotted driving shaft, one of which is eccentrically mounted and has its teeth bounded at opposite ends by flanges concentric with each other, and another of which meshes with such eccentric gear, and is splined to a shaft which at its opposite end carries one of a pair of mitre gears, the other of the pair carried upon the sleeve and operated intermittently by a constantly revolving clutch upon the packer shaft, substantially as and for the purpose set forth. 10th. In a grain binder, the combination of a packer shaft, a knotted driving shaft and a needle shaft, and a system of gearing for communicating motion between the packer shaft and the knotted driving shaft, comprising a gear wheel having its teeth eccentric with respect to its supporting shaft, a gear-wheel meshing therewith, concentric with and adapted to slide upon its supporting shaft and means for keeping said wheels in mesh, notwithstanding the variations due to the eccentricity of one of said wheels, substantially as and for the purpose set forth.

No. 52,088. Attachment for Grain Binder.

(Attache pour lieuses à grain.)

Maurice Kane, Austin, Illinois, U.S.A., 24th April, 1896; 6 years. (Filed 28th March, 1896.)

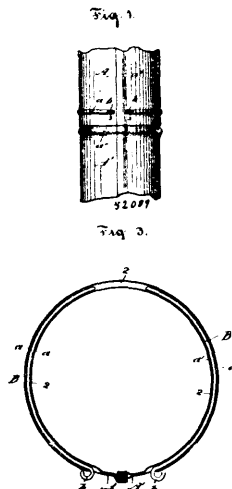
Claim.—1st. In a grain binder, a grain retarding plate, and means for applying a decreasing spring pressure thereto, as the size of the bundle increases, as and for the purpose set forth. 2nd. In a grain binder, a grain retarding plate, means for applying a decreasing



spring pressure thereto, as the size of the bundle increases, and means for adjusting the position of said plate, as and for the purpose set forth. 3rd. In a grain binder, a pivotally mounted grain retarding plate, and means for applying a decreasing spring pressure thereto, as said plate is rocked about its pivot by the increasing size of the bundle, as and for the purpose set forth. 4th. In a grain binder, a grain plate, pivotally supported, a bolt loosely connected thereto, on one side of said pivot, and a spring arranged to act upon said bolt on the opposite side of said pivot, as and for the purpose set forth. 5th. In a grain binder, a bar, a grain plate pivoted thereto, a bolt adapted to be passed loosely through a perforation in said bar and loosely connected to said plate, and having a nut on the opposite end thereof, and a spring interposed between said nut and bar, as and for the purpose set forth. 6th. In a grain thereby, a grain arm pivoted to said angle bar, a bolt adapted to pass loosely through a perforation in said angle bar, and loosely connected at one end to said grain arm and screw-threaded at the opposite end thereof, a nut mounted upon said screw-threaded end, a spring mounted upon said bolt and interposed between said nut and angle bar, the pivoted point of said grain arm arranged between said spring and the point of connection of said bolt and arm, as and for the purpose set forth. 7th. In a grain binder, a supporting bar, a grain plate pivoted thereto, a bolt connected to said grain plate, a spring arranged to act upon said bolt to exert a pressure upon said grain plate when said plate is rocked, whereby said plate is maintained in an elevated position when said point of connection passes a dead centre, as and for the purpose set forth. 8th. In a grain binder, a retarding plate, a tension device therefor, and means for relieving said tension device as the bundle increases in size, as and for the purpose set forth.

No. 52,089. Stove Pipe Joint Lock.

(*Fermeture de joint de tuyaux de poêles.*)

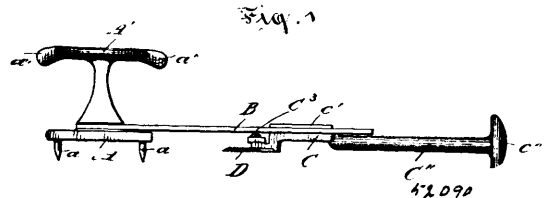


Robert Sword, Kennay, John M. Brown and Peter Campbell Mitchell, both of Brandon, all in Manitoba, Canada, 24th April, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. In a stove pipe joint lock, the combination of registering internal and external grooves near the ends of the pipes extending around each pipe and terminating near the seam to form an annular recess, an opening at each end of the groove in the external or overlapping pipe and bent wires adapted to be inserted into said recess through said openings, substantially as set forth. 2nd. In a stove pipe, the combination with the body of the pipe of an external circular groove near one end extending near the seam and an internal circular groove (forming a bead on the outside) near the other end and openings at the ends of said bead, substantially as set forth. 3rd. In a stove pipe, the combination with the body of the pipe of a series of circular grooves at intervals along said pipe, adapted to form one part of an annular recess for the reception of a wire, substantially as set forth.

No. 52,090. Can Opener.

(*Machine à ouvrir les boîtes métalliques.*)



David Louis Baumgarten, Cincinnati, Ohio, U.S.A., 24th April, 1896; 6 years. (Filed 28th March, 1896.)

Claim.—1st. In a can opener, the combination of a plate or base adapted to be held immovably on the top of the can, a handle secured to said plate or base by its stem, a slotted bar or arm pivoted to the stem of said handle, a slide block adapted to slide in the slot of said bar and provided with a stem and handle, and a pointed cutter secured to said slide, substantially as set forth. 2nd. In a can opener, the combination of a slide adapted to slide in a slot of a bar or arm and provided with a stem and knife or cutter, a lug opposite said cutter and a friction roller pivoted to said lug, substantially as set forth. 3rd. In a can opener, the combination of a plate or base A, provided with pins or points a, a handle A', secured to said plate, a slotted bar B held pivotally upon the stem of said handle, a slide C guided in the slot of said bar and having a stem and handle and a cutter D, secured to said slide, substantially as set forth.

No. 52,091. Combined School Desk and Seat.

(*Pupitre-siège d'école.*)

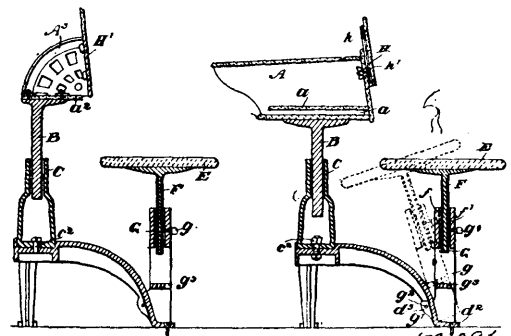


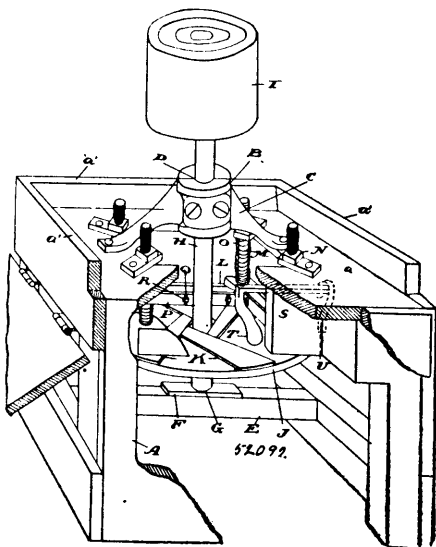
Fig. 2.

John Smith, Guelph, and James Laughlin Hughes, Toronto, both in Ontario, Canada, 24th April, 1896; 6 years. (Filed 30th March, 1896.)

Claim.—1st. In a school desk, the combination with the open ended receptacle beneath the desk, of a supplemental shelf forming an extra receptacle for the reception of the slate, as and for the purpose specified. 2nd. In a school desk, the combination with the desk and central standard, of a support for the standard, two laterally extending curved legs and a forwardly extending leg forming portion of the support as and for the purpose specified. 3rd. In a school desk in combination, the desk and central standard, the socket, two laterally extending legs and a forwardly extending leg for supporting the socket, as and for the purpose specified. 4th. In a school desk, the combination with the desk and central standard, of a socket, two laterally extending legs and a forwardly extending leg for supporting the socket and set screws extending through the socket against the standard for supporting the desk at any desired elevation as and for the purpose specified. 5th. The combination with the desk provided with a single standard having side grooves b and b', of the socket and legs for supporting the same as specified and set screws extending through the side of the socket into one of

the grooves as and for the purpose specified. 6th. The combination with the desk and standard adjustably held in a socket and legs for supporting the socket, of a seat provided with a central standard and socket to adjustably hold such standard and legs extending downwardly from the socket and pivoted on the front supporting leg of the desk as and for the purpose specified. 7th. The combination with the desk and standard adjustably held in a socket and legs for supporting the socket, of a seat provided with a central standard and socket to adjustably hold such standard and legs having rear off-sets pivoted in lugs in the front supporting leg behind the centre of the legs as and for the purpose specified. 8th. The combination with the desk and standard adjustably held in a socket and legs for supporting the socket, of a seat provided with a central standard and socket to adjustably hold such standard and legs having rear off-sets pivoted in lugs in the front supporting leg behind the centre and a stop beneath the socket designed to abutt against the front leg when the seat is tilted back as and for the purpose specified. 9th. The combination with a suitable support, of a seat having rear off-sets to the legs supporting the seat and pivotal means for connecting such rear off-sets to the support the pivot being behind the centre gravity of the seat as and for the purpose specified. 10th. The combination with the desk seat supported in the frame of the desk in front of the same, of a back and means for vertically adjusting it on the front of the desk in relation to the seat as and for the purpose specified. 11th. The combination with the desk and seat supported in the frame of the desk in front of the same, of a back and a bar *b*, provided with a T-shape slot and a bolt *I*, having a head extending into the slot at one end and provided with a nut on the end which extends through the front of the desk as and for the purpose specified. 12th. The combination with the seat vertically adjustable on a suitable support of a back for the seat adjustable on the same support as and for the purpose specified.

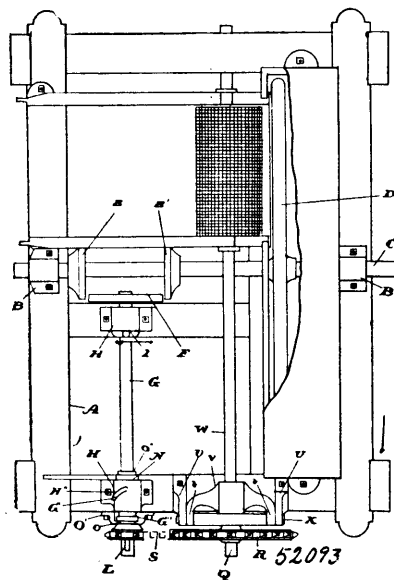
No. 52,092. Clay Disintegrator and Stone Separator.
(*Machine à désagréger l'argile et séparateur de pierre.*)



Byron Erb Bechtel, Waterloo, Ontario, Canada, 24th April, 1896 ; 6 years. (Filed 30th March, 1896.)

Claim.—1st. A clay disintegrator and stone separator, comprising a hopper, a revoluble disc within the hopper, a plurality of cutting and tempering knives secured on the disc, a vertically adjustable and yielding grinding frame located above the disc, vertically adjustable wearing strips connected to the grinding frame, a spindle connected to the side of the hopper, and an arm projecting downward from the inner end of the spindle, substantially as shown and described. 2nd. A clay disintegrator comprising a hopper, a revoluble disc within the hopper, a series of knives on the disc, a knife constituting one of said series having its end projected beyond the periphery of the disc and turned up to form a scraper, a vertically adjustable and yielding supported grinding-frame in the hopper above the disc, and a vertically arranged arm *T*, extending into the hopper, substantially as set forth. 3rd. A clay disintegrator, comprising a hopper, a revoluble disc in the hopper, a plurality of cutting knives secured on the surface of the disc and arranged tangentially to the axis thereof, an adjustable and yielding supporting grinding-frame, screw-threaded post supports for the said frame, coiled springs on the posts to hold the grinding-frame to its lower limit, and a vertical stirring arm secured in the hopper independently of the disc and grinding frame, substantially as shown and described.

No. 52,093. Feed Cutting Machine. (*Coupe-paille.*)

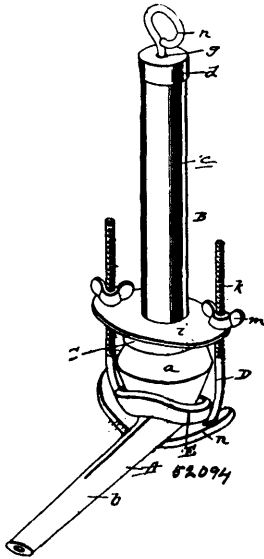


Oscar Ezra Bray, Toronto, Ontario, Canada, 24th April, 1896 ; years. (Filed 30th March, 1896.)

Claim.—1st. In a feed cutting machine, the combination of the feed rolls, and a friction gear for driving the feed rolls, substantially as specified. 2nd. In a feed cutting machine, the combination of the feed rolls, a friction gear for driving the feed rolls, and a means for changing the direction of the revolution of the friction gear, substantially as specified. 3rd. In a feed cutting machine, the combination of the feed rolls, the knife wheel shaft, a friction-wheel on the said shaft, a counter shaft at right angles to the knife wheel shaft, a friction pulley on one end of the counter shaft, adapted to engage the said friction-wheel, a shaft for the feed roll, and means for imparting motion from the counter shaft to the feed roll shaft, substantially as specified. 4th. In a feed cutting machine, the combination of the knife wheel shaft, a friction-wheel on the said shaft, a counter shaft at right angles to the knife wheel shaft, a friction pulley on one end of the counter shaft to engage the said friction-wheel, and a lever for shifting the counter shaft to move the friction pulley towards or away from the knife wheel shaft, substantially as specified. 5th. In a feed cutting machine, the combination of the knife wheel shaft, two oppositely opposed friction wheels on the said shaft, a counter shaft at right angles to the knife wheel shaft, a pulley mounted on one end of the counter shaft adapted to engage with either of the said friction-wheels, and a lever for shifting the counter shaft to bring the pulley into position to engage either one or the other of the said friction wheels, substantially as specified. 6th. In a feed cutting machine, the combination of the knife wheel shaft, two oppositely opposed friction-wheels on the said shaft, a counter shaft at right angles to the knife wheel shaft, a friction pulley on one end of the counter shaft, a lever for shifting the counter shaft to move the pulley towards or away from the knife wheel shaft, to respectively diminish or increase its speed, and a lever for shifting the counter shaft to bring the pulley into engagement with either of the said friction wheels, substantially as specified. 7th. In a feed cutting machine the combination of the knife wheel shaft, two oppositely opposed friction wheels on the said shaft, a counter shaft at right angles to the knife wheel shaft, a friction pulley on one end of the counter shaft a lever for shifting the counter shaft to move the pulley towards or away from the knife wheel shaft, to respectively diminish or increase its speed, a sleeve incircling the opposite end of the shaft, a collar on the shaft at the inner side of the adjacent bearing to engage the said sleeve, a spiral slot in the said bearing, a pin projecting through the said slot and engaging the said sleeve, to move the sleeve and shaft longitudinally, a spline on the counter shaft at the outer side of the said bearing, a sprocket pinion mounted on the said end of the shaft, having a seat to engage with the said spline, the hub of the sprocket pinion grooved to receive the forked part of an arm fastened to the adjacent side of the frame, the lower feed roll shaft, a sprocket wheel mounted on the said lower feed roll shaft, a sprocket chair passing around the sprocket pinion and wheel, a gear wheel mounted on the lower feed roll shaft, a shaft for the upper feed roll, journaled it on end in a pivoted bearing, a gear wheel mounted on the said upper feed roll shaft, engaging with the gear wheel on the lower feed roll shaft, substantially as specified. 8th. In a feed cutting machine the

combination of the upper feed roll, a shaft for the upper feed roll, and a hinged bearing for one end of the shaft to allow it to rise and fall with the rise and fall of the said feed roll, substantially as specified.

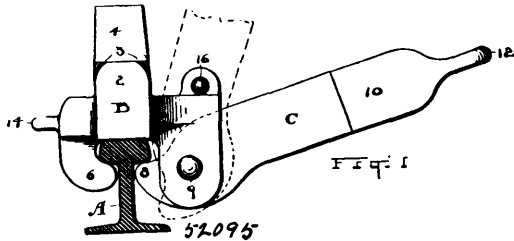
No. 52,094. Pipe Cleaner. (Nettoyeur de pipes.)



John J. Snyder, Lake, Utah, U.S.A., 24th April, 1896; 6 years. (Filed 14th February, 1896.)

Claim.—A pipe cleaner comprising a pump having a plate at one end and a gasket adapted to bear upon the edge of a pipe bowl, an adjustable yoke connected to the plate and adapted to receive a pipe bowl, a cushion carried by the yoke and adapted to bear against the underside of a pipe, and an annular concavo-convex keeper adapted to receive the stem of a pipe and surround the lower end of the bowl, substantially as specified.

No. 52,095. Car Stop. (Arrêt de chars.)



George H. Diplo, Chagrin Falls, Ohio, U.S.A., 24th April, 1896; 6 years. (Filed 30th March, 1896.)

Claim.—1st. A car stop constructed to be attached to a rail and having a projection shoulder to meet the tread of the wheel and adapted to act as an initial chock to the car-wheel, and a stud on a plane above said shoulder and in a different vertical plane therefrom, substantially as set forth. 2nd. A car stop, having the shouldered part 2 adapted to act as an initial chock to the car-wheel, and a projection or stud 4 above the same, and means to temporarily hold the stop on a rail, substantially as set forth. 3rd. The car stop described, consisting of the part B, having projections 2 and 4 on different planes, and a fixed jaw at one side and a weighted pivoted lever on the other side having a jaw to engage the rail, substantially as set forth. 4th. The part B provided with projections 2 and 4, and the jaw 6 in combination with the pivoted engaging lever C, and the means to lock the lever and prevent removal of the stop, substantially as set forth.

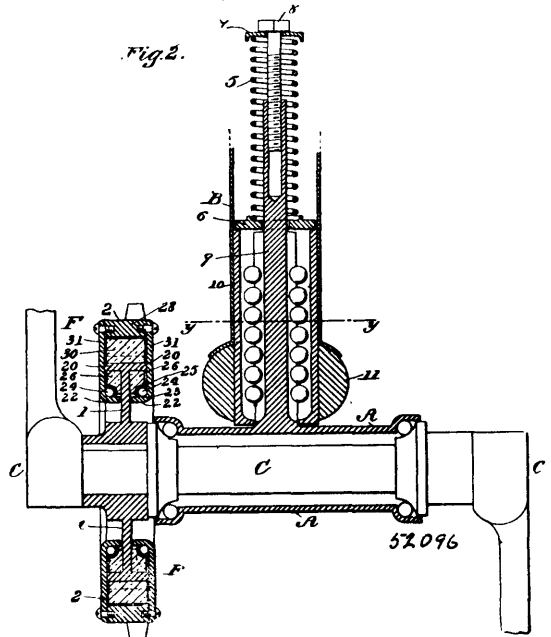
No. 52,096. Driving Mechanism for Bicycles.

(Mécanisme conducteur pour bicycles.)

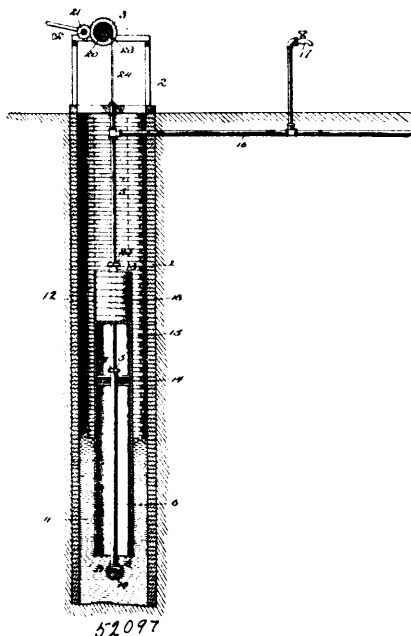
Gerard Beekman, New York, State of New York, U.S.A., 25th April, 1896; 6 years. (Filed 30th March, 1896.)

Claim.—1st. In a velocipede, the combination with a frame and traction wheel, of a two part rotary device consisting in a driving part connected to the pedal shaft and a driven part connected by suitable means to impart motion to said traction wheel, both said parts being yieldingly mounted and diametrically movable with

reference to said frame, and means for limiting the diametric movement of said driven part whereby the same is engaged by the diametric movement of the driving part produced by the foot pressure of the rider. 2nd. In a velocipede, the combination with a frame and

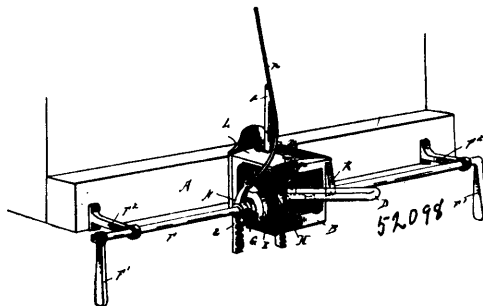


traction wheel, of a propelling device comprising sprocket-wheels, a drive chain, and a pedal shaft carrying one of said sprocket-wheels and diametrically movable with reference to said frame in a direction whereby said chain is drawn taut by such impulse in the driving action of the rider, one of said sprocket-wheels being constructed of two engaging parts of which one part is revolvably and diametrically movable with reference to the other part, to effect their engagement when the said chain is drawn taut. 3rd. In a rear driven bicycle, the combination with a frame and traction wheel, and a rear sprocket-wheel attached to the traction wheel, and a drive chain, of a pedal shaft and front sprocket-wheel thereon yieldingly mounted on said frame so as to move in a direction oblique to the length of said chain and produce tension of the same when the foot pressure of the rider is applied to the pedals, said front sprocket-wheels being constructed of two parts revolvably and diametrically movable with reference to each other, the one part connected to said pedal shaft, and the other part carrying said drive chain and having its diametric movement limited thereby, said parts having suitable frictional engaging surfaces adapted to engage and bind the one with the other, when the said chain is drawn taut. 4th. In a rear driven bicycle, the combination with a frame and traction wheel, and a rear sprocket-wheel attached to the traction wheel, and a drive chain, of a pedal shaft, and a front sprocket-wheel constructed of two frictionally engaging parts revolvably and diametrically movable with reference to each other, the one part connected to said pedal shaft and the other part carrying said drive chain and having its diametric movement limited thereby, and a shaft hanger yieldingly attached to said frame and carrying said pedal shaft and front sprocket wheel, and rendering the same diametrically movable in a direction oblique to the length of said chain so as to draw the same taut when the pedal shaft is depressed, substantially as and for the purpose described. 5th. In a rear driven bicycle, the combination with a frame and traction wheel, and a rear sprocket wheel attached to the traction wheel, and a drive chain, of a pedal shaft and a front sprocket wheel constructed of two feictionally engaging parts revolvably and diametrically movable with reference to each other, the one part connected to said pedal shaft and the other part carrying said drive chain and having its diametric movement limited thereby, and a shaft hanger yieldingly attached to said frame and carrying said pedal shaft and front sprocket-wheel, and rendering the same diametrically movable in a direction oblique to the length of said chain so as to draw the same taut when the pedal shaft is depressed, and a spring for raising the said hanger, substantially as and for the purpose described. 6th. In a velocipede, the combination of a frame and wheels, a yieldingly mounted hanger on the frame, a drive shaft mounted in the hanger, a drive chain, a clutch part fast upon the shaft, a second clutch part yieldingly mounted upon said first clutch part and carrying said chain which limits the movement of said second clutch part so as to engage the same by the driving action of the rider. 7th. In a bicycle, a two part sprocket wheel, the one member diametrically movable with reference to the other to effect transmission, and elastically supported annular guides upon the one said part tending to centre and serving to guide the other said part, substantially as set forth.

No. 52,097. Pump. (Pompe.)

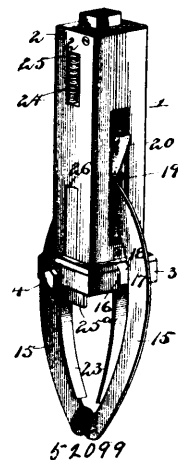
William Miller, Thomasville, Georgia, U.S.A., 25th April, 1896; 6 years. (Filed 30th March, 1896.)

Claim.—1st. A water elevating and distributing apparatus having a fixed conductor provided at one extremity with an inlet-valve and communicating at the other end with valved distributing-pipes, a vertically movable gravitating cylinder, a fixed piston fitting within the cylinder, the upper end of the cylinder being closed whereby the portion of the cylinder above the piston constitutes a storage-chamber or receptacle in communication with the conductor at an intermediate point of the latter, and means for elevating the cylinder, substantially as specified. 2nd. A water elevating and distributing apparatus having a fixed conductor provided at its lower end with an inlet-valve and communicating at its upper end with valved distributing-pipes, a movable gravitating cylinder arranged concentric with the conductor and having a closed upper end, a fixed piston carried by the conductor and fitting in the cylinder, the conductor being provided with the lateral ports above the plane of the piston to communicate with a storage-chamber or receptacle between the piston and the upper end of the cylinder, and means for elevating the cylinder to charge the storage-chamber or receptacle by suction, substantially as specified. 3rd. A water elevating and distributing apparatus having a fixed conductor provided at its lower end with an inlet-valve and communicating at its upper end with valved distributing-pipes, a movable gravitating cylinder arranged concentric with the conductor and having a closed upper end, a tubular co-axial guide supported by the upper extremity of the cylinder and embracing the contiguous portion of the conductor, said guide terminating in a stuffing-box to fit the conductor, a fixed piston carried by the conductor below the plane of the upper end of the cylinder and fitting snugly within the latter, said conductor having lateral ports communicating with the portion of the cylinder above the plane of the piston, means for elevating the cylinder, and a weight supported by the cylinder and comprising independently removable sections, substantially as specified. 4th. A water elevating and distributing apparatus having a fixed conductor provided at its lower extremity with an inlet-valve and communicating at its upper end with valved distributing-pipes, a movable gravitating cylinder arranged concentric with the conductor and having a closed upper end, a tubular co-axial guide supported by the upper extremity of the cylinder and embracing the contiguous portion of the conductor, said guide terminating in a stuffing-box to fit the conductor, a fixed piston carried by the conductor below the plane of the closed upper end of the cylinder and fitting in the latter, said conductor having lateral ports above the plane of the piston, and elevating apparatus for the cylinder including a drum, means for communicating rotary motion to the drum, and flexible connections between the drum and the cylinder, substantially as specified.

No. 52,098. Car Coupler. (Attelage de chars.)

William R. Fine, Rolfe M. Randolph, John A. Jones and William D. McSween, all of Newport, Tennessee, U.S.A., 25th April, 1896; 6 years. (Filed 30th March, 1896.)

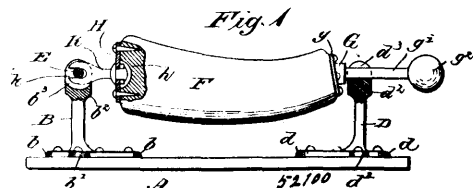
Claim.—1st. In a car coupler and link-lifting mechanism consisting essentially of an arm-provided sleeve having an interior lug or clutch, and a horizontal operating shaft passing loosely through said sleeve and having a lug adapted to engage the sleeve lug and a pin-lifting mechanism connected to the operating shaft, substantially as described. 2nd. In a car coupler and link-lifting mechanism, consisting essentially of an arm-provided sleeve having an interior lug or clutch, a horizontal operating shaft passing through said sleeve and having a lug adapted to engage the sleeve lug, and a pin lifting mechanism, consisting of a pin carrying plate and a gearing connection between it and the operating shaft, substantially as described. 3rd. In a car coupler, the combination of the horizontal operating-shaft, a pin-carrying plate having a rack-arm, a gearing connection between the shaft and the rack and a detaining pawl for the shaft, the forward face of which pawl projects beyond the front face of the draw-head, substantially as specified. 4th. In a car coupler, the combination with the link-lifting device, consisting of an arm-provided sleeve, a horizontal operating shaft passing through said sleeve and engaging it, a ratchet on said shaft and a pawl engaging said ratchet, said pawl having its forward end projecting beyond the front face of the draw-head so as to be struck by the opposite draw-head, substantially as described. 5th. In a car coupler, the combination of the interiorly lug-provided sleeve, having a projecting arm, a lug-provided operating shaft passing through said sleeve, a rigid ratchet wheel on said shaft, a pivoted pawl engaging said ratchet, a pin carrying plate having a rack-arm engaging a gear on the operating shaft, a toothed disc on the operating shaft and a pivoted pawl engaging it, substantially as described. 6th. In a car coupler, the combination of the operating shaft, having handles, the pin carrying plate having a downwardly-projecting arm, a vertical guide rod for said plate, link-lifting devices consisting of an interiorly lug-provided or clutch sleeve having an arm of arms, through which sleeve passes the operating rod having a lug thereon and detent device for holding the operating rod in any position to which it may be rotated, substantially as described. 7th. The combination of the draw-head, the loosely arranged interiorly lug-provided or clutch sleeve having an arm, the operating shaft passing through said sleeve and having a lug adapted to engage the sleeve lug and a detent device for the shaft and a pin-lifting mechanism connected to said shaft, substantially as described.

No. 52,099. Saw Swage. (Machine à affuter les scies.)

Barthelemi LaFleur, Perry, Oregon, U.S.A., 25th April, 1896; 6 years. (Filed 30th March, 1896.)

Claim.—1st. In a saw swage, a handle formed with a longitudinal bore, the wall of which constitutes the anvil of the device, in combination with a swaging die pivotally mounted within said longitudinal bore and capable of movement as to its working face transversely of the handle or toward the wall of the longitudinal bore, and a reciprocating plunger operating within said handle and attached pivotally to said die, as specified. 2nd. In a saw swage, the handle, constituting also the anvil, in combination with a vertically movable plunger, a pivoted die operated upon by said plunger, an oppositely disposed pair of clamping-arms pivotally connected with said handle, and means, substantially as described, for simultaneously operating the die and forcing said clamping arms together at their lower ends, substantially as specified. 3rd. In a saw swage, the handle, constituting also the anvil, in combination with a pivoted die, a vertical plunger connected with and operating said die, a pair of oppositely-disposed clamping-arms for engaging the saw blade, springs for holding said clamping-arms normally apart at their lower ends, and adjustable inclined arms or wedges carried by the plunger and adapted to operate upon the upper ends of said clamping-arms, all arranged for joint operation, substantially as described. 4th. In a saw swage, the handle thereof made in two equal or nearly equal sections, one of which constitutes the anvil, each section being grooved in such manner that when brought together a central aperture is formed extending lengthwise through said handle, in combination with a surrounding collar connecting said sections, a set-screw for holding said collar in place, a die located at the lower end of said handle, and a vertically movable plunger extending through the central aperture of the handle and connected with and adapted to operate said die, substantially as described. 5th. In a saw swage, a handle made in two similar sections grooved in such manner as to form a central aperture extending through the handle when the two parts thereof are assembled, and one of said sections forming the anvil, in combination with a surrounding collar, a vertically adjustable gage mounted in a dovetailed groove in one side of the handle, a set screw passing through said collar and bearing against the gage for holding the latter at the desired adjustment, and a suitable plunger and swaging die, arranged substantially as and for the purpose specified. 6th. In a saw swage, a handle constituting also the anvil of the device and provided with a vertical aperture extending from end to end thereof, and also provided with oppositely disposed slots at its lower end, in combination with a die pivotally mounted on a horizontal shaft, a plunger operating upon said die, the horizontally adjustable boxes in which said shaft is journaled slidably mounted in said slots, and set screws for adjusting said boxes for regulating the position of the die and adapting the latter to teeth of different sizes and shapes, substantially as described. 7th. In a saw swage, a centrally perforated handle, forming also the anvil of the device, in combination with a detachable collar surrounding the same, a pair of oppositely disposed clamping arms hinged to said collar at points intermediate their length, a die located at the lower end of said handle in the base of its central perforation, and a vertically movable plunger co-operating with said die and clamping-arms and adapted to actuate said die and clamping-arms simultaneously, substantially in the manner and for the purpose specified.

No. 52,100. Ironing Board. (Planche à repasser.)

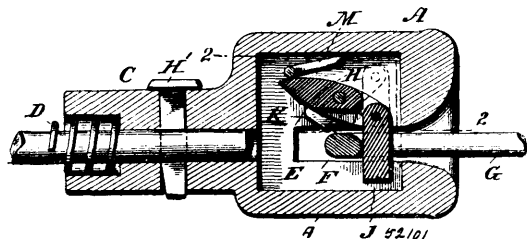


Thomas James Lutton and George Jørgensen Palmer, both of New York, State of New York, U.S.A., 25th April, 1896; 6 years. (Filed 30th March, 1896.)

Claim.—1st. In an ironing board or similar device, the combination of a base board having standards secured at opposite ends thereof each of which is provided with a head and in one of which is formed a longitudinal slot through which passes a pivot pin and in the other of which is formed a similar longitudinal slot, and a board or support detachably connected with said head by means of an attachment connected with the other end which is adapted to enter the longitudinal slot in the head of the opposite standard, substantially as shown and described. 2nd. In an ironing board or similar device, the combination of a base board having standards secured at opposite ends thereof, each of which is provided with a head, and in one of which is formed a longitudinal slot through which passes a pivot pin and in the other of which is formed a similar longitudinal slot, and a board or other support, detachably connected with said heads by means of an attachment connected with one end thereof, in which is formed a slot which operates in connection with said pivot pin, and an attachment connected with the other end which is adapted to enter the longitudinal slot in the head of the opposite standard, the attachment provided with the slot being revoluble in or on the end of the board or support, substantially as shown and described. 3rd. In an ironing or similar device, the combination of a base board having standards secured at opposite ends thereof, each of which is pro-

vided with a head, and in one of which is formed a longitudinal slot through which passes a pivot pin and in the other of which is formed a similar longitudinal slot, and a board or other support, detachably connected with said heads by means of an attachment connected with one end thereof, in which is formed a slot which operates in connection with said pivot pin, and an attachment connected with the other end, and which is adapted to enter the longitudinal slot in the head of the opposite standard, the attachment provided with the slot being revoluble in or on the end of the board or support, and said attachments being detachably connected with said board or support, substantially as shown and described.

No 52,101. Car Coupler. (Attelage de chars.)

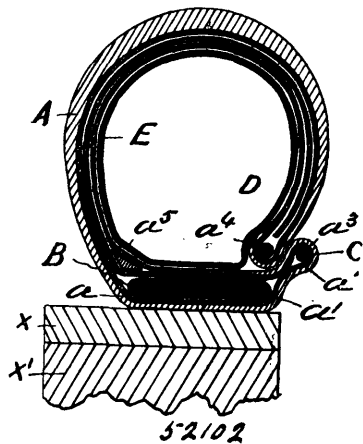


John Moss, Fall River, Massachusetts, U.S.A., 25th April, 1896; 6 years. (Filed 30th March, 1896.)

Claim.—1st. A car coupler, the combination of the draw-head carrying pivoted within a recess therein, a lever carrying a pin, means for raising the said lever, and a cam shaped member secured to the said lever and adapted to rest against the link, as the pin is raised and the link withdrawn, substantially as shown. 2nd. In a car coupler, the combination with the draw-head recess, the lever H pivoted to the inner walls thereof, a pin J pivoted to the bifurcated end of the said lever, a cam shaped member K secured to the side of the lever H, designed to bear against the upper face of the link, as the link is withdrawn, and a crank rod M, the crank portion of which is designed to be depressed against the lever H, to raise the said pin.

No. 52,102. Pneumatic Tire.

(Roue à bandage pneumatique.)

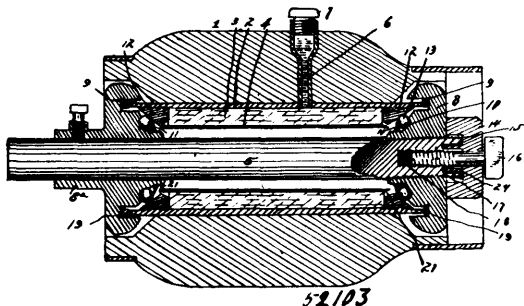


Thomas Rouse, The Mill House, Uppminster, Essex, England, 25th April, 1896; 6 years. (Filed 30th March, 1896.)

Claim.—1st. A pneumatic tire for application to existing vehicle wheels consisting essentially of an arch-shaped cover having a circumferential pocket in its one edge and a flat base attached to its other edge, of an expansible and contractible fixing band located in a circumferential pocket in the base of the cover, of a flexible circumferential lip on the free edge of the base of the cover having a circumferential pocket in its edge, of the two hoops or bands located in the pockets in the edges of the flexible lip and the cover respectively, one of the said hoops or bands being made expansible and contractible, and of an air tube provided with a valve for inflation and deflation, as set forth. 2nd. A pneumatic tire for application to existing vehicle wheels, consisting essentially of an arch-shaped cover having a pocket in each edge, of a flat base having a circumferential pocket and flexible circumferential lips on its edges, of an expansible and contractible fixing band located in the pocket of the base, of hoops or bands located in the pockets in the edges of the flexible lips of the base and in the edges of the cover respectively, one or more of the said hoops being made expansible and contractible, and of an air tube provided with a valve for inflation and defla-

tion, as set forth. 3rd. The combination with a wheel rim and a pneumatic tire cover encircling the same and having a circumferential pocket in one or both edges, of a base *a* having a circumferential pocket *a*¹ and a flexible lip *a*² on one or both edges in which is a pocket, of an expansible and contractible fixing band *B* located in the pocket *a*¹ in the base *a* of the tire cover, of hoops or bands *C* and *D* located in the pockets in the edges of the flexible lip and cover respectively, one of the said hoops or bands being made expansible and contractible, of an angle piece *a*⁵ of rubber or other suitable material located at the junction of the cover with the base, and of an air tube *E* provided with a valve for inflation and deflation, as set forth. 4th. In a vehicle wheel, the combination with the rim *X* and felloe *X*¹, of a pneumatic tire consisting essentially of a cover *A*, of a base *a*, of a fixing band *B*, of hoops or bands *C* and *D* located in pockets in the edges of the cover *A* and base *a*, and of an air tube *E* the whole mounted on the rim of the wheel out of centre therewith, so that the said rim stands proud of the side of the tire when it is inflated, as and for the purpose set forth.

No. 52,103. Wheel-Hub. (Moyeu de roue.)

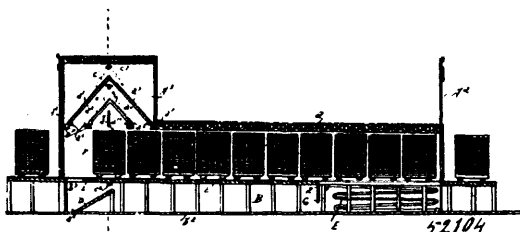


52103

Max Wysong, Maroa, Illinois, U.S.A., 25th April, 1896; 6 years. (Filed 30th March, 1896.)

Claim.—1st. A ball-bearing cone for the spindles of vehicles, having the inner end of its periphery screw-threaded and a groove for the balls, and a ball-retaining collar internally screw-tapped and screwed onto the inner end of the cone, substantially as set forth. 2nd. In a ball-bearing hub for vehicles, the combination of the spindle 5 bored in its end and threaded interiorly and exteriorly in reverse directions, a ball-bearing cone 8 adapted to be screwed onto said spindle and having a radial tongue, a cap adapted to fit over the end of the spindle and having a recess to receive said tongue on the cone, and a threaded bolt 16, adapted to screw into the end of the spindle and against the cap, substantially as set forth. 3rd. The combination, with a hub for vehicles, of an outer sleeve 2 threaded internally at its ends, an inner sleeve 4, bevelled bushings 12, screwed into the ends of the outer sleeve and partly surrounding the ends of the inner sleeve 4, forming with said sleeves an oil receptacle, an oil tube 6 passing through the hub and through the outer sleeve and having a closure, a wick 3 or other packing in the oil receptacle, said oil receptacle having oil passages, substantially as set forth. 4th. In a hub for vehicles, the combination with the hub 1, the internally threaded sleeve 2, the bushings 12 screwed into the sleeve, said sleeves having its ends projecting beyond the bushings, the cones inclosed within the hub and having annular recesses, as 9, to receive the ends of the sleeve, and washers 19 in the recesses between the ends of the sleeve and the inner walls of the recesses, substantially as set forth.

No. 52,104. Lumber Drier. (Sechoir à bois.)



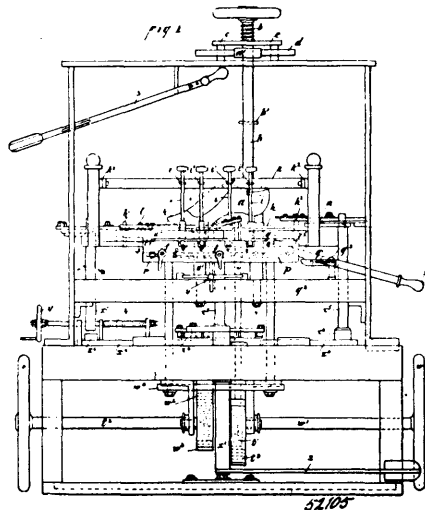
52104

George E. Hoag, Tell City, Indiana, U.S.A., 25th April, 1896; 6 years. (Filed 30th March, 1896.)

Claim.—In a lumber drying-kiln, the combination of the lumber-chamber, the condensing-chamber above its receiving end and having within it the condensing roofs one above the other, the spray pipes perforated upon their top sides and arranged above the apex of said roofs, the semi-circular deflectors arranged above the pipes to deflect the spray upon the roofs, the gutters underneath the lower edges of said roof to convey the water to the outside of the

condensing-chamber, the heating-chamber open on the top at front and rear, the condensing-plate *D* in the front of said chamber, and the heating-pipes in the rear thereof, and the spray-pipe above the said condensing-plate, substantially as shown and described.

No. 52,105. Machine for Lasting Boots, Shoes and Slippers. (Machine à enformer les chaussures.)



52105

Elisha Hanshaw, London, England, 25th April, 1896; 6 years. (Filed 30th March, 1896.)

Claim.—1st. The improvements in machines for lasting boots, shoes and slippers as herein described and illustrated in the drawings. 2nd. In machines for lasting boots, shoes and slippers, the last arranged in an upright position (sole downwards), in combination with pincers for drawing the upper down over the last and drafting the boot, shoe or slipper, crimpers for thrusting the upper over the insole all constructed and operating substantially as and for the purposes hereinbefore set forth. 3rd. In machines for lasting boots, shoes and slippers, the pincers for drawing the upper down over the last and drafting the shoe, constructed, arranged and operating substantially as hereinbefore described and shown. 4th. In machines for lasting boots, shoes and slippers, the toe and heel crimpers constructed arranged and operating substantially as hereinbefore described. 5th. In machines for lasting boots, shoes and slippers, the device for simultaneously driving in any desired number of tacks for tacking the upper to the inner sole substantially as shown in and described with reference to figs. 5 and 10. 6th. In machines for lasting boots, shoes and slippers, the heel slide or draft pincer constructed, arranged and operating substantially as hereinbefore described and shown particularly in Fig. 11 of the accompanying drawing. 7th. In machines for lasting boots, shoes and slippers, the waist or shank plate attachable and detachable to either of the side crimpers for use upon either right or left boots or shoes, substantially as hereinbefore set forth and shown. 8th. In machines for lasting boots, shoes and slippers, the ball jamb or brake, in combination with the pincers and crimpers hereinbefore described, substantially as set forth and shown. 9th. In machines for lasting boots, shoes and slippers, device hereinbefore described for adjusting the crimper to different lengths of lasts, substantially as shown in Figs. 1, 2 and 14. 10th. In machines for lasting boots, shoes and slippers the adjustable toe pincer, substantially as shown and described. 11th. In machines for lasting boots, shoes and slippers, the adjustable last pin *b*, substantially as described to suit the bore of any last. 12th. In machines for lasting boots, shoes and slippers, table *q*³, as shown and for the purposes hereinbefore described. 13th. In machines for lasting boots, shoes and slippers, the pincers-carrying frame and its raising and lowering mechanism, substantially as shown and described. 14th. In machines for lasting boots, shoes and slippers, the guide plates *u*², substantially as and for the purpose hereinbefore described. 15th. In machines for lasting boots, shoes and slippers, the opening and closing of the pincers by toothed quadrants *h*, levers *i*, and bars *k*, arranged and operating substantially as hereinbefore described and shown. 16th. In machines for lasting boots, shoes and slippers, mechanism for simultaneously actuating the toe and heel and side crimpers, substantially as shown and described.

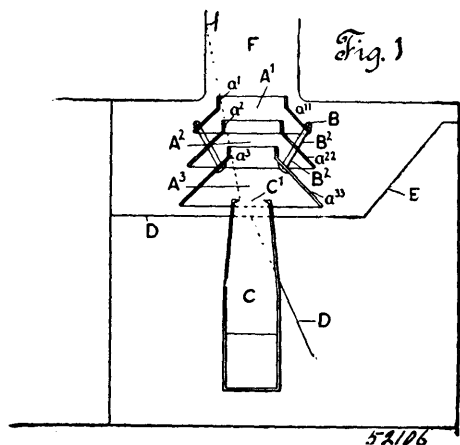
No. 52,106. Smoke-Box Draught Apparatus.

(Appareil de tirage de boîte à fumée.)

Alexander King Kirkpatrick, Robert Preston and George Spencer, all of Smith's Falls, Ontario, Canada, 27th April, 1896; 6 years. (Filed 12th June, 1895.)

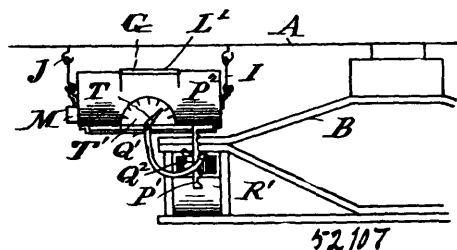
Claim.—1st. The smoke-box apparatus as above described and set forth. 2nd. In a smoke-box draught apparatus, the combination of a series of flounced petticoat pipes, which increase in the diameter, of their apertures gradually upwards, and an enlarged exhaust

ing action to the material under treatment which is kept in agitation, substantially as described. 3rd. In apparatus for treating gold or silver ores or gold and silver ores and the like, the employment of



nozzle. 3rd. In a smoke-box draught apparatus, the combination of a series of flounced petticoat pipes, separators, stays, supports, bolts and nuts, as described. 4th. A smoke-box draught apparatus, consisting of a series of flounced petticoat pipes adjusted between the exhaust steam outlet and the smoke-stack. 5th. A smoke-box draught apparatus consisting of three flounced petticoat pipes adjusted between the exhaust nozzle and the smoke-stack, in which the pipe apertures increase in diameter upwards, while the flounces increase in length and bottom diameter downwards.

No. 52,107. Cooling Device for Car Journals.
(*Refrigerateur pour boîtes à graisse de chars.*)



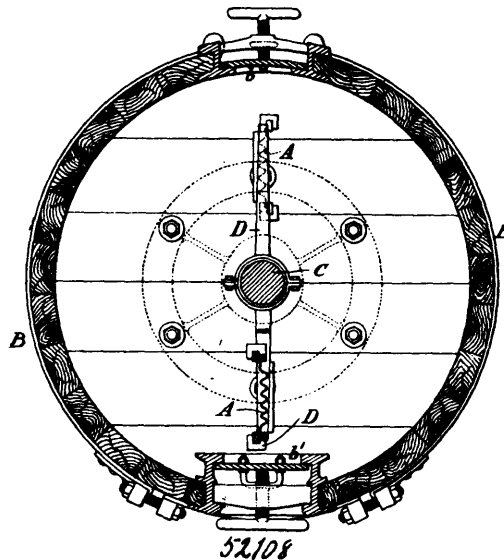
The Cook Cooler Co., assignee of Miles P. Cook, all of Flin, Michigan, U.S.A., 27th April, 1896; 6 years. (Filed 30th December, 1895.)

Claim.—1st. The combination with a car axle and its box, of a detachable liquid-holding receptacle adjacent thereto, a valve controlled flexible discharge pipe leading from the receptacle, a longitudinally adjustable support, a rigid nozzle on the pipe having its end projecting into the box, a connection between the box and nozzle, and a vertically adjustable connection between the support and nozzle, substantially as described. 2nd. The combination of the tank, the links for suspending it detachably to the under side of a car adjacent to any journal box, a flexible discharge pipe therefrom, a hanger adjustable longitudinally on the tank, a nozzle on the discharge pipe vertically adjustable supported on the hanger and a clamp on the box supporting the nozzle thereon in proper relation to the journal, substantially as described.

No. 52,108. Process of and Apparatus for Extracting Gold and Silver from Ores. (*Procédé et appareil pour extraire l'or et l'argent des minerais.*)

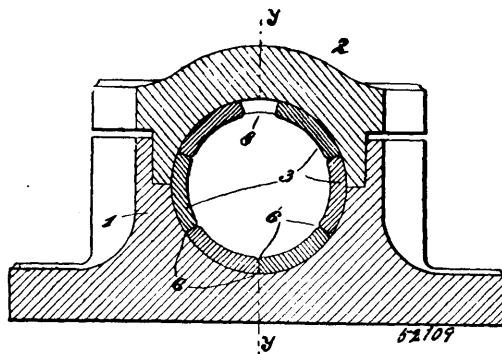
The Cassel Gold Extracting Company, Glasgow, assignee of John Stewart Mac Arthur, Pollokshields, and John Yates, Glasgow, all in Scotland, 27th April, 1896; 6 years. (Filed 26th August, 1895.)

Claim.—1st. The improved process for extracting gold or silver or gold and silver from ores and the like consisting in submitting such ores or like compounds in a powdered condition to the combined action of one or more amalgamated plates and of a solution containing a cyanide in a vessel provided with the means set forth for producing agitation, substantially as described. 2nd. The apparatus for treating gold or silver ores or gold and silver ores and the like in the manner set forth, consisting of a vessel having one or more amalgamated plates mounted therein so that they offer a resisting-yield-



corrugated or indented amalgamated plates, which are mounted so that they offer a resisting-yielding action to the material under treatment which is kept in agitation, substantially as described.

No. 52,109. Bearing and Bearing Surfaces.
(*Coussinet.*)

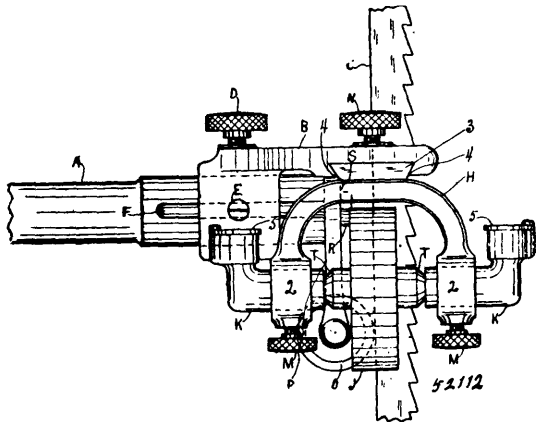


John William Sheard and John Done, both of Blackpool, Lancaster, England, 27th April, 1896; 6 years. (Filed 27th, March, 1896.)

Claim.—1st. A bearing or bearing surface comprising an annular row of segmental metallic strips, and a carrier wherein the said strips are held endways in place but so as to be free to rotate about the axis of the shaft or other body against which they bear, substantially as herein described. 2nd. A bearing or wheel boss lined with segmental strips held endways in place and free to be rotated about the axis of the bearing or wheel boss by frictional contact with the shaft or other body against which they bear substantially as described. 3rd. A bearing or pulley boss loosely lined with segmental metallic strips held in place endways but free to rotate in said bearing or wheel boss, and one or more rings or bands surrounding the segmental lining substantially as described for the purpose specified. 4th. A bearing or pulley boss provided with a lining composed of loosely fitting metallic strips having longitudinal recesses formed by and between their adjacent sides and each or some of which is or are perforated for passage of oil, substantially as described. 5th. A pedestal or pulley boss recessed internally so as to form rims or shoulders 4, 4^a, segmental metallic strips 3 arranged to form a partial lining that is provided with longitudinal and transverse oil grooves and passages is held in place endways by said rims or shoulders, and is free to rotate in said pedestal or pulley boss, and one or more metal bands 5 encircling said strips, substantially as described for the purposes specified.

shown and described. 4th. The combination with the vertical flexible tubes of a dust collector, of a frame work, a series of rods carried thereby and adapted to rub against the flexible tubes, a power driven shaft, and cords connecting the frame work with the shaft and adapted to be wound upon the latter thereby raising the frame work and its rods, substantially as shown and described. 5th. The combination with the vertical flexible tubes of a dust collector, a frame work, a series of rods carried thereby and adapted to rub against the flexible tubes, and a rotating shaft and intermediate connections for raising the frame work and its rods, of a tripping mechanism for automatically stopping the rotation of the shaft when the frame work reaches its uppermost position, substantially as shown and described. 6th. The combination with the vertical flexible tubes of a dust collector, a frame work, a series of rods carried thereby and adapted to rub against the flexible tubes, a rotating shaft and intermediate connections for raising the frame work and its rods from the shaft, and a clutch mechanism on said shaft for throwing it into or out of connection with the power mechanism, of a lever for operating the clutch mechanism, an arm in the path of the frame work as it reaches its uppermost position, and an intermediate connection between the lever and arm whereby the movement of the arm by the frame work will rock the lever and disengage the clutch mechanism, substantially as shown and described. 7th. The combination of a vertically movable frame-work carrying rods for cleaning the flexible tubes of a dust collector, a rotating shaft and intermediate connections between it and the frame work for raising the latter, a clutch mechanism, a trip, for automatically operating said lever to disengage the clutch when the frame work reaches its uppermost position, and springs engaging the lever to retain it in its tripped position, substantially as shown and described. 8th. A device for removing dust from the flexible tubes of a dust collector, consisting of a framework formed of two sections, links hinging the two sections together, a series of rods carried by said sections and adapted to rub against the flexible tubes, and a stop on one of said sections adapted to engage the other section and limit the approach of one section to the other, substantially for the purpose described.

No. 52,112. Band Saw Guide. (*Garde pour scies à ruban.*)



William McBeth, Hamilton, Ontario, Canada, 27th April, 1896; 6 years. (Filed 2nd April, 1896.)

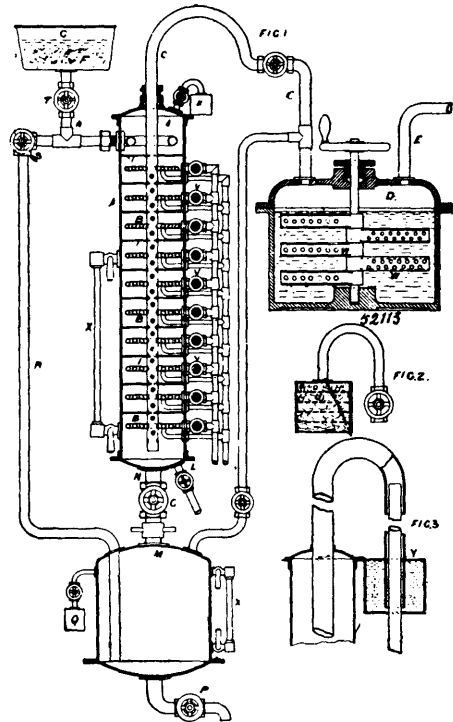
Claim.—1st. In a band saw guide, the combination of the adjustable side wheels, supported by the curved arms H, having upper bevelled slides 3, to fit and slide in the jaws of framework B, for adjustment, and secured by set screws N, and capable of horizontal adjustment on arm A, having slot F, the pin E, and the set screw D, substantially as described and set forth. 2nd. The horizontal arm A, of a band saw machine in combination with the ram pressure wheel O, suspended from said arm by means of fork connection P, having central screw R, and steadying pin S, substantially as described and set forth. 3rd. In a band saw guide the adjustable side wheels, supported by the curved arms H, having upper slides, for side adjustment in frame B, with set screws N, and capable of horizontal adjustment on arm A, by slot F, and pin E, and set screw D, in combination with the rear wheel O, in fork connection secured to said arm A, by screw R, and pin S, substantially as described and set forth.

No. 52,113. Process of Concentrating Liquids. (*Système de concentrer les liquides.*)

Sydney Donville Rowland, Taynbee Hall, Whitechapel, London, England, 27th April, 1896; 18 years. (Filed 12th September, 1895.)

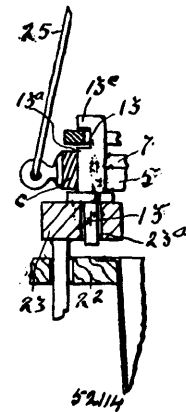
Claim.—1st. In combination, the chamber A, the vacuum pipe leading therefrom, the means for heating the chamber, the chamber M, the valved connection between the same and the chamber A, through which the contents of the chamber A, may be discharged into the chamber M, the air valve controlling the air supply in the

chamber M, the return pipe R, from the chamber M, to the chamber A, the valve therein and the valved vacuum pipe leading from the chamber M, said vacuum pipe being independent of the return pipe R, substantially as described. 2nd. The herein described process of



concentrating liquids consisting in first mechanically separating the constituents of the liquid, the concentrating one of the separated portions and finally remixing the concentrated portion with the portion first separated.

No. 52,114. Chocolate Coating Apparatus. (*Appareil à enduire le chocolat.*)



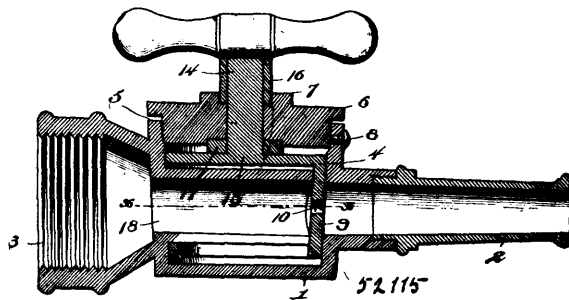
Charles Theodore Viau, Montreal, Quebec, Canada, 27th April, 1896; 6 years. (Filed 9th November, 1895.)

Claim.—1st. In a dipping frame, a series of supports carried thereby and projecting towards each other, for supporting articles to be dipped, each support being formed of a separate piece of wire having its free end rounded, for the purpose set forth. 2nd. In a dipping frame, a series of supports carried thereby and projecting towards each other for supporting articles to be dipped, each support being formed of a separate piece of curved wire set with its convex side uppermost and having its free end rounded, for the purpose set forth. 3rd. In a dipping frame, a series of supports carried thereby and projecting towards each other, for supporting articles to be dipped, each support being formed of a separate piece of curved wire set with its convex side uppermost and having its free end rounded and means for retaining such articles against displacement, for the purpose set forth. 4th. In a coating apparatus, a dipping frame for the articles to be coated formed of a frame, having a number of holders, each composed of a number of supports carried by

such frame and extending partially across openings therein and having their ends rounded, a cover, the body portion of which is formed with bars adapted when placed upon such dipping frame, to coincide with the centres of the holders thereof, and means for retaining such cover upon such dipping frame, for the purpose set forth. 5th. In combination with the dipping frame of a coating apparatus, holders for the articles to be coated, composed of a series of supports formed in pairs, each pair of a separate piece of wire and carried by such frame, for the purpose set forth. 6th. In combination with the dipping frame of a coating apparatus, such dipping frame being formed of a rectangular frame having longitudinal and transverse bars disposed to provide sub-divisions or open spaces, of a series of supports, each formed of a separate piece of wire and carried by the longitudinal and transverse bars of such frame, to project into said sheets and form holders, for the purpose set forth. 7th. In combination with the dipping frame of a coating apparatus, holders for the articles to be coated composed of a series of supports formed in pairs, each pair of a separate piece of curved wire and carried by such frame, for the purpose set forth. 8th. In combination with the dipping frame of a coating apparatus, holders for the articles to be coated, composed of a series of supports formed in pairs, each pair of a separate piece of curved wire having its ends bent toward each other and such supports being carried, with their convex sides uppermost by such frame, for the purpose set forth. 9th. In combination with the dipping frame of a coating apparatus, such dipping frame being formed of a rectangular frame having longitudinal and transverse bars, holders for the articles to be coated composed of a series of supports, formed in pairs, each pair of a separate piece of wire and carried by the longitudinal and transverse bars of such frame, for the purpose set forth. 10th. In combination with the dipping frame of a coating apparatus, such dipping frame being formed of a rectangular frame having longitudinal and transverse bars disposed to provide subdivisions or open spaces throughout the frame, a series of supports formed in pairs, each pair of a separate piece of curved wire having its ends bent toward each other and such supports being carried by the longitudinal and transverse bars of such frame, so that one support of a pair will project on one side of a bar into one space and the other support of such pair, into another space, for the purpose set forth. 11th. In a chocolate coating apparatus, a dipping frame having holders for the cream drop to be coated formed of a number of minute supports with rounded ends projecting toward each other and adapted to engage the sides of the drop at different points, for the purpose set forth. 12th. In coating apparatus, a dipping frame provided with holders to receive the articles to be coated, a cover for such dipping frame, means for detachably connecting the corners of said cover and dipping frame, for the purpose set forth. 13th. In coating apparatus, a dipping frame provided with corner posts and holders to receive the articles to be coated, a cover for such dipping frame, adapted to receive such corner posts and means for detachably connecting said cover to said corner posts, for the purpose set forth. 14th. In coating apparatus, a dipping frame adapted to receive and support the articles to be coated, and provided with posts at the corners thereof, two of which posts are recessed to receive one end of a cover, the other two posts being each provided with a shoulder to receive the other end of such cover thereon, and means carried by said last-mentioned posts for detachably retaining such cover against displacement, for the purpose set forth. 15th. In coating apparatus, a dipping frame, adapted to receive and support the articles to be coated, and provided with posts at the corners thereof, two of which posts are recessed to receive one end of a cover, the other two posts being each provided with a shoulder to receive the other end of such cover thereon, and a spring-operated latch carried by each of said last-mentioned posts, for detachably retaining such cover against displacement, for the purpose set forth. 16th. In coating apparatus, a rectangular dipping frame adapted to receive and support the articles to be coated, and provided with posts at the corners thereof, two of which posts are recessed to receive one end of a cover, the other two posts being each provided with a shoulder to receive the other end of such cover thereon, a bracket piece carried by the end frame bar of said dipping frame in close proximity to each of such last-mentioned posts, a bolt carried between each bracket piece and the side frame bar adjacent thereof of the dipping frame, a latch pivoted upon each of said bolts and provided with a shoulder adapted to engage the end of the cover, and a coiled spring carried by said bolt, having one end bearing against the end frame bar of the dipping frame and its other end bearing against said latch to keep the same normally in a position to engage the end of said cover, for the purpose set forth. 17th. In coating apparatus, a dipping frame having a number of holders each composed of a number of supports carried by such frame and extending partially across openings therein and having their ends rounded, adapted to receive and support the articles to be coated, and such frame being provided with posts at the corners thereof, two of which posts are recessed to receive one end of a cover, the other two posts being each provided with a shoulder to receive the other end of such cover thereon, and means, carried by said last-mentioned posts, for detachably retaining such cover against displacement, for the purpose set forth. 18th. In coating apparatus, a dipping frame, having a number of holders each composed of a number of supports carried by such frame and extending partially therein and having their ends rounded, adapted to receive and support the articles to be coated, and such frame being

provided with a shoulder to receive the other end of such cover thereon and a spring-operated latch carried by each of said last mentioned posts, for detachably retaining such cover against displacement, for the purpose set forth. 19th. In coating apparatus, a rectangular dipping frame having a number of holders each composed of a number of supports carried by such frame and extending partially across openings thereon and having their ends rounded, adapted to receive and support the articles to be coated, and such frame being provided with posts at the corners thereof, two of which posts are recessed to receive one end of a cover, the other two posts being each provided with a shoulder to receive the other end of such cover thereon, a bracket piece carried by the end frame bar of said dipping frame in close proximity to each of such last mentioned posts, a bolt carried between each bracket piece and the side frame bar adjacent thereto of the dipping frame, a latch pivoted upon each of said bolts and provided with a shoulder adapted to engage the end of the cover, and a coiled spring carried by said bolt, having one end bearing against the end frame bar of the dipping frame and its other end bearing against said latch to keep same normally in a position to engage the end of said cover, for the purpose set forth. 20th. In coating apparatus, a rectangular dipping frame having longitudinal and transverse bars disposed to provide subdivisions or holders throughout the frame, a series of supports formed in pairs, each pair of a separate piece of curved wire having its ends bent toward each other and such support being carried by the longitudinal and transverse bars of such frame, so that one support of a pair will project on one side of a bar into one space, and the other support of such pair into another space, and such frame being provided with posts coated at the corners thereof and having their lower ends extending below such dipping frame, two of such posts are recessed to receive one end of a cover, the body portion of which is formed with bars adapted when placed upon such dipping frame, to coincide with the centres of the holders thereof, the other two posts being each provided with a shoulder to receive the other end of such cover thereon, a bracket piece carried by the end frame bar of said dipping frame in close proximity to each of such last mentioned posts, a bolt carried between each bracket piece and the side frame bar adjacent thereto of the dipping frame, a latch pivoted upon each of said bolts and provided with a shoulder adapted to engage the end of the cover, and a coiled spring carried by said bolt, having one end bearing against the end frame bar of the dipping frame and its other end bearing against said latch to keep same normally in a position to engage the end of said cover, for the purpose set forth.

No. 52,115. Hose Nozzle. (Lance de boyau.)

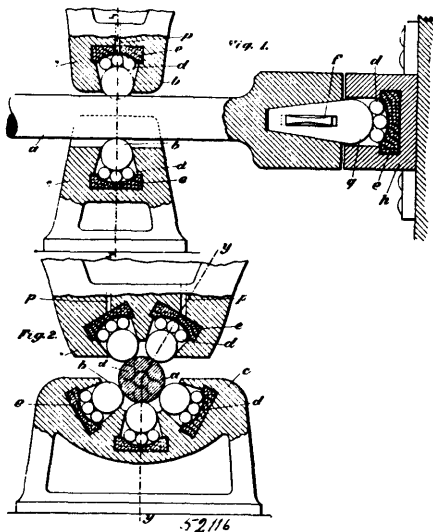


Felix Louis Decarie, Montreal, Quebec, Canada, 27th April, 1896; 6 years. (Filed 12th March, 1896.)

Claim.—1st. The combination with a valve casing, of a regulating plug operating therein, and a cap having a screw-thread connection with the valve casing and adapted to bear upon the regulating plug and secure it in the located position, substantially as set forth. 2nd. The combination with a valve casing having a nozzle, of a regulating plug operating in the valve casing and having a series of discharge openings of varying size, and a cap having a screw-thread connection with the valve casing and adapted to crowd the regulating plug so as to secure it in the located position, substantially as set forth. 3rd. The combination with a valve casing open at one end of a cap closing the open end of the valve casing and having a screw-thread connection therewith, and a regulating valve operating in the casing and provided with a series of discharge openings of varying size, and having an operating stem working loosely through the said cap, the parts being arranged so that a movement of the cap will effect a movement of the regulating valve to tighten or loosen the latter, substantially as described. 4th. In combination, a valve casing having a nozzle and open at one end, a cap closing the open end of the casing and having a screw-thread connection therewith, a stem operating through the cap, and a valve located in the valve casing and having a series of discharge openings of varying size and adapted to be turned by the aforesaid stem, the parts being arranged whereby a screwing in of the said cap will tighten the valve and hold it in the desired position, and an unscrewing of the said cap will effect a loosening of the valve, substantially as set forth. 5th. In combination, a valve casing open at one end, a cap closing the open end of the casing and having a screw-thread connection there-

with, and formed with a central boss and opening, a valve located in the casing and having a series of discharge openings of varying size, and an operating stem for actuating the valve, passing through the opening in the cap and adapted to be moved outward when backing the said cap to effect a loosening of the valve and to move inward with the said cap when jamming the valve to secure it in the adjusted position, substantially as set forth. 6th. In combination, a valve casing open at one end and having a nozzle, a cap for closing the open end of the casing and having a screw-thread connection therewith, and formed with a central opening and boss, the latter adapted to receive a wrench or tool for the purpose described, a binding screw for securing the cap in the located position, a valve operating in the casing and provided with a series of discharge openings of varying size, an operating stem passing through the said cap and having connection with the valve, and a tube secured upon the projecting portion of the operating stem to receive the outward thrust when backing the aforesaid cap, substantially as set forth. 7th. The combination, with a valve casing having an inwardly extending tube, of a hollow valve operating in the valve casing and receiving the said tube, and having a series of discharge openings to be brought in register with the bore of the said tube, substantially as set forth. 8th. The combination, with a valve casing having a discharge nozzle and an inner tube in line with the said discharge nozzle, of a hollow valve operating in the valve casing and receiving the said inner tube, and having a wall operating between the adjacent ends of the nozzle and the said inner tube, said wall being formed with a series of discharge openings of varying size, any one of which is adapted to be brought in register with the nozzle and inner tube, substantially as set forth. 9th. The combination with a valve casing, having a nozzle and an inner tube, and formed with an open end, of a hollow valve operating in the valve casing and receiving the said inner tube thereof, and having a series of discharge openings of varying size, an operating stem to turn the valve for bringing any one of the series of openings in register with the nozzle and inner tube, and a cap for closing the open end of the valve casing and having a screw-thread connection therewith, and constructed to move the aforesaid valve positively in either an outward or inward direction, substantially as and for the purpose set forth. 10th. The combination with a valve casing, having a nozzle, of a valve operating within the valve casing and having a series of discharge openings, and having a sprayer located in one of the discharge openings, substantially as and for the purpose set forth.

No. 52,116. Contrivance for the Reduction of Friction in Rotatory or Gliding Bodies. (*Appareil pour reduire la friction.*)

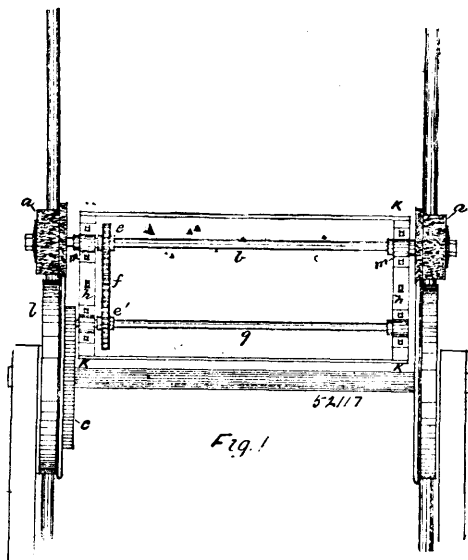


Bruno Wesselmann, Göttinger, Prussia, Germany, 27th April, 1896; 6 years. (Filed 9th November, 1895.)

Claim.—1st. In a device of the character described, a cap having an aperture, a concave plate inlaid in the walls of said aperture, a ball adapted to be partially contained within the aperture, a number of balls between said ball and plate and an oil hole extending through the cap and the plate, as and for the purpose described. 2nd. In a device of the character described, a hollow cap having an aperture in its end, a ball lying in said aperture, a number of balls resting on said ball, a concave plate pressed against said balls, a bed in the cap in which said plate is adapted to ride on a spiral spring fitting in a hollowed out portion in the top of said plate, and a backing having an aperture in its end fitting over the spring and said backing adapted to be inclosed by the hollow cap, as and for the purpose described.

No. 52,117. Appliance for Cleaning Car Tracks.

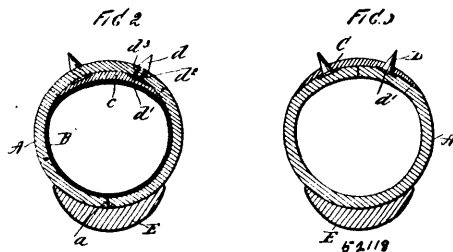
(*Appareil pour nettoyer les rails de chars.*)



Samuel Irwin and Albert Shepherd Geiger, both of Waterloo, Ontario, Canada, 27th April, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. A car track cleaner consisting of revolving brushes resting on the rails in front of the car and revolved by the motion of the car-wheel, such brushes being operated or released by the lowering or raising of such brushes, substantially as hereinbefore set forth. 2nd. The combination of the revolving brushes *a, a*, the shaft *b*, the sprocket-wheels *c* and *c'*, the chain *f*, the shaft *g*, the pinion *d*, the gear *e*, the car-wheel *b*, and the frame *k*, substantially as hereinbefore set forth.

No. 52,118. Bicycle Tire. (*Bandage de bicycles.*)

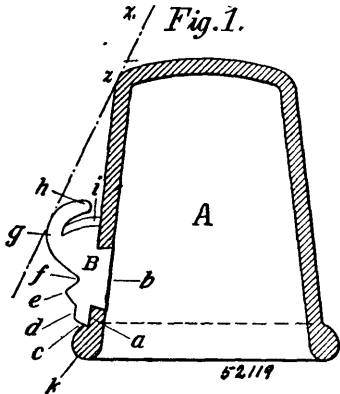


Andrew Graff, Brooklyn, New York, U.S.A., 27th April, 1896; 6 years. (Filed 13 January, 1896.)

Claim.—1st. A tubular pneumatic tire, for bicycles or other vehicles, comprising a flexible tube to the outer portion of which is secured an annular reinforcing strip which extends part way around said tubular tire, said tire being also provided with brads or prongs which project from the outer bearing surfaces thereof, substantially as shown and described. 2nd. A tubular pneumatic tire for bicycles and other vehicles, comprising a flexible tube to the outer portion of which is secured an annular reinforcing strip which extends part way around said tubular tire, said tire being also provided with brads or prongs, which project from the outer bearing surfaces thereof, said reinforcing strip being placed within the tubular tire and said brads or prongs being provided with heads and passing outwardly through said tire, substantially as shown and described. 3rd. A tubular pneumatic tire for bicycles or other vehicles, comprising a flexible tube to the outer portion of which is secured an annular reinforcing strip which extends part way around said tubular tire, said tire being also provided with brads or prongs, which project from the outer bearing surfaces thereof, said reinforcing strip being placed within the tubular tire, and said brads or prongs being provided with heads and passing outwardly through said tire, and being also held in place by said reinforcing strip, substantially as shown and described. 4th. A tubular pneumatic tire for bicycles or other vehicles, comprising a flexible tube to the outer portion of which is secured an annular reinforcing strip which extends part way around said tubular tire, said tire being also provided with brads or prongs, which project from the outer bearing surface thereof, said reinforcing strip being placed within the tubular tire,

and said brads or prongs being provided with heads passing outwardly through said tire, and being also held in place by said reinforcing strip, and an inner flexible tube placed within the tubular tire and within said reinforcing strip, substantially as shown and described.

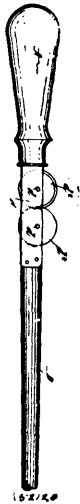
No. 52,119. Thimble Thread Cutter.
(*Coupe fil et dé combinés.*)



Margaret Jane Amsden, Watertown, New York, U.S.A., 27th April, 1896; 6 years. (Filed 22nd January, 1896.)

Claim.—The combination with the thimble A of the herein described thread cutting attachment B therefor, said attachment to be used on sewing thimbles and for the purpose hereinbefore set forth.

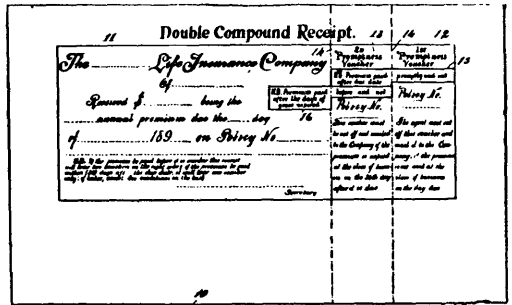
No. 52,120. Knife Sharpener. (*Aiguiseur de couteau.*)



Henry Landgraf, New York, State of New York, U.S.A., 27th April, 1896; 6 years. (Filed 13th March, 1896.)

Claim.—1st. The herein described knife sharpener, comprising a handle, and a steel as B, said steel being connected with said handle by parallel jaws, in which are mounted two shafts, each shaft being provided with a plurality of discs, substantially as shown and described. 2nd. The herein described knife sharpener, comprising a handle, and a steel as B, said steel being connected with said handle by parallel jaws, in which are mounted two shafts, each shaft being provided with a plurality of discs, and the discs on each shaft being bevelled so as to form cutting edges the discs on one shaft being all bevelled on the same side, and those on the other shaft being bevelled on the opposite side, substantially as shown and described. 3rd. The herein described knife sharpener, comprising a handle, and a steel as B, said steel being connected with said handle by parallel jaws, in which are mounted two shafts, each shaft being provided with a plurality of discs, and the discs on each shaft being bevelled so as to form cutting edges, the discs on one shaft being all bevelled on the same side, and those on the other shaft being bevelled on the opposite side and the discs being so located, that the cutting edges thereof, slightly overlap and the jaws between which the discs are pivoted being provided with notches or recesses, at the points where the edges of the discs meet, substantially as shown and described.

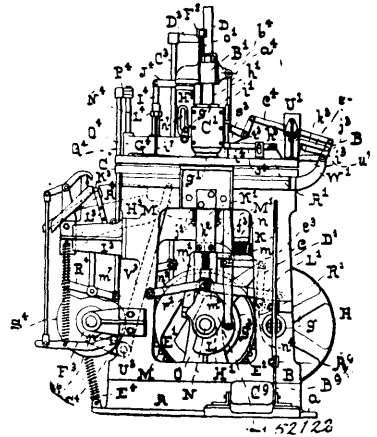
No. 52,121. Receipt. (*Reçu.*)



David Parks Fackler, New York, State of New York, U.S.A., 27th April, 1896; 6 years. (Filed 11th December, 1895.)

Claim.—An instrument of the kind described, complete in itself and adapted for use without separation, but having separable parts and a bi-sectional phrase extending across the lines of separation, the structure of the phrase being such as to radically change the tenor or meaning of the instrument when the latter is severed.

No. 52,122. Machine for Making Cigarettes.
(*Machine à cigarettes*)



Jacob Stole Detrick, Baltimore, Maryland, U.S.A., 28th April, 1896; 6 years. (Filed 5th March, 1896.)

Claim.—1st. In a machine for making all-tobacco cigarettes, the combination of a wrapper pocket having a perforated bottom, a die situated over the wrapper pocket, a punch adapted to enter the die, a plunger plate arranged to have a reciprocating movement within the punch, stems which pass through the perforations in the pocket bottom and serve to support the cut wrapper, and means to effect the operation of the punch and plunger plate separately, and other means to cause the stems to co-operate with the plunger plate so as to clamp the cut wrapper and carry it down in an extended condition to the perforated pocket bottom, substantially as specified. 2nd. In a machine for making all-tobacco cigarettes, the combination of a wrapper pocket having a perforated bottom, a die situated over the pocket, a punch adapted to enter the die, a plunger plate arranged to have a reciprocating movement within the punch, stems which pass through the perforations in the pocket bottom and serve to support the cut wrapper, mechanism the operation of the punch and plunger plate and the co-operation of the stems with the plunger plate to clamp the wrapper and convey it in an extended condition to the bottom of the wrapper pocket, and means to move the pocket inclosing the wrapper away, or from under the punch and die, substantially as specified. 3rd. In a machine for making all-tobacco cigarettes, the combination with a wrapper pocket having a perforated bottom, and a punch and die situated over the pocket, a plunger plate adapted to rest within the punch and means to carry it downward from and out of the punch, a series of stems which penetrate the perforated pocket bottom, and mechanism to bring the upper ends of the stems up to the plunger plate and then effect their movement in common with the plunger plate until the wrapper situated between them is deposited upon the pocket bottom, substantially as specified. 4th. In a machine for making all-tobacco cigarettes, a wrapper pocket having a slotted bottom and means for opening the bottom, combined with a wrapper-carrying plunger plate situated above the pocket, mechanism to effect a reciprocating motion of the plunger plate, a series of stems which penetrate the pocket bottom through the slots, and devices to effect a reciprocating motion of the

stems, substantially as specified. 5th. In a machine for making all-tobacco cigarettes, the combination of a rolling-up table having openings therein, and an apron with openings therein which register with those in the table, a presser plate to push a cigarette wrapper down to the apron with means to effect a vertical reciprocating movement of the presser plate, and a series of rods with devices to bring their upper ends into contact with the underside of the wrapper, and then carry them down with the presser plate and wrapper, until the wrapper is seated on the rolling-up apron, substantially as specified. 6th. In a machine for making all-tobacco cigarettes, the combination, with a table having a wrapper pocket provided with an opening bottom and means for opening it, of a rolling-up table and an apron having openings which register one with the other, a presser plate with means to push it down through the wrapper pocket as the bottom thereof is opened and thereby press the wrapper to the rolling-up apron, reciprocating rods which pass up through the openings in the said rolling-up table and apron, and mechanism to effect a common movement of the said rods and the presser plate, whereby the wrapper, while supported from above and below, is transferred from the pocket to the rolling-up apron, substantially as specified. 7th. In a machine for making all-tobacco cigarettes, the combination of an intermittently rotated table having a wrapper pocket with a perforated bottom, a die situated over the wrapper pocket, a punch with means to reciprocate it and thereby move its cutting edge into and out of the die, a plunger plate with devices to move it into and out of the punch, stems which pass through the perforations in the bottom of the pocket with means to operate them, the said stems being lowered by the said plunger plate, to seat the wrapper, and fingers with means to operate them to hold the wrapper to the bottom of the pocket as the plunger plate ascends and leaves the wrapper, and the table moves on, substantially as specified. 8th. In a machine for making all-tobacco cigarettes, the combination of a table having a wrapper pocket, a wrapper holder and shield of a width less than the wrapper, with means to bring them down onto the wrapper while the same is seated in the pocket, and a pasting brush with devices to revolve it and thereby apply paste to the exposed portion only of the wrapper, substantially as specified. 9th. In a machine for making all-tobacco cigarettes, the combination of a table having wrapper and filler pockets, a punch and die situated over the said table, devices to place a wrapper cut by the punch and die into a wrapper pocket, a filler-making device with means to deliver the filler into a filler pocket, a rolling-up table and apron, means to intermittently revolve the table, and mechanism to deposit the wrapper and filler into the apron of the rolling-up table, the said operations being performed successively, substantially as specified. 10th. In a machine for making all-tobacco cigarettes, a rolling up table and apron and means to operate the apron, combined with an intermittently rotated table arranged over the rolling-up table, having wrapper and filler pockets in pairs, devices to charge the said pockets respectively with wrappers and fillers, wrapper pasting apparatus, and mechanism to intermittently rotate the table and thereby bring the pockets in pairs, that is to say, a filler pocket and a wrapper pocket, successively over the said rolling-up table and discharge their contents to the apron thereof, substantially as specified. 11th. In a machine for making all-tobacco cigarettes, a rolling up table and apron and means to operate the apron, combined with a revolvable table arranged over the rolling-up table, having wrapper and filler pockets in pairs, devices to charge the said pockets respectively with wrappers and fillers, wrapper pasting apparatus, and mechanism to intermittently rotate the table and thereby bring the pockets in pairs, that is to say, a filler pocket and a wrapper pocket successively over the said rolling-up table and discharge their contents to the apron thereof, substantially as specified. 12th. In a machine for making all-tobacco cigarettes, a rolling-up table and apron and means to operate the apron, combined with a revolvable table arranged over the rolling-up table having pockets for fillers, and others for the wrappers so relatively placed as to admit of a filler and a wrapper pocket being brought simultaneously over the rolling up table, a punch and die in the circular path of the wrapper pockets to cut wrappers, and attendant devices to deposit the cut wrappers in the wrapper pockets a pasting apparatus, a filler feeding apparatus, a knife to cut from a continuous filler charges for the filler pockets, mechanism to intermittently move the table and thereby bring a wrapper and filler together over the rolling-up table and conduct the same to the apron thereof, substantially as specified. 13th. In a machine for making all-tobacco cigarettes, a revolvable table having wrapper and filler pockets in pairs arranged on common radial lines and at equal circumferential distances apart, wrapper and filler cutting devices on a diametrical line on opposite sides of the revolvable table, pasting and rolling-up apparatus on a diametrical line at right angle with the first diametrical line, mechanism to intermittently revolve the table, and bring each pair of pockets successively to the wrapper cutting devices, the pasting devices, the filler feeding devices, and rolling-up table, and mechanism to charge the said pockets and discharge them to the rolling-up table combined, substantially as specified. 14th. In a machine for making all-tobacco cigarettes, the combination of rolling-up mechanism, a revolvable table having pockets for wrappers, with mechanism to carry the said pockets over the rolling-up mechanism, a punch and die to cut wrappers, together with means to push the punched out wrappers to their pockets, and other means to support the wrappers in their passage to the said

pockets from the underside thereof until seated on the bottom of the pockets, substantially as specified. 15th. In a machine for making all-tobacco cigarettes, an intermittently rotated table having pockets adapted to receive charges of tobacco which ultimately become fillers, a feeding mechanism, a knife to shear off charges of filler, a plunger to press the charges in the pockets, a rolling-up table, and devices to drop the charges from their pockets onto the said table as the latter moves from the filler feeding mechanism and as the pockets come over the same, combined substantially as specified. 16th. In a machine for making all-tobacco cigarettes, a revolvable table having pockets for wrappers with opening bottoms, a punch and die to cut wrappers, and mechanism to convey the wrappers from the punch and die to their pockets, a rolling-up table and apron, mechanism to rotate the pocketed table and bring the pockets containing wrappers in succession over the rolling-up table, devices to open the bottoms of the pockets while the same are over the rolling-up table, and others to support the wrappers from the bottom after the opening of the bottom doors, and mechanism to push the supported wrappers to the rolling-up apron, combined substantially as specified. 17th. In a machine for making all-tobacco cigarettes, an intermittently rotated table having pockets for fillers with invertible bottoms, apparatus to charge the said pockets, a rolling-up table and apron, devices to rotate or turn the pocketed table and bring the charged pockets in succession over the rolling-up apron, and mechanism to invert the said bottoms and thereby drop the contained charges to the loop of the rolling-up apron, combined substantially as specified. 18th. In a machine for making all-tobacco cigarettes, the combination of rolling-up mechanism, an intermittently rotated table having pockets for wrappers with opening bottoms, devices to open the bottoms, mechanism to cut wrappers and insert them in a supported condition in the said pockets and onto the opening bottoms thereof, spring fingers with means to make them fall on and hold the wrappers on the said bottoms and thereby prevent their subsequent displacement as the table moves and until the said wrappers are carried down to the rolling-up apron, substantially as specified. 19th. In a machine for making all-tobacco cigarettes, a revolvable table having pockets for wrappers and devices to cut the wrappers and insert them in the pockets, a pasting device, mechanism to bring the charged pockets to the pasting device, a plate and means to bring it down onto each wrapper to hold it during the pasting operation and means for operating it, all combined substantially as specified. 20th. In a machine for making all-tobacco cigarettes, an intermittently rotated table having a pocket for wrappers and means to place a wrapper in the pocket, a paste receptacle, mechanism to bring the pocket with its contained wrapper to the paste receptacle, a shield adapted to cover only a portion of the wrapper, with devices to bring the shield down onto the wrapper, and mechanism to take paste from the receptacle and apply it to the shield and wrapper, combined substantially as specified. 21st. In a machine for making all-tobacco cigarettes, a rotating table having a wrapper pocket with a bottom in sections, means to place a wrapper in the pocket, a rolling-up table and apron, means to separate the sections of the pocket bottom and devices to carry the wrapper through the pocket to the rolling-up apron, combined substantially as specified. 22nd. In a machine for making all-tobacco cigarettes, a rotary table having pockets for wrapper, combined with a pasting device which consists of a paste box, a roller which is coated with paste from the box and rotary brush with means to intermittently rotate the brush and thereby take paste from the roller and transfer it to the edge of the wrapper in the pocket, substantially as specified. 23rd. In a machine for making all-tobacco cigarettes, a revolvable table having a wrapper pocket with an opening bottom, a rolling-up table and apron, means to bring the wrapper pocket with its contained wrapper over the rolling-up apron, means to open the pocket bottom, a plate with actuating devices to press the wrapper down through the wrapper pocket and onto the rolling-up apron, rods and means to bring them through openings in the pocket bottom and into contact with the wrapper, and devices to support the wrapper while in its downward movement and until it reaches, and is seated on the rolling-up apron, combined substantially as specified. 24th. In a machine for making all-tobacco cigarettes, the combination of a revolvable table having wrapper pockets with opening bottoms, a rolling-up table and apron, means to bring the wrappers over the rolling-up table and apron, a presser plate to push the wrappers down to the apron and means to operate it, a spring-held plate hinged to the presser plate, which remains on the wrapper after the presser plate is raised and which is drawn from under the rolling-up apron in the rolling-up operation, devices to co-operate with the presser plate to support the wrappers from the under side in their transfer from the wrapper pockets to the rolling-up apron, and mechanism to open the bottoms of the wrapper pockets to admit of the discharge of the wrappers therefrom, substantially as specified.

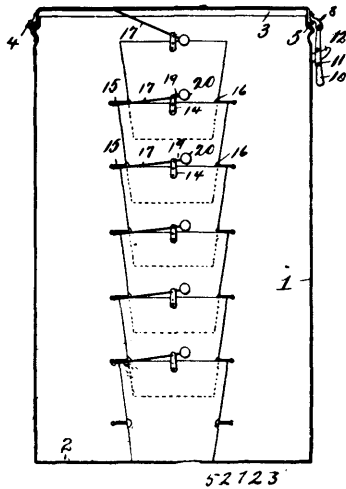
No. 52, 123. Bucket and Tank Fire Extinguisher.

(*Seau et citerne extincteur d'incendie.*)

Arthur G. Leonard, New York, State of New York, U.S.A., 28th April, 1896; 6 years. (Filed 5th March, 1896.)

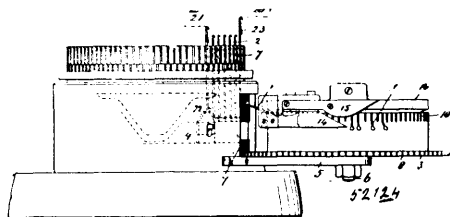
Claim.—1st. The combination of a containing tank, with a series of nested buckets or pails, each pail having an inflexible bail for withdrawing it, and means, common to each bail and entirely independent of its tank or fittings for causing the bail of the uppermost bucket to assume a perpendicular position and stand above the

bucket, and means exterior of the bucket for supporting one bucket within the other and restraining the vibration of the bail of the lowermost bucket, substantially as described. 2nd. The combination of the nested buckets with a pivoted bail for each bucket, the bail



having a weight beyond its fulcrum, bars extending outwardly from said buckets, the balls being of less height than the distance between their fulcral points and the ends of said bars, whereby said bars will arrest the upward movement of the bail secured to the bucket next below it, and support the bucket to which they are secured upon the one next below it, substantially as described. 3rd. The combination with a bucket and a tank, and another bucket having a weighted bail and bars extending from the narrowed outside part of the bucket so as to support said bucket within the first mentioned bucket, and leave a clearance between the surface of both buckets, substantially as described. 4th. A bucket for use in a device of the kind described, provided with the outwardly extending bars 15, having the annular flanges 16 secured to the bucket at a point where its diameter is less than its greatest, substantially as described. 5th. The combination with a tank, and a locking and compressing latch, a cover pivoted to the tank, one element of the latch being secured to the tank and the other to the cover, and an elastic element interposed between the top of the tank and the cover, and adapted to be compressed by said latch, substantially as described. 6th. The combination with the tank 1 and its hinged cover 3, of the latch 10, having an apertured plate 11, the latch being hinged to the cover, and a tongue 12 having an eccentrically curved under face adapted to engage the aperture in the plate 11 of the latch 10, to compress an elastic element interposed between the cover and tank, substantially as described.

No. 52,124. Circular Knitting Machine.
(Machine à tricoter circulaire.)

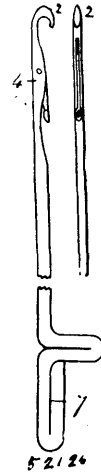


George Frederick Sturgess, Overdale, Leicester, England, 28th April, 1896; 6 years. (Filed 9th March, 1896.)

Claim.—1st. A knitting machine having a circle of pickers held in radial tricks of a circular bed by a disc cap and mounted to revolve on a spindle, substantially as and for the purposes set forth. 2nd. In a knitting machine, the combination of a circle of sliding knitting needles, a circle of pickers mounted to mesh with the circle of needles and means for actuating said pickers and needles, substantially as and for the purposes set forth. 3rd. In a knitting machine, a circle of needles of a given number and a circle of pickers of a different given number, each dividable into sections of a common number, the number of sections of pickers being different from the number of sections of needles, the circle of pickers mounted to mesh with the circle of needles and actuate said needles, and means for actuating the pickers, substantially as and for the purpose set forth. 4th. In combination, a circle of needles 2, and a circle of pickers 1, cylinder 7, gear-wheel 3, having picker tricks 10, and gear teeth 8, divided into divisions from one upwards mounted to gear with said cylinder on a spindle 6 or bracket 5, and means for actuating said pickers, substantially as and for the purposes set forth. 5th. In

combination, a circle of needles 2, cylinder 7, gear-wheel 3, spindle 6, bracket 5, carrying pickers 1, held in position in the radial tricks 10, by a flange 17 of a cap 16, and acted upon by an elevating cam 14, and depressing cam 15, substantially as and for the purposes set forth. 6th. In combination, a circle of needles, cylinder 7, gear-wheel 3, spindle 6, bracket 5, pickers 1, flange 17, cap 16 having a gate 19, elevating cam 14 and depressing cam 15, working in conjunction, the pickers shifting the needles from one level to another by the action of said cams and wheel, substantially as and for the purposes set forth. 7th. In a knitting machine, the combination of the tricked and toothed wheel 3, spindle 6, bracket 5, pickers 1, flange 17, cap 16, elevating cam 14, and depressing cam 15, substantially as and for the purposes set forth. 8th. A hardened steel wire picker 1, having flattened sides 13, and battered out crosswise to a fan end 12, all in one piece, substantially as and for the purposes set forth. 9th. A hardened steel wire picker 1, having flattened sides 13, semi-circle cramp 11, battered out crosswise to a fan end 12, all in one piece substantially as and for the purposes set forth.

No. 52,125. Knitting Machine Needle.
(Aiguille de machine à tricoter.)



George Frederick Sturgess, Overdale, Leicester, England, 28th April, 1896; 6 years. (Filed 9th March, 1896.)

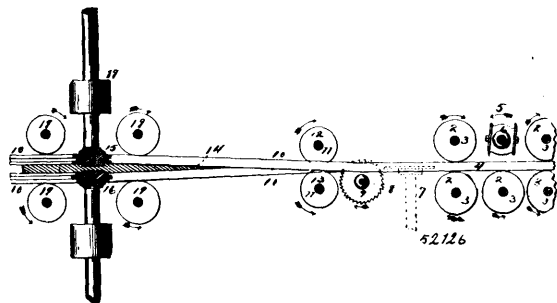
Claim.—1st. A knitting needle having a sharpened hook 2, as and for the purposes set forth. 2nd. A knitting needle having a loop shoulder cut at right angles to the stem in and below the upper surface, substantially as and for the purposes set forth. 3rd. A one-sided knitting needle, in which the knitting part of the stem is disposed at the side of the commoned centre and of less width than the full width of the needle, substantially as and for the purposes set forth. 4th. A right and left knitting needle having a one-sided stem 4, for the purpose of knitting loops, and a one-sided stem 5, for thrusting the web loops into a position for the opposite needle to penetrate, substantially as and for the purposes set forth. 5th. A knitting needle having a knitting stem 4, disposed at the side of the commoned centre of the needle stem having the stem reduced to a beveled or knife edge 6, and shoulder 3, substantially as and for the purposes set forth. 6th. A knitting needle having a knitting stem 4, disposed at the side of the commoned centre of the needle, the bevelled edge 6, shoulder 3, and reduced part 8, substantially as and for the purposes set forth. 7th. A knitting needle having a knitting stem 4, disposed at the side of the commoned centre of the needle, the bevelled edge 6, shoulder 3, reduced part 8, and the hook 2 having a point, substantially as and for the purposes set forth. 8th. In combination, a working set of back (rib) needles and a working set of front (plain) needles, arranged to work in such relation to each other that the hooks of the one set cross the commoned centre lines of the needles of the other set, and one part of the needle stem crosses the longitudinal line of travel of its neighbouring needle, substantially as and for the purposes set forth. 9th. The combination of a pair of knitting needles (one a back or rib needle in one bed and one a front or plain needle in another bed) in which the knitting stem of one needle is set on one side to allow the hook of the other needle to cross the centre line of the needle, substantially as and for the purposes set forth.

No. 52,126. Matching Machine. (Machine à rainures.)

William Henry Bullock, Oswego, New York, U.S.A., 28th April, 1896; 6 years. (Filed 10th March, 1896.)

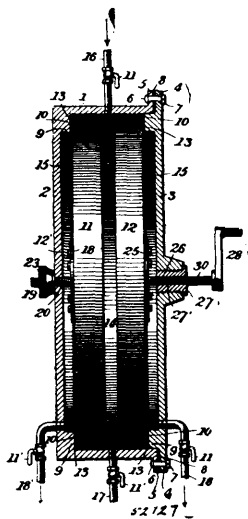
Claim.—1st. The combination with suitable cutters arranged alternately above and below a given plane of suitable separating rollers whereby alternate strips of lumber are spread vertically into the planes of the cutters, whereby the opposite edges of the respec-

tive strips are simultaneously tongued and grooved. 2nd. The combination with suitable feed rollers between which a piece of lumber is fed and a slitting saw to cut it into strips, of separating rollers whereby alternate strips are spread vertically into parallel



planes, and cutters arranged to cut the edges of any two strips in the same place simultaneously. 3rd. The combination with suitable feed rollers between which a piece of lumber is fed a slitting saw to cut it into strips and a re-sawing saw to cut the lumber horizontally of separating rollers whereby alternate pairs of strips are spread vertically into different planes and double cutters arranged to cut the edges of all the pairs of strips simultaneously. 4th. The combination with suitable cutters arranged alternately above and below a given plane, of suitable separating rollers whereby alternate strips of lumber are spread vertically into the planes of the cutters, and guides 22, which engage with the edges of said strips to hold them relatively to said cutters against lateral deflection.

No. 52,127. Water Filter. (Filtre.)

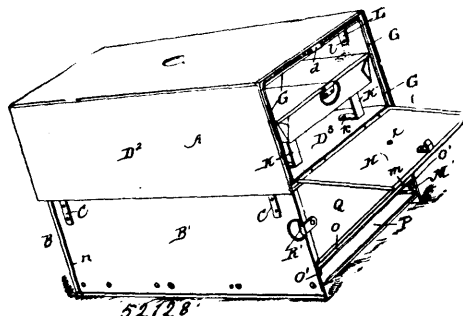


Zeph. Fenno, Washington, Columbia, U.S.A., 28th April, 1896; 6 years. (Filed 10th March, 1896.)

Claim.—1st. A water filter comprising two porous filtering bodies arranged relatively apart, and means for carrying one of said bodies into contact with the other and for rotating the one against the other, substantially as shown and for the purpose described. 2nd. A water filter comprising two porous filtering bodies, an intermediate chamber for unfiltered water, a chamber on the outer side of each body for filtered water, and means for carrying one of said bodies into contact with the other and for rotating the one against the other, substantially as described. 3rd. A water filter comprising two porous filtering bodies arranged relatively apart, annular bearing seats for the bodies, and means for carrying one of said bodies into contact with the other and for rotating the one against the other, substantially as described. 4th. A water filter comprising two porous filtering bodies having packed annular bearings or seats, an intermediate chamber for unfiltered water, a chamber on the outer side of each body for filtered water, and means for carrying one of said bodies into contact with the other and for rotating the one against the other, substantially as described. 5th. A water filter comprising two porous filtering bodies arranged relatively apart and having annular seats, means for carrying one of said bodies into contact with the other, and for rotating the one against the other, and means for tightening said bodies against their seats, substantially as described. 6th. A water filter comprising a casing or shell, two porous filtering bodies arranged relatively apart and having annular bearings or seats, an outer chamber for each body, a screw and nut for tightening one body in place and a screw shaft for tightening up

the other body, the said shaft being threaded for a part of its length from the inner end only, and the remaining portion thereof being of smooth surface, and a partially threaded bushing in which said shaft works, substantially as described. 7th. A water filter, comprising an outer shell or casing constructed in two parts and flanged and united together, corresponding internal annular flanges or seats, a porous filtering body resting against one of said flanges, a similar body resting against the other flange and sunken or recessed in its outer side, a perforated plate secured to the outer side of this second body, a central partially screw-threaded bushing in the side of the shell, and a screw shaft passing through said bushing and united to the perforated plate, said shaft being of smooth surface for a part of its length, substantially as shown and for the purpose described. 8th. A water filter, comprising an outer casing, two porous filtering bodies arranged relatively apart, a central partially screw-threaded bushing in one side of the casing, and a shaft working in said bushing and fastened to one of the porous bodies, the said shaft being threaded for a part of its length adjacent to the body and provided with an operating crank or handle, substantially as described.

No. 52,128. Cooking Apparatus. (Appareil de cuisine.)



William Edwards Baxter, Frankfort, Kentucky, U.S.A., 28th April, 1896; 6 years. (Filed 18th January, 1896.)

Claim.—1st. The combination with the oven, having an outer casing provided at its open end with inwardly projecting lugs, the inner casing or shell fitted removably in the outer casing and having at its free end a flange overlapping the open end of the outer casing and having notches or openings for the lugs of the outer shell, the door hinged to the inner shell and the bolt pivoted to said door and turning into engagement with the lugs whereby to hold the door closed, and the inner shell within the outer one, substantially as set forth. 2nd. The combination with the oven, having downwardly opening seats along its sides and its rear end the stove back and sides, having at their top edges dowels or tenions engaging the oven seats and provided with upwardly facing hook-like seats, and the grate having edge portions engaging the said hook-like seats, the stove back being provided at its ends with flanges overlapping the rear edges of the sides, all substantially as and for the purpose set forth. 3rd. In a portable cooking apparatus, the combination with the shell, having at its open end inwardly projected lugs or bolt seats of the inner casing or chamber fitted in the open end of the shell and provided at its outer end with a projecting flange like portion abutting and closing the space between said casing or chamber and the end of the shell, and provided with slots for the passage of the lugs or bolt seats substantially as set forth. 4th. In a portable cooking apparatus, the combination with the shell, of the inner casing fitting thereto such casing being provided with a door and a fastening supported on said door and adapted to lock the inner casing to the outer shell, substantially as set forth. 5th. In a portable cooking apparatus, the combination with the shell, of the inner casing fitted thereto and provided with a door and a fastening consisting of a bolt pivoted to said door and turning into engagement with the shell whereby to lock the inner casing to the shell, substantially as set forth. 6th. In a cooking apparatus, the oven having an outer shell, an inner casing or chamber fitted removably to said shell and having a door and a bolt pivoted to said door and having a handle, said bolt being supported to turn into and out of engagement with the shell, substantially as set forth. 7th. In a cooking apparatus, the combination of the outer oven shell, the inner casing fitted removably to said shell, the door hinged to said inner casing and the bolt pivoted to the door and turning into and out of engagement with the shell, such bolt having a handle located with respect to its pivot substantially as described whereby it may be utilized to set the bolt into and out of locked position as well as for carrying the oven and whereby the weight in carrying may tighten the bolt in fastened position substantially as set forth. 8th. In a cooking apparatus, an oven provided internally with adjustably supported pan seats movable into position to support the pan, or against the inner walls of the oven when it is desired to leave the oven unobstructed for packing purposes, substantially as set forth. 9th. In a cooking apparatus, the oven provided with upper and lower rows of pan seats connected adjustably to the oven and movable from position against the walls thereof out to position to support the pans, substantially as set forth. 10th. In a cooking apparatus, the oven

provided with adjustable pan seats composed of double armed brackets having one arm pivoted to one wall of the oven and the other arm swinging adjacent to the adjoining oven wall or out therefrom to position to support the pan, substantially as set forth.

11th. In a cooking apparatus, the oven provided upon its bottom with L-shaped seats, one arm of the seat being pivoted to the bottom and the other arm movable to a position adjacent to the side wall or out therefrom, substantially as set forth.

12th. In a cooking apparatus, the oven provided internally with pan seats arranged near its top and composed of L-shaped brackets having their vertical arms pivoted horizontally to the side of the oven and their horizontal arms swinging up against the oven top or down to form horizontal seats on which to rest the pads, all substantially as and for the purpose set forth.

13th. In a cooking apparatus the oven provided with the pan supports adjustable to position to support the pans or out of the way to increase the storage space in the oven and the stove composed of separate sections adapted when detached to be stored in the oven, substantially as and for the purpose set forth.

14th. In a portable cooking apparatus, a stove composed of side pieces having longitudinal seats arranged one above the other, the grate engaging the upper seats, the ash pan engaging the lower seats and the end pieces, substantially as set forth.

15th. In a portable cooking apparatus, the stove composed of the sides provided with longitudinal strips, the opposite edges of which are bent forming seats, the grate having depending flanges engaging the upper seats, the ash pan resting upon the lower seats and the end, substantially as set forth.

16th. A stove having separable sides and a door hinged to one side and provided with a spring catch engaging the other side, substantially as described.

17th. In a cooking apparatus, the combination with the oven having downwardly opening seats or sockets at its lower edge and the stove having its sides and end portion provided with dowel like projections entering said seats and the bottom engaging said sides and end pieces, substantially as set forth.

18th. In a portable cooking apparatus the combination with the outer shell and inner casing, of the separating pieces secured to one of such parts and having projecting spring ends substantially as set forth.

19th. The combination with the outer shell and inner casing of the bolt and a seat or seats therefor on the shell said bolt and seat having openings adapted for the passage of the padlock shackle whereby to lock the part together substantially as shown and described.

20th. The combination of the outer shell having hook like lugs one of which is provided with perforations, the inner casing fitted in said shell and the bolt supported on said shell and having flanges movable into engagement with the hook like lugs, one of said flanges having a perforation movable into coincidence with those of the hook like lug, substantially as shown and described.

21st. The combination of the outer shell having bolt seats, the inner casing, the bolt turning into engagement with the bolt seats and the lock by which to secure the bolt to the seats, substantially as set forth.

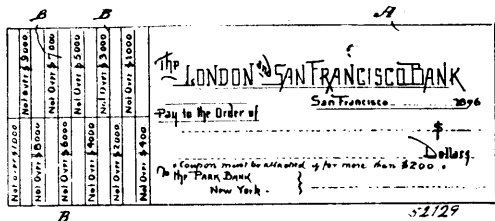
22nd. The combination with the top plate having an opening provided with a notch of the stove-pipe having flanges to fit above and below the top plate the lower flanges being movable through the notch in opening, all substantially as shown and described.

23rd. In a cooking apparatus the stove having separable sides and a detachable top formed in sections having flanges lapping along the outer faces of the sides and seats fitting along the inner faces of said sides, substantially as set forth.

24th. In a cooking apparatus the stove having separable sides and a back provided with end flanges to fit outside of and with seats to fit inside the rear ends of said sides, substantially as set forth.

No. 52,129. Safety Blank Cheque, Draft, etc.

(Chèque, mandat, etc.)



Marion Leventritt, San Francisco, California, U.S.A., 28th April, 1896; 6 years. (Filed 17th February, 1896.)

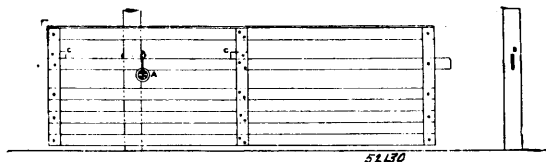
Claim.—1st. A blank cheque draft or similar instrument having a body-portion of a standard length in inches or other units of linear measurement, the number of said units determining the highest limit of the sum expressed in the body of the instrument; combined with coupons of a fixed and standard width which is a fraction of the unit of measurement attached to and integral with the said body-portion, each fraction of unit so added to the length of the body-portion by a coupon and made to form a part thereof being arranged to raise the limit expressed by the length of the body-portion alone by a predetermined amount, as shown and described.

2nd. A blank cheque draft or other instrument comprising in its structure the three elements of a standard length of body-portion, a standard width of coupon on the end of such body-portion and

integral therewith, said measurements being predetermined units of linear measurements and fractions thereof, and a standard tint or colour for the body-portion and coupon, as shown and described.

No. 52,130. Gate Hinge.

(Penture de barrières.)

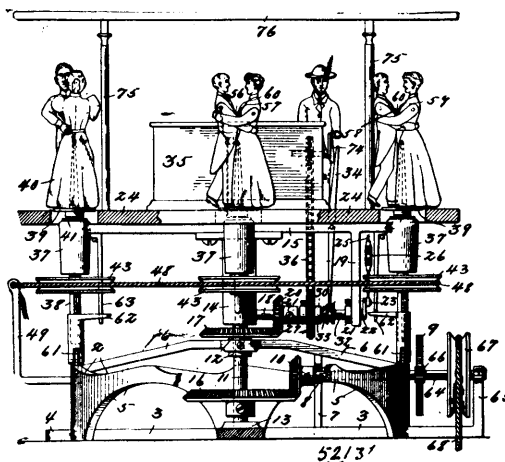


John Askew, Leamington, Ontario, Canada, 28th April, 1896; 6 years. (Filed 11th February, 1896.)

A gate hinge comprising a bracket firmly secured to a post to form a holder; a swivel pin carried by said holder; a pulley strap carried by the swivel pin; and pulley, in the pulley strap, over which a bar of the gate runs, substantially as and for the purpose hereinbefore set forth.

No. 52,131. Display Apparatus.

(Appareil d'étalage.)



Frederick W. G. Boettcher, Duluth, Minnesota, U.S.A., 28th April, 1896; 6 years. (Filed 3rd March, 1896.)

Claim.—1st. In a display apparatus, the combination of a revolving platform, means for revolving the same, a spindle carried by the platform and having a rotary movement about its own axis independent of the platform, said spindle having a vertical movement, a doll carried by said spindle, and means for imparting the respective movements to the spindle and the doll, carried thereby, substantially as described.

2nd. In a display apparatus, the combination of a revolving platform, gearing for revolving the same, spindles loosely mounted in said platform, dolls mounted on said spindles, means for imparting vertical movement to said spindles, and a stationary cord arranged to engage a portion of said spindles and thereby rotate said spindles and dolls, substantially as described.

3rd. In a display apparatus, the combination of a revolving platform, gearing for revolving the same, doll carrying spindles loosely mounted in said platform, shafts carrying cams and gears and mounted on the movable platform and imparting a vertical movement to the said spindles, a stationary gear meshing with the gears on the said shafts, and a stationary cord engaging a portion of said spindles for imparting a rotary movement to the same, substantially as described.

4th. In a display apparatus, the combination of a revolving platform, means for revolving the same, doll-carrying spindles mounted in the sleeves in said platform so as to have a vertical but no lateral movement independent of said sleeves, means for rotating said sleeves and means for imparting vertical movement to the said spindles and the dolls carried thereby, substantially as described.

5th. In a display apparatus, the combination of a movable platform, means for revolving the same, dancing dolls mounted on said platform and having movable arms and legs and devices for operating said arms and legs upon the movement of the platform, substantially as described.

6th. In a display apparatus, the combination of a movable platform, doll carrying spindles loosely mounted in said platform and adapted to be reciprocated up and down upon the revolution of the same, dolls mounted on said spindles and having movable arms and legs, and means for moving said arms and legs as the platform revolves, substantially as described.

7th. In a display apparatus, the combination of a movable platform, gearing for revolving the same, dolls mounted on said platform and having movable arms and legs, and means for moving said arms and legs upon the revolution of the platform, substantially

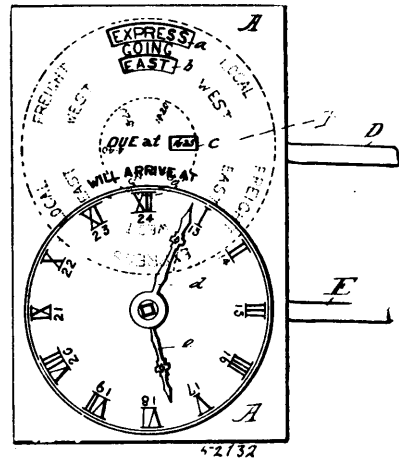
as described. 8th. In a display apparatus, the combination of a movable platform, vertically movable spindles loosely mounted in said platform, means for revolving said spindles, dolls mounted on said spindles and having movable arms and legs, and devices for moving said arms and legs upon the revolution of the platform, substantially as described. 9th. In a display apparatus, the combination of a movable platform, means for revolving the same, dancing dolls mounted on said platform, musical instrument on said platform, devices connecting the same with the operating means and a clutch for throwing said devices in and out of gear, substantially as described. 10th. In a display apparatus, the combination of a movable platform, gearing for revolving said platform, and speed reducing gearing connecting said former gearing with the source of power, and dancing dolls mounted on said platform, substantially as described. 11th. In a display apparatus, the combination of a movable platform, means for revolving the same, rocking device on said platform and means for rocking said device as the platform revolves, substantially as described. 12th. In a display apparatus, the combination of a movable platform, means for revolving the same, vertical movable spindles mounted in said platform, dancing dolls mounted on said spindles and having movable arms and legs, links connecting said arms and legs in each doll to a vertically movable rod in the same; said rods projecting down below the platform and adapted to be reciprocated up and down as the dolls rise or fall, substantially as described. 13th. In a display apparatus, the combination of a movable platform, means for revolving the same, a rocking device mounted on said platform, a crank-shaft below the platform, and a pitman connecting said rocking device with the crank shaft, substantially as described. 14th. In a display apparatus, the combination with a movable platform, means for revolving the same, removable dancing dolls mounted on said platform, apertured lugs on said dolls and pins for connecting the dolls in pairs, substantially as described.

No. 52,132. Railway Train Indicator.

(Indicateur de convois de chemin de fer.)

Anthyme Joseph Roy, l'Isle Verte, Québec, Canada, 28 avril 1896; 6 ans. (Déposé le 28 février 1896.)

Résumé.—1°. Dans un indicateur de convois de chemin de fer, la combinaison de feuilles métalliques A, A¹, percées d'ouvertures a, b, c, a¹, b¹, c¹, et sur lesquelles des feuilles métalliques sont écrits les



mots "due at" et "will arrive at" et sont dessinées des cadrans d'horloge, avec des roulettes B, B¹, sur lesquelles sont indiquées les noms et directions des convois. 2°. Dans un indicateur de convois de chemin de fer, la combinaison des feuilles métalliques A, A¹, et des roulettes B, B¹, avec les pignons g, h, g¹, h¹, et la tige D. 3°. Dans un indicateur de convois de chemin de fer, la combinaison des plaques métalliques A, A¹, avec un système de roues d'engrenage, k, l, m, n, formant mouvement d'horloge et les pignons g, r, g¹, r¹, reliés au moyen d'une tige E, le tout tel que décrit dans la spécification et pour les fins indiquées.

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

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| <p>4314. SALLY GUSTAV COHNFELD, 3rd term of No. 23,750, from 5th April, 1896. Method of Producing Moulded Articles from Substances Containing Liqueous Fibres, April 2nd, 1896.</p> <p>4315. JOHN HENRY HOOKER, 2nd term of No. 36,344, from 8th April, 1896. Alimentary Liquid, April 4th, 1896.</p> <p>4316. CARTER AND COMPANY, 2nd term of No. 36,344, from 4th April, 1896. Memorandum Book, April 4th, 1896.</p> <p>4317. THOMAS THINKLER, 2nd term of No. 36,433, from 21st April, 1896. Plough, April 7th, 1896.</p> <p>4318. ANDREW BELL JARDINE, 3rd term of No. 23,797, from 10th April, 1896. Hub Boring Machine, April 9th, 1896.</p> <p>4319. CHARLES JOHNSON DORRANCE, 2nd term of No. 36,355, from 9th April, 1896. Grate Bar, April 9th, 1896.</p> <p>4320. JAMES LEGGATT, 2nd term of No. 36,706, from 2nd June, 1896. Rubber Overshoe, April 9th, 1896.</p> <p>4321. WILLIAM L. MILLER and JOHN J. OLIVER, 2nd term of No. 36,462, from the 23rd April, 1896. Steam Flue Cleaner, April 10th, 1896.</p> <p>4322. JOSEPH ELTON BOTT, 2nd term of No. 36,378, from 14th April, 1896. Circular Saw, April 13th, 1896.</p> <p>4323. THE SAFETY CAR HEATING AND LIGHTING COMPANY, (assignee), 2nd term of No. 36,431, from 21st April, 1896. Car Heater, April 13th, 1896.</p> <p>4324. FELIX LOUIS DECARIE, 2nd term of No. 36,380, from 14th April, 1896. Pipe Coupler and Stop Valve, April 14th, 1896.</p> <p>4325. GEORGE EDWARD TREGURTHA, 2nd term of No. 36,453, from 23rd April, 1896. Sectional Steam Boiler, April 14th, 1896.</p> <p>4326. JAMES MORRISON, 2nd term of No. 36,524, from 2nd May, 1896. Radiator, April 14th, 1896.</p> <p>4327. JAMES ORRIN PEARSON, 3rd term of No. 23,871, from 22nd April, 1896. Poke for Animals, April 16th, 1896.</p> | <p>4328. SAMUEL WEBSTER MACKEY, 2nd term of No. 36,403, from 18th April, 1896. Hoof Expander, April 16th, 1896.</p> <p>4329. STEWART HARTSHORN, 2nd term of No. 36,408, from 18th April, 1896. Shade Roller, April 17th, 1896.</p> <p>4330. ALEXANDER STANLEY ELMORE, 2nd term of No. 36,468, from 24th April, 1896. Process of and Apparatus for Making Copper Tubes, Sheets, Strips and Wires, April 17th, 1896.</p> <p>4331. RICHARD DUNCAN HARRIS, 2nd term of No. 36,465, from 23rd April, 1896. Separators for Cream and Butter, April 18th, 1896.</p> <p>4332. JOHN G. WENNINGER, 2nd term of No. 36,474, from 24th April, 1896. Nut Lock, April 20th, 1896.</p> <p>4333. THE CHATHAM MANUFACTURING COMPANY, (assignee), 2nd term of No. 36,672, from 23rd May, 1896. Stake for Waggon Bolsters, April 23rd, 1896.</p> <p>4334. THE CHATHAM MANUFACTURING COMPANY, (assignee), 2nd term of No. 36,674, from 23rd May, 1896. Axle Tree Arm, April 23rd, 1896.</p> <p>4335. EDWARD ETHEL GOLD, 2nd term of No. 36,646, from 20th May, 1896. Steam Trap, April 24th, 1896.</p> <p>4336. RICHARD EDGAR JEFFERY, 2nd term of No. 36,578, from 11th May, 1896. Vehicle Wheel, April 27th, 1896.</p> <p>4337. HENRY HALL and JOSEPH WILLIAM COOK, 2nd term of No. 36,619, from 19th May, 1896. Post Hole Digger, April 27th, 1896.</p> <p>4338. TASSÉ, WOOD & COMPANY, 2nd term of No. 36,491, from 28th April, 1896. Cigar, April 27th, 1896.</p> <p>4339. HENRY P. ROBERTS, 2nd term of No. 36,496, from 28th April, 1896. Vaporizer, April 28th, 1896.</p> <p>4340. LAFAYETTE LADD, 3rd term of No. 23,945, from 30th April, 1896. Machine for Separating Seeds from Pulp, April 28th, 1896.</p> <p>4341. THE HALL MOWING MACHINE COMPANY, (assignee), 2nd term of No. 36,629, from 19th May, 1896. Cutter for Mowing Machines, April 29th, 1896.</p> |
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TRADE - MARKS

Registered during the month of April, 1896, at the Department of Agriculture--
Copyright and Trade-Mark Branch.

5594. FRIEDRICH ADOLF SCHULZ and GUSTAV ADOLF PHILIPP, Leipzig, Germany, trading as FRITZ SCHULZ, JUNIOR. Polishing Preparations, 1st April, 1896.
5595. MASSEY HARRIS COMPANY, Toronto, Ont. Bicycles, 2nd April, 1896.
5596. DORKEN BROTHERS & COMPANY, Montreal, Que. Hardware, 2nd April, 1896.
5597. E. T. DANIELS & COMPANY, London, England. General Trade Mark, 2nd April, 1896.
5598. SMITH, FISCHER & COMPANY, Montreal, Que. Cigars, 4th April, 1896.
5599. HUMPHREYS HOMEOPATHIC MEDICINE COMPANY, New York, N.Y., U.S.A. A Remedy for Colds, Grip, Influenza, Catarrh, Etc., 4th April, 1896.
5600. LANMAN & KEMP, New York, N.Y., U.S.A. Medicinal and Toilet Preparations, 4th April, 1896.
5601. THÉOPHILE DUPHILY, Verchères, Qué. Un Remède pour le Rife, 7 avril 1896.
5602. WILLIAM R. WARNER, Philadelphia, Pennsylvania, U.S.A. A Liquid Compound for the cure of Rheumatism, Gout and analogous diseases, 7th April, 1896.
5603. KENWOOD BICYCLE MANUFACTURING COMPANY, Chicago, Illinois, U.S.A. Bicycles, 7th April, 1896.
5604. ROBERT DACK, Toronto, Ont., trading as the BRITISH AND CONTINENTAL CHEMICAL COMPANY. Boot Polish, 11th April, 1896.
5605. WHITE BROTHERS & COMPANY, Boston, Massachusetts, U.S.A. Leather, 13th April, 1896.
5606. WHITE BROTHERS & COMPANY, Boston, Massachusetts, U.S.A. Leather, 13th April, 1896.
5607. WHITE BROTHERS & COMPANY, Boston, Massachusetts, U.S.A. Leather Boots and Shoes, 13th April, 1896.
5608. WHITE BROTHERS & COMPANY, Boston, Massachusetts, U.S.A. Boots and Shoes, 13th April, 1896.
5609. NIAGARA PAPER MILLS, Lockport, New York, U.S.A. Paper Covers, 13th April, 1896.
5610. THE EDISON AND SWAN UNITED ELECTRIC LIGHT COMPANY, Ltd., London, England. General Trade Mark, 13th April, 1896.
5611. THE EDISON AND SWAN UNITED ELECTRIC LIGHT COMPANY, Ltd., London, England. General Trade Mark, 13th April, 1896.
5612. JAMES LOCKHART & REGINALD R. LOCKHART, Toronto, Ont., trading as JAMES LOCKHART, SON & COMPANY. Hosiery and Knitted Woollen Goods, 15th April, 1896.
5613. FAHLBERG, LIST & COMPANY, Salbke-Westerhüsen, near Magdeburg, Kingdom of Prussia, Empire of Germany. A Chemical Sweetening Substance, known as Benzoic Sulfinide, 15th April, 1896.
5614. JOHN JAMES McLAUGHLIN, Toronto, Ont. A Temperance Carbonated Beverage, 16th April, 1896.
5615. CHARLES S. REINHARDT, Montreal, Que. A Non-alcoholic Hop Beverage, 18th April, 1896.
5616. THE BRITISH WHITE LEAD COMPANY, Ltd., London, England. White Lead Paint and other similar goods, 20th April, 1896.
5617. L. A. WILSON & COMPANY, Montreal, Que. Cigars, Cigarettes and Tobacco, 24th April, 1896.
5618. } KING ARNOLDI, Ottawa, Ont. A Mineral Water. 24th April, 1896.
5619. }
5620. THE GEO. E. TUCKETT & SON COMPANY, Ltd., Hamilton, Ont. Cigarettes, 25th April, 1896.

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5621. WILLIAM SUTTON & ALBERT M. WICKENS, Toronto, Ont. Sutton's Boiler Compound, 27th April, 1896.
5622. CHEMISCHE FABRIK AUF ACTIEN, (vorm E. Schering,) Berlin, Germany. Pharmaceutical Preparations, 30th April 1896.
5623. MARTIN F. EAGAR, Halifax, N.S. Cocoa, 30th April, 1896.
5624. THE IRELAND NATIONAL FOOD COMPANY, Ltd., Toronto, Ont. Breakfast Cereal Foods, 30th April, 1896.

COPYRIGHTS

Entered during the month of April, 1896, at the Department of Agriculture—
Copyright and Trade-Mark Branch.

8444. SCIENTIFIC OPTICIAN'S COMBINED RECORD AND PRESCRIPTION BOOK. Cohen Bros., Toronto, Ontario, 2nd April, 1896.
8445. INCOGNITA. (Two-Step.) By Paul Kruger. W. H. Billing, Toronto, Ont., 2nd April, 1896.
8446. KATIE DARLIN'. (Song.) Words and Music by Hastings Weblyn. Whaley, Royce & Co., Toronto, Ont., 2nd April, 1896.
8447. ADVANCED CHEMISTRY. (For High Schools.) By W. S. Ellis, B.A., B. Sc. The Copp, Clark Co. (Limited), Toronto, Ont., 4th April, 1896.
8448. A TREATISE ON THE RAILWAY LAW OF CANADA. By Harry Abbott, Q.C. C. Théoret, Montreal, Que., 7th April, 1896.
8449. CONSOLIDATED SUPPLEMENT No. 1 TO SHARP'S CIVIL CODE. By W. P. Sharp, B.C.L. C. Théoret, Montreal, Que., 7th April, 1896.
8450. TESTED RECIPES. (A Practical Everyday Cook Book.) Frank Lawson & Henry J. Jones, London, Ont., 7th April, 1896.
8451. COLLECTION ENVELOPE. (Sunday School.) E. G. Nelson & Co., St. John, N.B., 7th April, 1896.
8452. GRAFTON'S EXERCISES IN ARITHMETIC No. 8. F. E. Grafton & Sons, Montreal, Que., 8th April, 1896.
8453. BANKS AND BANKING. By J. J. Maclaren, Q.C., D.C.L., LL.D. The Carswell Co. (Limited), Toronto, Ont., 8th April, 1896.
8454. ON DEMANDE UN ACTEUR. (Farce en un Acte.) Par Regis Roy. C. O. Beauchemin et fils, Montréal, Qué., 8 avril 1896.
8455. ORAL LESSONS IN FRENCH FOR JUNIOR CLASSES. (Teachers' Manual—Part IV.) By H. H. Curtis, Montreal, Que., 8th April, 1896.
8456. ORAL LESSONS IN FRENCH FOR JUNIOR CLASSES. (Part IV.) By H. H. Curtis, Montreal, Que., 8th April, 1896.
8457. THE CANADIAN MAGAZINE. (April, 1896.) The Ontario Publishing Co. (Limited), Toronto, Ont., 9th April, 1896.
8458. VUE DE L'INTERIEUR DE LA CHAPELLE ST. FRANCOIS DE ST. ROCH. (Photo.) L. N. C. de Beaumont, Québec, Qué., 10 avril 1896.
8459. AUTEL ST. ANTOINE DE PADOUE DE ST. ROCH. (Photo.) L. N. C. de Beaumont, Québec, Qué., 10 avril 1896.
8460. READY REFERENCE GUIDE TO THE ORDINANCES OF THE NORTH-WEST TERRITORIES. (Together with a Complete Index to "The Judicature Ordinance"—1893, and Amendments thereto.) Compiled by C. C. McCaul, Q.C., and Horace Harvey, LL.B., Calgary, N.W.T., 13th April, 1896.
8461. RECETTES ET CONNAISSANCES UTILES A L'USAGE DES FAMILLES. Joseph Adolphe Garneau, M.D., Québec, Qué., 13 avril 1896.
8462. RANNEY AND INNES' BLANK ESTIMATE BOOK, FOR ARCHITECTS, ENGINEERS AND CONTRACTORS. George Warner Ranney and William Livingstone Innes, Peterborough, Ont., 13th April, 1896.
8463. HIGH SCHOOL PHYSICAL SCIENCE. (Part II.) By F. W. Merchant, M.A. The Copp, Clark Co. (Limited), Toronto, Ont., 13th April, 1896.
8464. MACDONALD'S DAIRY REGISTER. The Richardson Stationery and Manufacturing Co. (Limited), Winnipeg, Man., 14th April, 1896.
8465. L'AGRICULTURE DANS LES ECOLES. (En 41 Leçons—Livre de l'Élève.) Par Les Frères de l'Instruction Chrétienne, Laprairie, Qué., 14 avril 1896.
8466. MY SWEETHEART'S NAME IS LAURA. Words by Thomas Rowley. Music by Arthur W. Hughes. Whaley, Royce & Co., Toronto, Ont. 15th April, 1896.

8467. MASSEY MAGAZINE. (April, 1896.) The Massey Press, Toronto, Ont., 15th April, 1896.
8468. MOTHER'S EVENTIDE. Words by Julia Arthur. Music by Joker Lewis. A. & S. Nordheimer, Toronto, Ont., 15th April, 1896.
8469. IRRESISTIBLE. (Two-Step.) By Arthur M. Cohen. J. L. Orme & Son, Ottawa, Ont., 16th April, 1896.
8470. PART OF THE TRAIL CREEK MINING CAMP, WEST KOOTENAY, B.C. Compiled by J. A. Kirk, P.L.S., Rossland, B.C., 17th April, 1896.
8471. FASHIONS. (An Illustrated Monthly Journal for Canadian Women.) Vol. I, No. 6, Galt, April, 1896. D. I. Barnett, Toronto, Ont., 17th April, 1896.
8472. BEHOLD YOUR GOD. (Being Seventeen Addresses by Rev. G. C. Grubb, M.A.; Ten Bible Readings by Mrs. W. K. Campbell; Addresses to Children by Mr. E. C. Millard; Notes of the Prayer Meetings Conducted by Mr. W. K. Campbell; During Their Mission in the City of Toronto, Canada, February 15th to March 2nd, 1896.) Bruce & Company, Toronto, Ont., 18th April, 1896.
8473. ROND EAU. (Two-Step.) By Annie M. Wood. Chatham, Ont., 18th April, 1896.
8474. THE CANADIAN LAW TIMES. (Volume XV.) Edited by E. Douglas Armour, Q.C. The Carswell Company (Ltd.), Toronto, Ont. 20th April, 1896.
8475. THE HOLLY. (Two-Step March.) By Arthur H. Genge. The Anglo-Canadian Music Publishers' Association (Limited), London, England, 20th April, 1896.
8476. THE FLAG FOR ME. (Patriotic Song and Chorus.) Words by J. A. Phillips. Music by Wilhelm S. Koehler. J. A. Phillips, Ottawa, Ont., 20th April, 1896.
8477. ROBERTSON'S LANDMARKS OF TORONTO. (Volume 2.) A Collection of Historical Sketches of the Old Town of York from 1792 to 1833, and of Toronto from 1834 to 1895. Also Engravings, Maps, &c. J. Ros. Robertson, Toronto, Ont., 20th April, 1896.
8478. PUBLIC SCHOOL WRITING COURSE. VERTICAL SYSTEM. By A. F. Newlands and R. K. Row. Nos. 1, 2, 3, 4, 5 and 6. The Canada Publishing Company (Ltd.), Toronto, Ont., 22nd April, 1896.
8479. BRITISH TO THE CORE. (Patriotic Song.) Words and Music by S. T. Church. Whaley, Royce & Co., Toronto, Ont., 22nd April, 1896.
8480. THE LADY OF CHATEAU BLANC. (An Historical Romance.) By Malcolm W. Sparrow, Toronto, Ont., 22nd April, 1896.
8481. OUR MONTHLY. A Magazine of Canadian Literature, Science and Art. Vol. 1, No. 1, May, 1896. George Moffat, Toronto, Ont., 22nd April, 1896.
8482. BUSTE DE LA SAINTE-VIERGE. Inspirée de l'Époque de la Renaissance Italienne. (Photo.) Edward Perry, Montreal, Que., 23rd April, 1896.
8483. THE LUMBERMAN'S RECORD CARD. Robert James Lovell, Toronto, Ont., 23rd April, 1896.
8484. SWEETHEART, I DREAM OF THEE. Words and Music by J. Freeman Davis, Toronto, Ont., 24th April, 1896.
8485. SPECIMEN BOOK OF DESIGNS OF ASSESSMENT AND TAX NOTICES. For the Use of Municipalities and School Districts. R. D. Richardson & Co., Winnipeg, Man., 24th April, 1896.
8486. MISSIONARY GAME OF THE WORLD. (Card Game.) E. F. Parker & F. P. Wright, Ottawa, Ont., 24th April, 1896.
8487. THE DIVER. (Song for Baritone.) Words by Charles D. Bingham. Music by W. O. Forsyth. Whaley, Royce & Co., Toronto, Ont., 25th April, 1896.
8488. DUNDAS CENTRE SUNDAY SCHOOL TEACHER'S CLASS BOOK. C. E. Cowley, London, Ont., 25th April, 1896.
8489. A PHRENO CHART. Describing the Characteristics arising from the Temperaments in Six Degrees of Strength, and the Organs of the Mind in Six Degrees of Size. By Prof. J. W. Crouter, Inglewood, Ont., 25th April, 1896.
8490. STEPHEN, A SOLDIER OF THE CROSS. By Florence Morse Kingsley. (Book.) William Briggs, (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 27th April, 1896.
8491. GENERAL HARRISON'S WEDDING. (Two-Step.—For Piano.) By Otto Gowell. Willimott H. Billing, Toronto, Ont., 27th April, 1896.

8492. NORTH KING. (Two-Step March.) By Vincenzo Glionna. The Anglo-Canadian Music Publishers' Association (Limited), London, England, 28th April, 1896.
8493. CALCULATION MADE EASY ; OR GRADED EXERCISES TO SECURE ACCURACY AND RAPIDITY IN THE USE OF FIGURES. By R. T. Martin, Toronto, Ont., 29th April, 1896.
8494. CAPITAL AND LABOUR. (With letters and speeches by eminent men on Protection and Free Trade, and other economic subjects.) Compiled by William Keys, Montreal, Que., 29th April, 1896.
8495. HISTORY OF FIRST CENTURY OF THE CHRISTIAN ERA, AND THE PRINCIPAL EVENTS IN THE LIFE OF JESUS CHRIST. Scaife's Comparative and Synoptical System of Teaching History. Applied to all Countries. 20th Series. (First Part.) New Testament. (Chart.) The Comparative Synoptical Chart Company (Ltd.), Victoria, B.C., 30th April, 1896.
8496. MCGILL OBSTETRIC NOTE BOOK. By J. C. Cameron, M.D. E. M. Renouf, Montreal, Que., 30th April, 1896.
8497. THE NATURE OF DISEASE. By F. M. R. Spendlove, M.D., Montreal, Que., 30th April, 1896.