Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

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

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

- ☑ Additional comments / Commentaires supplémentaires: Continuous pagination.

The Canadian Patent Office RECORD

Vol. XXI.—No. 5. MAY 31st, 1893. { Price free by post in Canada and the United States, $2.00.

NOTICE.

All solicitors, agents or attorneys who, in circulars or advertisements, or otherwise, refer to the Commissioner or Deputy Commissioner of Patents, or to any other official of the Patent Office, for evidence of their professional standing, do so without authority.

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. 42,785. Weather Strips. (*Bourrelet de porte.*)

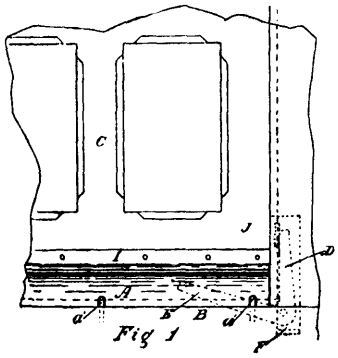


Fig 1

Ira Bates, Toronto, Ontario, Canada, assignee of William Elmer Mahaffey, Ceredo, West Virginia, U.S.A., assignee of Elihu P. Koontz, of Ceredo aforesaid, 1st May, 1893; 6 years.

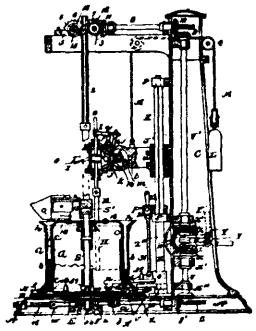
Claim.—1st. The saddle A hinged at its front or outer edge to the door frame sill, in connection with a bell crank or lever arranged to lift the inner or lose edge of the saddle so as to meet and lie against the face of the door when shut, substantially as shown and described. 2nd. A bell crank pivoted in the door frame having one of its arm projecting under the hinged saddle A, while its outer arm is so placed as to be operated upon by the edge of the door when closing, substantially as described and shown. 3rd. The L-shaped water shed piece secured to the face of the door, and overlying a saddle piece A hinged to the door frome sill and leaning against the door, substantially as described and shown.

No. 42,786. Machine for Moulding Cement Pipes.

(*Appareil de moulage des tuyaux en ciment.*)

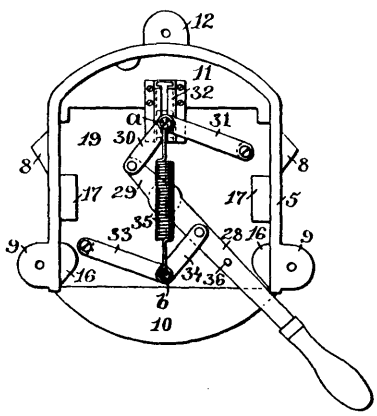
Jeff W. Bedford, assignee of Emanuel Oehrle, Omaha, Nebraska, U.S.A., 1st May, 1893; 6 years.

Claim.—1st. In a cement sewer pipe moulding machine, the combination, with the horizontally rotating pipe mould of the vertically sliding arm or rammer stock, the guide bar upon which it is arranged to slide, the steam or air cylinder carried by said arm, the piston having a rammer secured to its rod, and a counter balancing device or weight, substantially as specified. 2nd. The combination, with the rotating sewer pipe and the vertical raising core mould mechanism shown, of the steam rammers H, with the arms J, the pistons I, cylinders I^1, and the weight L, and guide arbors K and arms O, with friction rollers g, and the guide ring N, substantially as and for the purpose herein mentioned. 3rd. The combination, with the rotating pipe mould consisting of the outer shell b the expanding core mould c, and bell mould d, the rotating mechanism shown, and the mould raising mechanism shown, of the steam rammer or rammers H, with their cylinders I^1, piston I, valve n, the arbour K, the arms J, and the weight L, substantially as and for the purpose herein set forth. 4th. The combination, with the horizontally rotating pipe mould consisting of the outer shell b and core mould c and bell mould d, and the mould rotating mechanism shown, of the steam rammer or rammers H, with their pistons I and cylinders I^1, and the arms J and arbours K and weight L, and the core mould raising mechanism consisting of the friction rollers 3 and 4 and the bar 2 and gears 6 and 7, the shaft 8 and V^1, and the bevel gears, 9, 10, 11 and 12, substantially as and for the purpose herein set forth. 5th. In a sewer pipe moulding machine, the combination, with a rotating table B, and guide hub 59 and the outer mould b and bell mould d, of the inner mould c with the shaft S and its pivot 58, the sleeve 22, the wings 23, the shoulders 21, the rollers 24, the studs 27, the slots 26, and stops 60. 6th. In a sewer pipe machine, the combination of a rotary mould comprising an expansible vertically movable core, mechanism for raising said core, a drive shaft, gearing therefrom to rotate said mould, a clutch to throw said gearing into or out of gear with the drive shaft, gearing from the drive shaft to operate the core raising mechanism, and a clutch to throw said gearing into or out of gear with the drive shaft, substantially as described. 7th. In a pipe machine, the combination, with a rotary mould, of a vertically adjustable support arranged above the mould, provided with a cylinder having suitable ports and valve, and a reciprocating piston in said cylinder, the piston rod thereof being provided with a rammer to operate on the substance in the mould, said valve being connected with and operated by said piston rod, substantially as described. 8th. In a sewer pipe machine, the combination, with the mould, of a vertically adjustable and laterally movable support above the mould, an automatic reciprocating engine carried by said support above the mould, and a rammer carried by the piston rod of said engine to pack the substance in the mould, substantially as described. 9th. In a sewer pipe machine, the combination of a rotary mould, a vertically and laterally movable support, means, substantially as described, for counterbalancing the same, a vertically disposed automatic reciprocating steam or air engine carried by such support, a rammer carried by the piston rod of such engine to pack the material in said mould, and means, substantially as described, controlling the lateral swing of said support and engine. 10th. In a sewer pipe machine, the combination, of the rotary mould and means for rotating the same, the vertical shaft, a vertically movable support on the shaft, an automatic reciprocating engine carried by and moving laterally and vertically with said support, a rammer carried by the piston rod of said engine to pack the material in said mould, a counterbalancing device for said support and engine, and means, substantially as described, connected with said shaft to automatically turn the same to swing said support and engine laterally, substantially as described. 11th. The combination, with a mould, of a vertically disposed vertically movable automatic reciprocating steam or air engine, a rammer carried by the piston rod of said engine to pack the material in the mould, and operating mechanism whereby there is a relative movement between the mould and engine, so that the material is packed around the mould, substantially as described. 12th. In combination, the vertically movable support having a cylinder formed therein, a steam chest communication with opposite ends of the cylinder, a rocking valve controlling the ports and exhaust, a reciprocating piston in the cylinder, connections between the piston rod and said valve to automatically operate the same, the rammer carried by said piston rod, and a mould in which said rammer operates, substantially as



described. 13th. In combination, the mould, mechanism for rotating the same, a vertical shaft and supports therefor an arm connected with said shaft and engaging the mould to control the turning of the shaft, a horizontal support mounted to turn with and slide vertically on said shaft and provided with raising means, and a reciprocating steam or air engine carried by said support and vertically disposed and having its piston rod provided with a rammer to pack the material in the mould, substantially as described. 14th. The combination, with the rotary mould of the vertical shaft, an arm therefrom engaging said mould to control turning of shaft, means, substantially as described, to throw said arm out of operative relation with the mould, and the vertically movable reciprocating engine having its carrier sliding on said shaft, substantially as described. 15th. In combination, a bed, a rotary table supported thereon and capable of horizontal adjustment, a mould on said table, mechanism for adjusting said table horizontally, comprising a movable cross head connected with said table, a screw for shifting the head and table, a movable shaft mounted in said head and geared to drive said table, and mechanism for driving said shaft, substantially as described. 16th. In combination, a mould having a removable core provided with an upwardly extending lifting bar, a support extending upwardly and over the mould, a horizontally adjustable frame on said support, two horizonal shafts carried by said frame, provided with friction wheels to engage and lift said bar, and a longitudinally adjustable drive shaft geared to drive said horizontal shafts, substantially as described. 17th. In a sewer pipe machine, the combination, with operating and lifting mechanism, of a mould comprising an outer shell and an inner removable expansible core having inclined vertical faces, as described, and a lifting bar having means to engage said faces when moving down, and thereby expand the core, and means, substantially as described, whereby the core is contracted when said bar is raised, substantially as described. 18th. In combination, the mould having its bell end at the top, a bell mould, and stem or air ramming engine located above the same and capable of moving vertically and laterally, and means, substantially as described, to automatically swing said ramming engine laterally to pack the bell when the mould is filled to the bell, substantially as described. 19th. The combination, of the mould having its bell at the top, the vertically movable expansible bell mould and rammers and operating mechanism, substantially as described. 20th. The combination, of the mould, a vertically movable steam or air ramming engine for said mould, an air pump carried by the carrier of said engine and automatically operated by the movement of the engine, and a cylinder supplied by said pump, and having its piston connected to raise said engine, substantially as described. 21st. The combination of the rotary mould, the vertical shafts having arms held against the sides of the mould to control turning of shafts, means to yieldingly hold the arms against the mould, and the steam or air ramming engines carried by said shafts, substantially as described.

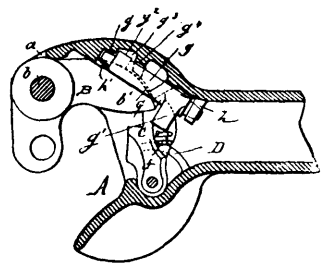
No. 42,787. Electric Switch. (*Commutateur électrique.*)



The Hope Electric Appliance Company, assignee of Augustus Wright, all of Providence, Rhode Island, U.S.A., 1st May, 1893; 6 years.

Claim.—1st. In a switching device, the combination with the case 5, having the cover 6 hinged thereto, a depending plate 10, an upwardly extending hood 11, a back 13 having the flange 15, and the lugs 16 and 17 extending from the inner surface of the case, of the partition or plate 19 formed of insulating material, and a switching device carried on said plate, as described. 2nd. In an electric switching device, the combination with contact posts and a rotatable block carrying contact plates, of a lever adapted to rotate said block, links pivoted to said lever, other links pivoted to the free ends of the first mentioned links and to stationary studs, and a spring adapted to exert an inward pressure on the ends of the first mentioned links, as described. 3rd. In an electric switching device, the combination with posts carrying contacts, a block carrying connecting plates, and a shaft suitably journalled to which said block is secured, of the lever 28 secured to said shaft and having the extension 29, a link 30 pivoted to said extension, a link 31 pivoted to the free end of the link 30, and to a stationary stud, the link 34 pivoted to the lever, a link 33 pivoted to said link and to a stationary stud, and a spring 35 secured at its ends to the pivots A and B, as described. 4th. In an electric switch, the combination, with a base, contact posts secured thereto, a shaft journalled in a perforation in said base, a block having connection plates secured to said shaft, and a handle 37 for rotating the same, of a lever secured to said shaft at the end opposite the block, double links pivoted to the ends of said lever and to a stationary stud, and means for exerting a contracting strain on the pivots connecting each pair of links, as described. 5th. The combination, with the case 5, having a hinged cover, a depending plate 10, an upwardly extending hood 11, a back 13, having the flange 15, and the lugs 16 and 17, extending from the inner surface of the case, of the insulating partition 19, a switching device secured thereto and operated by a shaft journalled in a perforation in said partition, a lever 28, secured to the end of said shaft, an extension 29 on said lever, a link 30 pivoted to said extension, a second link 31 pivoted to the link 30, and to a stud on the partition, the link 34 pivoted to the lever 28, the link 33 pivoted to the link 34, and to a stud on the partition, and the spring 35, the ends of which are secured to the pivots connecting the links 30 and 31 and 33 and 34, as and for the purpose described. 6th. In an electric switch, having binding posts and spring contact plates, the combination, with a lever journalled on a bracket, and carrying connecting plates insulated from one another, and having an extension arm in a line with said lever, of a link pivotally secured to said extension and to a spring operated sliding block movable in a slide, as described. 7th. The combination, in an electric switch, having contact plates carried by a pivoted arm, of an extension on said arm, a link 30 pivoted to said extension and provided with a stud, and a spring 31^1, secured at one end to said stud, and at the other to the switch base, as described.

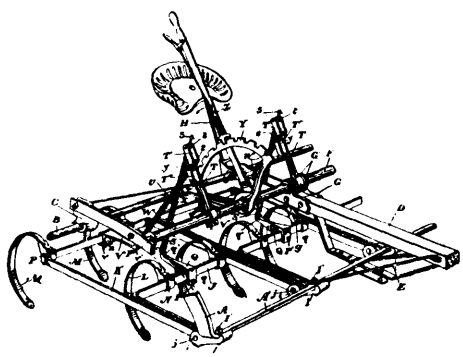
No. 42,788. Car Coupler. (*Attelage de chars.*)



The Gould Coupler Company New York, assignee of Willard Fillmore Richards, Buffalo, all in the State of New York, U. S. A., 1st May, 1893; 6 years.

Claim.—1st. The combination, with the drawhead, the coupling jaw, and its lock, of a shifting device for opening the jaw, having an actuating arm projecting into the path of the lock, and a depending shifting finger for throwing the jaw to its open position when unlocked, substantially as set forth. 2nd. The combination, with the drawhead, the coupling jaw, having a locking arm, and the movable lock, of a rock shaft journalled in the drawhead, having an actuating arm arranged in the path of the movable lock, and a depending arm which engages against the locking arm and throws the jaw to its open position when unlocked, substantially as set forth. 3rd. The combination, with the drawhead, and the coupling jaw, having a locking arm, and the vertically movable lock for holding the jaw in its closed position, of a horizontal rock shaft journalled in the drawhead, and having a horizontal arm arranged above the vertically movable lock and in the path thereof, and a depending shifting finger, arranged on the rear side of the locking arm of the coupling jaw, substantially as set forth. 4th. The combination, with the drawhead and the coupling jaw, having a locking arm, and the lock, of a shifting device having an arm projecting into the path of the lock, and a depending shifting finger engaging against the locking arm of the jaw, and a guard which protects the shifting finger, from the blow of the jaw, substantially as set forth.

No. 42,789. Cultivator. (*Cultivateur.*)



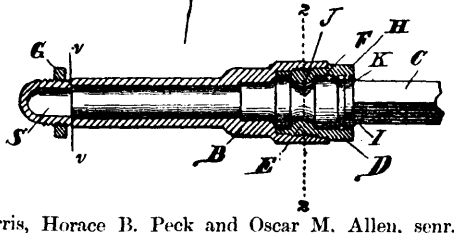
The Peter Hamilton Manufacturing Company, assignee of Andrew Johnston, all of Peterboro', Ontario, Canada, 1st May, 1893; 6 years.

Claim.—1st. In a cultivator, the combination, with the frame, of a series of independent U-shaped sectional frames hinged at their

forward ends to the front bar of the frame and having sets of teeth attached to the rear bar of the sectional frames, as and for the purpose specified. 2nd. In a cultivator, the combination, with the frame, of a series of short, independent U-shaped sectional frames having attached to the rear bar of the same the forward teeth, and hinged at their forward end to the front bar of the machine within the long, independent U-shaped sectional frames, to the rear bars of which are attached the rear rows of teeth and which are hinged to the front bar, as shown and for the purpose specified. 3rd. The combination, with the short and long, independent, U-shaped sectional frames, having attached to their rear bars the front and rear rows of sets of teeth, as specified, and hinged or pivoted on the pins *j*, extending through lugs *i*, of the brackets I, which are bolted to the front bar, of means whereby a downward pressure is exerted upon the rear bars of the sectional frames, as and for the purpose specified. 4th. The combination, with the short and long, independent, U-shaped sectional frames, having attached to their rear bars the front and rear rows of sets of teeth and hinged to the front bar of the frame, as specified, of the arms Q, and V, connected by the rods S, and W, to the trunnions *t*, and *y*, in the forked ends of the arms T, secured on the tube F, and means whereby the said arms T, are held stationary in any position to which they may be adjusted, as and for the purpose specified. 5th. The combination, with the short and long, independent, U-shaped sectional frames, having attached to their rear bars the front and rear rows of sets of teeth and hinged to the front bar of the frame, as specified, of the arms Q, and V, connected by the rods S, and W, to the trunnions *t*, and *y*, in the forked ends of the arm T, and the lever Z, secured on the tube F, and co-acting with the quadrant Y, to adjust the position of the forked arms T, as and for the purpose specified. 6th. In a cultivator, and in combination with the supporting bar of the teeth, of the bracket N, formed in two portions N, and N^1, secured together by the bolt P, and designed to grasp the base of the tooth, and having a rearwardly and upwardly extending lug *n*, through which the bar extends, and is secured in position between the lug and major portion of the bracket by the bolt O, and lug n^1, as and for the purpose specified. 7th. In a cultivator, the combination, with the bracket connected to the supporting bar, as specified, and formed in two portions having retaining flanges for the base of the tooth, the recess formed between the retaining flanges and the front of the brackets being flared towards the top at the point where the teeth emerge from the bracket, as and for the purpose specified.

No. 42,790. Wheel Box and Axle. (*Boîte de roues et essieux.*)

Fig. 1.

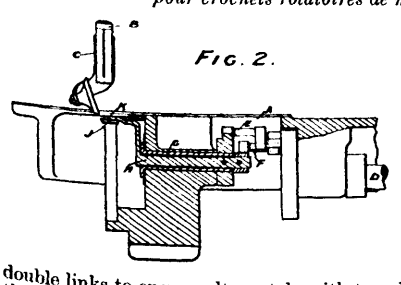


Levi Harris, Horace B. Peck and Oscar M. Allen, senr., all of Kalamazoo, Michigan, U.S.A., 1st May, 1893; 6 years.

Claim.—1st. The combination of a wheel box internally threaded within its inner end, an axle having a peripheral groove, a two-part nut, threaded to screw into the threaded end of the box and provided with the internal rib, substantially as set forth. 2nd. The combination of a wheel box internally threaded at its inner end, an axle having an enlarged portion provided with the two parallel circumferential grooves, and a two part nut provided with the internal rib, the inner ends of said two part nut and enlarged portion of the axle terminating at the same point, substantially as set forth. 3rd. The combination of a wheel box internally threaded at its inner end, an axle having a circumferential groove, and a two part nut provided with the internal rib and having an exterior threaded portion of a width corresponding to the width of said rib, substantially as set forth.

No. 42,791. Driving Mechanism for Rotary Hooks of Sewing Machines. (*Mécanisme de commande pour crochets rotatoires de machine à coudre.*)

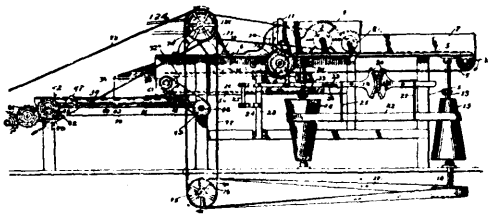
Fig. 2.



Harry Moore, Wellingborough, Northampton, England, 1st May, 1893; 6 years.

Claim. — Driving mechanism for rotary hooks of sewing machines consisting of two drivers controlled from the main driving shaft of the sewing machine by double links to engage alternately with two driving abutments upon the rotary hook, substantially as and for the purpose set forth.

No. 42,792. Cigarette Machine. (*Machine à cigarettes.*)

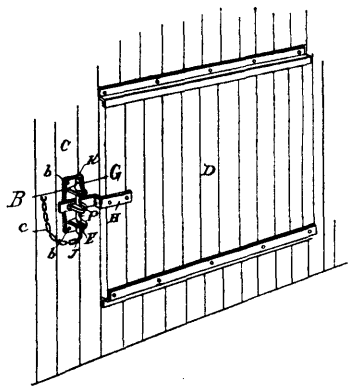


Samuel Hill Thompson and Euclid Monroe Cooke, both of South Boston, Virginia, U.S.A., 1st May, 1893; 6 years.

Claim.—1st. In a cigarette machine, the combination of the endless feed belt, a pressure roller, and a revolving brush arranged above and in contact with the said belt, a vertically movable roller mounted above the delivery end of the said belt, the conical pulleys connected by an endless belt, a worm mounted upon the shaft of one of said pulleys, a gear wheel mounted upon the shaft of one of the rollers carrying the feed belt and meshing with said worm, and belt shifting mechanism actuated by the vertically movable roller to regulate the speed of the feed belt, substantially as set forth. 2nd. In a cigarette machine, the combination of the feed belt, a vertically movable roller arranged above the delivery end of said feed belt and adapted to press against the tobacco passing over the latter, and mechanism for regulating the speed of the feed belt actuated by said vertically movable roller to decrease the speed when the roller is elevated, and *vice versa*, substantially as and for the purpose set forth. 3rd. In a cigarette machine, the combination of a feed belt, the vertically movable roller mounted in a suitable yoke, the cone pulleys, the belt connecting the latter, a pair of levers having fingers engaging the belt connecting said cone pulleys and provided with segmental racks meshing with each other, a lever connected pivotally and adjustably with a link which is mounted pivotally and adjustably in a slot in a suitable bracket, a connection between the said lever and the vertically movable yoke carrying the roller, and a stud adjustably connecting the free end of said lever with one of the belt shifting levers, substantially as and for the purpose herein set forth. 4th. In a cigarette machine, the horizontally arranged endless chains composed of links having grooved opposing faces provided with sharp meeting edges held in contact with each other for a portion of the length of the chains, and arranged to receive between them the tobacco from the feed belt, and to compress or compact the tobacco into a continuous rod or filler, substantially as herein set forth. 5th. In a cigarette machine, the combination with the horizontally arranged endless chains composed of grooved links, of the suporting wheels or discs, two of which are provided with sprockets to engage recesses in the rear sides of the links, the supporting table, the idlers arranged to force the chains into contact with each other, an endless band arranged under the front ends of said chains, which are spread apart, a hopper arranged to supply tobacco between the front ends of the chains, and a top plate forming a cover for the rear ends of the latter, substantially set forth. 6th. In a cigarette machine, the combination with the mechanism for forming the rod or filler and the paper supply, of the endless folding belts mounted upon slanting or inclined rollers, the upper ends of which are tilted in an outward direction, and means for drawing the paper, carrying the paper and the rod or filler between said folding belts, substantially as and for the purpose set forth. 7th. In a cigarette machine, the combination with the curved guide trough, the means for forming and feeding the rod or filler, and the paper supply, of the endless folding belts mounted upon slanting or inclined rollers, the front ends of said belts being spaced to receive the paper ribbon upon which the rod or filler of tobacco has been placed, and the rear ends of said belts being spaced at their lower edges a distance apart equal to the diameter of the cigarette, substantially as and for the purpose set forth. 8th. In a cigarette machine, the combination with the endless folding belts mounted upon slanting or inclined rollers, of the curved guide trough, and the supporting table having grooves to receive the lower edges of said belts, substantially as and for purpose herein set forth. 9th. In a cigarette machine, the combination of the endless grooved chains arranged horizontally and adapted to compress the tobacco into a continuous rod or filler, the curved trough or supporting plate arranged at the delivery ends of said chains, and adapted to guide the paper ribbon under the rod or filler as the latter issues from between the said chains to impart to the said paper ribbon a preliminary fold or curve, and the endless folding belts mounted upon slanting or inclined rollers, the rear ones of which are placed more closely together than the front ones, substantially as and for the purpose set forth. 10th. In a cigarette machine, the combination of the folding belts mounted upon slanting or inclined rollers, the rear ones of which are placed more closely together than the front ones, and a curved shield or rider supported upon suitable brackets between the rear ends of said folding belt to fold one edge of the paper ribbon over the rod or filler, substantially as set forth. 11th. In a cigarette machine, the combination of an endless supporting belt having a semi-circular groove to receive the partially finished cigarette as it issues from between the folding belts, an endless metallic band mounted upon suitable supporting pulleys, a paste box the

sides of which are provided with slots for the passage of said band, and suitable operating mechanism, one of the supporting pulleys of said endless band being journalled upon a bracket extending over the supporting belt to hold the said endless band in contact with the unfolded edge of the paper ribbon by which the rod or filler is partially enveloped, substantially as and for the pupose set forth. 12th. In a cigarette machine, the combination with the grooved supporting belt, of an endless pasting band mounted upon suitably arranged pulleys, the paste box having slotted sides for the passage of said band, and a wheel or idler mounted in a bracket extending over the edge of the supporting belt, substantially as and for the purpose set forth. 13th. In a cigarette machine, the combination of the endless supporting belt having a semi-circular groove, and the superimposed correspondingly grooved carrying belt the under face of which is in contact with the upper face of the supporting belt, and the pasting and folding mechanism, said mechanism comprising, essentially, the paste box having slotted sides, the endless band mounted upon suitable rollers holding it in contact with the unfolded edge of the paper cover of the cigarette, and the folding brush, substantially as and for the purpose set forth. 14th. In a cigarette machine, the cutting mechanism comprising a longitudinally reciprocating plate carrying a pair of guide tubes, and a box moving on said plate in a curvilinear path and carrying a rock shaft provided with an outwardly extending arm having a knife or cutter, a mechanism for operating the said reciprocating plate and box and for imparting motion independently to the rock shaft carrying the knife or cutter, substantially as set forth. 15th. In a cigarette machine, the combination with the eccentrics 108 moving in unison, and the plate 109 having slots 110 engaging said eccentrics, said plate carrying the guide tubes, of the longitudinally and laterally reciprocating box mounted on said plate and carrying a vibrating cutter, and mechanism for independently operating the said box and cutter, substantially as set forth. 16th. In a cigarette machine, the combination with the eccentrics 108 moving in unison, the plate 109 mounted in guides longitudinal of the machine and having lateral slots 110 through which said eccentrics project, and aligned guide tubes on said plate, of a box resting on said plate and having holes in its bottom loosely fitting said eccentrics, a rock shaft journalled in the box and supporting a knife, a pulley on said shaft, and a belt leading from said pulley upwardly to a source of power at some distance above the plate and box, substantially as described. 17th. In a cigarette machine, the combination with the mechanism for feeding the tobacco and the paper ribbon for compressing the tobacco into a cylindrical rod or filler and folding and for pasting the paper wrapper, of a pair of vertieal shafts arranged at the delivery end of the machine and having eccentric discs at their upper ends, mechanism for rotating the said shafts in unison, a longitudinally reciprocating plate having transverse slots engaged by said eccentrics, supporting and guiding devices for the said plate, and a box mounted upon and moved in a curvilinear path by the said eccentrics above the reciprocating plate and having a vibrating knife or cutter, and mechanism for operating the same, substantially as and for the purpose herein shown and specified.

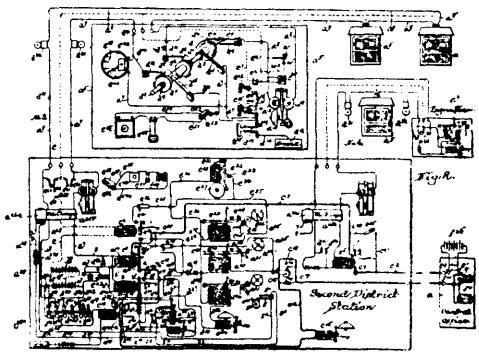
No. 42,793. Car Seal Lock. (*Sceau pour serrures de chars.*)



John Dowling, Altoona, Pennsylvania, U.S.A., 2nd May, 1893; 6 years.

Claim.—1st. In a lock, the combination, with the hasp of a base, plate having a series of staples in vertical alignment, one of which receives the hasp, leaf springs rising from the upper staple and converging normally toward their tips, a pin passing upward through said staples, and having a knob at its upper end resting on the tips of the springs, and a seal connected with the rod beneath the lowermost staple, as and for the purpose set forth. 2nd. The combination, with the lock plate having the outwardly projecting lugs provided with holes, and inwardly extending slots, the holes and slots registering, the cylindrical slotted guard surrounding the hole of the upper lug, the slot of the guard being provided with parallel flanges, and the L-shaped spring tongues riveted to the upper lug, extending up into the guard, and having their upper ends converged, of the hasp for engaging the intermediate lug, the bolt or pin having the upper and lower heads of less diameter than the holes of the lugs, the lower head exceeding in diameter the upper head and provided with a notch and depending eye, the circular leather seal adapted to be introduced over the upper head of the pin and rest against the lower head thereof, the rod having opposite eyes, one of which engages with the eye of the bolt or pin, and the chain loosely connected to the lower end of the rod and adapted to be connected to a car, substantially as specified.

No. 42,794. Signal Transmitting Apparatus and System. (*Appareil et système de transmission des signaux.*)



Albert Watts, assignee of Henry Augustus Chase, both of Boston, Massachusetts, U.S.A., 2nd May, 1893; 6 years.

Claim.—1st. In a signalling system, the combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism located therein, a polarized bell in said circuit at the transmitting mechanism, a pole changer in said metallic circuit, an electro-magnet to operate it, a local circuit in which said magnet is located, a receiving mechanism operated by the transmitting mechanism, a shaft, and a detachable signal wheel mounted on said shaft and operated by the receiving mechanism to actuate the pole changer in the metallic circuit, whereby any one of a series of signal wheels may operate to retransmit to the transmitting mechanism any one of a series of signals, substantially as described. 2nd. In a system for transmitting signals, the combination of the following instrumentalities, viz.: a metallic circuit provided with one or more signal transmitting mechanisms, a main line batter in multiple with the metallic circuit, a ground tap normally disconnected from the main line and provided with a single relay and battery, and a switch to connect both sides of the line with the ground tap, whereby a single relay may receive the signal transmitted over either side of the line, substantially as described. 3rd. The combination with a metallic circuit, of a signal transmitting mechanism located therein and consisting of three independent signal mechanisms of like significance or character arranged to operate in succession, as described, a normally open ground tap at the transmitting mechanism, adapted to be connected with both sides of the line when the transmitting mechanism is operated, a normally closed circuit controller in the said ground tap, a relay in the metallic circuit responsive to interruptions in the metallic circuit, a ground tap at the receiving end of the metallic circuit, normally disconnected from the metallic circuit and provided with two terminals, a single relay in the ground tap, a battery in the ground tap, and switches to connect both sides of the metallic circuit with the terminals of the ground tap, substantially as described. 4th. In a fire alarm system for transmitting signals, the combination of the following instrumentalities, viz.: a district station, one or more metallic circuits extended from said station, and provided with one or more signal transmitting mechanisms, a relay in the district station included in the metallic circuit, a local circuit in the said station including a signal receiving instrument, an armature for said relay controlling said local circuit, a central station, a normally closed main line connecting the said stations, and controlled by the armature of the relay in the district station, a relay in the central station included in the line connecting the said stations, a local circuit in the central station including a signal receiving instrument, and an armature for the central station relay controlling the local circuit in the said central station, a ground tap in the district including a relay, an armature for said ground tap relay normally included in the main line circuit connecting the stations, and means to connect the ground tap with both sides of the metallic circuit, substantially as described. 5th. In a fire alarm system, the combination with a central station, of a series of district stations each having connected to it one or more district circuits provided with one or more signal transmitting mechanisms, a main line connecting each district station with the central station, a receiving instrument in the district circuits, a receiving mechanism in the central station responsive to the operation of a signal transmitting mechanism in a district circuit, a second receiving instrument in the district station located in a normally open ground tap and adapted when operated to change the condition of the main line between the district and central stations, and means to connect the said ground tap, with both sides of a district circuit, substan-

tially as described. 6th. In a system for transmitting signals, the combination of the following instrumentalities, viz.: a metallic circuit provided with one or more signal transmitting mechanisms, a pole changer in said circuit, an electro-magnet to operate said pole changer to produce reversals of the current in the metallic circuit, a local circuit, in which the said electro-magnet is located, circuit terminals for said local circuit, an independent circuit controller to operate said terminals at each break in the main line circuit, an electro-magnet to govern the said controller, a local circuit in which the controller magnet is located, a relay in the metallic circuit, and an armature for said relay controlling the local circuit containing the circuit terminal controlling magnet, operating the said magnet to operate the said circuit controller at each break in the metallic circuit, whereby the signal transmitted is repeated over the metallic circuit, substantially as described. 7th. In a fire alarm system, the combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism therein, a relay in said circuit operated by the transmitting mechanism, normally open circuit terminals co-operating with the signal transmitting mechanism, and to one of which the metallic circuit is connected, a third wire connected to the other terminal, and an independent relay in the third wire, to operate, substantially as described. 8th. The combination of the following instrumentalities, viz.: a district station, a metallic circuit extended therefrom, a signal transmitting mechanism included in said circuit, a relay in the metallic circuit responsive to the said signal mechanism, a second signal transmitting mechanism normally disconnect from the metallic circuit and adapted to be connected thereto when the first signal mechanism is operated, a ground connection at the transmitting mechanism, for said second signal mechanism, a ground tap at the district station normally disconnected from the metallic circuit, means to connect the ground tap with the metallic circuit, a relay in the ground tap, a central station, a main line connecting the central station with the district station, and armatures for the metallic circuit relay and the ground tap, forming part of the main line between the said stations, substantially as described. 9th. The combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism consisting of a shaft d^2, a signal wheel d, connected in the metallic circuit, a signal wheel d^6, mounted on the shaft to transmit its signal after the wheel d, a pen d^{10}, joined to one line wire of the metallic circuit, and normally electrically disconnected from the wheel d^6, a signal wheel d^7, mounted on the shaft d^2, to transmit its signal after the wheel d^6, a pen d^{12}, joined to the other line wire of the metallic circuit, a ground tap electrically connected to the signal wheels d^6, d^7, a circuit controller for said ground tap, a relay in the metallic circuit responsive to the signal wheel d, a ground tap at the receiving end of the metallic circuit normally disconnected from said circuit, a relay in the ground tap, and a switch to connect the ground tap to the metallic circuit, substantially as described. 10th. In a fire alarm system, the combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism included in said circuit, a third or auxiliary wire, circuit terminals in the transmitting mechanism included in the metallic circuit and third wire, included in the third wire circuit, a second normally open circuit controller and a transmitting mechanism, a normally open circuit controller at the transmitting mechanism, controlling a shunt circuit for the metallic circuit, as described, and a receiving mechanism in the third wire circuit, substantially as described. 11th. The combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism located therein, a normally open circuit controller at the transmitting mechanism in a shunt circuit around said transmitting mechanism, an independent signal mechanism normally disconnected from the metallic circuit, and adapted to be connected thereto when the first signal mechanism is operated, a ground connnection at the transmitting mechanism for said second signal transmitting mechanism, a normally closed circuit controller in said ground connection, a relay in the metallic circuit, an independent ground circuit at the receiving end of the metallic circuit, a relay therein, and a switch to connect the independent ground circuit with the metallic circuit, substantially as described. 12th. The combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism located therein, a normally open circuit controller at the transmitting mechanism in a shunt circuit around said transmitting mechanism, an independent signal mechanism normally disconnected from the metallic circuit, and adapted to be connected thereto when the first signal mechanism is operated, a ground connection at the transmitting mechanism for said second signal transmitting mechanism, a normally closed circuit controller in said ground connection, a third wire or auxiliary circuit, circuit terminals at the transmitting mechanism, connected to the metallic circuit and to the third wire circuit, a normally open circuit controller in the third wire circuit, a relay in the metallic circuit, a relay in the third wire, an independent ground tap or circuit, a relay therein and means to connect the independent ground circuit with the metallic circuit, substantially as described. 13th. The combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism therein, a normally open circuit controller at the transmitting mechanism in a shunt circuit around said mechanism, a third wire or auxiliary circuit, circuit terminals connected to the metallic circuit and to the third wire circuit, and a relay in the third wire circuit operated by the transmitting mechanism, substantially as described. 14th. The combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism therein, a normally open circuit controller at the transmitting mechanism in a shunt circuit around said mechanism, a third wire or auxiliary circuit, circuit terminals connected to the metallic circuit and to the third wire circuit, a pole changer in the metallic circuit, an electro-magnet to operate it, circuit terminals governing the operation of the said electro-magnet, a relay in the third wire circuit operated by the transmitting mechanism, and means operated by the said relay to actuate the terminals of the pole changer magnet and reproduce a signal at the transmitting mechanism, substantially as described. 15th. The combination of the following instrumentalities viz.: a metallic circuit, a signal transmitting mechanism therein, a normally open circuit controller at the transmitting mechanism, in a shunt circuit around said mechanism, a third wire or auxiliary circuit, circuit terminals connected to the metallic circuit and to the third wire circuit, a condenser connected to the third wire and to the metallic circuit at the transmitting mechanism, a normally open circuit controller in the third wire circuit at the transmitting mechanism, adapted to have coupled to it a telephone, as described, and normally open contact arms in the receiving station, connected to the third wire and to the metallic circuit, and adapted to have coupled to them a telephone, as described, and a circuit controller or key in the third wire to prevent short circuiting of the telephone at the receiving or district station, substantially as described. 16th. The combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism included therein, a relay in the metallic circuit located in a district or receiving station, a relay in the central station responsive to change in current strength, a main line circuit independent of the said metallic circuit connecting said relays, a shunt circuit for said main line, a resistance c^{18}, in said main line shunt circuit, a signal transmitting mechanism in the main line shunt in multiple with the resistance, and a switch in the main line in multiple with the signal transmitting mechanism, substantially as described. 17th. The combination of the following instrumentalities, viz.: a district station, one or metallic circuits extended therefrom and provided each with a relay and a pole changer, a local circuit containing an electro-magnet to operate said pole changer, a central station, a main line connecting said central station to the district station, a polarized magnet in the line wire, an armature for said polarized magnet included to the local circuit of the pole changer magnet, a stop or terminal included in the local circuit and with which said armature co-operates to close said local circuit, a pole changer in the main line, an electro-magnet to operate it, a local circuit in which the main line pole changer, magnet is located, normally open circuit terminals for said local circuit in the central station, a circuit controller to operate the circuit terminals in the central station, an electro-magnet to operate the circuit controller, a local circuit in which said electro-magnet is located, a relay in the main line, and an armature for said relay governing the local circuit containing the circuit controller operating magnet, substantially as described. 18th. The combination of the following instrumentalities, viz.: a district station, a metallic circuit extended therefrom, a signal transmitting mechanism in said metallic circuit, a receiving instrument in the district station, operated by interruptions in the metallic circuit, a central station, an independent main line connecting said stations, a receiving instrument in the central station operated by interruptions in the main line connecting said stations, a resistance in the independent main line connecting the stations, a receiving instrument in the central station operated by changes in the current strength of the main line, and a switch in the main line in multiple with the resistance, substantially as described. 19th. The combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism located therein, a pole changer in said metallic circuit, a third wire or auxiliary circuit, circuit terminals connected to the third wire and metallic circuit operated by the transmitting mechanism, a receiving instrument in the third wire circuit, controlled in its operation by the circuit terminals at the transmitting mechanism, and means, substantially as described, operated by the receiving instrument to actuate the pole changer in the metallic circuit, substantially as and for the purpose specified. 20th. The combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism therein, a third wire or auxiliary circuit, circuit terminals connected to the metallic circuit and third wire, a normally open shunt at the transmitting mechanism for the metallic circuit, a relay in the third wire operated by the transmitting mechanism, an indicator in the metallic circuit at the transmitting mechanism, a circuit breaker in the metallic circuit at the receiving station, and a resistance in the metallic circuit in multiple with the said circuit breaker, substantially as described. 21st. In a signalling system, the combination with a box provided with a signal transmitting mechanism, of an audible signal for said box, a motor mechanism for said audible signal, a frangible covering for said and a releasing device for the motor mechanism, controlled by the frangible covering and automatically operated thereby, substantially as described. 22nd. In a fire alarm system, the combination of the following instrumentalities, viz.: a box, a signal transmitting mechanism located therein, an operating mechanism therefor, consisting of a pull bar or rod h^7, provided with a slot h^6, a hook h^5, extended through said slot, and a door for said box, composed of solid material to cover one of said pull bars or rods, and of frangible

material to cover the other of said pull bars, substantially as and for the purpose specified. 23rd. The combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism therein, a normally open circuit controller at the transmitting mechanism in a shunt circuit around said mechanism, a third wire or auxiliary circuit, circuit terminals connected to the metallic circuit, and to the third wire circuit, a pole changer in the metallic circuit, a receiving instrument in the third wire circuit operated by the transmitting mechanism, and means, substantially as described, actuated by the said receiving instrument to operate the pole changer, substantially as described. 24th. The combination of the following instrumentalities, viz.: a district station, one or more metallic circuits extended therefrom, one or more signal transmitting mechanisms in said circuits, a pole changer in the district circuits, a central station, a main line connecting said district and central stations, a receiving instrument therein operated by the transmitting mechanism in the district circuit, a pole changer in the main line, mechanism in the central station actuated by the receiving instrument therein to operate the pole channel in the main line and reverse the current in the main line, and mechanism in the main line actuated by reversal of current in the said main line to operate the pole changer in the district circuit and produce reversals of current in the district, substantially as and for the purpose specified. 25th. In a fire alarm system, the combination, with a closed metallic circuit, of a signal transmitting mechanism consisting of a signal wheel normally included in the closed metallic circuit, a second signal wheel normally disconnected from the metallic circuit, a pen or brush co-operating with the second signal wheel and connected to one side of the metallic circuit, a third signal wheel normally disconnected from the metallic circuit, a pen or brush co-operating therewith and connected to the other side of the metallic circuit, the second and third signal wheels being arranged to be connected to the metallic circuit in succession after the metallic circuit signal wheel has been operated, substantially as described. 26th. The combination of the following instrumentalities, viz. :—A district station, a central station, a main line connecting said stations, a relay in said central station, a local circuit in said central station, a recording instrument in said local circuit, an armature for said relay controlling said local circuit, a resistance in the district station in a shunt in the main line, a signal transmitting mechanism in multiple with said resistance, and a normally closed switch in the main line, to operate substantially as described. 27th. In a fire alarm system, the combination of the following instrumentalities, viz. :—A metallic circuit, a signal transmitting mechanism therein, a third or auxilliary wire, a relay e^2, including in said third wire, and a normally open circuit controller at the transmitting mechanism, having one terminal connected to the third wire and the other terminal joined to a metallic circuit wire, substantially as described. 28th. In a fire alarm system, the combination of the following instrumentalities, viz. :—A series of metallic circuits, a signal transmitting mechanism in each circuit, a receiving instrument in each metallic circuit, a pole changer in each circuit, an electro-magnet for operating each pole changer, a local circuit in which the electro-magnets for the said pole changers are connected in series, circuit terminals for said local circuit, and means, substantially as described, rendered effective by the operation of a signal transmitting mechanism, in any one of the metallic circuits to reverse the current over all the metallic circuits, substantially as described. 29th. In a system for transmitting signals, the combination of the following instrumentalities, viz. :—An electric circuit provided with one or more signal transmitting mechanisms, a pole changer in said circuit, an electro-magnet to operate said pole changer to produce reversable of the current in the electric circuit, a local circuit, in which the said electro-magnet is located, circuit terminals for said local circuit, an independent circuit controller to operate said terminals at each break in the electric circuit to actuate the pole changer to produce a reversal of the current in the electric circuit on the closure of the said electric circuit following the break in the said circuit, a relay in the electric circuit, and an armature for said relay operating the independent circuit controller at each break in the electric circuit, substantially as described. 30th. In a signalling system, the combination, with a box provided with a door and a signal transmitting mechanism in said box, of an audible signal in said box, a motor mechanism for said audible signal, and a releasing device for said motor mechanism disconnected from and independent of the box door, but adapted to be operated by the opening of the door, substantially as described.

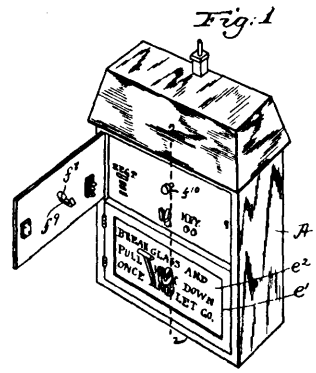
No. 42,795. Signal Transmitter.

(*Appareil pour transmettre les signaux.*)

Albert Watts, assignee of Henry A. Chase, both of Boston, Massachusetts, U.S.A., 2nd May, 1893; 6 years.

Claim.—1st. In a system for transmitting signals, the combination of the following instrumentalities, viz.: a normally closed electric circuit, a signal transmitting mechanism included therein and consisting of braek wheels a, a^1, and co-operating pens or brushes a^3, a^4, normally in contact with said braek wheel, independent paths for the current from the pens a^3, a^4, to one side of the line or electric circuit, a normally closed circuit controller in the path of the pen a^3, a normally open circuit controller in the path of the pen a^4, and a resistance c^{13}, connected to one side of the electric circuit and to the path of the pen a^4, to form a shunt around the braek wheel a^1, and two relays in the said circuit, both of which

Fig. 1



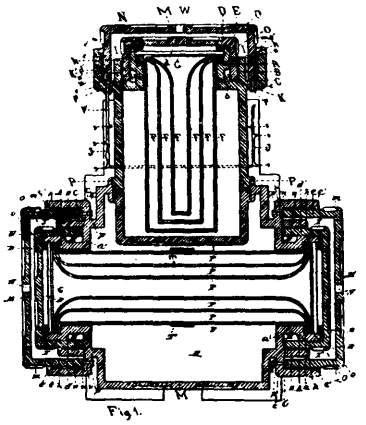
are responsive to the signals transmitted over the normally closed path of the pen a^3, and one of which is responsive only to the signals transmitted over the normally open path of the pen a^4, substantially as described. 2nd. In a system for transmitting signals, the combination of the following instrumentalities viz.: a metallic circuit a signal transmitting mechanism included therein and connected thereto by independent paths, a normally closed circuit controller in one of the said paths, a normally open circuit controller in the other of said paths, a motor mechanism to operate the signal transmitting mechanism, means for positively changing the speed of the motor mechanism and thereby the speed of the signal transmitting mechanism, and independent receiving instruments included in the metallic circuit, one of the said instruments being responsive to the transmitting mechanism when operated at one speed and not at the other speed, substantially as described. 3rd. In a system for transmitting signals, the combination of the following instrumentalities, viz. : a metallic circuit, a signal transmitting mechanism included in said metallic circuit, a motor mechanism to operate it, means for positively changing the rate of movement of the motor mechanism and thereby of the speed of the transmitting mechanism, and two relays included in the metallic circuit in multiple with each other, substantially as described. 4th. In a system for transmitting signals, the combination of the following instrumentalities, viz. : a metallic circuit, a signal transmitting mechanism included in said metallic circuit, a motor mechanism to operate it, means for positively changing the rate of movement of the motor mechanism and thereby of the speed of the transmitting mechanism, two relays included in the metallic circuit in multiple with each other, a pole changer in the metallic circuit, an electro-magnet to operate it, a register controlled by the operation of one of the said relays, and circuit terminals for the pole changer and an electro-magnet rendered effective by the operation of the said register, substantially as described. 5th. In a system for transmitting signals, the combination of the following instrumentalities, viz. : a metallic circuit, a signal transmitting mechanism included in the said metallic circuit, a motor mechanism to operate it, means for positively changing the rate of movement of the motor mechanism and thereby of the speed of the transmitting mechanism, two relays included in the metallic circuit in multiple with each other, a pole changer in the metallic circuit, an electro-magnet to operate it, a shaft, an electro-magnet to control its operation, a circuit terminal on said shaft connected to the pole changer electro-magnet, a second circuit terminal for the changer magnet, a circuit controller governing the operation of the electro-magnet controlling the circuit terminal carrying shaft, and a polarized electro-magnet in the metallic circuit at the transmitting mechanism, substantially as described. 6th. In a system for transmitting signals, the combination of the following instrumentalities, viz. : a metallic circuit, a signal transmitting mechanism included therein and consisting of signal wheels a a^1, two independent contact pens or terminals connected to the metallic circuit by independent paths and normally in contact with the said signal wheels, circuit controllers in said paths, a resistance interposed in one of the said paths when the circuit controller is operated, receiving instruments in the metallic circuit in multiple with each other, one of the said instruments being operated when the resistance is interposed in the metallic circuit, and two local circuits disconnected from each other and controlled by the said receiving instruments, substantially as described. 7th. In a fire alarm system, the combination of the following instrumentalities, viz. : a metallic circuit, a signal transmitting mechanism included therein, circuit terminals h^{14} h^{15}, connected to the metallic circuit, an electro-magnet h^2, a key h^3 and a resistance h^4 in shunt with said key, adapted to be connected to the circuit terminals h^{14} h^{15}, and relays d d^1 in multiple with each other, one relay as d^1, being responsive to the key h^3, substantially as described. 8th. In a fire alarm system, the combination of the following instrumentalities, viz. : a metallic circuit, a signal transmitting mechanism included therein, circuit terminals h^{14} h^{15}, connected to the metallic circuit, an electro-magnet h^2, a key h^3, and a resistance h^4 in shunt with said key, adapted to be connected to the circuit terminals h^{14} h^{15},

a register controlled in its operation by the electro-magnet h^2 relays d d^1 in multiple with each other, one relay, as d^1, being responsive to the operation of the key h^3, a circuit controller D in the metallic circuit, and a resistance in shunt with the circuit controller D, substantially as described. 9th. In a fire alarm system, the combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism included therein, a normally closed circuit controller C^1, in circuit with the signal transmitting mechanism, circuit terminals h^{14}, h^{15}, in multiple with the signal transmitting mechanism, a portable detachable signal receiving and transmitting apparatus adapted to be connected in circuit with the circuit terminals h^{14}, h^{15}, relays d, d^1, included in the metallic circuit in multiple with each other, a circuit controller D, and a resistance in shunt with the circuit controller D, the circuit of the signal transmitting mechanism being opened when the portable apparatus is coupled in circuit, substantially as described. 10th. In a system for transmitting signals, the combination of the following instrumentalities, viz.: an electric circuit, a signal box located in said circuit and provided with a door, a signal transmitting mechanism in said box included in said electric circuit, a motor mechanism to operate said signal transmitting mechanism, means for positively changing the rate of movement of the motor mechanism, normally inactive when the door is closed, but adapted to be rendered active when the door is open, to change the speed of the motor mechanism and thereby of the transmitting mechanism, and a relay in the said electric circuit responsive to the varying speeds of the transmitting mechanism, substantially as described. 11th. In a fire alarm system, the combination of the following instrumentalities, viz.: an electric circuit, a fire alarm box located in said circuit, and provided with a signal transmitting mechanism having two independent paths for the signal, a motor mechanism for said signal, a positively acting mechanical speed controlling device for changing the speed of the motor mechanism, and a door for the box provided with devices to control the independent path and the speed controlling device, substantially as described. 12th. In a system for transmitting signals, the combination of the following instrumentalities, viz.: an electric circuit, a signal transmitting mechanism included in said electric circuit, a motor mechanism to operate it, a positively acting mechanical speed changing device for changing the rate of movement of the motor mechanism and thereby of the speed of the transmitting mechanism, and a relay in the said circuit responsive to the varying speeds of the transmitting mechanism, substantially as described. 13th. In a system for transmitting signals, the combination of the following instrumentalities, viz.: an electric circuit, a signal transmitting mechanism included in said electric circuit, a motor mechanism to operate it, means for positively changing the rate of movement of the motor mechanism and thereby of the speed of the transmitting mechanism, a relay in the electric circuit responsive to the varying speeds of the transmitting mechanism and a signal mechanism operated by the relay is actuated by one speed of the transmitting mechanism and not by the other speed of the said transmitting mechanism, substantially as described. 14th. In a system for transmitting signals, the combination of the following instrumentalities, viz.: an electric circuit, a signal transmitting mechanism included in said electric circuit, a motor mechanism to operate it, means for positively changing the rate of movement of the motor mechanism and thereby of the speed of the transmitting mechanism, a relay in the metallic circuit responsive to the varying speeds of the transmitting mechanism, and an audible signal upon which is sounded the signal when transmitted at one speed and not at the other, substantially as described. 15th. In a system for transmitting signals, the combination of the following instrumentalities, viz.: a metallic circuit, a signal transmitting mechanism included in said metallic circuit, a motor mechanism to operate it, a positively operating mechanical speed changing device for changing the rate of movement of the motor mechanism and thereby of the speed of the transmitting mechanism, a relay in the metallic circuit responsive to the varying speeds of the transmitting mechanism, a polarized bell in the metallic circuit at the transmitting mechanism, a pole changer in the metallic circuit, a shaft controlled in its operation by the said relay, and a detachable signal wheel on said shaft to operate the pole changer, substantially as described.

No. 42,796. Apparatus for Handling and Preserving Food Products. (*Appareil pour manutentionner et conserver les produits alimentaires*)

Albert Baker, Fort Wayne, Indiana, and Frank D. Bittinger, Dayton, Ohio, both in U.S.A., 2nd May, 1893; 6 years.

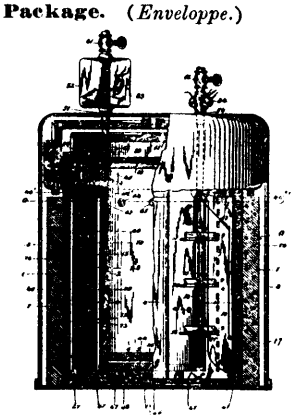
Claim.—1st. The combination of a central case provided with one or more openings with one or more cases, constructed in sections placed through said openings partially within said central case and hermetrically joined thereto, journals attached to the central case at opposite ends adapted to support said case in position to be revolved when placed in bearings, means to rotate or agitate the enclosing case upon said journals, covers to the openings of the cases and means to hermetically seal them, interior vessels or chambers F provided with rims adapted to rest upon and be supported by the shoulder of the interior recess a of the projection A, a plate adapted to fit in said recess and be supported by said shoulder, the lateral flange c provided with perforations, a packing covering the upper surface of said lateral flange, and provided with channels corresponding to the perforations through said lateral flange connecting them with the chamber I, an outer cover provided with a flange adapted to form with the inner cover a space or chamber extending around its inner surface pipes p, provided with small orifices, connected to said perforations in said lateral flange and extending into the jacket J, a jacket of porous or absorbent material enveloping the case or



cases externally, suitable packing material placed between the parts requiring sealing, and means to secure the covers. 2nd. The combination of a case provided with a neck or opening, with a projection attached thereto, constructed with an interior recess upon its upper inner surface of sufficient depth to receive the rims or interior vessels, and a plate so as to form a chamber between said plate and a cover placed on the projection, and also, constructed with an exterior recess upon its lower exterior surface, and also, with a lateral flange extending out from its lower end, adapted to form a seat for the rim of a cover, interior vessels or chambers F, provided with rims or flanges adapted to rest upon and be supported by said shoulder within the interior recess of said projection, a plate adapted to fit in said recess, and be supported by said shoulder, a cover provided with a flange adapted to closely envelope that part of the projection opposite the said interior recess, and to form with the said lower part of said projection and its lateral flange a closed space or chamber and means to secure the cover, a second projecting adapted to receive the flange of said cover and closely envelope the same, a lateral flange attached to the neck of the case or to said second projection and extending therefrom so as to form a seat for the rim of an outer cover and a space between said rim and its said attachment for perforations through said lateral flange, a packing covering the upper surface of said lateral flange provided with perforations or channels corresponding to the perforations through said flange, an outer projection attached to said lateral flange adapted to closely envelope the flange of an outer cover, an outer cover provided with a flange adapted to form with the inner cover a space or chamber extending around its interior surface, pipes p, provided with small orifices connected to said perforations in said lateral flange and extending into a jacket of porous or absorbent material enveloping the case or cases externally, suitable packing material placed between the parts requiring sealing, and means to secure the covers. 3rd. The combination of a case provided with an opening, with a projection attached thereto constructed with an interior recess upon its upper inner surface, of sufficient depth to receive the rims or flanges of interior vessels and a plate so as to form a chamber between said plate and a cover placed on the projection, and also constructed with an exterior recess upon its lower exterior surface, and also with a lateral flange extending out from its lower part adapted to form a seat for the rim of a cover; interior vessels or chambers F, provided with rims or flanges adapted to rest upon and be supported by said shoulder within the interior recess of said projection, a plate adapted to fit in said recess and be supported by said shoulder, a cover provided with a flange adapted to closely envelope that part of the projection opposite the said interior recess and to form with the said lower part of said projection and its lateral flange a closed space or chamber, suitable packing material placed between the parts requiring sealing and means to secure the covers. 4th. The combination of a case provided with an opening, with a projection attached thereto constructed with an interior recess upon its upper inner surface of sufficient depth to receive the rims or flanges of interior vessels, and a plate, so as to form a chamber between said plate and a cover placed on the projection, and also constructed with an exterior recess upon its lower exterior surface, and also with a lateral flange extending out from its lower part adapted to form a seat for the rim of a cover, a plate adapted to fit in said recess and be supported by said shoulder, a cover provided with a flange adapted to closely envelope that part of the projection opposite the said interior recess and to form with the said lower part of said projection and its arm a closed space or chamber, suitable packing material placed between the parts requiring sealing, and means to secure the covers. 5th. The combination of a case provided with an opening, with a projection attached thereto constructed with a recess upon its lower exterior surface, a lateral flange extending

out from its lower part and adapted to form a seat for the rim of a cover, a cover provided with a flange adapted to closely envelope the upper part of the projection, and to form with the said lower part of said projection and its lateral flange, a closed space or chamber and means to secure the cover, and suitable packing material placed between the parts requiring sealing. 6th. The combination of a case provided with an opening, with a projection attached thereto constructed with a recess upon its lower exterior surface, a lateral flange extending out from its lower end and adapted to form a seat for the rim of a cover, a cover provided with a flange adapted to closely envelope the upper part of the projection and to form with the said lower part of said projection and its lateral flange, a closed space or chamber and means to secure the cover, a second projection adapted to receive the flange of said cover and closely envelope the same, and suitable packing material placed between the parts requiring sealing. 7th. The combination of a case having a cover with a lateral flange attached to the neck of the case or to a projection, and extending therefrom so as to form a seat for the rim of a second or outer cover and a space between said rim and its said attachment, a second or outer projection attached to said lateral flange adapted to closely envelope the flange of an outer cover, an outer cover provided with a flange adapted to form with the inner cover a space or chamber extending around its interior surface, perforations through said lateral flange and a jacket of porous or absorbent material enveloping the case. 8th. The combination of a case having a cover with a lateral flange attached to the neck of the case or to a projection and extending therefrom so as to form a seat for the rim of a second or outer cover, and a space between said rim and its said attachment, an outer cover provided with a flange adapted to form with the inner cover a space or chamber extending around its interior surface, perforations through said lateral flange, a covering of porous or absorbent material enveloping the case. 9th. The combination of a central case with one or more cases placed partially therein through openings in said central case and hermetically joined thereto, with means to hermetically seal the openings of the inserted cases. 10th. The combination of a case provided with a cover, and means to hermetically seal the cover, with a projection attached to the openings of the case constructed with a recess and shoulder on its upper interior surface, and two or more interior vessels provided rims adapted to rest upon and be supported by said projection shoulder within the interior recess of said projection. 11th. In a central case adapted to receive and contain other cases and vessels, the combination of journals adapted to support the central case in position to be revolved, the hermetical sealing devices herein described, the case N, constructed in sections as described, two or more interior vessels F, adapted to rest within each other with spaces between them, and provided with flanges adapted to rest upon and be supported by the shoulder of the recess *a*, the jacket J, and means to cause liquids or fluids to flow upon and through said jacket.

No. 42,797. Package. (*Enveloppe.*)



Albert Baker, Fort Wayne, Indiana, and Frank D. Bittinger, Dayton, Ohio, both in the U.S.A., 2nd May, 1893; 6 years.

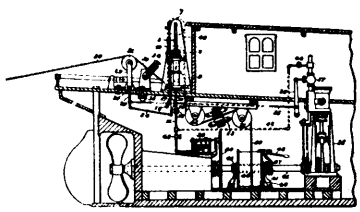
Claim.—1st. In an apparatus for handling and preserving foods and other substances, the combination of a main case with a projection attached to its neck or opening provided with an interior recess and with a shoulder upon its upper part of sufficient depth to receive the rim of a secondary case, and a plate provided with a rim adapted to rest upon the shoulder of the interior recess of said projection, and extending to or near to the bottom of the main case and provided with a removable bottom having a central orifice closed by a plug or valve, a plate adapted to form a cap or cover to said secondary case and to rest upon and cover its rim, packing between the rim and cap of said secondary case adapted to seal the same when the cover enclosing the projection is secured in place, sub-interior cases placed therein provided with covers and means to hermetically seal them, and with removable bottoms which are provided with valves or plugs, a piston fitted in said secondary case and adapted to be operated therein, a bottom to the main case provided with an orifice extended to the interior thereof closed hermetically by a plug or valve and adapted to coincide with the orifice in the bottom of said secondary case, partition walls between the secondary case and the main case sub-dividing the space between them into two or more compartments, supports under the secondary case constituting walls connected with and forming part of the partition walls and provided with valves closing orifices and means to operate the valves externally, enveloping flexible covers hermetically attached, enclosing the handles of the wires or other mechanism connected to and operating the interior valves and adapted to permit their free operation, pipes entering the case or cases for the admission and exit of a current, provided with stop cocks, or other means for regulating the entrance and exit of a current, a cage or receptacle containing sterilizing material connected to the admission and exhaust pipes in such manner that all the current entering or flowing out through the inner ends of said pipes shall pass through the sterilizing material, a thermo-electric pile consisting of alternate metallic plates or conductors of dissimilar metals, connected at their alternate ends, so as to form a continuous path for an electric current, cross walls extending from one partition wall to another provided with said thermo-electric piles, and further subdividing the space into two or more compartments, the connecting ends of the piles extended beyond the cross walls linearly so as to form points of attachment in the partition walls, cells or recesses placed within the apparatus at any required places, and adapted to hold capsules and materials, the cells containing materials being provided with covers, and the covers and capsules being constructed of materials adapted to be dissolved or broken by the application of heat, moisture, or other means at the will of the operator, electric mats consisting of a mat of fibrous or porous material placed on suitable supports containing electric conductors interlaced and arranged to form a path for an electric current, and also arranged to produce electrolytic action at given places, electric conductors connecting the thermo-electric pile and the electric mats, with suitable sources of electric generation outside the apparatus, an electric sterilizer enclosed within a case placed between sections of the said pipe, the case forming a section thereof, a jacket of porous or absorbent material enveloping the main case externally and provided with electric conductors of different conductive power connected with each other to form a continuous path for an electric current interlaced therewith, and a cover or covers to the openings of the case or cases, and means to secure them in place hermitically. 2nd. In an apparatus for handling and preserving foods and food substances, the combination of a main case with a projection attached to the neck or opening of said case provided with an interior recess with a shoulder, a secondary case provided with a rim adapted to rest upon said shoulder within said recess of said projection and extended to or near to the bottom of said case, and also provided with a removable bottom having an orifice closed by a plug or valve, a plate adapted to fit in said recess and form a cap or cover to said secondary case, support under the secondary case constituting walls connected with the partition walls, and provided with apertures provided with valves and means to operate the valves externally, partition walls between the secondary case and the main case subdividing the space between them into two or more compartments, and provided with apertures and valves and means to operate the valves externally, pipes entering the case or cases for the admission and exit of a current, provided with stop cocks, or other means for regulating the entrance and exit of a current, suitable packing material between the parts requiring sealing, and a cover over said projection, and means to secure the same in place hermitically. 3rd. In an apparatus for handling foods and other substances, the combination of a main case with a projection attached to the neck or opening of said case and provided with an interior recess with a shoulder, a secondary case provided with a rim adapted to fit in said recess and rest on said shoulder, and extending to or near the bottom of the main case and also provided with a removable bottom having an orifice closed by a plug or a valve, a plate adapted to fit in said recess and form a cap or cover to said secondary case, a piston fitting in said secondary case and adapted to be operated therein, suitable packing between the parts requiring sealing, and a cover to said projection and means to secure the same in place heremitically. 4th. In an apparatus for handling and preserving foods and other substances, the combination of a main case with a projection attached to the neck or opening of said case, provided with an interior recess with a shoulder, a secondary case provided with a rim adapted to fit in said recess and rest upon said shoulder and extend to or near to the bottom of the main case and provided with a removable bottom having an orifice and a plug or valve closing the same, a plate adapted to fit in said recess and form a cap or cover to said secondary case, a piston fitting in said secondary case and adapted to be operated therein, a pipe opening into the space or chamber formed between the plate covering, the rim of said secondary case and a cover placed above it, and opening also into the entrance pipe, suitable packing material between the parts requiring sealing, and a cover to said projection and means to secure the same in place hermitically. 5th. In an apparatus for handling and preserving foods and other substances, the combination of a main case with a projection attached to the neck or opening of said case provided with a recess with a shoulder, a secondary case provided with a rim adapted to fit in said recess and rest upon said shoulder and extended to or near to the bottom of the main case, and provided with a removable bottom having an orifice closed by a plug or valve, a plate adapted to form a cap or cover to said secondary case and to rest upon and cover the rim thereof, packing between the rim and cap or cover to said secondary case adapted to seal the same, and a cover to said projection and means to secure the same in place. 6th. In an apparatus for handling and preserv-

ing foods and other substances, the combination of a main case with a projection attached to the neck or opening of said case provided with an interior recess with a shoulder, a secondary case provided with a rim adapted to fit in said recess and rest upon said shoulder and extended to or near to the end of the bottom of the case, and provided with a removable bottom having a central orifice closed by a plug or valve, partition walls between the secondary case and the main case sub-dividing the space between them into two or more compartments and provided with apertures and valves closing the same and means to operate the valves externally, a thermo electric pile consisting of alternate metallic plates or conductors of dissimilar metals connected at their alternate ends so as to form a continuous path for an electric current, and a cover over said projection and means to secure the same in place hermitically. 7th. In an apparatus for handling and preserving foods and other substances, the combination of a case with a projection attached to the neck or opening of said case provided with an interior recess with a shoulder, a secondary case provided with a rim adapted to rest upon said shoulder in said interior recess and extended to or near the bottom of the main case and provided with a removable bottom having an orifice closed by a plug or valve, partition walls between the secondary case and the main case sub-dividing the space between them into two or more compartments, cross walls extending from one partition wall to the other provided with thermo electric piles, and further sub-dividing the space into two or more compartments, the connecting ends of said piles extended beyond the cross walls lineally so as to form points of connection and attachment in said partition walls and a cover over said projection and means to secure in place hermetically. 8th. In an apparatus for handling and preserving foods and other substances the combination of a case with a jacket of porous or absorbent material enveloping the case or cases externally provided with electric conductors of different conductive power connected with each other to form a continuous path for an electric current and interlaced within said jacket. 9th. In an apparatus for handling and preserving foods and other substances the combination of a case with projection attached to the neck or opening of the case provided with an interior recess with a shoulder, a secondary case provided with a rim adapted to rest upon said shoulder in said interior recess and extending to or near to the bottom of the main case and also provided with a removable bottom having a central orifice closed by a plug or valve, electric mats consiting of material of fibrous or porous construction placed on suitable supports within said case containing electric conductors arranged to form a path for an electric current, and also arranged to produce electrolytic action at given places and a cover over said projection and means to secure the same in place hermetically. 10th. In an apparatus for handling and preserving foods and other substances the combination of a main case with pipes entering said case for the admission and exit of a current, and provided with stop cocks, or other means for regulating the entrance and exit of a current, an electric sterilizer enclosed within a case placed between sections of the said pipe, the case forming a section thereof, and a cover provided with means to secure the same in place hermetically. 11th. In an apparatus for handling and preserving foods and other substances the combination of a main case with sub-interior cases enclosed by an envelope and extended from the neck to the bottom of the main case provided with removable bottoms which are provided with valves or plugs, partition walls between said envelope enclosing said sub-interior cases and the main case, sub-dividing the space between them into two or more compartments and a cover for said case provided with means to secure the same in place hermetically. 12th. In an apparatus for handling and preserving foods and other substances the combination of a case with pipes entering said case for the admission and exit of a current, provided with stop cocks, or other means for regulating the entrance and exit of a current, a cage or receptacle containing sterilizing material connected to the admission and exit pipes in such manner that all the current entering or flowing out through the inner ends of said pipes shall pass through the sterilizing material, and a cover to said case and means to secure the same in place hermetically. 13th. In an apparatus for handling and preserving foods and other substances the combination of a case with a projection attached to the neck or opening of said case provided with an interior recess with a shoulder, a secondary case provided with a rim adapted to rest upon said shoulder in said interior recess and extending to or near to the bottom of the main case and provided with a removable bottom having a central orifice closed by a plug or valve, a plate adapted to fit in said recess, and form cap or cover to said secondary case, partition walls between the secondary case and said secondary case, and said case sub-dividing the space between them into two or more compartments, sub-interior cases placed within the secondary case or within an envelope placed therein, and also provided with covers and means to hermetically seal them, and having removable bottoms which are provided with valves or plugs, and a cover or covers to the openings of the case or cases, and means to secure them in place hermetically. 14th. In an apparatus for handling and preserving foods and other substances, the combination of a main case, with a projection attached to the neck or opening of said case provided with an interior recess with a shoulder and of sufficient depth to receive the rims of the enclosed cases and a plate, and leave a space or chamber between the plate, and a cover placed on top of the projection, a secondary case provided with a rim adapted to rest upon the shoulder of said interior recess, and extended to or near to the bottom of the main case, and provided with a removable bottom having an orifice closed by a plug or valve, a plate adapted to form a cap or cover to said secondary case and to rest upon and cover the rims thereof, partition walls between said secondary case and the main case sub-dividing the space between them into two or more compartments, sub-interior cases placed within the secondary case or within an envelope placed therein provided with covers, and means to hermetically seal the same and with removable bottoms which are provided with valves or plugs, and a cover or covers to the openings of the case or cases, and means to secure them in place hermetically. 15th. In an apparatus for handling and preserving foods and other substances, the combination of a case with a projection attached to the neck or opening of the case provided with an interior recess with a shoulder, a secondary case provided with a rim adapted to rest upon the shoulder in said interior recess, and extending to or near to the bottom of the main case, and provided with a removable bottom having a central orifice closed by a plug or valve, a plate adapted to fit in said recess and form a cap or cover to said secondary case, a piston fitting in said secondary case and adapted to be operated therein, a bottom to the said main case provided with an orifice to the interior thereof closed by a removable plug, and adapted to coincide with the orifice in the bottom of said secondary case, and a cover or covers to the opening of the case, and means to secure them in place hermetically. 16th. In an apparatus for handling and preserving foods and other substances, the combination of a main case with a projection attached to the neck or opening of a case provided with an interior recess with a shoulder, a secondary case provided with a rim adapted to rest upon the shoulder in said interior recess, and extending to or near to the the bottom of the main case, and also provided with a removable bottom having a central orifice closed by a plug or valve, a plate adapted to fit in said recess and form a cap or cover to said secondary case, partition walls between the secondary case and the main case subdividing the space between them into two or more compartments, a thermo electro pile placed within the partition walls consisting of alternate metallic plates or conductors of dissimilar metals, connected at their alternate ends so as to form a continuous path for an electric current, cross walls provided with thermo electric piles and with the connecting ends of said piles extended beyond the said cross walls lineally so as to form points of attachment in said partition walls, electric mats consisting of a mat of material of fibrous or porous construction placed on suitable supports containing electric conductors arranged to form a path for an electric current, and also arranged to produce electrolytic action at given places, and a cover or covers to the openings of the case or cases, and means to secure them in place hermetically. 17th. In an apparatus for handling and preserving foods and other substances, the combination of a main case, with a projection attached to the neck or opening of said case, provided with an interior recess with a shoulder, a secondary case provided with a rim adapted to rest upon the shoulder in said interior recess, and extending to or near to the bottom of the main case, and provided with a removable bottom having an orifice closed by a plug or valve, a plate adapted to fit in said recess and form a cap or cover to said secondary case, partition walls between the secondary case and the main case, sub-dividing the space between them into two or more compartments, cells or recesses placed within the apparatus at any required places, and adapted to hold capsules and materials, the cells containing materials, being provided with covers, and the covers and capsules constructed of materials adapted to be dissolved or broken away by the application of heat, moisture or other means, at the will of the operator, and a cover over said projection and means to secure the same in place hermetically. 18th. In an apparatus for handling and preserving foods and other substances, the combination of a main case, with a projection attached to the neck or opening of said main case, provided with an interior recess with a shoulder, a secondary case provided with a rim adapted to rest upon the shoulder in said recess, and extending to or near to the bottom of the main case, a plate adapted to fit in said recess and form a cap or cover to said secondary case, partition walls between the secondary case, sub-dividing the space between them into two or more compartments, a thermo electric pile, consisting of alternate metallic plates or conductors of dissimilar metals connected at their alternate ends, adapted to form a continuous path for an electric current, cross walls extending from one partition wall to the other, provided with thermo electric piles, and further sub-dividing the space into two or more compartments, the connecting ends of the piles extended beyond the cross walls lineally so as to form points of attachment in the partition walls, sub-interior cases placed within the secondary case or within an envelope placed therein, and also provided with covers and means to hermetically seal them, and with removable bottoms, which are provided with valves or plugs, and a cover over said projection, and means to secure it in place hermetically. 19th. In an apparatus for handling and preserving foods and other substances, the combination of a main case with a projection attached to the neck or opening of the main case, provided with an interior recess with a shoulder, a secondary case provided with a rim adapted to rest upon the shoulder of the interior recess of said projection, and extending to or near to the bottom of the main case, and provided with a removable bottom having an orifice closed by a plug or valve, partition walls between the secondary case and said main case, sub-dividing the space between them into two or more compartments, and a cover to said projection, and means to secure the same in place. 20th. In an apparatus for handling and preserving foods and other substances, the combina

tion of a main case with a projection attached to the neck or opening of said case, provided with an interior recess with a shoulder, a secondary case provided with a rim adapted to rest upon the shoulder in said interior recess and extending to or near to the bottom of the main case, and provided with a removable bottom, having a central orifice closed by a plug or valve, pipes entering the case or cases for the admission and exit of a current, and provided with stop cocks, or other means for regulating the entrance and exit of a current, electric mats consisting of fibrous or porous material placed on suitable supports containing conductors, arranged to produce electrolytic action at given places, and a cover over said projection, and means to secure the same in place hermetically.

No. 42,798. Towing Machine. (*Machine de touage.*)

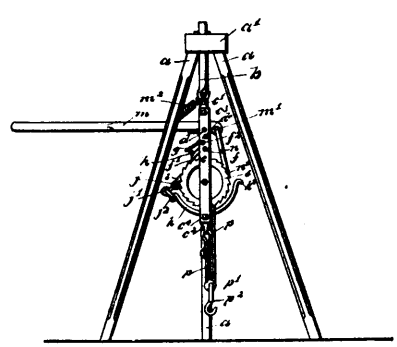
Fig. 1.



Robert J. Victor, Providence, Rhode Island, Clarence L. Davis, New York, State of New York, and Henry H. de Vos, Jersey City, New Jersey, all in the U.S.A., 2nd May, 1893; 6 years.

Claim.—1st. A towing machine having separating sheaves around which the towline is rove located between the inboard or secured, and the outboard or free end of the towline, and mechanism whereby the sheaves are automatically separated when the strain on the towline is lessened or removed, and automatically brought together when strain is again brought thereon, substantially as shown and described. 2nd. A towing machine having separating sheaves around which the cable is rove located between the inboard or secured and the outboard or free end of the towline, and means operated by the propelling or main shaft of the vessel adapted to cause said sheaves to automatically separate and take up the slack of the twoline, when the strain thereon is lessened or removed, and to return together again when the strain is again brought thereon, substantially as shown and described. 3rd. The combination with a vessel, of a device adapted to automatically take up the slack of the towline when the strain thereon is lessened or removed, and to pay out the same when the strain is again brought thereon, said device being connected with and operated by the propellor or mains haft of the vessel, substantially as shown and described. 4th. In a towing machine, the combination, with separating sheaves around which the towline is rove located between the secured or inboard and the free or outboard ends thereof, of one or more cylinders provided with pistons movable therein connected with end adapted to actuate the separating sheaves, and means for automatically admitting a fluid under pressure to the cylinders when the strain upon the towline is lessened or removed, whereby the pistons and connected sheaves are actuated so as to take up the slack of the towline, and for automatically exhausting the fluid from the cylinders and actuating the separating sheaves so as to pay out the slack of the towline taken up, when strain is again brought thereon, substantially as shown and described. 5th. In a tow machine, the combination with separating sheaves around which the towline is rove located between the secured or inboard and the free and outboard ends thereof, of one or more cylinders provided with pistons movable therein connected with and adapted to actuate the separating sheaves, and means for automatically admitting a fluid under pressure to the cylinders when the strain upon the towline is lessened or removed, whereby the pistons and connected sheaves are actuated so as to take up the slack of the towline, and for autcmatically exhausting the fluid from the cylinders and actuating the separating sheaves, so as to pay out the slack of the towline taken up, when strain is again brought thereon, a sufficient quantity of the fluid under pressure to serve as a cushion to receive the strain of the cable always remaining in the cylinder or cylinders, substantially as and for the purposes described. 6th. In a towing machine, the combination, with separating sheaves around which the towline is rove, of a cylinder or cylinders provided with pistons connected with and adapted to actuate the separating shears, and means for admitting a fluid under pressure to the cylinders in such manner that the same will form a cushion upon which the strain of the cable is received, substantially as shown and described. 7th. In a towing machine, the combination, with separating sheaves around which the towline is rove, of a cylinder or cylinders provided with pistons connected with and adapted to actuate the separating sheaves, said cylinders being adapted to receive a fluid in such manner that the same will form a cushion upon which the strain of the towline will be received, substantially as shown and described, and for the purposes set forth. 8th. The combination, with a vessel of a surge relieving and take up mechanism for the towline, and a grip, clamp or fastening for the inboard end of the towline, the surge relieving and take up mechanism being located between the grip and the outboard or free end of the towline, substantially as shown and described. 9th. The combination, with a vessel of a storage drum for the towline, and an automatic surge relieving and take up device for the towline connected therewith and located between the storage drum and the outboard or free end of the tow line, substantially as shown and described. 10th. In a towing machine, the combination, with a storage drum for the tow line, of an automatic surge relieving and take up device connected with the towline, and a grip, clamp or fastening for holding or securing the towline located between the storage drum and the surge relieving and take up device, the take up device being located between the grip, clamp or fastening the free or outboard end of the towline, substantially as shown and described. 11th. The combination, with a vessel having a propellor shaft, of a storage drum for the tow line, gearing connecting the drum with the propellor shaft for revolving the same, and mechanism whereby the drum may be brought into and out of gear with the propellor shaft, and rotated when desired, substantially as shown and described. 12th. The combination, with a vessel having a propellor shaft, for a storage drum for the towline or hawser revolubly mounted on the propellor shaft, and means for bringing said drum into connection with said shaft and operating the same, substantially as shown and described. 13th. The combination with a vessel, of a regulator or valve controlling the propelling mechanism, and a lever or levers connected with the regulator or valve and with the towline, in such manner that the slacking and tightening of the towline will actuate the regulator or valves, substantially as and for the purposes set forth. 14th. The combination with a vessel provided with an automatic surge relieving and take up mechanism for the towline, of a regulator or valve controlling the propelling mechanism, and a lever or levers connected with the regulator or valve and with the towline, in such manner that the slacking and tightening of the towline will actuate the regulator or valve, substantially as and for the purposes set forth. 15th. In a towing machine, the combination with separating sheaves around which the towline is rove located between the in and the outboard ends thereof, of a cylinder or cylinders 1, having pistons provided with piston rods 2, adapted to separate the sheaves when the same are pushed out, said cylinders being also provided with a pipe 11, connected with a supply of fluid under pressure, a valve 12, so arranged in said pipe 11, as to act as an admission and exhaust valve for the cylinder or cylinders, and means for automatically actuating said valve, as the strain upon the towline is increased or diminished, substantially as and for the purposes set forth. 16th. In a towing machine, the combination with separating sheaves around which the towline is rove located between the in and the outboard ends thereof, of a cylinder or cylinders 1, having pistons provided with piston rods 2, adapted to separate the sheaves when the same are pushed out, means for admitting a fluid under pressure to the cylinders so as to separate the sheaves, and to exhaust the same therefrom so as to bring them together again, and a lever or bar 29, adapted to be actuated by the strain upon the towline so as to admit and exhaust the fluid to and from said cylinders, as and for the purposes set forth. 17th. In a towing machine, the combination with separating sheaves around which the towline is rove located between the in and the outboard end thereof, of a cylinder or cylinders 1, having pistons provided with piston rods 2, adapted to separate the sheaves when the same are pushed out, means for admitting a fluid under pressure to the cylinders so as to separate the sheaves, and to exhaust the same therefrom, so as to bring them together again, and a lever or bar 29, adapted to be actuated by the strain upon the towline, so as to admit and exhaust the fluid to and from the said cylinders, said cylinders being also provided with mechanism connected with one or more of the piston rods thereof, whereby the fluid under pressure is admitted to and exhausted from them, whereby the pistons, piston rods and sheaves connected therewith, are actuated automatically irrespective of the strain upon the towline, substantially as shown and described, and for the purposes set forth.

No. 42,799. Stump Extractor. (*Arrache-souche.*)

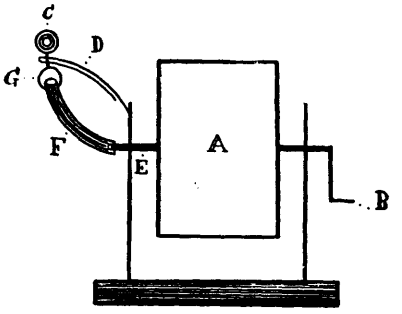


Levi Kring and Josiah Baughman, both of Westerville, Ohio, U.S.A., 2nd May, 1893; 6 years.

Claim.—1st. In a stump extractor, the combination, with a tripod *n*, a yoke frame suspended therefrom and elevating ratchet wheels *e*, journalled in said yoke and connected centrally by a

central sprocket hub e^1, of a lever m, fulcrumed vertically above said sprocket hub, and a lever arm n, depending from said lever and engaging, as described, with both the wheels e, substantially as specified. 2nd. In a stump extractor, the combination, with a tripod n, a yoke frame centrally suspended therefrom, elevating ratchet wheels e, journalled in said yoke and connected centrally by a central sprocket hub e^1, brake supporting arms i, pivoted, as described, within the yoke, and brake bars k, having end hooks k^1, and jointedly connected with said brake supporting arms by a link, and supported beneath said ratchet wheels, of a lever m, fulcrumed vertically above the hub sprocket, and arm n, depending from said lever head and adapted to engage, as described, with the teeth of both ratchet wheels or with both the hooks k^1, substantially as specified. 3rd. In a stump extractor, the combination, with the derrick and a frame yoke suspended centrally therefrom, of ratchet wheels journalled within said yoke, a central sprocket hub connecting said wheels, a chain depending from the yoke frame and a sprocket wheel suspended by said chain, the latter leading from said sprocket wheel to the said sprocket hub, a suitable hook depending from said suspended sprocket wheel, a lever fulcrumed vertically above the sprocket hub, and a ratchet operating arm depending from said lever head and engaging both the ratchet wheels, substantially as described.

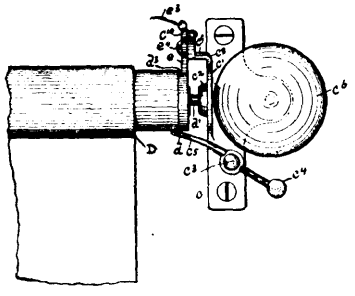
No. 42,800. Churn. (*Baratte.*)



Francis Culham, Princeton, Ontario, Canada, 2nd May, 1893; 6 years.

Claim.—In a churn of the kind described, axle E, tube F, bow G, ball C, and arm D, attached to the churn frame, all arranged and combined substantially as and for the purpose hereinbefore set forth.

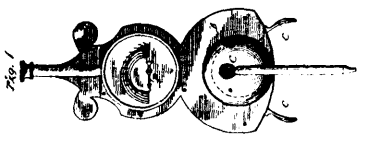
No. 42,801. Burglar Alarm.
(*Avertisseur d'effraction.*)



Isaac L. Silverberg, Moses Reichman and Gustavus Troxler, all of Newark, New Jersey, U.S.A., 2nd May, 1893; 6 years.

Claim.—1st. The combination, with a shade roller, of a bracket provided with an alarm, and means operated from said roller to strike said alarm, as and for the purposes set forth. 2nd. The combination, with a shade roller, of a bracket provided with a gong and an arm on said bracket, having a hammer on one end, and a cam on said shade roller for vibrating said hammer, as and for the purposes set forth. 3rd. The combination, with a shade roller, having a cam attached to one end, and said cam being provided with a notch or stop, of a bracket, consisting essentially of a base and a gong thereon, a bracket arm c^1, on said base, provided with an arm c^9, and a pawl on said arm adapted to engage with said notch or stop on the cam, as and for the purposes set forth. 4th. The combination, with a shade roller, having a cam attached to one end and said cam being provided with a notch or stop, of a bracket, consisting essentially of a base and a gong thereon, a bracket arm c^1, on said base, provided with an arm c^9, and a pawl on said arm, adapted to engage with said notch or stop on the cam, a chain or string attached to one end of said pawl to raise the other end out of engagement with said notch or stop, and a pin on said arm c^9, to limit the movement of said pawl, as and for the purposes set forth. 5th. The combination, with a window frame, of a shade and shade roller, pivoted at one end, in a bracket provided with an alarm, means for operating the same, when the shade roller rotates in its bearings, and a device at the lower end of the shade for removably securing the same to the window frame, as and for the purposes set forth.

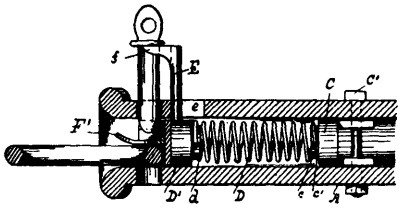
No. 42,802. Musical Instrument.
(*Instrument de musique.*)



Joseph S. F. Pizzuti, Columbus, Ohio, U.S.A., 2nd May, 1893; 6 years.

Claim.—1st. A musical instrument comprising the frame A, the sounding chamber C, the manually operable valve plate b, having the arm d, the rack bar l, gear or pinion s, stud u, pointer p, and a note dial, in combination, substantially as shown and described. 2nd. In a musical instrument, the sounding chamber C, and a pair of manually operable valve plates b, b, movable in opposite directions, in combination, substantially as shown and described. 3rd. In a musical instrument, the combination, with the sounding chamber C, of a pair of manually operable valve plates b, b, and means for automatically retracting said valve plates, substantially as shown and described. 4th. A musical instrument comprising the frame A, the sounding chamber C, a pair of manually operable valve plates b, b, each having an arm d, the toggle links h, h, and spring e, in combination, substantially as shown and described. 5th. The combination in a musical instrument, of the frame A, the sounding chamber C, a pair of manually operable valve plates b, b, each having an arm d, the toggle links h, h, spring e, rack bar l, pinion s, stud u, pointer p, and a note dial, substantially as shown and described. 6th. In an instrument of the kind described, a movable pointer and a dial having a musical staff eccentrically arranged and a notation on said staff concentrically arranged with respect to the axis of movement of the pointer, substantially as described.

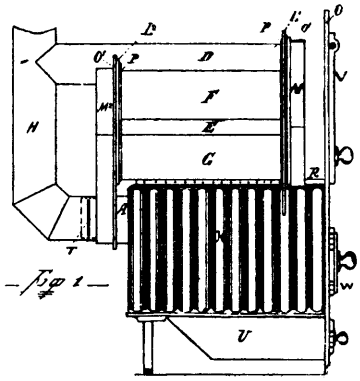
No. 42,803. Car Coupler. (*Attelage de chars.*)



Charles C. Haub and John F. Daska, both of San Francisco, California, U.S.A., 2nd May, 1893; 6 years.

Claim.—1st. In a car coupler, the combination with the draw bar of the coupling links, and of the spring actuated head block, as and for the purpose set forth. 2nd. In a car coupler, the combination with the coupling pin, of the spring actuated head block, said head block with its rear movement adapted to allow the coupling pin to drop, as and for the purpose set forth. 3rd. In a car coupler, the combination with the spring actuated head block, of the coupling pin, and of the pin support, as and for the purpose set forth. 4th. In a car coupler, the combination with the spring actuated head block, of the link guide secured thereto, as and for the purpose set forth. 5th. The combination with the spring actuated head block, of the guide piece secured thereto, and of the projecting ears, as and for the purpose set forth. 6th. The combination in a coupler, of the coupling link, of the spring actuated head block, said head block provided with forwardly projecting link guides, as and for the purpose set forth. 7th. In a car coupler, the combination with the draw bar, tail piece located therein, spring secured thereto, head block connected to opposite end of said spring, link guide secured thereto, and of the coupling link. 8th. In a car coupler, the combination with the spring actuated head block, coupling pin, and of the pin support operated by the movement of the spring actuated head block, said support provided with forwardly extending arms between which the coupling pin is secured. 9th. In a car coupler, the combination with the coupling pin, of the spring actuated head block, and of the forwardly extending shoulder projecting from the head block and adapted to form a support for the coupling pin.

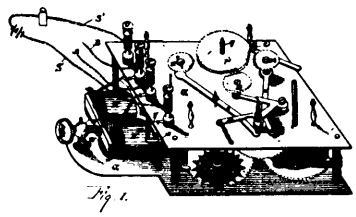
No. 42,804. Furnace. (*Fournaise.*)



Milliam J. Copp, Hamilton, Ontario, Canada, 2nd May, 1893; 6 years

Claim.—1st. In a radiating furnace, the combination of the side furnace R^1 and R^2, made in separate castings, each having an upright continuous flange on top, said flanges S^1 and S^2, forming a cavity between them, forming a putty gas tight joint when the flanges are bolted together, as set forth. 2nd. In a radiating furnace, the combination of the end plates L^1 and L^2, with the radiating tubes B, C, D, E, F, G, and the orifice A, and chimney H, with the damper T, in same, as set forth. 3rd. In a radiating furnace, the combination of the front end ducts M^1, and the rear end ducts M^2, bolted and jointed on the end plates L^1 and L^2, as described, in connection with the radiating tubes, and the chimney H, as set forth. 4th. The metallic putty joint, shield N 2, around the radiating tubes or their equivalent to protect the putty joints with the plates L^1 and 2 from injury, breakages as described, all operating, substantially as and for the purposes herein set forth.

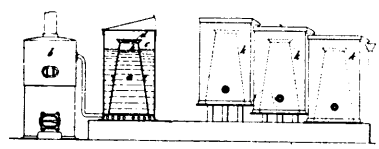
No. 42,805. Fire Telegraphy. (*Avertisseur d'incendie.*)



Sydney J. Sanford, Barrie, Ontario, Canada, 3rd May 1893; 6 years.

Claim.—1st. In fire alarm telegraphy, a street alarm box having a number wheel with a spiral thread formed on its rim from inside to outside teeth formed in the said thread, said teeth being arranged in sets to represent the digits of the number, and co-operating with a circuit breaker, substantially as specified. 2nd. In fire alarm telegraphy, a street alarm box having a number wheel with a spiral thread formed on its rim from inside to outside sets of teeth indicating the hundreds, tens and units, digits formed close together at the inner end of the thread, and designed to operate the indicating apparatus, and sets of teeth following the first at greater intervals apart designed to ring tower bell and gongs, the said teeth co-operating with a circuit breaker, for the purpose specified. 3rd. In fire alarm telegraphy, a street alarm box having a number wheel C, with a spiral thread D, formed on the rim, and teeth formed on the thread, in combination with a circuit breaker L, having an adjustable screw, M, dog *n*, and supplemental weighted arm N, substantially as and for the purpose specified. 4th. In a fire alarm telegraphy, a street alarm box having a number wheel C, with a spiral thread D, formed on the rim, and teeth formed on the thread, in combination, with a weighted circuit breaker L, dog *n*, and projection Q, running in the slot *q*, for the purpose specified. 5th. In fire alarm telegraphy, a street alarm box having a number wheel C, with a spiral thread D, formed on the rim, and teeth formed on the thread, in combination, with a weighted circuit breaker L, dog *n*, projection *o*, on the hub *m*, working under the rod P, and through the notches *p*, the circuit breaker L, being lifted clear of the plate K, by the projection Q, rising on the boss T, and moved back to the inner end of the spindle l^1, by the lever R, having a weighted supplemental arm substantially as specified. 6th. In fire alarm telegraphy, a street alarm box having a number wheel C, with a spiral thread D, formed on the rim from inside to outside, sets of teeth *d*, indicating the hundreds, tens and units digits, formed close together at the inner end of the thread D, and sets of teeth *d*, following the first on the thread D, at greater intervals apart co-operating with a circuit breaker L, and plate K, combined with a numbering apparatus provided with an electro-magnet, R^1 R^1, lever X, fly stop o^1, and escapment *z*, intermittently released by said lever to control the numbering discs. 7th. In fire alarm telegraphy, a street alarm box having a number wheel C, with a spiral thread D, formed on the rim from inside to outside, sets of teeth *d*, indicating the hundreds, tens and units digits, formed close together at the inner end of the thread D, and sets of teeth *d*, following the first on the thread D, at greater intervals apart co-operating with a circuit breaker L, and plate K, in combination, with the numbering discs q^1, 12, 13 and 14, and levers and cams, as described, of the escapement *z*, spring *r*, chain of gearing arranged between said escapement and spring, and driven by said spring, the electro magnet R^1 R^1, fly stop o^1, and lever X, intermittently attached thereby to control said chain of gearing and numbering discs, as set forth. 8th. In fire alarm telegraphy in which a numbering apparatus, as q^1, 12, 13, 14, and connections to exhibit the number of the alarm struck is employed in addition to the alarm bell mechanism, as described, arranged to operate the numbering apparatus and controlled through circuit breaker L, and plate K, and connections by a single street circuit, in combination, with bell operating mechanism provided with an independent circuit S^1, connected to the numbering apparatus and controlled by the action of the mechanism of the numbering apparatus, substantially as herein specified. 9th. In fire alarm telegraphy, in which, a numbering apparatus, as q^1, 12, 13, 14, and connections to exhibit the number of the alarm struck is employed in addition to the street box mechanism, weighted circuit breaker L, with dog *n*, and its co-operating parts, plate K, number wheel C, with thread D, and rachets *d*, and the weighted pivoted rod R, operated from a single street circuit, and connected to an independent bell circuit S^1, a fly stop o^1, and lever X, all arranged and operated to first strike the bell once, then set the indicating numbers, and finally strike the alarm on the bell, substantially as set forth,

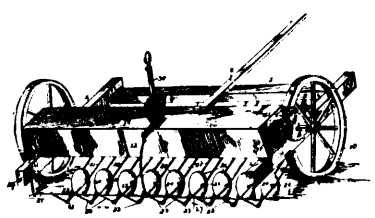
No. 42,806. Art of and Apparatus for Preserving Milk. (*Art et appareil de conservation du lait.*)



Joseph Oakhill and Richard H. Leaker, both of Bristol, England, 4rd May, 1893; 6 years.

Claim.—An improved process of preserving milk under which the milk is charged into a suitable vessel which, after having been made air tight, is subjected to the action of heat—approximately 200° Fahrenheit—sufficient to destroy or render inert the germs of decomposition in the milk, the said vessel being subsequently cooled and immersed in a cold water bath, whereby the temperature of the milk is lowered to about 32° Fahrenheit, substantially as hereinbefore described with reference to the accompanying drawings.

No. 42,807. Seed Drill. (*Semoir en ligne.*)

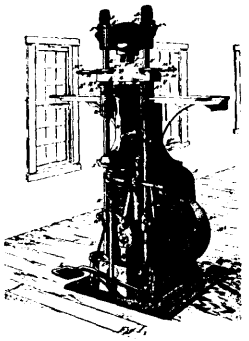


Elmer Barclay, Hartford, Michigan, U.S.A., 3rd May, 1893; 6 years.

Claim.—The combination, with the framework, comprising the front and rear bars 2 and 3, each provided with a series of pairs of depending eye bolts, the eye bolts of one bar alternating with those of the other, of the U-shaped frames terminating at their front ends in eyes loosely coupled with the eye bolts, and provided at their rear ends with eyes and at each side of the same with bearings, short bearing shafts arranged in the bearings, disc-shaped drills mounted on the shafts, the crank shaft 27, the lever for operating the same, and the short chains leading from the crank shaft to the eyes at the rear ends of the frames, substantially as specified.

No. 42,808. Heel Nailing Machine.

(*Machine à clouer les talons.*)

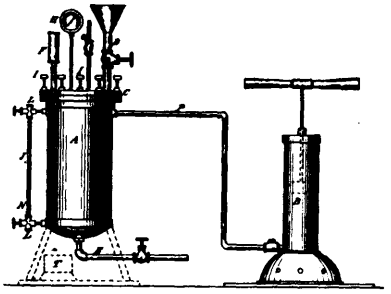


Joseph H. Pope, Brockton, Massachusetts, U.S.A., 3rd May, 1893; 6 years.

Claim.—1st. In a nailing machine, a stationary perforated die block and a reciprocating nail driver block, combined with a jack, a treadle mechanism for raising it, and automatic means, substantially as described, for putting an increased pressure on the head against the die block, substantially as and for the purpose set forth. 2nd. In a nailing machine, a laterally and longitudinally adjustable jack, having pivoted to its upper end a metal last, and having a detachable heel plate secured to said last, substantially as and for the purpose set forth. 3rd. In a nailing machine, a laterally and longitudinally adjustable jack, having pivoted to its upper end a metal last, and having an adjustable toe piece adapted to be secured in an inclined position relative to said last, substantially as described. 4th. In a nailing machine, a vertically adjustable jack support and a screw working therein, having a pinion, a sliding rack meshing in said pinion and a lever for operating said rack, substantially as and for the purpose set forth. 5th. In a nailing machine, an adjustable jack combined with an adjustable shoe gage, having a forked or V-shaped head, adapted to serve as a support for the shoe counter, substantially as and for the purpose set forth. 6th. In a nailing machine, a pair of expansive top piece clamps, combined with an adjustable spanker plate, having means, substantially as described, for adjusting it longitudinally, relative to said clamps, as and for the purpose set forth. 7th. The improved nail loading device, as described, consisting of a frame pivoted to swing in a horizontal plane, and having a perforated loader combined, a spring actuated nail rest, and a locking device for holding such nail rest in position before discharging nails, substantially as and for the purpose set forth. 8th. The improved nail loading device, as described, consisting of a frame having a perforated loader, a spring actuated nail, rest and locking device thereon, combined with a perforated cover having less perforations than the loader, and secured to the top of the loader, substantially as and for the purpose set forth. 9th. In a nailing machine, a treadle mechanism for raising the jack, combined with a pair of cams secured to shafts pivoted respectively to a stationary and movable part of the machine, and intermediate connecting mechanism from the vertically movable rods that connect the upper and lower heads, substantially as described, for the purpose of forcing the heel with increased pressure against the underside of the perforated die block, as herein specified. 10th. In a nailing machine, the safety device, for the purpose of preventing the starting of the machine before the jack has been raised, consisting of a starting lever and a rod connected to the same, and having its lower end adapted to enter a groove or recess on the rack by which the jack is raised, after the said jack has been raised by said rack, and intermediate connecting mechanism to the treadle lever, substantially as specified. 11th. In a nailing machine, a safety device for preventing the starting of the machine until the loader is swung out of the way of the drivers, consisting of a horizontally movable bar having a projection adapted to enter a slot on the pivoted loader, and having a recess adapted to receive a rod connected to a spring pressed arm pivoted to the clutch operating swing piece, and a locking projection on the frame of the machine, substantially as specified. 12th. In a nailing machine, a safety device for preventing the nails from being unloaded and the loader swung into position below the drivers, while the top piece and spanker plate are in position below the perforated die block consisting of a spring pressed pin arranged in a stationary guide and a sliding bar having a locking recess adapted to receive such pin, a pivoted loader having a slotted car and a stop pin on said sliding bar, substantially as and for the purpose set forth. 13th. In a nailing machine. a perforated die block and a perforated loader having equal and corresponding number of perforations, combined with a driver block and a perforated covering plate on the said loader, said driver block having a set of drivers, and said drivers and said covering plate having perforations corresponding in number and positions to said drivers and corresponding to the nails to be driven, the perforations in the loader and die block numerically exceeding those of the covering plate of the loader and its corresponding number of drivers, substantially as and for the purpose set forth.

No. 42,809. Process of Separating Cream from Milk.

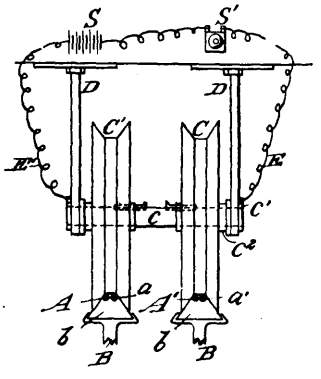
(*Procédé pour séparer la crème du lait.*)



John J. Berrigan, Avon, New York, U.S.A., 3rd May, 1893; 6 years.

Claim.—1st. The herein described process of separating cream from milk, consisting in subjecting the milk while tightly confined to pressure greater than the normal atmospheric pressure for a limited period of time, subsequently reducing the pressure on the milk, and then allowing the milk to stand undisturbed, thus completing the process, substantially as and for the purposes set forth. 2nd. The herein described process of separating cream from milk, consisting in subjecting the milk while tightly confined to pressure greater than the normal atmospheric pressure for a limited period of time, and subsequently reducing the pressure on the milk prior to the rising of the cream, substantially as and for the purposes set forth. 3rd. The herein described process of separating cream from milk, consisting in subjecting the milk while tightly confined to air or gaseous pressure above the normal for a limited period of time, and subsequently reducing the pressure on the milk, substantially as and for the purposes set forth. 4th. The herein described process of separating cream from milk, consisting in subjecting the milk to air pressure above the normal for a limited period of time, and subsequently reducing the pressure on the milk to the normal before the cream has all risen, substantially as and for the purposes described. 5th. The herein described process of separating cream from milk, consisting in subjecting the milk while tightly confined to an air pressure of one or more atmospheres above the normal for a limited period of time, and subsequently reducing the pressure on the milk before the cream is all up, substantially as and for the purposes set forth. 6th. The herein described process of separating cream from milk, consisting in subjecting the milk while tightly confined to an air pressure of one or more atmospheres above the normal for a limited period of time, and subsequently reducing the pressure on the milk to the normal before the cream has all risen, substantially as and for the purposes set forth.

No. 42,810. Signal for Railways. (*Signal de chemins de fer.*)



George L. Thomas, Brooklyn, New York, U.S.A., 3rd May, 1893; 6 years.

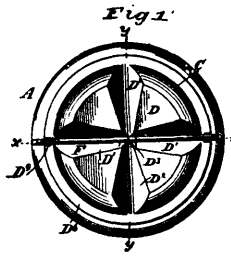
Claim.—1st. In combination, two series of electric conductors extending along the track, means for generating a current of electricity, circuit closing mechanism adapted to be carried by a vehicle moving along the track to close circuit between a conductor of one series and a conductor of the other series, and a second circuit closing device adapted to complete circuit through the conductors and the first named circuit closing mechanism, when the two circuit closing means are within a pre-determined distance of each other, substantially as set forth. 2nd. In combination, two series of electric conductors extending along the track, each consisting of separate overlapping wires insulated rrom each other and surrounding objects, means for generating a current of electricity, and two independent circuit closing mechanisms adapted to complete an electric circuit when engaged with cosresponding wires of the two series, substantially as set forth. 3rd. In combination, two series of

electric conductors extending along the track, each member of each series being insulated from adjacent members and from surrounding objects, circuit closing mechanism including a battery and a signal carried by a vehicle adapted to move along the track, and a second circuit closer adapted to complete circuit through the corresponding conductors of the two series when the circuit closers are within a pre-determined distance of each other, substantially as set forth. 3th. In combination, two series of electric conductors, trolley wheels in electrical contact, one with each series, a circuit comprising a battery and a signal, and forming an electrical connection between the trolley wheels, and a second circuit closing device to complete circuit through the corresponding conductors of two series, substantially as set forth. 5th. In combination, the series of electric conductors, the trolley wheels normally in contact with the conductors, the electric connections between the trolley wheels, including a battery, a second set of trolley wheels and means for moving them into and out of engagement with the conductors, substantially as set forth. 6th. In combination, the series of electric conductors, the rocking supports for the adjacent ends of the conductors, means for holding the supports under tension tending to rock them toward each other, and a circuit closer located between the rocking supports, of two adjacent ends in position to be forced by one of the supports against the other when the tension of the conductor is released, substantially as set forth.

No. 42,811. Jar Cover and Clamp.

(*Couvercle et lien pour jarres.*)

Fig 1.



Frank H. Palmer, Brooklyn, New York, U.S.A., 3rd May, 1893; 6 years.

Claim—1st. The combination with a jar or can, of a cover engaging the mouth of the jar and carrying a packing ring or disc adapted to be seated on the edge of the said jar or cover, and a bail secured at its middle in a diametrical groove in the top of the said cover, the bail being provided with downwardly extending arms carrying inwardly projecting lugs adapted to engage the bottom of an annular projection formed on the outside of the said jar, substantialiy as shown and described. 2nd. A jar cover having an annular depending flange D^5, and an annular horizontal flange D^6, projecting outward from the flange D^5, bent downward and inward at its periphery to form a packing groove, substantially as set forth. 3rd. A jar cover having an annular depending flange D^5, an annular horizontal flange D^6, projecting outward from the flange D^5 and bent downward and inward at its periphery to form a groove to support a packing ring near its outer edge, and the double up portion D^8 at the juncture of the two said flanges D^5, D^6, to support the packing near its inner edge, substantially as set forth. 4th. A jar cover grooved transversely across its top and formed with the vertical and horizontal flanges D^5, D^6, the periphery of the flange D^6 being bent downward and inward to form a groove to receive the outer edge of a packing ring, and notches D^9 in the outer edge of flange D^5, substantially as set forth. 5th. A jar cover grooved transversely across its top and formed with the vertical and horizontal flanges D^5, D^6, the latter being turned under at its pheriphery to form a groove, a flat packing ring under the flange D^6 and supported at its outer edge in said groove, the notches D^9, and the fastening F, extending through said groove and having depending ends extending through said notches and turned inward, as at F^4, at their lower ends, substantially as set forth. 6th. The combination, with a jar or can provided with two external annular projections located one above the other, of a cover adapted to close the mouth of the jar and formed an annular flange, a packing ring held on the under side of the cover flange by a doubled up edge of the latter, the said ring being arranged to seat itself on the uppermost of said projections of the jar or can, and a bail held on the said cover and formed with downward parts or arms and lugs, the said parts extending through grooves in the lowermost projection of the jar or can, and the said lugs being adapted to engage the bottom of the said lowermost projection, substantially as shown and described.

No. 42,812. Process of and Apparatus for Deodorizing Oils. (*Procédé et appareil pour désinfecter l'huile.*)

Robert H. Laird, Toronto, Ontario, Canada, 3rd May, 1893; 6 years.

Claim.—1st. The herein described process of distilling oil, which consists in first introducing the crude oil to be treated into a vaporizer, then introducing steam at a temperature of substantially 212 degrees to said vaporizer, whereby the alcoholic series of vapors are generated, then withdrawing said vapors, then introducing super-

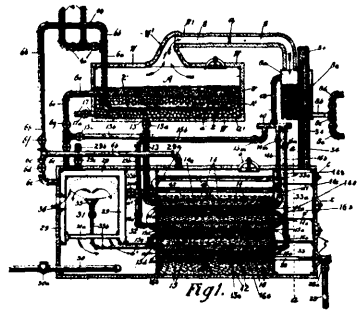
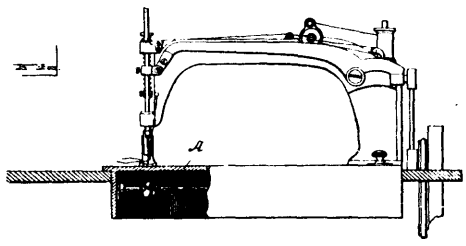


Fig 1.

heated steam to said vaporizer, whereby the oleic series of vapors are generated, and then withdrawing said vapors, substantially as set forth. 2nd. In an apparatus for distilling oil, the combination with a boiler, a series of flues therein, a tubular oil chamber surrounding each of several of said flues, an inlet and an outlet for each of said oil chambers, a pipe affording communication between the steam space of the boiler and the inlet of said oil chambers, a receptacle outside the boiler, and a pipe communicating between said receptacle and said oil chambers, substantially as set forth. 3rd. In an apparatus for refining oil, the combination of a boiler, a flue formed therein, a tubular oil chamber surrounding said flues, said chamber having an inlet and an outlet, a pipe affording communication between the steam space of the boiler and the inlet of said oil chamber, and a packing of refractory material within the oil chamber adapted to break the density of the crude oil, substantially as described. 4th. In an apparatus for distilling oil, the combination, of a receptacle, an inlet and an outlet to said receptacle, a boiler, a series of flues therein, a tubular oil chamber surrounding each of several of said flues, a pipe communicating between said receptacle and said oil chambers, an inlet and an outlet to each of said oil chambers, a filter and pipes communicating between the filter and the receptacle and the oil chamber, substantially as described. 5th. An apparatus for distilling oil, consisting of a receptacle for the oil to be treated provided with an outlet, a condenser, a pipe connecting said condenser with the outlet of the receptacle, and a perforated oil inlet pipe arranged in said receptacle, and having an internal packing of refractory material, substantially as set forth. 6th. In an apparatus for distilling oil, a receptacle for the oil to be treated, an inlet for said receptacle, a boiler, a pipe connecting the inlet to the receptacle with the steam space of the said boiler, a filter, a pipe communicating between said receptacle and filter, said filter containing slacked lime, substantially as set forth. 7th. In an apparatus for distilling oil, a receptacle for the oil to be treated, an inlet for said receptacle, a boiler, a pipe connecting the inlet to the receptacle with the steam space of the said boiler, a filter, a pipe communicating between said filter and said receptacle, said filter containing slacked lime, and means for supplying heat to said filter, substantially as set forth. 8th. In an apparatus for distilling oil, the combination with a receptacle for the oil to be treated, a perforated oil inlet pipe arranged in said receptacle, and having an internal packing of refractory material, a boiler, a pipe connecting said oil inlet pipe with the steam space of the boiler, a condenser and a pipe connecting said receptacle with the condenser, substantially as set forth. 9th. In an apparatus for distilling oil, the combination of a receptacle for the oil to be treated, a dome to said receptacle, a substantially U-shaped perforated pipe within said receptacle, a boiler, a pipe connecting said U-shaped pipe with the steam space of said boiler, an inlet for the oil to said U-shaped pipe, a filter, a pipe forming a communication between said dome and said filter, a series of flues within said boiler, a tubular oil chamber surrounding each of several of said flues, means for feeding the oil from the said receptacle to the said oil chambers, means for heating said oil chambers and means for conducting away the oleic vapors as they are generated, substantially as described. 10th. In an apparatus for distilling oil consisting of a shell or casing having partitions forming a central water space of boiler therein and fire spaces or combustion chambers at the ends thereof, a series of flues passing through said water space and affording communication between the combustion chambers, partitions in said combustion chambers between the ends of alternate pairs of flues whereby a zigzag passage is formed for the products of combustion through said water space, a tubular oil chamber surrounding each of several of said flues, an inlet and an outlet to each of said oil chambers, pipes affording communication between the inlets and the outlets of alternate pairs of said chambers whereby a zigzag passage for the oil is formed through said boiler valves in said pipes, and a pipe connecting the steam space of said boiler with the inlet of said oil chamber, substantially as described. 11th. In an apparatus for distilling oil consisting of a shell or casing having partitions forming a central water space or boiler therein and fire spaces or combustion chambers at the ends thereof, a series of flues passed through said water space and affording communication between the combustion chambers, partitions in said combustion chambers between the ends of alternate pairs of flues whereby a zigzag passage is formed for the products

of combustion through said water space, a tubular oil chamber surrounding each of several of said flues, an inlet and an outlet to each of said oil chambers, pipes affording communication between the inlets and outlets of alternate pairs of said oil chambers, whereby a zigzag passage for the oil is formed through said boiler valves in said pipes, a pipe connecting the steam space of said boiler with the inlet of said oil chambers and a packing of refractory material in each of said oil chambers, substantially as described. 12th. In an apparatus for distilling oil the combination of a receptacle for the oil to be treated, a dome to said receptacle, a substantially U-shaped perforated pipe within said receptacle, a boiler, a pipe connecting said U-shaped pipe with the steam space of said boiler, an inlet for the oil to said U-shaped pipe, a filter, a pipe forming a communication between said dome and said filter, a series of flues within said boiler, a tubular oil chamber surrounding each of several of said flues, means for feeding the oil from the said receptacle to the said oil chambers, means for heating said oil chambers and means for conducting away the oleic vapors as they are generated, a filter and a pipe for conducting the oleic vapors from the respective oil chambers of the boiler, substantially as described. 13th. In an apparatus for distilling oil, a receptacle for the oil to be treated, a dome to the said receptacle, an inlet for said receptacle, a pipe connecting the inlet of the receptacle with the steam space of said boiler, a filter, a pipe communicating between said dome and said filter, said filter containing sand, salt, and slacked lime, and means for supplying heat to said filter, substantially as described. 14th. An apparatus for distilling oil, consisting of a vaporizer for the oil, having an inlet and an outlet, a shell or casing having partitions forming a central water space or boiler therein, and a combustion chamber at each end thereof, a series of flues passing through said water space and affording communication between said combustion chambers, partitions in said combustion chambers between the ends of alternate pairs of flues, whereby a zigzag passage is formed for the products of combustion through said boiler, oil chambers each provided with an inlet and an outlet, said chambers surrounding the respective flues of the series, pipes affording communication between the respective inlets and outlets of said oil chambers whereby a zigzag passage is formed through said boiler, valves in said pipes, a pipe affording communication between the steam space of the boiler, and the inlet of said vaporizer, a pipe affording communication between the outlet of said vaporizer, and one end of said zigzag oil passage in the boiler, a valve in said pipe, a condenser, and pipes affording communication between the outlet of each of the respective oil chambers in the boiler, and of said vaporizer and said condenser, substantially as set forth. 15th. An apparatus for distilling oil, consisting of a vaporizer having an inlet and an outlet, a shell or casing having partitions forming a central water space or boiler therein, combustion chambers at each end thereof, and a fire box or chamber at one end thereof, a series of flues passing through said boiler and affording communication between said combustion chambers, partitions in said combustion chambers between the ends of alternate pairs of flues whereby a zigzag passage is formed for the products of combustion through said boiler oil, chambers each provided with an inlet and an outlet, said chambers surrounding the respective flues of the series, pipes affording communication between the respective inlets and outlets of the said oil chambers whereby a zigzag oil passage is formed through said boiler, valves controlling said pipes, a pipe affording communication between the outlet of said vaporizer and one end of said zigzag oil passage in the boilers, a valve in said pipes, a condenser, and pipes affording communication between the outlet of each of the respective oil chambers in the boiler, and of said vaporizer and said condenser, substantially as set forth. 16th. An apparatus for distilling oil, consisting of a vaporizer having an inlet and an outlet, a shell or casing comprising a water chamber or boiler, and a superheater, a pipe affording communication between the steam space of the boiler and the inlet of said vaporizer, a pipe affording communication between said superheater and the inlet of said vaporizer, a condenser, and a pipe affording communication between said condensor, and the outlet of said vaporizer, substantially as set forth. 17th. An apparatus for distilling oil, consisting of a vaporizer having an inlet and an outlet, a shell or casing having partitions forming a water chamber or boiler, and a fire chamber therein, said partitions being arranged to form a close chamber surrounding said fire chamber, said close chamber serving as a superheater, a pipe affording communication between the steam space of the boiler and the said superheater and the inlet of the vaporizer, a pipe affording communication between the steam space of the boiler and the inlet of the said vaporizer, a condenser, and pipe affording communication between the outlet of said vaporizer and said condenser, substantially as set forth. 18th. An apparatus for distilling oil, consisting of a boiler having a flue formed therein, and a tubular oil chamber surrounding said flue, said chamber having an inlet and an outlet, a pipe affording communication between the steam space of the boiler and the inlet of said oil chamber, a condenser, and a pipe affording communication between the outlet of said oil chamber and said condenser, substantially as set forth. 19th. An apparatus for distilling oil, consisting of a vaporizer for the oil having an inlet and an outlet, a boiler having a flue and a tubular oil chamber surrounding said flue, said chamber having an inlet and an outlet, a pipe affording communication between the steam space of the boiler and the inlet of said vaporizer, a pipe affording communication between the inlet of said oil chamber and the outlet of said vaporizer, a pipe affording communication between the steam space of the boiler and the inlet of said oil chamber therein, a condenser, and a pipe affording communication between the respective outlets of said vaporizer and oil chamber and said condenser, substantially as set forth.

No. 42,813. Sewing Machine. (*Machine à coudre.*)



Harriet R. Tracy, New Brighton, New York, U.S.A., 3rd May, 1893; 6 years.

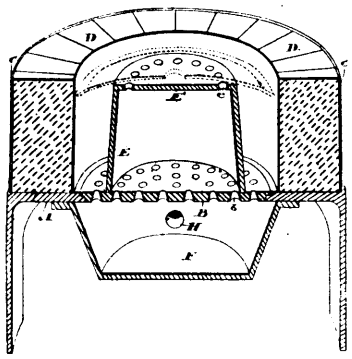
Claim.—1st. A sewing machine of the class in which the loop takers are so arranged as to permit the passage of the needle thread entirely around them, comprising a loop taker provided with a hook or projection for engaging the needle thread, and with a curved elongated projection arising from a point approximately opposite the engaging hook or projection, and arranged in a plane which is substantially at right angles to the axis of revolution of the loop taker, for receiving a loop formed by engaging the needle thread by the engaging hook or projection and carrying it around the shuttle, and for retaining the same until taken up by the short hook to form the succeeding stitch, substantially as described. 2nd. A sewing machine of the class in which the loop takers are so arranged as to permit the passage of the needle thread entirely around the loop taker, comprising a loop taker provided with a short hook or projection for engaging the needle thread, and with a curved elongated projection, arising from a point opposite the said engaging hook, and arranged substantially in a vertical plane which is at right angles to the axis of revolution of the loop taker for receiving a loop formed by engaging the needle thread by the short hook or projection, and carrying it around the loop taker, and for retaining the same until taken up by the short hook to form the succeeding stitch, the said elongated projection extending beyond the point diametrically opposite its place of beginning on the loop taker. 3rd. A sewing machine of the class in which the loop takers are so arranged as to permit the passage of the needle thread entirely around them, comprising a loop taker provided with a hook or projection for engaging the needle thread, and with a curved elongated projection arranged in a plane substantially at right angles to the axis of revolution of the loop taker, for receiving the loops formed by engaging the needle thread by the hook or projection, and for retaining the same until taken up by the short hook to form the succeeding loop, the elongated hook or projection being so arranged with relation to the body of the loop taker as to have an increasing distance between it and the body of the loop taker from its fixed to its free end, substantially as described. 4th. A sewing machine of the class in which the loop takers are so arranged as to permit of the passage of the needle thread entirely around the loop taker, comprising a loop taker provided with a short hook or projection for engaging the needle thread, and with a curved elongated projection arranged substantially in a vertical plane which is at a right angle to the axis of revolution of the loop taker for receiving loops formed by engaging the needle thread by the short hook or projection, and for retaining the same until taken up by the short hook to form the succeeding loop, the elongated hook or projection, extending beyond the point diametrically opposite its place of beginning on the loop taker and being so arranged with relation to the body of the loop taker as to have an increasing distance between it and the body of the loop taker from its fixed to its free end. 5th. A sewing machine of the class in which the loop takers are so arranged as to permit the passage of the needle thread entirely around it, comprising a loop taker provided with a hook or projection for engaging the needle thread, with an elongated projection arranged in a plane substantially at right angles to the axis of motion of the loop taker, for receiving a loop formed by passing the needle thread around the loop taker, and with a guard or fender whereby the thread is directed away from the hook, by which the needle thread is engaged substantially as described.

No. 42,814. Method of Tempering Steel Discs.
(*Méthode de tremper les disques d'acier.*)

Jay S. Corbin, Prescott, Ontario, Canada, 3rd May, 1893; 6 years.

Claim.—1st. The herein described method of tempering the peripheral cutting edge of a steel disc, consisting in placing the disc in a forge having an annular fire so arranged the central portion of the disc is kept cool while the outer edge is subjected to the heat of the fire until it has reached a low, red heat, and then cooling the disc by submerging it in water, as and for the purpose specified. 2nd. An improved means or apparatus for tempering the peripheral edges of discs, consisting in an annular fire pot, comprised of the

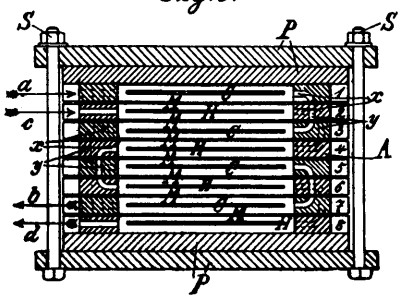
fire brick outer portion, circular grate and a central portion, whereby the central portion of the disc placed thereon may be kept



cool, while the peripheral edge is being heated, as and for the purpose specified. 3rd. The combination, with the outer fire brick portion D, and grate B, provided with air holes *b*, of the hollow cone frustrum shaped portion E, provided with a circle of air holes *c*, arranged as and for the purpose specified. 4th. The combination with the outer fire brick portion D, and grate B, provided with air holes *b*, of the hollow cone frustrum shaped portion E, provided with a circle of air holes *c*, as specified, and the air chamber F, provided with a blast pipe H, as and for the purpose specified. 5th. As a new article of manufacture, a concave convex disc having a soft central portion and a hardened or tempered peripheral edge, the soft central portion being preserved in its original state by being kept cool during the period that the peripheral edge is being heated, as and for the purpose specified.

No. 42,815. Electrolytic Treatment of Cupreous Liquors, Ores, &c. (*Traitement électrolytique des liquides, minerais, etc., cuivreux.*)

Fig. 3.

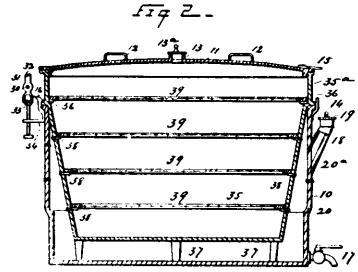


Carl Hoepfner, Giessen, Germany, 4th May, 1893; 6 years.

Claim.—1st. A process for the electrolytic extraction of copper or silver from ores and metallurgical products or solutions, characterized by the fact that simultaneously two separate currents of cuprous chloride dissolved in halogen salt lyes (such as common salt) are conveyed past the cathodes and past the anodes, so that copper or silver is precipitated at the cathodes, whilst at the anodes a solution of cupric chloride and sometimes ferric chloride, which is adapted for the lixiviation of ores and metallurgical products, is obtained, which solution, after the transformation of cupric chloride into cupreous chloride, can be used again for the electrolysis, and eventually for the subsequently lixiviation. 2nd. In the process, the keeping away or the entire or partial removal of dissolved iron, (*a*) by cupric oxide, copper carbonate, cuprous oxide, copper oxychloride or roasted copper ores, or else by alkalies, alkaline earths or carbonates of the same; (*b*) by oxygen or air, preferably in a neutral solution; (*c*) by alkalies, alkaline earths or their carbonates with subsequent addition of liquid or gaseous acids and transformation of the corresponding quantity of cuprous chloride into cupric chloride by air. 3rd. In a process characterized in the first and second claims, the reduction of cupric chloride in excess to cuprous chloride by ferrous oxide or ferrous carbonate. 4th. For the extraction of copper or silver from ores and metallurgical products, the preparation of roasted copper ores or silver ores, more especially of burnt pyrites, by finely grinding them and at the same time repeatedly separating them by magnetic means, whereupon a separate lixiviation of the non-magnetic portion and of the magnetic portion takes place. 5th. In an apparatus for carrying out electrolytic operations, the process described, comprising a number of frames which are separated by mechanically or chemically resistant membranes and held together by screws or clamps or their substitute, a circulation of the liquid taking place through channels, are arranged either inside or outside the parts of the apparatus or frames, substantially as described. 6th. In the apparatus characterized, the employment of membranes of a double layer of strong fabric or a double layer of other material, such as leather or felt, with intermediate parchment paper or nitro-parchment paper. 7th. In such an apparatus as described, the arrangement of a double membrane or of auxiliary frames or intermediate cells between the anode and cathode for the purpose of rendering diffusion difficult. 8th. In apparatus for the electrolysis of halogen salt solutions, the nitration of such parts of the apparatus or such membranes as come in contact with free halogens or halogen acids. 9th. In electrolytic operations, in the extraction of metals, the employment of anodes, the effective surfaces of which consist of ferrosilicon, silicon, boron, tungsten chromium or their iron alloys or any desired mixture of the said substances with or without admixture of carbon or other ingredients or of poly-sulphides of iron.

No. 42,816. Combined Steam Cooker, Dish Washer and Clothes Press. (*Machine à cuire à la vapeur, à laver la vaisselle, et presser le linge.*)

Fig 2.



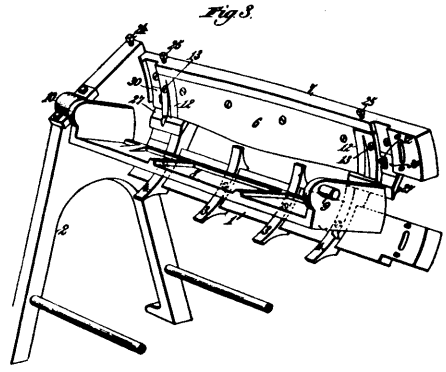
Huldah A. Shepard, Nelsonville, Ohio, U.S.A., 4th May, 1893; 6 years.

Claim.—1st. A combined steam cooker and dish washer, comprising a body having a suitable cover, a series of perforated shelves mounted in the body, and a vertically movable dasher mounted beneath the shelves, substantially as described. 2nd. An apparatus of the character described, comprising a body having a removable cover, a series of perforated shelves mounted in the body, vertically movable dasher mounted beneath the shelves, and a lever mechanism for operating the dasher, substantially as described. 3rd. An apparatus of the character described, comprising a body having a removable perforated cover, a series of perforated shelves mounted in the body, a vertically movable dasher mounted beneath the shelves, a dasher rod secured to the dasher and extending upward through the shelves and cover, and a lever for operating the dasher rod, substantially as described. 4th. The combination, with the body and the dasher and the dasher rod therein, of the lever having means for attachment to the dasher rod, and a spring pressed rod mounted on one end of the body and connected by a swivel with the lever, substantially as described. 5th. The combination, with the main vessel, the movable dasher mounted therein, and the rod connected with the dasher, of a lever detachably secured to the vessel, one end of the lever being pivoted in a keeper which carries a stop to limit the movement of the lever, substantially as described.

No. 42,817. Stave Cutting Machine.

(*Machine à découper les douelles.*)

Fig 8.



Luther L. Frierson, Mount Pleasant, assignee of Charles Willis Rich, Summertown, both of Tennessee, U.S.A., 4th May, 1893; 6 years.

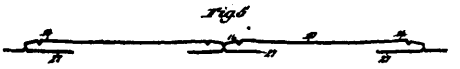
Claim.—1st. The combination with a knife bar, a cutting knife for severing a stave from a stave bolt, and crozing knives for crozing the staves, of residual rib removing knives or planes connected with and supported by the knife bar which carries the stave cutting and crozing knives, and arranged in proximity to the latter to provide a space between the stave cutting knife and the rib removing knives or planes for the passage of the stave being severed, substan-

tially as described. 2nd. The combination with a table for supporting a stave bolt, a knife bar, a stave cutting knife secured to the knife bar, the crozing knives for crozing the staves, of residual rib removing knives or planes arranged in proximity to the crozing knives to provide a space between the stave cutting knife and the rib removing knives or planes for the passage of the stave being severed, substantially as described. 3rd. The combination, with a table for supporting a stave bolt, of a knife bar and a stave cutting knife secured to the knife bar, and having cutting end portions constituting continuations of the main cutting edge, and fashioned to such shape that with a single cut of the stave knife there is severed from the stave bolt a stave which is chamfered, crozed and equalized, substantially as described. 4th. The combination with a table for supporting a stave bolt, of a knife bar, a stave cutting knife secured to the knife bar and having cutting end portions constituting continuations of the main cutting edge, and fashioned to such shape that with a single cut of the stave knife there is severed from the stave bolt a stave which is chamfered, crozed and equalized, and knives or planes arranged in rear of the stave cutting knife, and which as the stave is being cut remove the residual ribs left on the stave bolt by the formation of the croze in the preceding stave, substantially as described. 5th. The combination with a table for supporting a stave bolt, of a knife for severing a stave from the stave bolt, crozing and chamfering cutters for crozing and chamfering the staves, and residual rib removing knives or planes arranged in proximity to the crozing and chamfering cutters to provide a space between the stave cutting knife and the rib removing knives or planes for the passage of the stave being severed, substantially as described. 6th. The combination with an oscillating table for supporting a stave bolt, of a stationary knife bar, and a stave cutting knife secured to the knife bar, and having cutting end portions constituting continuations of the main cutting edge and fashioned to such shape that with a single stroke there is severed from the stave bolt a stave which is chamfered, crozed and equalized, substantially as described. 7th. In a stave cutting machine, the combination of a stave knife whose extreme cutting end edges constitute continuations of the main cutting edge of the knife, and are turned laterally to equalize the stave at the same stroke it is severed from the stave bolt, with rear cutting knives or planes which plane off the end elevations left on the stave bolt and arranged in such proximity to the stave severing knife as to provide a space for the passage of the stave being severed, substantially as described. 8th. In a stave cutting machine, the combination with a table which carries the stave bolt, of a lengthwise and transversely curved stave cutting knife having crozing and chamfering edges which constitute continuations of the main cutting edge and provided with laterally projecting end edges which equalize the stave at the same stroke it is severed from the stave bolt, substantially as described. 9th. In a stave cutting machine, the combination of a stave cutting knife having its end portions fashioned with chamfering, crozing and equalizing cutting edges constituting continuations of the main cutting edge of the knife to chamfer, croze and equalize the stave at the same stroke it is severed from the stave bolt, with cutting knives or planes which plane off the ribs left by the formation of the croze and chamfer in the preceding stave, substantially as described. 10th. The combination of a table for supporting a stave bolt, a stave severing, chamfering and crozing knife provided at each end with a lateral cutting edge, and residual rib removing knives located at the rear of the stave severing knife and provided with angular portions co-operating with and lateral cutting edges of the stave severing knife to equalize the staves and bevel their end edges at the same stroke that the stave is severed from the stave bolt, substantially as described. 11th. The combination of a table for supporting a stave bolt, a stave severing knife provided at each end with a lateral cutting edge, and a knife or plane arranged in rear of the stave severing knife and provided with an angular portion which co-operates with the lateral cutting edge of the stave to equalize the stave and bevel its end edges at the same stroke that the stave is severed from the stave bolt, substantially as described. 12th. The combination with an oscillating table for supporting a stave bolt, of a vertically adjustable knife bar, a stave severing knife secured to the knife bar, a vertically adjustable crozing, chamfering and equalizing cutter arranged at each extremity of the stave severing knife and having the cutting edges constituting continuations of the main cutting edge of the stave severing knife so that at each cut there is severed from the stave bolt a stave which is chamfered, crozed and equalized, substantially as described. 13th. In a stave cutting machine, the combination with a table which carries the stave block, of a stave cutting knife the end portions and edges of which are fashioned to such shape that with a single stroke of the stave knife there is severed from the stave block a stave which is chamfered, crozed and equalized, substantially as described. 14th. A stave machine provided with a stave cutting knife having cutting end portions constituting continuations of the main cutting edge and formed to chamfer, croze and equalize the staves at the stroke which severs the stave body from the stave bolt or block, substantially as described. 15th. The combination with an oscillatory table for supporting a stave bolt, of a vertically adjustable knife bar, a knife secured to the adjustable knife bar for severing a stave from the stave bolt, a vertically adjustable crozing and chamfering cutter at each extremity of the stave severing knife, and a vertically adjustable knife or plane arranged in rear of the stave severing knife and which, as the stave is being cut, remove the residual rib left on the stave bolt by the formation of the croze in the preceding stave, substantially as described.

No. 42,818. Stave Cutting Machine.

(*Machine à découper les douelles.*)

Fig 6



Luther L. Frierson, Mount Pleasant, assignee of Charles Willis Rich, Summertown, both of Tennessee, U.S.A., 4th May, 1893; 6 years.

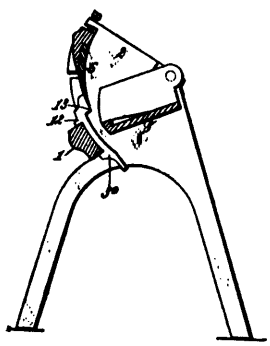
Claim.—1st. In a stave cutting machine, the combination with a table, on which the stave bolt is placed, of a knife adapted to cut at one operation a plurality of staves and provided at its ends and intermediate thereof with crozing, chamfering and equalizing knives, to cut, chamfer, croze and equalize a plurality of staves at a single operation, substantially as described. 2nd. In a stave cutting machine, the combination with a table on which the stave bolt is placed, of a knife adapted to cut from the stave bolt a plurality of staves at one operation, chamfering, crozing and equalizing cutters arranged at the ends of said knife and intermediate thereof and rib removing knives arranged to remove the residual ribs formed on the stave boltby the crozing of the staves cut therefrom, substantially as described. 3rd. In a stave cutting machine, the combination with a table, on which is placed the stave bolt, of a knife adapted to cut therefrom at one operation a plurality of staves, crozing, chamfering and equalizing knives arranged at the end of said knife and intermediate of said ends, and rib removing knives to remove the residual ribs formed on the stave bolt by crozing the staves cut therefrom, said rib removing knives having equalizing, or severing and shaping cutters which act in conjunction with the equalizing or severing cutters on the crozing and chamfering knives, substantially as described. 4th. In a stave cutting machine, the combination with a table on which the stave bolt is placed, of a knife consisting of a plurality of stave cutting sections, to cut from the stave bolt a plurality of staves at one operation, crozing and chamfering knives having equalizing cutters and arranged at the two outer, or extreme ends of said knife, and between the stave cutting sections thereof, and rib removing knives arranged to remove the residual ribs from the stave bolt and to act conjointly with the equalizing cutters on the crozing and chamfering knives, to shape and sever the ends of the staves, substantially as described. 5th. In a stave cutting machine, the combination with a stave cutting knife, consisting of a plurality of stave cutting sections, of crozing and chamfering knives, and shaping, or end forming knives, arranged at suitable points relatively to the crozing and chamfering knives, whereby a plurality of staves are severed from the stave bolt, at each single operation, and simultaneously crozed and chamfered at one end, and suitably shaped at the other end, substantially as described. 6th. In a stave cutting machine, a knife consisting of a plurality of stave cutting sections, each curved longitudinally to correspond with the bilge of the barrel or other article formed from said stave, and adapted to cut in a curved line corresponding with the circular body of said barrel or article, crozing and chamfering knives having equalizing cutters at the two extremities of said knife and intermediate thereof, and suitable rib removing knives, substantially as described. 7th. In a stave cutting machine, the combination, with a knife and with crozing and chamfering knives which cut, croze and chamfer a plurality of staves, and also sever and equalize the same at each single operation of the machine, of an oscilliating table on which the stave bolt is placed, and rib removing knives arranged at suitable points, substantially as described. 8th. In a stave cutting machine, the combination, with a knife consisting of crozing and chamfering knives, which cut, croze and chamfer a plurality of staves, and also equalize the same at each single operation of the machine, of an oscilliating table on which the stave bolt is placed, and rib removing knives arranged in proximity to the crozing and chamfering knives, to provide a space through which the staves being severed pass, substantially as described.. 9th. In a stave cutting machine, the combination, with a plurality of stave cutting knives arranged to act simultaneously upon a stave bolt, of adjustable crozing, and chamfering knives, and adjustable shaping knives, to act upon the ends of the staves, substantially as described. 10th. In a stave cutting machine, the combination, with a series of stave cutting knives each longitudinally and transversely curved and acting simultaneously to sever from a stave bolt a plurality of longitudinally and transversely curved staves, of crozing and chamfering knives arranged at the end of each stave cutting knife, and having a suitable longitudinal curve to cut in the same line a transverse curvature with the stave cutting knives, substantially as described. 11th. In a stave cutting machine, the combination, with a plurality of stave cutting knives arranged to act simultaneously on the stave bolt, of crozing and chamfering knives arranged at the ends of the stave cutting knives and having equalizing cutters, adjustable rib removing knives mounted on brackets on a guide supporting bar, and means for giving a vertical and a universal horizontal adjustment to said knives, substantially as described. 12th. In a stave cutting machine, the combination, with a knife consisting of a plurality of stave cutting portions, of crozing and chamfering

knives, arranged at the ends of the cuter, or extreme stave cutting portions, each having a chamfering cutter and a trimming cutter, the latter continuous with the stave cutting knife, and the former arranged at an angle therewith, a crozing cutter being interposed between and forming an integral part of said cutters, the chamfering cutter being also provided with an equalizing and severing cutter, and a duplex knife arranged between the contiguous ends of said stave cutting knives, and consisting of a central equalizing and severing cutter joined to blades which extend laterally, substantially as described 13th. In a stave cutting machine, the combination, with a knife consisting of a plurality of stave cutting portions adapted to act simultaneously upon a stave bolt, a crozing and chamfering knife having a trimming and chamfering cutter arranged at a suitable relative angle and provided with a crozing cutter lying between and connecting said cutters, the chamfering cutter having an equalizing and severing cutter, a duplex knife arranged between the ends of the adjacent stave cutting sections, and having a central equalizing and severing cutter and two chamfering and two trimming cutters, with two crozing cutters intermediate the chamfering and trimming cutters, and a table on which the stave bolt is placed, substantially as described. 14th. In a stave cutting mechanism, the combination with a table, or support, on which the stave bolt is placed, of a knife having, or consisting of, a plurality of duplicate, stave forming sections fashioned into shape to form from the stave bolt a plurality of similar staves at each single operation, substantially as described. 15th. In a stave cutting mechanism, the combination with a table, or support, on which the stave bolt is placed, of a knife fashioned at its edge to form or serve a plurality of duplicate staves from the stave bolt, at each single operation, substantially as described.

No. 42,819. Stave Cutting Machine.

(*Machine à découper les douelles.*)

Fig. 1.



Luther L. Frierson, Mount Pleasant, assignee of Charles Willis Rich, Summertown, both of Tennessee, U.S.A., 4th May, 1893; 6 years.

Claim.—1st. In a stave cutting machine, the combination with equalizing cutters, of a stave cutting knife having a shear cutting edge and end cutting extensions which slice or plane off the residual portions left on the ends of the stave bolt, substantially as described. 2nd. In a stave cutting machine, a stave cutting knife having a shear cutting edge and provided with longitudinal end extensions having cutting edges which form continuations of the main cutting edge of the knife for slicing or planing off the residual portions left on a stave bolt which is longer than the length of the stave cut therefrom, substantially as described. 3rd. In a stave cutting machine, the combination with stave equalizing cutters, of a stave cutting knife provided with longitudinal and extensions which project past the stave equalizing cutters and have their cutting edges forming continuations of the main cutting edge of the knife for slicing or planing off the residual portions left on a stave bolt which is longer than the length of the stave cut therefrom, substantially as described. 4th. In a stave cutting machine the combination of a stave cutting knife having a shear cutting edge and uniformly curved transversely and longitudinally, with equalizing cutters which equalize the stave at the same stroke that severs it from the stave bolt, substantially as described. 5th. In a stave cutting machine, a stave cutting knife having equalizing cutters and longitudinal end cutting extensions projecting past the equalizing cutters for slicing or planing off the residual portions left on the ends of a stave bolt, substantially as described.

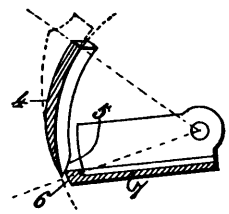
No. 42,820. Cutting Knives for Stave Machines.

(*Couteaux pour machines à douelles.*)

Luther L. Frierson, Mount Pleasant, assignee of Charles Willis Rich, Summertown, both of Tennessee, U. S. A., 4th May, 1893; 6 years.

Claim.—1st. A transversely curved stave cutting knife, having a shear cutting edge uniformly curved longitudinally to shear off a stave from a stave bolt supported in a fixed position on a table, substantially as described. 2nd. The combination of a stave bolt supporting table having a uniformly curved cutting edge, and a stave cutting knife, one of the parts moving past the other in cutting a stave, said knife being curved transversely and formed with a shear cutting edge which is uniformly curved longitudinally, substantially as described.

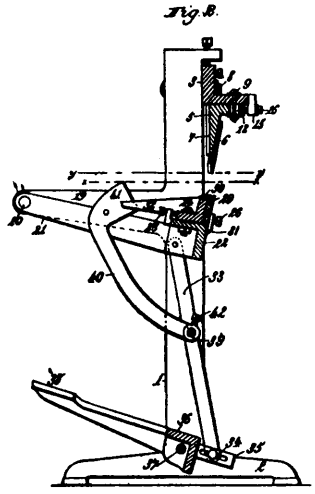
Fig. 3.



No. 42,821. Stave Jointing Machine.

(*Machine pour joindre les douelles.*)

Fig. 2.

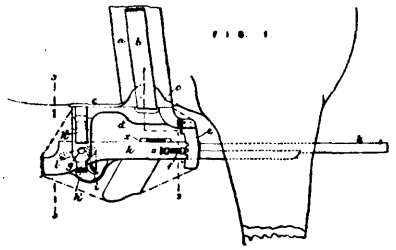


Luther L. Frierson, Mount Pleasant, assignee of Charles Willis Rich, Summertown, both of Tennessee, U. S. A., 4th May, 1893; 6 years.

Claim.—1st. The combination, with a stave cutting rest, of a knife bar, a jointing knife composed of a single continuous strip of elastic metal, a series of independently adjustable plates carried by and bodily movable back and forth on the knife bar, and secured to the elastic knife to constitute a substantially continuous support therefor along its length, and adjusting devices carried by the knife bar and acting upon the adjustable plates to independently adjust them, and spring the knife into curves of greater or less radii, substantially as described. 2nd. The combination of an oscillating table having an adjustable elastic cutting rest, a knife bar which is supported in a fixed position during the stave jointing or trimming operation, a series of independently adjustable plates suspended from and bodily movable back and forth on the knife bar, and secured to the elastic knife to constitute a substantially continuous support for the same along its length, and adjusting devices carried by the knife bar, and acting upon the adjustable plates to independently adjust them, and spring the knife into curves of greater or less radii, substantially as described. 3rd. The combination, with a stave cutting rest, of a knife bar, a jointing knife composed of a single continuous strip of elastic metal having a series of laterally projecting cutting portions at its cutting edge, a series of independently adjustable plates carried by and bodily movable back and forth on the knife bar, and secured to the elastic knife to constitute a substantially continuous support therefor along its length, and adjusting devices carried by the knife bar and acting upon the adjustable plates to independently adjust them and spring the knife into curves of greater or less radii, substantially as described. 4th. The combination of an oscillatory table, an elastic cutting rest, a series of plates adjustable on the table and secured to the elastic cutting rest to constitute a substantially continuous support therefor along its length, a knife bar, an elastic trimming or jointing knife, a series of independently adjustable plates carried by and bodily movable back and forth on the knife bar, and secured to the elastic knife to constitute a substantially continuous support therefor along its length, and adjusting devices carried by the knife bar, and acting upon the adjustable plates to

independently adjust them and spring the knife into curves of greater or less radii, substantially as described. 5th. The combination of the end frames or standards, a knife bar which stands stationary during the stave trimming and jointing operation, an elastic trimming or jointing knife, a series of angular plates comprising horizontal flanges adjustably secured to the knife bar and vertical flanges to which the elastic knife is attached, a series of set screws carried by the knife bar, and acting upon the angular plates to independently adjust them and spring the knife into curves of greater or less radii, a cutting rest, and means for adjusting the cutting rest into longitudinal curves of different radii, substantially as described. 6th. The combination with a knife bar, and an elastic stave jointing knife, of a series of independent adjustable angular plates suspended from and movable back and forth on the knife bar and connected with the elastic jointing knife, devices carried by the knife bar and acting against the angular sections to independently adjust them and spring the knife into curves of greater or less radii, a table, a series of adjustable plates mounted on the table, an elastic cutting rest secured to and solely supported by the adjustable plates, and devices carried by the table and acting on said plates to independently adjust them and spring the cutting rest into curves of greater or less radii, substantially as described. 7th. The combination in a stave trimming or jointing machine, of a knife bar, an elastic trimming or jointing knife, a series of independently adjustably plates slidable back and forth on the knife bar, connected with the elastic knife and constituting a substantially continuous support for the latter along its length, and set screws carried by the knife bar and acting against the opposite end portions of the plates for independently adjusting them and springing the knife into curves of greater or less radii, substantially as described. 8th. The combination in a stave trimming or jointing machine, of a stave cutting rest, a knife bar, a pair of knife support carried by and adjustable lengthwise and transverely with relation to the knife bar, and a stave jointing knife composed of a single continuous strip of elastic metal secured to the lengthwise and transversely adjustable knife supports, substantially as described. 9th. The combination in a stave trimming or jointing machine, of a stave cutting rest, a knife bar, a pair of knife supporting plates carried by and movable lengthwise and transversely with relation to the knife bar, a stave jointing knife composed of a single continuous strip of elastic metal secured to the lengthwise and transversely adjustable knife supporting plates, and a series of set screws carried by the knife bar for adjusting the knife supporting plates lengthwise and transversely with relation thereto, substantially as described. 10th. The combination in a stave trimming or jointing machine, of a knife bar, an elastic jointing knife, knife supports composed of angular plates having horizontal flanges movably secured to the knife bar and vertical flanges to which the elastic jointing knife is attached, and devices carried by the knife bar for adjusting the knife supports to spring the jointing knife into longitudinal curves of different radii, substantially as described. 11th. The combination in a stave trimming or jointing machine, of a knife bar, a trimming or jointing knife, an oscillatory table having a cutting rest, a rocking treadle bar having rearwardly projecting arms, rods or links pivotally connected at their upper end with the table and adjustable at their lower ends along the rearwardly projecting arms of the rocking treadle bar, a rock shaft journalled to the said connecting rods or links, and a pair of stave feeding arms rigidly secured to the rock shaft so that the latter constitutes a pivotal support for moving both arms in unison and causing them to rise and fall with the oscillatory table, substantially as described.

No. 42,822. Method of Attaching Firearms to Cavalry Harnesses. (*Méthode d'attacher les armes à feu aux harnais de cavalerie.*)

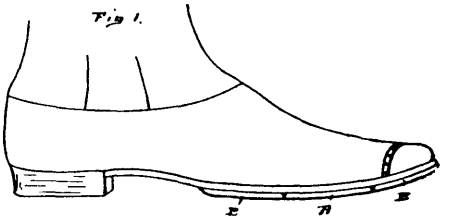


William Frederick Peel, London, England, May 4th, 1893; 6 years.

Claim.—1st. The combination, with cavalry harness provided centrally at its lower portion with a firearm support adapted to lie centrally under the body of the animal, of a firearm suspended longitudinally by said support with the muzzle pointing forward, and firing devices connected with the breech portion of the firearm and arranged to be operated at the will of the rider for discharging the firearm, substantially as described. 2nd. The combination, with the harness girth, of a vertically arranged firearm supporting plate suspended centrally from the girth at the lower portion thereof, a firearm having its breech portion suspended from the supporting plate, a firearm adjusting frame connected with the plate and provided with means for raising, lowering and leveling the firearm, and firing devices connected with the breech portion of the firearm and arranged to be operated at the will of the rider for discharging the firearm, substantially as described.

No. 42,823. Boot and Shoe Soles.

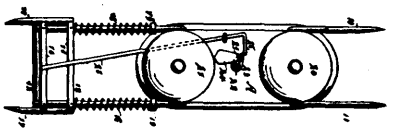
(*Semelle pour chaussures.*)



Leroy S. Pfouts and Lorenzo D. Ball, both of the City of Canton, Ohio, U.S.A., May 4th, 1893; 6 years.

Claim.—1st. In a boot and shoe sole, the sections B and A, the extensions or lugs *a*, provided with inclined faces or edges, and the recesses or notches *b*, provided with corresponding inclined faces, substantially as and for the purpose specified.

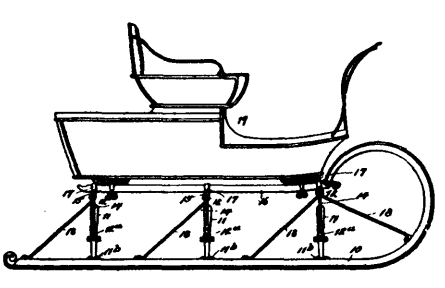
No. 42,824. Burglar Alarm. (*Avertisseur d'effraction.*)



Joseph Frank Stirsky, Nelson, British Columbia, May 4th, 1893; 6 years.

Claim.—1st. In a burglar alarm, the combination, with a casing having rods projected therefrom and extending beyond opposite sides, gongs carried by the casing and a clock movement likewise carried by the casing, of a post held to revolve in the casing between the gongs, a tongue carried by the post and adapted for engagement with the gong, a gear connection between the post and the clock mechanism, a spring pressed yoke provided with spurs held to slide upon the rods, and a trip arm carried by the yoke and normally adapted for engagement with the post, stopping the revolution of the latter, as and for the purpose specified. 2nd. In a burglar alarm, the combination, with a casing, rods projected from the top and bottom thereof, gongs secured upon one face of the casing, a clock mechanism carried by the casing, a post journalled in the casing between the gongs and geared with a clock mechanism, a tongue pivotally connected with the post, and a finger securely attached to the post, of a yoke provided with spurs and held to slide upon the rods at one end of the casing, springs normally pressing the yoke downward and outward, and a trip arm secured to the yoke and normally engaging at its upper end with the finger of the post, whereby the latter can revolve only when the trip arm is disengaged from it, as and for the purpose set foth.

No. 42,825. Sleigh. (*Traîneau.*)



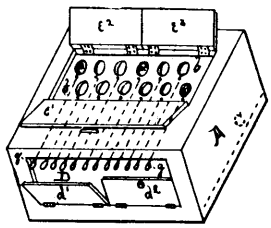
W. N. Snow, Snowville, New Hampshire, U.S.A., 4th May, 1893; 6 years.

Claim.—1st. The combination, with the runners and the transverse arched knees, of the angular brackets 12, secured at the lower ends of their vertical members, and inner ends of their horizontal members to the knees as shown at 12^a, and formed on their upper sides at their angles with bearings 15, and clips 16 to secure the side bars in place, substantially as set forth. 2nd. The combination, with the runners and arched knees of the arched braces 11^a, secured at their ends 11^b to the runners, and secured throughout their length to the under sides of the knees, the angular brackets 12, secured at their ends as at 12^a to the knees, forming angular upper corners therefor and formed on their upper sides at their angles with side bar bearings 15, having clips 16, substantially as set forth.

No. 42,826. Egg Tester.

(*Appareil à faire l'épreuve des œufs.*)

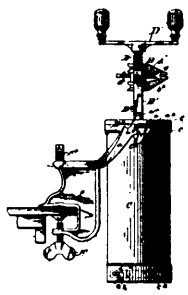
Fig. 1



Norman Wemp, Chatham, Ontario, Canada, 4th May, 1893; 6 years.

Claim.—1st. The combination of the case A, having a series of openings a^1, a^2, a^3 in the top, the said top being covered with a pad of soft rubber *b*, the said case A, having the opening D, in the front and in the bottom of dark chamber, the mirror C, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the case A, having the series of openings a^1, a^2, a^3 and *c*, and c^1, c^2, c^3, or slides f^1, f^2, for closing up a portion or all of them, substantially as and for the purposes hereinbefore set forth. 3rd. The combination of the case A, having the series of openings a^1 and a^2 and a^3, having the devices e^1, e^2 and e^3, for closing the openings a^1, a^2 and a^3, and the openings D, having doors d^1 and d^2, for the purpose of closing up the portion of said opening D, substantially as and as specified. 4th. The combination of the case A, having the series of openings a^1, a^2 and a^3, the opening D, and the mirror C, being placed on the bottom or having a slight elevation at the back, substantially as and as specified. 5th. The combination of the case A, having the series of opening a^1, a^2 and a^3, the opening D, the mirror C, and the signals *g*, substantially as and for the purpose hereinbefore set forth.

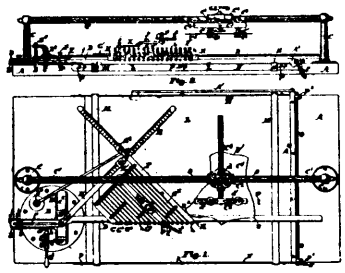
No. 42,827. Press. (*Presse.*)



George W. Pelton, Muscatine, Iowa, U.S.A., 4th May, 1893; 6 years.

Claim.—1st. The combination of the support, the bifurcated hanger supported thereon, the presser cylinder removably connected to the bifurcations or legs of said hanger, the screw shaft playing through guides in said hanger, and the split nut connected to said hanger and engaging the screw shaft, and a plunger, substantially as described. 2nd. The combination of the support having diverging upwardly extending arms slotted at their ends, the hanger having lugs engaging the slots of the arms, and a screw shaft guide opening, a split nut mounted in the hanger, a screw shaft, and a presser cylinder and plunger, substantially as specified. 3rd. The combination of a support, the bifurcated hanger connected thereto having a screw shaft guide opening, the half nuts resting and moving in an opening in said casting, the screw shaft playing therethrough, and a cylinder having lugs on its ends removably engaging slots in the legs of the casting, and a plunger, substantially as specified. 4th. The combination of the hanger, the cylinder, a supending ring having lugs engaging the hanger and an annular shoulder fitted to the top of the cylinder, the edge of which is turned over into said shoulder, and a strengthening band at the lower end of the cylinder over which the metal of the cylinder is turned, said band and lower edge of cylinder having a series of L-shaped slots, with the bottom band having a series of lugs adapted to engage the said slots, substantially as specified. 5th. The combination of a hanger having intersecting openings with the clutch pieces *d*, *d*, having half nuts d^1, and the shank d^2, the latter pivoted to brackets projecting from the hanger, and the former resting in one of the openings, and a catch for holding said parts together, substantially as set forth. 6th. The combination of the support having upwardly curved arms *a*, *a*, having slotted heads a^1, with the hanger having curved legs provided with outwardly projecting lugs and interior inclined slots, and a screw shaft guide opening, the screw shaft playing through said opening, and the cylinder having lugs engaging the slots of the hanger, substantially as set forth. 7th. The combination of the support having upwardly inclined diverging arms provided with slotted heads on its front upper corner and a rest on its rear upper corner, with the bifurcated hanger having lugs on its legs engaging the slots of the arms, a presser cylinder removably connected to said hanger and supported on said rest, a follower, the screw shaft playing through the hanger, and a split nut attached to the hanger and engaging said shaft, substantially as specified. 8th. The combination of the hanger having screw shaft guide opening *b*, intersecting opening b^1, and bracket arms b^2, at one side of said opening, with the half nuts d^1, resting in opening b^1, and having shanks d^2, pivotally connected to the extremities of bracket b^2, the springs for throwing apart said nuts, and the catch for locking the same, substantially as described. 9th. The combination of the support having upwardly inclined curved and slotted arms, the hanger having curved legs provided with exterior lugs removably engaging the slots in said arm and also having inclined slots in the inner faces of the legs, the presser cylinder having lugs removably engaging said slots and supported thereby, the follower, the screw shaft playing through a guide opening in said hanger, the pivoted screw clutch pieces playing in an opening in said hanger and adapted to engage the shaft, the springs for separating and the catch for locking the same, all substantially as and for the purpose described.

No. 42,828. Pantograph. (*Pantographe.*)



Louis Coté, St. Hyacinthe, Quebec, Canada, 4th May, 1893; 18 years.

Claim.—1st. In combination, with the four bars E, F, I^1 and G^1, of an ordinary pantograph, the bar I, a plurality of bars pivoted to said bars I, and I^1 in positions parallel to each other, and to the bars F and G^1, and each provided with a pencil carrying socket at a different distance from the bar I to either of the other bars, a bar for supporting the front or pencil carrying ends of the bars F and G^1, just in the rear of the pencil carrying sockets and parallel to the line of said sockets, two slides or clips mounted on said bar so as to be freely movable endwise thereof, and pivoted one to the front end of the bar F, and the other to the bar G^1, said supporting bar being pivoted to one end of the bar E, and a raised bar or bars, and a pivoted radius arm, for supporting the movable ends of said supporting bar, and the bar D respectively. 2nd. The combination, with the bars E, F, G^1 and I^1, of an ordinary pantograph, of the bar D, pivoted to one end of the bar E, and constructed and arranged to support the front end of the bars F and G^1, at one end of said pivoted connection and extending beyond said pivot in the opposite direction and having formed in said extension a longitudinal slot, a slotted arm secured to the table or bed of the machine parallel to the front edge thereof, an adjustable fulcrum pin mounted in the slot in said bar D, and projecting into the slot in said arm, a pair of slides or clips embracing and adjustable endwise of said bar D, and pivoted one to the front end of each of the bars F and G^1, and a pencil carrying socket mounted in the front end of each of said bars F and G^1. 3rd. In a machine for outlining and proportioning or grading patterns of different sizes from a single model, the combination, with the four bars E, F, G^1 and I^1 of an ordinary pantograph, of the bar I arranged parallel to the bar I^1, and pivoted to the bars F and G^1, a plurality of bars of different lengths pivoted to said bars I and I^1, between the bars F and G^1, in positions parallel to each other, and said bars F and G^1, a pencil socket mounted in the front end of each of the bars F, G^1, and the intermediate parallel bars all arranged in a line oblique to the bar E, the bar D pivoted to one end of the bar E, and arranged to support the front ends of the bars F and G^1, and the intermediate parallel bars at one side of said pivotal connection in the opposite direction, and provided with a longitudinal slot extending from a point in close proximity to said pivot to a point some distance outside, thereof and fulcrumed upon a stud or pivot constructed and arranged to be adjusted to a greater or less distance from said pivotal connection, a pattern plate suspended above the pencil carrying bars, and a guide wheel or truck constructed and arranged to roll in contact with the edge of said pattern plates with its edge at the point of contact directly over the centre of one of the pencil sockets. 4th. In a machine for outlining and proportioning patterns of different sizes from a single model, the combination with a pantograph having a series of pencil carrying bars of different lengths arranged parallel to each other, of the bar D pivoted to the main bar of the pantograph and extend-

ing beyond or outside of said pivot and having formed therein a longitudinal slot extending from near said pivotal connection to near the end of said extension, a table or bed for supporting the working parts of the machine and the paper or other material to be operated upon, a grooved T-shaped bar or plate mounted upon said table, a fulcrum pen mounted in the slot in the bar D and extending into the groove in said T-shaped bar and freely adjustable towards and from the pivotal connection of the bars D and E, the plate B^2 fitted to and movable in a transverse groove in said T-shaped bar and adapted to maintain the pivoted ends of the bars D and E at the desired height above the table, a pivoted radius arm and a raised bar or bars for supporting the opposite ends respectively of said bars at the desired elevation, a pattern plate suspended above the pencil carrying bars, a guide carrying lever or arm detachably mounted directly above one of said pencil carrying bars, and a guide carrying wheel or truck mounted upon a revoluble crank carried by said guide lever or arm in such a manner that its point or contact with the pattern will always be in axial line with the centre of one of the pencil holding sockets. 5th. In a machine for outlining and proportioning patterns of different sizes from a single model, the combination with the four bars, E, F, G^1, and I^1, of an ordinary pantograph, a series of pencil carrying bars of different lengths arranged between and parallel to the bars, F and G^1, a table or bed for supporting the working parts of the machine and the material to be operated upon, the T-shaped bar B provided with the two grooves c^3, c^4, arranged at right angles to each other, said bar being mounted upon said table and movable thereon in the direction of the length of the groove c^3, the plate B fitted to and movable endwise in the groove c^4, the bar D pivoted at d^2 to the bar E and the plate B and provided with the slot f, a fulcrum pen adjustably secured in said slot f, and projecting into the slot c^3 in the bar B^1, the radius arm B^4 and the bars A and A^1 for supporting the movable ends respectively of the bars E and D, and means having provision for moving the T shaped bar B^1 the plate B^2 and the pantograph pivoted thereto in a direction parallel to the front of table the and locking it in its adjusted position, substantially as described. 6th. In a pantograph machine the combination of the bars D, E, F, G^1, I, I^1 and a series of pencil carrying bars mounted upon the bars D^1 I and I^1 between the bars F and G^1 the slot f in the bar D, a table for supporting the working parts of the machine, a pivoted radius arm, and raised bars for supporting the movable ends of the bars E and D respectively, a bar or plate having a groove in its upper side extending in the direction of the length of the table and parallel with its front side, a fulcrum pin adjustably secured in the slot f and engaging with the groove in said grooved bar, the pin d connecting the bars D and E and means having provision for moving said pivotal connection of the bars D and E in a straight line at right angles to the front edge of the table. 7th. The combination in a pantograph of the table A, the raised bars A^1 and A^2, the T shaped bar B^1 having grooves c^3 and c^4, the plate B^2, the bars D, E, F, G^1, I and I^1, a series of pencil carrying bars arranged between and parallel to the bars F and G^1 the pivot pin d^2 connecting the bars D and E to the plate B^2, the fulcrum pin g adjustably secured in the slot f in the bar D and extending into the groove c^3 in the bar B, the rod C^1 supported above the pencil carrying bars in a position parallel to the upper surface of the table, the hub or sleeve C^2 fitted to and adjustable endwise of said rod the T shaped pattern carrier C^3, C^4 adjustably mounted in a bearing in the hub C^2, the pattern C^5 suspended from said carrier above the pencil carrying bars, the arm K mounted above and movable with one of said pencil carrying bars, and the truck l^3 mounted upon a crank pin revoluble with an axle set in said arm with its axis directly beneath the periphery of said truck at the bottom of its groove, and in axial line with one of the pencil holding sockets. 8th. In a pantograph the combination of a series of pencil carrying bars of different lengths arranged parallel to each other, of a table for supporting the working parts of the machine and the material to be operated upon, a pattern plate suspended above the pencil carrying bars, a guiding wheel or truck mounted upon a revoluble crank carried by an arm located above and movable with one of said pencil carrying bars, and a handle connected to said truck carrying arm by a universal or swiveling joint as a means of manipulating said arm in carrying the truck around the pattern. 9th. In a pantograph machine the combination of the table A, the bars N N provided with the oblique slots p^1 and at one end with a series of rack teeth arranged in a plane parallel to the sides of the slots p^1, the toothed segments p^2, the shaft O, the handle P, and the paper holding bars M M provided with the hook ends M^1, substantially as described. 10th. In a pantograph the combination with the pencil bar of the tubular socket h provided with the peripheral groove s, the pencil or knife carrying spindle r fitted to be movable vertically therein, the stand q provided with the arm q^1 and the catch q^2 and stepped in the groove s, the lever r^1 fulcrumed in the stand q and pivoted to the spindle r, the locking latch levers q^3, and the springs q^4 and t, all constructed, arranged and operating, substantially as described. 11th. In a pentograph, the combination of a series of pencil or knife carrying bars of different lengths arranged parallel to each other, the bar C arranged above said pencil carrying bar, the bar R^1, the sleeve R^2, secured to one end thereof, the rod C^3, the slotted bar C^4, the clamp R adjustably mounted on said rod C^3, the pendent studs e^1, e^1, adjustably secured in the slotted bar C^4, a pattern plate secured to said studs e^1, e^1, and the clamp R, the arm K, the crank l^1, carried by said arm K, and the truck l^3, mounted on the crank pin with the periphery of its groove directly over the axis of the shaft of said crank, substantially as described. 12th. The combination in a pantograph machine, of the bars D and E pivoted together at d^2, a series of pencil or knife carrying bars of different lengths arranged parallel to each other and connected together so as to maintain such parallelism, slides connecting two of said pencil carrying bars to the bar D, so as to be freely movable endwise thereof, and one of said pencil carrying bars as F extending across and beyond the bar E, a series of graduations on each of said bars E and F, and the two slides E^1 and E^2 pivoted together and fitted to and adjustable on the bars E and F respectively, substantially as described. 13th. In a pantograph provided with a series of pencil or knife carrying bars of different lengths arranged parallel to each other, and a model pattern arranged above said bars, the combination of the two studs J and J^1, each provided with a series of three holes w^3, u^4 and u^5, the arm K, provided with two series of three holes w, w^1 and w^2, arranged as set forth, the removable pins j and j^1, and the crank l^1 and l^3, carried by said arm K all constructed, arranged and operating, substantially as described.

No. 42,829. School Desk. (*Pupitre d'école.*)

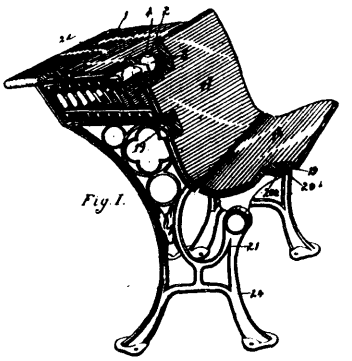


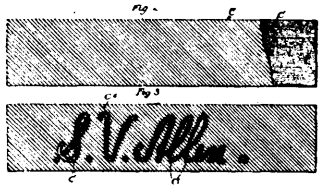
Fig. I.

Walter H. Morden and Alexander John Gilmour, both of Toronto, Ontario, Canada, 6th May, 1893; 6 years.

Claim.—1st. A spherical ink well for school desks, provided at or near the top of its vertical axis with an opening, the edge of said opening provided with an outwardly extending lug or ear adapted to engage the edges of the opening in the desk top, the combination with suitable means for securely holding said ink well in place and allowing it a partially longitudinally revoluble movement, substantially as described. 2nd. A spherical ink well for school desks, located in the underside of the desk top and provided at or near the top of its vertical axis with an opening and at one side of the latter, with an outwardly extending lug adapted to engage the opening in said desk top, and longitudinal groove encircling said ink well, in combination with a support located within said groove and connected to some convenient part of the desk, said support allowing the ink well a partially revoluble movement, substantially as described. 3rd. A spherical ink well for school desks, provided at or near the top of its vertical axis with an opening, the edge of which opening is fitted with an outwardly extending lug or ear adapted to engage the opening in the desk top, a longitudinal groove or channel encircling said ink well, in combination with suitable support located within said groove or channel, said support allowing the ink well a longitudinally revoluble movement, which movement is arrested by means of the aforesaid lug or ear, substantially as described. 4th. A spherical ink well for school desks, provided at or near its vertical axis with an opening, the edge of which opening is fitted with an outwardly extending lug or ear adapted to engage the opening in the desk top, a longitudinal groove or channel encircling said ink well, in combination with a support or bearing consisting of a U-shaped band, the ends of which band are connected to the under side of the desk top and curved portion located within said groove or channel, said support allowing the ink well a longitudinally revoluble movement, which movement is arrested by means of the aforesaid lug or ear, substantially as described. 5th. In a spherical ink well for school desks, provided at or near the top of its vertical axis with an opening, the edge of which is fitted with a lug or ear, and a longitudinal groove or channel encircling said ink well, in combination with a support or bearing consisting of a U-shaped band, the ends of which are connected to the under side of the desk top, and the curved or rounded portion located within said groove or channel, forming a semi-spherical bearing for said ink well and allowing said ink well a longitudinally revoluble movement, which movement is arrested by means of the aforesaid lug or ear coming in contact with the edge of the opening through the desk top, substantially as described. 6th. A spherical ink well for school desks, provided at or near the top of its vertical axis with an opening, the edge of which opening is provided with an outwardly extending ear or lug, a longitudinal groove or channel encircling said ink well, in combination with a support or bearing consisting of a U-shaped band, the ends of which are connected to the top plate supported on the

shoulder extending inwardly from the side of the opening through the desk top, the curved or rounded portion of said band located within said groove or channel in the ink well, an opening through said top plate to correspond with the opening in said ink well, said support allowing said ink well a longitudinally revoluble movement, which movement is arrested by means of the aforesaid lug or ear coming in contact with the edge of the opening through said top plate, substantially as described.

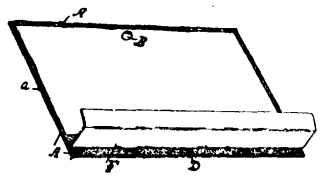
No. 42,830. Sign Writing. (*Lettrage d'enseignes.*)



Samuel V. Allen, Freeport, Illinois, U.S.A., 6th May, 1893; 6 years.

Claim.—1st. The method of sign writing consisting in, first, covering a suitable surface with liquid paint and, second, forming letters or characters by removing the paint from certain parts of said surface, the paint so removed being deposited at the edges of the letters or characters so formed, substantially as shown and described. 2nd. A sign made up of letters surrounded by a ground of paint of a different colour, the paint of said ground being thicker at the edges of said letters than at the remainder of its surface, substantially as shown and described.

No. 42,831. Temporary Binder. (*Reliure mobile.*)



Nelson Richard Butcher, Toronto, Ontario, Canada, 6th May, 1893; 6 years.

Claim.—1st. A temporary binder, consisting of a sheet of leather or similar material lined with a sheet of paper or other lining, the said paper being connected to the leather around the edges only, one side of the sheet having fixed to it a stiffening piece with perforations made through it, substantially as and for the purpose specified. 2nd. A temporary binder, consisting of a sheet of leather or similar material lined with a sheet of paper or other lining, the said paper being connected to the leather around the edges only, one side of the sheet having fixed to it a stiffening piece with perforations made through it, and a flexible flap, substantially as and for the purpose specified.

No. 42,832. Time Recorder. (*Registre horaire.*)

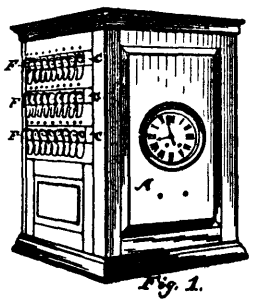


Fig. 1.

George Wellington Heene, Cleveland, Ohio, U.S.A., 6th May, 1893; 6 years.

Claim.—1st. In a recording mechanism, the combination with the cabinet A, bars C provided with holes, pull rods D, having pins *d*, for holding the check tags E, and provided with a retracting spring S, constructed to operate, substantially as and for the purpose specified. 2nd. In a recording mechanism, the combination with pull rods D, having the pins *d*, and supported in the bars C, substantially as described, of the recording mechanism consisting of the perforated bar G, supported by cross bars B^2, and provided with punch pins H, angle levers J, J, pivotally mounted on rod I, I, and having pawls *p*, and the connecting rods L, L, connecting the angle levers J with the pull rods D, constructed and arranged substantially in the manner and for the purpose set forth. 3rd. In combination with punch pins H, the springs *g*, *g*, the angle levers J and their pawls *p*, substantially as and for the purpose specified. 4th. The combination of check holding pull rods D, mounted in the bars C fixed in the sides of the cabinet A, cross bars B supporting the register mechanism, substantially as that described, a chart printing roller K and clock M, constructed and arranged to operate substantially in the manner and for the purpose set forth. 5th. The combination with the minute pointer shaft of a clock, ratchet wheel N, levers O and P pivoted to the supporting frame, and connected by rods Q for conjoint use, and each provided with lugs *o* and *t*, the wheel U having arms *u*, *u*, whose rotations are intermittently stopped by the movement of said lever *p*, substantially as and for the purpose specified. 6th. In a workmen's time recorder, a shaft printing cylinder K, rotated in unison with and by a clock, toothed wheels W, W, journalled over and adapted to convey paper over said cylinder, a spring bearing impression roller V, and inking roller X, in combination with the punch mechanism, substantially as described and for the purpose set forth. 7th. The combination with the punch actuating levers J, of levers J^2 mounted on the supporting rods I, and having pawls like said levers J, and joined by bars J^3, spring hammer H^2 mounted in the bar G similar to the punch pins, and adapted to be operated by the pull respectively of the pull rods D, for sounding a gong, substantially as described and for the purpose set forth.

No. 42,833. Method of Marking dry goods, etc., rolled on boards. (*Méthode de marquer les pieces de marchandise, etc., roulées sur des planches.*)

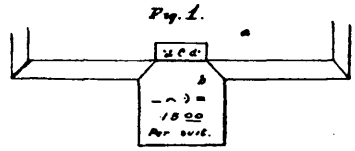
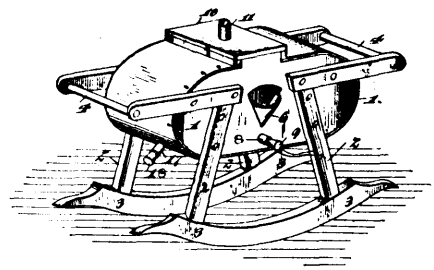


Fig. 1.

Charles Clark Dickens, Belleville, Ontario, Canada, May 6th 1893; 6 years.

Claim.—The cloth or buckram ticket B, with buned clip C, attached thereto, substantially as and for the purpose hereinbefore set forth.

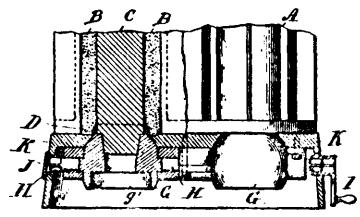
No. 42,834. Churn. (*Baratte.*)



James A. Kernodle Reidsville, North Carolina, U.S.A., May 6th, 1893; 6 years.

Claim.—In a churn, the combination of a body provided with rockers and having rounded ends, an inverted V-shaped partition arranged within the body and mounted on the bottom and forming a water chamber, and a rectangular strainer arranged transversely of the body, and having its lower end mounted on the apex of the partition and provided with curved arms engaging the same and having its upper end resting against the top of the body and provided with a handle, substantially as described.

No. 42,835. Core Seat for Pipe Flasks.
(*Siège de noyau pour chassis de tuyaux.*)



Reese Morgan, Bellevne, Kentucky, U.S.A., May 6th, 1893; 6 years.

Claim.—1st. The combination, with a pipe flask, of a shaft and one or more core seat bodies carried by the shaft and adapted to rotate therewith to bring the core seats into alignment with the centres of the moulds, substantially as and for the purpose specified.

2nd. The combination, with a pipe flask, of a base plate having openings under the chambers of the flask, a shaft, and one or more core seat bodies mounted upon the shaft, adapted to rotate therewith and to take into the openings in the base-plate, substantially as and for the purpose specified. 3rd. The combination, with a pipe flask, of a shaft and one or more core seat bodies carried thereby, the core seat bodies being provided with tapering openings adapted to serve as core seats and with pattern receptacles adapted to receive a bead ring or flange pattern, substantially as and for the purpose specified. 4th. The combination, with a pipe flask, of a shaft, one or more core seat bodies carried by the shaft and adapted to rotate therewith, and means for locking the core seats in position substantially as and for the purpose specified. 5th. The combination, with a pipe flask, of a bead ring, a base plate with openings under the chambers of the flask, a shaft, and one or more core seat bodies mounted upon the shaft and having curved surfaces adapted to take into the openings of the base plate, substantially as and for the purpose described. 6th. The combination, with a pipe flask, of a bead ring, a base plate secured to one part of the flask, and having openings under the chambers of the flask, a shaft, one ore more core seat bodies mounted upon the shaft and having curved surfaces adapted to take into the openings in the base plate, and receptacles adapted to receive a bead ring or flange pattern, substantially as and for the purpose specified. 7th. The combination, with a pipe flask, of a shaft, one or more core seat bodies, adapted to rotate with the shaft, receptacles in the core seat bodies, adapted to receive a bead ring or flange pattern, and a supplemental core seat adapted to take into the receptacle and be centred thereby, substantially as and for the purpose specified. 8th. The combination, with a pipe flask, of a shaft, one or more core seat bodies mounted upon and revolving with the shaft, and having curved surfaces, and a bead ring or flange pattern, having its bearing surface correspondingly curved, substantially as and for the purpose described.

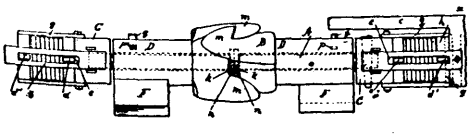
No. 42,836. Tag Holders for Umbrellas.

(*Porte-ferret de parapluie.*)

Josephine Russell, Tabor, Iowa, U.S.A., 6th May, 1893; 6 years.

Claim.—The herein described device, consisting of a snap hook 6, adapted to be secured to the ring of an umbrella runner, a short chain secured to the lower end of said snap hook, a card receiving frame attached to the opposite end of said chain and consisting of a plate having the edges at the bottom and sides bent back upon the plate and the upper end open, the central part of said upper open end having a pointed spur extending outward at a right angle in line with the upper termination of the side bent edges to pass through the card and seat the same firmly against the bottom flange, said spur being struck out from the metal of the plate, and of a length equal to the thickness of the card to avoid an exterior projecting point, and a second chain attached to the aforesaid chain intermediate of the length of the latter and having a clasp movably attached to the lower end thereof and provided with separated engaging jaws, as specified.

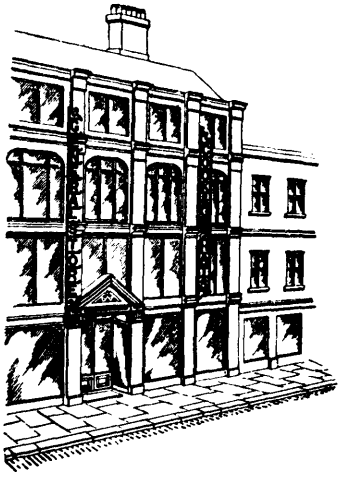
No. 42,837. Car Coupler. (*Attelage de chars.*)



David Lawson Richards, St. John, New Brunswick, Canada, 6th May, 1893; 6 years.

Claim.—1st. In a car coupling, the combination, with the draw rod provided with the block or enlargement C, at its rear portion, and the head *n* at its forward end, and supporting and spring cushioning appliances for said draw rod, of the coupling head having hooked and cam sided jaws, and comprising the shank portion D, with the weight member F, as described, said head being mounted on the draw rod for rotational movement and having a length less than the distance between the draw bar head, and the enlargement C, as and for the purpose set forth. 2nd. In a car coupling, in combination, the supporting bars *b b* of the car, provided with ways or slots, the draw rod provided with the forward head *n*, and having on its rear portion the block or part C, provided with the strap, the followers *c* and *h*, each having the guiding lugs *d d*, and the spring intermediate the coupling head, having the cam formed and hooked jaws and the extended rear shank with the weight member thereon and mounted for rotation on the said rod and movable longitudinally along same, substantially as and for the purpose set forth. 3rd. In a car coupling, in combination, the car supported bars *b b*, having the slots, the draw rod provided with the forward head *n*, and having thereon the block or enlargement C, the strap *g* carried on the latter, the follower blocks *c*, *h*, having the lugs *d d*, engaging said slots, and the intermediate spring, the coupling head having hooked and cam formed jaws, and the rear shank with the weight member F, and the catch lug *p*, and mounted for rotation, and also, a slight endwise movement on the draw rod, the detent *q*, supported on the car and co-acting with said lug in the manner set forth, and a device for securing the partial rotation of the coupling head, substantially as and for the purpose set forth.

No. 42,838. Fire Escape. (*Sauveteur d'incendie.*)

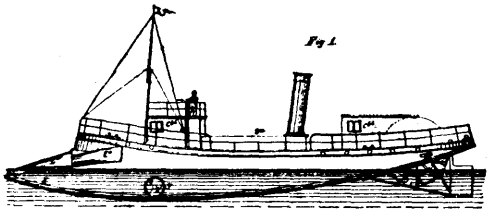


Sydney Simmons, London, England, 6th May, 1893; 6 years.

Claim.—1st. The combination with a fire escape ladder, of letters or signs secured in position between the rungs, substantially as and for the purpose specified. 2nd. The combination with a fire escape ladder, of a letter or sign hinged on a rung, substantially as and for the purpose specified. 3rd. An advertising fire escape ladder consisting of a vertical support, horizontal rungs secured to said support, each terminating in an ornamental curl or ending, and letters or signs secured to said rungs, substantially as and for the purpose specified.

No. 42,839. Ice Breaking and Clearing Apparatus.

(*Appareil pour briser et éclaircir la glace.*)

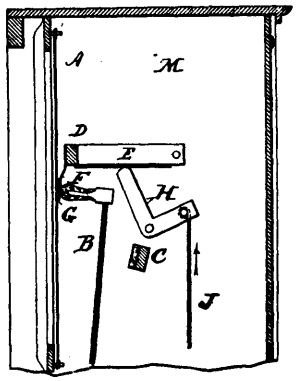


Johannes Antonius Kriusbrink, Amsterdam, and Jacobus Johannes Van Leeunen Arnhein, 6th May, 1893; 6 years.

Claim.—1st. Clearing a regular passage for navigation in frozen water by mechanism consisting of a collecting chamber provided with a forward extension passing under the ice to be removed, of saws mounted on the extension and extending beyond the width of the chamber, and of screws in the collecting chamber for delivering the ice through lateral orifices in the collecting chamber, substantially as described. 2nd. Clearing a passage for navigation in frozen water by mechanism consisting of a collecting chamber provided with a front extension passing under the ice to be removed, of saws mounted on the extension and extending beyond the width of the chamber, of guide plates behind the saws, of laterial orifices in the chamber below the under surface of the unbroken ice, and of screws to which the cut ice is guided by the guide plates, and which force the said ice through the lateral orifices and under the unbroken ice at the sides of the passage which is being cut, substantially as described. 3rd. Clearing a passage for navigation in frozen water by mechanism consisting of a floating vessel provided with means for propelling it,

of a series of saws mounted on an extension in front of the vessel and under the ice to be cut and operated by an engine on the vessel, of a collecting chamber in the vessel and behind the saws and provided with guide plates, and lateral orifices below the surface of the ice, and of screws to which the cut ice is guided by the guide plates, and which deliver the said ice under the unbroken ice at the side or sides of the track which is being cut, substantially as described.

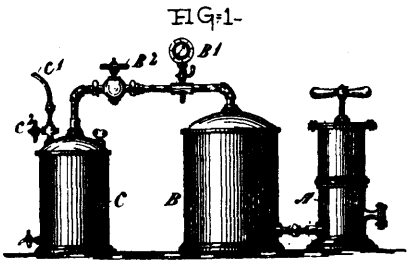
No. 42,840. Attachment for Changing the Tone and Character of Pianos. (*Appareil pour changer le ton et caractère des pianos.*)



Otti Speathe, Gera, Germany, 6th May, 1893; 6 years.

Claim.—1st. In a stringed musical instrument, the combination, with the strings and hammers, of a movable rail, and a plate secured to each spring tongue, said tongues being located at that part of the strings that are struck by the hammers, substantially as set forth. 2nd. In a piano, the combination, with the strings and hammers, of a swinging rail, a series of spring tongues on the same, a plate attached to each tongue, which plates and tongues are arranged between the strings and hammers when the latter are at rest, levers supporting said rail and rods and a pedal for shifting said rail into the desired position, substantially as set forth.

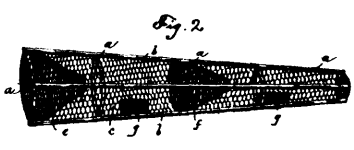
No. 42,841. Apparatus for Manufacturing Oil Gas. (*Appareil pour la fabrication du gaz à l'huile.*)



Julius Moeller, London, England, 6th May, 1893; 6 years.

Claim.—Apparatus for the manufacture of oil gas, consisting of an air compressing pump and reservoir communicating with an oil reservoir, a U-shaped retort with one limb of which enters a pipe from the oil reservoir terminating in a small orifice, and from the other limb of which a pipe leads to a purifier, consisting of a volute passage charged with water, and above it a scrubber containing wet pumice stone, all arranged and operating as described.

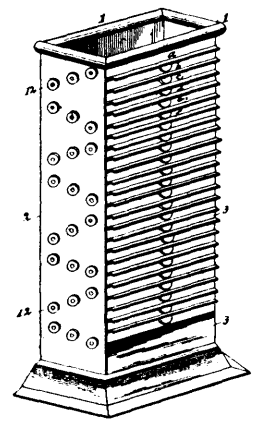
No. 42,842. Fish Net or Trap. (*Filets et pièges.*)



William R. Barker, Edwardsville, Alabama, U. S. A., 6th May, 1893; 6 years.

Claim.—1st. In a trap for fish and other water game, the frame consisting of a series of longitudinal rods *b*, supported at their ends and interjacently by suitable rings or supports *a*, and the cover or netting *c*, in combination with the pringles *e*, and outwardly opening door *h*, by which one end of the trap is normally closed and the other secured against egress, substantially as described. 2nd. In a trap for fish and other water game, the frame consisting of a series of longitudinal rods *b*, supported at their ends and interjacently by rings or supports *a*, the bait pockets *g*, *g*, and cover or netting *c*, in combination with the pringles *e*, and outwardly opening door *h*, by which one end of the trap is normally closed and the other secured against egress, substantially as described.

No. 42,843. Combined Spring Roller and Cabinet for Ledger Index Sheets. (*Rouleau à resort et cabinet combinés pour feuilles d'index de grand-livre.*)

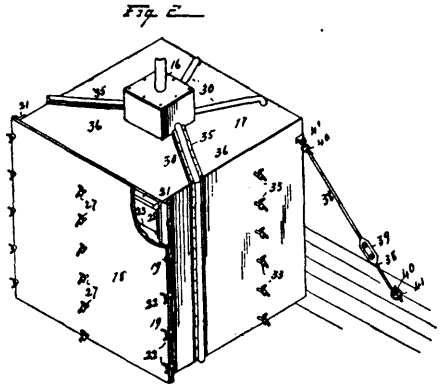


John D. Nance, Waxahachie, Texas, U.S.A., 6th May, 1893; 6 years.

Claim.—1st. In a combined spring roller and cabinet for ledger index sheets, a roller 4, provided with U-shaped longitudinal recess 5, and attenuate hooks 10, secured to said rollers and projecting from the side of said recess, substantially as set forth. 2nd. In a combined spring roller and cabinet for ledger index sheets, a roller 4, provided with a U-shaped longitudinal recess 5, a series of attenuated hooks 10, secured to said roller and projecting from the side of said recess, and a shaft on which said roller is rigidly mounted, substantially as set forth. 3rd. A combined spring roller and cabinet for ledger index sheets, having a cabinet 1, a series of rollers 4, of the character described, corresponding in number to the number of letters in the alphabet, located in the form of a triangulation in the sides of said cabinet, volute springs 13, one end of which are firmly secured to said boxes, and the opposite ends thereof firmly secured to the shafts of the rollers for automatically retracting said rollers, and a series of ledger index sheets such as 15, alphabetically arranged on said rollers, beginning from the uppermost one in the cabinet, and stiffening pieces 17, of the character described, provided with thumb pieces 20, secured to the front portion of said ledger index sheets, substantially as set forth. 4th. The combination, in a combined spring roller and cabinet for ledger index sheets, of a spring roller 4, provided with a U-shaped longitudinal recess 5, a series of attenuated hooks 10, secured to said roller and projecting from the side of said recess, a shaft 9, on which said roller is rigidly mounted, a ledger index sheet such as 15, the same being provided in its rear portion with a series of holes 16, through which the attenuated hooks 10, may pass, on its front portion with a stiffening piece 17, composed of two rigid pieces 18, and a flexible portion 19, interposed between said rigid pieces and secured therein, to which the front portion of the ledger index sheet 15, may be secured in any desired manner, substantially as set forth. 5th. The combination of a cabinet 1, provided with sides 2, and a slitted front face 3, the number of slits corresponding to the number of letters of the alphabet, a series of boxes 12, secured to one of said sides 2, volute springs 13, located in said boxes, one of the ends of the same firmly secured to said boxes, a series of rollers corresponding to the number of letters of the alphabet, the same being provided with longitudinal U-shaped recesses 5, a series of attenuated hooks 10, secured to said rollers and projecting from the sides of the said recesses, a corresponding number of shafts 8, on which said rollers are rigidly mounted, the trunions of said shafts being secured to one of the ends of said volute springs 13, and a series of ledger index sheets such as 15, corresponding to the number of rollers and alphabetically arranged on said roller, beginning from the uppermost roller located in the cabinet 1, substantially as set forth. 6th. A voluble ledger index sheet and means for automatically rolling up the same, substantially as set forth.

No. 42,844. Apparatus for Shipping Live Lobsters.

(*Appareil pour expédier le homard en vie.*)



Arthur McGray, Yarmouth, Nova Scotia, Canada, 6th May, 1893; 6 years.

Claim.—1st. An apparatus for preserving lobsters and kindred fish, comprising a tank having suitable supply pipes and exhaust valves or cocks, and means, substantially as described, to supply the tank with water, substantially as described. 2nd. An apparatus of the character described, comprising a tank having a removable door and a plurality of shelves, supply pipes connected with the tank, exhaust valves or cock opening therefrom, and a pumping apparatus for supplying the tank with water, substantially as described. 3rd. An apparatus of the character described, comprising a tank having a detachable door, a plurality of feed pipes connecting with several sides of the tank, exhaust valves or cocks opening from the tank, and a pumping apparatus to supply water to the feed pipes, substantially as described. 4th. An apparatus of the character described, comprising a tank having a detachable door, a plurality of fish holding shelves arranged one above the another within the tank, a water chest mounted upon the tank, feed pipes opening from the water chest and into the tank, water valves or cocks opening from the tank, and a pumping apparatus to supply water to the water chest, substantially as described. 5th. An apparatus of the character described, comprising a tank having exhaust valves or cocks opening therefrom and having a detachable door, a water chest mounted upon the tank, feed pipes leading from the water chest and opening into several sides of the tank, and a pumping apparatus to supply water to the water chest, substantially as described. 6th. An apparatus of the character described, comprising a tank having a plurality of shelves therein, and exhaust valves or cocks opening therefrom, a reservoir held on a higher plane than the tank, a pipe connection between the reservoir and the tank, and a pump for raising water to the reservoir, substantially as described. 7th. The combination, with a tank having a detachable door, and having exhaust cocks and supply pipes, of shelves removably mounted in the tank, said shelves having upwardly extending front and rear portions, substantially as described. 8th. In a shell fish preserving apparatus, a tank having a removable side or door, valves or cocks carried thereby, removable shelves to receive the fish, and pipes to supply water to the tank, said pipes having openings leading to the shelves to supply the fish on the shelves directly with fresh water, substantially as described. 9th. In a shell fish preserving apparatus, a tank, shelves therein, supply pipes discharging directly upon each shelf, and valves to draw water from each shelf, whereby the fish on each shelf are kept supplied with fresh water, substantially as described. 10th. The combination of a tank having shelves, with a pipe on the outer side of the tank, and openings in the side of the tank to supply water from said pipe upon said shelves, substantially as described.

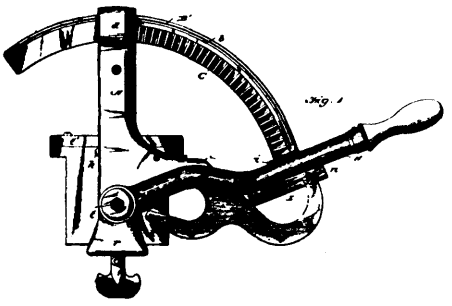
No. 42,845. Finger-board for Stringed Instruments.

(*Clavier pour instruments à cordes.*)

Hoburt C. Middlebroke, Rock Rapids, Iowa, U.S.A., 6th May, 1893; 6 years.

Claim.—1st. The combination, in a banjo or similar stringed musical instrument, of frets having sloping portions in the rear thereof, substantially as described. 2nd. The combination, with a banjo or similar stringed musical instrument, of frets having sloping portions in the rear thereof, which recede and taper to the plane of the finger board until it approaches the next fret, substantially as specified. 3rd. A finger-board for stringed musical instruments, provided with frets and having sloping portions in the rear of the frets integral with the finger board, substantially as set forth.

No. 42,846. Cork Extractor. (*Tire-bouchon.*)

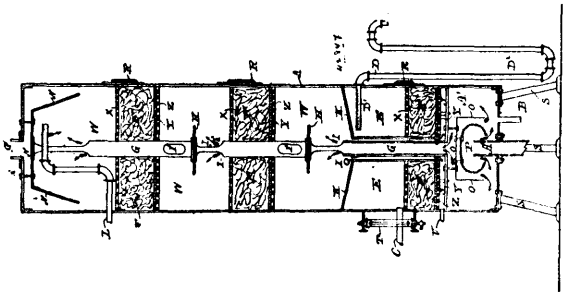


Raymond Beardsley Gilchrist, Chicago, Illinois, U.S.A., 6th May, 1893; 6 years.

Claim.—1st. In a cork extractor, the combination, with the corkscrew and a device for lifting the same, of an internally bored and externally screw threaded extension to the cork screw, and a rod entering and splined in the extension, and mechanism to revolve the rod, substantially as described. 2nd. In a cork extractor, the combination, with the corkscrew and its revolving mechanism, of a sliding sleeve prevented from rotating, a lifting arm to engage the sliding sleeve, and a catch engaging the sliding sleeve to prevent its elevation and engaged by the lifting arm to release the sleeve, substantially as described. 3rd. In a cork extractor, the combination with the corkscrew having the internally bored and externally screw threaded extension, of a depending rod entering and splined in the extension, a pinion revolving said rod and a lever revolving the pinion, substantially as described. 4th. In a cork extractor, the combination with the corkscrew, and a device for revolving the same of a sliding sleeve surrounding and engaging the corkscrew, a catch to prevent the elevation of the sleeve, a lifting crank arm engaging the sleeve to lift the same, and having a cam projection engaging and releasing the catch, and a lever operating the lifting arm, substantially as described. 5th. In a cork extractor, in combination with the corkscrew and mechanism for lifting the same, the pinion connected with and driving the corkscrew, and the rack bar operated by a lever and engaging and driving the pinion and having the blank surface, substantially as described. 6th. In a cork extractor, the combination with the corkscrew and mechanism for lifting the same, the pinion connected with and driving the corkscrew, the blank surfaced washer on and moving with the pinion, and the rack bar operated by a lever and engaging the pinion and having the longitudinal recess and blank surface, substantially as described. 7th. In a cork extractor, in combination with the corkscrew and mechanism for lifting the same, the pinion connected with and driving the corkscrew, the blank surfaced washer on and moving with the pinion, the guide washer, and the rack bar operated by a lever and engaging the pinion, and having the longitudinal recesses for the blank and guide washers and the terminal blank surface, substantially as described. 8th. In a cork extractor, the combination with the corkscrew provided with a laterally projecting ear for lifting it, the hollow slotted standard, the lifting arm pivoted to enter the slot and engaging the ear, and the lever pivoted on one side of the standard and having a sliding connection with the lifting arm, substantially as described.

No. 42,847. Combined Feed Water Heater, Filter, Condenser, Lime and Grease Extractor.

(*Réchauffeur de l'eau d'alimentation, filtre, condenseur, extracteur de chaux et de graisse combinés.*)



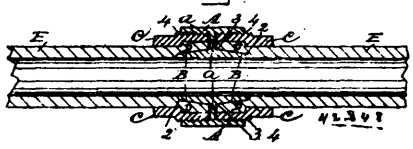
William J. Austin, Fond du Lac, Wisconsin, U.S.A., 6th May, 1893; 15 years. (Reissue.)

Claim.—1st. A feed water heater, comprising tubular shell, provided with a series of filtering beds and intervening steam chambers, vertical steam pipes or passages, communicating with said steam

chambers, discs or deflectors in said steam chambers, a cold water inlet pipe above the upper filtering bed, and a feed water pipe for the heated and purified water located in the lower part of said device, substantially as set forth. 2nd. A feed water heater comprising a tubular shell provided with a steam escape opening at the top, a series of filtering beds and intervening steam chambers, a separator chamber having an inlet for the waste steam, and a waste pipe for the removal of grease and water of condensation in the lower part of said shell, and a water chamber above the separator chamber, a vertical steam pipe within said shell, provided with a series of discs or deflectors, separating said pipe into sections, and having openings above and below the said deflectors communicating with said steam chambers, a deflector closing the upper end of this pipe, a cold water inlet entering the shell below this deflector, and a feed water pipe passing out of the shell from the said water chamber in the lower portion thereof, substantially as set forth. 3rd. A feed water heater comprising, a vertical tubular shell, a separator chamber, with vertical steam receiving pipe and waste pipe for removal of grease and water of condensation in the bottom thereof, a series of filtering beds and intervening steam chambers, vertical steam pipes or passages communicating with said chambers, interrupted by discs or deflectors in said steam chambers for spreading said steam throughout the same, and a water chamber below said steam chambers, substantially as set forth. 4th. In a feed water heater, the combination of a series of steam chambers, separated by filtering beds, with vertical steam pipes or passages communicating with said chambers, a water chamber below said steam chambers, a cold water inlet pipe entering the upper steam chamber, and a feed water pipe leading from, and a water gauge communicating with, said water chamber, substantially as set forth. 5th. In a feed water heater, the combination, with a tubular shell having suitable inlet and outlet pipes, of a series of steam chambers, steam pipes or passages communicating therewith, a water chamber, separator chamber below the water chamber, and an inlet for the exhaust steam, and a waste pipe for the removal of grease and water of condensation, both located in the lower part of said shell, substantially as set forth. 6th. The combination, with a feed water heater having a series of filtering beds, and a central steam pipe having openings to spaces above and below said beds, of the annular water chamber surrounding said steam pipe, said chamber being provided with a filtering bed, adapted for upward percolation, and a separator chamber opening into said steam pipe, and provided with a deflector and a perforated hood, and a waste pipe for removal of grease and water of condensation, substantially as and for the purposes set forth.

No. 42,848. Coupling for Pipes. (*Joint de tuyaux.*)

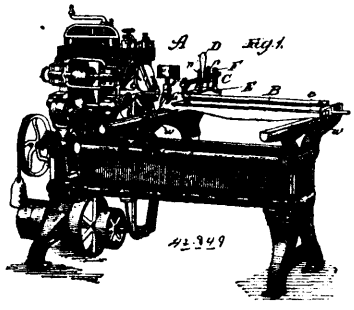
Fig. I



John B. Cook, Hamilton, Ontario, Canada, May 9th, 1893; 6 years.

Claim.—1st. In a pipe coupling, the shell or body A, threaded internally and provided with a wall or partition, having central taper projecting pipe spreader or expander with rounded end 2, substantially as described and set forth. 2nd. The nut C, having external thread with opening adapted to receive pipe E, and shoulder D, substantially as described and set forth. 3rd. In a pipe coupling, the shell threaded internally and provided with an inner wall, having projecting taper pipe expander, in combination with the nut threaded externally and with internal shoulder, substantially as and for the purpose hereinbefore set forth.

No. 42,849. Tenoning Machine. (*Machine à tenons.*)

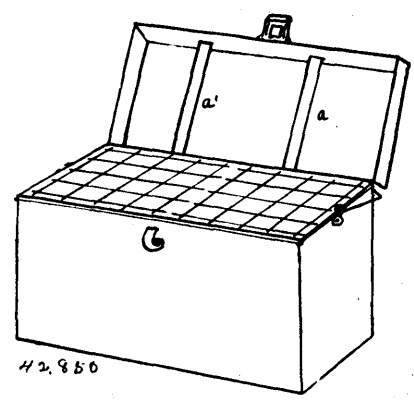


William Henry Bennett, Chicago, Illinois, U.S.A., May 9th, 1893; 6 years.

Claim.—1st. In combination with the carriage, of a tenoning machine, a clamp comprising a support secured to the said carriage, and a clamping tool secured to the support and formed with an elastically supported plate E, to bear down upon and hold the work against the carriage and beveled on its upper side toward one end, and a lever D, fulcrumed to the support over the bearing plate and carrying at its lower end an anti-friction roller D^1, and adapted to be turned toward a perpendicular position with its roller against the upper side of the bearing plate to force and wedge the plate down upon the work, substantially as described. 2nd. In a clamp for a tenoning machine, the combination of a support, to be secured to the carriage of the machine, and a clamping tool adjustably secured to the support, and comprising a bar r, having end bearing bars q, supporting reciprocating rods o, sustained by springs n, and carrying a bearing plate E, and a lever D, fulcrumed on the bar r, and carrying at its bearing end an anti-friction roller D^1, substantially as described. 3rd. In a clamp for a tenoning machine, the combination, of a support, to be secured to the carriage of the machine, and comprising standards, and a cross bar, adjustably connected toward its opposite ends with the standards, and a clamping tool secured to the cross bar, the cross bar being rigid in its adjusted position, and the clasp being movable to operate it on the cross bar, substantially as described. 4th. In a clamp for a tenoning machine, the combination of a support, to be secured to the carriage of the machine and comprising standards F, and a cross bar G, adjustably connected toward its opposite ends with the standards, and a clamping tool secured to the cross bar, and having a lever D, carrying an anti-friction roller D^1, at its bearing end, and a reciprocating bearing plate E, controlled by the lever, substantially as described. 5th. In a clamp for a tenoning machine, the combination of a support, to be secured to the carriage of the machine, and comprising longitudinally slotted standards F, and a longitudinally slotted cross bar G, adjustably connected at its opposite ends with the standards, and a clamping tool, comprising a bar r, adjustably connected with the cross bar G, and having end bearing bars q, supporting reciprocating rods o, sustained by springs n, and carrying a bearing plate E, and a lever D, carrying at its bearing end an anti-friction roller D^1, substantially as and for the purpose set forth. 6th. A clamp C, for a tenoning machine, comprising, in combination, slotted standards F, to be secured to the carriage of the machine, a slotted cross bar G, recessed near its opposite ends to admit the standards and adjustably secured thereto, and a clasping tool comprising a bar r, adjustably supported at the slot of the bar G, and having end bearing bars q, supporting rods o, sustained by springs n, a bevelled plate E, secured to the rods o, and a lever D, carrying an anti-friction roller D^1, at its bearing end, the whole being constructed and arranged to operate, substantially as described.

No. 42,850. Egg Crate. (*Boîte à œufs.*)

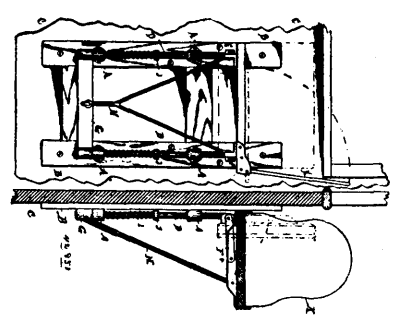
Fig. III.



John O. Gorman, London, Ontario, Canada, 9th May, 1893; 6 years.

Claim.—An egg crate having a lid with holders a^1, a^{11}, as and for the purpose described and set forth.

No. 42,851. Folding Seat. (*Siège pliant.*)



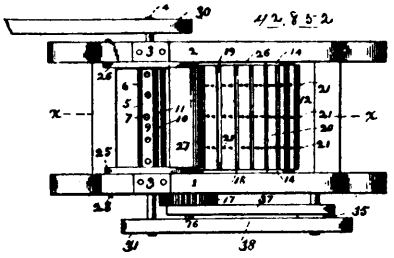
John S. Kilgore, Salida, Colorado, U.S.A., 9th May, 1893; 6 years.

Claim.—1st. A folding seat, comprising a movable framed support, parallel slide ways secured to the support, a spring suspended frame held to slide in the side ways, an upwardly folding seat bottom, links pivoted to the seat bottom, near its ends, and also pivoted to the sliding frame, a double end

brace pivoted centrally to the sliding frame and pivotally connected to the underside of seat bottom, substantially as described 2nd. A folding seat, comprising a movable framed support, parallel vertical slide ways secured to the support, a sliding frame held to move in the slide ways, springs secured to the support and to the sliding frame, a seat bottom having links pivotally connecting its ends with the sliding frame, and a double brace, pivotally connected at upper ends, to cleats, on underside of seat bottom and lower end pivoted to centre of cross bar, and a seat back pivotally connected to one end of seat bottom, substantially as described.

No. 42,852. Machine for Rossing Bark.

(*Machine pour décortiquer les billots.*)



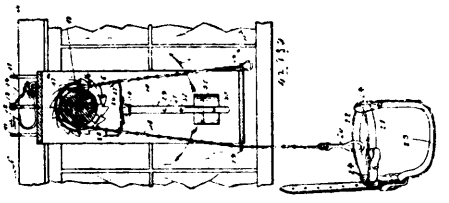
Frank H. Stearns and Albie E. Stearns, both of North Hyde Park, Vermont, U.S.A., 9th May, 1893; 6 years.

Claim.—1st. In a machine for rossing bark, the combination with a cutter head and a feed mechanism, of the levers fulcrumed on the machine frame, and a gage roll suspended by said levers in advance of the cutter head and above the feed mechanism, substantially as and for the purpose described. 2nd. In a machine for rossing bark, the combination with a cutter head and a feed mechanism, of the vertical levers arranged in rear of the cutter head and having their upper ends extended over the cutter head, and a gage roll suspended from said extended ends of the levers in advance of the cutter head and above the feed mechanism, substantially as described. 3rd. In a machine for rossing bark, the combination with a cutter head and a feed mechanism, of the vertical levers fulcrumed on the machine frame in rear of the cutter head and having their lower ends extended inward below the feed mechanism and with their upper ends curved over the cutter head, and the gage roll loosely suspended between said upper curved ends of the lever and arranged in front of the cutter head and above the feed mechanism, substantially as described. 4th. In a machine for rossing bark, the combination with a cutter head, and a feed mechanism, of a rotatable gage roll suspended from said feed mechanism, in advance of the cutter head, and free to move upward and rearward relative to the cutter head when the log to be rossed is moved by the feed mechanism to the cutter head, substantially as and for the purpose described. 5th. In a machine for rossing bark, the combination, with the machine frame and the cutter head, of the driving and idler drums journalled in said frame, and an endless travelling bed supported by said driving and idler drums, substantially as and for the purpose described. 6th. In a machine for rossing bark, the combination, with a machine frame and a cutter head, of the driving and idler drums journalled in the machine frame, and an endless travelling bed supported by said drums and provided on its outer surface with the spurs or teeth, substantially as described. 7th. In a machine for rossing bark, the combination, with the machine frame and a cutter head, of the drum having the sprocket wheels and idler drum, and a travelling bed having the endless chains which engage with the sprocket wheels on the driving drum and the series of transverse lags fastened to the sprocket chains, said lags provided with the inclined teeth, substantially as and for the purpose described. 8th. In a machine for rossing bark, the combination, with the machine frame and a cutter head, having its shaft provided with the driving pulleys, of the driving roller having a gear wheel, a differential pulley belted to one of the pulleys of the cutter head shaft, an intermediate pulley belted to the differential pulley and having a gear meshing with the gear on the driving drum shaft, an idler drum, and an endless travelling bed supported by the driving and idler drums, substantially as described. 9th. In a machine for rossing bark, a cutter head provided with the segmental or curved surfaces and the knives fixed to said cutter head, and having their cutting edges extending beyond the curved or segmental surfaces of the cutter head, as and for the purpose described.

No. 42,853. Fire Escape. (*Sauveteur d'incendie.*)

Perry Abraham Burgess and William Kernaghan, both of Steamboat Springs, Colorado, U.S.A., 9th May, 1893; 6 years.

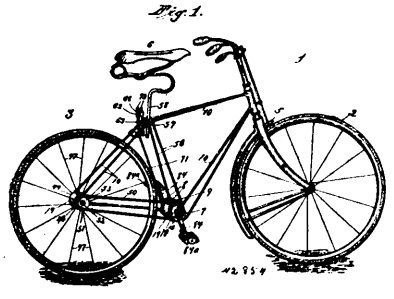
Claim.—1st. A fire escape comprising a frame having suspending hooks attached thereto, a sprocket wheel journalled in the frame, a chain carried by the sprocket wheel and having a load fastening device at one end, a ratchet wheel held to turn with the sprocket wheel and pendulum escapement to limit the speed of the ratchet wheel, substantially as described. 2nd. A fire escape comprising an open sided frame, having suspending hooks at the top and on one side, a sprocket wheel journalled in the frame, a chain carried by the sprocket wheel, a load securing harness carried by the free end of the chain, a ratchet wheel held to turn with the sprocket wheel,



and an adjustable pendulum escapement for limiting the speed of the ratchet wheel, substantially as described. 3rd. A fire escape comprising an open sided frame, having suspending hooks at the top and on one side, and keepers at its lower end and opposite its open side, a bail secured to the top and having a fastening chain and hook connected therewith, a sprocket wheel journalled in the frame, a chain carried by the sprocket wheel and held to slide through the keepers, a load securing harness arranged at one end of the chain, a ratchet wheel held to turn with the sprocket wheel, and a pendulum escapement to limit the speed of the ratchet wheel, substantially as described. 4th. In a fire escape, the combination with the chain carrying the sprocket wheel, and the ratchet wheel held to turn with the sprocket wheel, of the escapement held to engage the ratchet wheel, and having a depending pendulum rod, and a pendulum carried by the rod and having means for vertical adjustment thereon, substantially as described. 5th. A fire escape comprising an open sided frame having suspending hook attached thereto, a sprocket wheel journalled in the frame, a chain carried by the sprocket wheel and having a load securing device at one end, a ratchet wheel having a ratchet connection with the sprocket wheel, whereby the two may turn together in one direction and independently, the opposite way, and a pendulum escapement to limit the speed of the ratchet wheel, substantially as described. 6th. The combination of the frame having keepers thereon, the sprocket wheel journalled in the frame, speed controlling mechanism for the sprocket wheel, and having a load securing device at one end and a stop to engage the keeper at the other, substantially as described.

No. 42,854. Bicycle. (*Bicycle.*)

Fig. 1.



Joseph L. Morris, Lawrence, Kansas, U. S. A., 9th May, 1893; 6 years.

Claim.—1st. A bicycle, comprising a pedal shaft, having stub shafts projecting from each side of the pedal shaft, a bevelled gear pinion carried loosely upon each stub shaft, a sprocket wheel carried loosely upon the pedal shaft, and a gear pinion carried by the sprocket wheel, meshing with the gear pinion carried by the stub shaft, and a gear pinion also carried upon the pedal shaft, and adapted to be thrown in and out of gear therewith, and meshing with the gear pinions carried by the stub shafts, substantially as set forth. 2nd. A bicycle, comprising a casing, a pedal shaft journalled in said casing, and having stub shafts projecting from opposite sides of the pedal shaft, a sprocket wheel carried loosely upon each stub shaft, a sprocket wheel carried loosely upon the pedal shaft, and a gear pinion carried rigidly by the sprocket wheel, and meshing with the pinions carried by the stub shafts, and a disc carried loosely upon the pedal shaft, and a gear pinion carried rigidly by the said disc, and meshing with the pinions carried by the stub shaft, and a locking plate carried by the said disc, and adapted to be thrown into engagement alternately, with the shaft and with the casing, substantially as described. 3rd. A bicycle, comprising a casing, having vertical side plates or walls, a pedal shaft journalled in said side plate or walls, and having stub shafts projecting from opposite sides of said pedal shaft, gear pinions carried loosely upon the stub shafts, a sprocket wheel mounted loosely upon the pedal shaft, a gear pinion carried by the sprocket wheel, and meshing with the gear pinions carried by the stub shafts, and a disc also carried by the pedal shaft, and gear pinion carried rigidly by the said disc, a toothed hub carried by the shaft, and a locking plate also carried by said disc, in combination with a rod, and a rock arm to

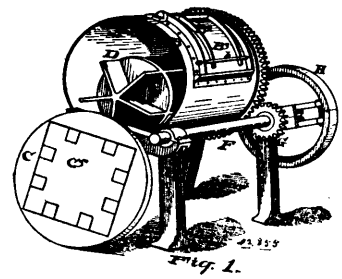
actuate the said locking plate to engage the toothed hub of the shaft or to engage the casing, substantially as set forth. 4th. A bicycle, comprising a casing, a circular flange projecting inwardly of one of the side walls or plates of said casing, having an opening or recess therein, adjustable sliding plates, located at the underside of said casing, and engaging the frame of the bicycle, a shaft journalled horizontally in the side walls or plates of said casing, stub shafts projecting from opposite sides of the said shaft, gear pinions loosely mounted upon said stub shafts, a sprocket wheel loosely mounted upon said shaft, a gear pinion carried rigidly by said sprocket wheel, a disc, also loosely carried by said shaft, a gear pinion carried rigidly by said disc, and meshing with the gear pinions carried by the stub shafts, a slidable locking plate carried by the said disc, and spring actuated dog or pawl engaging said locking plate, a rock arm at the inner side of the casing, and a rock arm at the outer side of the casing, and a rock shaft or bolt connecting said rock arm, and adapted to be operated to actuate the inner rock arm to move the locking plate, substantially as described. 5th. In a bicycle, comprising a casing, a shaft journalled horizontally in said casing, stub shafts projecting from opposite sides of said shaft, gear pinions carried loosely upon said stub shafts, a sprocket wheel carried loosely upon said shaft, and a gear pinion carried rigidly by said sprocket wheel and meshing with the gear pinions carried by the stub shafts, a disc also carried loosely by the said shaft, and a gear pinion carried rigidly by said disc and meshing with the gear pinions carried by the stub shafts, and a locking plate carried by said disc, and a spring actuated dog or pawl also carried by said disc, and engaging the said locking plate, and a toothed hub carried by the shaft, in combination with a rod, and a rock arm to actuate soid locking plate, by depression to engage with the shaft, and an expansion spring, surrounding said rod, and a collar loosely engaging said rod at opposite ends of the expansion spring, and a casing enclosing said rod, expansion spring and collars, and having a closed bottom and top provided with openings for a rod, and through pins carried by said rod, and notches in the top and bottom of the cylindrical casings for the passage of said through pins, and a knob or handle at the upper end of the rod, all arranged substantially as set forth. 6th. In a bicycle, the combination of a casing, a shaft journalled in said casing, a disc carried loosely by said shaft, and a locking plate carried by said disc with an inner rock arm for actuating said locking plate, an outer rock arm 55, and a rocking shaft or bolt 54 carrying said rock arms, and a pivoted cylindrical casing, a rod extending longitudinally through said casing, and a spring surrounding said rod to return it to its normal position after being depressed or raised, a rock shaft 75, a rock arm 74 carried by said rock shaft, and pivotally connected to the spring actuated rod, an obliquely arranged rod connected horizontally to the lower rock arm 55, and a rock arm 77, pivotally connected to the upper end of the obliquely arranged rod and also carried by the rock shaft, substantially as set forth. 7th. In a bicycle, a casing, a shaft journalled therein, stub shafts projecting at a suitable angle therefrom, and a skewed gearing consisting of bevelled pinions, mounted loosely upon the stub shafts, and a disc, carrying rigidly a bevelled pinion, meshing with the pinions of the stub shafts, and a sprocket wheel loosely mounted upon the shaft, and carrying a larger bevelled pinion, meshing also with the pinions carried by the stub shafts, substantially as described. 8th. In a bicycle, a revoluble hub casing comprising hub discs 46, marginally connected together, a stationary plate 53 at one side of the revoluble hub casing, and a stationary casing 48 at the opposite side of the revoluble hub casing, a shaft journalled loosely in said plate 53 and casing 48, and passing centrally through the revoluble hub casing, stub shafts carried by the said shaft, and pinions carried loosely upon said stub shafts, a toothed hub carried rigidly by said shaft, a sprocket wheel carried rigidly by the said shaft, and a pinion carried rigidly by inner side of the adjacent hub disc 46, and meshing with the pinions of the stub shafts, a disc carried loosely by said shaft, and a pinion carried rigidly by said disc and meshing with the pinions of the stub shafts, a locking plate carried by the said disc, and a spring actuated dog engaging said locking plate, in combination with a rock arm and a movable rod to actuate the said locking plate, substantially as set forth. 9th. In a bicycle, a revoluble casing, a stationary plate located at one side of said casing, and a stationary casing located at the opposite side of said casing, and a tubular shaft passing loosely through the revoluble casing, and journalled loosely at its opposite ends in the stationary plate and casing, and a tie rod passing through said tubular shaft, and clamping nuts engaging the opposite ends of said tie rods, and bearing against the outer sides of the stationary plate and casing, substantially as set forth.

No. 42,855. Machine for Crushing Ore.

(*Machine à broyer le minerai.*)

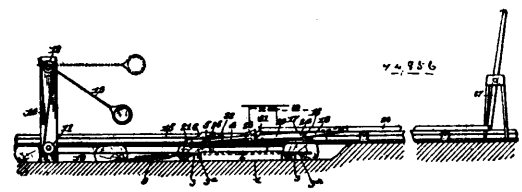
William Wesley Sly, Cleveland, Ohio, U.S.A., 9th May, 1893; 6 years.

Claim.—1st. In a rotary crusher, the combination with cylinder A, of a door and fastening consisting of a frame B, frame B^1 hinged to said frame B, plate B and rod *b*, arranged substantially in the manner and for the purpose set forth. 2nd. In a rotary crusher, the combination of a cylinder having an opening, the side closed by a door and hinged frame, chambered heads fixed in the ends of the cylinder, having hollow trunnions on the centres of the heads, supported in bearings on the main frame, the chamber in one of the heads divided into compartments by radial partitions, holds in the



lining plate over incline in the said compartments, the roller trough crusher contained in the cylinder, and means for revolving the cylinder, constructed to operate substantially in the manner and for the purpose set forth.

No. 42,856. Railway Signal. (*Signal de chemin de fer.*)



George Foster Adams, Nashua, New Hampshire, and John Samuel Lynam, Winchester, Massachusetts, all in the U.S.A., 9th May, 1893; 6 years.

Claim.—1st. In a railroad signal, the combination, with a slide, of a signal arm operatively connected therewith, a locking arm independent of the slide and adapted to normally hold the same, a rocking lever adapted to lift said locking arm and release the slide, and a lever and bar directly connected with the locking arm, whereby the slide can be returned and locked at any time. 2nd. The combination of a railway signal, a sliding piece operatively connected therewith, two locking arms locking said sliding piece, both of them adapted to be lifted simultaneously by a passing train to unlock the slide, and one arranged to be operated from a distant station to return and hold the slide, substantially as described. 3rd. The combination of a railway signal, a sliding piece operatively connected therewith, and two locking arms, one arranged to be lifted by a passing train, and the other arranged to be operated by the first locking arm to unlock the slide, and permit the signal to be set, said second locking arm being operatively connected with a distant station to lock the slide, substantially as described. 4th. The combination of a railway signal, a sliding piece operatively connected therewith and carrying a bracket having a rising edge thereon, a locking arm arranged to be operated by a passing train to unlock said sliding piece and permit the signal to be set, the end of said locking arm having a lateral projection resting upon said rising edge, and provided also with a pendant terminal holder to engage said slide and lock the same, substantially as described. 5th. The combination of a railroad signal, a sliding piece operatively connected therewith, a locking bar, a support therefor, said bar having a rise or bend therein normally to the rear of its support, whereby, when said rise has passed across said support, the bar is thrown into locking engagement with the slide, substantially as described. 6th. The combination of a railway signal, a sliding piece operatively connected therewith, a rock shaft, a lever arm at the end thereof arranged to be depressed by a passing train, a locking arm at the other end of said shaft, a support of bracket carried thereby, and a locking bar supported by said bracket and operatively connected with a distant station, substantially as described. 7th. The combination of a railway signal, a sliding piece operatively connected therewith, a locking bar adapted to engage said piece, a rod connecting said bar with a distant station, a switch arm, and a lever connecting said arm with said rod, substantially as described.

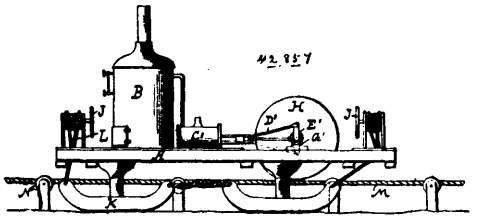
No. 42,857. Log Hauling Locomotive.

(*Locomotive pour remorquer les billots.*)

Henry James Sullivan, South Stillwater, Minnesota, U.S.A., 9th May, 1893; 6 years.

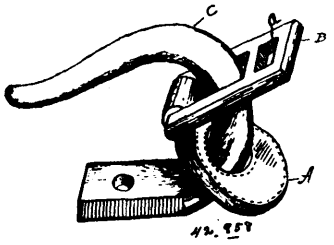
Claim.—1st. In an apparatus of the class described, the combination of a cable with a sled or car situated above said sled, said cable passing over a drum mounted on said sled, the extremities of said cable being fixed, substantially as described, and in the manner and for the purpose set forth. 2nd. In an apparatus of the class described, the combination of a cable with a sled or car situated above said cable, an engine or other motive power situated on said car or

sled, a drum mounted on said sled, the ends of said cable being fixed,



and a steering apparatus situated at one or both ends of said sled or car, substantially as described, and in the manner and for the purpose set forth.

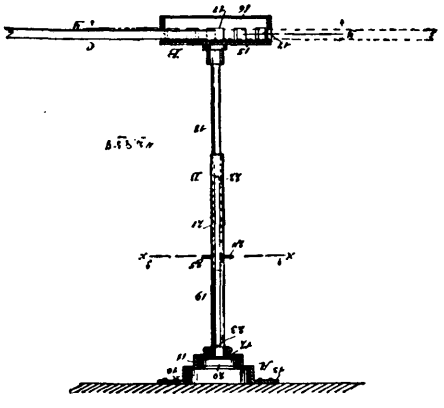
No. 42,858. Check Rein Attachment.
(*Attache pour fausses-rênes.*)



Frank Henry Towne, Montpelier, Vermont, U.S.A., 9th May, 1893; 6 years.

Claim.—The combination of securer or leather A, and loop B, and hook C, substantially as and for the purpose hereinbefore set forth.

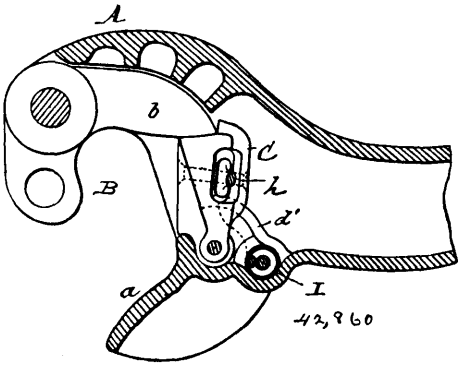
No. 42,859. Clothes Horse or Rack. (*Séchoir à linge.*)



Thomas Fry, Calgary, Alberta, Canada, 9th May, 1893; 6 years.

Claim.—1st. As an improved article of manufacture, a clothes horse or rack consisting of a body portion provided with a series of apertures to receive arms, and a rod connected with the body, the said rod being adapted to be suspended from the ceiling or other overhead support, substantially as shown and described. 2nd. A clothes horse or rack, consisting of a body section, said body section comprising a plate provided with a downwardly extending flange, the said flange being apertured to receive the ends of removable arms, a rod connected with the body section and extending upwardly therefrom, and a tube in which the rod has movement, and a locking connection between the rod and the tube, as and for the purpose specified. 3rd. In a clothes horse or rack, the combination, with a socket adapted for attachment to a ceiling or other overhead support, the said socket being provided with an opening in its bottom and in its sides, of a horse or rack consisting of a body section comprising a plate and a flange projected downward from the plate and having openings therein, and arms removably introduced into the openings in the flange, a rod connected with the body and extending upwardly therefrom, a tube in which the rod has movement, said tube being provided at its upper end with a head adapted to enter the socket, and a locking connection between the rod and the tube, substantially as set forth. 4th. In a clothes horse or clothes rack, the combination, with a socket circular in cross section and constructed in different diameters, the said socket being adapted for attachment to an overhead support and provided with an opening in its bottom and one of its sides, of a clothes horse or rack comprising a body, which body consists of a plate and a flange projected downward from the plate and having openings formed therein, arms removably inserted into the body through its flange openings, a rod connected with the body and extending upwardly therefrom, a tube in which the rod has movement, said tube being provided with a head adapted to enter the socket, the tube being further provided at opposite sides with longitudinally aligning slots, bayonet slot extensions emanating from the longitudinal slot at various points in its length, and a pin carried by the rod and having guided movement in the longitudinal slots and capable of being engaged by the bayonet slot extensions of said longitudinal slots, substantially as shown and described.

No. 42,860. Car Coupler. (*Attelage de chars.*)



The Gould Coupler Company, New York City, New York, assignee of Willard Fillmore Richards, Buffalo, all of New York, U.S.A., 9th May, 1893; 6 years.

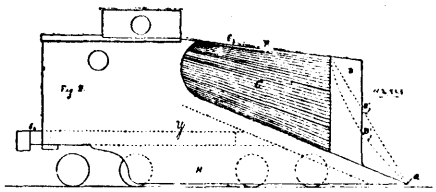
Claim.—1st. The combination, with the draw head, the coupling jaw and the vertically movable lock of a rock lever pivoted to the draw head above the lock, and a rigid rod or bolt connecting the lock, with said rock lever, substantially as set forth. 2nd. The combination, with the draw head, the coupling jaw and the vertically movable lock of the coupling jaw, of an actuating lever pivoted to the draw head above the lock, a rigid rod or bolt connecting the locking pawl with said actuating lever, and a spring whereby said actuating lever is caused to depress the lock, when the lever is released, substantially as set forth. 3rd. The combination, with the draw head, the coupling jaw and the vertically movable lock of the coupling jaw, of an actuating lever pivoted to the draw head above the lock, a rigid rod or bolt attached at its upper end to said actuating lever on one side of its fulcrum and at its lower end to the lock, and a return spring engaging against said actuating lever on the opposite side of its fulcrum, substantially as set forth. 4th. The combination, with the draw head, the coupling jaw and the vertically movable lock of the coupling jaw, of a rock lever pivoted transversely to the upper portion of the draw head, an inflexible rod or bolt attached at its lower end to the lock, and at its upper end to one arm of said rock lever, a return spring arranged in the draw head behind the lock, and bearing with its upper end against the other arm of said lever, and an actuating chain attached to said rock lever and extending rearwardly therefrom, substantially as set forth.

No. 42,861. Railroad Snow Plow.
(*Charrue à neige pour chemins de fer.*)

James William Russell, Boston, Massachusetts, U.S.A., May 10th, 1893; 6 years.

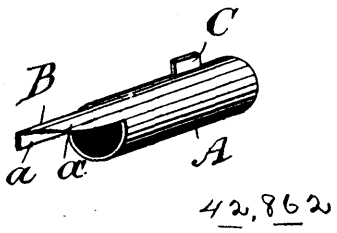
Claim.—1st. In a snow plow, a share extending from the outside of one rail to the outside of the other rail, the front end of the share *c*, commencing back or in the rear of the horizontally cutting edge *a*, and the divide or cutting edge B, substantially as described. 2nd. In a snow plow, with a share extending from the outside of one rail to the outside of the other rail, the plow at the side opposite to the discharge or delivery of the snow, commencing at or near the cutting edge B, built out or gradually widening to some seven inches, more or less, at the widest part D, front of the centre of the plow, substantially as described. 3rd. In a snow plow, the share extending from the outside of one rail to the outside of the other rail, the front end of the share commencing back or in the rear of the horizontal cutting edge *a*, in combination with a long coupling bar G, united to the plow, some feet front from the rear, substantially as described. 4th. In a snow plow, the coupling bar G, extending from the rear forward, with the front end united to the plow off the centre from side to side, to apply the propelling power on an angle, substantially as described. 5th. In a snow plow, the coupling bar G, extending from the rear forward, with its front end convex, in combination with the clock G^1, concave, constituting a quarter circle (more or less) joint, substantially as described. 6th. In a snow plow, a share extending from the outside of one rail to the

outside of the other rail, the front end of the share *c*, commencing back or in the rear of the horizontal cutting edge *a*, in combination



with the inclined or slanting upward of the top of the front section, or divide F, from front to rear, substantially as described. 7th. In a snow plow, in combination with the top of the divide of the plow the straight or flat metal plate E, secured to the top of the plow and projecting front in advance of the mole board or share, substantially as described. 8th. In a snow plow, the side H, of the front section from the edge of the incline to the base of the plow, the side slanting inward or under; and from front to rear also, slanting inward and under, substantially as described.

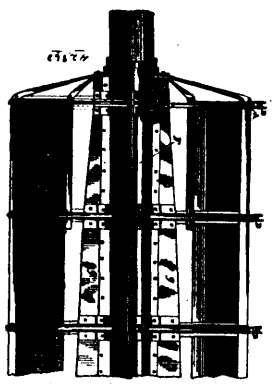
No. 42,862. Sap Spout. (*Gargouille à sève.*)



William Tompson Brown McDonald, Granby, Quebec, Canada, 10th May, 1893; 6 years.

Claim.—A sap spout consisting of a tube A having one of the edges of the seam continued and turned at an angle inwardly towards the center of the tube to form a rib *a*, said rib extended at one end together with a portion a^1, of the cylindrical shell of the tube tapering off triangularly to form an extension or tail piece B, and a lug or piece C near the other end of the tube to form a hook, substantially as set forth.

No. 42,863. Water Power. (*Force hydraulique.*)



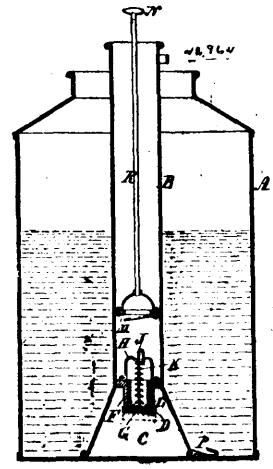
Alonzo C. Mather, Chicago, Illinois, U.S.A., 10th May, 1893; 6 years.

Claim.—1st. The combination, with the piers supporting the bridge, of a water wheel suspended between the piers, a shaft on the bridge and a series of link belts surrounding the wheel and connected to the shaft upon the bridge, substantially as described. 2nd. The combination, with the piers supporting the bridge, of a shaft supported on the bridge, a water wheel suspended between the piers, the shaft of the water wheel being made in segments and provided with stiffening pieces between the segments tapering from the centre toward the ends of the wheels, and a series of link belts surrounding the wheel and connected with the shaft on the bridge, substantially as described.

No. 42,864. Milk Aerator. (*Aérateur à lait.*)

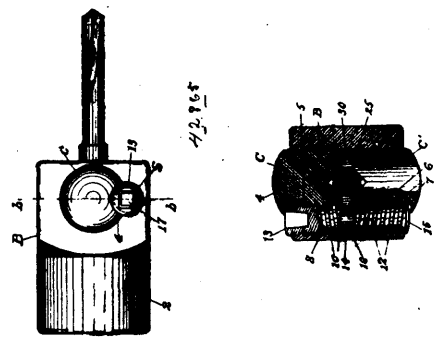
Benjamin E. Robinson, Lyn, Ontario, Canada, 10th May, 1893; 6 years.

Claim.—1st. An air injector or milk aerator, comprising a tube B, a valved piston M therein, having a rod R, to reciprocate said piston, said tube having an open bottom air chamber C, at the lower end, and a string check valve D, dividing said chamber from the tube,



as set forth. 2nd. A milk aerator, comprising an air supply tube B terminating in an imperforated air chamber C, said tube and chamber separated by a spring check valve D, as set forth. 3rd. In a milk aerator, the check valve D, comprising a casing F, and hollow plug G, sliding therein, a bail H, suspending said plug within the casing by a stem J, and a coiled spring K, surrounding said stem, as set forth.

No. 42,865. Drill Chuck. (*Mandrin de foret.*)



Charles Ethan Billings, Hartford, Connecticut, U.S.A., 10th May, 1893; 6 years.

Claim.—1st. In a drill chuck, the combination with the body bored longitudinally to receive the drill shank, and having therein a transverse cylindrical bore for receiving the chuck jaws, of a pair of cylindrical chuck jaws fitted to slide in said bore, and having segmental internal threads on one side thereof, and the combined actuating screw and guide key seated in the chuck body, and engaging in the threaded grooves in the sides of said jaws, whereby the jaws are oppositely actuated and are held from rotation by the same element, substantially as described. 2nd. In a chuck, the combination with a chuck body, substantially as described, of two pairs of cylindrical chuck jaws one forward of the other, the forward pair constructed to fit and hold straight shank drills, and the rearward pair to fit and hold taper shank drills, and means for actuating said pair of chuck jaws independently of each other, substantially as described. 3rd. In a drill chuck, the combination with a chuck body, substantially as described, of the cylindrical chuck jaws D and D^1, constructed with recesses on their shank engaging faces to fit and hold taper shank drills, and having rearward of said recesses flat faces, constructed for engaging the flatted projecting ends of said shanks, and means for actuating said jaws in opposite directions respectively, substantially as described.

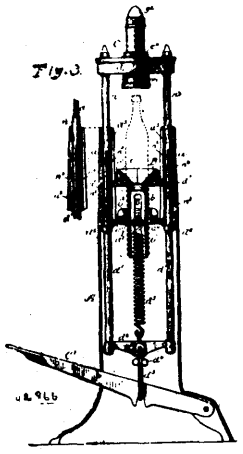
No. 42,866. Means for Bottling and Sealing Liquids.

(*Appareil pour mettre en bouteille et cacheter les liquides.*)

William Painter, Baltimore, Maryland, U.S.A., 10th May, 1893; 6 years.

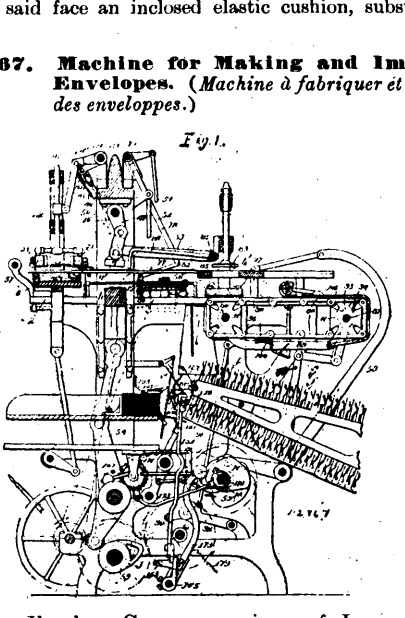
Claim.—1st. The method, substantially as hereinbefore described, of sealing bottles, which consists in surrounding a bottle head having an annular locking shoulder with a corrugated flanged metal sealing cap, and then bending or indenting the inner corrugations into locking contact with the engaging shoulder on the bottle head by applying pressure simultaneously to the several outer corruga-

tions. 2nd. In a bottling machine, the combination, substantially as hereinbefore described, of a filling chamber having sufficient



interior capacity for receiving the heads of bottles to be filled, an annular gasket having a central opening for the reception of bottle heads, and means within said chamber for bending the flanges of metallic sealing caps into locking contact with bottle heads. 3rd. In a bottling machine, the combination, substantially as hereinbefore described, of the following mechanism: A filling chamber communicating with a source of supply and provided with an opening for the reception of a bottle head, and with a gasket for maintaining a closure of the space between the bottle head and the adjacent walls of the chamber, a plunger having its head within the chamber, means for supporting within said chamber a flanged metal sealing cap containing a sealing disc and having its flange in a pendent position, means for forcing the bottle, the cap and the disc into close relations, thereby causing the disc to conform to the lip of the bottle, and means for bending the flange of the cap beneath and in close locking contact with a suitable locking shoulder on the head of the bottle. 4th. In a bottling machine, a filling chamber closed except as to the induction of liquids and to the complete reception of the head of a bottle and provided with an annular funnel-shaped gasket or packing having a pendent lip and normally adapted to receive a bottle head, and by the inward rolling action of the lip to maintain a shifting packing contact with different portions of the head of a bottle during the filling and sealing operation. 5th. In a bottle filling machine, the combination, substantially as hereinbefore described, of a filling chamber closed except as to a suitable induction aperture for liquids and an opening for the complete reception of a bottle head, an annular funnel shaped gasket or packing ring in said opening, and means for varying its interior annular dimensions and causing it to maintain packing contact with the bottle head, and then to release said head for withdrawal after the sealing cap has been applied. 6th. In a bottling machine, the combination, substantially as hereinbefore described, of a filling chamber having an annular gasket adapted to maintain shifting packing contact with different portions of the head of a bottle when inserted into said chamber and means for bending the flange of a sealing cap upon the head of a bottle within the filling chamber. 7th. In a bottling machine, the combination, substantially as hereinbefore described, of a bottle filling chamber, an annular gasket or packing ring at its lower open side, a gasket controller for varying the area of opening in the annular gasket, vertically sliding rods, frictionally controlled sleeves capable of resting during the descent of said rods for operating the gasket controller and also capable of moving with said rods, a cross head on said rods for carrying the filling chamber and other operative parts, and a spring for supporting and a treadle for depressing the same. 8th. In a bottle sealing machine, the combination, substantially as hereinbefore described, of an annular bending tool adapted to encircle and to bend the flange of a sealing cap into locking contact with a bottle head, a cap plunger centrally located with relation to the bending tool, and means for supporting the sealing cap with its flange in a pendant position in line with the bending tool and below said plunger. 9th. In a bottling machine, the combination, substantially as hereinbefore described, of a filling chamber provided with a tubular dome, a hollow piston having a stem projecting into said dome and having a flange serving as a movable base for a spring, a sealing cap plunger having its head in the filling chamber proper and its stem loosely fitted in and connected with said piston, and an annular gasket compressed beneath the flange of the piston for packing the joint around the head of the cap plunger and preventing the passage of liquid from the filling chamber upwardly into the dome. 10th. In a bottling machine, the combination, substantially as hereinbefore described, of a filling chamber adapted to receive a bottle head, a packing gasket for engaging with a bottle head well below its lip and a hollow tapering bending tool within said chamber, a support for a bottle, and means for forcing the bottle support and bending tool into working relations with respect of a metallic cap surmounting a bottle head within the filling chamber. 11th. In a bottle sealing machine, the combination, substantially as hereinbefore described, of a plunger adapted to bear upon the top of a sealing cap, a bottle socket for supporting a bottle in line with said plunger, an annular non-rotative bending tool concentric with said plunger and having hard, unyielding pressure surfaces and adapted to bend portions of the flange of a hard metal sealing cap into locking contact with a bottle head, and means for forcing the cap, the interior sealing medium, and the bottle into close relations, and also for operating the bending tool. 12th. In a machine for applying metal sealing caps to bottles, the combination, substantially as hereinbefore described, of a hollow internally tapered and rigid flange bending tool, a support for a bottle, and means, substantially as described, for forcing said support and bending tool into working relations with respect of an interposed bottle surmounted by a cap, and thereby bending the flange of the cap into locking contact with the head of the bottle. 13th. In a bottle sealing machine, the combination, substantially as hereinbefore described, of a hollow tapering cap flange bending tool, a cap plunger, and cap supporting fingers for maintaining a sealing cap with its flange in a pendent position during its reception of a bottle head and in proper relation to the bending tool preparatory to operation by the latter in bending the flange of the cap into locking contact with the bottle head. 14th. In a bottle sealing machine, the combination, substantially as hereinbefore described, of a hollow tapered bending tool adapted to bend the flange of a sealing cap into locking contact with a bottle head, a cap plunger in line with said bending tool, a bottle support in line with said bending tool and cap plunger, and means for forcing the bottle and the cap plunger into compressing contact and thereby extending the flange of the cap upon the head of the bottle, and also, means for varying the relative positions of the tapered bending tool and the flange of the cap, and thereby bending the flange inwardly into locking contact with the head of the bottle. 15th. In a machine for bending flanged sealing caps into locking contact with the heads of bottles, the combination, substantially as hereinbefore described, of a bottle socket, a longitudinally movable cap plunger having a concave face, an annular flange bending tool concentric to said plunger, and means for forcing the cap plunger and the head of a bottle into close relations with an interposed sealing cap, said concave face on the plunger serving to center the cap and the bottle with relation to the bending tool. 16th. In a bottle sealing machine, a conical bottle socket having a bottle bearing surface composed of a series of thin metal plates, in combination, with an elastic cushion interposed between said plates and the body of the socket, substantially as described. 17th. In a machine for applying metal sealing caps to bottles, the combination, substantially as hereinbefore described, of a bottle support, and a cap plunger provided with a self adjusting metallic face adapted to bear upon and to distribute pressure evenly upon the top of the cap. 18th. In a bottle sealing machine adapted to operate upon flanged sealing caps, a cap compressing plunger having a concaved or recessed face and containing back of said face an inclosed elastic cushion, substantially as described.

No. 42,867. Machine for Making and Imprinting Envelopes. (*Machine à fabriquer et à imprimer des enveloppes.*)



The Holyoke Envelope Company, assignee of James Ball, all of Holyoke, Massachusetts, U.S.A., 10th May, 1893; 18 years.

Claim.—1st. A finger rod suitably supported in combination with a fixed horizontal plate and means for imparting a motion to said rod whereby it may confine an envelope against said plate at the proper period, substantially as and for the purpose set forth. 2nd. A finger rod having a finger thereon, bearings for said rod in which it may rock and with which it has a horizontal vibratory motion, a lever and a spring for imparting said vibratory motions thereto, and

mechanism substantially as described for imparting said rocking motion thereto, combined and operating in a manner substantially as set forth. 3rd. A finger rod, a post rocking on a fixed part of the machine, bearings for said rod attached to said post, on one of which bearings is a pending arm, an elbow lever on said rod, having an arm 36, with which said pending arm engages, a stop post with which said arm 36, engages, a lever and a spring for effecting the horizontally vibrating motion to said finger rod, and a spring attached to said elbow lever, combined and operating substantially as set forth. 4th. The finger rod, a reciprocally rotating post on a fixed part of the machine, bearings for said rod attached to said post on one of which is a pending arm, and mechanism substantially as described, for imparting a swinging motion to said rod, bearings, and post, and for rocking said finger rod on its bearings combined and operating substantially as set forth. 5th. In mechanism, substantially as described, for operating the pickers in an envelope machine, the combination with a pivoted cam lever having a connection with the picker operating devices, of a cam on which an end of said lever rests having an arm extending beyond its periphery in the plane of its rotation which has a positive engagement with said lever at a certain point in the rotation of said cam, and having a point on its periphery extending farther from its axis than the lever engaging part of said arm, substantially as set forth. 6th. The combination with the picker operating cam lever of an envelope machine, of a cam with which said lever engages having thereon an arm extending beyond and to one side of its periphery and in the plan of its rotation, opposite that portion of said periphery nearest the axis of the cam, and having a point on said periphery extending farther from its axis than the lever engaging part of said arm, which arm has a positive engagement with said lever at a certain point in the rotation of the cam, substantially as and for the purpose set forth. 7th. In a machine for making and printing envelopes, the combination, with the vertically movable type bed and the blank carrier, of the platen above said parts of a rocker shaft and means for rocking same, a toggle one member of which is carried by said rock shaft, and to the other of which said platen is connected, and link arms one end of which is pivotally hung on the frame, and the other to said platen, substantially as and for the purpose set forth. 8th. In a machine for making and imprinting envelopes, the combination, with the platen and type bed, and an envelope carriage of a movable finger mounted adjacent said printing parts, and means for moving said finger toward and from a suitable supporting part for an envelope blank for holding the latter at a proper period, substantially as described. 9th. The combination, with the type bed, of two rotatable discs having intermeshing tooth borders, and a roller adapted to run over the meshing portions of said discs, there being furthermore embraced in the contrivance a roller running over and from one of said discs on to the type face. 10th. In a machine for making and imprinting envelopes, the combination, with the type bed of two discs having toothed borders, and means for rotating said discs, an ink supply, and a roller for taking and conveying ink therefrom to and upon the border of one of said discs, a roller running over the other of said axis, and so arranged that it may roll over the meshing portions of both thereof, a distributing roller 80, on to which said first named roll runs, and another roll for carrying ink from said distributing roll to the type, substantially as described. 11th. In combination, the discs 63 and 64, the radial arm 69, swinging from the axial post of one of said discs, and carrying thereon the pallet mounted to engage the teeth of one of said discs, a rock shaft, and a link between same and said arm 69, substantially as described. 12th. The combination, with an inking disc 63, and an ink supply of a roller and guide supports whereby the roller may be constrained to move from said supply on to said disc, a rock shaft and actuating means therefor, a pair of radial arms 66, 66, on said rock shaft and links connecting said rock shaft and said roll, and all arranged in an envelope making and printing machine, substantially in the manner set forth. 13th. A bottom for the folding box of an envelope machine, having a movement thereunder whereby different portions of said bottom are brought successively under the following box, and a movement from the folding devices of the machine whereby the said bottom and said folding devices are separated when the folded envelope is to be delivered therefrom, and mechanism for effecting said movements, substantially as set forth. 14th. In an envelope machine, the combination, with printing or embossing devices, substantially as described, of a folding box to receive and fold a printed or embossed envelope blank, and a bottom for said folding box consisting of a series of sections hinged to each other and forming an endless band, two supports upon which said band is mounted hung to rotate on shafts, and mechanism for imparting an intermittent rotary motion to one of said supports, whereby different portions of the surface of said bottom are brought successively under the folding box, combined and operating, substantially as set forth. 15th. A bottom for the folding box of an envelope machine, consisting of a series of sections hinged to each other and forming an endless band, two supports upon which said band is mounted hung to rotate on shafts, and mechanism for imparting an intermittent rotary motion to one of said supports, whereby different portions of the surface of said bottom are brought successively under the folding box, combined and operating, substantially as set forth. 16th. In an envelope machine, the combination, with a suitable part of the machine, as a table provided with a ledge or abutment, of the movable folding bottom comprising therein the endless band of hinged sections and supports therefor, means for imparting to one of the supports and said band a motion toward and from the folding devices, and an extension of said movable support adapted to present a block or enlargement 95, which is thereon into engagment with said ledge, for the purpose set forth. 17th. In an envelope machine, the combination, with the movable folding bed consisting of the endless hinged section band and supports, and means for moving said band, substantially as described, of a cleansing pad applied to have a yielding bearing upon a suitable portion of the surface of said band, substantially as described. 18th. The combination, with a bed movable to present different surfaces thereof as the folding bottom, of a moistening device and a wiping device, substantially as described. 19th. In an envelope machine, a flap folder wing, and a base piece to which said wing is hinged, one or more spring arms by one end suitably confined and supported, and by the other carrying said base piece, a screw stud passing with a screw engagement abutment, as the table, substantially as and for the purpose set forth. 20th. In combination, with the folding wings of an envelope machine, a folding bed movable to present different portions thereof successively under said folding wings, each of said portions so presented having an area exceeding that of the folded envelopes, for the purpose set forth. 21st. A gripper for removing envelopes from the drying chain of an envelope machine consisting of two jaws for engaging an envelope, having independent vibratory motions in planes of opposite angles, combined with levers, substantially as described, co-operating with said jaws, a frame supporting said mechanism and jaws, a vibratory lever of the envelope machine to which said gripper is secured, and fixed stops of said machine, with which said levers engage during the vibratory movements of the gripper, substantially as set forth. 22nd. A gripper for removing envelopes from the drying chain of an envelope machine consisting of two jaws for engaging an envelope, said jaws having vibratory movements in vertical and horizontal planes, combined with a frame supporting said jaws, a lever pivoted on said frame and connected with said vertically vibrating jaw, and a lever and a spring on said frame and connected with said horizontally vibrating jaw, substantially as set forth. 23rd. A gripper for removing envelopes from the drying chain of an envelope machine consisting of two jaws from engaging an envelope, having independent vibratory motions in planes of opposite angles, combined with levers substantially as described co-operating with said jaws, and a frame supporting said mechanism and jaws, substantially as set forth. 24th. A gripper for removing envelopes from the drying chain of an envelope machine consisting of two jaws for engaging an envelope having independent vibratory motions in planes of opposite angles, combined with levers substantially as described, co-operating with said jaws, a frame supporting said mechanism and jaws, and an envelope guide plate secured to said frame and extending horizontally at the side of said jaws, substantially as set forth. 25th. In an envelope machine, two envelope grippers of the class herein described, two levers to which said grippers are attached, a shaft carrying supports to which said levers are pivotally hung to permit their gripper bearing ends to swing transversely across the drying chain, a cam acting to rock said shaft and swing said grippers towards and from said chain and mechanism, substantially as described, for imparting said transversely swinging movements to said levers, combined and operating substantially as set forth. 26th. In an envelope machine, two envelope grippers of the class herein described, two vibratory levers to which said grippers are attached, a shaft serving as a support for said lever, an upright secured to said shaft, a cam acting on said upright to rock said shaft, vibrating envelope pushers following and moving with each envelope seized by said grippers, and mechanism substantially as described, for imparting vibratory motions to said pushers, combined and operating substantially as set forth.

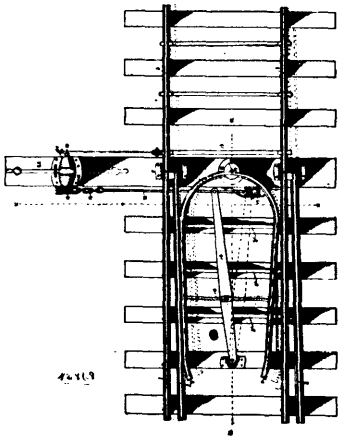
No. 42,868. Automatic Railroad Switch.

(*Aiguille automatique de chemin de fer.*)

William A. Ducker, Winnipeg, Manitoba, Canada, assignee of William Henry Fisher, Duluth, Minnesota, U.S.A., May 10th, 1893; 6 years.

Claim.—1st. In an automatically operated railroad switch, the combination of the horse-shoe lever and its connected lever with the switch and means for connecting them, consisting of the crank shaft, the connecting rod, the sprocket pulleys, and the chain and rods connecting said pulleys and crank shaft with the said lever for the purpose stated. 2nd. The combination, with the switch of the horse-shoe lever, the lever pivoted thereto, the crank shaft, the connecting rod, the sprocket pulleys, the rods and chains connecting them, and a locking device consisting of the lever and a cast iron locking bar, for the purpose stated. 3rd. In an automatically operated railroad switch, the horse-shoe lever pivotally connected in the line of junction of the switch and the fixed rails, and arranged with its movable ends standing away from the switch, in combination with the intermediate lever and its connecting rods and chains, the sprocket pulleys for said rods and chains, and the switch connecting crank shaft and connecting rod, arranged to operate as stated. 4th. In a railroad switch, the horse-shoe lever, having a bearing disc and the socket seat therefor bolted together, in combination with the intermediate lever, the chains, their adjustable connecting rods, the sprocket pulleys, and the crank shaft and connecting rod connecting

the switch, for the purpose stated. 5th. In an automatically operated switch for railroads, the combination of the switch and devices



for automatically shifting it by means of the moving train, consisting of a shaft having a crank connected to the said switch, and a pulley connected to its operating devices and having a hand lever 22, with a cast iron locking bar for said hand lever, crossing the path of movement of the latter a sufficient distance above it to give said bar a sudden forcible blow, for the purpose stated.

No. 42,869. Process of Reducing Ores.

(*Procédé pour la réduction des minerais.*)

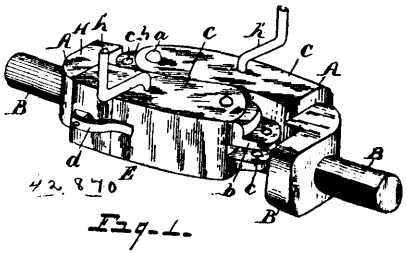
Auguste J. Rossi, City of NewYork, and James MacNaughton, Albany, both of New York, U.S.A., 10th May, 1893; 6 years.

Claim.—1st. The process of fluxing titaniferous iron ores which consists in combining their titanic acid with bases as fluxes so as to form in the slag predominant titanates of two or more of those bases, and subjecting the combination to the usual heat and treatment of a blast furnace, substantially as and for the purpose described. 2nd. The process of fluxing titaniferous iron ores which consists in combining their titanic acid with bases, and fixed alkalies as fluxes, so as to form the slag predominant titanates of those bases, and subjecting the combination to the usual heat and treatment of a blast furnace, substantially as and for the purpose described. 3rd. The process of fluxing titaniferous iron ores which consists in combining with their titanic acid with earthy bases as fluxes, so as to form in the slag predominant titanates of two or more of those bases, and without a sufficient amount of silica to flux said bases, and subjecting the combination to the usual heat and treatment of a blast furnace, substantially as and for the purpose described. 4th. The process of fluxing titaniferous iron ores which consists in combining their titanic acid with earthy bases, and fixed alkalies as fluxes, so as to form in the slag predominant titanates of those bases, and without a sufficient amount of silica to flux said bases, and subjecting the combination to the usual heat and treatment of a blast furnace, substantially as and for the purpose described. 5th. The process of fluxing titaniferous ores consisting in combining them in and subjecting them to the usual treatment and fusion of a blast furnace, in combination with fuel, the earthy bases, alumina, lime, and magnesia, and without a sufficient amount of silica to flux said bases, substantially as and for the purpose described. 6th. The process of fluxing titaniferous ores consisting in combining them in and subjecting them to the usual treatment and fusion of a blast furnace, in combination with fuel, and earthy bases, alumina and lime, and without a sufficient amount of silica to flux said bases, substantially as and for the purpose described. 7th. The process of fluxing titaniferous ores consisting in combining them in and subjecting them to the usual treatment and fusion of a blast furnace, in combination with fuel and earthy bases, alumina and magnesia, and without a sufficient amount of silica to flux said bases, substantially as and for the purpose described. 8th. The process of fluxing titaniferous ores consisting in combining them and subjecting them to the usual treatment and fusion of a blast furnace, in combination with fuel, the earthy bases, lime and magnesia, and without a sufficient amount of silica to flux said bases, substantially as and for the purpose described.

No. 42,870. Car Coupler. (*Attelage de chars.*)

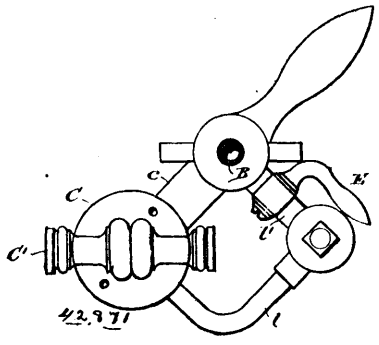
The Eureka Automatic Car Coupler Company, assignee of James M. Stark, James McLaren and Henry L. Humphrey, all of Detroit, Michigan, U.S.A., 10th May, 1893; 6 years.

Claim.—1st. In a car coupler, the combination of the draw-head, the grappling jaw pivoted therein, the tumbler also pivoted in the draw-head and adapted to engage said jaw, whereby, by the actuation of said tumbler, said jaw may be actuated to disengage it from a companion part. 2nd. In a car coupler, the combination of the draw-head, the engaging jaws pivoted therein, the tumblers pivoted in said draw-head, said tumblers adapted to independently actuate the jaw in the head in which they are pivoted, and simultaneously



depress the jaw in the opposed head, as and for the purpose specified. 3rd. In a car coupler, the combination of the draw-head, the jaw pivoted therein and having the plate or arm extending therefrom, the tumbler pivoted in said head and adapted to engage said plate or arm, whereby, by the movement of said tumbler, said plate is actuated to operate said jaw, substantially as specified. 4th. In a car coupler, the combination of the draw-head, the jaw pivoted therein and having the arm extending therefrom, the tumbler pivoted to said head, and adapted to engage said arm to actuate said jaw, the spring bearing against said arm to restore said jaw, substantially as specified.

No. 42,871. Pump. (*Pompe.*)



Charles Smith Reinhardt, assignee of Napoleon Edward Bellavance, both of Montreal, Quebec, Canada, 10th May, 1893; 6 years.

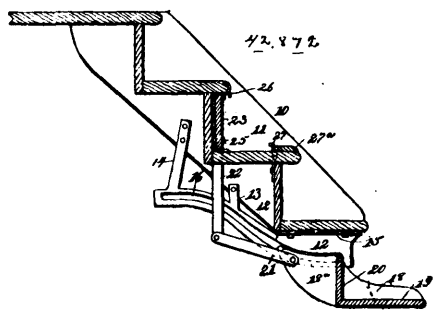
Claim.—1st. In a beer pump, the combination of a tubular standard, a delivery pipe passing through same, a pumping cylinder suction valve chamber, and valves and direct single tubular connections between said suction valve chamber and respectively the pumping cylinder and said tubular standard, whereby fresh air drawn into and expelled from said cylinder shall be forced through said single tubular connections and said suction valve chamber directly to said tubular standard, as set forth. 2nd. In a beer pump, the combination of the tubular standard A, with its lower end adapted to be set in the bung hole of a barrel, a delivery pipe having a controlling valve or tap, and passed through such standard with means for effecting an air tight joint between the two at the upper end of the latter, pumping cylinder A united to said standard and provided with a piston and operating parts, a suction valve chamber and tubular connections between it and said tubular standard, and pumping cylinder and valves within said chamber adapted to control the openings to said tubular connections, as set forth.

No. 42,872. Movable Step. (*Marche mobile.*)

Frank E. Forster, Etiwanda, California, U.S.A., 10th May, 1893; 6 years.

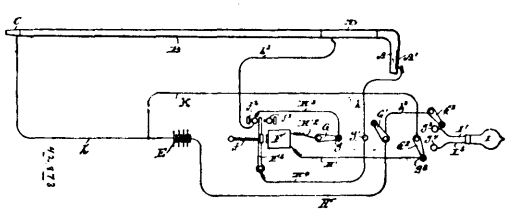
Claim.—1st. The combination with the stationary car steps, of curved slotted brackets secured to the under side of the steps, a movable step held to slide in the brackets, a fastening device to secure the steps, substantially as described. 2nd. The combination with the stationary car steps, of curved slotted brackets secured to the side pieces of the steps on the under side of the latter, a movable step having studs held to slide in the brackets and a fastening device to secure the step, substantially as described. 3rd. The combination with the car steps, of curved brackets secured to the under side of the steps, a movable step held to slide in the said brackets, and a plate pivoted on the steps and pivotally connected with the movable step, substantially as described. 4th. The combination with the stationary car steps, of slotted brackets secured to the side pieces of the steps on the under side of the latter, a movable step having studs held to slide in the brackets, levers pivotally connected with the steps and extending upward through the stationary steps, said levers being connected by a cross plate at the top, and fastening de-

vices to hold the plate in a raised or lowered position, substantially as described. 5th. The combination with the stationary car steps,



of slotted brackets secured to the side pieces of the steps on the under side of the latter, a movable step having stops adapted to slide in the brackets, swinging levers extending upward through the stationary steps, said levers being connected at the top by a cross plate and connected at their lower ends with the movable step by means of connecting rods, and spring catches adapted to hold the cross plate in a raised or lowered position, substantially as described.

No. 42,873. Electrical Appliance for Canes and Analogous Articles. (*Appareil électrique pour cannes, etc.*)



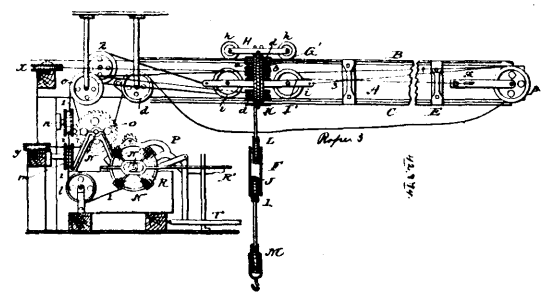
Stephen Douglass Smith, Milwaukee, and Oscar James Wells, Fond du Lac, both of Wisconsin, U.S.A., May 10th, 1893; 6 years.

Claim.—1st. The combination with a cane or analogous article, of a suitable source of electric current, wires leading from opposite poles thereof, a current interrupter connected with said wires, metallic portions located at suitable points upon the outside of the cane or other article, a switch for throwing said interrupter into or out of circuit, and switches for establishing or breaking the connections between said source of current and said metallic portions, substantially as set forth. 2nd. The combination with a cane or analogous article, of metallic pieces upon opposite ends thereof and an intermediate tubular metallic portion, a suitable source of electric current located within said tubular portion, connections between said source of current and said metallic end pieces and tubular portion, a current interrupter also located within said tubular portion and switches for throwing said interrupter into or out of circuit and for establishing or breaking the connections between said source of current and metallic part, substantially as set forth. 3rd. The combination with a cane or analogous article of a suitable source of electric current, wires leading from opposite poles thereof, a miniature electric lamp located in or upon the head of the cane or other article, and a switch for throwing said lamp into or out of circuit, substantially as set forth.

No. 42,874. Hoisting and Transfer Apparatus.
(*Monte-charges.*)

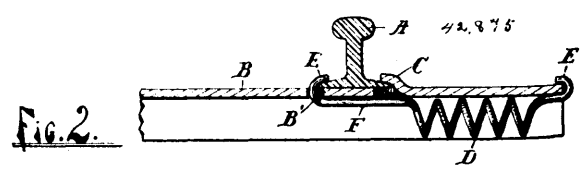
Willis Derwood Sherman, John L. Wilson, Charles B. Johnson, Frank B. Johnson and Ellis H. Baillie, all of Brooklyn, New York, U.S.A., 10th May, 1893; 6 years.

Claim.—1st. The combination, of the hoisting drum, N, rope *l*, sheaves *l*, *m*, *n*, *o*, *d*, *f*, and *c*, trolley J, and hoisting block M, substantially as and for the purpose herein shown and set forth. 2nd. The combination, of the drum O, rope 3, and sheaves *u*, i^1, *v*, *y*, a^1, *p*, i^3 and *q*, travellers I, and I^1, trolley J, and hoisting block M, substantially as and for the purpose herein shown and set forth. 3rd. The combination, of the carriage or traveller I, having sheaves *i* and i^1, rope 2, carriage or traveller I^1, having sheaves i^2 and i^3, sheaves *u*, *v*, *y*, a^1, *p*, *q*, *s*, *t*, *w*, *x* and *z*, drum O, trolley J, and hoisting block M, substantially as and for the purpose herein shown and set forth. 4th. The combination of the drum O^1, rope 4, sheaves *e*, *a*, *r*, a^2, a^3, and *b*, trolley J, and hoisting block M, substantially as and for the purpose herein shown and set forth. 5th. The carriage, comprising the yoke G, top traveller H, having wheels *h*, *h*, side traveller I, having sheaves or grooved wheels *i* and i^1, sheaves *e* and *f*, journalled on a vertical shaft within the yoke, and top and bottom guide sheaves *j* and *k*, substantially as and for the purpose herein shown and set forth. 6th. In a hoisting and transfer system, the combination with the elevated parallel frames



and tracks, the sheaves *u*, *v*, *w*, *p*, *q*, *r*, *s*, *t* and *z*, secured to said frames, the travelling yokes connected together by a rope or cable F, the sheaves *i*, *i*, secured to said yokes, the trolley having sheaves L, L, and K, K, and the ropes passing over said sheaves, the hoisting block and rope, and means for transmitting motion to said yokes, trolley and hoisting block, substantially as described. 7th. The right hand carriage, comprising the yoke G^1, top traveller H^1, having wheels *h*, *h*, side traveller I^1, having sheaves or grooved pulleys i^2 and i^3, sheaves *a*, *b*, *c* and *d*, journalled on a vertical axle within yoke G^1, and top and bottom guide sheaves *j* and *k*, substantially as and for the purpose herein shown and set forth. 8th. The combination, of the drums N, O, and O^1, ropes 1, 2, 3 and 4, left hand carriage, comprising the top traveller H, side traveller I, and yoke G, with their appropriate sheaves, as described, right hand carriage, comprising the top traveller H^1, side traveller I^1, and yoke G^1, with their appropriate sheaves, as described, flexible track F, connecting the yokes G and G^1, trolley J, and block M, substantially as and for the purpose herein shown and set forth. 9th. The combination of the stationary elevated tracks arranged parallel to each other and in the same horizontal plane, the carriages running on said tracks, and constructed as described, the flexible and movable track F, connecting said side carriages, the trolley J running upon the flexible track, hoisting block M, ropes 1, 2, 3 and 4, and drums or winches adapted to operate said ropes either independent of or in combination with one another, substantially as and for the purpose herein shown and set forth. 10th. The combination of the horizontal stringers or track supports A, yokes E, upper track plate B, and lower track plates C overlapping respectively, the upper and under side of the stringer, and leaving a narrow space between the overlapping part of said track plates and the upper and under side of the body of the stringer, substantially as and for the purpose herein shown and set forth. 11th. The combination of the parallel stringers A, top tracks B, bottom tracks C, left hand carriage having yoke G, right hand carriage having yoke G^1, flexible F, connecting said yokes G and G^1, trolley J, hoisting block M, ropes 1, 2, 3 and 4, hoisting drums N, O and O^1, and the sét or series of stationary and movable sheaves operating in conjunction with the aforesaid ropes, carriages, trolley and hoisting mechanism, substantially as and for the purpose herein shown and set forth. 12th. In a hoisting and transfer apparatus, the combination with the compound mechanism for effecting the movements of the hoisting and carrying trolley, of an elevated cage containing the operating mechanism, whereby the person in charge of said mechanism is enabled to get a bird's eye view of the field of operation, *i.e.*, the field covered by the hoisting and transferring mechanism and its adjuncts, substantially as and for the purpose shown and set forth.

No. 42,875. Means of Fastening Railway Rails to Metal Sleepers. (*Appareil pour attacher les rails de chemin de fer aux traverses métalliques.*)

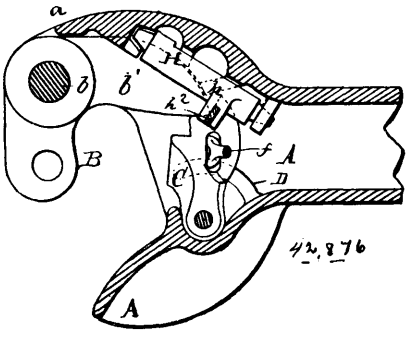


John Conley, Denver, Colorado, U.S.A., 12th May, 1893; 6 years.

Claim.—1st. In combination with a railway rail and metal sleeper, a rod or bar of flexible material having hooks at its respective ends, and formed or bent between the same to cause said hooks to approach each other by means of the flexibility of said bent portion of the rod or bar, substantially as described. 2nd. In combination, a railway rail, a sleeper having a lug or hook engaging the outer flange of the rail, an opening opposite the same partially covered by the opposite flange of said rail, a bar having hooks at its respective ends engaging the inner flange of the rail and the end of the sleeper, and a bent middle portion, substantially as described. 3rd. In combination with a railway rail and metal sleeper, a bar or rod having

hooks at its respective ends engaging the flange of said rail and the end of the sleeper, and having its middle portion adapted to flexibly contact in the direction of a line drawn between said hooks, substantially as described. 4th. A fastening for securing railway rails to sleepers, consisting of a bar or rod having hooks at its respective ends adapted to engage the flange of the rail and the sleeper, and having its middle portion coiled or bent, or otherwise rendered contractible in the direction of a line drawn between said hooks, substantially as described.

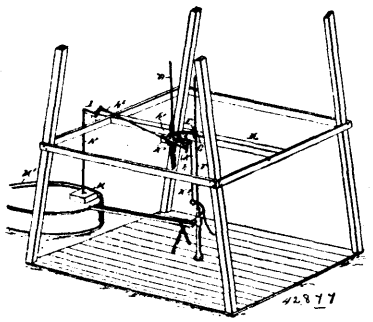
No. 42,876. Car Coupler. (*Attelage de chars.*)



Charles Albert Gould, Bay Side, New York, U.S.A., 12th May, 1893; 6 years.

Claim.—1st. The combination with the draw head, the coupling jaw, the lock, and the lifting chain connected with the lock, of a kicking device for opening the jaw, and a slack connection extending from the kicking device to the lifting chain, substantially as set forth. 2nd. The combination with the draw head, the coupling jaw, the lock, and the lifting chain, of a kicking device for opening the jaw, having a shifting finger for throwing the jaw to its open position when unlocked, and an actuating rock arm which clears the rock, and a slack connection extending from said rock arm to the lifting chain, substantially as set forth. 3rd. The combination with the draw head, the coupling jaw, the lock, and the lifting chain, of a kicking device for opening the jaw, and a connecting link attached at one end to the lifting chain, and having at its opposite end a sliding connection with the kicking device, substantially as set forth. 4th. The combination with the draw head, the coupling jaw, the lock, and the lifting chain, of a rock shaft journalled in the draw head and having a depending shifting finger which engages against the locking arm of the coupling jaw, and an actuating rock arm which clears the lock, and a connecting link attached at one end to the lifting chain and provided at its opposite end with a longitudinal slot, and a pin secured to said rock arm and passing through said slot, substantially as set forth.

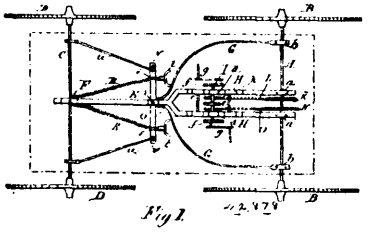
No. 42,877. Windmill Regulator.
(*Régulateur de moulin à vent.*)



Herman Grosz, Mendota, Illinois, U.S.A., 12th May, 1893; 6 years.

Claim.—In an attachment for a windmill of the character set forth, the combination of a metallic frame D, having guides C^1 thereon, a bar C, having ratchet teeth formed on its inner edge only and vertically movable in said guides C^1, a lever G pivotally connected to the upper part of the said frame, and carrying a gravity pawl 26 on one end thereof adapted to engage the ratchet teeth of said bar C^1, and provided with a projection *h*, near the engaging end thereof, a pawl J, pivotally attached to the frame D, below the lever G, and pawl H, having a projecting *j*, and adapted to hold said bar C in position while the pawl H works the said bar downward, a gravitating bar K, pivoted to the lower part of the said frame D, having a weight on one end thereof, and having an upwardly projecting arm k^1, near the weighted end thereof adapted to contact with the projection *h*, of the pawl H, and a depending arm *k* nearer the free end thereof, the free end of said bar K, having a cord connected thereto to operate the same to disengage the pawl H, from the teeth of the bar C, and said bar K of itself being adapted to engage the projection of pawl J, a cord K^2, attached to the said arm *k*, a bell crank lever to one portion of which said cord k^2 is attached, a float connected to the other portion of said bell crank lever, a wire or cord B secured to the upper portion of the bar C, and running to the wheel mechanism, and a pump rod having a clip E thereon through which the free end of the said lever G passes, substantially as described.

No. 42,878. Buggy. (*Voiture.*)



William Henry Thompson and George Morris, both of Hamilton, Ontario, Canada, 12th May, 1893; 6 years.

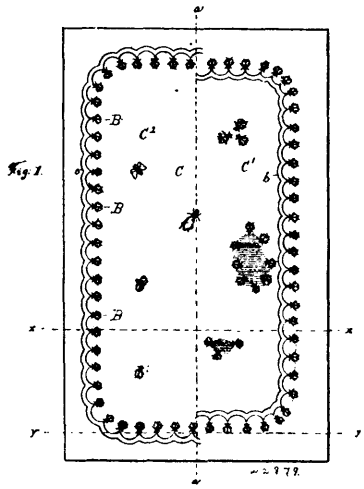
Claim.—1st. In a buggy or light wagon, the combination, with the rear axle A, of the four ball bearing boxes *a*, *a*, *b*, *b*, through which the said shaft passes, reach E, attached to boxes *a*, *a*, and curved brace rods G, G, attached to boxes *b*, *b*, on the shaft, substantially as specified. 2nd. In a buggy or light wagon, the combination, with the axles A, C, and reach E, of the frame H, carrying a shaft I, on ball bearings *d*, *d*, a small sprocket wheel *e*, two eccentrics *f*, *f*, crank handles *g*, *g*, the said eccentrics connected to crank discs *l*, *l*, on a lower shaft J, attached to reach E, substantially as and for the purpose specified. 3rd. In combination, with the reach E, the shaft J, secured thereto in ball bearings, and having three sprocket wheels *i*, *j*, *k*, attached thereto, and the crank discs *l*, *l*, a large sprocket wheel K, attached to the rear shaft A, and a chain belt L, made to connect small sprocket wheel *k*, and large sprocket wheel K, and a chain belt M, made to connect the sprocket wheel *e*, on the upper shaft I, and the sprocket wheel *j*, on the lower shaft J, for driving the wagon, substantially as specified. 4th. In combination, with the rear axle A, the large sprocket wheel N keyed thereon, a sprocket wheel *i*, keyed on the shaft *j*, and a chain belt O made to connect both, together with the frame P, on the front portion of reach E, carrying a shaft *o* with crank handles, and a sprocket wheel *p*, to which the chain belt M can be shifted to co-operate with the chain belts L and O, on their respective sprocket wheels, substantially as specified. 5th. The combination of the steering bar Q, having stirrups *t*, *t*, pivoted to the reach E, said bar having slots *v*, *v*, connected by rods *u*, *u*, to the axle C, and the spiral springs R, R, connecting front axle C, to the steering bar Q, for the purpose of steering, substantially as specified. 6th. The combination of the rear axle A, ball bearings *a*, *a*, *b*, *b*, reach E, frame H, shaft I, sprocket wheel *e*, sprocket wheel K, shaft J, sprocket wheel *j*, chain belts M, L, eccentrics *f*, *f*, and crank handles *g*, *g*, braces G, G, all constructed substantially as and for the purpose specified. 7th. The combination of the frame H, carrying the upper shaft I, having eccentrics *f*, *f*, a sprocket wheel *e*, and a lower shaft J, on the reach E, carrying three sprocket wheels *i*, *j*, *k*, and two crank discs *l*, *l*, connected to the eccentrics, sprocket wheel K, on axle A, large sprocket wheel on the same axle, and chain belts M, L, O, connecting the sprocket wheels, all constructed substantially as and for the purpose described.

No. 42,879. Fly Paper. (*Papier tue-mouche.*)

The Detroit Fly Paper Company, assignee of Charles H. Mitchamore, all of Detroit, Michigan, U.S.A., 12th May, 1893; 6 years.

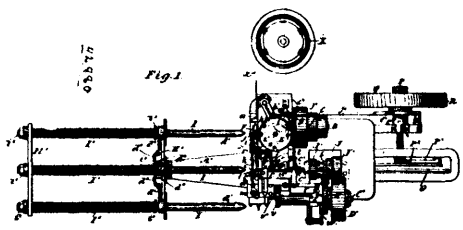
Claim.—1st. A sheet of sticky fly paper to which is attached representations of flies, for the purpose specified. 2nd. A sheet of sticky fly paper consisting of a sheet of paper partially covered by sticky material and having an enclosing border of embossed representations of insects arranged to interlock as the paper is folded, substantially as described. 3rd. A sheet of sticky fly paper consisting of a sheet of paper partly covered with a sticky material, and having a corrugated border half way around the material and a corrugated border extending around the other half of a length less than the length of the other border, substantially as described. 4th. A sheet of sticky fly paper consisting of a sheet of paper partly

coated with sticky material the sheet adapted to be folded centrally



and having a sectional embossed border, respective sections of the border being of different lengths and printed or embossed representations of insects adjacent to the border, substantially as described.

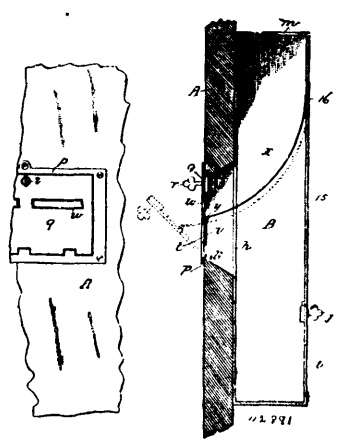
No. 42,880. Machine for Making Coil or Spiral Springs. (*Machine pour la fabrication des ressorts en spirale.*)



Frank M. Jeffery, Jersey City, New Jersey, and John W. Fisher, Brooklyn, New York, both of U.S.A., 12th May, 1893; 6 years.

Claim.—1st. In a machine for making spiral springs, the combination with means for feeding the wire to the bending mechanism, and the said mechanism having a movable wheel c^4, carried by a lever d, of a rotating cam E, the cam roller i^1, its carrying slide, and the lever k, coupled at one end to said slide and at its other end to the lever d, said lever k having a movable fulcrum, substantially as and for the purposes set forth. 2nd. In a machine for making spiral springs, the combination with positively driven feed wheels for feeding the wire to the bending mechanism, the said bending mechanism having a movable wheel c^4, carried by a lever d, and a rotating cam E driven positively from the feed wheels, whereby said cam is driven at a speed having a known relation to that of the feed, of the cam roller i^1 and its carrying slide, and the lever k, coupled at one end to said side and coupled adjustably to the lever d at its opposite end, said levers k having an adjustable fulcrum, substantially as set forth. 3rd. In a machine for making spiral springs, the combination with means for feeding the wire to the bending mechanism, of mechanism for regulating the pitch of the spiral of the spring, said pitch regulating mechanism comprising a rocking frame G, furnished with an anti-friction roller G^1, and arranged over the bending mechanism, as described, and a reciprocating cam roller arranged back of the frame G, and adapted to roll over a cam surface on said frame, substantially as set forth. 4th. In a machine for making coil springs which vary in diameter and form, the combination, with means for feeding the wire to the bending mechanism, and the said bending mechanism having a movable wheel c^4, carried by a lever d, of the shaft b^4, driven from the feed wheels, the cam E, loosely mounted on said shaft, the gear wheel c, fixed on said shaft, the gear wheel f, fixed to said cam, intermediate change wheels or other suitable mechanism between and connecting said wheels e and f, the cam roller i^1, and its carrying slide, and the lever k, coupled at one end to said slide and at the other end to the lever d, substantially as set forth. 5th. In a machine for making spiral springs, the combination, with means for feeding the wire to the bending mechanism the said bending mechanism, the controlling cam, its roller and carrying slide and the lever k, coupled at one end to said slide and at the other to the lever of the movable bending wheel, of the device for controlling the pitch of the spring being made, said device consisting of the rocking frame G, arranged over the bending mechanism, and having a cam surface at its rear edge and an anti-friction roller G^1, the slide o^1, actuated by the lever k, the mechanism intermediate between said slide and lever and the roller o, carried by said slide and adapted to play over the cam surface on the frame G, substantially as set forth. 6th. In a machine for making spiral springs, the combination, with the wire cutter comprising the jaws u and u^x, arranged adjacent to the bending mechanism, the said bending mechanism and the wire feeding mechanism of the shaft C^x, of the cutter, the cam v thereon, its yoke coupled to the moving part of the cutter, the pulley D^x, mounted loosely on shaft C^x, the clutch for connecting said pulley with said shaft, the cam E, and means, substantially as described, whereby said cam controls said clutch, as set forth. 7th. In a machine for making coil springs, the combination, with a spring forming mechanism, substantially as described, and mechanism for automatically severing the wire when the spring has been formed, of means for receiving and compressing said spring, said means comprising an intermittently rotating frame, having parallel, equally spaced sliding rods I, backed by springs, said rods being presented in succession, first, to the bending mechanism and then to the compressor, a reciprocating compressor aligned with one of said rods, whereby the rod is driven back and the spring thereon compressed simultaneously. 8th. In a machine for making coil springs, the combination, with wire feeding and bending mechanism, the latter having a wheel c^x, and a rotating cam E, driven from the main shaft which drives the feed wheels, of the shaft C^x, the independently driven pulley D^x, loose on said shaft, a clutch to connect said shaft and pulley, means, substantially as described, whereby the cam E, controls said clutch, the shaft H, means, substantially as described, whereby rotary motion of the shaft C^x, imparts intermittent rotary motion to shaft H, the sliding rods I, mounted in said frames, their springs i^1, means for locking said rods when forced back by the spring compressing mechanism, means for unlocking the bar after it has passed the compressing point, the compressing mechanism, comprising shaft P, rotating pulley Q, loosely mounted on said shaft, the clutch connecting said shaft and pulley, said clutch being controlled by cam E, the crank on shaft P, the rod connecting said crank with the slide O, and said slide provided with a head O^x, the parts being so arranged that when at rest one of the rods I, is aligned with the shaft of wheel c^x, and another is aligned with slide O, substantially as set forth.

No. 42,881. Mail Box. (*Boîte à lettres.*)

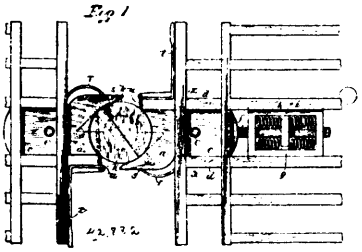


The Postal Improvement Company, Norristown, Pennsylvania, U.S.A., assignee of Avie S. Aldrich, administratrix of the estate of Henry E. Aldrich, late of Boston, Massachusetts, May 12th, 1893; 6 years.

Claim.—1st. A combined mailing and delivery letter box comprising a box attachable to a door around the letter slot thereof, a lid for said slot and a plate or partition projecting across said box opposite the slot, substantially as described. 2nd. In a combined collection and delivery letter box, the combination of a support having a letter slot, a box into which said slot leads, a partition in the box opposite the slot, a lid for closing the slot, a letter port in the door and a flap for closing the letter port. 3rd. In a combined collection and delivery letter box, the combination of a support having a letter slot, a box into which the slot leads, a partition in the box opposite the slot, a lid for closing the slot, means for locking the door, a letter port in the door and a flap for closing the letter port, substantially as described. 4th. In a combined collection and delivery letter box, the combination of a support having a letter port, a box or casing into which said port leads, a partition movable within the casing and a lid for closing the port, substantially as described. 5th. In a combined collection and delivery letter box, the combination of a support having a letter slot, a box into which the slot leads, a lid for closing the port, a movable partition connected to the door and a support for the free end of the partition, substantially as

described. 6th. In a combined collection and delivery letter box, a lid for the letter slot pivoted to swing in one direction provided with a flap pivoted to swing in an opposite direction, substantially as described. 7th. In a combined collection and delivery letter box, the combination of a receptacle having separate compartments communicating with a single opening, a lid for said opening, and locking mechanism to secure said lid against access to one of the compartments, as described. 8th. A combined mailing and delivery letter box comprising a box into which the door letter slot opens and a vertically curved plate having one end hinged to the letter slot flap or lid and projecting across said box whereby it is divided into two compartments, substantially as and for the purpose set forth. 9th. In a device of the character described, the combination of a door, wall or partition provided with a letter slot, a box or receptacle into which said slot leads, a hinged lid for closing said slot, a flap closed slot in said lid, and a movable plate operated by said lid and dividing said receptacle, substantially as described. 10th. In a device of the character described, the combination of a door provided with a letter slot, with a receptacle into which said slot leads provided with a letter opening in its upper portion, a hinged slot lid, locking mechanism therefor and a curved movable bottom in said receptacle hinged to said lid, substantially as described. 11th. A door or wall provided with a letter slot in combination with a receptacle into which said slot opens, a lid closing said slot, a lock therefor, a flap closed letter slot in said lid, and a movable partition in the receptacle operated by said lid, substantially as described. 12th. In a combined collection and delivery letter box, the combination of a support having a letter slot, a box into which the slot leads, a lid for closing the slot having a letter port, an oppositely pivoted flap for closing said port and a movable partition connected with and operated by the lid, substantially as described.

No. 42,882. Car Coupler. (*Attelage de chars.*)

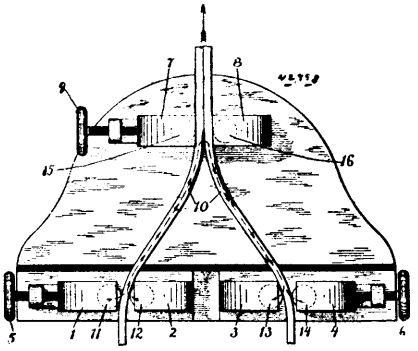


The American Safety Car Coupling Company, assignee of Michael I. Welch, all of Cordele, Georgia, U.S.A., 12th May, 1893; 6 years.

Claim.—1st. The herein described double hook coupler, which consists of a pair of twin hooks loosely mounted in draw heads, whereby they are allowed a limited rocking movement, in combination with a righting weight, substantially as described. 2nd. The herein described coupling hook, having its hook proper curved in the form of the segment of a circle c^2, and with walls and oblique surfaces c^6 and c^7, as and for the purpose specified. 3rd. The combination in a double hook car coupler, of a pair of rocking hooks curved outwardly and backwardly, in the manner and for the purpose, substantially as described. 4th. The combination with a draw head, of a rocking coupler hook having a rock arm secured thereto, and a laterally extending manipulating rod, substantially as described. 5th. The combination with a rocking coupler, of an arm connected to the hook shank and provided with a rod extending laterally to the side of the car, said rod being provided with a locking device, substantially as described, whereby the hook may be locked in coupled or uncoupled adjustment, as set forth. 6th. In combination with a pair of rocking coupling hooks provided with righting weights, of a laterally extending manipulating rod, substantially as described. 7th. In a car coupling, the herein described hook curved in the form of a segment of a circle, the outer surface of the hook being bevelled, the inner surface being obliquely formed to receive a corresponding surface upon the opposite hook, whereby the two fit snugly together when in coupled position and thereby enable the hooks to extend backward and overlap the opposite hook when in said coupled position, in combination with a righting weight secured to the shank of the hook, substantially as described. 8th. The combination with a rocking hook shank, of a hook secured thereto, an operating arm secured to the shank, a plate provided with opening through which said arm extends, notches in said operating arm, and a slot connecting the openings in the plate and adapted to receive the notches in the operating arm, substantially as described and set forth. 9th. In combination with a rocking hook shank of a hook mounted on the end thereof, an oscillating arm secured to move therewith, an operating arm extending from said oscillating arm, and provided with notches or recesses, and a plate provided with circular and semi-circular openings through which said operating arm extends, said openings being connected by a slot which receives the notches in the operating arm, substantially as described.

No. 42,883. Apparatus for Electric Welding.

(*Appareil de soudure électrique.*)



Herman Lemp and Louis M. Schmidt, both of Lynn, Massachusetts, U.S.A., 12th May, 1893; 6 years.

Claim—1st. The herein described method of forming longitudinal metal joints by a soldering, cementing or welding operation, consisting in feeding the pieces to be joined through suitable pressure or other devices, while properly arranged, so as to be pressed together by said devices and passing a heating electric current through the material in a longitudinal direction before it reaches the pressure or other welding devices. 2nd. The herein described improved method of soldering, cementing or welding strips, bars or rods of metal side by side, consisting in feeding the same through suitable pressure rolls, while lapped upon one another in proper manner to be pressed together by said rolls and at the same time passing a heating electric current through said strips, bars or rods, in a longitudinal direction between the point of pressure and another point or points removed therefrom in the direction from which the metal is being fed. 3rd. The herein described improvement in uniting strips, bars or rods of metal, longitudinally, consisting in feeding them while lapped upon one another between suitable pressure rolls or devices, arranged to squeeze or force them together and at the same time passing a heating electric current longitudinally through such pieces at parts thereof between the point of pressure and points removed therefrom in the direction from which the material is being fed. 4th. In an electric soldering or welding apparatus, the combination, substantially such as described, of two pairs of pressure rolls 13, 14, 11, 12, arranged in line with one another so that the material may be fed through them from one pair to the other, said pairs of rolls, forming respectively, opposite terminals or electrodes of a source of heating current. 5th. The combination, substantially such as described, with a transformer secondary adapted to deliver currents of large volume for heating purposes, of two pairs of rolls or pressure devices mounted on the terminals of said secondary in line with one another, so that strips, bars or pieces of metal to be united may be fed through such pairs of rolls from one to the other. 6th. The combination, with a transformer secondary adapted to deliver current of large volume, of pressure rolls mounted on one terminal of such secondary, and contact devices mounted on the other terminal in line with the first, so that the material may be fed longitudinally through the contact devices and between the pressure rolls, as and for the purpose described.

No. 42,884. Engine Valve.

(*Soupape de machine à vapeur.*)

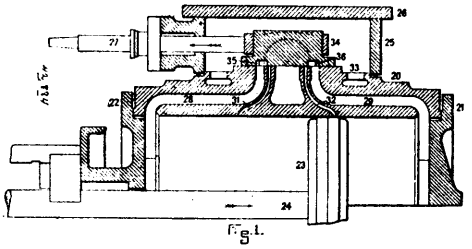


Fig. 1.

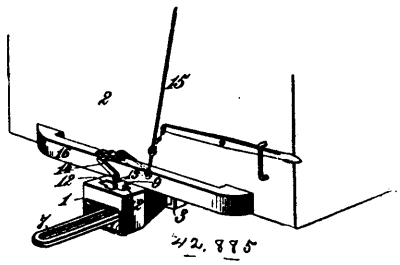
Henry Roland Fay, Boston, and Herbert Loring Holmes, Milford, both of Massachusetts, U.S.A., 12th May, 1893; 6 years.

Claim.—1st. In an engine, the cylinder provided with the extra cylinder ports, in combination with the valve provided with the extra valve ports, by means of which compression release is accomplished, substantially as specified. 2nd. In an engine, the cylinder provided with the extra cylinder ports, in combination with the valve provided with the extra valve ports, by means of which steam admission into the exhaust port may take place, substantially as specified and for the purposes set forth. 3rd. In an engine, the cylinder provided with the extra cylinder ports, in combination with the valve provided with the extra valve ports, by means of

which on the short points of cut off of the valve, in which case the compression is excessive, compression release is accomplished, substantially as set forth. 4th. In an engine, the cylinder provided with the extra cylinder ports, in combination with the valve provided with the extra valve ports, by means of which on the long points of cut off of the valve, steam admission into the exhaust port may take place, substantially as specified and for the purposes set forth. 5th. In an engine, the cylinder provided with the extra cylinder ports 31 and 32, in combination with the valve 34, having the extra valve ports 35 and 36, by means of which compression release may take place, the path of travel being from the cylinder and admission port around the piston through the extra valve and cylinder ports into the other end of the cylinder, and from the cylinder through the admission port and exhaust cavity into the exhaust ports, substantially as set forth. 6th. In an engine, the cylinder provided with the extra cylinder ports 31 and 32, in combination with the valve 34^1, having the extra valve ports 35^1 and 36^1, by means of which steam admission from the steam chest into the exhaust port may take place, the path of travel of the steam admission being from the steam chest into the cylinder, through the steam admission port into the cylinder, and from the cylinder through the extra cylinder port into the exhaust cavity and port, substantially as set forth. 7th. The combination of the cylinder 20, provided with the extra cylinder ports 31 and 32, with the valve 34, provided with the extra valve ports 35 and 36, having the sides of the valve 37 and 38 of some considerable width, substantially as and for the purposes set forth. 8th. The combination of the cylinder 20, provided with the extra cylinder ports 31 and 32, with the valve 34^1, provided with the extra valve ports 35^1 and 36^1, and having the sides of the valve 37^1 and 38^1 cut back, substantially as and for the purposes set forth.

No. 42,885. Car Coupler. (*Attelage de chars.*)

Fig. 1.

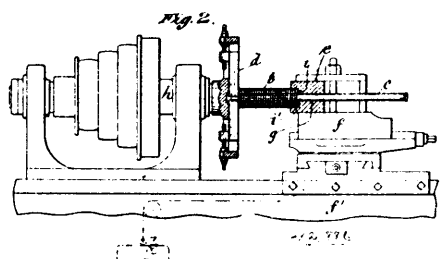


Henry Schaeffer, Henry J. Arnold and Ephraim Reinsbery, all of Durango, Colorado, U.S.A., 12th May. 1893; 6 years.

Claim.—1st. In a car coupling, the combination, with a drawhead, a longitudinal slot in its bottom, a T-shaped slot in its top, and provided in its side walls with oppositely arranged open top recesses or seats, of a vertically movable and rearwardly swinging coupling pin or block having a greater thickness from front to rear than in a lateral direction, and provided at its upper front portion or corner with cross arms that are adapted to enter the said seats or recesses of the drawhead, and serve as pivotal supports for the said pin, an oscillatory angle lever journalled or mounted above the drawhead, and having a flexible connection with said coupling pin or block, and a rod or chain connected with said angle lever to operate the pin in uncoupling, substantially as described. 2nd. In a car coupling, the combination of the slotted drawhead, having the open top recesses or seats 12, the vertically movable and rearwardly swinging coupling pin 8, having at its upper front corner the cross arms 11, adapted to engage said recesses and serve as pivotal supports for the pin, the guard 16, above the drawhead, the two armed angle lever 14, the chain 13 connecting said pin and lever, and the rod or chain 15 for operating said lever, substantially as described.

No. 42,886. Lock Nut. (*Arrête-écrou.*)

Fig. 2.

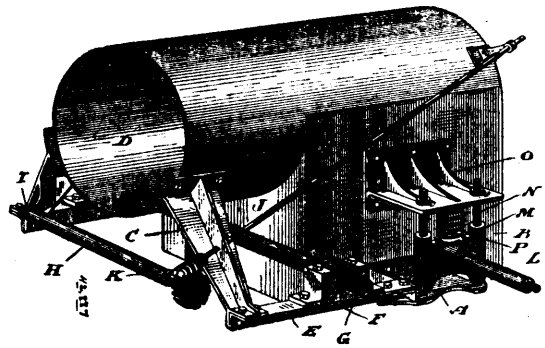


Thomas Gare, Stockport, and Thomas Septimus Hardeman, Manchester, both in England, 12th May, 1893; 6 years.

Claim.—1st. The manufacture of lock nuts, by coiling a taper sectioned metal bar or strip on its narrow edge, whereby each coil will lay itself tightly against the other, and close externally as well as internally, and the whole will form an elastic apparent solid body, substantially as set forth. 2nd. In the manufacture of lock nuts, as specified in the preceding claim, a rotary mandrel *c*, in combination with a former or guide *e* arranged to slide thereon, and having a recess *i*, i^1, the part i^1 of which serves to guide the metal bar or strip with its narrow edge on the mandrel *c*, and the part i^1 to wind the same into a cylindrical closed body on the said mandrel, substantially as and for the purpose specified.

No. 42,887. Frame for Traction Engines.

(*Cadre pour locomobile à traction.*)

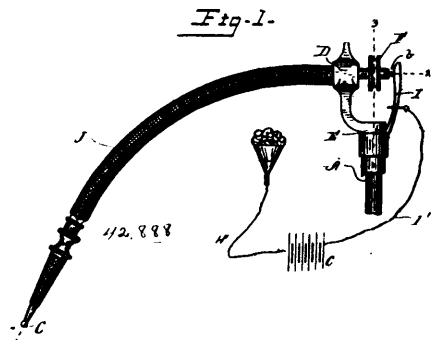


The Sawyer & Massey Company, assignee of Robert Christie, both of Hamilton, Ontario, Canada, 12th May, 1893; 6 years.

Claim.—1st. A pair of girders E, carried by the brackets A and C, in combination with a bearing box F, counter shaft G and H, and bearings I, substantially as and for the purpose specified. 2nd. A traction engine having a side girder or frame carrying the driving gear of the engine, and supported at one end by a bracket extending from the fire box of the boiler, and at its other end by a bracket extending from the cylindrical portion of the boiler, the ground wheels being each carried by a bearing box held in a guide and provided with a spring by which the weight of the traction engine is supported, substantially as and for the purpose specified.

No. 42,888. Dental Appliance. (*Appareil dentaire.*)

Fig. 1.

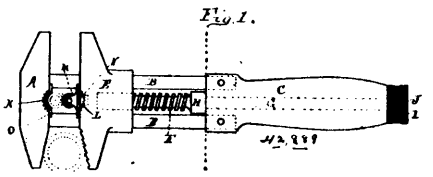


William Perry Horton, jun., and Ansel B. Jones, both of Cleveland, Ohio, U.S.A., 12th May, 1893; 6 years.

Claim.—1st. The combination with the standard or support, rotatable shaft and burr of a dental engine, of an arm within which said shaft is journalled, a rotatable contact point on the end of said shaft, a non-rotatable arm serving as the other contact point, an electricity producing apparatus, one pole of which is connected with said non-rotatable arm, and an electrode connected with the other pole of said battery, all substantially as shown and described. 2nd. The combination with the standard of a dental engine, an arm D secured thereto and projecting upwards therefrom, said arm having an opening through its upper end, an insulating tube or sleeve passing at one end into said opening and having a hand piece at its opposite end, a rotatable shaft passing through said tube or sleeve, and having a burr at one end and a pulley at its opposite end, said shaft being divided transversely and having its sections flexibly connected together, of a rotatable contact point on the rear end of said shaft, a non-rotatable arm I, extending upwards from said standard opposite to said arm D, and having its upper end in contact with said rotatable contact point, an electricity producing apparatus, one pole of which is connected to said non-rotatable arm, and an electrode connected with the other pole of said battery, substantially as shown and described.

No. 42,889. Combination Wrench.

(*Clé à écrou à combinaison.*)

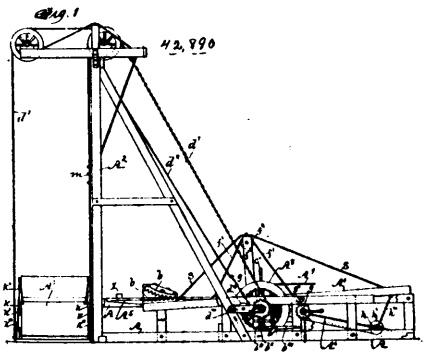


Howard Aftan Post and Frank William Wright, both of Wichita, Kansas, 12th May, 1893; 6 years.

Claim.—1st. The wrench described, consisting of the combination of the fixed jaw, the two parallel bars, the handle fixed to or formed by said bars, the sliding jaw sleeved on said bars, the adjusting screws turned into said sliding jaw and provided with the shoulderd shank extending to the handle end, and the knurled hand piece fixed upon said shank end, for turning the screw, in the manner substantially as and for the purpose set forth. 2nd. The combination wrench described, consisting of the combination of the fixed jaw provided with one square face and one diverging or bevelled face, and with a toothed cross hollow between said faces, the two parallel bars, the handle fixed to, or formed by said bars, the sliding jaw provided with one square face and one toothed diverging or bevelled face, and with a toothed cross hollow between said faces, the adjusting screw turned into said sliding jaw and provided with the shouldered shank extending to the handle end, and the knurled hand piece fixed upon said shank and provided with peripheral holes or sockets, substantially as and for the purpose specified. 3rd. In the combination wrench described, the combination therewith of the pipe cutting tool M, and the curved plate O, adapted to be seated respectively against the face of jaws E, and A, and between the bars B, B, substantially as and for the purpose specified.

No. 42,890. Wagon Dump and Elevator.

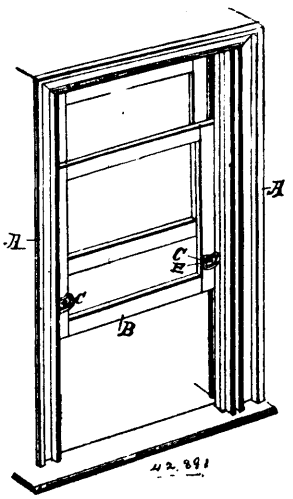
(*Wagon à bascule et élévateur.*)



John S. Kidd, Des Moines, Iowa, U.S.A., 13th May, 1893; 6 years.

Claim.—1st. In a wagon dump and elevator, the combination of a dumping platform adapted to receive and support a loaded wagon, said platform being fulcrumed to a stationary base or frame, an elevator box suspended from a frame that rises from the base or frame that supports the platform, and a drum and ropes for transferring and utilizing the weight of the elevator box to lift the dumping platform and loaded wagon. 2nd. In a wagon dump and elevator, the combination of a dumping platform adapted to receive and support a loaded wagon, said platform being fulcrumed to a stationary base or frame, an elevator box suspended from a frame that rises from the base or frame that supports the dumping platform, a drum and ropes for transferring and utilizing the weight of the elevator box to lift the dumping platform and loaded wagon thereon, and mechanism for tilting the dumping after it is lifted. 3rd. In a wagon dump and elevator, the combination of a dumping platform adapted to receive and support a loaded wagon, said platform being fulcrumed to a stationary base or frame, a floor or platform adapted to support horses hitched to the wagon, an elevator box suspended from a frame that rises from the base or frame that supports the platform, and a chain and ropes for transferring and utilizing the weight of the elevator box to lift the dumping platform and loaded wagon. 4th. The levers A^4, fulcrumed to the frame A and carrying the platform A^5, the floor A^6, the elevator box A^7, and mechanism for operating said levers by the weight of the said box, for the purposes stated. 5th. The frame A, and A^2, the shaft A^3, having a fixed drum, and fixed sprocket wheels, an elevator box suspended from the frame A^2, and connected with the sprocket wheels by means of ropes and chains, and a rotating shaft h, connected with the shaft A^3, and the levers A^4, by means of chains arranged and combined to operate in the manner set forth for the purposes stated. 6th. The levers A^4, having fixed racks b, the platform A^5, having fixed toothed segments b^1, the floor A^6, the shaft f, and the ropes f^1, arranged and combined with a wagon dump and elevator to operate in the manner set forth for the purposes stated. 7th. The frames A and A^2, the shaft A^3, having a fixed drum and fixed sprocket wheel d, the levers A^4, fulcrumed to the frame and provided with fixed racks b, the platform A^5 provided with fixed toothed segments b^1, the elevator box A^7, connected with the sprocket wheels d, by means of ropes and chains extended over pulleys at the top of the frame A^2, the shaft f, connected with the platform A^5, by means of ropes f^1, extended over pulleys f^{11}, and the shaft h, connected with the shaft A^3, and the levers A^4, by means of ropes, arranged and combined to operate in the manner set forth, for the purposes stated. 8th. In a wagon dumping platform, a tilting platform section having toothed segments fixed to its sides, and a support for said tilting sections having toothed bars or racks fixed thereto to engage the toothed sections carried by the tilting platform section, for the purposes stated. 9th. An elevator box support, having duplex rocks fixed to its parallel sides and said racks having plane level top faces at their centres and an elevator box having toothed segments fixed to its parallel sides, and said toothed segments having plane bottom faces at their centres adapted to engage the plane top faces of the duplex racks to operate in the manner set forth, for the purposes stated.

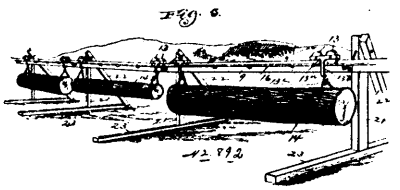
No. 42,891. Sash Holder. (*Arrête-croisée.*)



John H. Johnston and John W. Deshon, both of Little Rock, Arkansas, U.S.A., 13th May, 1893; 6 years.

Claim.—1st. In a sash lock or fastener, a pivoted reversible plate provided with eccentric cam faces having a flange or hold to serve as a lift, substantially as specified. 3rd. In a sash lock or fastener, the pivoted, reversible plate provided at its opposite ends with oppositely disposed cam faces, which are thickened and have bevelled or rounded inner surfaces, and further provided with a perpendicular flange or hold connecting said cam faces and flush at its terminal edge with those of said faces, substantially as specified.

No. 42,892. Elevated Carrier. (*Service aérien.*)

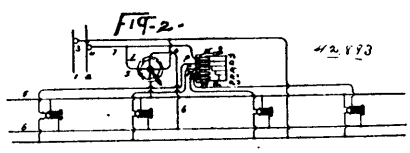


Alfred T. Kelliker, Bethel, Maine, U.S.A., 13th May, 1893; 6 years.

Claim.—1st. In an elevated carrier, the combination with a supporting frame comprising suitable uprights and a longitudinal track beam supported by said uprights, of a track rail supported parallel to the outer face of said track beam, and in substantially the same horizontal plane by bearers, and said bearers having seats, in their extremeties to receive the track rail and their shanks adapted to pass into or through the beam, substantially as described. 2nd. In an elevated carrier, the combination with a supporting frame comprising suitable uprights and a horizontal track beam supported by said uprights, a track rail and bearers therefor, said bearers having their shanks adapted to pass into or through the beam and their outer ends upturned and bifurcated to provide seats for the track rail, and

said bifurcations being adapted to be bent to securely embrace the rail, substantially as described. 3rd. In an elevated carrier, the combination with a supporting frame comprising suitable uprights and a horizontal track beam supported by said uprights, a track rail comprising a rigid rod or bar and bearers therefor, said bearers having their shanks adapted to pass into or through the beam, and their outer ends upturned and bifurcated to provide seats for the track rail, and said bifurcations being adapted to be bent to securely embrace the rail, substantially as described. 4th. In an elevated carrier, the combination of a supporting frame comprising suitable uprights, and a track beam secured to said uprights by hangers having a shank passed through the beam, and arms or branches passed into or through the upright, and a track rail supported by said beams, substantially as described. 5th. In an elevated carrier, the combination of a supporting frame work comprising a ground timber, an upright having a bearing on said ground timber, a stud or pin engaged with the ground timber and the upright, and adapted to prevent lateral movement and permit vertical separation of said upright and timber, an inclined timber having a bearing upon the upright and its lower end secured to the ground timber, and a track rail supported by the frame work, substantially as described. 6th. In an elevated carrier, the combination of a supporting frame comprising a ground timber, an upright having a bearing on said timber, an inclined timber having one end secured to said ground timber and its upper end to the upright, and a track beam secured to the upright, and a track rail carried by said track beam, substantially as described.

No. 42,893. Method of Propelling Vehicles Electrically. (*Méthode de propulsion électrique pour voitures.*)

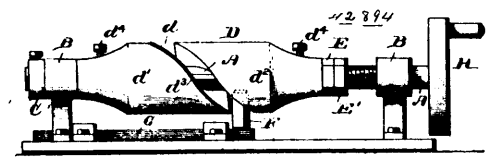


Edward H. Johnson, New York, State of New York, U.S.A., 13th May, 1893; 6 years.

Claim.—1st. The method herein described, of operating an electrically propelled vehicle, which consists in successively closing circuit to two or more electric motors mechanically connected with the wheels of the vehicle in starting the same. 2nd. The combination, of a wheeled vehicle, two or more electric motors mounted thereon and mechanically connected with the wheels of the vehicle for propelling the same, and electrical connections such that said motors may be successively introduced into circuit, substantially as set forth. 3rd. The combination, of a wheeled vehicle, two or more electric motors mounted thereon and mechanically connected with the wheels of the vehicle for propelling the same, and a switch for throwing such motors successively into circuit, substantially as set forth. 4th. The combination, of a wheeled vehicle, two or more electric motors mounted thereon and mechanically connected with the wheels of the vehicle for propelling the same, means for reversing the direction of rotation of said motors, and a switch for throwing such motors successively into circuit, substantially as set forth. 5th. The combination of a wheeled vehicle, two or more electric motors mounted thereon, each of such motors being connected with the wheels of said vehicle through a frictional connecting device, and electrical connections such that said motors may be successively introduced into circuit, substantially as set forth. 6th. The combination of a wheeled vehicle, two or more electric motors mounted thereon, each of such motors being connected with the wheels of said vehicle by means of a frictional connecting device and an elastic determining device, determining the frictional engagement, and electrical connections such that said motors may be successively introduced into circuit, substantially as set forth. 7th. The combination, of a wheeled vehicle, two or more electric motors mounted thereon, each of such motors being connected with the wheels of said vehicle by means of a frictional connecting device and an elastic determining device determining the frictional engagement, a stop positively limiting the fractional engagement of each motor, and electrical connections such that said motors may be successively introduced into circuit, substantially as set forth. 8th. The combination, of a wheeled vehicle, two or more electric motors mounted thereon, each of said motors being provided with means for gradually applying its power to the vehicle and electrical connections such that the motors may be successively introduced into circuit, substantially as set forth. 9th. The combination of a wheeled vehicle, two or more electric motors mounted thereon and each motor being connected with the running gear of the vehicle by a frictional connecting device operated by the movement of the motor, and electrical connections such that said motors may be successively introduced into circuit, substantially as set forth. 10th. The combination of a wheeled vehicle, two or more electric motors mounted thereon, each motor being connected with the running gear of the vehicle by a frictional connecting device operated by the movement of the motor and provided with a spring opposing its operation, and electrical connections such that said motors may be successively introduced into circuit, substantially as set forth. 11th. The combination of a wheeled vehicle, two or more electric motors mounted thereon, each motor being connected with the running gear of the vehicle by a frictional connecting device operated by the movement of the motor and provided with a spring opposing its operation and a stop positively limiting the frictional engagement, and electrical connections such that said motors may be successively introduced into circuit, substantially as set forth. 12th. The combination of a wheeled vehicle, two or more electric motors mounted thereon, each motor being connected with the running gear of the vehicle by a frictional connecting device provided with a stop limiting the frictional engagement to a predetermined extent, and electrical connections such that said motors may be successively introduced into circuit, substantially as set forth. 13th. The combination of a wheeled vehicle, two or more electric motors mounted thereon, a frictional connecting device for each motor for transmitting its power to the vehicle, said device being operated in each case by a screw moved by the motor and provided with a spring opposing the screw movement and a stop positively limiting such movement, and electrical connections such that said motors may be successively introduced into circuit, substantially as set forth.

No. 42,894. Mechanical Movement.

(*Mouvement mécanique.*)

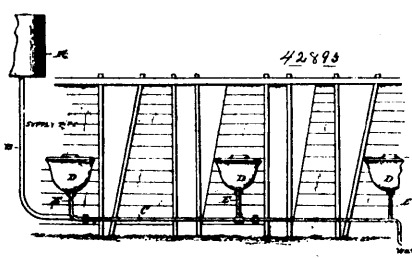


Ralph De Refer Layton, St. Matthews, South Carolina, U.S.A., 13th May, 1893; 6 years.

Claim.—1st. In a mechanical movement, the combination of a bar to be reciprocated having a lateral projection F, a shaft mounted in bearings and having a threaded portion, a cam adjustably mounted upon the shaft so as to turn therewith, and composed of sections which are independently adjustable, and adapted to bear against one of the said bearings, nuts E and E^1, mounted on the threaded portion of the shaft to adjust one of the said sections, means for securing the said sections on the said shaft, and the collar C adjustable on the shaft, and adapted to bear on the opposite side of the bearing touched by the said cam, substantially as shown for the purpose described. 2nd. In a mechanical movement, the combination of a reciprocating bar having lateral projection F, bearings B, shaft A mounted in the said bearings and having a threaded portion, a cam mounted on the shaft, and having one end touching a bearing B, and composed of independently adjustable sections which are held on the shaft by feather and spline connection, nuts E, E^1, for adjusting one of the cam sections on the shaft, means for holding the cam sections in the desired position, and a collar C adjustable on the shaft and adapted to touch the opposite side of the bearing against which the said cam bears, substantially as set forth.

No. 42,895. Trough for Watering Stock.

(*Auge pour abreuver le bétail.*)



Hiram Carroll, Pawling, New York, U.S.A, 13th May, 1893; 6 years.

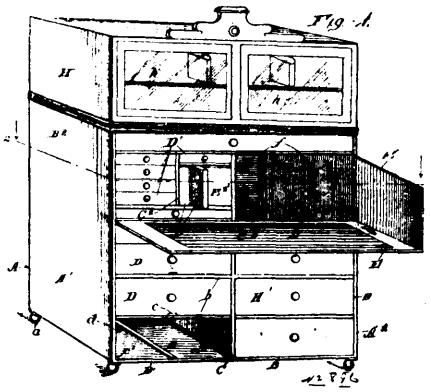
Claim.—In a stock watering device, a receptacle having the lines of its interior composed wholly of curves, a tapering combined cap seat and valve seat arranged below the bottom of the receptacle, a valve located in said seat, and a tapering cap retained in said seat by frictional contact and provided with openings.

No. 42,896. Writing Desk, Bureau, Book and Dressing Case Combined. (*Pupitre et bureau de toilette combinés*)

Neal P. Shulin, Butte City, Montana, U.S.A., 13th May, 1893; 6 years.

Claim.—1st. As an improved article of manufacture, a combined writing desk, bureau, book and dressing case, consisting of the main

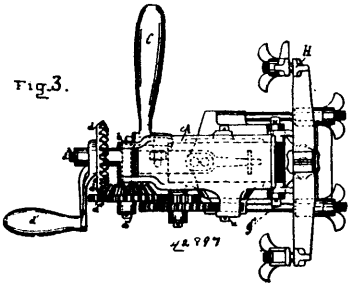
frame or casing A, having the lid E hinged horizontally to its front portion, the vertical partition C centrally located in the frame and



dividing the same into compartments B and B^1, the compartment B^1, being provided with a number of drawers D in its lower portion and drawers D^1, D^2, and a secret recess B^5 in its upper parts, said secret recess being located at the rear of the drawers D^2 and compartment B^4, and closed by means of a sliding panel C^4, all constructed, arranged and operating substantially as shown and for the purpose set forth. 2nd. As an improved article of manufacture, the combination of a cabinet having receptacles for drawers, provided with cleats *e* and e^1, the cleats *e* being located centrally in the bottom of the receptacles, and the cleats e^1 at each side thereof, and being somewhat lower than the cleats *e*, with drawers for said receptacles, said drawers having grooves or guide ways for the reception of the cleats, substantially as and for the purpose set forth.

No. 42,897. Machine for Grinding Mower Knives.

(*Machine à aiguiser les couteaux des faucheuses.*)

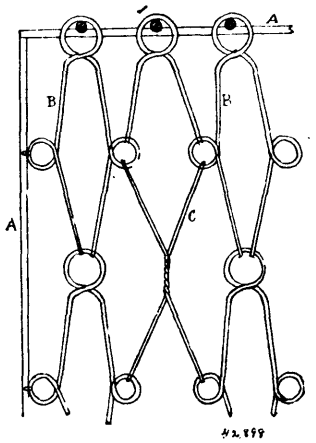


Rufus Duton, New York, State of New York, U.S.A., 15th May, 1893; 6 years.

Claim.—1st. In mower knife grinding machines, a grinding wheel mounted on a wheel arm which is hinged on a wheel frame, a hand lever pivoted on the wheel frame so as to oscillate in a plane which is substantially parallel with the axis of the grinding wheel and having an arm which connects with the wheel arm between the wheel arm hinge and the axis of the grinding wheel, a knife clamp hinged parallel to the axis of the grinding wheel, and a lever pivoted in line with the knife clamp hinge and having an arm engaging with the knife clamp and also an arm which is connected by means of a spring with the aforesaid hand lever, as described. 2nd. In a mower knife grinding machine, the organization of a grinding wheel mounted on a wheel arm which is hinged parallel to the axis of the grinding wheel on a wheel frame, and a train of gearing for rotating the grinding wheel, divided into two portions, one of which is pivoted parallel to the axis of the grinding wheel on the wheel arm and the other of which is connected with a crank and pivoted perpendicular to the axis of the grinding wheel on the wheel frame, and the two portions of the train of gearing maintained in mesh through a bevel gear which is pivoted on the wheel arm in line with the hinge thereof, as described. 3rd. In a mower knife grinding machine, the combination of a knife clamp and its frame, a grinding wheel and its frame, and the two frames swivelled with respect to each other by a pivot which is perpendicular to the axis of the grinding wheel and substantially in line therewith, and a grinding wheel arm hinged on the grinding wheel frame parallel to the axis of the grinding wheel, and a hand lever for oscillating the wheel frame and for reciprocating the wheel arm pivoted on the wheel frame so as to oscillate in a plane substantially parallel to the axis of the grinding wheel, and having an arm connecting with the wheel arm between the aforesaid hinge and the axis of the grinding wheel, as described. 4th. In a mower knife grinding machine, the combination of a knife clamp frame and a grinding wheel frame and the said frames swivelled with respect to each other by a pivot which is perpendicular to the axis of the grinding wheel and substantially in line therewith, a grinding wheel arm hinged parallel to the axis of the grinding wheel on the grinding wheel frame, a train of gearing divided into two portions, one of which is pivoted on the wheel arm parallel to the axis of the grinding wheel and the other connected with a crank and pivoted on the wheel frame perpendicular to the axis of the grinding wheel, and the two portions of the train gearing meshing through a bevel gear which is pivoted on the wheel arm in line with the hinge thereof, and a hand lever for oscillating the wheel frame and reciprocating the wheel arm pivoted on the wheel frame, so that the lever oscillates on a plane substantially parallel with the axis of the grinding wheel, and an arm of the lever connected with the wheel arm between the hinge thereof and the axis of the grinding wheel, as described. 5th. In a mower knife grinding machine, the combination of a grinding wheel arm supporting a grinding wheel and hinged parallel to the axis of said grinding wheel upon a grinding wheel frame, a lever pivoted on said frame, so that the lever projects out sidewise from said machine and in a plane substantially parallel to the axis of the grinding wheel and an arm of the lever connecting the grinding wheel arm between the aforesaid hinge and the axis of the grinding wheel, as described. 6th. In a mower knife grinding machine, a lever pivoted in line with the hinge of the knife clamp frame, and having an arm which engages with the said knife clamp frame, and also an arm which is connected by a spring with the hand lever by which the grinding wheel is reciprocated, as herein described. 7th. In mower knife grinding machines, the combination of a reciprocating knife clamp frame, a reciprocating hand lever and a bent lever pivoted in line with the hinge of said knife clamp frame, and having its ends respectively connected with said knife clamp frame and said hand lever, and a spring interposed in one of said connections.

No. 42,898. Wire Spring Mattress.

(*Sommier à ressort.*)



Robert G. Vincent, Brussels, Ontario, Canada, 15th May, 1893; 6 years.

Claim.—In a wire mattress links B and C, formed and combined as and for the purpose hereinbefore set forth.

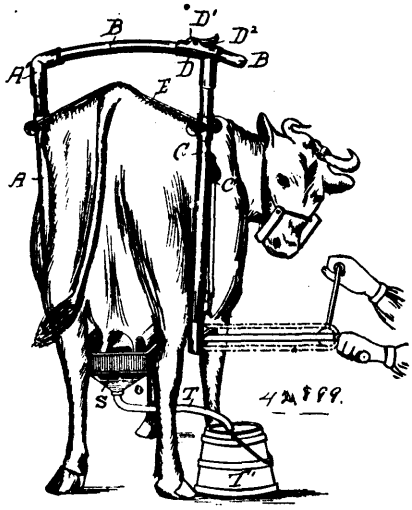
No. 42,899. Milking Machine.

(*Machine à traire les vaches.*)

Jens Nielsen, Copenhagen, Denmark, 15th May, 1893; 6 years.

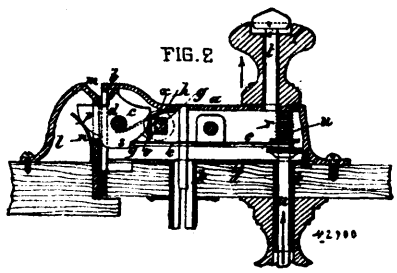
Claim.—1st. A yoke shaped appliance A, B, C, D, provided with means for adjusting the width between its two side members A and C, which are connected by a strap F, or straps adapted to rest the yoke on the back of the cow, and a strap G with brackets F^1, F^2, F^3, F^4, F^5, or equivalent means for suspending a milking machine from the yoke, substantially as set forth. 2nd. In combination, with a yoke shaped appliance resting on the back of the cow, a bracket F^1, F^2, F^3, F^4, F^5, for attaching thereto the milking machine and adapted for instantaneous attachment and detachment of the latter, as set forth. 3rd. A milking machine framing consisting mainly of the parts H, H^1, and H^2, ties H^3, between the parts H^1, and H^2, and a piece H_x, between the parts H and H^1, and to which the driving handle and spindle K, K^2, the adjustable knee rest L, L^1, and the steadying handle H^4, are connected as set forth. 4th. In a milking machine, the application and use of reciprocating rocking segments P^x for squeezing the teats, the gudgeons of such segments being adapted to be slide away from and toward the teats and to rock so as to act against the teats in a downward rolling direction or manner and then to recede, substantially as set forth and described. 5th. In a milking machine the application and use of two segments P^x N^x, acting against each other, as described, for squeezing the teats between them, as set forth. 6th. In a milking machine, the application and use of a segment P^x, acting as described against a segment N^x, which only rocks and does not travel

there and back, as set forth. 7th. In a milking machine, a pair of segments of a nearly flat cushion which may either be stationary or



travel there and back, so that the teat is squeezed between one such cushion and a segment, as described and set forth. 8th. The eccentrics M M, straps with cross bars M^1 M^1 and N^1, which work in slots in the frame H^1, H^2, and the connecting links M^2, for effecting the movements of the segments P^x, N^x. 9th. The application of rocking, but not there and back travelling segments P^x N^x to parts which can turn, such for instance as the levers R or the end pieces H^5, with a screw U^1 for adjustment, substantially as described and set forth. 10th. In a milking machine segments consisting of curved sheet steel cut through in places and covered with sheet rubber, as set forth and described. 11th. In a milking machine, the cover V, with teat holes V^1, V^2, as shown and described. 12th. A milking machine, having two pairs of teat squeezing appliances P^x N^x and P^{ix} and N^{ix}, in a converging direction to adapt themselves to the position of the teats, as described and shown. 13th. A milking machine, with two pairs of converging segments, consisting essentially of a framing H, H^1, H^2, H^3, driving spindle K with winch handle K^2, spindles I, sprocket wheels K^1 and I^1, and chain I^2, eccentrics M M, eccentric strap M^1, M^1, rods N and N^1, links M^2, and segments P^x N^x and P^{ix} N^{ix}, as set forth.

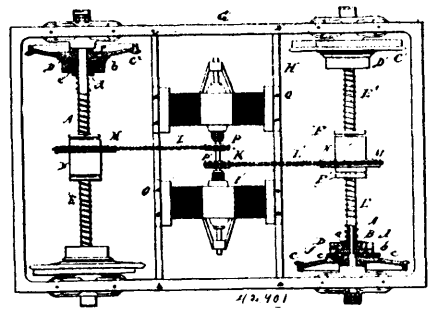
No. 42,900. Lock. (*Serrure.*)



Leon R. Lecellier, Villedieu, France, 15th May, 1893; 6 years.

Claim.—1st. In a pull and push latch lock, the combination with a rotary latch, of a lever engaging with the latch, as described, and operated by the pull and push spindle, as specified. 2nd. In a pull and push latch lock, the combination with a rotary latch, of a lever engaging with the latch, as described, and operating by the pull and push spindle, and of a transversely sliding bolt operated from the inside by hand and from the outside by a key for locking the rotary latch in its shot or projected position, as specified. 3rd. In a pull and push latch lock, the combination with a rotary latch, of a lever engaging with the latch, as described, and operated by the pull and push spindle, and of a longitudinally sliding bolt engaging with the latch and controlled by tumbler levers operated by the key, as described. 4th. In a pull and push latch lock, the combination with the rotary latch having the lug *s*, and rounded face *p*, at the striking level *m*, on the catch box, and the spring *n* within the catch box for throwing the latch into the locked position, substantially as described. 5th. In the herein described pull and push lock, the combination of two sets of tumbler levers, the one set having holes which, when the levers are set by the key bit, give passage to a push pin working through the key barrel, as specified.

No. 42,901. Power Transmitting Device for Electric Railways. (*Mécanisme pour transmettre la force pour chemins de fer électriques.*)



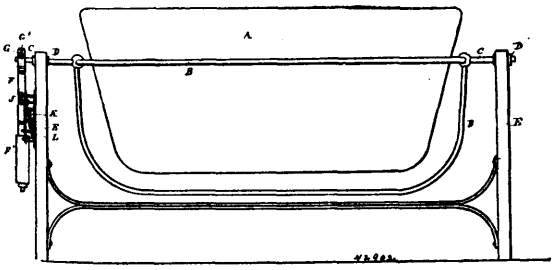
Edward H. Johnson, New York, New York, U.S.A., 15th May, 1893; 6 years.

Claim.—1st. The combination in a frictional device for transmitting power, of a source of power, a driven part, a movable friction member adapted to engage the latter, a compound nut composed of several concentric screw threaded sleeves in such mechanical relation to the friction member as by their longitudinal movement to move the same into engagement with the driven part, the same being connected with the source of power so as to be revolved thereby, and an elastic cushion opposing the longitudinal movement of said sleeve, substantially as set forth. 2nd. A compound nut for the transmission of power by friction, the same consisting of several concentric sleeves having engaging screw threads, each sleeve having several independent threads of long pitch, substantially as set forth. 3rd. In a frictional apparatus for transmitting power, the combination, with a movable friction member, of a device for moving the same into engagement, consisting of several concentric screw threaded sleeves, the outer one being connected with the source of power, and the same being adapted to engage and move the friction member, and an elastic cushion opposing the movement of said sleeve, substantially as set forth. 4th. The combination of a shaft, a friction member at each end thereof for engaging a part to be turned by said shaft, a compound nut at the middle part of the shaft, and springs coiled on the shaft between each end of said nut and the corresponding friction member, substantially as set forth. 5th. The combination of a shaft, a compound nut thereon, a sliding disc at each end of said nut, a spring pressing against said disc, the friction members at the ends of such springs, and the opposing driven parts having frictional surfaces with which the same are adapted to engage to turn them, substantially as set forth. 6th. The combination of a shaft, a friction member at each end thereof for engaging a part to be turned by said shaft, springs coiled on the shaft, one for each friction member, concentric screw threaded sleeves between said springs, and connections with the source of power for rotating said sleeves, substantially as set forth. 7th. The combination of an axle, a wheel secured thereon, a loose sleeve on the axle, a movable friction member for engaging the wheel, and a screw for moving said friction member, consisting of concentric screw threaded sleeves movable on said loose sleeve, and connected with the source of power and adapted to engage and move the friction member into frictional engagement with the wheel, substantially as set forth. 8th. The combination of a shaft, a friction member at each end thereof for engaging a part to be turned by said shaft, a compound nut at the middle part of said shaft adapted to engage and move the friction members, and elastic cushions opposing the travel of said nut, substantially as set forth. 9th. The combination of the shaft, the concentric screw threaded sleeves thereon, the spring and the friction member, the disc between said sleeves, and the spring provided with rollers on its face to receive the thrust of the sleeves, substantially as set forth. 10th. The combination of the wheel, the independent shaft, the split friction ring, the wedge for forcing the same against the wheel, the movable nut on the shaft for moving said wedge, and the spring opposing the travel of said nut, substantially as set forth. 11th. The combination of the wheel, the independent shaft, the hub of said wheel extending over said shaft, the split bevelled friction ring within said hub, the bevelled wedging ring engaging with the split ring to wedge it against the hub, the movable nut on the shaft for moving the wedging ring, and the spring opposing the travel of said nut, substantially as set forth. 12th. The combination of the axle, the wheel fixed thereon, the sleeve loose on the axle, the split friction ring, the wedge for forcing the same against the wheel, the nut on the sleeve for moving said wedge, and the spring opposing the travel of said nut, substantially as set forth. 13th. The combination of the two wheels, the independent shaft, the split friction rings one for each wheel, the wedges for forcing the same against the wheels, the concentric screw threaded sleeves on the shaft for moving both said wedges simultaneously, and the springs opposing the travel of said sleeves, substantially as set forth. 14th. The combination of two concentric screw threaded sleeves for moving a friction device into engagement, one of the sleeves having a pin projecting into a

closed groove in the screw thread of the other, substantially as set forth. 15th. The combination of two concentric screw threaded sleeves for moving a friction device into engagement, each sleeve having several independent threads, one of said sleeves having a groove in one of its channels extending from one end of said channel nearly to the other end, and a groove in another channel whose situation is reversed, and the other sleeve having two pins near opposite ends, one projecting into each of said grooves, substantially as set forth.

No. 42,902. Cradle. (*Berceau.*)

FIG. 2.

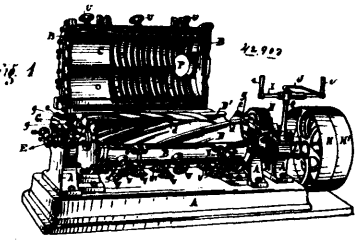


Daniel Whitburn, Morrinsville, New Zealand, 15th May, 1893; 6 years.

Claim.—1st. Connecting the trunnion of a cradle to an oscillating arm by a friction arrangement which causes the cradle to follow the motions of the arm but allows it to slip and readjust itself when the weight in it is moved. 2nd. In an apparatus such as referred to in the first claim the combination of the trunnion, an oscillating arm slotted to receive the trunnion and a spring pressing upon the trunnion.

No. 42,903. Triturating Machine. (*Pulvérisateur.*)

Fig. 1



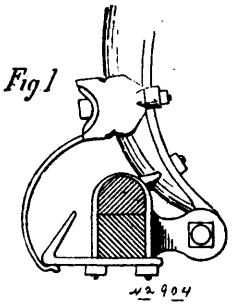
Maxime H. Simonet, Quintin, France, 15th May, 1893; 6 years.

Claim.—1st. In a triturating machine, the combination of the lower and upper parts B B¹ constituting a chamber, the parallel helicoidally ribbed pair of cylinders D D¹ therein, and the helically grooved interior linings C adjustable towards the cylinders, substantially as and for the purpose set forth. 2nd. In a triturating machine, the combination of the chamber B B¹, a pair of ribbed cylinders D D¹ therein, and ribbed interior linings C in said chamber, with the knife R adjustable with regard to the cylinders, substantially as and for the purpose set forth.

No. 42,904. Shaft Support for Vehicles.

(*Tuteur de limonière.*)

Fig 1

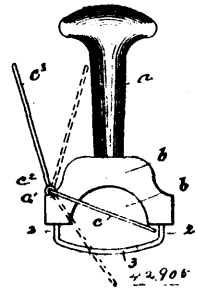


George Marshall Weaver, Julian Adams and James A. Hamilton, all of Neepawa, Manitoba, Canada, 15th May, 1893; 6 years.

Claim.—1st. A shaft supporting attachment for vehicles, comprising the dog having the inclined face, and the spring adjustably secured to the shaft or thill and adapted to engage said dog, and hold the shaft in an elevated position, substantially as described. 2nd. In a vehicle the combination with the thill coupling of the dog having the inclined face, the clip adjustably secured to the shaft, and the spring having one end adjustably secured to said clip, with its free end adapted to engage the dog when the shaft is elevated, and to sustain the latter in an elevated position, substantially as described. 3rd. A shaft support comprising the axle clip, the keeper having a rearward extension with upwardly and forwardly inclined terminal, extending at an acute angle to the main portion, an ear projecting from one of the said parts, the shaft clip having a concave recessed face, the spring having a longitudinally slotted shank fitting said recess and convex clamping plate, and the set screw for adjustably securing the spring to said shaft clip, substantially as described.

No. 42,905. Raisin Seeding Device.

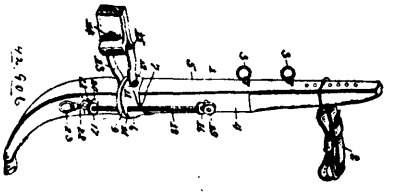
(*Vide raisin.*)



William S. Scales, Everett, Massachusetts, U. S. A., 15th May, 1893; 6 years.

Claim.—1st. The raisin seeder herein described, comprising the hand piece having a recess at its lower end with side openings, and several seed retaining wires arranged in parallelism across said recess, and adapted to yield to permit the passage of the seeds between them, substantially as described. 2nd. In a raisin seeder, the combination of the seeding device, and a removing or detaching device for the seeded raisin, substantially as described. 3rd. In a raisin seeder having a seeding device, composed of several parallel wires between which the seeds pass, and a removing or detaching device for the seeded raisin, substantially as described. 4th. In a raisin seeder, having a seeding device, and a removing or detaching device for the seeded raisin having a finger piece by which it is operated, substantially as described. 5th. In a raisin seeder, having a seeding device, and a removing or detaching device comprising several fingers adapted to pass freely between the wires of the seeding device, substantially as described. 6th. In a raisin seeder, having a seeding device, and a removing or detaching device for the seeded raisin operating upon said seeded raisin with a diagonal thrust, substantially as described. 7th. In a raisin seeder, having a seeding device, and a removing or detaching device for the seeded raisin comprising several diagonal fingers, substantially as described. 8th. In a raisin seeder, having a seeding device, and a removing or detaching device comprising several fingers, and a frame pivotally connected with the device, substantially as described. 9th. In a raisin seeder, having a seeding device, and a removing or detaching device comprising several looped fingers c, frame c^1, embracing a portion of the device and pivotally connected thereto, and the finger piece c^3, all formed of wire, substantially as described. 10th. In a raisin seeder, having a seeding device, and a pivotally connected removing or detaching device, substantially as described.

No. 42,906. Hame. (*Attelle.*)

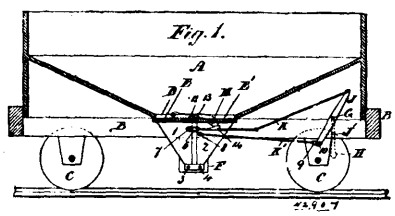


Willis H. Hannigan, Manistique, Michigan, U.S.A., 15th May, 1893; 6 years.

Claim.—In an adjustable hame, the combination of a metal binding surrounding a portion thereof, an adjustable metallic clip bearing directly upon said metal binding, and having a slot extending vertically therethrough conforming in outline to a portion of the contour of the hame, the rear portion of said clip being provided with a right angular flange, and the front central part of the same having an outwardly projecting horizontally disposed enlargement with a screw threaded opening therein extending vertically therethrough, and a bolt opening at the end of said clip opposite to that

on which the said flange is formed, eyes arranged above and below the said clip, a screw rod swiveled in said eyes, and extending through the screw threaded opening in said clip for the purpose of adjusting the latter, and a yoke or clevis pivotally connected to said clip for the purpose of attaching the tug strap or trace, substantially as described.

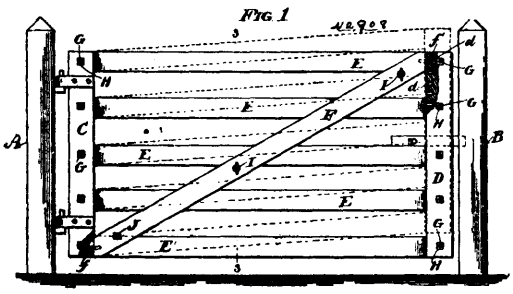
No. 42,907. Dumping Car. (*Char-tombereau.*)



William G. Lane, Pictou, Nova Scotia, Canada, 15th May, 1893; 6 years.

Claim—1st. The combination with a car frame having a hopper A, of the doors E, E¹, having ends 1, 2, pivoted to a bearing F, below the outlet of hopper, a rock shaft G, journalled across the car frame and carrying the radial arms J, J¹, and rods K, K¹, connecting said arms to the respective doors, whereby the doors are respectively pulled and pushed from the outlet of the hopper, and pushed and pulled together by rocking said shaft G, as set forth. 2nd. The combination with a car frame B, having a hopper A, of the doors E, E¹, having ends 1, 2, pivoted to a bearing F, and provided with lugs 12, 13, the gravitating latch M, having a notch M¹, engaging said lugs, and the push rod K, connecting with one of said doors, said rod provided with a cam 14, to lift the latch out of engagement to permit the doors to open, as set forth.

No. 42,908. Gate. (*Barrière.*)



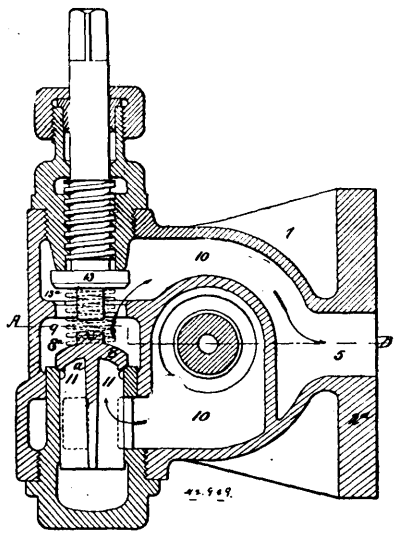
Alexander M. Murray, Chicago, Illinois, U.S.A., 15th May, 1893; 6 years.

Claim.—1st. In a gate, the combination of a pair of uprights, a number of bars pivoted thereto, a brace in engagement at its inner end directly with the lower end of the inner upright, whence it extends diagonally upward across the gate, and a series of rests formed on the outer upright, and adapted to be engaged by the outer end of the brace, substantially as set forth. 2nd. In a gate, the combination of a pair of uprights C and D, each consisting of two pieces of timber, bolts G, and nuts H, by which said timbers are held together, a number of bars E, having their ends inserted between the the timbers of the uprights, and perforated for the passage of the bolts G, a diagonal brace F, consisting of two pieces of timber placed against opposite sides of the bars E, clamp screws I, by which said timbers are held in place, the bolt J, upon which said brace is pivoted at its lower end, the spur *f*, on the inner end of said brace engaging the upright C, the spur f^1, on the outer end of said brace, and the series of holes *d*, formed in the outer upright D, and adapted to be engaged by the spur f^1, substantially as set forth.

No. 42,909. Injector. (*Injecteur.*)

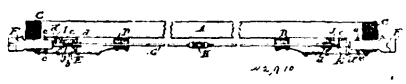
Robert G. Brooke, Blackpool, Lancaster, England, 15th May, 1893; 6 years.

Claim.—1st. An injector of the type herein referred to, constructed with a non-return valve arranged to control the flow of water through the delivery passage, and having its case so formed and arranged in relation to the delivery passage and injector casing that the seat of the said valve as well as the valve itself can be removed without breaking any of the injector joints or connections, substantially as herein described. 2nd. An injector of the type herein referred to constructed with a valve chamber, containing a non-return valve and with a delivery passage extending transversely around the delivery nozzle so that water issuing from said nozzle will first take a direction away from the final delivery outlet and through said valve chamber, which forms part of such passage, and will afterwards take a direction towards such outlet, substantially as herein described for the purpose specified. 3rd. An injector of the type herein referred to constructed with a non-return valve arranged to control the flow of water through the delivery passage, a removable seat therefor, and a stop valve arranged to close the delivery



passage at a point between the said non-return valve and the delivery outlet, substantially as herein described. 4th. An injector of the type herein referred to constructed with a removable non-return valve and valve seat, a stop valve, and combining and delivery nozzles adapted to be withdrawn through the delivery end of the injector casing, substantially as herein described. 5th. An injector of the type herein referred to having a flange or flanges with steam inlet and delivery outlet, a delivery passage extending from and transversely around the delivery nozzle, a valve chamber formed in said passage at a point of the injector casing opposite to said flange or flanges, a check valve located in said valve chamber, and a removable tubular support formed with a valve seat and screwed through the delivery passage and injector casing, substantially as herein described for the purpose specified.

No. 42,910. Draw Bar. (*Barre d'attelage.*)



George D. Wadley, Savannah, Georgia, U.S.A., 15th May, 1893; 6 years.

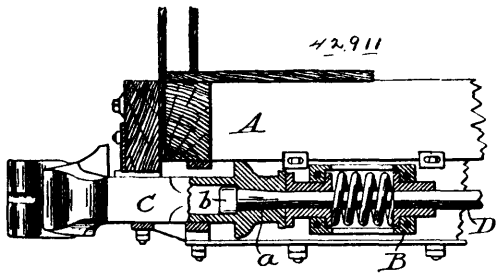
Claim.—1st. In combination, with the sills or timbers of a car, two boxes rigidly secured thereto, one near each end of the car, a draw rod extending from one box to the other and through both boxes, draw heads secured to said draw rod, one at each end, springs contained within the boxes, one in each, and collars fast upon the draw rods, one within each box, and arranged to bear upon the outer end of the spring in said box, all substantially as described and shown. 2nd. In combination, with sills or timbers A A, boxes E E, rigidly secured to said timbers, a spring J within each box, a draw rod G extending through the boxes E, and made in two parts, a turn buckle H, connecting the parts of the draw rod, sleeves I, one secured upon each section of the draw rod, and each provided within the box with a collar *c*, and springs, one within each box, encircling the draw rod, and bearing at their opposite ends against the collars and the boxes respectively. 3rd. In combination, with the floor sills or timbers of a car, two boxes rigidly secured to said timbers, one near each end of the car, springs within the boxes, and a two part draw rod extending from end to end of the car and provided with draw heads at its ends, an intermediate turnbuckle connection, and collars to bear against the outer ends of the springs, all substantially as shown and described, whereby the force for moving the car both for pushing and pulling is applied so that the whole length instead of one end of the car bears the strain.

No. 42,911. Draw Bar. (*Barre d'attelage.*)

George D. Wadley, Savannah, Georgia, U.S.A., 15th May, 1893; 6 years.

Claim.—1st. In combination, with the draw head of a railway car, a draw rod or bar having a conical or tapering enlargement seated within said draw head, and joining the body of the rod at so slight an angle as to avoid the formation of a shoulder or well defined line at the meeting point. 2nd. In combination, with draw heads

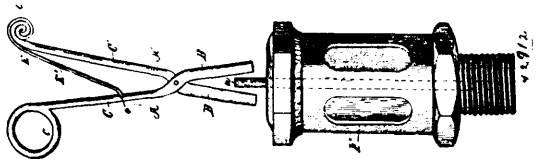
C, C, a draw rod D connecting said draw heads, and consisting of two sections united by a turnbuckle E, the ends of the draw rod



sections within the draw heads being formed with conical or tapering enlargements of long and gradual taper, substantially as and for the purpose set forth.

No. 42,912. Nipper for Oil Cup Feeder Lifters.

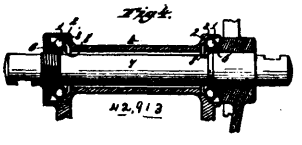
(*Pince pour enlever les alimentateurs des godets à huile.*)



Samuel R. Lewis, Raton, New Mexico, U.S.A., 16th May, 1893; 6 years.

Claim.—A device of the class described, having pivotally connected members provided with concaved jaws and handles, one of the handles terminating in a ring and the other terminating in a spiral coil or twist c^1, and the actuating spring having a spirally coiled portion which fits and engages the spiral coil or twist, and an arm which engages the opposite handle, substantially as specified.

No. 42,913. Ball Bearing. (*Coussinet à boule.*)



George F. Simonds, Fitchburg, Massachusetts, U. S. A., 16th May, 1893; 6 years.

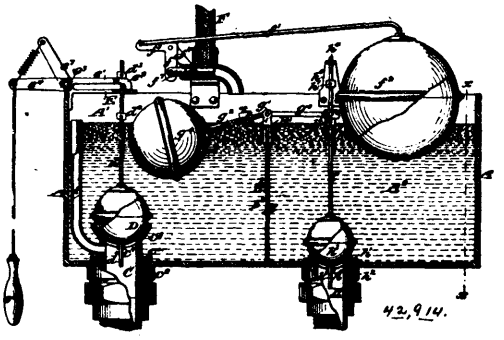
Claim.—1st. A bevel shaped ball bearing cage, having parallel flaring or bevelling sides and provided with an annular series of circular openings for receiving a circular group of spherical rollers or balls in position to revolve freely and independently of each other, in contact with bevelled bearing surfaces for the purpose of sustaining and resisting radial pressure and end thrust, substantially as described. 2nd. In a ball bearing, the combination, with rotary and non-rotary parts having bevelled bearing surfaces, of an annular bevel shaped cage having parallel flaring or bevelling sides, and provided with an annular series of circular openings, and a circular group of spherical rollers or balls placed in said cage, and projecting therefrom in position to revolve freely in all directions upon and against the bevelled bearing surfaces, for the purposes of sustaining and resisting radial pressure and end thrust, substantially as described. 3rd. In a ball bearing, the combination, with rotary and non-rotary parts having bevelled bearing surfaces that form an annular flaring or bevelling channel, of an annular bevel shaped cage having parallel flaring or bevelling side walls, each provided with an annular series of circular openings, and a circular group of spherical rollers or balls placed in said cage, and projecting therefrom in position to revolve freely in all directions independently of each other upon and against the bevelled bearing surfaces of the said rotary and non-rotary parts for the purpose of sustaining and resisting radial pressure and end thrust, substantially as described.

No. 42,914. Double Flush Tank for Water Closets.

(*Cuvette double pour latrines.*)

John C. Beekman, New York, State of New York, U. S. A., 16th May, 1893; 6 years.

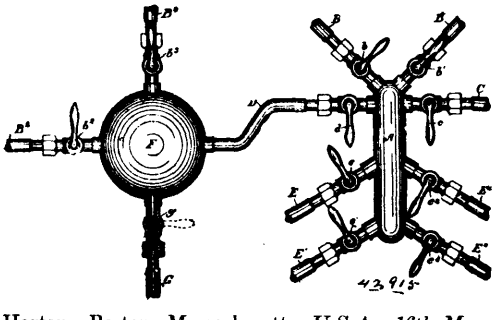
Claim.—1st. The combination, with a flush tank provided with suitable discharge pipes, of a valve having a tendency to float when immersed for controlling the first discharge from the tank, and a second valve controlled by the action of the first named valve to effect a second discharge, the said valves having no connection with each other except through the liquid in the tank, substantially



as set forth. 2nd. The combination, with a tank provided with intercommunicating compartments, and a discharge pipe for each compartment, of a valve under hand control having a tendency to float when immersed for effecting a discharge from one of the compartments, and a valve in the other department having a tendency to float when immersed, and under the immediate control of a float in the first named compartment for effecting a second discharge, the connection between the valve for the second discharge, and the float being such that the float is allowed to move through a predetermined distance before effecting an opening of the said valve, substantially as set forth. 3rd. The combination, with the tank provided with intercommunicating compartments, a supply pipe for supplying water to one of the compartments, and a discharge pipe for each compartment, of a valve under hand control having a tendency to float when immersed for effecting a discharge from the compartment to which the supply leads, a float in said compartment having an engagement with a valve for effecting a discharge from the other compartment, and a float in said last named compartment for controlling the supply, the said floats for operating the second discharge and the supply being separate from each other, substantially as set forth. 4th. The combination, with the tank provided with compartments for the first and second discharge, the partition between the compartments being provided with openings therethrough, of a first discharge valve and means for operating by hand, a second discharge valve in the other compartment, and having its operating rod connected with a float in the first discharge compartment by a lever, the said float being wholly separate from the valve and valve operating mechanism of the first discharge, and the said lever having a free play between stops located at a predetermined distance apart upon the second discharge operating rod, and a supply valve operated by a float in the compartment of the second discharge and wholly separate from the discharge valves and their operating mechanism, substantially as set forth.

No. 42,915. Distributing Apparatus for Beer, Etc.

(*Appareil pour distribuer la bière.*)



John Harton, Boston, Massachusetts, U.S.A., 16th May, 1893; 6 years.

Claim.—A distributing apparatus for beer, etc., consisting of the reservoir A, having liquor supply pipes B, B^1, water supply pipe C, and distributing pipes E, E^1, E^2, E^3, all of said supply, and distributing pipes being controlled by faucets, in combination with an air chamber F, provided with air supply pipe G, and faucet-controlled air delivery pipes B^2, B^3, connecting said air chamber with the sources of liquor supply, and a faucet-controlled pipe D, connecting said air chamber and reservoir, substantially as described.

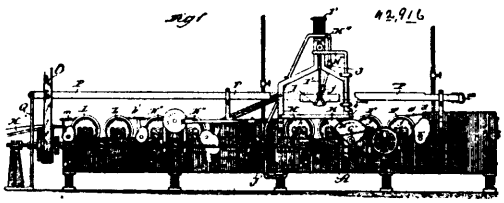
No. 42,916. Barrel Washing Machine.

(*Appareil pour laver les futailles.*)

Mathew Gottfried, Chicago, Illinois, U.S.A., 16th May, 1893; 6 years.

Claim.—1st. In a barrel washing machine, the combination, of several sets of rotatable rollers, means for automatically advancing

the barrel from one set of rollers to the next succeeding set in the operation of washing, brushes adapted to be automatically advanced

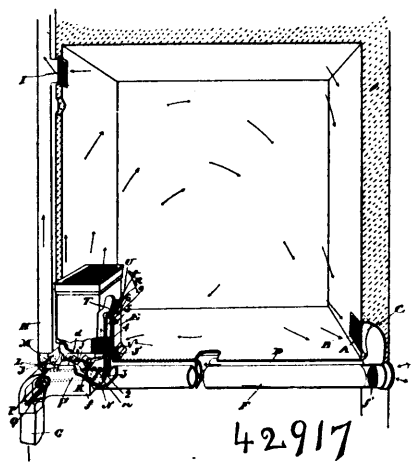


against and withdrawn from the outside of the barrel at a desired stage of the operation, and means for rotating the rollers and automatically advancing and withdrawing the brushes, substantially as described. 2nd. In a barrel washing machine, the combination of several sets of rotatable rollers over which the barrel successively passes in the operation of washing, of which rollers some are simply rotatable and some are both rotatable and movable endwise alternately toward one side of the machine and then toward the other, and means for rotating the rollers and imparting the endwise movement to the desired ones, substantially as described. 3rd. In a barrel washing machine, the combination, of several sets of rotatable rollers, over which the barrel successively passes in the operation of washing, at least one water reservoir through which the barrel passes in its course, and in which its interior is supplied with water, means for arresting the rotation of the barrel at a desired point with its bung hole down to drain out the water, and means for rotating the rollers, substantially as described. 4th. In a barrel washing machine, the combination of several sets of rotatable rollers over which the barrel successively passes in the operation of washing, brushes adapted to advance against and to withdraw from the outside of the barrel at a desired stage of the operation, means for spraying the outside of the barrel with water while under the action of the brushes, and means for rotating the rollers and automatically advancing and withdrawing the brushes, substantially as described. 5th. In a barrel washing machine, the combination of several sets of rotatable rollers over which the barrel successively passes in the operation of washing, brushes adapted to advance against and to withdraw from the outside of the barrel at a desired stage of the operation, means for automatically adjusting the extent that the brushes advance to the size of the barrel, and means for rotating the rollers and advancing and withdrawing the brushes, substantially as described. 6th. In a barrel washing machine, the combination of several sets of rotatable rollers over which the barrel passes in the operation of washing, means for advancing the barrel automatically from one set of rollers to another from the beginning to the end of the operation, and means for rotating the rollers, substantially as described. 7th. In a barrel washing machine, the combination of several sets of rotatable rollers over which the barrel passes in the operation of washing, means for rotating the rollers, means for supplying the inside of the barrel with water and draining the same therefrom, means for supplying the outside of the barrel with water and subjecting it to the action of scrubbing brushes, means for advancing the barrel automatically from one stage of its progress to another from the beginning to the end of the operation and discharging it washed and cleaned both inside and out at the rear end of the machine, substantially as described.

No. 42,917. Method of Heating and Ventilating Buildings. (*Méthode de chauffer et ventiler les édifices.*)

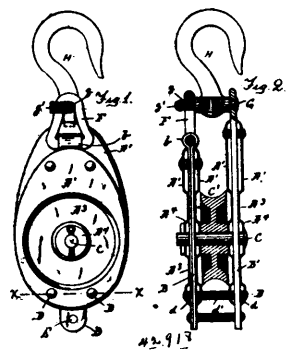
Edgar B. Jarvis, Toronto, Ontario, Canada, 16th May, 1893; 6 years.

Claim.—1st. The combination with the heating chamber, of a duct, the opening of which is at the opposite side of the room to the heating chamber, and which leads downwardly beneath the floor to a point beneath the heating chambers, as and for the purpose specified. 2nd. The combination with the heater casing and duct leading beneath the floor of the room from the side opposite the heater from an opening near the floor, of a fresh air duct leading from the outer air to a point beneath the heater, as and for the purpose specified. 3rd. The combination with the heater casing E, and the duct D, leading beneath the floor from the opening A, to the bottom of the heating chamber, of the flue H, and the dampers J and M connected together by the rod J, and means for operating the same, as and for the purpose specified. 4th. The combination with the heater casing E, and the duct D, leading beneath the floor from the opening A, to the bottom of the heating chamber, of the duct F, and the flue H, and the dampers J and M in the duct D, and flue H, respectively operated as specified, and the damper N, in the duct F, operated as and for the purpose specified. 5th. The combination with the heater casing E, duct D, leading beneath the floor from the opening A, to a point beneath the casing of the duct F, leading beneath the casing and provided with a netting f^1, as and for the purpose specified. 6th. The combination with the heater casing E, duct D, leading beneath the floor from the opening A, of the flue provided with a register I, having a damper, *i*, as and for the purpose specified. 7th. The combination with the heater casing E, duct D, having an opening A, of the flue G, leading through the floor into the casing, as and for the purpose specified. 8th. The



combination with the heater casing E, duct D, having an opening A, of the flue G, provided with a damper Q, connected by the rod *p*, to the bell crank 3, which is connected by the rod 4, to the adjusting knob 5, adjustable vertically within the casing, as and for the purpose specified. 9th. The combination with the heater casing E, duct D, opening A, and duct F, of the dampers M and J and N, connected by the rods S, to the cross bar T, pivoted in the casing E, and provided with a handle U, as and for the purpose specified. 10th. The combination with the heater casing E, duct D, leading beneath the floor of the room from the side opposite the heater from an opening near the floor, of openings V, made in the bottom of the casing E, as and for the purpose specified.

No. 42,918. Snatch Block. (*Chaumard.*)



Herbert Loud, Everett, Massachusetts, U.S.A., 16th May, 1893; 6 years.

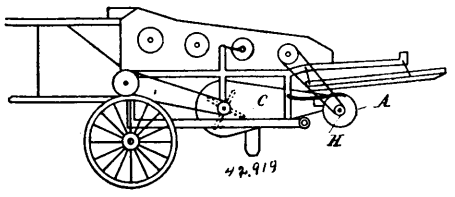
Claim.—1st. A snatch block, having cheek pieces composed each of a pair of moulded sheet metal plates, longitudinally abutting and secured together, substantially as and for the purpose set forth. 2nd. A snatch block, having cheek pieces composed each of a pair of moulded sheet metal plates longitudinally abutting, combined with rivets and intermediate divider pipes or their equivalents for securing said cheek piece parts together and to the opposite cheek piece of the block, substantially as and for the purpose set forth. 3rd. A snatch block, having cheek pieces composed each of a pair of moulded sheet metal plates having rounded or turned over peripheral abutting edges and means for securing said cheek pieces together, substantially as specified. 4th. A snatch block, having cheek pieces composed each of a pair of moulded sheet metal plates, having rounded or turned over peripheral abutting edges and having annular depressions around the sheave spindle perforations, substantially as and for the purpose set forth. 5th. A snatch block, having cheek pieces composed each of a pair of moulded sheet metal plates secured together combined with metal straps secured to said cheek pieces, a head pivoted to one of said straps and having a locking lip adapted to engage with a link pivoted to the other straps, substantially as and for the purpose set forth.

No. 42,919. Threshing Machine. (*Machine à battre.*)

William Corydon Adams, Rochester, Michigan, U.S.A., 16th May, 1893; 6 years.

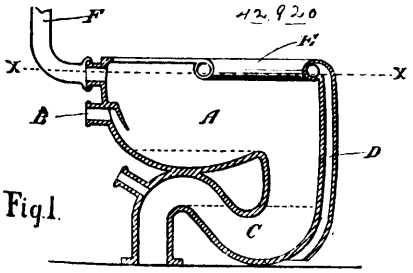
Claim.—1st. In a threshing machine, the combination, with a screen for the tailings of an auxiliary threshing and elevating

attachment into which the tailings are fed and a chute leading out from the threshing attachment to a point above the screen, substan-



tially as described. 2nd. In a threshing machine, the combination with the screen for the tailings, of an auxiliary threshing attachment, adapted to receive the tailings therefrom at the lower end, and an exit chute from said thresher connected with the screen intermediate its ends, substantially as described. 3rd. The combination, in a threshing machine, of the screen B, the tailings chute C^1, the auxiliary threshing attachment having an inlet apertured at its lower edge connected with said chute, a threshing cylinder, a suitable toothed concave and a discharge chute at the upper end connected with the screen intermediate its ends, substantially as described. 4th. In a threshing machine, the combination with the tailings screen having an inclined chute across the discharge end thereof, of an auxiliary tailings thresher consisting of a casing having an inlet aperture in the lower part thereof at a point adjacent to the end of chute, a threshing cylinder in the casing, a door in the lower part of the casing below the cylinder, teeth on the inner face of the door and a discharge chute at the upper end of the casing connecting the same with the screen, substantially as described. 5th. The combination, in a threshing machine, of an auxiliary tailings thresher, consisting of the casing A, the shaft E, the head F, secured thereto, the teeth *a*, *b*, the door J, having teeth I, thereon, the inlet aperture D, the discharge chute M, and the lateral discharge chute N, substantially as described.

No. 42,920. Water Closet Bowl. (*Cuvette de latrines.*)



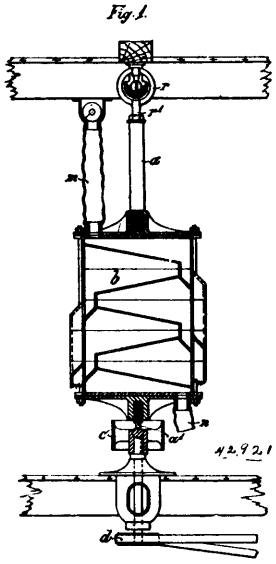
Hamilton Augustus Jukes, Winnipeg, Manitoba, Canada, 16th May 1893; 6 years.

Claim.—1st. In a water closet bowl, the combination of a vent pipe F, communicating with the upper portion of the bowl, and a conduit D, also communicating with the upper portion of the bowl at a point remote from the vent pipe, the said conduit D, leading from a point adjacent to the floor upon which the bowl is placed and having its lower end open, substantially as and for the purpose set forth. 2nd. In a water closet bowl, the combination with the bowl, of a vent pipe F, communicating with the upper portion thereof, the conduit D, arranged at a point remote from the vent pipe and leading from a point adjacent to the floor upon which the bowl is placed, and a conduit arranged upon the inside of the bowl adjacent to the upper edge thereof, and communicating with the conduit D, and the interior of the bowl, substantially as specified. 3rd. In a water closet bowl, the combination of the bowl, the vent pipe F, communicating with the upper portion of the bowl, the conduit D, arranged at a point remote from the vent pipe and leading from a point adjacent to the floor upon which the bowl is placed, and the closed pipe or conduit E, connected at an intermediate point in its length to the upper end of the conduit D, and having its open ends resting contiguous to the vent pipe, substantially as specified. 4th. In a water closet bowl, the combination of the bowl, the vent pipe F, communicating with the upper portion of the bowl, the conduit D, arranged at a point remote from the vent pipe and leading from a point adjacent to the floor upon which the bowl is placed, and the open conduit E^1, extending entirely around the bowl and connecting with the conduit D, and vent pipe F, all substantially as and for the purpose set forth.

No. 42,921. Shaking Machine. (*Crible.*)

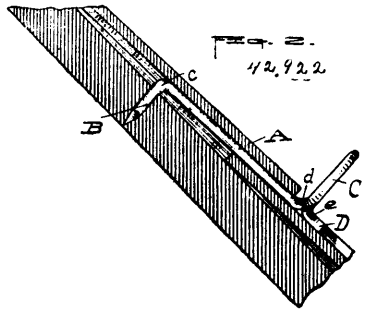
Otto Schnelle of 1-3 Strom Strasse, Berlin, Kingdom of Prussia, German Empire, 16th May, 1893; 6 years.

Claim.—1st. The herein described improvements in sieves and agitating mechanism therefor, consisting of the augulated sifting apparatus *b*, the axle *a*, supported at one end in a suitable bearing, in combination with means for moving the other end of the same in



a circular direction, substantially and for the purpose herein set forth. 2nd. The improved mechanism consisting of the sifting apparatus *b*, axle *a*, bearing *f*, crank *c*, ball, bearings a^2 and a^3, bags *m* and *n*, combined and operating, substantially as and for the purpose herein set forth. 3rd. In combination with the mechanism set forth in the preceding claims, the use of socket f^1, ball piece *h*, rings *p* and *q*, the pivot *z*, ring *r* and pivot r^1, substantially as and for the purpose described and shown. 4th. In combination with the mechanism previously claimed, the employment of the ball piece *h*, arranged to operate eccentrically with the socket f^1, substantially as and for the purposes set forth.

No. 42,922. Wire Snow Guard.
(*Garde-neige en fil de fer.*)



Lewis Theron Houghton and Albert Augustus Barker, both of Worcester, Massachusetts, U,S.A., 16th May, 1893; 6 years.

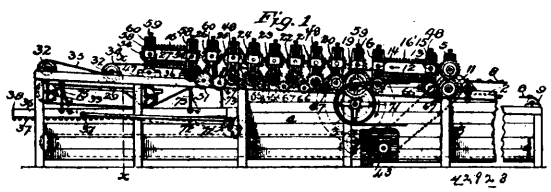
Claim.—1st. A snow guard made from a single piece of wire and comprising the following elements, viz.: the shank A, the drive end B, projecting substantially at right angles from one end of said shank, the snow stop C, projecting in an opposite direction to said drive end from the other end of the shank, and the brace or support D, formed by extending the wire from the base or terminus of said snow stop, and making the same of the proper shape to bear at one or more points against the roof when the guard is applied thereto, substantially as and for the purpose set forth. 2nd. A snow guard consisting of a single piece of wire and comprising a shank A, adapted at one end to be attached to the roof of a building, and a snow stop C, consisting of a coil integral with said shank and projecting at right angles, or nearly so, from its other end, said snow stop being provided with a brace integral therewith, and adapted to serve as a support to prevent said snow stop from being bent from its former position as set forth.

No. 42,923. Flax and Hemp Brake.
(*Machine à broyer le lin et le chanvre.*)

John T. Smith, Heron Lake, Minnesota, U.S.A., 16th May, 1893; 6 years.

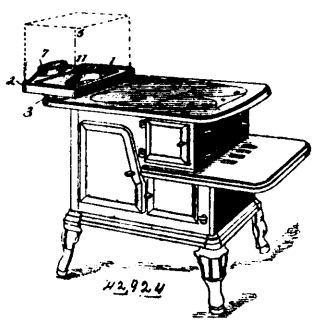
Claim.—1st. The combination, in a machine of the class described, of the frame, with the long conveyor 8 as described, smooth thrash-

ing rolls 10, and a series of brake rolls, the corrugations of which rolls increase in number towards the front of the machine, the rolls



having the largest and fewest corrugations being nearest the rolls 10, substantially as described. 2nd. The combination, in a machine of the class described, of a series of pairs of longitudinally corrugated brake rolls, with means for feeding the stock into the first pair of brake rolls, the carding rolls 26, the pair of smooth rolls 25, interposed between the last pair of brake rolls, and said rolls to gather the stock from the brake rolls, and feed the same to the carding rolls in a thin compact sheet, the rattle device 27 arranged to receive the stock from the carding rolls, and means for revolving said several rolls, and for revolving said rattle device more rapidly than the carding rolls, whereby the same is caused to strip or peel the shives from the fibre, substantially as described. 3rd. The combination, in a brake, of the brake rolls, with the smooth rolls 25, carding rolls, the rattle, 27, and pounding and shaking devices, substantially as described. 4th. The combination, with the conveyor, of thrashing rolls, a rattle, the pounding device made up of longitudinal rods 28, and 29, a shaker 36 provided beneath the same, and a conveyor provided in a trough thereunder, substantially as described. 5th. In a brake, the combination, with the frame, provided upon suitable supports, of the long conveyor 8, the thrashing rolls, the rattle 12, a series of graded brake rolls, flattening rolls 25, cards 26, the rattle device 27, and the pounding and shaking devices, substantially as described. 6th. The combination, with the frame, of a long conveyor 8, the graduated pairs of brake rolls, smooth rolls 25, carding rolls 26, the rattle 27, the pounding racks made up of longitudinal rods 28 and 29 arranged upon the crank shafts and the shaker 37, substantially as described. 7th. The combination, with the standard 48 adapted to be bolted upon the sill or frame, of the block 54, slidably secured between the upright sides of said standards, the jack screw arranged beneath said blocks, the coiled spring 58 provided above the same, and means for adjusting the tension thereof, substantially as described. 8th. The combination, with the sill beams and supports therefor, of thrashing and brake rolls, a feed conveyor, the power shaft, fly wheels in connection therewith, the trough arranged beneath said rolls, and the conveyor 39 provided therein, substantially as described. 9th. The process of preparing flax or hemp fibre which consists in first crushing the stock, then transversely breaking the same, but maintaining the fibre, then carding the fibre to remove the shives, then subjecting the fibre to a longitudinal pounding and finally to a longitudinal shaking, substantially as described. 10th. The combination, in a flax or hemp brake, of a feeding device, with a pair of threshing or crushing rolls between which said feeding device is adapted to deliver the stock, the surfaces of said rolls being cylindrical and smooth pairs of currugated brake rolls arranged one pair in advance of the other, and to receive the crushed stock from said smooth rolls, said pairs of brake rolls being three or more in number and the corrugations of each pair being closer or finer than of the preceding pair, a single pair of carding rolls, the carding rolls arranged in front of the last pair of brake rolls, the stock thereof being fed between the carding rolls, and means for revolving all of said brake rolls at the same speed and for rotating the carding rolls more rapidly than said brake rolls, substantially as and for the purpose specified.

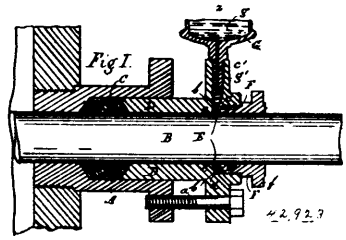
No. 42,924. Heating Drum. (*Poêle sourd.*)



The Southern Stove Works Company, assignee of Edward Thomas McCabe, all of Richmond, Virginia, U.S.A., 17th May, 1893; 6 years.

Claim.—1st. A detachable heating drum for stoves, consisting of a suitable base having an upright surrounding wall to form a heat chamber and an inner projecting flange at the upper edge of said wall for supporting a vessel or reservoir, the said chamber having an opening to communicate with the flue opening of a stove, and a similar opening for receiving a stove-pipe and having in its bottom a deflector for causing the products of combustion from the stove to be spread throughout the chamber, substantially as described.

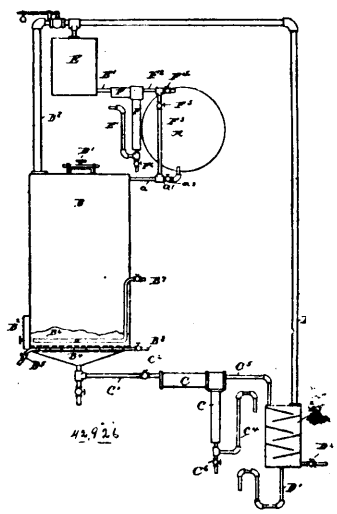
No. 42,925. Lubricator for Pistons.
(*Graisseur pour pistons.*)



Edgar Glover and Richard L. Mathews, all of Schenectady, New York, U.S.A., 17th May, 1893; 6 years.

Claim.—The combination, with a piston rod, and a stuffing box containing a packing material and provided with a gland for tightening said material around said rod, of the oil distributing ring E, of porous fibrous substance, in contact entirely around the piston rod, and contained between the stationary seat *e*, made with the gland or adjunct of the same, and the seat e^1, movable at will toward or from said stationary seat, forming the oil duct between said two seats, for conducting oil supplied from an oil vessel to the said oil distributing ring, substantially as and for the purposes herein set forth.

No. 42,926. Extracting Apparatus.
(*Appareil pour extraire.*)

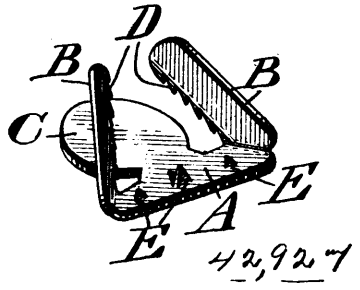


The Merz Universal Extractor and Construction Company, New York, assignee of Charles Wesley Preston, Brooklyn, all in the State of New York, U.S.A., 17th May, 1893; 6 years.

Claim.—In an extracting apparatus, the combination with a solvent holder and digesting tank connected by a gravity feed, of a vaporizer, a gravity separator, connections between the digesting tank and separator, and the separator and vaporizer, a condenser, suitable connections between the latter and the vaporizer, and a gravity separator connecting the said holder and condenser, substantially as set forth. 2nd. In an extracting apparatus, the combination with a solvent holder and digesting tank, gravity feed connections between the same, a vaporizer, connections between the latter and the tank, including a device for automatically separating the heavier from the lighter liquids, a condenser and suitable connections between the latter and the vaporizer and between the condenser and the holder, substantially as set forth. 3rd. In an extractor, the combination of a digesting tank, an escape pipe leading therefrom, a gravity separator, substantially as described, connected to said escape pipe, a vaporizer, a pipe connecting said vaporizer with the upper outlet of the separator, a gravity overflow connected to said vaporizer, together with a condenser, a vapor pipe leading from the vaporizer to the condenser, and a solvent holder with connections, one leading into it from the condenser and one out of it to the digesting tank, substantially as set forth. 4th. The combination in an extractor, with a digesting tank and a vaporizer,

connections between the two, the inlet to which vaporizer is located below the final outlet of the digesting tank, of a separator located in a connection between the digesting tank and the vaporizer, and consisting of a vessel provided with an inlet located below the level of the outlet of the digesting tank, an outlet for the lighter liquid leading to the vaporizer and entering above the level of the bottom of said vaporizer, an outlet for the heavier liquid, whose inner port is below the port of the outlet for the lighter liquid, and an overflow leading from the outlet port to the heavier liquid to a spout above said port, but below the outlet port for the lighter liquid, whereby through gravity the water is separated from the solvent and grease and carried off automatically, substantially as set forth. 5th. The combination in an extractor, with a solvent holder, and a digesting tank, of a vaporizer and a separator, located somewhere in a connection between the digesting tank and the vaporizer, and below the level of the bottom of said digesting tank, and consisting of a vessel provided with an inlet, an outlet for the lighter liquid, and outlet for the heavier liquid, whose inner port is below the port of the outlet for the lighter liquid, and an overflow leading from the port or outlet for the heavier liquid to a point above said port, but below the outlet for the lighter liquid, substantially as set forth. 6th. The combination, in an extractor, with a digesting tank and a vaporizer, of connections between said vaporizer and tank, including a separator, connected to an outlet for liquids leading from said tank and consisting of a vessel provided with an inlet, an outlet for the lighter liquid, an outlet for the heavier liquid, whose inner port is below the port of the outlet for the lighter liquid, and an overflow leading from the port or outlet for the heavier liquid to a point above said port, but below the outlet for the lighter liquid, substantially as set forth. 7th. The combination, in an extractor, with a digesting tank and vaporizer, of connections between said vaporizer and tank, including a separator, connected to the outlet, for liquids leading from said digesting tank and consisting of a vessel provided with an inlet, an outlet for the lighter liquid and an outlet for the heavier liquid, whose inner port is below the port of the outlet for the lighter liquid, whereby the lighter liquid being carried on the surface of the heavier liquid, will separate therefrom and pass on through its outlet, while the heavier liquid is below the level thereof, substantially as set forth.

No. 42,927. Paper Fastener. (*Œillet à papier.*)



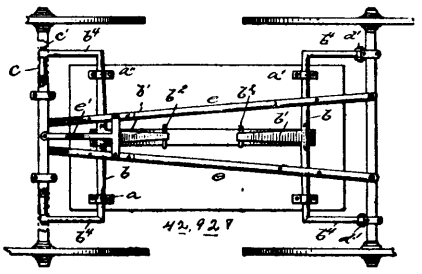
Charles Sulzner, Philadelphia, William Cragg Kean, jun., Camden, New Jersey, Richard Virgel Page, jun., and David Bixler Saxton, both of Philadelphia, Pennsylvania, U.S.A., 17th May, 1893; 6 years.

Claim.—1st. A fastener consisting of a plate, side limbs, a projecting tongue, and teeth on said limbs, substantially as described. 2nd. A fastener consisting of a plate, side limbs, a tongue between said limbs, and a spur on said plate, substantially as described. 3rd. A fastener consisting of a plate, side limbs, a projecting tongue, teeth on said limbs, and a spur on said plate, substantially as described. 4th. In a fastener, substantially as described, the side limbs provided with teeth placed at an angle to said limbs, as set forth. 5th. A fastener formed of a plate with limbs on the sides thereof, and teeth on said limbs provided with a suspension device, substantially as described. 6th. A fastener, substantially as described, provided with a suspension device, and a groove at the place of junction of the said fastener and eye, as set forth. 7th. A fastener having an extension with a suspension device thereon, the same being adapted to be bent over the base of said fastener, substantially as described.

No. 42,928. Vehicle. (*Voiture.*)

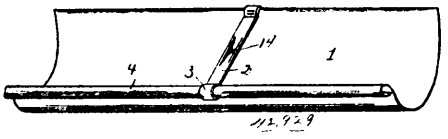
Ira H. Johnson, Romanzo M. Buck and Adelbert C. Martin, all of Paw Paw, Michigan, U.S.A., 17th May, 1893; 6 years.

Claim.—1st. The combination with the axles and a vehicle body, of a rock shaft journalled thereon at each end, the front shaft being provided with forwardly extending arms pivotally connected to the head blocks and the rear shaft with rearwardly extending arms pivotally connected to the rear axle, downwardly extending elbows being formed on the ends of one pair of arms and upwardly extending elbows being formed on the ends of the other set of arms, and a spring attached to the vehicle for holding the rock shafts in their normal positions, substantially as described. 2nd. The combination with a vehicle, of a rock shaft journalled near each end of the body thereof, and provided with bent arms pivotally connected to the rear axle and head block, said shafts being also provided with upwardly projecting arms carrying loops, and a longitudinal spring



connecting the rock shafts and passing through the loops on the arms, substantially as described. 3rd. The combination of a vehicle, a rock shaft journalled across the bottom thereof at each end, these shafts being provided at their ends with bent arms pivotally connected to the head block and axle, and also provided with inwardly extending arms carrying loops at their ends, a loop secured to each of the rock shafts, and a longitudinal flat spring extending through the said loops, substantially as described.

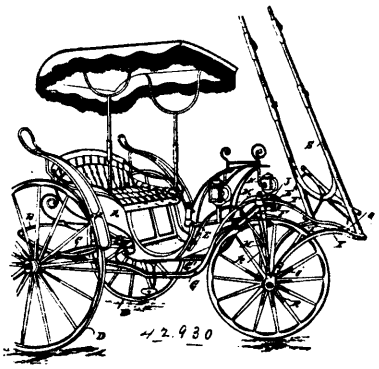
No. 42,929. Eaves Trough Hanger.
(*Support pour lumiers de toit.*)



George William Heartley, Toledo, Ohio, U.S.A., 17th May, 1893; 6 years.

Claim.—1st. In an eaves trough hanger, a bar formed with end portions to secure the trough thereto, one end being formed with a return bend, one of the portions of the bend having an opening, the opposite end portion having a truss. 2nd. In an eaves trough hanger, a bar formed with a central opening, a portion of integral metal struck up from the same and inclined from the body of the bar, and a hanger having grooves to receive the metal of the bar and engage therewith. 3rd. In an eaves trough hanger, a hanger formed with an end portion having grooves formed in the edge thereof, in combination with a bar having fastening devices to engage the trough, and an opening to permit the hanger to pass therein to allow the metal of the bar to enter the grooves, and a truss bar to contact with the end of the bar. 4th. In an eaves trough hanger, a bar formed with end portions to engage the trough, a strengthening truss in the bar, and a hanger for engagement with the bar. 5th. In an eaves trough hanger, a trough, a bar having a return bend upon the end forming a wing parallel with the body of the bar for engagement with the seam of the trough, and a circular bend for engaging the rolled portion of the trough.

No. 42,930. Three-Wheeled Vehicle.
(*Voiture à trois roues.*)



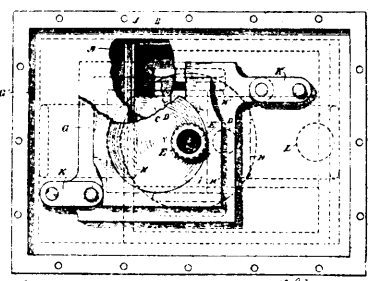
Gustave Rony, Redlands, California, U.S.A., 17th May, 1893; 6 years.

Claim.—1st. A three wheeled vehicle comprising the combination of the axle swivel H, provided at the lower ends of its arms with the axle boxes and with the hound securing sockets, the reach bar F pivoted upon the axle swivel, the reaches G, G¹ secured to the ends of the reach bar, the front supporting springs arranged to rest

upon the reach bar and secured thereto, the upper member of the fifth wheel secured to and projecting back from the reach bar, the lower member of the fifth wheel secured to the axle swivel, the fifth wheel supporting plates provided with lateral stay arms attached respectively to the reaches, the king bolt and fifth wheel brace secured to the upper member of the fifth wheel and to the fifth wheel supporting plate, and arranged to rest upon the upper front hound socket and provided with the king bolt hole, the upper front hound having its socket pivoted upon the reach bar, and provided with the king bolt hole, the lower front hounds connected with the boxes of the axle swivel, the draft bar secured to the front hounds, and the king bolt arranged to pivotally secure the upper front hound and the axle swivel to the reach bar and fifth wheel brace. 2nd. A three wheeled vehicle comprising the combination of the axle swivel provided with the axle boxes, the reach bar pivoted upon such swivel and connected with the body of the vehicle, the draft bar, the lower draft hounds I, I, secured respectively at their lower ends to the lower ends of the axle swivel and secured at their upper ends to the draft bar, the upper draft hound I^1 secured at their front end to the draft bar and pivoted to the reach bar, and the king bolt arranged to secure the upper hound, reach bar and axle swivel together.

No. 42,931. Steam Engine. (*Machine à vapeur.*)

Fig. 1.



Augustus Knudsen, San Francisco, California, U. S. A., 17th May, 1893; 6 years.

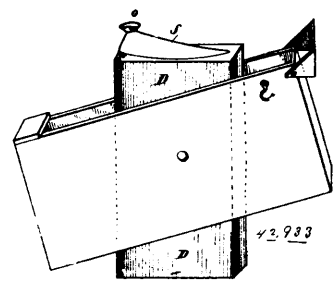
Claim.—1st. In a steam engine, an exterior casing or receiver in the form of a parallelopipedon, a second receiver having packing, and fitting and reciprocating within the first, one or more receivers reciprocating transversely to each other within the interior receiver, a crank shaft and a crank formed thereon and connected with the several receivers, whereby the reciprocation of said receivers produces a rotary motion of the crank and shaft, substantially as herein described. 2nd. In an engine, an exterior parallelopipedon casing a receiver reciprocating within it, a second receiver reciprocating within the first one and at an angle transversely thereto, a crank and crank pin connected with said receivers, whereby their joint reciprocations are converted into rotary motion of the crank and shaft, valves whereby steam is admitted alternately at opposite ends of the receivers to produce reciprocation of the piston receivers, substantially as herein described. 3rd. In an engine, an exterior parallelopipedal casing, a correspondingly shaped hollow receiver reciprocating therein, a second receiver or piston reciprocating within the first one transversely to it, a shaft with a crank pin connected with the reciprocating pistons, a steam chest with ports opening from it into the receivers at opposite ends of the reciprocating parts, and a valve having a movement of circular translation over the ports, whereby the ports are successively exposed for the admission of steam, substantially as herein described. 4th. In an engine, an exterior casing, a hollow receiver reciprocating therein, a second receiver or piston reciprocating within the first one transversely to its line of motion, a shaft and a crank pin connected with both of said pistons, a steam chest with ports for the admission of steam alternately to opposite ends of the piston chambers, a rectangular valve movable over said ports, an eccentric or cam upon which the valve is mounted whereby the valve receives a movement of circular translation over the ports, and radius links connected with opposite angles of the valve, whereby the edges of the valve maintain their parallelism during its movements, substantially as herein described.

No. 42,932. Floor Cloth. (*Toile pour planchers.*)

William George White, 278 Deptford Lower Road, and Herbert Edward Harry, 205 Algernon Road, Ladywell, both in the County of Kent, England. 17th May, 1893; 6 years.

Claim.—1st. As a covering for floors, walls and other structures, a mixture of the fibre of sea weed with thickened oil. 2nd. As a covering for floors, walls and other structures, a mixture of dyed fibre of sea weed with thickened oil. 3rd. The process of manufacturings coverings for floors, walls and other structures, by separating the agglomerated fibres of posidonia caulinia from each other, cleansing the same, mixing it with thickened oil and forming the mixture into sheets. 4th. The process of manufacturing coverings for floors, walls and other structures, by separating the agglomerated fibres of posidonia caulinia from each other, cleansing and dyeing the same, mixing it with thickened oil and forming it into sheets.

No. 42,933. Spouts for Jugs, Cans, Carboys, Bottles, &c. (*Bec pour pots, bidons, dame-jeannes, bouteilles, etc.*)

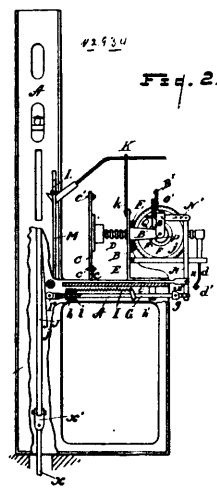


Henry Stiles, Cleveland, Ohio, U.S.A., 17th May, 1893; 6 years.

Claim.—1st. A can, jug or similar receptacle, having on its top a spout which slants backwardly from the nozzle and surrounds a vent and pouring aperture in said top, substantially as shown and described. 2nd. A can for oil or other liquids, having in its top the pouring opening and the vent opening, as described, in combination with the spout having the enlarged portion near its pouring mouth and tapering therefrom, as described, arranged to cover both openings in the can, substantially as shown and described.

No. 42,934. Excelsior Cutting Machine.
(*Machine pour réduire le bois en fibre.*)

Fig. 2.



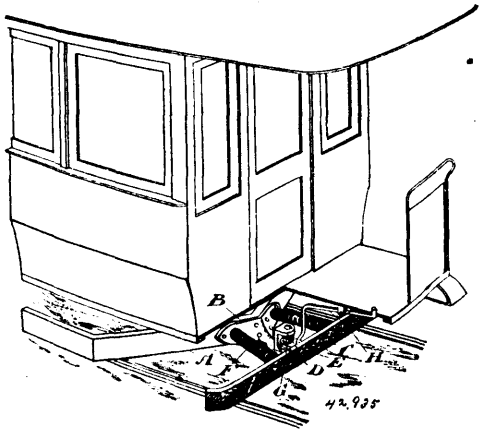
Charles Giles Smith, Detroit, Michigan, U.S.A., 17th May, 1893; 6 years.

Claim.—1st. In an excelsior cutting machine, the combination of the main frame in which the cutter plate reciprocates, with the table which supports the feed mechanism, the cutter plate carrying the incline plane, the incline plane which pushes out the bar extended beneath the table, the spring to retract the bar, the stud on the bar, which supports the locking latch and the locking latch pivoted to the table, all substantially as described. 2nd. In an excelsior machine, the combination of the main frame A, A, in which the cutter plate reciprocates, with the table A^1, which supports the feed mechanism, the cutter plate J, which carries the incline plane *j*, the incline plane pushing the bar G outward, the bar G suspended in hangers beneath the table A^1, the spring I for retracting the bar G, the lever N fulcrumed on the arm *n* and pivoted at its lower end to the bar G, and connected at its upper end by the link N^1 to the feed mechanism, all substantially as described. 3rd. In an excelsior cutting machine, the combination of the main frame A, A, in which the cutter plate reciprocates, with the table A^1, which supports the feed mechanism, the cutter plate J which carries the inclined plane *j* which impels the bar G outward, the bar G reciprocating the hangers under the table A, the spring I for retracting the bar G, the lever N vibrated by the bar G and fulcrumed on the arm *n* of the table A, the link N^1 connecting the lever N to the arm B, the arm B journalled on the shaft F^1 and carrying the pawl O, the pawl O, which engages with the ratchet wheel, P and

the ratchet P which rotates the shaft F[1], of the feed mechanism, all substantially as described. 4th. In an excelsior cutting machine, the combination of the main frame A with the table A[1], supporting the feed mechanism, the standard B arising from the table A[1], the screw shaft D supported in the spur wheel E, by the standard B, the feed plate C actuated by the screw shaft D, the spur wheel E screw threaded interiorly to engage with the screw shaft D, the spur wheel F on the shaft F[1], and meshing with the spur wheel E, the shaft F journalled on an arm of the standard B, the ratchet wheel P keyed on the shaft F[1], the pawl O pivoted to the arm B, and engaging with the ratchet wheel P, the arm B journalled on the shaft F[1], the link N[1] connecting the arm B to the lever N, the lever N pivoted to and vibrating on the arm *n* and connected at its lower end to the bar G, the bar G, reciprocating in hangers, under the table A[1], and actuated by the inclined plane *j*, the inclined plane *j* on the cutter plate, and the cutter plate reciprocating in the main frame A, all substantially as described. 5th. In an excelsior cutting machine, the combination of the posts of the cutter plate, provided with grooves for the reception of the knife blades, with the knife blades, and the gage plates for gauging the cut of knives, all substantially as described. 6th. In an excelsior cutting machine, the combination of the journal box of the roller slitter, with the roller slitter journalled in the journal box, and the roller slitter cleaner attached to the journal box of the roller slitter, all substantially as described. 7th. In an excelsior cutting machine, the combination of the roller slitter for slitting the block and the roller slitter cleaner for freeing the roller slitter from shavings, all substantially as described. 8th. In an excelsior cutting machine, the combination of the posts of the cutter plate provided with grooves for the reception of the knife blades, with the knife blades for cutting the excelsior, the roller slitter for slitting the block and the roller slitter cleaner, all substantially as described. 9th. In an excelsior cutting machine, the combination of the table which supports the feed mechanism with the standard B, arising from the table, the screw shaft D, supported in the spur wheel E, on the standard B, the feed plate C, actuated by the screw shaft D, the spur wheel E, interiorly screw threaded to engage with the shaft D, the spur wheel F, on the shaft F[1], and meshing with the spur wheel E, the shaft F[1], journalled on an arm of the standard B, the ratchet wheel P, keyed on the shaft F, the arm B[2], pivoted on the shaft F[1], the pawl O, pivoted on the arm B, and engaging with the ratchet wheel P, the link connecting arm B, to the lever N, and the lever N, pivoted to and vibrating on the arm *a*, all substantially as described.

No. 42,935. Safety Buffer for Street Cars.

(*Tampon de sûreté pour chars de rue.*)



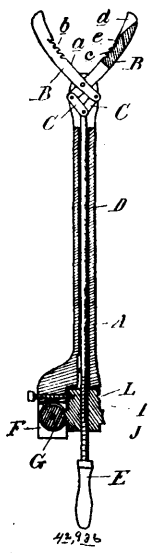
John Hughe, Toronto, Ontario, Canada, 17th May, 1893; 6 years.

Claim.—1st. A safety buffer for street cars and similar vehicles, consisting of a fender plate pivoted to the centre of the front trick beam, substantially as and for the purpose specified. 2nd. A safety buffer for street cars and similar vehicles, consisting of a fender plate pivoted to the centre of the front truck beam and held in position by suitable springs, substantially as and for the purpose specified. 3rd. A safety buffer for street cars and similar vehicles, consisting of a fender plate pivoted to the centre of the front truck beam and capable of vertical motion, in combination with the lever H, whereby it may be raised, substantially as and for the purpose specified.

No. 42,936. Parturition Shears. (*Forces pour parturition.*)

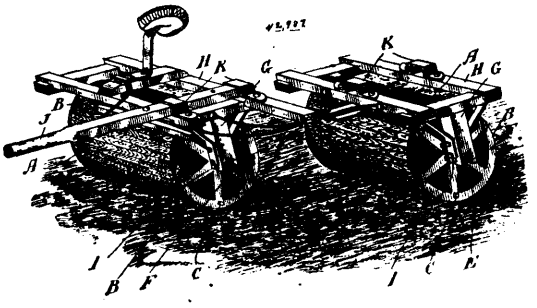
W. L. Drinkwater and J. C. Drinkwater, both of Mount Clement, Michigan, U.S.A., 17th May, 1893; 6 years.

Claim.—1st. In a veterinary surgical shears, the combination of a handle or frame, of jaws pivoted in the end thereof, one jaw having a single bladed edge, the other jaw having a part with a double edge between which the single blade is adapted to enter, and of means for actuating the jaws, substantially as described. 2nd. In a veterinary surgical shears, the combination of a handle or frame, of jaws



pivoted in one end thereof and means for actuating the jaws, both jaws having concave faces, one jaw having the single cutting edge and the other jaw having double cutting edges at the ends, and a single edge between the double portion, substantially as described. 3rd. In a veterinary surgical shears, the combination of a handle or frame, of jaws pivoted in one end thereof, and means for actuating the jaws, of a single cutting edge on one jaw, a toothed section thereon, a corresponding toothed section on the other jaw, and double cutting edges at each end thereof between which the single blade is adapted to pass in the closed position of the jaw, substantially as described. 4th. In a veterinary surgical shears, the combination of a handle or frame, the jaws pivoted at the end, the toggle levers connected to the jaws, the shaft D, connected to the toggle levers and extending through the handle, the nut I having worm gear wheel J thereon having a screw threaded aperture through which the shaft engages, the worm pinion G, and the crank H, substantially as described.

No. 42,937. Land Roller. (*Rouleau d'agriculture.*)



Paul Flock, Waterford, Ontario, Canada, 18th May, 1893; 6 years.

Claim.—1st. A land roller composed of a series of staves forming a bulged cylinder secured together by metal spiders at each end, bolted together and braced by a hoop in the centre of the bulge, substantially as and and for the purpose specified. 2nd. A land roller composed of a series of staves forming a bulged cylinder secured together by metal spiders at each end, bolted together and braced by a hoop in the centre of the bulge, in combination with trunnions formed in the centre of the spiders and detachably journalled in standards forming part of the frame, substantially as and for the purpose specified. 3rd. A roller detachably journalled in a frame to which a pole or tongue is detachably connected, in combination with a roller detachably connected to a frame flexibly connected to the frame of the roller provided with a tongue, substantially as and for the purpose specified.

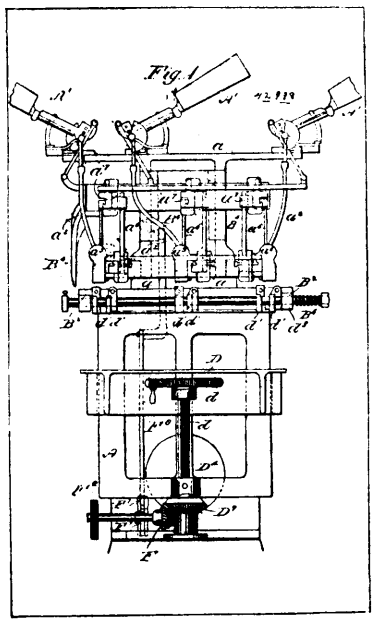
No. 42,938. Box Nailing Machine.

(*Machine à clouer les boîtes.*)

William S. Doig, Brooklyn, New York, U.S.A., 18th May, 1893; 6 years.

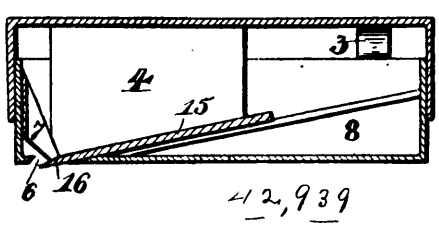
Claim.—1st. In a box nailing machine the combination with a reciprocating cross-head and nailing mechanism, substantially such as described, of a table movable vertically on the machine frame, a

screw thread rod depending from the table, a block engaging with the rod, a gear wheel on the block, a gear wheel meshing with the



first named gear, and a connection comprising a ratchet, mechanism between the last named gear and the cross head, whereby the table is moved by a movement of the cross-head, substantially as specified. 2nd. In a box nailing machine the combination with nailing mechanism, substantially such as described, and comprising a cross-head, of a vertically movable table, a rod extending downwards from the table, a block on the lower portion of this rod, provided with a cam surface, a rotary block, having a series of cam surfaces of varying height, and connections between the rotary block and cross-head, whereby said block is rotated by a movement of the cross-head, substantially as specified. 3rd. In a box nailing machine the combination with a frame of a transverse bar on the frame, a series of arms extending outwards from the bar and adjustable lengthwise of the bar, nail pockets adjustably arranged on the arms, a cross-head, arms extending outwards from said cross-head and adjustable lengthwise thereon, push rods or hammers, adjustably arranged on said arms, a vertical adjustable table, and means substantially such as described, for automaticatly adjusting the table, step by step, to accommodate the machine to the varying width or height of a box during the process of making the same, substantially as specified. 4th. In a box nailing machine the combination with the main frame, the reciprocating cross-head and the nailing mechanism, of the adjustable fixed clamping jaws b, the movable bar B^3, the jaws b^1 carried thereby, the spring for moving the bar in one direction and the cam carried by the cross-head for moving the bar in the opposite direction, substantially as specified.

No. 42,939. Pencil Sharpener. (*Taille-crayon.*)

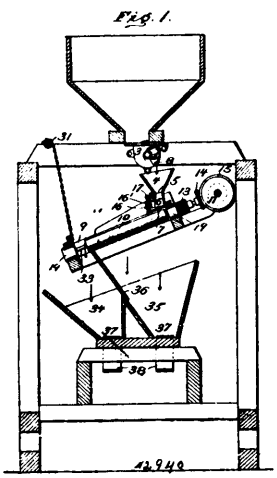


George Diez, San Bernardino, California, U.S.A., 18th May, 1893; 6 years.

Claim.—1st. In a pencil sharpener, the combination with a receptacle provided near one end with a transverse slot and in rear of same with ways, of a removable cover for the receptacle, a blade mounted for sliding on the ways and having its front end bevelled to a cutting edge, and means for adjusting the blade upon the ways and its edge through the slot, substantially as specified. 2nd. In a pencil sharpener, the combination with a receptacle provided near its front end with a slot, inclined ways mounted in the receptacle in rear of the slot, a blade mounted loosely on the ways, means for adjusting the blade, and a cover removably mounted on the receptacle and provided with an internal depending flange having the lower inclined edge agreeing with the ways and located over the blades, substantially as specified. 3rd. In a pencil sharpener, the combination with the oblong receptacle, provided at one end upon its bottom with a transverse slot, inclined ways in rear of the slot, a blade mounted on the ways adapted to be projected through the slot and provided at one side of the ways with a notch, bearing openings in the front and rear ends of the receptacle, a rod journalled in the bearing openings and provided in rear of the same with a head, threads formed on the rod between its ends, a block perforated and threaded to loosely receive the rod and engage with the notch of the blade, of a cover removably mounted on the receptacle, substantially as specified. 4th. In a pencil sharpener, the combination with the oblong receptacle provided at its front end in its bottom with a transverse slot in rear of the same with inclined ways, and a cover for the receptacle, of a blade mounted on the inclined ways, an adjusting rod located at one side of the blade, and a loose block threaded on the adjusting rod and connected with the blade, substantially as specified.

No. 42,940. Machine for Separating Beans.

(*Machine à séparer les fèves.*)

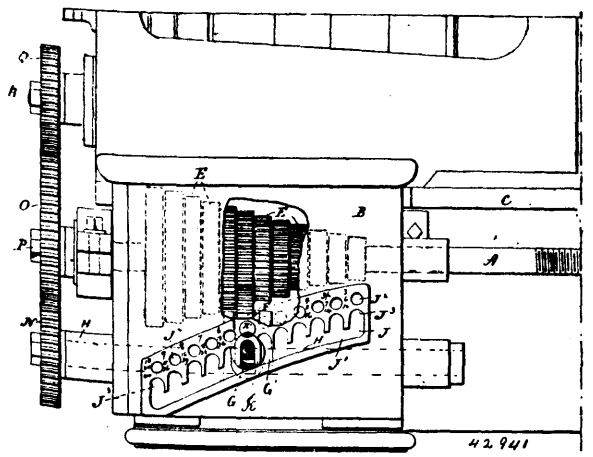


Edgar Knapp, Middleport, New York, U.S.A., 18th May, 1893; 18 years.

Claim.—1st. In a machine for separating beans, rubber rolls having unbroken surfaces, arranged transversely in a horizontal plane, journalled in bearings mounted on an inclined frame, and arranged to operate together in pairs in oppositely inward directions, in combination with feed mechanism adapted to deliver the beans in a row to said rolls at their upper ends, whereby the beans are dropped upon the rolls and are picked as they slide down thereon in the way described. 2nd. In a machine for separating beans, rubber rolls having unbroken surfaces, arranged transversely in a horizontal plane, journalled in bearings mounted on an adjustably inclined frame and arranged to operate together in pairs in oppositely inward directions, in combination with a suitable conduit adapted to deliver the beans to said rolls at their upper ends and mediately thereof, and a hopper having a bottom feed device adapted to deliver the beans in a continuous row to said conduit, substantially as described for the purpose stated. 3rd. In a bean separator, the combination of a main frame, an inclined frame supported in the main frame, compressible rolls mounted in the inclined frame, a hopper supported above the upper portion of the rolls, a feed wheel revoluble under the hopper, and adapted to receive beans therefrom, and to deliver the same upon the rolls, and means for operating the feed wheel from the roll operating gearing, substantially as described. 4th. A bean separator comprising a main frame, an adjustable inclined frame supported in the main frame, one or more pairs of rolls, a feed spout in the inclined frame, a hopper above the rolls, a feed wheel in the lower portion of the hopper adapted to deliver the beans mediately upon the rolls, and mechanism, substantially such as described, for positively rotating said rolls in opposite by inward directions, to effect the separation and sorting of the beans in the way described. 5th. In a bean separator, the combination, of a pair of inclined compressible rolls, a hopper having a revolving feed device, an intermediate conduit provided with an automatic feed controlling device, acting by gravity, substantially as described. 6th. In a bean separator, the combination of an inclined platform of rubber rolls arranged to operate in pairs, a supply hopper having rotating feed devices, an intermediate distributing hopper having side discharges, and a gravity acting feed regulating or stop device arranged to guard such openings mediately of each pair of picking rolls, substantially as described. 7th. A device for separating beans consisting of a supply hopper having a series of duplex feed wheels, a distributing hopper having bottom troughs co-incident with the feed channels of the duplex feed wheels and open at the side of said hopper, an automatic swinging gate or stop arranged to guard each hopper opening, and an inclined platform comprising rubber rolls arranged in pairs mediately with each swinging gate or stop for

operating in the way described. 8th. A device for separating beans consisting of an inclined platform comprising rubber rolls arranged in pairs in a frame, and a distributing hopper carried by said frame having delivery openings mediately with each pair of rolls, and a gravity acting gate or stop for guarding each hopper opening, arranged in close proximity to the upper ends of said rolls for operation in the way described. 9th. A platform or surface for picking beans comprising a frame, rubber rolls arranged therein in pairs having unbroken surfaces transversely in horizontal planes on a downward inclination and revolved in oppositely inward directions, fixed and adjustable boxes for said rolls, and an adjusting device for each pair of adjustable boxes, in combination with suitable distributing conduits for each pair of rolls, substantially as described for the purpose specified. 10th. In a bean separator, the combination of a distributing hopper having a downwardly inclined bottom, and a gravity gate or stop device formed of two leaves for regulating the feed from said hopper, with a platform of rubber rolls arranged in pairs mediately with said gate or stop arranged to incline downward from said hopper gate for operation in the way described. 11th. In a feeder for bean pickers, a hopper having its bottom formed of troughs or gutters, open at one end inclining downward to said opening, and extending beyond the walls thereof, in combination with a gravity gate or stop device hung, so as to have a swinging movement outward from said trough for operation in the way described.

No. 42,941. Feed Mechanism for Screw Cutting Lathes. (*Mécanisme d'alimentation pour tours à fileter les vis*)



Wendell P. Norton, Torrington, Connecticut, U.S.A., 18th May, 1893; 6 years.

Claim.—1st. In a device of the class described, the combination, with a series of interchangeable gear wheels, of a shaft driven from the said series of interchangeable gear wheels, a pinion mounted to turn with and to slide on the said shaft, a driving gear wheel in mesh with the said pinion, and a second series of gear wheels of various diameters arranged step like on the feed shaft, and adapted to be engaged by the said driving gear wheel, substantially as shown and described. 2nd. In a device of the class described, the combination with a series of interchangeable gear wheels, of a shaft driven from the said series of interchangeable gear wheels, a pinion mounted to turn with and to slide on the said shaft, a driving gear wheel in mesh with the said pinion, a second series of gear wheels of various diameters arranged step like on the feed shaft, and adapted to be engaged by the said driving gear wheel and a lever carrying the driving gear wheel, and arranged for shifting the said pinion on the said shaft and moving the driving gear wheel in and out of mesh with the feed shaft gear wheels, substantially as shown and described. 3rd. In a device of the class described, the combination, with a series of interchangeable gear wheels, of a shaft driven from the said series of interchangeable gear wheels, a pinion mounted to turn with and to slide on the said shaft, a driving gear wheel in mesh with the said pinion, a second series of gear wheels of various diameters arranged step like on the feed shaft and adapted to be engaged by the said driving gear wheel, a lever carrying the driving gear wheel and arranged for shifting the said pinion on the said shaft and moving the driving gear wheel in and out of mesh with the feed shaft gear wheels, and a locking mechanism for the said lever, substantially as shown and described. 4th. In a device of the class described, the combination, with a series of interchangeable gear wheels, of a shaft driven from the said series of interchangeable gear wheels, a pinion mounted to turn with and to slide on the said shaft, a driving gear wheel in mesh with the said pinion, a second series of gear wheels of various diameters arranged step like on the feed shaft and adapted to be engaged by the said driving gear wheel, a lever carrying the driving gear wheel and arranged for shifting the said pinion on the said shaft and moving the driving gear wheel in and out of mesh with the feed shaft gear wheels, and a plate having a curved slot forming a guide for the said lever, substantially as shown and described. 5th. In a device, of the class described, the combination, with a series of interchangeable gear wheels, of a shaft driven from the said series of interchangeable gear wheels, a pinion mounted to turn with and to slide on the said shaft, a driving gear wheel in mesh with the said pinion, a second series of gear wheels of various diameters, arranged step-like on the feed shaft, and adapted to be engaged by the said driving gear wheel, and arranged for shifting the said pinion on the said shaft and moving the driving gear wheel in and out of mesh with the feed shaft gear wheels, a plate having a curved slot forming a guide for the said lever, and a mechanism for locking the said lever to the said plate, substantially as shown and described. 6th. In a device of the class described, a box forming a cover for the feed shaft gear wheels, and the driving gear wheel for the said feed shaft gear wheels, bearings formed in the said box for the feed shaft and the driving shaft, and an index plate held on the said box and close to an inclined slot in the front of the said box, substantially as shown and described. 7th. In a device of the class described, the combination, with a series of interchangeable gear wheels, of a shaft drum from the said series of interchangeable gear wheels, a pinion mounted to slide on and to turn with the said shaft, a lever fulcrumed loosely on the said shaft, and adapted to carry along the said pinion, a driving gear wheel in mesh with the said pinion and mounted to turn on the said lever, a series of gear wheels of varying diameters and arranged in step form on the feed shaft, each of the said series of gear wheels being adapted to be engaged by the driving gear wheel, a hand lever pivoted on the said lever and formed with a pin and a plate formed with a slot, and a series of openings adapted to be engaged by the said pin, substantially as shown and described. 8th. In a device of the class described, the combination, with a series of gear wheels arranged in step form on the feed shaft, of a driving gear wheel adapted to engage each of the said gear wheels in the series of gear wheels, a lever carrying the said driving gear wheel, and a plate formed with a curved slot through which passes the said lever for guiding the same, substantially as shown and described. 9th. In a device of the class described, the combination, with a series of gear wheels arranged in step form on the feed shaft, of a driving gear wheel adapted to engage each of the said gear wheels in the series of gear wheels, a lever carrying the said driving gear wheel, a plate formed with a curved slot, through which passes the said lever for guiding the same, and a locking mechanism for locking the said lever on the said plate, substantially as shown and described.

No. 42,942. Governor for Steam Engines. (*Gouverneur de machine à vapeur.*)

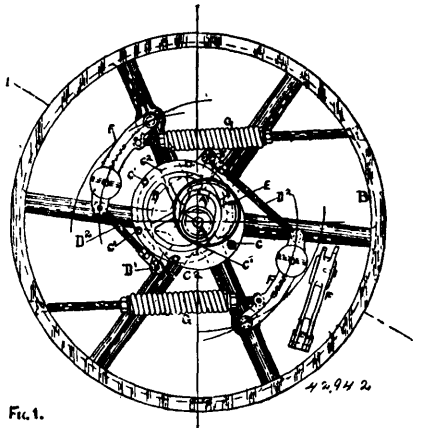


FIG. 1.

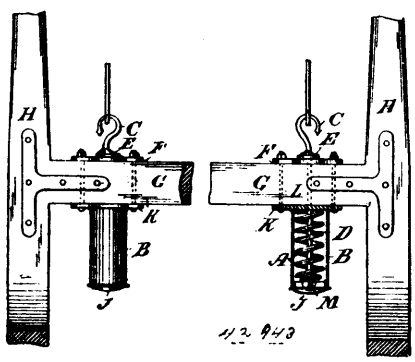
William O. Webber, Erie, Pennsylvania, U.S.A., 18th May, 1893; 6 years.

Claim.—1st. In the valve gear of an automatic cut off engine, the combination, with the shaft and governor wheel, of an eccentric case secured thereto and moving co-incidently therewith, an eccentric journalled in said case and operatively connected with the weight arm and the valve actuating means carried by said eccentric. 2nd. In the valve gear of an automatically cut off engine, the combination, with the shaft and governor wheel, of an eccentric case secured thereto and moving coincidently therewith, an eccentric journalled in said case and operatively connected with the weight arm, and a valve moving eccentric attached to or made integral with said encased eccentric and moving coincidently therewith, said connected eccentrics having an elongated shaft opening q^1, therethrough. 3rd. In the valve gear of an automatic cut off engine, the combination of a disc journalled eccentrically to the shaft in a case

and movable axially independent of said case and bearing upon its side and moving coincidently therewith, a valve moving means and means for moving said disc axially from the vibrating action of the weight arms. 4th. In the valve gear of an automatic cut off engine, the combination, with the wheel B, of the case C, having the eccentric bars or flange C^1, which is attached to said wheel concentrically thereby holding said case rigidly and eccentrically upon said wheel, a disc D, journalled in said case and retained therein by the cap ring C^2, and having arm D^1, extending outwardly from said case, links D^2, connecting said arms D^1, with the weight arm F, and the valve actuating means E, carried coincidently by said eccentrically journalled disc D.

No. 42,943. Trace Hook for Vehicles.

(*Crochet pour traits de voiture.*)

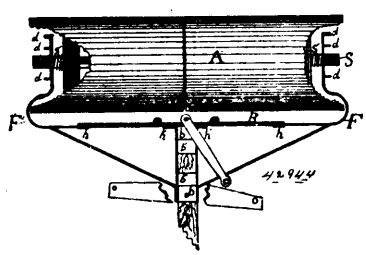


Frederick Giles, South Yarra, Victoria, Australia, 18th May, 1893; 6 years.

Claim.—A cylindrical casing provided with means of suitably attaching it to a cross bar or shaft, a spiral spring coiled longitudinally in said casing to resist compression, a rod passing lengthwise through said spring and slidingly through a perforation in one end of the casing and having the projecting end provided with means of attaching a trace or singletree and the other provided with means of operating the spring compressively, substantially as set forth.

No. 42,944. Land Roller. (*Rouleau d'agriculture.*)

FIG. 1



Ephraim Alpaugh, Preston, Ontario, Canada, 18th May, 1893; 6 years.

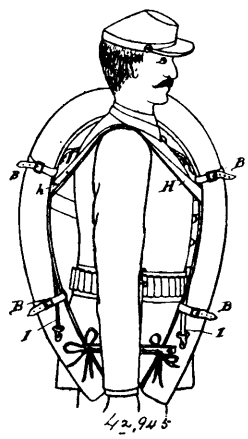
Claim.—1st. The combination of the grooved hubs H, revolving on the rectangular bush J, the rockers L, and shaft S, substantially as and for the purpose hereinbefore set forth. 2nd. In combination with the rockers L, and shaft S, the springs S^1, substantially as and for the purpose hereinbefore set forth. 3rd. The combination with a land roller of the frame composed of parts of F and F^1, and B, substantially as and for the purpose hereinbefore set forth.

No. 42,945. Support for Blanket Rolls.

(*Support pour couverte de soldats.*)

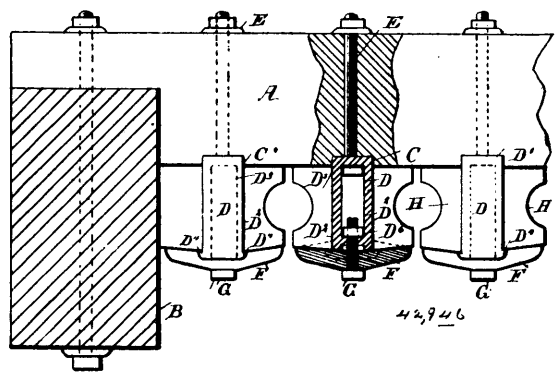
Charles Dodge, Fort Bayard, New Mexico, U.S.A., 18th May, 1893; 6 years.

Claim.—1st. The herein described blanket roll support, consisting of a stiff yoke formed to surround the body, substantially as shown and adapted to receive the blanket roll, substantially as herein shown and described. 2nd. The herein described blanket roll support which consists of the yoke bent or formed to surround the body and adapted to rest upon one shoulder and the opposite hip, the roll attaching straps located at intervals along the yoke and the bracing strap H, also attached to the frame and adjusted to pass over one shoulder and beneath the opposite arm, substantially in the manner shown and described. 3rd. The herein described blanket roll support consisting of the flexible yoke bent or formed to surround the body, and to be supported upon one shoulder and one hip, substantially as described, and having straps for attaching the roll, and the spacing connection at the lower ends of the yoke, substantially as herein de-



scribed. 4th. The combination of the yoke bent or formed to surround the body diagonally from one shoulder to the opposite hip, the straps on the frame for embracing and holding the blanket roll, and the steadying strap D, connected with the frame near the lower end and adapted for engagement with the belt or other object on the body of the wearer, as and for the purpose explained. 5th. The blanket roll support consisting of the combination of the yoke bent or formed to surround the body, and adapted for suspension from the shoulder or shoulders, and having straps for embracing and holding the blanket roll, the straps for suspending and embracing the yoke on the body, and the straps I, attached to the frame and adapted to suspend the haversack or canteen, substantially in the manner explained.

No. 42,946. Guide for Stamp Mills. (*Guide pour bocards.*)

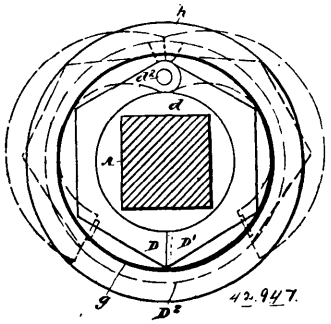


Edmund Major, Terraville, South Dakota, U.S.A., 18th May, 1893; 6 years.

Claim.—1st. A guide for stamp mills provided with a keeper adapted to be secured to the girt or rail, and a flange plate held removably thereon and projecting over the front faces of the bearing blocks, substantially as shown and described. 2nd. As a new article of manufacture, a keeper made in the shape of a casing and provided with downwardly and outwardly inclined connected sides, side flanges extending from the rear ends of the said sides, and a flange plate held removably on the front of the said sides, substantially as shown and described. 3rd. A guide for stamp mills, provided with a keeper adapted to be fastened to the girt or rail and formed with downwardly and outwardly inclined sides, and a flange plate detachably secured on the said keeper and extending sidewise from the latter to pass over the front faces of the guide or bearing blocks, substantially as shown and described. 4th. In a guide for stamp mills, a guide block having a vertical inner edge, a downwardly and inwardly inclined outer edge, a bevelled front and rear face, and a transverse shoulder across the lower end of its inclined face, substantially as set forth. 5th. A guide for stamp mills, provided with a keeper adapted to be fastened to the girt or rail and formed with downwardly and outwardly inclined sides, flanges formed on the said sides and having a recess, and a flange plate fitting into the said recess and adapted to be secured to the said keeper, substantially as shown and described. 6th. A guide for stamp mills, provided with a keeper adapted to be fastened to the girt or rail and formed with downwardly and outwardly inclined sides, flanges formed on the said sides and having a recess, a flange plate fitting into the said recess and adapted to be secured to the said keeper, and a bolt

engaging lugs or ribs extending from the sides of the keeper, the said bolt serving to fasten the said flange to the keeper, substantially as shown and described. 7th. A guide for stamp mills, provided with a keeper, and a flange plate held removably on the said keeper, and provided with ribs adapted to engage corresponding recesses in the front surfaces of the guide blocks, substantially as shown and described.

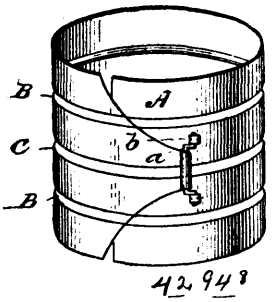
No. 42,947. Carriage Axle. (*Essieu de voiture.*)



Florian Label, Montreal, Quebec, Canada, 18th May, 1893; 6 years.

Claim.—1st. In combination, with an axle or the like and parts to be held in place thereon, of a nut formed in sections having interlocking ends, as set forth. 2nd. In combination, with an axle or the like, and parts to be held in place thereon, of a nut formed in sections and hinged together, as set forth. 3rd. In combination, with an axle or the like, and parts to be held in place thereon, of a nut formed in sections and hinged together, and means externally of such nut for pressing the parts thereof closely together, as set forth. 4th. In combination, with the journal of an axle or the like, and the hub box carried thereby, of a nut formed in two parts hinged together, and having a screw threaded portion to take into a corresponding screw threaded portion of such hub box, as set forth. 5th. In combination, with the journal of an axle or the like, and the hub box carried thereby, of a nut formed in two parts hinged together, having a screw threaded portion to take into a corresponding screw threaded portion of such hub box, and a ring adapted to encircle and compress the parts of said nut closely together, and also screw threaded to take on to a corresponding screw threaded portion of such hub box, and a ring adapted to encircle and compress the parts of said nut closely together, and also screw threaded to take on to a corresponding screw threaded portion of said hub box, as set forth. 6th. The nut formed in two parts hinged together, and having plane surfaces and screw threaded portions, as set forth. 7th. The combination of the nut formed in two parts hinged together, and having plane surfaced and screw threaded portions, and a ring device adapted to encircle and compress the parts of said hub closely together, as set forth. 8th. The combination, with an axle or the like, and hub sleeve to be held in place thereon, of a nut having a bevelled exterior surface, and a ring encircling such nut and having a bevelled interior surface to correspond with that of the nut, and screw threaded to take on to such hub sleeve, as set forth.

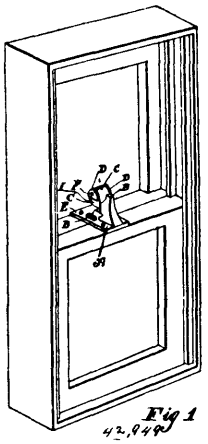
No. 42,948. Pipe Coupler. (*Raccord de tuyaux.*)



John T. Bibb, Tacoma, Washington, U.S.A., 18th May, 1893; 6 years.

Claim.—1st. The split pipe union having its ends overlapping, and the rod having its ends bent to form cranks and permanently journalled on one end of the union, the other end of the union being loosely and permanently secured to the said rod between the cranks thereof, whereby the union is expanded or contracted as described by swinging said rod. 2nd. The expansible union having its ends overlapping and permanently secured together by an eccentric locking device composed of a crank shaft, the ends of which are journalled in the boxes on one end of the union, the other end of the union being bent loosely around the centre of the shaft, the pipe ends and union having beads arranged to intermesh, as set forth. 3rd. The pipe union having the overlapping ends, and a crank shaft at its ends journalled to one end and having its crank journalled to the other end for the purposes, substantially as described.

No. 42,949. Sash Lock. (*Arrête-croisée.*)

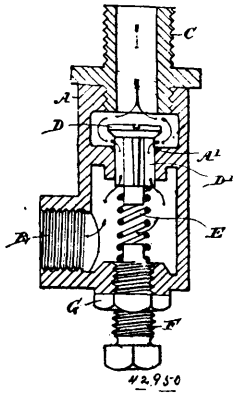


James H. Thomas, Ingersoll, Ontario, Canada, 18th May, 1893; 6 years.

Claim.—The window lock herein described and shown, consisting of the cam C, with the upper end pivoted between the standards D, D, and having its free broadened end provided on one side with the transverse groove J, and having its inner edge extended to reach across to the meeting rail of the other sash when said cam is in a vertical position, the base plate E, having the standard D, D, erected thereon, and the base plate A, carrying the vertical standard P, adapted and shaped at its upper end, substantially as shown, to fit into the groove J, provided on the cam, when the same shall be thrown upward and inward in a locked position, substantially as set forth.

No. 42,950. Water Escape Valve.

(*Soupape de trop-plein.*)



Frederick A. Russell, Cupar, Fife, Scotland, 18th May, 1893; 6 years.

Claim.—1st. In an automatic escape valve or drain cock, a valve held normally in its seat by the pressure in the pipe or cylinder and mounted on a yielding resistance, as and for the purposes set forth. 2nd. In an automatic escape valve, the combination with a casing or shell, secured to and communicating with the pipe or cylinder, and provided with an outlet, of a valve carried in such casing and mounted on a spring, and means for regulating lift of such valve, as and for the purposes set forth.

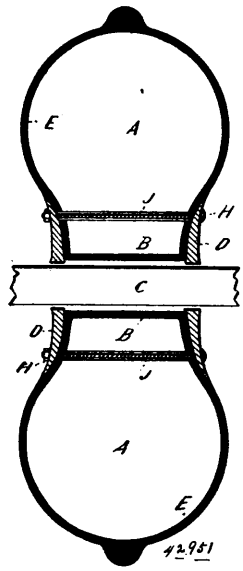
No. 42,951. Pneumatic Wheel for Cycles.

(*Roue pneumatique pour cycles.*)

Joseph C. Hall, of 4 Alkham Road, Stoke, Newington, London, Eng., 18th May, 1893; 6 years.

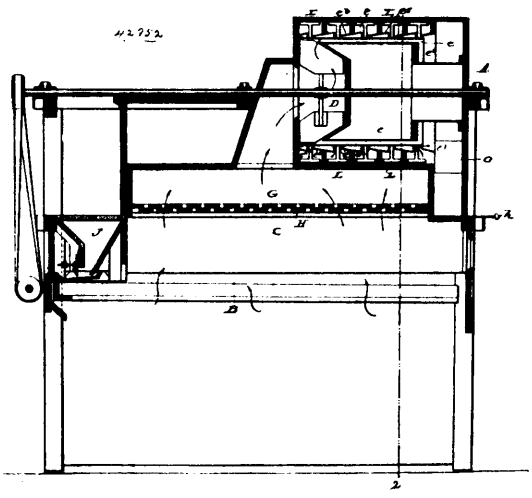
Claim.—An air or pneumatic wheel, substantially as hereinbefore described and set forth, consisting of a chamber filled with com-

pressed air, and constructed without the ordinary spokes or rim, for



cycles, cabs or carriages, perambulators, vehicles propelled by steam, electric or other motive power, road skates, or as rollers for the removal of heavy bodies or for similar purposes.

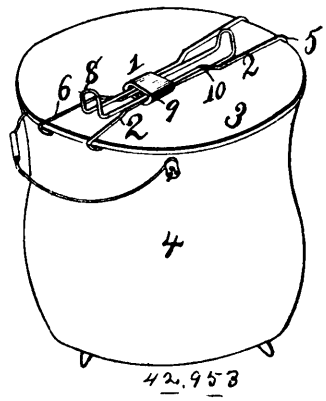
No. 42,952. Middlings Purifier. (*Epurateur des gruaux.*)



William Dickson Gray, Milwaukee, Wisconsin, U.S.A., 18th May, 1893; 6 years.

Claim.—1st. In a middlings purifier, the combination of an enclosing chamber, a sieve therein, a dust catcher, a fan inducing an air current upward through the sieve and thence through the dust catcher, and means for dividing the air current above the sieve, and compelling it to return downward past the two edges of the sieve, and the space thereunder. 2nd. In a middlings purifier, the combination of a sieve a suction fan drawing air upward therethrough a dust catcher to which the fan delivers the dust laden air, and two longitudinal chambers at opposite sides of the machine through which the purified air is distributed lengthwise of the machine and from which it descends to the chamber beneath the sieve. 3rd. In a middlings purifier a screen, the overlying exhaust chamber, the fan, the two longitudinal chambers at opposite sides through which the purified air is distributed lengthwise of the machine, and returned beneath the sieve, and means, as deflectors, to ensure the uniform distribution of the air throughout the length of the machine. 4th. In combination, with the sieve, the suction chamber, the fan and the side chambers for returning the air from the fan, a laterally adjustable valve or deflector O, to equalize the current at the two sides of the machine. 5th. In a a middling purifier, the combination of the body or casing, the screen thereunder, the suction chamber thereunder, the fan, the dust catcher consisting of the cylindrical screen and the annular chambers surrounding the same, and chambers or flues arranged to conduct the purified air from the dust catcher beneath the two sides of the sieve. 6th. The combination in a middling purifier of a sieve, a fan acting to induce a current upward through the sieve, a dust catcher communicating with the fan chamber, longitudinal air passages at opposite sides of the machine communicating with the dust catcher, and opening into the chamber below the seive past the sides of the latter.

No. 42,953. Cover Holders. (*Porte-couvercle.*)



Martha A. Green, Montclair, Colorado, U.S.A., 18th May, 1893; 6 years.

Claim.—1st. A cover holder consisting of the similar sections sliding longitudinally upon each other and provided at their opposite ends with clamping jaws or portions adapted to fit over a cover and engage the sides of the vessel, and the sleeve securing the sections together, substantially as described. 2nd. A cover holder consisting of similar sections each constructed of a single piece of wire or similar material and provided at their opposite ends with clamping jaws or portions, and the sleeve surrounding the sides of the sections and enabling the latter to be adjusted longitudinally, substantially as described. 3rd. A cover holder comprising the two similar sections, each constructed of a single piece of wire or similar material and provided at their opposite ends with clamping jaws or portions and converging from the clamping portions, and provided with parallel portions, and the sleeve surrounding the parallel portions, substantially as described. 4th. A cover holder comprising the two similar sections, each constructed of a single piece of wire or similar material and provided at their opposite ends with clamping jaws composed of the transverse bars and the inclined portions 7, said sections converging from the jaws and provided with parallel portions 10, and having their ends bent upward and forming handles, and the sleeve surrounding the parallel portions and securing the sections together, substantially as described.

No. 42,954. Medicinal Compound.

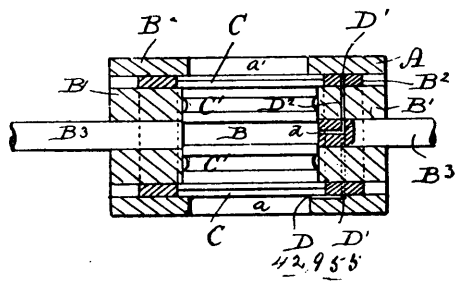
(*Préparation médicale pour le rhumatisme.*)

John Tuck, Smith's Falls, Ontario, Canada, 18th May, 1893; 6 years.

Claim.—The herein described liniment, composed of sweet oil, tincture of iron, saltpetre, ground alum, camphor, cedar oil, tincture of arnica, juniper oil, proof, hartshorn, spirits turpentine and ammonia powder, substantially in the proportions and for the purpose set forth.

No. 42,955. Valve for Engines.

(*Soupape pour machines à vapeur.*)

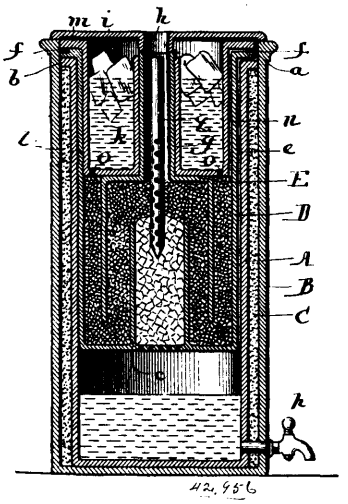


Lucius Augustus Le Mieux, Saymour, Wisconsin, U.S.A., 18th May, 1893; 6 years.

Claim.—1st. The herein described rotary valve for steam engines, comprising a revoluble frame carrying to valve plates, expansibly connected therewith, and means for introducing live steam between the said valve plates upon the interior of said frame, substantially as and for the purpose described. 2nd. The herein described valve

for steam engines, comprising a revoluble frame having cylindrical end portions and parallel longitudinal side bars or walls, two valve plates expansibly connected with said side bars or walls, and means for introducing live steam between said valve plates upon the interior of said frame, substantially as described. 3rd. The herein described rotary valve for steam engines, comprising a revoluble valve frame provided with cylindrical end portions and parallel longitudinal side bars or walls, two valve plates expansibly engaged with said longitudinal walls, and a steam passage communicating at one end with the steam inlet port, and at the other end with the space between the inner ends of said valve plates within said revoluble frame, substantially as described. 4th. The herein described rotary valve for steam engines, comprising a rotary frame having cylindrical end portions and parallel longitudinal side bars or walls, two valve plates of substantially T-shaped expansibly engaged with said side walls, and a steam passage leading from the steam inlet port and communicating with the space between the inner ends of said valve plates within said revoluble frame, substantially as and for the purposes described.

No. 42,956. Filter. (*Filtre.*)



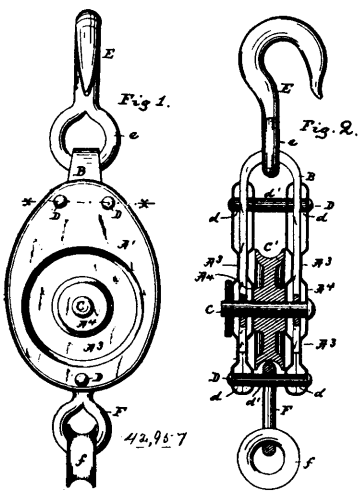
James Haines Drake, St. Paul, Minnesota, U.S.A., 18th May, 1893; 6 years.

Claim.—1st. The combination with the main reservoir, of the suspended filter vessel, having a central cup, a filter jar surrounding said cup and having a protruding neck, and a cover having inlet therein snugly jointed to said jar neck, whereby the external air for the filter charge is excluded from the ice chamber in its passage through the jar neck, substantially as described. 2nd. The combination, with the outer casing, and with the main reservoir, of the suspended filter vessel, having a central cup and ventilating channels between the walls of said reservoir and vessel respectively, the filter jar located within the filter vessel and around the cup thereof, and having a protruding neck, an upper dish provided with a central tube to receive the jar neck, and with ventilating channels between the walls of said dish and filter vessel, respectively, and the casing cover having an inlet communicating with said jar neck, and spaced near the rim thereof to connect with the dish channels, substantially as described. 3rd. The combination, with the main reservoir, of the filter vessel suspended therein, and having a central cup, an over-hanged rim, and external air ducts, the filter jar located within the filter vessel and around the cup thereof, and having protruding neck, an upper dish provided with a central opening to receive the jar neck, an overhanged rim, and air ducts at the external wall thereof, and the reservoir cover having an inlet communicating with said jar neck and spaced near the rim thereof to connect with the dish channels, substantially as described.

No. 42,957. Pulley Block. (*Poulie.*)

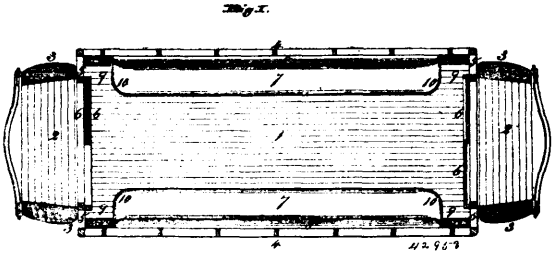
Herbert Lowd, Everett, Massachusetts, U.S.A., 18th May, 1893; 6 years.

Claim.—1st. A pulley block having cheek pieces, composed each of a pair of molded sheet metal plates, longitudinally abutting and secured together, substantially as and for the purpose set forth. 2nd. A pulley block having cheek pieces, composed each of a pair of molded sheet metal plates, longitudinally abutting and secured together as described, combined with a bow strap or straps, sheave and sheave spindle, substantially as and for the purpose set forth. 3rd. A pulley block having cheek pieces, composed each of a pair of molded sheet metal plates, longitudinally abutting combined with rivet and intermediate divider pipes or their equivalents for securing said cheek piece parts together and to the opposite cheek piece of the block, substantially as and for the purpose set forth. 4th. A pulley block having cheek pieces, composed each of a pair of molded sheet metal plates, having rounded or turned over peripheral abutting edges, and means for securing said cheek pieces together at a



proper distance apart, substantially as specified. 5th. A pulley block having cheek pieces, composed each of a pair of molded sheet metal plates having rounded or turned over peripheral abutting edges, and having annular depressions around the sheave spindle perforations, substantially as and for the purpose set forth. 6th. A pulley block having cheek pieces, composed each of a pair of molded sheet metal plates secured together, combined with a metal bow strap or straps having a loose or swinging hook attached to it, and a sheave mounted on a spindle journalled in said cheek pieces, substantially as and for the purpose set forth. 7th. A pulley block having cheek pieces, composed each of a pair of molded sheet metal plates secured together, combined with a metal bow strap having a loose or swinging hook attached to it, a sheave mounted on a spindle journalled in said cheek pieces, and a becket link and thimble connected to the lower end of the pulley block, substantially as and for the purpose set forth.

No. 42,958. Street Car. (*Chars de rue.*)



Frederick Betts Brownell, St. Louis, Missouri, U.S.A., 18th May, 1893; 6 years.

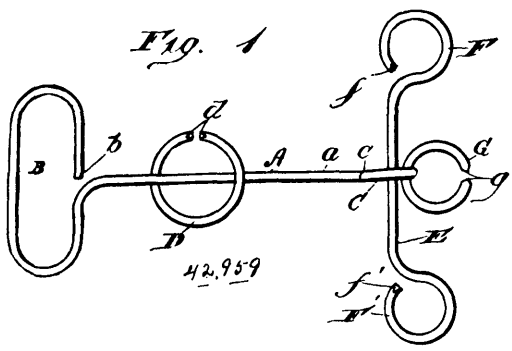
Claim.—1st. A street car having at the end two doors, each opening from its side of the car towards the other door, and each adapted to provide means of ingress and egress at the side of the platform from which it is moved, thereby providing for the passengers getting on and off the platform at the side adjacent to the open door, substantially as set forth. 2nd. The combination, in a street car having a platform and two doors at the end for ingress and egress of passengers, of the seats extending endwise along the sides of the car and having ends at a distance from the ends of the car body, leaving spaces 9 between the seats and door, substantially as and for the purposes set forth. 3rd. The combination, in a street car having an end platform, of two doors 6 at the end, sliding side by side, and seats 7, extending endwise in the car and shorter than the inside length of the car, substantially as and for the purpose set forth. 4th. The combination, in a street car, of two doors 6 at one end of the car, the platform 2, and seats extending endwise along the sides of the car and having rounded ends at a distance from the ends of the car body, leaving spaces 9 for the passage of passengers, substantially as set forth.

No. 42,959. Puzzle. (*Jeu de patience.*)

John A. Schaffer, Kensington, Illinois, U.S.A., 18th May, 1893; 6 years.

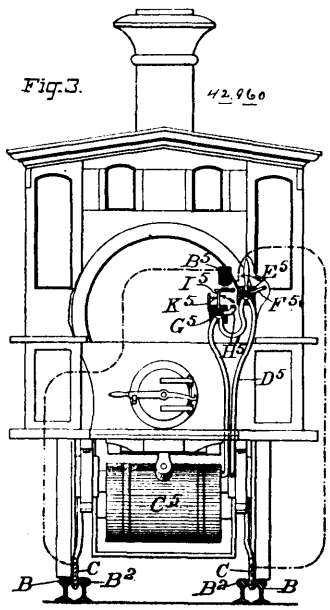
Claim.—1st. As an improved article of manufacture a puzzle, consisting of the main stem A, having the rings or enlargements B and C, the cross stem or arm E, encircled by the ring C, and having

the broken rings F, and F¹, provided with the bevelled ends *f* and *f*¹,



respectively, the broken ring G, having the bevelled ends *g* and linked in the ring C, and the broken removable or main ring D, having the bevelled end *d*, all constructed, arranged and operating, substantially as shown and for the purpose set forth.

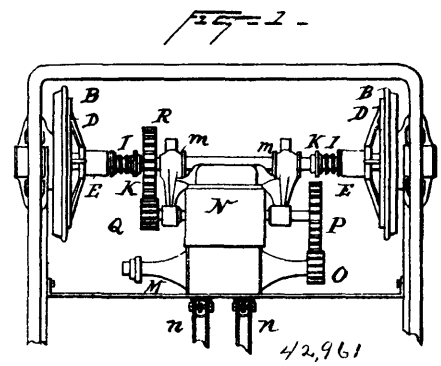
No. 42,960. Apparatus for Controlling the Movement of Railway Trains. (*Appareil pour contrôler le mouvement des trains de chemins de fer.*)



Frank Eugene Kinsman, Plainfield, New Jersey, U.S.A., 18th May, 1893; 6 years.

Claim.—1st. In an apparatus for controlling the movement of railway trains, the brake controlling cock or valve adapted to be operated by hand, and in addition thereto another brake controlling device adapted to be operated without interference with or from the first, and provided with a releasing or controlling electro-magnet connected to one or more contact bars or arms carried by the locomotive and arranged to engage with circuit closing bars upon the road bed, said circuit closing bars being connected with a circuit provided with means for closing the circuit when the train is to be brought to rest. 2nd. In an apparatus for controlling the movement of railway trains, the combination with the air cylinder connected to the train pipe, of two valves or cocks placed in the connection between the cylinder and train pipes, one of said cocks being provided with means for operating it by hand, and the other having a controlling magnet connected to contact arms carried by the locomotive or other vehicle moving on the line of rails and adapted to engage with contact bars upon the road bed, as and for the purpose described. 3rd. A circuit closer carried by a railway vehicle, and mounted with its edge in line with the flange of a vehicle wheel, as and for the purpose described. 4th. A circuit closer carried by a railway vehicle and suspended from a part of the car truck by a pivotal connection which adapts it to yield sidewise, said circuit closer having its contact portion arranged to travel in line with the flange of a wheel. 5th. A circuit closer mounted to travel in line with the wheel flange, and provided with a joint which adapts it to yield in the direction of the line of movement of the vehicle in case it meets an obstruction. 6th. A contact arm carried by a railway vehicle and having its forward and rear edges coincident with the line of travel of the wheel flange, and one or both sides extended outwardly and bevelled or rounded to engage by side contact with a bar or rail mounted on the road bed. 7th. Hanging the circuit closing bar or arm which travels in line with the wheel flange from the equalizing bar of the truck. 8th. The combination with the main rail, the circuit closing rail mounted on the same chair or support, but insulated therefrom and adapted to be engaged upon its side by a contact arm or bar carried by the vehicle. 9th. In a circuit closing apparatus for railway vehicles, a circuit closer suspended from a part of the vehicle which is free from up and down vibration, and having a spring acting on said circuit closer and tending to move its lower end sidewise, in combination with a contact rail mounted opposite the main rail, and having a side contact face engaged by said circuit closer, said contact rail being curved or inclined at opposite ends. 10th. Mounting the contact rail with its side contact face in sufficiently close proximity to the main rail to be engaged by the car wheels through lateral play whereby the side contact surface of said contact rail will be cleaned. 11th. The hand lever or other manual device, and the plunger or piston capable of movement independently of one another for the purpose of cutting off the supply of steam or other motive power to the engine, and a brake system or apparatus having a controlling device which controls also the pressure upon said piston or plunger, as and for the purpose described. 12th. The combination with a throttle valve or similar device controlling the motive power for an engine and the hand lever or similar hand mechanism for acting on said throttle valve or similar power controller, a piston or plunger for actuating the throttle valve or similar device by the pressure of air, steam or other motive agency, and a spring or other clutch between the hand lever or other motive power and said plunger and throttle valve whereby the latter may be operated under normal conditions by the hand device or by the power of air, gas, steam or other agency applied to the plunger moving the hand lever. 13th. In a combined brake and throttle controlling apparatus, a hand lever or other hand gear, and a piston or plunger capable of independent movement for the purpose of cutting off the power, and a brake system or apparatus operated by pressure of air, gas, steam or other fluid, and having a connection to the plunger or piston for the purpose of causing a preponderance of pressure upon one side thereof, and thereby shutting off the motive power independently of the hand lever. 14th. The combination with the throttle valve and an operating piston or plunger therefor, of a hand lever or gear having a slip joint or frictional connection with said throttle valve and plunger, a brake system or apparatus operating by pressure of air, gas, steam or other fluid, a connection from said brake system or from other pressure source to the plunger whereby the steam may be cut off on the application of the brake without operating the hand gear, and whereby the latter may be operated to cut off the stream or other motive power without the operation of the brake. 15th. The combination with a throttle valve placed in the steam passage leading to the engine cylinders, and with the hand lever of said valve, of an intermediate pressure cylinder, a piston having the piston rod, the hand gear stem, devices for locking said stem to said piston rod for permitting the backward throw of the piston, and devices for transmitting motion from the piston rod to the throttle valve, whereby the latter may be designedly operated under normal conditions by the hand lever or operated by excess or preponderance of pressure upon one side of the piston, substantially as described.

No. 42,961. Power Transmitting Device.
(*Appareil de transmission de la force.*)



Edward H. Johnson, New York City, New York, 19th May, 1893; 6 years.

Claim.—1st. The combination of a driving part, a driven part formed or provided with a friction surface, a movable friction member and the driving part, whereby said friction member is moved by the motion of the driving part into frictional engagement with the driven part, an elastic cushion opposing such movement, and a stop positively limiting the frictional engagement with relation to the safe capacity of the apparatus, substantially as set forth. 2nd. The combination of a driving part, a driven part formed or provided with a friction surface, a movable friction member, a screw mechan-

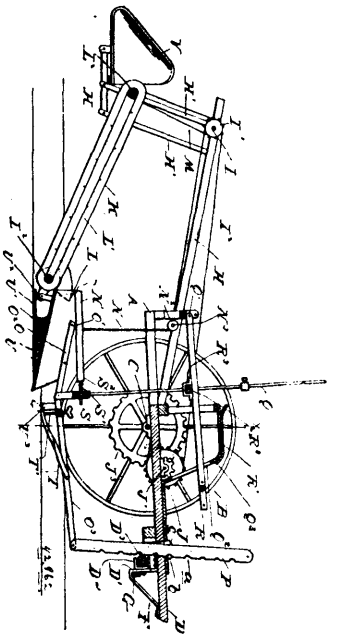
ism connected with the driving part, so as to be turned thereby, and connected with the said movable friction member, so as to move the same into frictional engagement with the driven part, an elastic cushion opposing such movement, and a stop positively limiting the frictional engagement with relation to the safe capacity of the apparatus, substantially as set forth. 3rd. The combination of an electric motor, a driven apparatus formed or provided with a friction surface, a movable friction member, connections from said motor to said friction member, whereby the same is moved by the operation of the motor into frictional engagement with the driven apparatus, an elastic cushion opposing such movement, and a stop positively limiting the frictional engagement with relation to the safe capacity of the motor, substantially as set forth. 4th. The combination, with two parts having frictional surfaces, of screw mechanism for moving them into frictional engagement, an elastic cushion opposings such movement, and a stop on the screw mechanism for positively limiting such movement to a predetermined extent, substantially as set forth. 5th. The combination of a wheeled vehicle, an electric motor mounted upon said vehicle for propelling it, a movable friction member intermediate said motor and the running gear of said vehicle, connections between said motor and said friction member, whereby said friction member is moved into frictional engagement with the running gear by the operation of said motor, an elastic cushion opposing such movement, and a stop positively limiting the frictional engagement with relation to the safe capacity of the motor, substantially as set forth. 6th. The combination of the axle, means for giving motion thereto, the wheel loose on the axle, the friction ring connected with the axle, so as to be moved thereby into frictional engagement with said wheel, an elastic cushion opposing such movement, and a stop positively limiting the frictional engagement with relation to the safe capacity of the apparatus, substantially as set forth. 7th. The combination of a driving part, a driven part, a movable friction member, connections between said friction member and the driving part, whereby said friction member is moved into frictional engagement with the driven part by the movement of the driving part, a spring opposing each movement, means for adjusting the tension of said spring, and a stop positively limiting the frictional engagement with relation to the safe capacity of the apparatus, substantially as set forth. 8th. The combination of a driving part, a driven part, a movable friction member, connections between said friction member and the driving part, whereby said friction member is moved into frictional engagement with the driven part by the motion of the driving part in either direction, an elastic cushion opposing such movement, and a stop positively limiting the frictional engagement with relation to the safe capacity of the apparatus, substantially as set forth. 9th. The combination of a driving part, a driven part, a movable friction member adapted to frictionally engage the driven part, a screw mechanism composed of two members, both in mechanical contact with said friction member, connections between said screw mechanism and the driving part, whereby upon motion of the driving part one member of the screw mechanism or the other according to the direction of movement, is moved against the friction member to bring the same into engagement with the driven part, and an elastic cushion opposing such movement, substantially as set forth. 10th. The combination of a shaft, a loose wheel, a movable friction member adapted to frictionally engage the wheel to drive it, two concentric sleeves, the inner one being feathered on the shaft and the outer one screw threaded on the inner one, connections with the source of power, and mechanical connections between said sleeves and said friction member, whereby movement of said sleeves in either direction moves the friction member into frictional engagement with the wheel, substantially as set forth. 11th. The combination of a driving part, a driven part, a movable friction member adapted to frictionally engage the driven part, a screw mechanism composed of two members, both in mechanical contact with said friction member, connections between said screw mecnanism and the driving part, whereby upon motion of the driving part one member of the screw mechanism or the other, according to the direction of the movement, is moved against the friction member to bring the same into engagement with the driven part, a stop at each end of the screw mechanism for positively limiting the frictional engagement, and a spring opposing the movement of the screw mechanism in either direction, substantially as set forth. 12th. The combination of the wheel loose on the axle, the friction ring adapted to engage said wheel and having a hub surrounding the axle, the internally screw threaded sleeve feathered within said hub, the externally screw threaded sleeve feathered on the axle, means for giving motion to the axle, and a spring opposing the longitudinal movement of said sleeves, substantially as set forth. 13th. The combination with the two screw threaded sleeves and friction member operated thereby, of the two pairs of stops at opposite ends of the screw threads, those of each pair being on opposite sides of the channel of the thread, and a spring opposing the longitudinal movement of the sleeves, substantially as set forth.

No. 42,962. Ditching Machine.

(*Machine à fossoyer.*)

Peter Hanlon, Camisteo, New York, assignee of Stephen Starr, Weston, Ohio, both of U.S.A., 19th May, 1893; 6 years.

Claim.—1st. In a ditching machine, the combination with the frame and plow, means for suspending the plow from the rear of the frame, a jointed beam pivotally connected with the plow and adjustably connected to the front of the frame and an adjustable standard pivotally secured to the plow and beam at the pivotal union thereof, substantially as described. 2nd. In a ditching plow, the combination with the frame and plow, means for suspending the plow from the rear of the frame, a jointed beam pivotally connected with the plow and adjustably connected with the front of the frame, an adjustable standard and a lever on the frame for actuating the standard, substantially as described. 3rd. In a ditching machine, the combination of the rigid wheeled frame, a depending cord or chain, a plow suspended at or near its middle by said chain, an adjustable standard and an adjustable beam secured to the forward end of said plow, and to which the adjustable standard is pivoted, substantially as described. 4th. In ditching machine, the combination with the frame of a plow suspended from the rear thereof, a jointed beam pivotally connected with the front of the plow, means for adjusting said beam, an adjustable standard connected with the front of the plow at the pivotal union between the beam and plow, means for adjusting the standard and a spring engaging the standard and carried by the plow, substantially as described. 5th. In a ditching machine, the combination of the rigid wheeled frame, a depending chain or cord, a plow suspended at or near its middle by said chain, a standard for the forward end of the plow, extending below the connection between the chain and plow, an arm of the plow, a spring on the arm engaging the standard above the lower most end thereof, and means for vertically adjusting said standard and chain, substantially as described. 6th. In a ditching machine, the combination of the frame, the suspended plow, the jointed plow beam and the adjustable bars Q and P, substantially as described. 7th. In a ditching machine, the combination, with the vertically adjustable plow, of the rearwardly extending bars H, secured to the frame, the bars H^1, depending from said bars, the elevator supported at one end by the plow and at the other end by said bars H, and means for driving the elevator, substantially as described. 8th. In a ditching machine, the combination with the vertically adjustable plow, the frame, the rearwardly extending bars H, the bars H^1, depending from the outer ends of said bars, the elevator supported at one end by the plow, and at the other end by said bars H^1, substantially as described. 9th. In a ditching machine, the combination with the plow, the plow beam, the plate T, connected by a spring arm with the plow beam, and the adjusting screw T^1, substantially as described. 10th. In a ditching machine, the combination with the frame of a plow, an adjustable standard for the plow and an independently adjustable bar on the standard, extending out horizontally beyond the frame, and a sight, hinged to said bar, substantially as described.

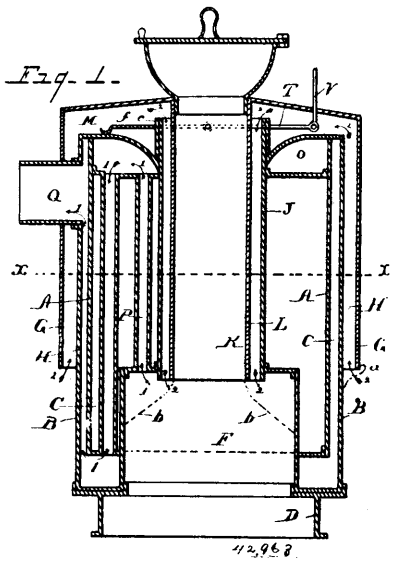


No. 42,963. Boiler. (*Chaudière.*)

Frederick H. Date, Toronto, Ontario, Canada, assignee of John H. Waterman, Detroit, Michigan, U.S.A., 19th May, 1893; 6 years.

Claim.—1st. In a boiler, the combination of a fire pot, the magazine communicating with the fire pot, said magazine composed of an outer and an inner shell with an air space between said shells, through which air is supplied to support combustion, substantially as specified. 2nd. In a boiler, the combination of a smoke sheet,

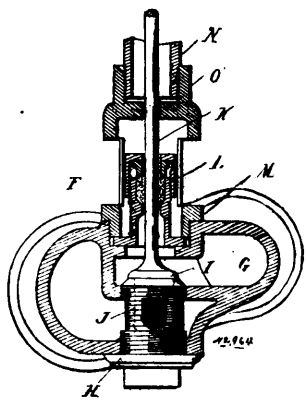
he exterior casing around the smoke sheet at such distance therefrom as to form an air passage or flue between said casing and smoke



sheet, the magazine composed of an outer and an inner shell forming an air passage between said shells, which communicates with the air passage between the smoke sheet and the outer casing, substantially as specified. 3rd. In a boiler, the combination of a fire pot, the magazine communicating therewith, said magazine composed of an outer and an inner shell so as to form an air space between said shells, the sliding damper to close said air space, as set forth. 4th. In a boiler, the combination of the outer casing and smoke sheet forming the outer air space, the magazine composed of the outer and inner shells with an air space between said shells that communicates with said outer air space, the sliding collar surrounding the upper end of the outer magazine shell, the lever pivoted to said collar, and means for actuating said lever, substantially as and for the purposes specified.

No. 42,964. Temperature Regulator.

(*Régulateur de température.*)

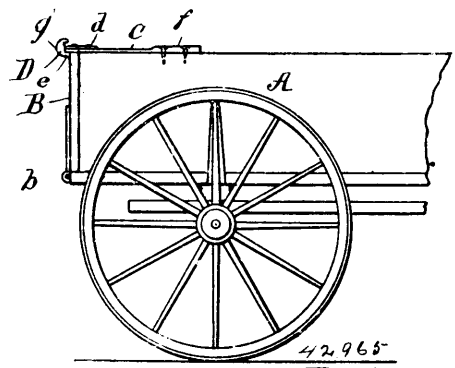


The Consolidated Car Heating Company, assignee of James Finney McElroy, Albany, New York, U.S.A., 19th May, 1893; 6 years.

Claim.—1st. In a car heating apparatus, the combination with a train pipe, a branch steam pipe extending to the side of the car, a valve controlling said pipe, arranged at the side of the car, and a thermostat secured to the side of the car controlling said valve, substantially as described. 2nd. In a car heating apparatus, the combination with a train pipe, a branch pipe for supplying steam to the car, a valve controlling said branch pipe, a thermostat in the car, a tube rigidly connecting the valve casing and said thermostat, and a rod extending within said tube to actuate the valve, substantially as described. 3rd. The combination with the steam supply pipe, a valve therein, a thermostat located in proximity to said valve, a frame rigidly connecting the valve casing and the frame of the thermostat, and a connection between the thermostat and valve, substantially as described. 4th. The combination with the steam supply pipe, of a heating system, of a valve in said pipe, a thermostat supported in a frame in a chamber in line with said valve, a tube rigidly connecting the valve and the frame of the thermostat and a rod located within said tube to actuate the valve, substantially as described. 5th. The combination with a steam supply pipe, a fitting in said pipe, a valve in said fitting, and a thermostat controlling said valve, substantially as described. 6th. The combination with the main steam supply pipe, beneath the car, the branch steam supply pipe, a return bend in said return pipe at the side of the car having inlet and outlet on different vertical planes, and a valve in said fitting, substantially as described. 7th. The combination with the casing of a return bend, having inlet and outlet on different planes, the partition G, plug H, valve I and stuffing box L, substantially as described.

No. 42,965. Tail Board Vehicle Spring.

(*Ressort pour derrière de charrette.*)

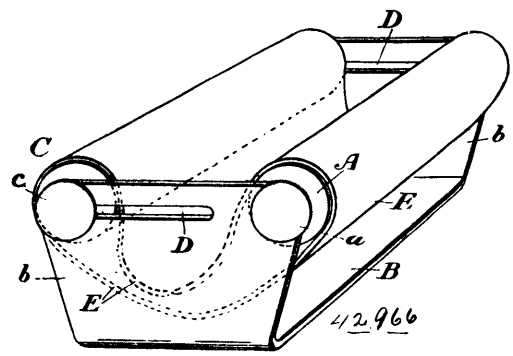


Freeman Nickerson, jr., and Henry McClusky, both of Fall River, Massachusetts, U.S.A., 19th May, 1893; 6 years.

Claim.—A spring for the tail boards of vehicles, consisting of the body part C, formed of one piece of spring metal, and the catch part D, composed of another piece of metal firmly secured to the body part and constructed with an elongated outer or upper leaf *d* and with a lip *e*, forming, with the leaf, a notch *s* to receive the outer end of the spring body, said lip also forming the locking part of the spring for the tail board of the vehicle, essentially as shown and described.

No. 42,966. Cigarette Maker.

(*Machine pour faire les cigarettes.*)



Herbert Charles Kerman, St. Catharines, and William Shuttleworth Kerman, Toronto, both of Ontario, Canada, 19th May, 1893; 6 years.

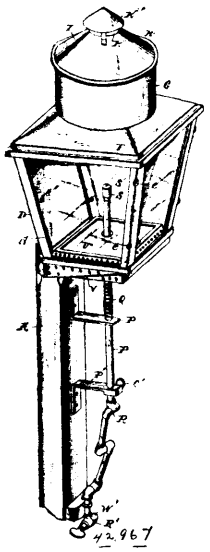
Claim.—1st. A cigarette maker comprised of a stationary roller, a horizontally, adjustable roller and an endless ribbon connecting both rollers, which are journalled in a suitable frame as and for the purpose specified. 2nd. The combination with the stationary roller A, journalled in the end plates *b*, of the frame B, and the roller C, supported in the end plates *b*, and adjustable in the slots D, to and from the roller A, and designed to be revolved as specified, of the ribbon E, connecting the rollers A, and C, and operating as and for the purpose specified.

No. 42,967. Street Lamp. (*Lampe de rue.*)

Charles W. Bodkin and George H. Houser, Celina, Ohio, U.S.A., 19th May, 1893; 6 years.

Claim.—1st. In a street lamp, the combination with the frame, of a vertical chimney extending downwardly below the roof of the frame and provided with vent perforations, and the removable cap

fitting in the upper end of the chimney and provided with a conical cover and a subjacent, inverted conical deflector, having a peri-



pheral air passage, substantially as specified. 2nd. In a street lamp, the combination with the frame, having a vertical ventilating chimney provided at its top with a peripheral series of perforations, of a removable cap fitting in the upper end of the chimney and consisting of a conical cover, having a depending perforated flange to fit in the chimney, and an inverted conical deflecting plate provided with a peripheral air passage, substantially as specified. 3rd. In combination with a street lamp, the removable hollow floor or bottom, having perforate walls, an imperforate guard plate arranged above the floor or bottom, substantially as specified. 4th. In combination with a street lamp, the perforated floor or bottom fitting against a perforated off set in the frame of the lamp, and an imperforate guard plate carried by said floor or bottom and engaging a horizontal flange above the plane of the perforations in the off set, substantially as specified. 5th. In combination with a street lamp, the double floor or bottom provided with perforations and fitting against a perforated off set in the frame of the lamp, and an imperforate guard plate arranged above the plane of the perforations in said off set, substantially as specified. 6th. In combination with a street lamp, having a fixed frame, the relatively depressed floor or bottom, provided with a vertical spring pressed operating rod, to normally hold the floor or bottom in its operating position, substantially as specified. 7th. In a street lamp, the combination with a fixed frame, of a depressible, spring actuated bottom or floor, a vertical tubular operating rod connected to said floor or bottom and extended about the same and provided with a burner tip, and a flexible coupling connecting the lower end of the operating rod with the line pipe, substantially as specified. 8th. In a street lamp, the combination with a fixed frame, of a depressible, spring actuated floor or bottom, a tubular operating rod connected to said floor or bottom and extending through and above the plane thereof, and the flexible coupling R comprising jointed sections of pipe to connect the lower end of the tubular rod to the line pipe, substantially as specified.

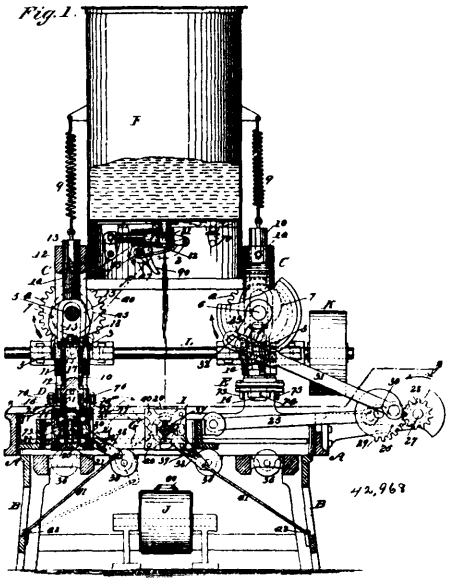
No. 42,968. Machine for Making Composition Targets.

(*Machine pour faire des cibles.*)

Hallack Abbey Penrose, assignee of John Wesley Dunbar, both of New London, Connecticut, U.S.A., 19th May, 1893; 6 years.

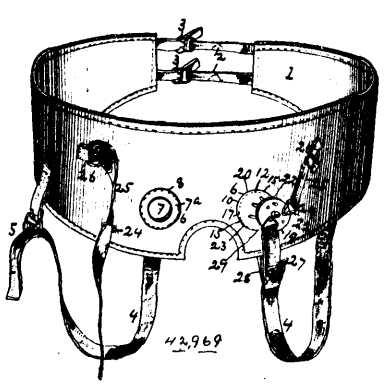
Claim.—1st. In a machine for making composition targets, the combination of a ram, a device for feeding the composition, a carriage, a rotary moulding block trunnioned therein, and mechanism for moving said carriage and locking the same into positions wherein the said mould block coincides with the said ram and the said feed device alternately, substantially as described. 2nd. In a machine for making composition targets, the combination of a ram, a composition feeding device, a rotary mould block bearing a series of moulds, a reciprocating carriage for carrying the mould block into alternate coincidence with the ram and feeding device, and mechanism for intermittently revolving the mould block in one direction when moving from the ram toward the feed. 3rd. In a machine for making composition targets, the combination of two rams, a central feed, two mould blocks adapted to coincide with one ram and the feed simultaneously, and a carriage for moving said mould blocks into alternate coincidence with the rams. 4th. In a machine for making composition targets, the combination of two rams, a central feed, two rotary mould blocks containing series of moulds revolving in vertical planes, a mechanism for intermittently rotating said blocks into positions for feeding, compressing, cooling and dropping the work, and a conveyer beneath the blocks for receiving

Fig. 1.



the work. 5th. The combination of the rams D, E, and tank F, the feeding device 2, the mould blocks H, I, the carriage G, and the reversible rock arm 26 for moving the carriage, and means for reversing said arm, substantially as described. 6th. The combination of the ram D, E, the mould blocks H, I, and means for feeding the material and operating said blocks, substantially as described, and the driving shaft L, worms 3, 3, gears 4, 4, and cams 7, 7, arranged as specified. 7th. The combination of the rams D, E, the tank and supply device 2, the carriage G, and means for reciprocating it, the rotary mould blocks H, I, trunnioned in said carriage, the rock arms 38, connected at their free ends to the frame of the machine, and pawls mounted on the rock arms, engaging with said mould blocks to revolve them in one direction at each stroke of the carriage, substantially as described. 8th. In a machine for making composition targets, the combination of a ram, a mould block and means for moving the mould block into and out of coincidence with the ram, and an automatic composition feeding device having coincidence with the mould block when it is out of coincidence with the ram, the same consisting in a plunger, a valve for alternately establishing communication of the plunger with the tank and the outlet, and mechanism for moving the valve and the plunger automatically corresponding to the movements of the said mould block.

No. 42,969. Truss. (*Bandage herniaire.*)

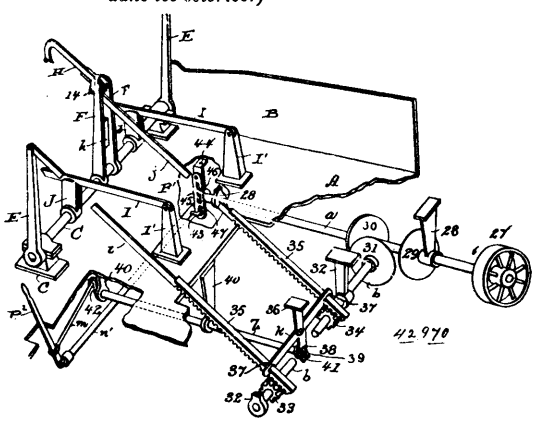


Charles Colves and Henry C. Meyer, Beardstown, Illinois, U.S.A., 19th May, 1893; 6 years.

Claim.—1st. In a truss the combination, with the belt or band having fastening straps or buckles, a perineal strap, and a buckle at the back of the band for engaging therewith, of the pad consisting of the circular pieces, one of which is provided with a circular opening, secured together near their peripheries and to the band, forming a pocket, the leather disc secured to said pocket and band, having intersecting slits at right angles to each other, the spring actuated plate intermediate of the disc and pocket, and means for pressing said band against the body, substantially as described. 2nd. In a truss, the combination, with the belt or band having fastening straps

and buckles, a perineal strap, and a buckle at the back of the band for engaging therewith, of the pad consisting of the circular pieces connected together near their peripheries and to the band, forming a pocket to receive filling material, of the leather disc secured to said pocket and band, having intersecting slits at right angles to each other, the metal plate intermediate of said pocket and disc, having outwardly projecting pins and a central stud, a plate having inwardly projecting tubes in which said pins work, and a central aperture for the passage of the stud, a coiled spring encircling said stud, and means for pressing the pad against the body, substantially as described. 3rd. In a truss, the combination, with the belt or band having fastening straps and buckles, a perineal strap, and a buckle at the back of the band for engaging therewith, of the pad consisting of the circular pieces connected together near their peripheries and to the band, forming a pocket to receive filling material, the leather disc secured to said pocket and band, having intersecting slits at the right angles to each other, the metal plate intermediate of said pocket and disc, having outwardly projecting pins and a central stud, a plate having inwardly projecting tubes in which said pins work, and a central passage for the passage of the stud, a coiled spring encircling said stud, a series of studs on the outer face of said last mentioned plate, the loops connected with said studs, the fastening straps and buckle secured to the band and to the perineal strap, substantially as described.

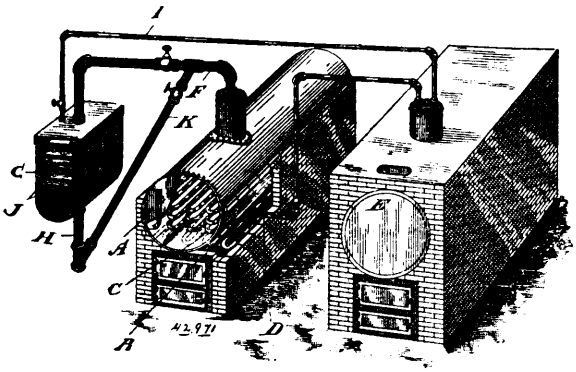
No. 42,970. Machinery for Handling Saw Logs in Saw Mills. (*Appareil pour manier les billots dans les scieries.*)



The Chamberlain Manufacturing Company, assignees of Flaviel Simonson, all of Milwaukee, Wisconsin, U.S.A., 19th May, 1893; 6 years.

Claim.—1st. In a machine for handling logs, the combination with the rock shaft bearing, rigidly attached cams and push arms, mechanism for rocking the shaft, and pivoted lifting bars operated by said cams, of a hook carrier loosely mounted on the rock shaft, stops for limiting the movements of the hook carrier, and mechanism for turning said carrier upon the shaft and operating the hook, substantially as described. 2nd. In a machine for handling logs, the combination with the rock shaft and a hook carrier mounted on said shaft, of a hook having a horn on its curved end, and mechanism for operating the hook, substantially as described. 3rd. In a machine for handling logs, the combination of logway provided with a pivoted stop, a lever pivoted beneath the pivot of said stop, and provided with an arm bearing normally against the stop to lock it, and mechanism to rock the lever and unlock the stop, substantially as described. 4th. In a machine for handling logs, the combination of a log way provided with a pivoted stop, a lever pivoted beneath the stop, and provided at its front end with a resetting arm bearing normally against the stop, and mechanism to rock the lever and unlock the stop, substantially as described. 5th. In a machine for handling logs, the combination with the log ways, of a rock shaft suitably mounted between said log ways at their forward ends, cams secured on said shaft, standards placed between but independent of the log ways, and lifting levers whose rear ends are pivoted in said standards and whose forward ends rest on the cams, substantially as described. 6th. In a machine for handling logs, the combination with the logways, of a rock shaft suitably mounted between said logways at their forward ends, cams secured on said shaft, and log lifters each having a sharp projection on its front end, the forward ends of said lifters resting on the cams and their rear ends pivoted on any suitable support, for the purposes stated. 7th. In a machine for handling logs, the combination with the logways, of a rock shaft between them, pushing arms secured to said shaft, cams also secured to the shaft, log lifters pivoted at their rear ends to suitable supports, their forward ends resting on said cams, a hook pivoted on a support secured to the rock shaft, and mechanism for rocking the shaft, the hook being automatically raised and lowered by the mechanism that rocks the shaft to raise the lifters and throw the pushing arms forward. 8th. In a machine for handling logs, the combination of a rock shaft, a hook pivoted on a support secured to said shaft, mechanism for rocking the shaft and canting the hook, and an automatically actuated device for holding the hook elevated at the will of the operator, for the purposes stated.

No. 42,971. Distilling Petroleum.
(*Distillation du pétrole.*)



The Ontario Standard Oil Company, assignees of Harry Worthing, all of Toronto, Ontario, Canada, 19th May, 1893; 6 years.

Claim.—1st. A still containing crude oil and provided with a coil of pipe located in the still and connected to a coil of pipe leading from a steam boiler and located in the furnace below the still, substantially as and for the purpose specified. 2nd. A steam shell or jacket formed around the filterer G, and provided with pipes J, extending across the filterer and supplied with steam from the steam jacket, substantially as and for the purpose specified. 3rd. A still containing crude oil and provided with a coil of pipe leading from a steam boiler, and located in the furnace below the still in combination with a filterer surrounded by a steam jacket and provided with steam pipes extending across the still, substantially as and for the purpose specified. 4th. A still raised to a high temperature by the internal and external application of heat in combination with a pipe leading to a filterer and a pipe leading to the condenser, substantially as and for the purpose specified.

No. 42,972. Potato Digger. (*Arrache-patates.*)

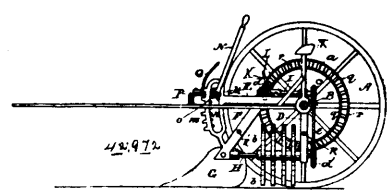


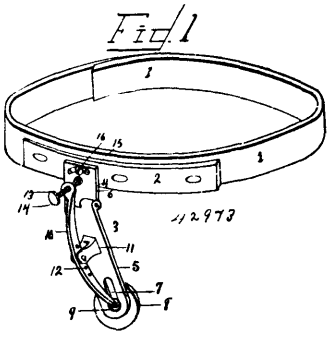
Fig. 1

William E. Roche and Alfred L. Poor, Peabody, Massachusetts U.S.A., 20th May, 1893; 6 years.

Claim.—1st. In combination with the axle B, two arms pivoted to said axle and extending forward from the the same, the hangers D F, the plows, and revolving teeth supported by said hangers and means for raising said arms and hangers, all as and for the purposes set forth. 2nd. In combination with the axle B, the arms E, pivoted to said axle and extending forward from the same, hangers F, the concave racks n, secured to the forward ends of said arms and hangers and adapted to rise and fall with the same, pinions d, journalled in stationary bearings and engaging with the racks n, and means for rotating said pinions, all as and for the purposes set forth. 3rd. In combination with the axle B, the arms E, pivoted to said axle and extending forward from the same, hangers F, the double rack m n, secured to the forward ends of said arms and hangers and adapted to rise and fall with the same, pinions d, journalled in stationary bearings and engaging with inner concave rack n, means for rotating said pinions, a bar or board hinged or pivoted transversely to the machine frame and with its free edge adapted to engage with and lock the outer convex rack m, and means for raising said bar or board on its pivots or hinges, all as and for the purposes set forth. 4th. In a potato digger, the combination of the two parallel shafts H, H, extending longitudinally with the machine and in the line of draft of the same, the two series of radial teeth b, b^1, secured to said shafts, with the teeth of each series extending from its shaft at short distances apart and in parallel planes with each other, and the teeth of both series also curving in opposite directions and adapted to revolve in opposite directions in the direction of their curves inward to the centre of the machine and up and outward from the same, all as set forth. 5th. The combination, with the traction wheel, of a crown gear secured concentrically to the inner surface of the wheel, a shaft supported in bearings on the frame of the machine, a pinion loosely journalled on said shaft and adapted to be readily keyed or unkeyed in a moment from said shaft, the revolving teeth b or b^1, the shaft for supporting the same, and

intermediate mechanism between said shaft and the shaft bearing the pinion for transmitting the rotary motion from one shaft to the other, all as and for the purpose set forth. 6th. In combination with the shaft I, having the lateral pins *g*, *g*, the pinion *d*, loosely journalled on said shaft and having the flange or collar *f*, with the inclined slots f^1, the coil spring *i*, encircling the outer end of the shaft I, and bearing against the surface of the pinion *d*, opposite the flange *f* and pins *g*, a gear for engagement with said pinion and means for forcing the pinion away from the pins *g*, and against the action of the spring *i*, all as and for the purposes set forth. 7th. The crown gear *a*, constructed of two consecutive rings of different sizes and short cylinders of a length equal to the distance between said rings, radially secured between and to the same at equal distances apart the entire distance around said rings, as set forth.

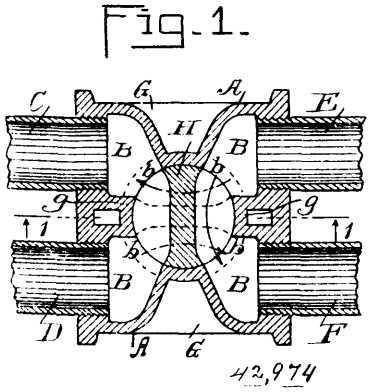
No. 42,973. Truss. (*Bandage*).



George J. Slayton, Royal H. Peck, Cortes J. Slayton, David Randal, William S. Cheney, Joseph W. Spaulding, George W. Hendee, the firm Lang & Campbell, consisting of George C. Lang and Alexis R. Campbell, Henry Waite, E. Allen Leach, William H. Slayton, all of Morrisville; and Milo S. Brunell, of Wolcott, assignee of Eli E. Boomhower, Morrisville, all in Vermont, U.S.A., 20th May, 1893; 6 years.

Claim.—1st. In a truss, the combination of a plate hinged or pivotally connected to a belt and carrying a pad at its lower end, a lever centrally pivoted in a bearing on the hinged plate with its lower end extending over said pad and means for adjusting the upper end of said lever, substantially as set forth. 2nd. In a truss, the combination, with a belt, of an adjustable plate pivotally secured thereto, a downwardly extending plate hinged to said adjustable plate at its upper end and carrying a pad at its lower end and a lever centrally pivoted in a bearing on the lower hinged plate with its lower end extending over the centre of the pad and having an adjusting screw working through its upper end against a fixed bearing on the belt, substantially as set forth.

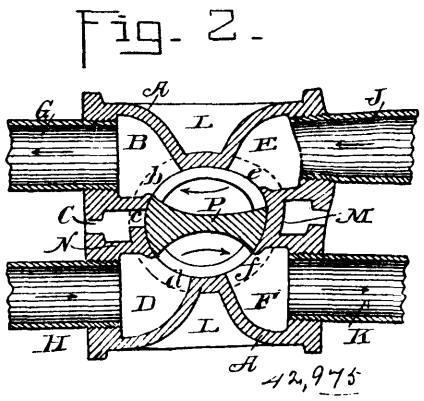
No. 42,974. Valve. (*Soupape.*)



The Consolidated Car Heating Company, assignees of James F. McElroy, all of Albany, New York, U.S.A., 20th May, 1893; 6 years.

Claim.—1st. A valve provided with four ports, a rotary stop cock placed within said valve by the operation of which the direction of the flow through the valve may be changed, substantially as described and for the purpose set forth. 2nd. In a valve, the combination of a valve chamber, four ports in said chamber, a centrically located rotary cock in said valve chamber, by the operation of which the flow through the valve may be from end side of the valve to the other, or from the port on one side of the valve to the port on the same side, depending upon the position of said cock, substantially as described and for the purpose set forth. 3rd. In a valve, the combination of a valve chamber, four ports in said chamber, two on each side thereof, with a projecting web on the interior surface of the sides of said chamber, unprovided with ports, with projecting lugs on each side of said valve chamber between the ports, with a cock provided with a flattened vertical shank fitting between said webs and said lugs, substantially as described and for the purpose set forth.

42,975. Valve. (*Soupape.*)



The Consolidated Car Heating Company, assignees of James F. Mc Elroy, all of Albany, New York, U.S.A., 20th May, 1893. 6 years.

Claim.—1st. A valve composed of a valve chamber, five ports in said valve chamber, a plug extending through the centre of said valve chamber, so arranged that by the movement of said plug, the direction of the flow through the valve may be governed, substantially as described and for the purpose set forth. 2nd. A valve consisting of a valve chamber, an air port in said valve chamber, four ports for the passage of water or steam therein, a plug placed in said valve chamber, adapted to be moved in such a manner as to close one or more of said ports when desired, substantially as described and for the purpose set forth. 3rd. A valve consisting of a valve chamber, five ports therein, a plug in said valve chamber operated from without, suitable supports for said plug, said plug adapted to close one or more of said ports, substantially as described and for the purpose set forth. 4th. In a valve, a valve chamber, five ports therein, a plug consisting of a flattened shank, suitable supports for said plug, projecting webs and lugs in said valve chamber, arranged to make close connections with said plug, when said plug is brought into contact with them, all so arranged that one or more of the ports may be closed by the operation of said plug, substantially as described and for the purpose set forth.

No. 42,976. Whip and Analogous Articles.

(*Fouet et autres articles analogues.*)

Frank Foley and Patrick H. Kerwin, Westfield, Massachusetts, U.S.A., 20th May, 1893; 6 years.

Claim.—1st. As an improved article, a whip handle, umbrella handle, cane, whip socket or other analogous article, consisting of a tapering core, wound at its upper end with the tanned throat pipe of an animal forming a lining, a braided covering and a butt covering consisting of the seamless tanned leather windpipe or alimentary tube of an animal, substantially as described. 2nd. As an improved article, a button for a whip, consisting of a short length of seamless tanned windpipe or throat pipe of an animal, substantially as described.

No. 42,977. Press for Hay. (*Presse à foin.*)

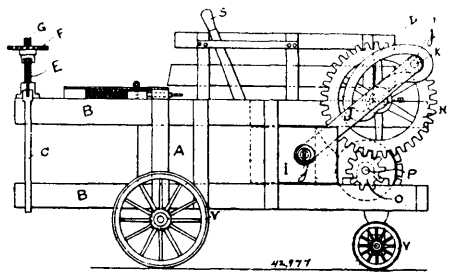
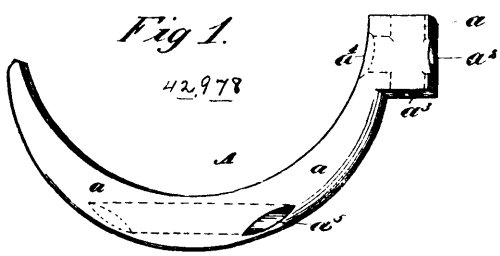


Fig. 1.

Arthur Gibeault, St. Isidore, Quebec, Canada, 20th May, 1893; 6 years.

Claim.—In a hay press, the horse power Q, shaft P, pinion O, gear N, cam L, pitman J, plunger I, and bale box H, substantially as described and for the purposes set forth.

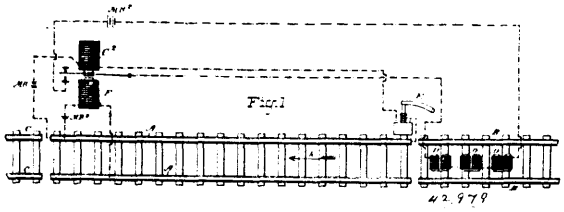
No. 42,978. Pipe Hanger. (*Gâche de tuyau.*)



Frank G. Scott and George L. Scott, both of Newport, Rhode Island, U.S.A., 20th May, 1893; 6 years.

Claim.—1st. A pipe hanger comprising a hook having a head or shank provided with holes ranging at angles with each other, a rod adapted interchangeably to either of the holes to support the hook, and a wall plate provided with holes ranging at angles with each other and adapted to receive and sustain the hanger rod, substantially as described. 2nd. A pipe hanger comprising a hook having a head or shank provided with holes ranging at angles with each other, and also having a lengthwise hole through its bent body portion, a rod adapted interchangeably to said holes to support the hook, and a wall plate provided with holes ranging at angles with each other and adapted to receive and sustain the hanger rod, substantially as described. 3rd. In pipe hangers, the pipe sustaining hook provided in its head or shank with holes a^2, a^3, ranging about at right angles with each other, in combination with means, substantially as described, for supporting said hook, substantially as described. 4th. In pipe hangers, the pipe sustaining hook provided in its bent boby portion with a lengthwise hole a^5, in combination with means, substantially as described, for supporting said hook, substantially as described. 5th. In pipe hangers, the pipe sustaining hook provided in its head or shank with holes a^2, a^3, ranging about at right angles with each other, and provided in its bent body portion with a lengthwise hole a^5, in combination with means, substantially as described, for supporting said hook, substantially as described. 6th. In pipe hangers, the hanger rod wall paper provided with holes b, b^1, ranging about at right angles with each other, in combination with a rod C, and a hook A, substantially as described.

No. 42,979. Railway Circuit for Signalling and Controlling Trains. (*Circuit de chemin de fer pour signaler et contrôler les trains.*)

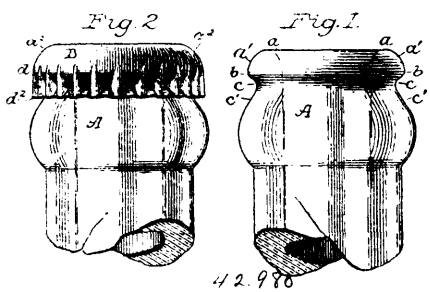


Frank Eugene Kinsman, Plainfield, New Jersey, U.S.A., 20th May, 1893; 6 years.

Claim.—1st. In an apparatus for controlling the movement of railway trains, the combination, with a controlling magnet in a normally charged circuit, and means for interrupting of such charged circuit to set the apparatus in danger condition of a supplemental magnet or magnet coil for keeping the apparatus in danger condition, and a circuit therefor independent of that used in setting the apparatus, said circuit being through the rails, and car wheels and axles of a section of road upon which the train moves while the apparatus requires to remain in danger condition. 2nd. The combination, with an electro-magnet, of a circuit therefor controlled by a train on entering a section, and an opposing magnet coil in a circuit completed through the car wheels and axle on said section, as and for the purpose described. 3rd. The combination, with the magnet on a normally closed circuit, of means for interrupting the flow of current therein, so as to throw the armature to danger position when a train enters a section, a circuit completed through the rails of said section and car wheels and axle in said section, and means controlled by said circuit for keeping the armature in danger position, as and for the purpose described. 4th. The combination, with the magnet having a circuit formed through the rails and normally closed, of a circuit breaker at the entrance of a section of track, and means for keeping the armature of said magnet in danger position controlled by a circuit formed over the track and the car axles and wheels of any car on said section. 5th. The combination, with the magnet on a normally charged circuit, of a circuit breaker operated by a passing train, and a magnet coil for keeping the armature of the first named magnet in danger position, said magnet coil being in a circuit formed through the wheels and axles of any car on the section of track protected. 6th. The combination, with a magnet in a normally charged circuit including the rails, of a mechanically operated circuit breaker actuated by a passing train for setting the armature or equivalent portion of the magnet to danger position, and a magnet or magnet coil for keeping the apparatus in danger position while the train is on a section of track, said magnet being in a circuit completed through the rails and car wheels and axles on the said section. 7th. The combination, substantially as described, with a magnet in a circuit normally charged or closed and including the rails of a railroad track, and an armature or equivalent device controlling signalling or other appliances, as described, of means for interrupting the circuit of said magnet, and a supplemental magnet or magnet coil for holding the apparatus in danger position, or position into which it is placed by the interruption of the circuit for the field magnet, said magnet or magnet, coil being in a circuit which includes the rails of a section of track and the car axles and wheels on said section.

No. 42,980. Bottle Sealing Device.

(*Appareil pour sceller les bouteilles.*)

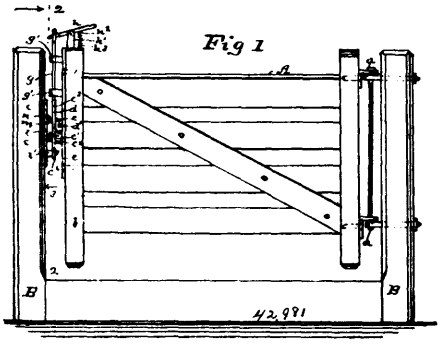


William Painter, Baltimore, Maryland, U.S.A., 20th May, 1893; 6 years.

Claim.—1st. The combination with a bottle having a head provided with an annular locking shoulder adjacent to its lip and a straight or inclined surface below the recess beneath said shoulder, of a metallic sealing cap containing a sealing disc and having a flange, which is bent or crimped into locking contact with said shoulder above the edge of the flange, the said edge being located remotely from the adjacent surface of the bottle head to afford between the lower portion of the flange and the adjacent surface of bottle head an annular space which is freely accessible to any pointed instrument applied for detaching the cap, substantially as described. 2nd. The combination, with a bottle having a head provided with an annular locking shoulder adjacent to its lip and a straight or inclined surface below the recess beneath said shoulder, of a metallic sealing cap containing a sealing disc and having a flaring edged flange, which is bent or crimped into locking contact with said shoulder above its flared edge, the latter being located remotely from the adjacent surface of the bottle head to afford between the lower portion of the flange and the adjacent surface of the bottle head an annular space which is freely accessible to any pointed instrument applied for detaching the cap, substantially described. 3rd. The combination, with a bottle having on its head and between its lip and neck an annular locking shoulder and a rounded packing surface above and extending to the lip from said shoulder, of a metallic cap, containing a thin concavo convex heavily compressed sealing disc and having a top which is rounded in conformity with the packing surface on the bottle head and has a flange which is bent or crimped into locking contact with said shoulder, substan-

tially as described. 4th. A metalllic flanged sealing cap adapted to receive the head of the bottle and containing a concavo convex sealing disc and an interposed film of inodorous and tasteless adhesive matter which not only secures reliable initial union of the cap and disc, but also protects the interior surface of the cap against corrosion by liquids permeating the disc, and also prevents metallic tainting of the contents of a bottle sealed by means of said cap and disc, substantially as described.

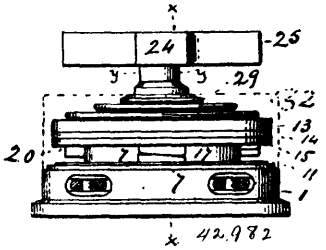
No. 42,981. Gate Latch. (*Loquet de barrière.*)



Philip T. Rapson, Bad Axe, Michigan, U.S.A., 20th May, 1893; 6 years.

Claim.—1st. A gate latch, comprising a back plate secured to the end rail of the gate and having detent pins projecting therefrom, a locking plate pivoted in the back plate having an arched top edge formed with a centre notch, two oppositely curved limbs at its lower edge, also formed with a centre notch, a check stud at the rear adapted to engage the pins on the back plate, and an ear on its front face, a bolt mounted to slide above the locking plate, a spring pressed lever adapted to trip said bolt, a latch plate secured to a fence post opposite the locking plate on the gate, having a latching limb thereon and a stud projecting above said limb and adapted to engage the ear on the locking plate, substantially as described. 2nd. The combination, with a gate supported to swing and a lock plate secured to the end rail of the gate, and having detent pins projecting therefrom, of a locking plate pivoted on the back plate, having an arched top edge formed with a centre notch, two oppositely curved limbs at its lower edge formed with a centre notch, a check stud at its rear adapted to engage the pins on the back plate, and an ear on its front face, and a bolt mounted to slide above the locking plate, and a spring pressed lever adapted to trip said bolt, substantially as described. 3rd. The combination, with a gate supported to swing and a lock plate secured to the end rail of the gate, and having detent pins projecting therefrom, of a locking plate pivoted on the back plate, having an arched top edge formed with a centre notch, two oppositely curved limbs at its lower edge formed with a centre notch, a check stud at its rear adapted to engage the pins on the back plate and an ear on its front face, and a bolt mounted to slide above the locking plate, a spring pressed lever pivoted on a standard on the gate end rail *b*, and loosely engaging the upper end of the slide bolt and a latch plate secured to a fence post opposite the locking plate on the gate, having a latching limb thereon and a stud projecting above said limb and adapted to engage the ear on the locking plate, substantially as described.

No. 42,982. Switch for Electrical Circuits.
(*Aiguille pour circuits électriques.*)



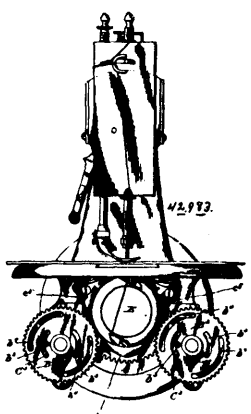
Edward H. Johnson, New York, State of New York, U.S.A., 20th May, 1893; 6 years.

Claim.—1st. The combination, in a switch, of two rigid members corresponding to the jaws of a vise, one of which members is movable repeatedly in the same direction in making and breaking circuit, contacts carried by the switch members, which when the circuit is closed are held in contact between said rigid members, said members being positively held from moving away from each other, and means for disengaging the contacts, substantially as described. 2nd. The combination, in a switch, of two rigid members corresponding to the jaws of the vise, one of which members is movable repeatedly in the same direction in making and breaking the circuit, contacts carried on the two adjacent sides of the rigid members, which contacts when the circuit is closed are held in contact between said rigid members, means for separating the contacts, and a spring for throwing one member with its contacts forward, substantially as described. 3rd. A circuit making and breaking switch having fixed and movable bevelled or wedge shaped contacts, rigid and relatively movable bodies on two adjacent sides of which the contacts are mounted, a spindle for the moving body, and means holding said bodies from moving away from each other in the direction of the length of the spindle when the circuit is closed, whereby when the circuit is closed the contacts are wedged and held together between said rigid bodies, substantially as described. 4th. The combination, in a snap switch, of a fixed and a movable rigid body having a central spindle, the movable body being positively held from moving away from the other body, a spring for throwing the movable body, and contact devices between said bodies and in position to make and break contact as the movable member is turned on its spindle, substantially as described. 5th. A circuit making and breaking switch having fixed and movable contacts, rigid bodies on two adjacent sides of which the contacts are located, which contacts when the circuit is closed are pressed together between said rigid or unyielding bodies, and permanent locking devices for locking the movable bodies and contacts against reverse movement, substantially as described. 6th. A circuit making and breaking switch having fixed and moveable rigid bodies parallel with each other, contacts on two adjacent sides thereof, which when the circuit is closed are wedged together between said rigid or unyielding bodies, permanent locking devices for locking the movable member against a backward movement, and a spring for throwing the movable contact when the switch is operated, substantially as described. 7th. The combination, in a switch, of a stationary rigid member, a movable rigid member which is mounted so that it can be rotated in one direction only in making and breaking the circuit, engaging contacts carried by said switch members, and means for rotating the movable member and for moving it toward or from the stationary member, whereby when in one position said contacts are wedged together between the rigid members, substantially as described. 8th. A circuit making and breaking switch having fixed and movable rigid bodies, contacts between two adjacent faces thereof, which when the circuit is closed are wedged together between said bodies, the contact s having faces bevelled for a portion only of their length, means for moving the contacts directly away from each other, and means for advancing the movable contacts, said latter means operating when the contacts have been moved far enough apart to bring the highest points of the bevels on the contacts adjacent to each other, substantially as described. 9th. The combination, in a switch, of two members carrying contacts, one member being fixed and the other movable, a screw rotatable only in one direction and held from longitudinal movement, said screw working in a nut carried by the movable member for moving it from the fixed member when the switch is moved to its open position, and means for turning the movable member on the screw, thus causing it to ride toward the fixed member, said screw constituting a spindle on which the movable member turns, substantially as described. 10th. The combination, in a switch, of two members carrying contacts, one member being fixed and the other being movable, a screw rotatable only in one direction, said screw being threaded in such direction that when the screw is turned the movable member will be carried away from the fixed member, and a spring connected to the screw and to the movable member for throwing the latter forward, thereby causing it to ride down on the screw thread, substantially as described. 11th. The combination, in a switch, of two rigid members, contacts carried thereby, which when the circuit is closed are held in contact between said rigid members, which members are movable always in the same direction both in making and breaking the circuit, means for disengaging the contacts, and means for arresting the same before the circuit is again closed, substantially as described. 12th. The combination, in a switch, of two switch members, contacts carried thereby, which when the circuit is closed are held in contact between said members, a screw held from longitudinal movement engaging with and adapted to move one member for disengaging the contacts, and a spring for throwing the movable member with its contact forward, causing it to ride down on the screw, substantially as described. 13th. The combination, in a switch, of a base, adapted to be connected to a support, carrying circuit terminals separated from each other, a rigid movable member fitting over the base and carrying connecting devices adapted to co-operate with the terminals to electrically unite them, a screw threaded sleeve in said movable member, a screw held from longitudinal movement, but adapted to turn in said sleeve, whereby when the screw is turned the movable member is raised and permitted to advance, substantially as described. 14th. The combination, in a switch, of a base adapted to be connected to a support, carrying circuit terminals separated from each other, a rigid movable member fitting over the base and carrying connecting devices adapted to co-operate with the terminals to electrically unite them, a screw threaded sleeve in said movable member, a screw held from longitudinal movement but adapted to turn in said sleeve, and a spring connected to the screw and to the movable member, whereby when the screw is turned the movable member is raised and advanced, substantially as described. 15th. The com-

bination, in a circuit making and breaking switch, of a fixed member, a member adapted to rotate, terminal contacts on the fixed member, an insulating screen extending between the same, and a connecting plate or connecting plates on the movable member, substantially as described. 16th. The combination, in a switch, of a connecting plate or device, and a pair of terminals having contact faces and arranged adjacent to each other side by side, the end of the contact portion of each terminal at which the connecting device leaves it being inclined or bevelled away from the other terminal, whereby when the connecting device breaks the circuit, no arc can be formed between the adjacent edges or corners of said terminals, substantially as described. 17th. The combination, in a switch, of a connecting plate or device, and a pair of terminals having contact devices and arranged adjacent to each other side by side, the end of the contact portion of each terminal at which the connecting device leaves it being inclined or bevelled away from the other terminal, whereby when the connecting device breaks the circuit no arc can be formed between the adjacent edges or corners of said terminals, and an insulating screen between the terminals, substantially as described. 18th. The combination, in a rotary switch, of a fixed and a rotary member, circuit terminals side by side, that is, in different circles on one member, a contact or connecting plate on the other member, adapted to electrically unite said terminals, said plate having a transverse movement whereby it is adapted to rest squarely on both terminals, substantially as described.

No. 42,983. Sewing Machine. (*Machine à coudre.*)

Fig. 2.

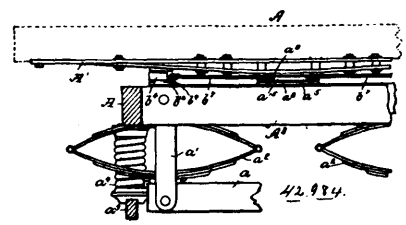


Harriet Ruth Tracy, New Brighton, New York, U.S.A., 20th May, 1893; 6 years.

Claim.—1st. A revoluble loop taker provided with openings in its periphery forming opposing hooks, the openings to serve to retain the needle threaded upon the loop taker for carriage of the loop of the needle thread entirely around it, and being of depth sufficient to keep the thread from contact with the driving wheel, and the opposing hooks to serve to take and take up the thread, this loop taker to be suitably supported and combined with a driving device having peripheral engagement with it, so that positive and accurately timed movement may be given to the loop taker, substantially as described. 2nd. A revoluble loop taker, provided with openings in its periphery forming opposing hooks, the openings to serve to retain the needle thread upon the loop taker for carriage of the loop of the needle thread entirely around it and being of depth sufficient to keep the thread from contact with the driving wheel, and the opposing hooks to serve to take and take up the thread, the loop taker having a chamber for threaded supply, forming a shuttle to be suitably supported and combined with a driving device having peripheral engagement with it, substantially as described. 3rd. The combination with a revoluble loop taker, provided with openings in its periphery forming opposing hooks, the openings to serve to retain the needle thread upon the loop taker for carriage of the loop of the needle thread entirely around it and being of depth sufficient to keep the thread from contact with the driving wheel, and the opposing hooks to serve to take and take up the thread, of driving mechanism, and a reversible feeding device, whereby the fabric under operation may be moved in either of two directions, to cause the loop taker to make a lock stitch or chain stitch, substantially as described. 4th. A sewing machine comprising a bar or plate, carrying serrated projecting portions to protrude from the work plate of the machine, the plate being capable of an up and down movement, and of a longitudinal reciprocating movement, the plate or bar being detachably connected to the bed plate of the machine, substantially as described. 5th. A sewing machine comprising a driving shaft, provided with a gear wheel, an independent shaft mounted adjacent to the main shaft and provided with a gear wheel meshing with that on the main shaft of the machine, a second gear wheel loosely mounted on the independent shaft and gearing with the loop taker of the machine, and two sliding pins, one mounted on the frame of the machine, and the other carried by a wheel interposed between the gear wheels on the independent shaft, and revolving with the shaft, and cams whereby the pins are alternately brought into contact with and drawn from the loose gear wheel, substantially as described. 6th. A tension device consisting of a spring band or collar provided with one or more openings, substantially as described. 7th. A revoluble loop taker arranged adjacent to a reciprocating needle, carrying a thread, the loop taker being provided on its periphery with three opposing hooks by which the succeeding loops of the needle thread are engaged and the thread of each preceding loop taken up, substantially as described.

No. 42,984. Antifriction Bearing.

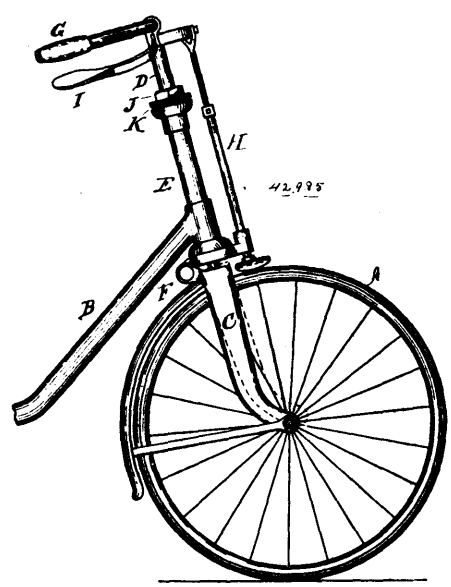
(*Coussinet de tourillon sans friction.*)



Luther Kendall Jewett, Boston, Massachusetts, U.S.A., 20th May, 1893; 6 years.

Claim.—1st. The combination with an antifriction centre bearing composed of two flat or plane bearing surfaces, and intermediate antifriction devices provided with arbours, and a spacing frame movable with the said arbours, of an antifriction side bearing consisting of an upper and lower bearing surface, and an interposed antifriction device provided with arbours, a frame movable with said arbours, and an intermediate connection between the said movable frames, substantially as described. 2nd. In an antifriction bearing, the combination with two plane or flat bearing surfaces, of an interposed antifriction device provided with arbours, a frame movable with said arbours, and means provided with ears resting upon said arbours to lock the antifriction device to the said frame, substantially as described. 3rd. In an antifriction bearing, the combination with two plane or flat bearing surfaces provided with a hardened face *c*, of an interposed antifriction device provided with arbours, and a frame movable with said antifriction device, substantially as described. 4th. In an antifriction bearing, the combination with two plane or flat bearing surfaces provided with a hardened face *c*, of an interposed antifriction device provided with arbours, and a frame movable with said antifriction device and provided with ears bent about the arbours to lock the antifriction device to the frame, substantially as described.

No. 42,985. Bicycle. (*Bicycle.*)

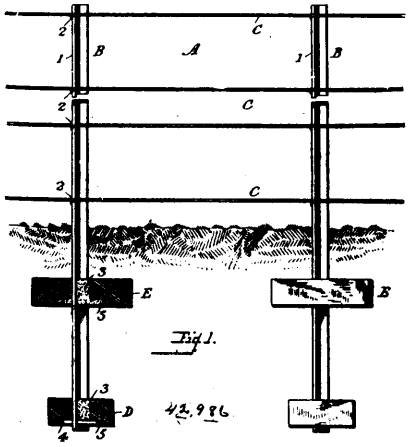


William Wesley Kenfield, Rochester, New York, U.S.A., 20th May, 1893; 6 years.

Claim.—1st. The combination in a bicycle, of the handle bar tube D, provided with internal projection or collar S, the fork C con-

nected to the lower end of the handle bar tube by a pivot joint located in rear of the tube, and provided with a lug or projection entering the lower end of the tube, and forming a stop to limit the movement of the fork, and a compression spring concealed within the tube and bearing at its upper end against the internal projection S, and at its lower end against the fork, substantially as described. 2nd. The combination in a bicycle, of a handle bar, tube D provided with internal projection or collar S, and rearwardly projecting perforated eye O, the fork C having lug P engaging in the lower end of the tube, the ears N, N^1, the pivot F, and compressible spring R concealed within the tube, substantially as described. 3rd. The combination in a bicycle, of the handle bar tube D, provided with internal projection or collar S, the fork C connected to the lower end of the handle bar tube by a pivoted joint located in rear of the tube, and provided with a lug or projection entering the lower end of the tube and forming a stop to limit the movement of the fork, and springs R and U located within the tube above and below the collar S, and the rod T passing through the springs and connected with the fork, substantially as described. 4th. The combination in a bicycle, of the handle bar tube D, the fork C jointed to the lower end of the tube by a pivoted joint located on the rear side of the tube and having a lug P, which projects into the lower end of the tube and is smaller than the opening therein, and a spring arranged to press the fork away from the tube, substantially as described.

No. 42,986. Fence Post. (*Pieux de clôture.*)

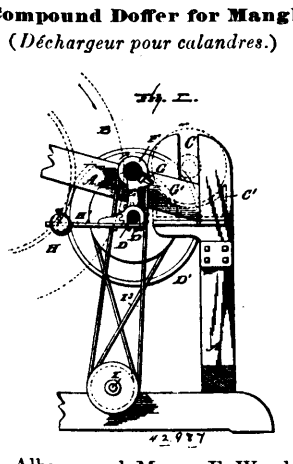


Lawrence Heiland and Charles E. Bronson, both of Defiance, Ohio, U.S.A., 20th May, 1893; 6 years.

Claim.—1st. In a fence, a base plate having a vertical aperture and a recess in its under side surrounding the aperture, said recess being larger than the aperture, an anchor plate having a like aperture and recess, an angular post passed through the apertures in the respective plates and a suitable cement filling within the apertures and the recesses for holding the post in position. 2nd. In a fence, a base plate having a vertical aperture and a rectangular recess in its under side surrounding the aperture, an anchor plate having a like aperture and recess, an L-shaped post resting in the apertures in the respective plates and keyed to the base plate and a cement filling within the apertures and the recesses.

No. 42,987. Compound Doffer for Mangles.

(*Déchargeur pour calandres.*)

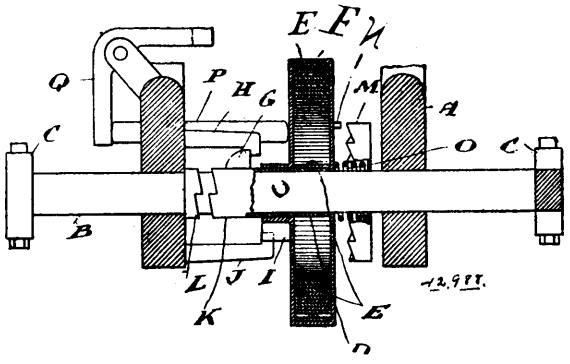


Thomas S. Wiles, Albany, and Memzo E. Wendell, Troy, both of New York, U.S.A., 22nd May, 1893; 6 years.

Claim.—1st. The combination, with two adjacent ironing mechanisms, of an interposed compound rotary and fixed doffer mechanism, substantially as specified. 2nd. The combination, with adjacent ironing mechanisms, of an interposed compound doffer involving as one of its elements a fixed doffer, substantially as specified. 3rd. The combination, with two ironing mechanisms, of an interposed rotary doffer and a fixed doffer arranged in the order specified, substantially as specified. 4th. The combination, with a clothed drum, of a rotary doffer and a fixed doffer, the former being mounted yieldingly against the drum and the latter fixedly against the former, substantially as specified. 5th. The combination, with a clothed drum, of a rotary doffer and means for yieldingly pressing the same against the drum, and an edged doffer mounted fixed in relation to the rotary doffer and movable therewith toward and away from the drum, substantially as specified. 6th. The combination of a rotary doffer, a fixed doffer, and brackets for supporting the same, and weighted arms secured to the bracket, substantially as specified. 7th. The combination, with a rotary and fixed doffer and with brackets for supporting the same, of means for pivotally supporting the brackets and for yieldingly moving the brackets on their pivots, substantially as specified. 8th. The combination, with a clothed drum and with adjacent supplementary ironing mechanism, of a rotary and fixed doffer pivotally mounted between the drum and the said ironing mechanism and means for rotating the rotary doffer in a direction opposite to that of the drum, substantially as specified. 9th. The combination, with a clothed drum, of a rotary doffer having a brush-like periphery, a fixed doffer arranged to project into the periphery of the rotary doffer, and means for rotating the latter, substantially as specified. 10th. The combination, with a rotary doffer having its periphery covered with mohair plush, of a fixed doffer-blade arranged to project slightly into the periphery of the rotary doffer and means for yieldingly moving the blade and rotary doffer simultaneously toward the drum, substantially as specified. 11th. The combination, with brackets, as E, of a fixed blade, as G, a stiffening bar, as G^1, and a rotary doffer F, substantially as specified.

No. 42,988. Power Storing Attachment for Bicycles.

(*Appareil d'emmagasinage de la force pour bicycles.*)

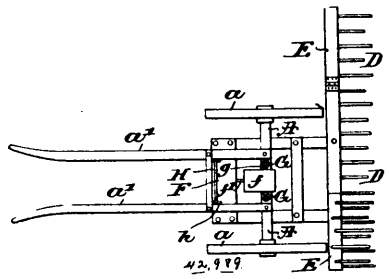


Andrew Crosby Sotheran, Fordwich, Ontario, Canada, 22nd May, 1893; 6 years.

Claim.—1st. In a bicycle, a spring arranged to operate in connection with a rotating spindle, in combination, with means whereby the said spring may be wound by the revolution of the spindle, and means whereby it may afterwards be connected to the spindle, so as to impart rotary motion to the said spindle in the same direction as at first, substantially as and for the purpose specified. 2nd. A spring having its ends connected to sleeves loose on the spindle, of the pedal cranks of a bicycle, in combination, with means whereby when one sleeve is held from revolving, the other is held in connection with the spindle, and when the other sleeve is held from revolving, the first mentioned sleeve is held in connection with the spindle, substantially as and for the purpose specified. 3rd. The spring E, having one end fast to a sleeve D, on the spindle B, which spindle has a clutch formed on it to engage with a clutch formed on the sleeve D, the other end of the said spring being connected to the casing F, also sleeved on the spindle B, which casing is adapted to engage with a suitable clutch on the said spindle, in combination, with means whereby when the casing E, is held from revolving, the sleeve D, is held in clutch with the spindle B, and when the sleeve D, is in clutch with the spindle B, the casing F, is held in clutch with the said spindle, substantially as and for the purpose specified. 4th. The combination of the bicycle pedal crank spindle B, having clutches formed on or connected to it, the spring E, connected to sleeves adapted to engage with the clutches on the spindle B, the arms H, and J, rigidly connected to the bicycle frame and adapted to engage with lugs formed on or connected to the said sleeves, and means for sliding the said spring and its sleeves, substantially as and for the purpose specified.

No. 42,989. Sulky Cultivator and Weeder.

(*Cultivateur à disque et sarcleur.*)

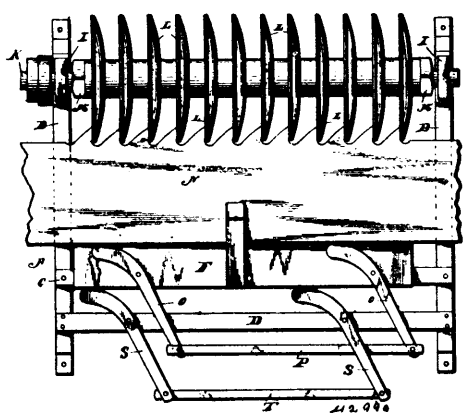


Zephaniah Breed, North Weare, New Hampshire, U.S.A., 22nd May, 1893; 6 years.

Claim.—1st. The herein described sulky cultivator and weeder, comprising the main axle, the carrying wheels, the frame loosely swivelled to said axle, the head piece, the teeth fixed in said head piece, the pivoted seat, and a connection intermediate of the seat and forward part of the frame, substantially as described. 2nd. In a sulky cultivator and weeder, the carrying wheels, the axle, the uprights on said axle, the cross piece having the spring ends operating loosely on the uprights, and the seat pivoted on said cross piece, substantially as described. 3rd. In a sulky cultivator and weeder, the carrying heels, the axle, the frame supporting the weeder, loosely secured to said axle, the platform on the forward part of the frame, the uprights on said axle, the cross piece, the seat pivoted on said cross piece, and a connection between the seat and the platform, substantially as described. 4th. In a sulky cultivator and weeder, the carrying wheels, the axle, the weeder frame pivoted to the under side of said axle, the platform on the frame, and the lever pivoted on the shafts, and adapted to engage with the platform to elevate the weeder, substantially as described. 5th. In a sulky cultivator and weeder, the combination of the carrying wheels, the axle, the frame B, the platform F, the seat pivoted between the uprights on the axle and adapted to raise and lower the platform as it is tilted, and the head piece *b*, secured on the frame, the teeth fitted in said head piece, and the extensions E, hinged to the ends of said head piece, and adapted to fold over the same, substantially as described.

No. 42,990. Saw Sharpener.

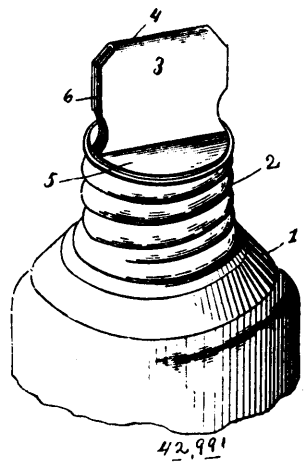
(*Machine à affuter les scies.*)



William H. Nogar, Mt. Jewett, Pensylvania, U.S.A., 22nd May, 1893; 6 years.

Claim.—1st. In a machine for sharpening saws, the combination of the series of sharpening discs carried by a common arbour, the saw supporting carriage, and the cam levers fulcrumed upon the carriage to engage the back of the saw, substantially as specified. 2nd. In a saw sharpening machine, the combination of the sharpening discs carried by a common arbour, the carriage mounted upon suitable guides, the cam levers carried by the carriage, the pivotal clamp carrying a thumb screw to engage the saw blade, and the operating levers mounted upon the frame of the machine to engage the carriage, substantially as specified. 3rd. In a saw sharpening machine, the combination with the sharpening devices, the saw supporting carriage, the cam levers fulcrumed on the carriage to engage the back of the saw, and adjusting the levers arranged to engage the carriage to move it toward the sharpening devices, substantially as specified. 4th. In a machine of the class described, the combination with a framework, provided with inclined guides E, a slidable carriage mounted upon such guides, an arbour K, sharpening discs carried thereby and means to lock the saw upon said carriage, of adjusting levers S, S, pivotally connected to the framework and having cam faces to engage the rear edge of the carriage and connecting bar T between the free ends of such levers, substantially as described.

No. 42,991. Can Top. (*Couvercle de bidon.*)

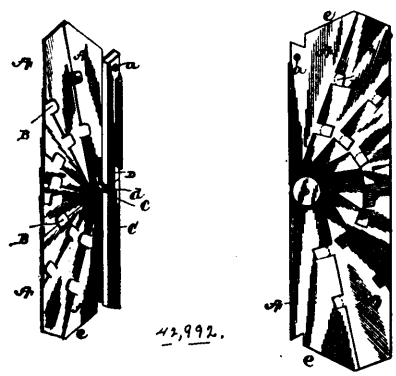


Clark Thompson Brant, Chariton, Iowa, U.S.A., 22nd May, 1893; 6 years.

Claim.—1st. In combination with a screw cap, of a handle or grip attached to the upper end thereof, and consisting of a double blank having the ends thereof outturned at right angles and firmly secured to the said top or upper end of the cap for the purpose of removing the latter, said blank being formed from suitable sheet metal, substantially as described. 2nd. In combination with a screw cap, of a handle or grip attached to the upper end thereof and consisting of a doubled blank having the ends thereof outturned at right angles and firmly secured to the upper end of the cap, and a reinforcing strip inserted between the bent or doubled portions of said blank, substanially as described.

No. 42,992. Dust Guard for Car Windows.

(*Garde-poussière pour fenêtres de chars.*)

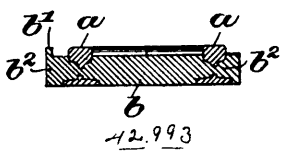


John C. Fry, Larned, Kansas, U.S.A., 22nd May, 1893; 6 years.

Claim.—1st. A dust and cinder deflector, consisting of triangular plates pivoted together at their smaller ends, one edge of each of said plates being provided with one or more tongues which engage the edge of the adjacent plate when unfolded for use, substantially as described. 2nd. In a dust and cinder deflector, the combination of triangular plates pivoted together at their smaller ends, one edge of each of said plates being provided with one or more tongues adapted to engage the edge of the adjacent plate, and strips secured to the inner edges of each of the outermost plates, substantially as described and for the purpose specified. 3rd. In a dust and cinder deflector, the combination of the plates A, pivoted together at their smaller ends and provided with tongues B, of the strip C, rigidly secured to the outer edge of one of the plates A, and the strip D, pivoted at its outer end to the other plate A, substantially as described and for the purpose specified. 4th. In a dust and cinder deflector, the combination of the plates A, pivoted together at their smaller ends and provided with tongues, of the strip C, rigidly secured to the outer edge of one of the plates A, and provided at its inner end with a mortise c, and the strip D, pivoted at its outer end to the other plate, and provided at its inner end with a tenon *d*, substantially as described and for the purpose specified.

No. 42,993. Frog for Railway Tracks.

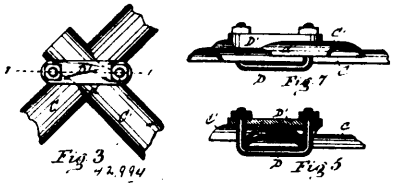
(*Rail de croisement pour chemins de fer.*)



Henry R. Luther, Cambridge, Massachusetts, U.S.A., 22nd May, 1893; 6 years.

Claim.—1st. The herein described railway frog, it having its treads formed of usual and independent rails bound rigidly together by a body portion cast about them, the ends of the said rails projecting beyond the vertical planes of the ends of the body portion to furnish means for attaching abutting rails, substantially as described. 2nd. The herein described railway frog, it having its tread formed of rails of ordinary construction, bound rigidly together by a body portion cast about them and having formed upon it suitable guards b^1, substantially as described. 3rd. The herein described railway frog, having its point and also the treads formed of usual independent rails bound rigidly together by a body cast about them and having portions extended through openings in the webs of the rails, the body extending beyond the outer sides of the treads, the portions of the body upon opposite sides of the rails being united by the portions thereof extended through the said rails, substantially as described.

No. 42,994. Harrow. (*Herse.*)



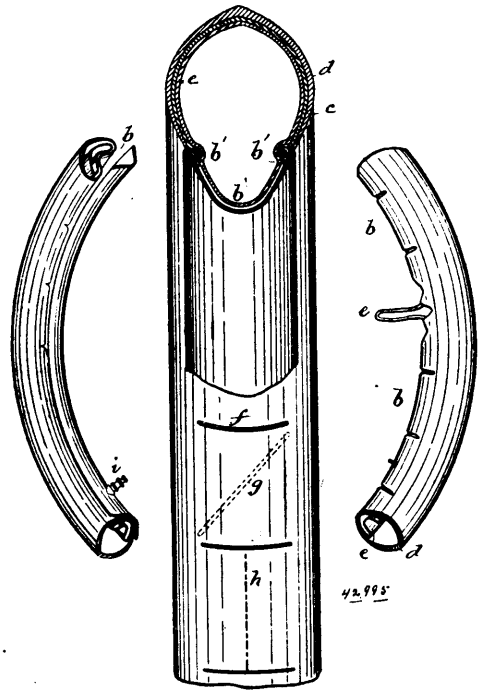
Orlando Justus Childs, Utica, New York, U.S.A., 22nd May, 1893; 6 years.

Claim.—1st. In combination with the frame bar channelled longitudinally in its under side, the plate a^1 seated in the channel of said bar and confined in alignment thereby, and provided with recessed seats in its opposite edges, the tooth lying in said seats, the shoe s lying across the under side of the tooth and formed with the tongue s^1, extending lengthwise of the tooth to brace the same, and the clip lying in the shoe and embracing the bar, substantially as described and shown. 2nd. In a harrow frame, the combination with the draft bar, of the cross bar boxed thereon and movable lengthwise thereof, a plate upon the cross bar at the point of crossing, and provided with bolt holes at the four corners of the crossing of the bars, and two clips crossing each other on the under side of the draft bar, and having their attaching shanks outside of the bars in the four corners of the crossing thereof and passing through the bolt holes of the aforesaid plates, and nuts on the ends of said clip shanks, as set forth. 3rd. The combination of the harrow frame composed of draft bars and cross bars boxed on said draft bars and movable lengthwise thereof, of a draft iron having its attaching shank extending across the said bars at their point of crossing, and a clip embracing said bars and secured to the draft iron shank, substantially as described and shown. 4th. The combination of the draft bar formed concave convex in cross section and disposed with its concave side downward, the plate a^1 formed likewise concave convex, and seated with its convex side in the concave side of the draft bar and projecting beneath the edges thereof, the spring tooth seated on the bottom edges of the plate a^1, a clip securing the tooth and plate to the draft bar, and the supporting arm a formed integral with the plate a^1, and having its free end extending under the front end of the draft bar and bearing thereon, as and for the purposes set forth. 5th. In combination with the concave convex draft bar, the supporting arm a secured at its rear end to the under side of the draft bar and formed likewise concave convex in cross section, and with the longitudinal strengthening rib a^{11} in its concave side, as set forth and shown.

No. 42,995. Pneumatic Tyre. (*Bandage pneumatique.*)

William Bowden and Ridley James Urquhart, both of Manchester, England, 22nd May, 1893; 6 years.

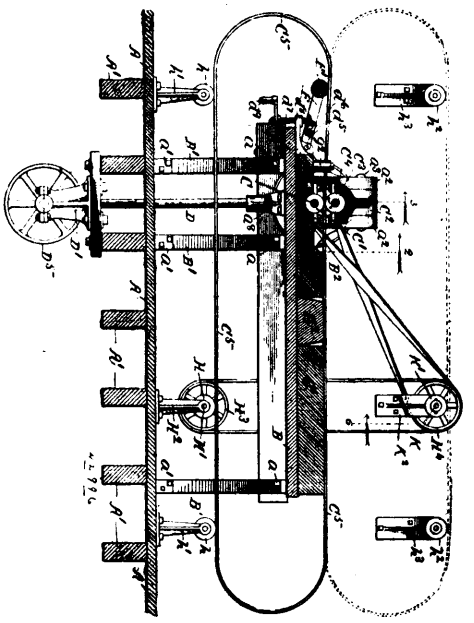
Claim.—1st. A tyre consisting of an unstretchable cover composed of canvas b, c, coated with india rubber d, and slit with cross slits at short distances in the under part b of the said cover, fitting into the cavity of the felloe a, and an inflatable air tube e inserted into said cover, substantially as and for the purpose set forth. 2nd. The combination of a felloe a, the section of which is V shaped with



rounded apex, an unstretchable tyre cover composed of canvas coated with india rubber, and slit at intervals across the part b of the same fitting into said felloe, and an inflatable air tube inserted into said cover, substantially as and for the purpose set forth.

No. 42,996. Saw Stretching Machine.

(*Appareil pour étamper les scies.*)



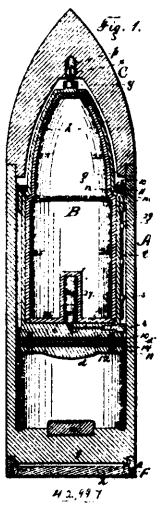
Milo Covel, Chicago, Illinois, U.S.A., 22nd May, 1893; 6 years.

Claim.—1st. In a saw stretching machine, the combination with a supporting base, of a horizontal shaft journalled therein, a roll mounted on said shaft, and a movable arm pivoted or hinged at one end to said base, a companion horizontal shaft journalled in said arm, a second roll mounted on said companion shaft, means for transmitting motion to said shafts, a locking bar, a cam shaft journalled in the loose end of said arm, and a latch engaging said bar, substantially as set forth. 2nd. In a saw stretching machine, the combination of the companion roll shafts arranged horizontally one above the other, and provided with suitable journal bearings, the

pinions, mounted on shafts and engaging with each other, a gear wheel mounted on the lower shaft, a vertical counter shaft, a pinion mounted on the upper end of the counter shaft and engaging with said gear wheel, a second gear wheel mounted in the lower end of the counter shaft, a horizontal driving shaft, a pinion mounted on the end thereof, and engaging with said gear wheel on the lower end of the counter shaft, substantially as set forth. 3rd. In a saw stretching machine, the combination of a base plate provided with vertical lugs, a roll shaft journalled in said base, an arm hinged or pivoted at one end to said lugs, and a roll shaft journalled in said arm, whereby said arm may be swung upward so that an object may be inserted or removed between the rolls, substantially as set forth. 4th. In a saw stretching machine, the combination with a base plate, of a roll carrying arm hinged or pivoted at one end thereto, a cam shaft journalled in the loose end of said arm, a handle lever mounted thereon, a locking base pivoted at its lower end and recessed in the upper end to engage with said cam shaft, and a latch to engage said locking bar when it is in a closed position, substantially as set forth. 5th. In a saw stretching machine, the combination with a base plate, of a roller frame pivoted at one end thereto and loose at the other, a roller journalled in the loose end, and a hand screw for raising or lowering said frame, substantially as set forth. 6th. In a saw stretching machine, the combination with a base plate, of a guide plate adjustably secured thereto, and a guide roller mounted on one end of the guide plate, substantially as set forth. 7th. In a saw stretching machine, the combination with the stretching rolls, of one or more driven carrying rollers, and means for transmitting motion thereto, whereby a continuous motion is imparted to the saw corresponding with the speed of the stretching rolls, substantially as set forth.

No. 42,997. Shell for High Explosives.

(*Enveloppe pour explosifs puissants.*)



Joel Gilbert Justin, Syracuse, New York, U.S.A., 22nd May, 1893; 6 years.

Claim.—1st. An explosive carrier and an outer shell body enclosing it and laterally separated therefrom, both being constructed and combined to permit, when the shell is fired, of change in the relative positions of the parts and of their retaining the new relations until the flight of the shell is arrested, substantially as specified. 2nd. An explosive carrier and an outer shell body enclosing it and laterally separated therefrom, both being constructed and combined to permit, when the shell is fired, of change in the relative positions of the parts and of their retaining the new relations until the flight of the shell is arrested, and means whereby air may pass within the shell body between it and the carrier, substantially as specified. 3rd. An explosive carrier and an outer shell body enclosing it and laterally separated therefrom, both being constructed and combined to permit, when the shell is fired, a change in the relative positions of the parts and of their retaining the new relations until the flight of the shell is arrested, and means for detachably holding the cylinder ajacent to the head of the shell, substantially as specified. 4th. A shell consisting of a casing, provided with a concave seat in its breech, in combination with the explosive carrier within said casing, provided with a base having a central pivot to rest upon said seat. 5th. In a shell, the casing provided with a concave seat, in its breech, in combination with the explosive carrier, within said casing, provided with a base having a central pivot adapted to engage with said seat, and the flanged disc upon and supporting the carrier in the casing. 6th. In a shell, the casing provided with a groove, in its breech, in combination with the explosive carrier and the flanged disc upon the rear end of said carrier. 7th. In a shell, the casing provided with a groove in its breech, and a concave seat within said groove, in combination with the explosive carrier provided with a base having a central pivot, and the flanged discs upon and supporting the carrier in the casing. 8th. In a shell, the combination with the casing provided with a groove in its breech, and a pivot seat within the groove, of the explosive carrier having a central pivot adapted to fit into said seat, and a flanged disc adapted to enter said groove, and the metallic plate under the disc, of larger diameter than the carrier, and means to secure the pivot, disc and plate to the carrier. 9th. In a shell for high explosives, the combination, with the point, the casing and the explosive carrier, of a cul-de-sac in the cap, and a ball coupling connected to the carrier entering it. 10th. In a shell for high explosives, the combination with the point, the casing, and the explosive carrier, of a cul-de-sac in the point, a ball coupling connected to the carrier entering it, and a ring of soft metal between the carrier and point. 11th. In a shell, the combination, with the point, and the casing, of an explosive carrier within it, extending forward and substantially filling said point. 12th. In a shell, the combination, with the casing, of a point provided with a threaded flange, fitting into and creating a shoulder within the casing, for the purposes set forth. 13th. In a shell, the combination, with the explosive carrier, of a yielding lining within it, provided with a removable cover to the lining. 14th. In a shell, the combination, with a casing, and explosive carrier, of a point inserted into the casing and creating a shoulder therein, of a firing pin mounted upon said casing and adapted to engage with said shoulder, and a primer in the base of the carrier and connections therefrom to the chamber within said carrier. 15th. In a shell, the combination with the explosive carrier, of the firing pin mounted in guides thereon, a primer in the base of said carrier, a detonator within said carrier, and connections between said primer and detonator. 16th. In a shell, the combination, with the explosive carrier and the guides thereon, of a firing pin in said guides, and a pin in said firing pin adjacent to a guide. 17th. In a shell, the combination, with the sabot, of a sabot expanding plate mounted within it. 18th. In a shell consisting of a casing and an explosive carrier within it, the combination therewith, of a detonator within said carrier adapted to be exploded by the travel of the carrier in said casing. 19th. In a shell, the combination, with a detonator and a firing pin, of a time fuse between them. 20th. In a shell, the combination, with the explosive carrier, the detonator within it, the firing pin exterior to it, and the primer in the base of said carrier, of a fuse between said detonator and said primer. 21st. In a shell, the combination, of the point, the casing, the explosive carrier detonating mechanism, and means to retard the forward travel of the carrier in the casing to affect the detonation. 22nd. In a shell, the combination, with the casing, the point creating a shoulder within it, and the explosive carrier mounted therein and detached therefrom, of a firing pin mounted upon said carrier and between it and said casing, a detonator in the carrier and a detonating mechanism between said firing pin and detonator. 23rd. A detonator consisting of a powder chamber, a barrel opening therefrom, a ball therein, and a chamber closely confining a charge of explosive, and means to ignite the powder in its chamber, in combination as set forth. 24th. The combination, with the explosive carrier, of a detonator comprising a chamber closely confining a charge of explosive, a powder chamber, a ball adapted to be shot into the explosive in the chamber therefor, and means to ignite the powder in its chamber. 25th. In a shell, the combination, with the casing, the point and explosive carrier, of a detonator, within said carrier, containing a primary charge of explosive and a powder charge adapted to shoot a ball into said primary charge. 26th. In a shell, the combination, with the explosive carrier, of a detonator within it means to detonate it. 27th. In a shell, the combination, with the explosive carrier, of a detonator within it, and adapted to be detonated in the rear thereof. 28th. In a shell, the combination, with the explosive carrier, of a detonator within it, and means to detonate it, and delay the detonation thereof. 29th. In a shell, the combination, with the casing, of an explosive carrier normally in pivotal contact with it. 30th. In a shell, the combination with the casing, of an explosive carrier laterally supported therein and normally in pivotal contact therewith. 31st. In a shell, the combination, with the casing, of an explosive carrier latterally and longitudinally supported therein, and normally in pivotal contact therewith. 32nd. In a shell, the combination, with the casing and explosive carrier, of a firing pin inserted between the carrier and its lining, and a primer in the base of the carrier. 33rd. In a shell, the combination, with the casing, of an explosive carrier latterally supported by frictional bands around it, and longitudinally supported in frictional and pivotal contact with the casing. 34th. In a shell, the combination, with the casing, of an explosive carrier within and disconnected therefrom, and normally in pivotal contact therewith. 35th. In a shell, the combination, with the casing, of an explosive carrier within and disconnected therefrom, and normally in pivotal contact therewith and laterally separated therefrom. 36th. In a shell, the combination, with the casing, provided with an inward shoulder, and the explosive carrier within it, of a firing pin within the carrier and projecting beyond it.

No, 42,998. Lace Fastener. (*Attache de lacets.*)

Leander Parmelee, New Haven, Connecticut and Frederick Van Patten, Auburn, New York, U.S.A., 22nd May, 1893; 6 years.

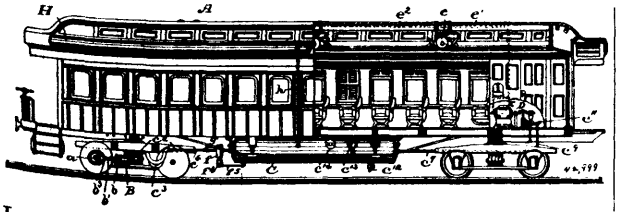
Claim.—1st. In a lace fastening, the combination of a supporting plate having a rigid post in connection therewith, and a head or button loosely supported by said plate adjacent to said post, mov-

able to and from said post, and adapted to clamp a lace crossed between said post and head, substantially as described. 2nd. In a

lace fastener, the combination of a supporting plate as set forth, having an opening therein, and a post thereon, and a head or button having a shank freely movable in said opening to and from said post, and a piece in connection with the inner end thereof adapted to bear against the under side of the outer portion of said plate and adapted to clamp a lace crossed between said post and head, substantially as described. 3rd. In a lace fastening, the combination of a U-shaped supporting plate having one end reduced and forced through an opening in the opposite end, a rigid post, and a head movable to and from said post and adapted to clamp a lace crossed between said post and head, substantially as described.

No. 42,999. Electric Car Lighting System.

(*Système d'éclairage électrique des chars.*)

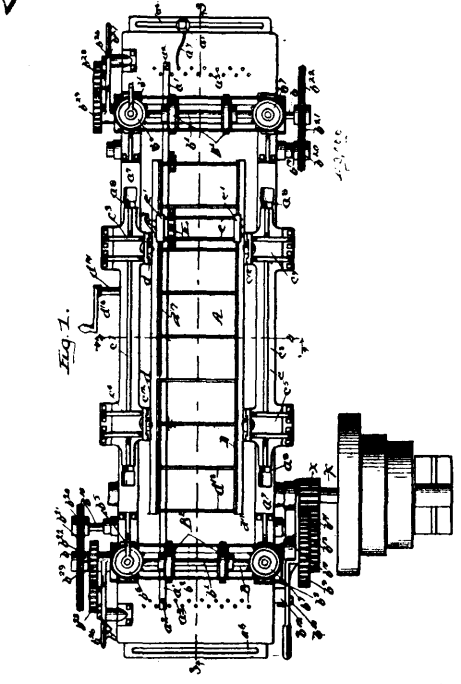


Leon Daniel Adler, Joseph Loewenberg, Samuel Young and Morris Moskowitz, all of Newark, New Jersey, U.S.A., 22nd May, 1893; 6 years.

Claim.—1st. The herein described system for electrically lighting cars consisting essentially of the combination with a pivoted truck, of an air compressor thereon, means for driving said air compressor from the axle consisting essentially of eccentrics rotating with and arranged on the axle and connected with said air compressors, an air engine and dynamo connected therewith, an air receiver or storage tank intermediately arranged between said compressor and air engine, and a pressure regulator arranged in the piping between said compressor and air receiver acting automatically to shut off the air from the compressor into the air tank and cause said compressor to exhaust outside of the tank, and a flexible tube connection in the piping between said compressor and air regulator, substantially as and for the purposes set forth. 2nd. The herein described system for electrically lighting cars, consisting essentially of an air compressor, means for driving said air compressor from the car axle, an air engine and dynamo connected therewith, an air receiver or storage tank, intermediately arranged between said compressor and air engine, and a pressure regulator arranged in the piping between said compressor and air receiver, acting automatically to shut off the air from the compressor into the said air tank and cause the compressor to exhaust outside of the tank, said regulator consisting substantially of a cylinder *f*, provided with a slide valve having ducts f^2 and f^3, an air chamber, a pipe connecting the said air chamber with the air or storage tank, and an exhaust pipe leading from said cylinder *f*, substantially as and for the purposes set forth. 3rd. The herein described system for electrically lighting cars, consisting essentially of air compressors or pumps arranged on the car wheel truck, eccentrics on one of the axles of the truck for driving said compressors or pumps, pipes *c* and c^1, extending from said compressors, pipes c^4 and c^5, and flexible connections between said pipes, air receiving or storage tanks C and C^1, a cock or valve c^{12}, in each tank for filling the same when the car is not in motion, and an air engine and dynamo connected with said tanks C and C^1, substantially as and for the purposes set forth. 4th. The herein described system for electrically lighting cars, consisting essentially of air compressors or pumps arranged on the car wheel truck, eccentrics on one of the axles of the truck for driving said compressors or pumps, pipes *c* and c^1, extending from said compressors, pipes c^4 and c^5, and flexible connections between said pipes, air receiving or storage tanks C and C^1, a cock or valve c^{12}, in each tank for filling the same when the car is not in motion, an air engine and dynamo connected with said tanks C and C^1, and a pressure regulator in each of said pipes c^4 and c^5, acting automatically to shut off the air from the compressors into said receivers C and C^1, substantially as and for the purposes set forth. 5th. In a system for electrically lighting cars, in combination, air compressors arranged on the car truck, means for driving the same from the car axle, an air engine and dynamo, air receiving or storage tanks C and C^1, beneath the car, and air receivers or storage tanks on the roof of the car, all communicating with each other, and regulating devices arranged in the connections between said air compressors and tanks C and C^1, adapted to automatically cut off the supply of air to said tanks, substantially as and for the purposes set forth. 6th. In a system for electrically lighting cars, in combination, an air compressor on the truck of the car, an eccentric for driving the same, an air receiving tank, an air engine and dynamo, pipes connecting the same, and an automatic regulating device to decrease the pressure of air in the receiving tank, consisting essentially of a cylinder provided with a slide valve having ducts f^2 and f^3, an air chamber, a pipe connecting said chamber with the air or storage tank, and an exhaust pipe leading from said cylinder *f*, substantially as and for the purposes set forth. 7th. The herein described system for electrically lighting cars, consisting of an air compressor, eccentrics driving said air compressor directly from the car wheel axle, an air engine and a dynamo connected therewith, an air receiver or storage tank intermediately arranged between said compressor and an air engine, and a pressure regulator arranged in the piping between said compressor and air receiver acting automatically to shut off the air from the compressor into said air tank and cause the compressor to exhaust outside of the tank, said regulator consisting substantially of a cylinder *f*, provided with a slide valve, an air chamber connected with said cylinder, a pipe connecting said chamber with the air or storage tank, and an exhaust pipe leading from said cylinder *f*, substantially as and for the purposes set forth.

No. 43,000. Sand Papering Machine.

(*Machine à appliquer le papier de verre.*)



Charles L. Ruchs, Chicago, Illinois, U.S.A., 22nd May, 1893; 6 years.

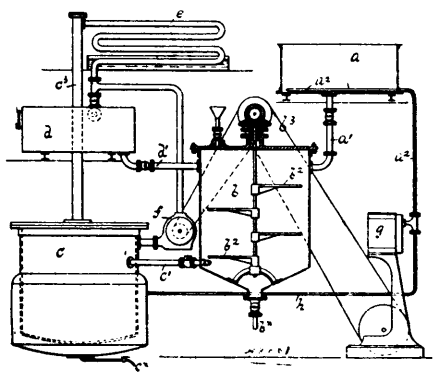
Claim.—1st. The combination in a machine of the class described, of a suitable bed frame provided with guiding and feeding devices, a reciprocating frame mounted in guides upon the bed frame and composed of cross pieces extending laterally beneath the bed, uprights upon the opposite sides of the latter, and side pieces connecting said uprights upon the opposite sides of the bed, a vertically adjustable box mounted between said uprights and above the bed, connecting devices between said box, and the portion of the reciprocating frame beneath the bed, and gearing arranged at the latter point, and applied to said connecting devices whereby the box may be raised or lowered from beneath the bed, substantially as described. 2nd. The combination in a device of the class described, and with a suitable bed frame provided with guiding and feeding devices, of a reciprocating frame mounted in guides upon the bed

frame, and composed of cross pieces beneath the bed, uprights upon the opposite sides thereof and side pieces connecting said uprights at the sides of the bed, a vertically adjustable box supported between said uprights and above the bed, rods fast at one end in said box, and engaging at the other end by means of screw threads with thimbles tapped to receive them and journalled in the cross pieces beneath the bed, gears upon the lower ends of said thimbles and connecting gearing between said gears whereby they may be all rotated simultaneously by means of a single handle, substantially as described. 3rd. The combination in a device of the class described, and with a suitable bed frame provided with guiding and feeding devices, of a reciprocating frame mounted in guides upon the bed frame and composed of cross pieces beneath the bed, uprights upon the opposite sides thereof, and side pieces connecting said uprights at the sides of the bed, a vertically adjustable box supported between said uprights and above the bed, uprights fast at one end in said box, and engaging at the other end by means of screw threads with thimbles tapped to receive them and journalled in the cross pieces beneath the bed, gears upon the lower ends of said thimbles, connecting shafts supported from said cross pieces and provided at their ends with gears meshing with those of the thimbles, and also between their ends with worm gears and a cross shaft also supported from said cross pieces, carrying worms in gear with said worm gears and provided with a handle by means of which it may be turned, substantially as described. 4th. The combination in a machine of the class described and with a suitable bed frame, guiding and feeding devices applied thereto, a reciprocating frame moved back and forth upon said bed by suitable driving mechanism and a vertically adjustable box mounted upon said reciprocating frame and arranged above the bed of the machine, of cross rods removably clamped at their opposite ends to the sides of said box and a block holding device supported by said rods and adjustable thereon, and clamping devices to secure said block holder in any desired position upon the rods, substantially as described. 5th. In a machine of the class described, and in combination with a bed frame and mechanism for feeding and guiding the moulding and for imparting a longitudinally reciprocating motion over the bed, a reciprocating block holding device suitably supported and consisting of a head, a block holding case having three pins one of which is screw threaded and all of which are adapted to move vertically in said head, a series of springs interposed between the head end, the case and a nut applied to the screw threaded pin to draw the case toward the head, substantially as described. 6th. In a machine of the class described and in combination with a suitable bed frame and mechanism for guiding and feeding the moulding therein and for imparting a longitudinally reciprocating motion, a reciprocating block holder mounted thereon, and consisting of a laterally adjustable head, a block holding case supported therefrom by means of a screw threaded rod and guiding rods all vertically movable in the head, a nut upon the screw threaded rod above the head, a cross bar arranged to slide vertically upon all the rods beneath the head, springs interposed between this cross bar and the head and a nut upon the screw threaded rod arranged below the cross bar, substantially as described. 7th. In a machine of the class described and in combination with a suitable bed frame and mechanism for guiding and feeding the moulding and for imparting a longitudinally reciprocating motion, a reciprocating block holding case mounted above the bed and adjustable both vertically and laterally thereupon, said case being substantially closed upon the top, both ends and one side and having a clamping plate upon the opposite side adapted to clamp a block tightly in the case, substantially as described. 8th. In a machine of the class described and in combination with a suitable bed frame, mechanism for guiding and feeding the moulding thereon and a longitudinally reciprocating box provided with driving gearing adapted to move it back and forth above the bed, of a series of cross bars in said box, a clamping device adapted to engage with said cross bars and an elastic faced roller mounted in a yoke provided with a shank fitted to said clamping device whereby said roller may be supported from any of the cross bars of the reciprocating box, substantially as described.

No. 43,001. Process for Treating Oils, and Apparatus Therefor. (*Procédé et appareil pour épurer et traiter les huiles.*)

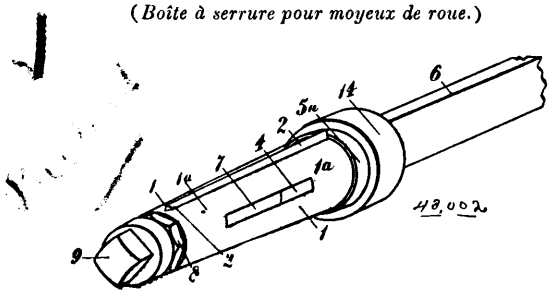
Frederick Nicholson Turney, Nottingham, England, 22nd May, 1893; 6 years.

Claim.—1st. The process of treating and purifying sod and other oils, consisting in agitating the crude oil, with a suitable hydrocarbon or other solvent, in a vapour tight vessel, or vessels, until the specific gravity of the oil is reduced and the oily part becomes of such a consistency as to mix with the solvent, then allowing the water and impurities to separate from the oil by settlement or precipitation, drawing off the mixed oil and solvent and evaporating the solvent from the oil, whereby the oil is purified, the solvent being then condensed and collected for use over again, substantially as described. 2nd. In an apparatus for treating and purifying sod and other oils, the combination with a vapour tight mixing and settling vessel, or vessels, provided with agitating appliances and receiving the warmed, or thin fluent, crude oil from a tank, of a still, or steam jacketed evaporating pan, for vapourizing the solvent employed and connected by pipework and cocks with the mixing vessel, or vessels, condensing coils connected with the evaporating pan and with a solvent containing tank or reservoir communicating with and supplying the mixing vessel, or vessels, and a fan, connect-



ed with the evaporating pan and the condensing coils, for forcing or drawing the vapour into said condensing coils, substantially as described.

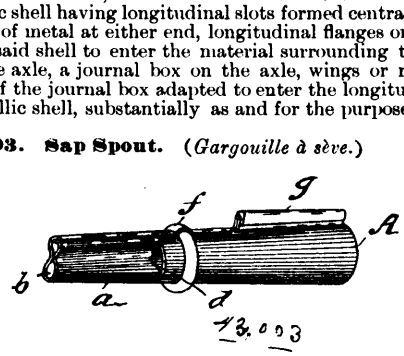
No. 43,002. Lock Box for Wheel Hubs. (*Boîte à serrure pour moyeux de roue.*)



Samuel Stephen Arnold, Toronto, Ontario, Canada, 22nd May, 1893; 6 years.

Claim.—1st. The combination of the hub, a metallic sleeve within the bore of the hub, means for securing the said metallic shell to the hub, the axle, a journal box on the axle, and means for locking together the metallic shell and the journal box, substantially as set forth. 2nd. The combination of the hub, a metallic shell within the bore of the hub, means for securing together the metallic shell and the hub, said metallic shell having formed therein longitudinal slots, the axle, a journal box on the axle, wings or ribs on the outer side of the journal box adapted to enter into the longitudinal slots in the metallic shell, substantially as and for the purpose set forth. 3rd. The combination of the hub, a metallic shell within the bore of the hub, flanges on the outer side of the metallic shell adapted to enter the material surrounding the bore of the hub to secure together the said shell and hub, the said shell having formed in it a series of longitudinal slots, a flange encircling the end of the metallic shell to but against the side of the hub, the axle, a journal box on the axle, ribs on the outer side of the journal box adapted to enter the longitudinal slots, substantially as and for the purpose set forth. 4th. The combination of the hub, a metallic shell within the bore of the hub, said metallic shell having longitudinal slots formed centrally therein, and a band of metal at either end, longitudinal flanges on the outer side of the said shell to enter the material surrounding the bore of the hub, the axle, a journal box on the axle, wings or ribs on the outer side of the journal box adapted to enter the longitudinal slots in the metallic shell, substantially as and for the purpose set forth.

No. 43,003. Sap Spout. (*Gargouille à sève.*)

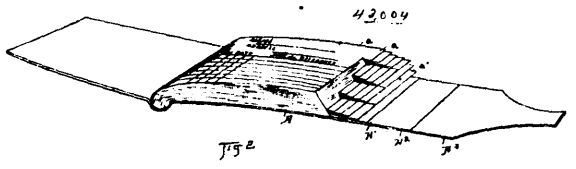


William Arthur Kemp, Toronto, Ontario, Canada, 22nd May, 1893; 6 years.

Claim.—1st. A sap spout, consisting of a tapered tube, the small end of the tube which enters the tree, having an opening in the side as well as its end, substantially as and for the purpose specified. 2nd. A sap spout consisting of a tapered tube, the small end of the tube which enters the tree having an opening in its side as well as its end, in combination with a ring encircling the body of the

tube, substantially as and for the purpose specified. 3rd. A sap spout, consisting of a tapered tube, the small end of the tube which enters the tree, having an opening in its side as well as its end, in combination with a ring encircling the body of the tube and a sap pail holder formed near its larger end, substantially as and for the purpose specified.

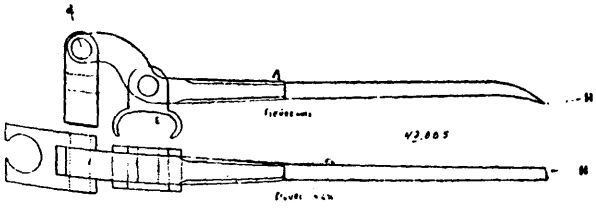
No. 43,004. Index. (*Index.*)



Thomas C. Brinkley, Cleveland, Ohio, U.S.A., 22nd May, 1893; 6 years.

Claim.—1st. An index comprising division or separating sheets provided with lateral projections, said sheets grouped into main divisions throughout the series of sheets, each group having an exposed portion of its projections in different planes, and each projection of each sheet in each group also located in different planes, substantially as described. 2nd. In an index, a group or series of division sheets having lateral projections extending from beneath each other for the purpose of notation, etc., and a series of such groups, the projections of the several groups being so arranged as to extend from beneath each other, substantially as described. 3rd. An index, comprising a series of separating sheets, said sheets divided into an arbitrary number of divisions, each division presenting to view a series of projecting portions for each division, said projecting portions forming a step by step arrangement throughout the series of separating sheets, each of said divisions having their projecting portions arranged in a step by step order at about right angles to the step by step arrangement of the main divisions of the index, substantially as described. 4th. In an index, a series of division sheets secured to each other at one end thereof, their forward end presenting different banks of lateral projections, said lateral projections projecting one from beneath another, in combination with arbitrary groups or divisions of the division sheets, each group or division presenting to view in an unobstructed manner its series of lateral projections, the said groups extending at an incline with respect to each other at about eight angles to the incline of the lateral projections of each group, substantially as described. 5th. In an index, a series of division sheets having lateral projections, a group of such series of sheets, and the projections of each group and of the several series of sheets projecting from beneath each other in a plane at about right angles to each other, and blank spaces, columns or the like thereon, for special reference, substantially as described. 6th. In an index, a forward projection or flap from the last sheet, forming a cover for the forward portion of the index, which may be folded against the upper or first sheet of the index, and a space upon the forward side of the flap for any suitable notations of the contents of the index, substantially as described.

No. 43,005. Bolt Extracting Machine for Railways. (*Machine pour extraire et arracher les chevillettes de chemins de fer.*)



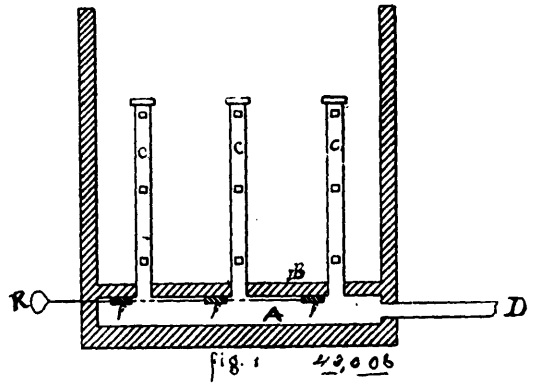
Zéphirin Chateauvert, Sorel, Quebec, Canada, 22nd May, 1893; 6 years.

Résumé.—Dans un arrache chevillette de chemins de fer, la combinaison du levier A, ayant une pince H, avec la pince mobile B, et la chaise C, tel que ci-dessus décrit.

No. 43,006. Process of Cooling and Drying Grain. (*Procédé pour rafraîchir et sécher les grains.*

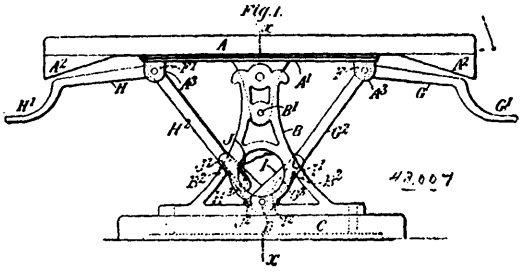
John Cobourg Hodgins, Toronto, Ontario, Canada, 23rd May, 1893; 6 years.

Claim.—The combination of the vertical pipes C, C, C in connection with the air chamber A, and stop valves F, F, F, inlet pipe D, and perforated gratings E, E, E, etc., together with the horizontal



pipes P, P, P, P, all constructed and operated substantially as and for the purpose hereinbefore set forth.

No. 43,007. Apparatus for Paying Over or Delivering Money. (*Appareil pour payer et délivrer l'argent.*)



Otto Lelm, 2 rue Vital Possy, Paris, France, 23rd May, 1893; 6 years.

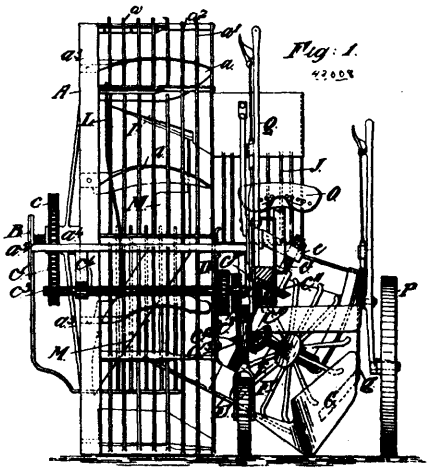
Claim.—1st. In money tables, the combination with supports, of a tilting table pivoted thereto, slotted levers hinged to the tilting table, cranks pivoted to the said supports and provided with pins to engage with the slotted portions of the said levers, a spring carried by the said supports and bearing upon the said cranks, and of abutments upon the said supports, against which abutments the cranks are adapted to bear and thereby be prevented from turning in one direction, substantially as set forth, for the purposes specified. 2nd. In money tables, the combination with supports, of a tilting table pivoted thereto, levers hinged to the tilting table and provided with extensions adapted to bear against the under side of the table, projections upon the said extensions, a bearing for the said projections connected with the supports, which bearing prevents the tilting of the table when the levers are in their normal position, a cam secured to the table, a rod sliding vertically in stationary guides formed upon the aforesaid supports, an attachment to the sliding rod to bear against the cam, and springs arranged to bear upon the said rod and the aforesaid levers, substantially as set forth, for the purposes specified.

No. 43,008. Potato Harvester. (*Arrache-patates.*)

Joseph North Cocker, West Devonport, Tasmania, 23rd May, 1893; 6 years.

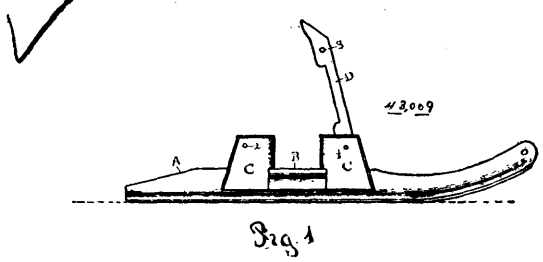
Claim.—1st. The herein described potato harvester, consisting essentially of a share (such as G), together with one or more revolving, separating spider wheels (such as D, E, F) and a revolving elevator wheel (such as A), formed with bars having spaces left between them, and provided with vanes or blades (such as *a*), screens being arranged either outside or within said wheel, and other inclined screens being provided to deliver the potatoes where required, the whole being constructed and arranged substantially as and for the purpose herein described and explained and as illustrated in the accompanying drawings. 2nd. In a potato harvester, the combination, with a share (such as G), of an approximately horizontal revolving spider (such as E) adapted to receive the earth and potatoes raised by said share and to deliver them to the inside of an elevator wheel (such as A), substantially as and for the purpose herein described and explained and as illustrated in the accompanying drawings. 3rd. In a potato harvester, the combination, with a share for raising potatoes out of the ground, of an approximately horizontally rotating spider (such as E), together with a vertically rotating spider (such as D), adapted to remove the tops from the potatoes as they are being carried round upon said first mentioned spider, substantially as and for the purposes herein

described and explained and as illustrated in the accompanying drawings. 4th. In a potato harvester, the combination, with a set



of three rotating spiders (such as D, E, F), arranged to deliver the potatoes into a revolving elevator wheel as well as to separate the tops therefrom, of a guard or shield (such as N) fitted at the side of said elevator wheel, substantially as and for the purpose herein described and explained and as illustrated in the accompanying drawings. 5th. In a potato harvester, the employment of an elevator wheel having vanes or blades (such as *a*) and made of rods or bars secured to the framing of the wheel at their forward ends and left free at their rearward ends, substantially as and for the purposes herein described and explained and as illustrated in the accompanying drawings.

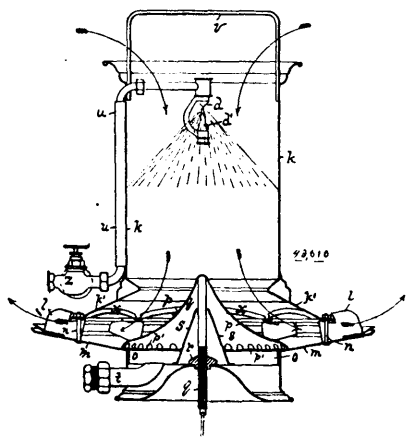
No. 43,009. Sleigh Runner. (*Patin de traîneau.*)



James K. Pangborn and Henry Pangborn, both of Menominee, Michigan, U.S.A., 23rd May, 1893; 6 years.

Claim.—1st. In a sleigh runner, the combination of the solid metallic runner made of inverted T-shaped material having a raised bearing for the knee integral therewith, with a metal knee having depending flanges riveted to the rave of the runner, standards C, C, riveted to the runner at each end of the knee and extending above the beam, the tongue D, pivoted in one standard and adapted to turn down and be secured to the other standard across the top of the beam, substantially as described. 2nd. In a sleigh runner, the beam locking device consisting of the standards C, C, on each side of the knee, and secured to the runner, on standard provided with a tongue D, hinged thereto and adapted to turn down across the beam and be secured to the other standard, substantially as described. 3rd. In a sleigh, the combination with the inverted T-shaped metal runner, a metal knee secured thereto, standards on each side of the knee extending above the beam, a tongue hinged to one standard and adapted to be turned down across the beam and secured to the other standard, of a cross beam provided with a groove across the top of each end to receive the tongue and be thereby held in position, and provided also with a recess above the knee for securing a cushion, and the cushion, substantially as described. 4th. In a sleigh, a cushion between the knee and the beam, substantially as described. 5th. In a sleigh, a runner formed of T-shaped metal inverted, the perpendicular of the T forming the rave, a metal knee secured in a recess of the rave, the rave extending upon each side thereof, and a tongue hinged to the rave on one side and adapted to turn down across the recess and secure the cross beam therein on the knee, substantially as described. 6th. In a sleigh, a runner formed of T-shaped metal inverted, the horizontal of the T forming the shoe, the perpendicular, the rave, a metal knee formed in a recess of the rave extending upward on each side of the knee, and adapted to secure a tongue for securing the cross beam to the knee, substantially as described.

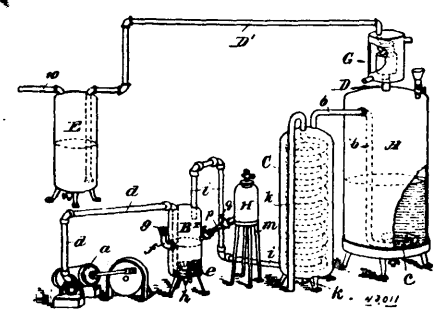
No. 43,010. Air Moistening and Ventilating Apparatus. (*Appareil pour ventiler et humecter l'air.*)



Otto Hoffman, Manchester, Lancaster, England, 23rd May, 1893; 6 years.

Claim.—1st. The improved air moistening and ventilating apparatus consisting of a mixing and saturating chamber formed with induction and delivery openings or passages, in combination with a liquid spraying device located interiorly between said openings, fed with water under pressure and consisting of two nozzles of unequal diameters, the jets from which strike against each other and form a conical curtain of sprayed or finely comminuted liquid by the influence of which the air is drawn in, moistened and discharged into a room or shed, substantially as described and shown. 2nd. The improved air moistening and ventilating apparatus consisting of a mixing and saturating chamber A formed with delivery passages B, in combination with an air inducting cylinder C, having in its interior a liquid spraying device fed with water under pressure and consisting of two nozzles of unequal diameters, the jets from which strike against each other and from a conical curtain of sprayed or finely comminuted liquid by the influence of which the air is drawn in, moistened and discharged into a room or shed, substantially as described and shown. 3rd. In conjunction with an air moistening and ventilating apparatus, the improved spraying or liquid cone producing device, consisting of two nozzles of unequal diameters placed opposite to each other so as to bring two liquid jets of unequal size into collision and thus produce a hollow cone of sprayed or finely divided or comminuted liquid, substantially as described and shown. 4th. In air moistening and ventilating apparatus, the combination with a mixing and saturating chamber formed with induction and delivery openings or passages in combination with a liquid spraying device located interiorly between said openings fed with water under pressure and consisting of two nozzles of unequal diameter, the jets from which strike against each other and water admission valve, of a sieve or filter 3 contained in a branch screwed to the valve casing through which filter the water is passed and strained on its way to the liquid spraying device, substantially as described and shown in Fig. 7 of the drawings.

No. 43,011. Process of and Apparatus for Purifying Distilled Spirits. (*Procédé et appareil pour purifier les liqueurs distillées.*)

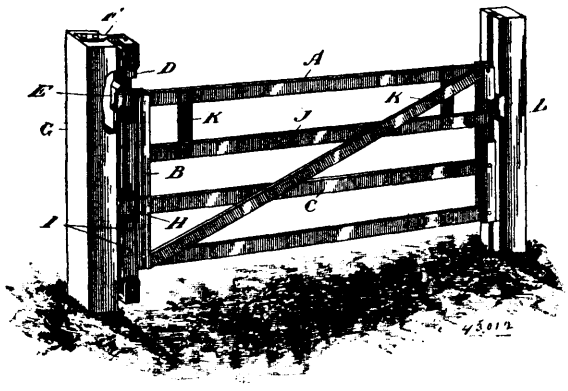


Ira Barrows Cushing, Brookline, Massachusetts, U.S.A., 23rd May, 1893; 6 years.

Claim.—1st. The herein described process of purifying and maturing liquors or distilled spirits, which consists in first forcing atmospheric air alone through the spirits being treated for the purpose of removing therefrom the obnoxious gases and other impurities, then comingling in a separate vessel oxygen gas with the unused atmospheric air employed in the process, whereby it is energized

and rendered more active, and then forcing the atmospheric air and oxygen so comingled through the spirits being treated and permitting the same to escape after its passage through the liquor, substantially as and for the purpose set forth. 2nd. In an apparatus for maturing liquors or distilled spirits, the combination, with the tank B, adapted to contain atmospheric air to be forced through the spirits to be treated, and an alkaline solution or other suitable liquid or substance adapted to purify and deodorize the air passing through it, of a tank or vessel H, adapted to contain oxygen gas or a substance, such as peroxide of hydrogen, which when introduced into the tank B, and mixed with the contents thereof will evolve oxygen gas therein, and a connecting pipe P provided with suitable means, substantially as shown and described, for regulating and controlling the passage of the oxygen gas or gas producing substance from the vessel H to the tank B, all operating substantially in the manner and for the purpose set forth.

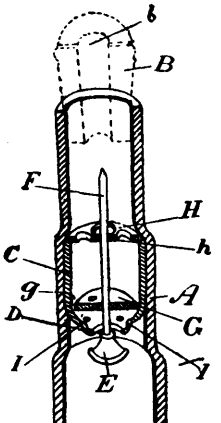
No. 43,012. Farm Gate. (*Barrière de ferme.*)



John Lamb Lancaster, Bobcaygeon, Ontario, Canada, 23rd May, 1893; 6 years.

Claim.—A gate having a rail or rails projecting beyond the vertical end bar and fitting into a vertical slot made in the bar hinged or pivoted to the gate post, in combination with a pin H, designed to pass through one of the holes I, and through a hole in one of the projecting rails, substantially as and for the purpose specified.

No. 43,013. Gas Regulator. (*Régulateur du gaz.*)



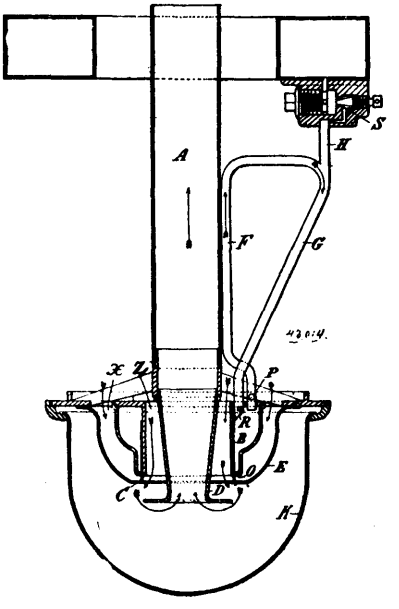
John Duncan, Toronto, Ontario, Canada, 23rd May, 1893; 6 years.

Claim.—1st. In a gas regulator, the combination with the tip, of a shell secured within the pillar and having an orifice in the bottom, a valve suspended by a pin from a float supported by a wall of the shell so as to hold the top of the valve flush with the bottom of the orifice, the area of the opening in the bottom of the orifice, the ring opening around the float and the slit in the tip being under low pressure, substantially the same in size, as and for the purpose specified. 2nd. In a gas regulator, the combination with the tip B, provided with an opening *b*, of the shell C, provided with an orifice D in the tapered bottom, a tapered valve supported normally by the pressure of the gas beneath the float to support the top of the valve on a level with the bottom of the orifice D, the pin of the valve extending into the opening *b*, of the tip B, as and for the purpose specified. 3rd. The combination with the shell C having the orifice D, the valve E beneath the shell secured to or forming part of the pin F, and the float G secured to the pin F within the shell, of the spider H forming a guide for the pin F, as and for the purpose specified. 4th. The combination with the shell C, having the orifice D, the valve E beneath the shell secured to or forming part of the pin F, the float G, secured to the pin F within the shell, and the spider H forming a guide for the pin F, of the by passes I, arranged as and for the purpose specified. 5th. The combination with the shell C, having the orifice D, the valve E beneath the shell secured to or forming part of the pin F within the shell and having holes, of the spider H forming a guide for the pin F, as and for the purpose specified. 6th. The combination with the shell C having the orifice D, the valve E beneath the shell secured to or forming part of the pin F, the float G secured to the pin F, within the shell and having holes, and the spider H forming a guide for the pin F, of the by passes I, arranged as and for the purpose specified.

No. 43,014. Vapour Lamp.

(*Appareil évaporatoire et brûleur à hydrocarbone.*)

Fig. 1.



William Stone, St. Kilda; Charles Ralston, Armadale; James Gregg, Elsternwick, and William Alfred Holmes, Parville, all near Melbourne, Colony of Victoria, Australia, 23rd May, 1893; 6 years.

Claim.—1st. In a vapour lamp, a burner in open communication with a generating device, having suitable inlets or apertures through which the illuminating material and air are admitted, the generating device being attached to such a part of the lamp that when the lamp is in operation a difference of temperature is maintained between the parts of the generating device, thereby causing the air and vapour to circulate in it, a portion of the generating device being at such a temperature that the illuminating material is completely evaporated by the aid of the said circulation of air and vapour. 2nd. In a vapour lamp, an igniting burner so situated with reference to the deflectors (D and E, or E and K), or their equivalents, in outwardly burning lamps, and to the deflectors (D and E) or their equivalents in inwardly burning lamps, that the air is caused to impinge on each side of the flame so as to effect complete or efficient combustion of the illuminating material, substantially as and for the purpose herein described.

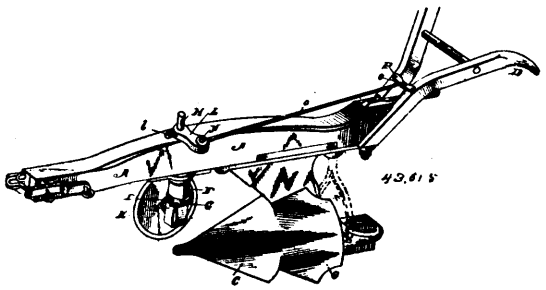
No. 43,015. Plow Attachment.

(*Dispositifs pour charrues.*)

George F. Sanborn, assignee of Edgar H. Maloon and Marshall E. Blake, all of Meredith, New Hampshire, U.S.A., 26th May, 1893; 6 years.

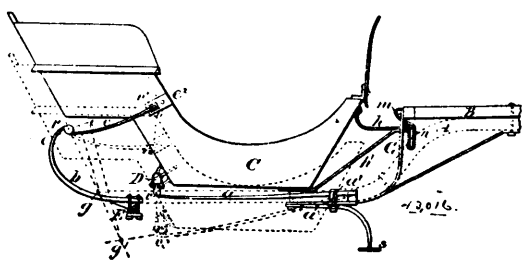
Claim.—1st. The combination in a plow, of the beam having a bearing perforation therethrough in advance of the plow, a pivot bolt or shank mounted in said perforation and having a lower threaded end, an operating crank arm adjustably clamped to the upper projecting end of the said pivot, bolt or shank, a bearing collar adjustably fitting the lower threaded end of said bolt or shank and a rotary cutter or colter journalled on said collar, substantially as set forth. 2nd. The combination, in a plow, of the beam having

perforation in advance of the plow, a bearing socket secured to the under side of the plow beam in alignment with the perforation



therein, a pivoted bolt or shank mounted in said perforation, a bearing collar adjustably secured to the lower end of said bolt or shank and turning in said socket, a rotary cutter or colter journalled on said collar, and means for turning said pivot, bolt or shank, substantially as set forth. 3rd. The combination, in a plow, of the beam having a bearing perforation in front of the plow, an enlarged tubular bearing socket attached to the under side of the beam in alignment with the perforation therein and provided with opposite stop shoulders, a pivot bolt or shank working in the perforation in the plow beam and having a lower threaded end, a bearing collar engaging said threaded end and having a laterally projecting stop pin and a spindle, a rotary cutter or colter journalled on said spindle and adapted to be aligned with either side of the plow beam and to the land side of the point of the plow, a crank arm adjustably clamped to the upper projecting end of the pivot bolt or shank, a turning rod loosely connected to said crank arm at one end and having a right angularly disposed locking end and a suitably arranged perforated locking bar adapted to receive said locking end, substantially as set forth.

No. 43,016. Two-Wheeled Vehicle. (*Voiture à deux roues.*)

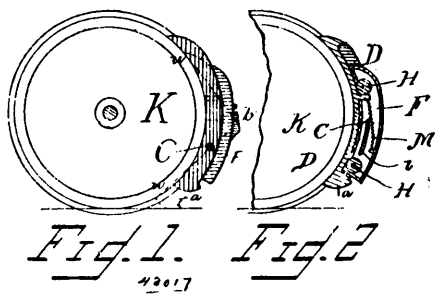


Everett Fleet Morse, Trumansburg, and Ebenezer T. Turner, Ithaca, both of New York, U.S.A., 25th May, 1893; 6 years.

Claim.—1st. In a two-wheeled vehicle, the combination with the axle and thills securely attached thereto, of a body having the axis about which it is adapted to rock endwise relatively to the thills located near the axle end, restrained to move up and down with said body relatively to the gear, a yielding arm securely attached to the gear and extending to a point directly or obliquely above said axis about which the body rocks, means for connecting said arm with the body, substantially as described. 2nd. In a two-wheeled vehicle, the combination of a body adapted to rock endwise relatively to the thills about an axis near the axle which axis is restrained to move up and down with said body, of two arms, one securely attached to the gear and extending to a point directly or obliquely above said axis about which the body rocks, the other extending from the body to the free end of said first arm, substantially as and for the purpose described. 3rd. In a two-wheeled vehicle, the combination with a body hinged about an axis parallel to and near the axle by hinges connected to the gear by nearly horizontal arms, of arms securely fastened to the gear and extending to a point directly or obliquely above the axis of said hinges, means of connecting said latter arms with the body, substantially as described. 4th. In a two-wheeled vehicle, the combination with the axle, the thills attached thereto, one or more cross bars connecting the thills, of a nearly horizontal arm hinged to the body near the axle, extending forward and securely attached to the gear, and an arm attached to the body above the hinge of said first arm, and extending backward therefrom, and means for connecting said latter arm with the gear, substantially as described. 5th. In a two-wheeled vehicle, the combination with the axle and body, of a torsion spring extending transversely across the body and securely attached thereto, arms securely attached to and extending backward from said torsion rod on either side of the body, arms securely attached to the axle and extending backward and upward and having their free ends connected pivotally to the free ends of the arms extending from said torsion rod, substantially as described. 6th. The combination with the body of the vehicle, of two substantially parallel torsion bars arranged transversely of and within the body, said rods being securely clamped together, the one having its ends securely attached to the body and the other provided with arms extending backward on either side of the body and pivotally attached to the gear, substantially as described. 7th. In a two-wheeled vehicle, the combination with the axle, thills securely attached thereto and a body, of a nearly horizontal arm extending nearly longitudinally of the vehicle, having one end securely attached to the gear, and extending from said point of attachment toward the axle, and securely attached to the body near the same, said arm restraining the axis about which the body rocks, to move up and down with the body, a yielding arm having its lower end securely attached to the gear and extending to a point directly or obliquely above the axis about which the body rocks, means for connecting said yielding arm with the body, substantially as described.

No. 43,017. Shoe for Car Brakes.

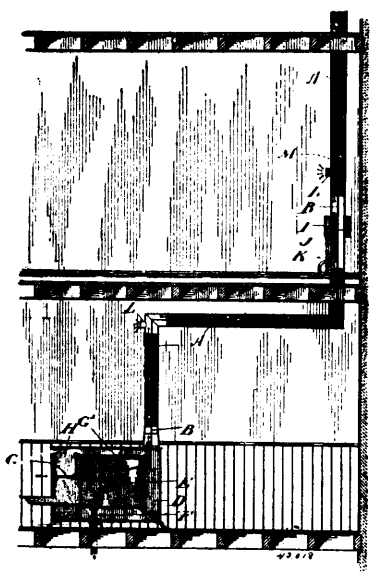
(*Sabot de frein pour chars.*)



George Sands and Frank Musser, all of Beaver Falls, Pennsylvania U.S.A., 25th May, 1893; 6 years.

Claim.—1st. In a combined wheel and rail brake, the combination, with a sliding brake shoe, adapted to bear upon the wheel, the rear face of said shoe being recessed, of a stationary clog arranged within the recess in the shoe, said clog being connected with the brake beam, and upon which the shoe slides, substantially as shown and described. 2nd. In a combined wheel and rail brake, the combination, with a stationary clog, having a longitudinal slot through the same and friction rollers upon its inner face, of a shoe adapted to bear upon the wheel and having its outer face recessed to receive the clog, a spiral spring arranged between the clog and shoe, and a screw passing through the shoe and working in the slot in the clog, substantially as and for the purpose described. 3rd. In a railway brake, the combination with the clog F, of the shoe D, secured to said clog by the set screw c, in such a manner that by removing the washer from the set screw c, and tightening said set screw, the shoe D, will be made rigid with the clog F, thereby making the shoe solid, substantially as shown and described.

No. 43,018. Hot Air Heating Device. (*Calorifère à air.*)



Harman Bunker and James Herbert McKeggie, both of Barrie, Ontario, Canada, 25th May, 1893; 6 years.

Claim.—As an improved hot air heating device, a pipe divided longitudinally, one half of the pipe being connected to the smoke

flue of the stove and the other half to a pipe carried through the furnace or from the oven or other hot air chamber, substantially as and for the purpose specified. 2nd. As an improved hot air heating device, a pipe divided longitudinally, one half of the pipe being connected to the smoke flue of the stove and the other half to a pipe carried through the furnace or from the oven or other hot air chamber, in combination with a perforated pipe placed in the hot air portion of the pipe and connected to a water reservoir, substantially as and for the purpose specified. 3rd. As an improved hot air heating device, a pipe divided longitudinally, one half of the pipe being connected to the smoke flue of the stove and the other half to a pipe carried through the furnace or from the oven or other hot air chamber, in combination with a perforated pipe placed in the hot air portion of the pipe and connected to an adjustable water reservoir, and provided with a hot air register, substantially as and for the purpose specified.

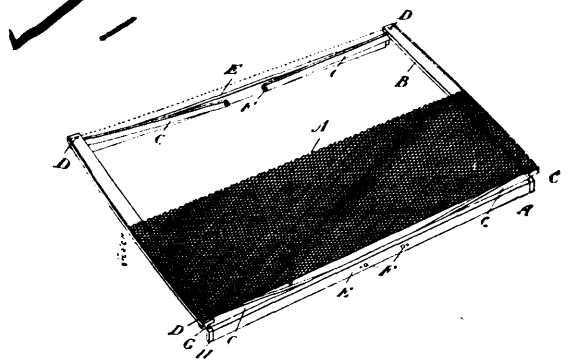
No. 43,019. Medical Compound.

(*Composition de matières pour guérir les rhumatismes.*)

Alexander Théroux, St. Pie de Guire and Rev. Joseph Fosier, St. Eugène de Grantham, all of Quebec, Canada, 25th May, 1893; 6 years.

Claim.—A composition consisting of oil of absinthe, spirits of camphor, and methylated spirits, substantially in the proportions and for the purpose set forth.

No. 43,020. Mattress Frame. (*Cadre de sommier.*)

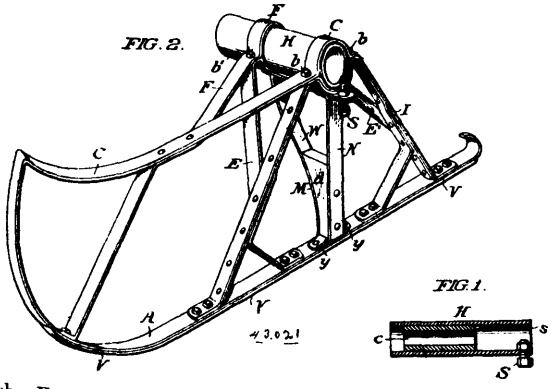


Esther Ann Long, assignee of Joseph Henry Long, both of Brantford, Ontario, Canada, 25th May, 1893; 6 years.

Claim.—1st A mattress of coiled wire or other similar material connected at each end to a cross bar, each cross bar being rigidly connected to arms pivotally connected to side bars and provided with means for tilting and holding the arms, all the parts being detachably connected together so that they can be taken apart for transportation and put together again for use by an unskilled person, substantially as and for the purpose specified. 2nd. A coiled wire matress A, fixed at each end to a cross bar B, rigidly fastened at each end to an arm C, pivotally connected to a side bar E, in combination with a link G, forming an adjustable connection between the end of the mattress A, and side bar E, substantially as and for the purpose specified.

No. 43,021. Attachable Sleigh Runner.

(*Patin mobile de traîneau.*)

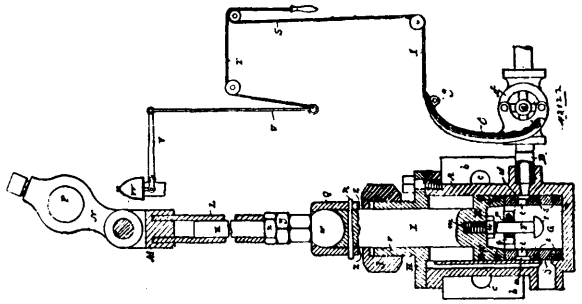


John Edward Hobbs, North Berwick and Barton Morrill Wentworth, Berwick, both in Maine, U.S.A., 25th May, 1893; 6 years.

Claim.—1st. As a new article of manufacture, a hub composed of a metal cylinder or sheath inclosing a hollow wooden core shorter than the sheath, shrunk and fastened into it near one end, substantially as set forth. 2nd. As a new article of manufacture, a hub composed of a metal cylinder or sheath with a hollow wooden core shrunk into it and having a vertically adjustable axle seat S in one end, substantially as set forth. 3rd. As a new article of manufacture, the duplex knee or brace M, formed of the upright wooden standard *d*, having bolted to it two steel sides flaring like the arms of the capital letter Y, with a concave crown D, and having the yoke *y y* passing through its foot, substantially as described. 4th. The combination, with a sleigh runner of tie bar F, duplex brace M, and concave crown D, substantially as described. 5th. In a sleigh runner, the combination of adjustable hub H, looped tie bar F, and looped cap bar C, with or without duplex brace or knee M, substantially as described, and for the purpose set forth. 6th. The combination, with a sleigh runner for attachment to the axles of vehicles, of a cross bar extending transversely across and beyond the cap bar of the runner, and connected therewith by one or more braces, carrying on its outer limb the hub H, and on its inner the axle rest or seat S, and clips or loops to bind the hub to the cross bar, substantially as described. 7th. The combination, in an attachable sleigh runner, of the longitudinally adjustable hub H, with the looped cap bar C, looped tie bar E, and looped braces E E^1, with removable bolts or clips *b b* b^1 b^1, substantially as described. 8th. The combination, in an attachable sleigh runner, of the longitudinally adjustable hub H, and the loop cap bar C, the double truss I, and loop tie bars F F^1, and E E^1, substantially as described.

No. 43,022. Mechanical Bell Ringer.

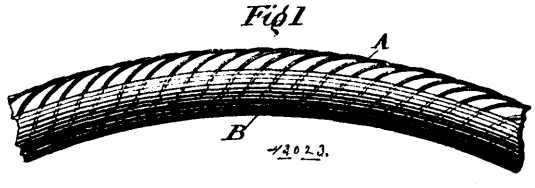
(*Sonnerie mécanique pour cloches.*)



George James Gollmar, Baraboo, Wisconsin, U.S.A., 25th May, 1893; 6 years.

Claim.—1st. In a mechanical bell ringer, the combination of a single action cylinder, a piston arranged to operate in the cylinder, a stem connected to the piston, a valve provided with a guide for the stem, a stop on said stem in opposition to the guide, and suitable means for regulating the normal distance between said guide and stop, substantially as set forth. 2nd. In a mechanical bell ringer, the combination of a single action cylinder, a piston, to operate in the cylinder, a stem connected to the piston, and adjustable as to length beyond said piston, a valve having a guide loose on the stem, and a stop on the latter in opposition to the guide, substantially as set forth. 3rd. In a mechanism bell ringer, the combination of a single action cylinder, a piston arranged to operate in the cylinder and provided with a tapped opening, a stem having a screw threaded end engaging said opening, a set nut arranged on the stem in opposition to the piston, and a valve loose on the stem, substantially as set forth. 4th. The combination, with a steam actuated mechanical bell ringer having a throttle valve, of a lever connected to the stem of said valve, a whistling mechanism, and a flexible device connecting the valve lever and whistle mechanism, substantially as set forth.

No. 43,023. Vehicle Spring. (*Ressort de voiture.*)

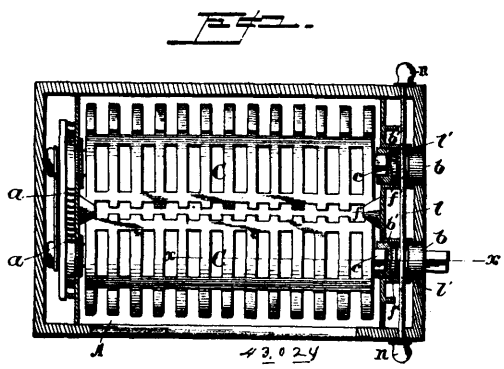


William James Pizzey, Bristol, Gloucester, England, 25th May, 1893; 6 years.

Claim.—In an improved spring rim for velocipedes and other vehicles, the employment of a series of springs A, curved, or otherwise shaped so as to partly overlap each other, when fastened to, and within the concave circumferential exterior of a wheel B. The manner of surrounding said rim and springs, with canvas, leather, cloth or other suitable material D, to which is attached, or incorporated a graduated india rubber, or other resilient substance C, held in position by means of straps and buckles, or lacing engaging with eyelet holes, or studs *e*, within or upon D, the whole combined

and operating as herein described, substantially as and for the purposes set forth and shown by the accompanying drawing.

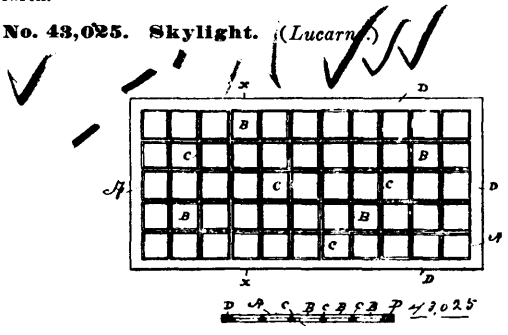
No. 43,024. Stove Grate. (*Grille de poêle.*)



Charles Lyman Beers, Scranton, Pennsylvania, and Norman Conkling Arnold, Mount Morris, New York, all of the U.S.A., 26th May, 1893; 6 years.

Claim.—1st. The combination, with the grate supporting frame provided with journal bearings, the grate bars having their journals mounted removably in said bearings and provided with circumferential grooves in said journals, of a longitudinally movable rod extending across said journals and engaging the grooves thereof and thereby confining the journals in their bearings, as set forth. 2nd. In combination with the grate supporting frame provided with journal bearings, journals mounted removably in said bearings and provided with circumferential grooves, and grate bars detachably connected to said journals, caps fixed to the frame and extending over the journals, a longitudinally movable rod passing through said caps at right angles to the journals and engaging the grooves of the latter, and the fire box provided with a perforation for the insertion and removal of the aforesaid rod, as set forth. 3rd. In combination with the grate bars, journals provided with circumferential grooves, the supporting frame *f* formed with the journal bearings f^1 f^1 and lug *g*, the yoke *h* formed with caps h^1 h^1 and grooves *i i* in said caps, the pin *k* passing through said lug and confining the yoke in its position, and the rod *l* passing through the grooves of the caps and journals, substantially as described and shown. 4th. In combination with the grate supporting frame and grate bars, journals seated in said frame and provided with circumferential grooves, the fire box provided with apertures through its front and rear walls, a rod extending through the said apertures and grooves of the journals and having screw threaded ends protruding from the fire box, and nuts on said ends to confine the rod in its aforesaid position and allow said rod to be withdrawn from either end, substantially as set forth.

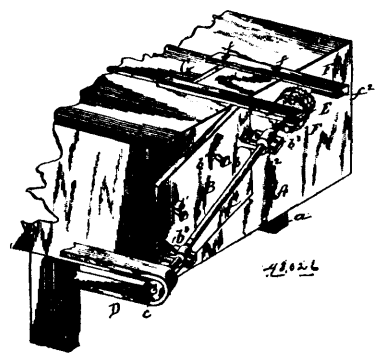
No. 43,025. Skylight. (*Lucarne.*)



Clara J. Garland, Lowell, assignee of James G. Pennycuick, Boston, both of Massachusetts, U.S.A., 26th May, 1893; 6 years.

Claim.—1st. A glass tile one side of which has a plane surface and the opposite side having one or a series of ribs or projections each forming an obtuse scalene triangle in cross section, one side of which projects at an angle of above forty-five degrees and the other side at an angle of about one hundred and five degrees from the plane of the top surface and a small plane surface extending entirely around the tile, substantially as set forth. 2nd. A combined metal and glass tile consisting of a metal frame of one or divided into a number of sections connected by rabbeted each section being fitted with a lens, plane on one side and on its opposite side having one or a series of ribs or projections each forming an obtuse scalene triangle in cross section, one side of which projects at an angle of about forty-five degrees and the other side at an angle of about one hundred and and five degrees from the plane of the top surface, substantially as set forth.

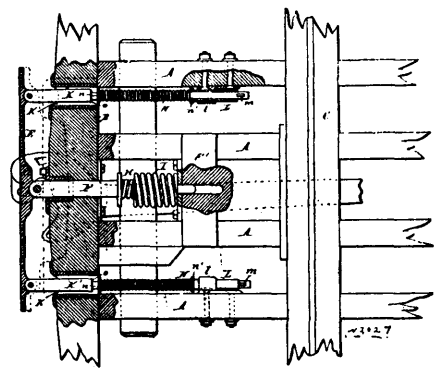
No. 43,026. Sheathing Lath Attachment for a Planing Machine. (*Disposition aux machines à latte à boiser pour machines à raboter.*)



Theodore H. Brown, Harlan P. Proctor and Marshall C. Nichols, all of Viroqua, Wisconsin, U.S.A., 26th May, 1893; 6 years.

Claim.—In combination with a planing machine having adjustably fixed to the top the projecting guides and supports F, for the board to be planed, the inclined metal plate B directly and adjustably fixed to the end of the machine by means of slots *b* in said plate, and screw bolts b^1, and having brackets b^2, one at the lower and the other at the upper end thereof, provided with suitable keepers and carrying therein saw shaft at an incline, the saws on said shaft adapted to operate on the board passing between the guides on the top of the machine.

No. 43,027. Car Buffer. (*Tampon de chars.*)

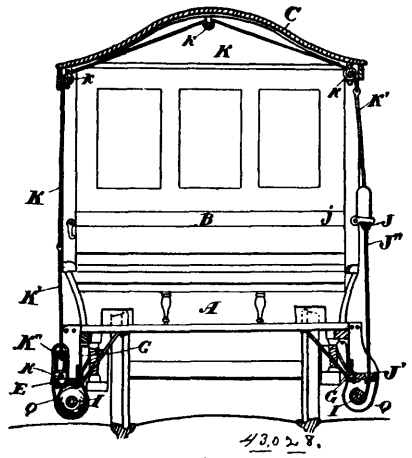


The Gould Coupler Company, New York, assignee of Willard Fillmore Richards, Buffalo, all of New York, U.S.A., 26th May, 1893; 6 years.

Claim.—1st. The combination with the stationary car platform and the oscillatory buffer, of tubular followers capable of longitudinal movement on the car frame, stay rods attached at their outer ends to the buffer on opposite sides of its pivot and sliding in said followers, and springs applied to said rods and abutting against said followers, substantially as set forth. 2nd. The combination with the stationary car platform and the oscillatory buffer, of tubular followers capable of longitudinal movement on the car frame, stay rods attached at their outer ends to the buffer on opposite sides of its pivot and sliding in said followers, stops arranged on said rods for limiting their outward movement in said followers, and springs applied to said rods and abutting against said followers, substantially as set forth. 3rd. The combination with the stationary car platform or frame having lugs or brackets and the oscillatory buffer, of tubular followers sliding lengthwise in said lugs or brackets, stay rods attached at their outer ends to the buffer on opposite sides of its pivot and sliding in said followers, and springs applied to said rods and bearing with their inner ends against said followers, substantially as set forth. 4th. The combination with the stationary car platform or frame having lugs or brackets, and the oscillatory buffer, of tubular followers sliding lengthwise in said lugs or brackets, stay rods attached at their front portions to the buffer on opposite sides of its pivot, sliding with their inner portions in said followers, and provided on their front portions with shoulders, a collar or washer arranged loosely on each stay rod on the inner side of its shoulder, and combined righting and buffing springs arranged on said rods between said collar and the tubular followers, substantially as set forth.

No. 43,028. Side Guard for Street Cars.

(*Garde de côté pour chars de rue.*)



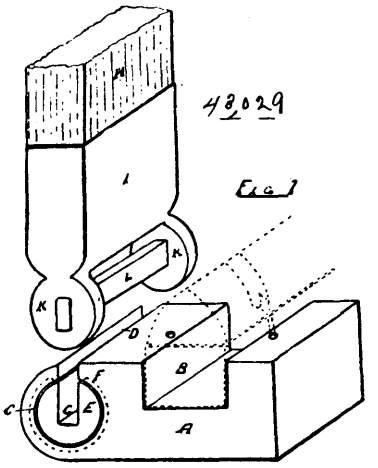
Robert Thompson and Harvey Courtland, both of Toronto, Ontario, Canada, 26th May, 1893; 6 years.

Claim.—1st. The combination with the car body and side steps of winding rods journalled beneath the side steps of the car, and having connected to them strips of wire netting, the outer ends of which are connected to a guard rail, and means whereby when the guard rail on one side of the car is being raised the guard rail on the opposite side is simultaneously lowered, as and for the purpose specified. 2nd. The combination with the car body and side steps of the winding rods situated beneath the car steps, and having the strips of wire mesh connected thereto at one end and at the other to the guard rail, and guards or wires K connected at each end to the guard rail, and passing over pulleys situated at the top of the car, and means whereby one winding rod is wound while the other is unwound, as and for the purpose specified. 3rd. The combination with the winding rods I, wire netting J^{11}, connected to the winding rods and to the guard rail J, and the wires K, connected at each end, the guard rails J, and extending over pulleys k, k^1, near the roof of the car, of the reels H, winding reels L, and winding cord P, and means whereby the winding reel L is operated, as and for the purpose specified. 4th. The combination with the winding rods I, wire netting or mesh J^{11}, connected to the winding rods and to the guard rail J, and the wires K, connected at each end to the guard rails J, and extending over pulleys k, k^1, near the roof of the car, of the reels H, winding reels L, and winding cord P, and the bevel pinions l, on the winding reel meshing with the bevel pinion m, on the rod M, and the toothed wheel O, engaged by the dog o, as and for the purpose specified. 5th. The combination with the rods I, wire netting or mesh J^{11}, connected to the winding rods and to the guard rail J, wound upon and raised from the winding rod as specified, of the metal casing Q, enclosing the winding rod, as and for the purpose specified. 6th. The combination with the winding rods I, wire netting J^{11}, connected to the winding rods and to the guard rail J, and the wires K connected at each end to the guard rails J, and extending over pulleys k, k^1, near the roof of the car, of the catches j, designed to clasp and hold the guard rails close to the side posts of the car, as and for the purpose specified. 7th. The combination with the car body and side steps of the guard rails J, fitting into the longitudinal opening in the side steps of the car when down, and forming part of the same, and having connected to them the strips of wire netting J^{11}, secured at their opposite ends to the winding rods J, and means whereby one guard is raised while the other is simultaneously lowered, as and for the purpose specified. 8th. The combination with the car body and side steps, the winding rods journalled beneath the side steps, and the strips of wire netting passing from the winding rods and rollers up through the longitudinal slots J^1, to the guard rail J, of the rods K^1, connected at their lower ends by turn buckles K^{11}, to the guard rail J, and having connected to their upper ends the wires K, which pass over pulleys k, k^1, at the top of the car, as and for the purposes specified.

No. 43,029. Coupling for Attaching Shafts or Poles to Velocipedes. (*Joint pour attacher les essieux ou perches aux vélocipèdes.*)

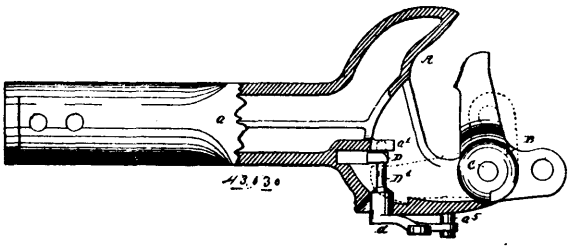
Elwin James Merry and Horace Ralph Merry, both of Magog, Quebec, Canada, 26th May, 1893; 6 years.

Claim.—The combination of a plate or block A, adapted to be secured to an axle (or shaft, fig. 2), and carrying an open ended slotted tube C, a longitudinally grooved roller E, journalled in said tube and provided with radial flanges F, at its ends, and a shaft or thill iron



I (or bracket, fig 2), carrying a pair of ears and a rectangular connecting bar L, substantially as and for the purpose hereinbefore set forth.

No. 43,030. Car Coupler. (*Attelage de chars.*)



The Empire Car Coupler Company, Weehawken, New Jersey, assignees of Clinton A. Tower, Cleveland, Ohio, all in U.S.A., 26th May, 1893; 6 years.

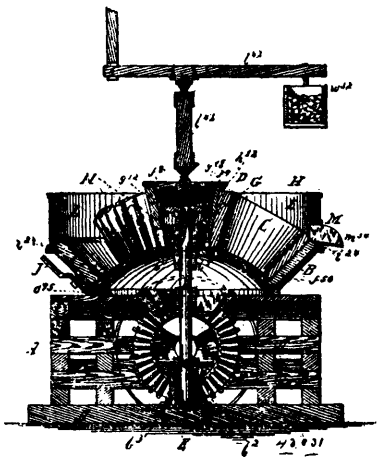
Claim.—1st. The combination, with a draw-head and a knuckle, consisting of a bell crank lever fulcrumed thereto, of a movable dog or block connected with the draw-head, substantially as specified. 2nd. The combination, with a draw-head and a knuckle, consisting of a bell crank lever fulcrumed thereto, of a dog or block for directly engaging with the knuckle and a rock shaft from which said dog or block extends, substantially as specified. 3rd. The combination, with a draw-head and a knuckle, consisting of a bell crank lever fulcrumed thereto, of a dog or block for directly engaging with the knuckle, a rock shaft from which said dog or block extends and an arm connected with the rock shaft outside the draw-head, substantially as specified. 4th. The combination, with a draw-head and a knuckle, consisting of a bell crank lever fulcrumed thereto, of a dog or block for directly engaging with the knuckle and a rock shaft from which said dog or block extends, said rock shaft being supported at one end in a projection formed in the draw-head and being extended at the other end through the side of the draw-head, substantially as specified. 5th. The combination, with a draw-head and a knuckle, consisting of a bell crank lever fulcrumed thereto, of a dog or block for directly engaging with the knuckle, a rock shaft from which said dog or block extends and a projection in the draw-head for sustaining the dog or block latterally when in an operative position, substantially as specified.

No. 43,031. Crushing Mill. (*Machine à broyer.*)

Frederick Alonza Wiswell, Lynn, Massachusetts, U.S.A., 27th May, 1893; 6 years.

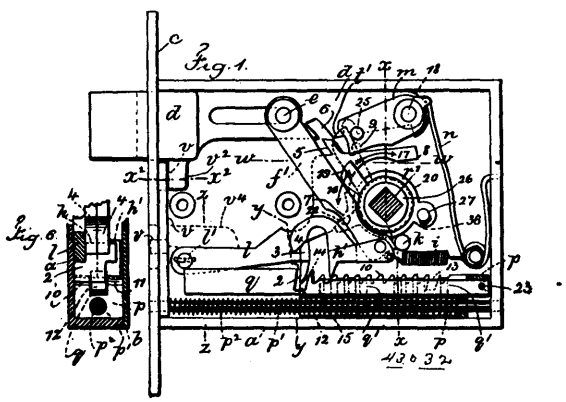
Claim.—1st. In a crushing machine, having crushing cones C, fluted on their peripheries, the flutes pointing toward a common centre c^2, and engaging with the flutes of the driving cone D, and with flutes on the plates f, substantially as set forth. 2nd. In a crushing machine, having fluted crushing cones C, driven by a self adjusting coupling H, the combination of the cones C, with the corrugated plates f, detachably secured within the bowl B, having a convex spherical bottom crowned at its highest point with a curb N, for the purpose substantially as set forth. 3rd. In a machine for crushing, the fluted cones C, engaging with and pressing against the wearing plates f, the pressure obtained by the driving cone D, rotated by the self adjusting coupling H, all operating substantially as and for the purpose set forth. 4th. In a crushing machine, the

combination of a bowl B, the crushing cones C, and a hollow driving cone D, within which is a self adjusting coupling H, that permits



of vertical and lateral movement of the cone D, while driving the crushing cones C, for the purpose substantially as set forth. 5th. In a crushing machine, the combination of the bowl B, having a convex spherical bottom, the inside of the rim of the said bowl B, lined with vertically corrugated plates *f*, with the corrugations of which engage similar corrugations on the face of the crushing cones C, that are driven and pressed apart by the driving cone D, also having on its face corrugations like those on the cones C, and plates *f*, the longitudinal lines of all these corrugations converging toward a common centre c^2, the cap h^{12}, of the driving cone D, made so as to receive the lower end of the pressure leg l^{41}, pressure being applied thereto by means of the weighted lever l^{43}, substantially as shown, and the driving cone D, made to revolve by the vertical shaft E, through the medium of the self adjusting coupling H, all operating as and for the purpose substantially as hereinbefore set forth.

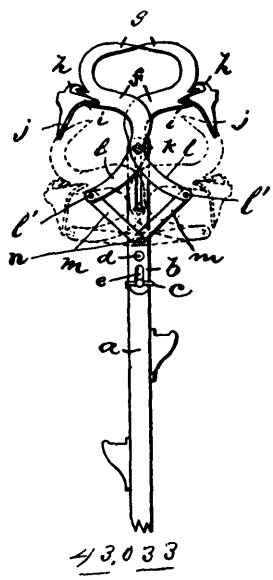
No. 43,032. Combination Lock. (*Serrure à combinaison.*)



Edwin McCumber Skinner, Fort Wadsworth, and Oliver Morehouse Farrand, New York City, all in New York, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. The combination in a lock with a knob spindle fitted to move longitudinally of its axis and having an arm for actuating the lock, of the pawl carriers and pawls, a toothed permutation bar for the pawls to take against, and having holes between the teeth, pins arranged in said holes to form the combination of the lock, a safety bar having a notch and teeth and a lifter plate having a tooth to enter a notch in the permutation bar and safety bar, substantially as specified. 2nd. The combination in a lock with a knob spindle fitted to move longitudinally of its axis, and having an arm for actuating the lock, of a toothed permutation bar having holes between the teeth, pins arranged in said holes to form the combination of the lock, a spring to retract the toothed bar, a safety bar having a notch and teeth and mechanism substantially as set forth between the knob spindle and toothed bar for operating the latter, substantially as set forth. 3rd. The combination in a lock with a lock spindle fitted to move longitudinally of its axis, and having an arm for operating the lock of the permutation bar having two rows of teeth with holes between the teeth, pins arranged in the holes to form the combination of the lock, a safety bar fitted to slide between the two rows of teeth of the permutation bar, and spring for the permutation bar and pawl carriers and pawls, each pawl having a toothed end that is over its row of teeth, of the permutation bar and over part of the safety bar, substantially as and for the purposes specified. 4th. The combination in a lock with a knob spindle fitted to move longitudinally of its axis, an arm on said lock spindle for operating the lock, of the permutation bar having a deep notch 13, and holes between the teeth of said bar, pins arranged in said holes to form the combination of the lock, the safety bar having a deep notch at 12, and teeth 14 and 15, and the lifter plate having a tooth 2, and a pawl carrier and pawls for actuating said permutation bar and safety bar, substantially as specified. 5th. The combination in a lock with a knob spindle fitted to move longitudinally of its axis and an arm on said spindle for actuating the lock, of the permutation bar having a deep notch and holes between the teeth, pins arranged in said holes to form the combination of the lock, the safety bar having a deep notch and teeth, the pawl carriers and pawls and the lifter plate having a tooth at 2, and a projection 3 for the pawls to rest upon, substantially as specified. 6th. The combination in a lock with a knob spindle fitted to slide longitudinally of its axis, and an arm on said lock spindle for operating the lock, of the pawl carrier and pawls, springs for said pawls, the permutation bar and safety bar, a spring to retract the permutation bar, the lifter plate, the latch bolt and its dog, and the loose ring 20 having a finger to take against the lifter plate, substantially as and for the purposes specified. 7th. The combination in a lock with a lock spindle fitted to move longitudinally of its axis, an arm secured to said spindle, the permutation bar and safety bar, the pawl carriers and pawls, and the notched latch bolt having a lug v^2, of the lifter plate having a tooth at 5, and a pivoted arm *v* fitted to pass between the lug v^2 and the case to prevent the lifter plate being raised, substantially as and for the purposes set forth. 8th. The combination in a lock with a knob spindle fitted to move longitudinally on its axis, of a toothed permutation bar having holes between the teeth, and pins in said holes to form the combination of the lock, and mechanism, substantially as set forth, for actuating said permutation bar, substantially as specified. 9th. The combination with the latch bolt, of a two part spindle and separate knobs capable of being turned independently, the collar and arm on one part of the spindle by which the latch can be withdrawn by one knob at any time, and the collar and arm on the other part of the spindle, and two sets of appliances intervening between the spindle and the bolt that are acted upon alternately after an end movement is given to the spindle, substantially as specified. 10th. The combination in a lock with the knob spindle and its arm for operating the lock of the safety bar and permutation bar, said safety bar having holes therein, and a pin in one of said holes for the permutation bar to take against when said permutation bar is retracted, and mechanism, substantially as specified, for operating said permutation bar, as set forth. 11th. The combination in a lock with a knob spindle fitted to move longitudinally of its axis, an arm upon said spindle for operating the lock, and the bolt having a notch at 6, and the dog *m* upon said latch bolt, of the pawl carriers and pawls, the permutation and safety bars and the lifter plate having a projection to enter the notch in the bolt, substantially as and for the purposes specified.

No. 43,033. Gripper for Scaling Ladders, etc.
(*Grippe pour échelles d'escalade, etc.*)

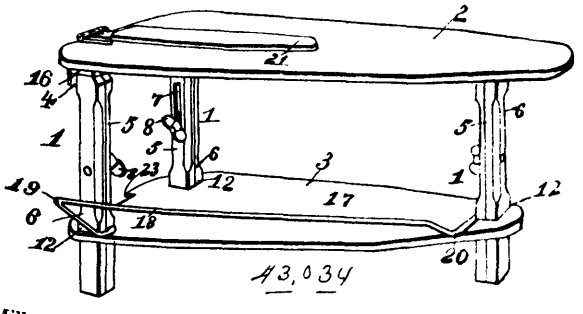


Thomas Levi Judd, East Orange, New Jersey, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. The improved gripper herein described, consisting of the arms *f*, pivotally connected, as at *k*, and carrying a multi-

plicity of gripping claws arranged thereon in several pairs and projecting in various directions, and means, as described, for attaching the said arms to a scaling ladder or other structure, as and for the purposes set forth. 2nd. The combination of a bar or structure, as *b*, the arms *f*, pivotally connected, as at *k*, with each other and with said structure and having the outwardly curved extremities *l*, a multiplicity of gripping claws formed on and extending from the outer portion of the arms *f*, and bars *m*, connected pivotally with said extremities *l*, and with said bar or structure *b*, as described, and for the purposes set forth. 3rd. The combination of the arms *f*, pivotally connected, as at *k*, and a multiplicity of gripping claws carried by said arms and projecting from the outer edge of the arms in various directions and arranged in several pairs to open and close, as described, and for the purposes set forth. 4th. The combination of arms *f*, pivotally connected together, as at *k*, and provided with a multiplicity of gripping claws extending from the outer edge of the arms, arranged in pairs to open and close and adapted to connect with a ladder or other structure, and bars, as *m*, adapted to connect with said arms and structure to open and close the gripper, as and for the purposes set forth. 5th. The combination of the arms *f*, pivotally connected together and provided with a multiplicity of gripping claws extending outward and downward from the arms and arranged in several pairs, the arms *m*, pivotally connected to one another and to the extremities of said arms *f*, a ladder or other structure adapted to connect with said arms *f* and *m*, and means, as described, for lengthening said structure, as and for the purposes set forth. 6th. The combination of a ladder, a slotted plate carried thereby, a pair of curved arms having their pivot movable in said slotted plate, a pair of straight arms connected to the plate and said curved arms, and a series of jaws or grippers carried by the curved arms, for the purpose stated. 7th. As a new article of manufacture, a gripper for scaling ladders, consisting of two short arms or links, two outwardly curved arms formed with inward extending claws, and a series of claws extending outward and downward from the curved arms, all adapted to be connected together and applied to a staff or structure, substantially as set forth.

No. 43,034. Ironing Table. (*Table à repasser.*)

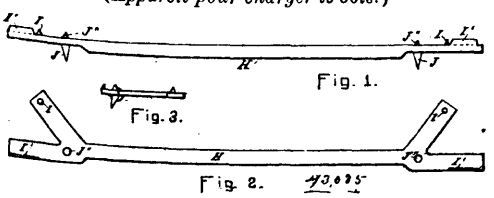


Millage M. Smith, Stockdale, Texas, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. An ironing table provided with a pivoted clothes guard extending longitudinally of the table, and adapted to be swung outward laterally from the table to support clothes to prevent the same coming in contact with the floor, and adapted to be folded in on the ironing table, substantially as described. 2nd. An ironing table provided with a pivoted clothes guard extending laterally therefrom and consisting of a longitudinal rod, and arms having their outer portions bent upward to incline the outer portion of the arms, substantially as described. 3rd. An ironing table comprising adjustable legs, a horizontal shelf arranged near the lower ends of the legs and connecting the same, a hinged ironing board supported by the legs, a pivoted clothes guard adapted to extend laterally from the ironing table, and a sleeve board hinged to the rear end of the ironing board, and adapted to be folded down in a vertical position when not in use, and to be arranged on the face of the board for use, substantially as described.

No. 43,035. Timber Loader.

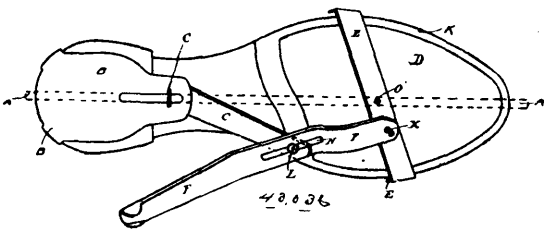
(*Appareil pour charger le bois.*)



Emory Willis Gurney, Seattle, Washington, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. In a timber loader the combination with two skids, of a bar having pivot spurs on the underside and a short distance from each end, and bearing points on the upper surface at each extremity and outside of the pivot spurs, substantially as shown and described. 2nd. In a timber loader the combination with the two skids, of a bar having broadened or forked ends, bearing and holding points on the upper surface at each extremity and a pivot spur on the under surface set back a short distance from each end, substantially as shown and described. 3rd. A timber loader consisting of a bar to be interposed between the stick to be loaded and the supporting skids, said bar having means for holding the stick upon it, and upon its under side a spur near each end to engage the skids to prevent slipping and to form a pivot upon which the stick may be swung, in combination with said supporting skids, substantially as shown and described.

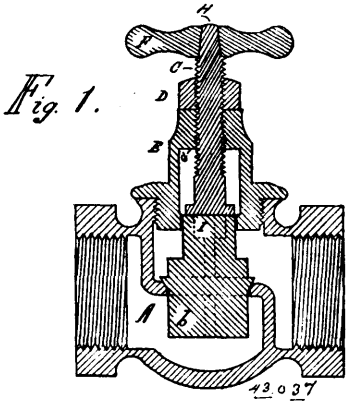
No. 43,036. Skate Fastening. (*Attache pour patins.*)



Edward Lawson Fenerty, Halifax, Nova Scotia, Canada, 27th May, 1893; 6 years.

Claim.—1st. Broadly the method of adjusting and securing toe fastenings for skates to boot or shoe sole by means of a toe clamp so pivoted as to lie at varying angle to the runner and thus increasing or decreasing the distance between the lugs, substantially as and for the purpose hereinbefore set forth and described. 2nd. In combination the toe clamp F and the toe plate D and the runner A, substantially as and for the purpose hereinbefore set forth and described. 3rd. The combination of the toe clamp F, toe plate D, toe link and lever F, F, the heel link and front heel clamp C, C, the bolt L and slot N and back heel clamp B, B, substantially as and for the purpose hereinbefore set forth and described.

No. 43,037. Check Valve. (*Soupape de détente.*)



George K. Tower and George Starratt, both of Molega, Nova Scotia, Canada, 27th May, 1893; 6 years.

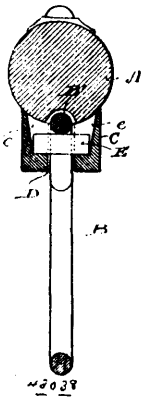
Claim.—1st. The combination of the regrinding stem C, the handle or cross bar F and the lock nut D, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the regrinding stem C, the handle or cross bar F, and the lock nut D, with the cover E, substantially as and for the purpose hereinbefore set forth.

No. 43,038. Neck Yoke. (*Volée d'avant.*)

John Howard Bagnall and Hans Peter Swensen, both of Racine, Wisconsin, U.S.A., 27th May, 1893; 6 years.

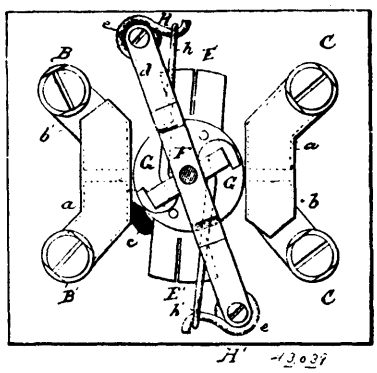
Claim.—1st. A neck yoke centre, comprising a suitable housing adapted for engagement with the underside of the neck yoke, a pin arranged transversely within said housing, a slot in the underside of said housing, and a ring extending through said slot and engaged with said transverse pin, substantially as set forth. 2nd. A neck yoke centre, comprising a suitable housing adapted for engagement with the underside of the neck yoke, a pin arranged transversely within said housing, a slot in the underside of said housing, and a ring provided upon one side with a projecting loop or eye adapted for pivotal engagement with said pin, substantially as set forth. 3rd. A neck yoke centre, comprising a suitable housing provided with horizontally disposed flanges, bolts arranged to extend through the

neck yoke and said flanges, suitable recesses or bearings in said housing, an elongated slot in the bottom of said housing, a transverse



pin engaged with said bearings or recesses and extending across said slot, and a ring arranged to extend through said slot and adapted for pivotal engagement with said pin, substantially as set forth. 4th. A neck yoke centre, comprising a suitable housing provided with horizontally disposed flanges, bolts arranged to extend through the neck yoke and said flanges, suitable recesses and bearings in said housing, an elongated slot in the bottom of said housing, a transverse pin engaged with said bearings or recesses and extending across said slot, and a ring provided upon one side with a projecting loop or eye arranged to extend through said slot and into engagement with said transverse pin, substantially as set forth.

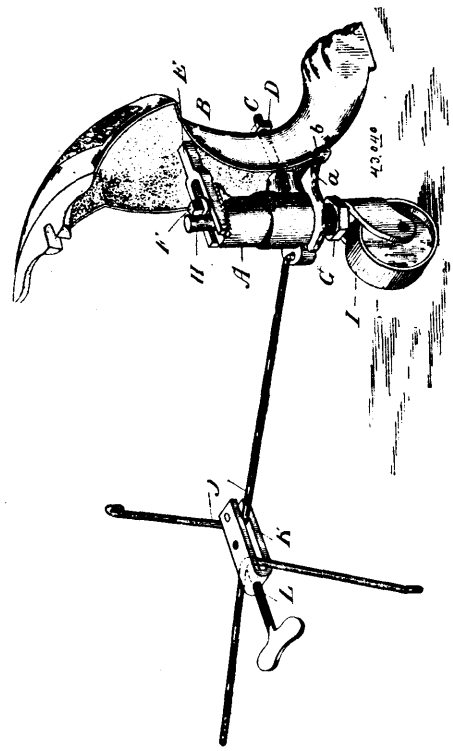
No. 43,039. Switch for Electrical Circuits.
(*Aiguille pour circuits électriques.*)



Edward H. Johnson, New York City, New York, 27th May, 1893; 6 years.

Claim.—1st. A hand switch for making and breaking an electric circuit having, in combination, a moving contact piece, a spring connected with said moving contact piece by a loose connection, and a free handle connected with such spring, and acting by its movement to strain the spring and release it without making or breaking the circuit, whereby the spring will then throw the moving contact piece by direct spring action to the end of its movement, and the circuit will be made or broken by a spring snap action, substantially as set forth 2nd. A hand switch for making and breaking an electric circuit, having in combination, a moving contact piece, a spring connected with said moving contact piece by a loose connection and adapted to throw it when strained and released by direct spring action to the end of its movement, and a free handle connected with such spring by a loose connection and acting by its movement to strain the spring and to release it without making or breaking the circuit, whereby the spring will then throw the moving contact piece independent of the handle, and the circuit will be made or broken by a spring snap section, substantially as set forth. 3rd. A hand switch for making and breaking an electric circuit having, in combination, a pivoted contact piece, a spring connected eccentrically thereto by a loose connection, and a free handle connected with such spring and adapted to move its bearing point across the line of centers without making or breaking the circuit, whereby the spring will be strained and released and will move the contact piece and make or break the circuit by a spring snap action, substantially as set forth. 4th. A hand switch for making and breaking an electric circuit having, in combination, a pivoted contact piece, a spring connected eccentrically thereto by a loose connection, and a free handle connected with such spring by a loose connection, and adapted to move its bearing point across the line of centers without making or breaking the circuit, whereby the spring will be strained and released and will move the contact piece independent of the handle and make or break the circuit by a spring snap action, substantially as set forth. 5th. A double pole switch having, in combination, two sets of stationary contacts, a contact piece pivoted between them, and having insulated metallic arms which bridge the contacts of the two sets by the turning movement of the pivoted contact piece, and a spring eccentric throwing such contact piece in both directions, substantially as set forth. 6th. In an electrical switch, the combination with the pivoted contact piece, of the lapping stationary contacts in different planes and the approaching stationary contacts in the same plane, substantially as and for the purpose set forth.

No. 43,040. Stove Caster. (*Roulettes pour poêles.*)



John Henry, Hall Brantford, Ontario, Canada, 27th May, 1893; 6 years.

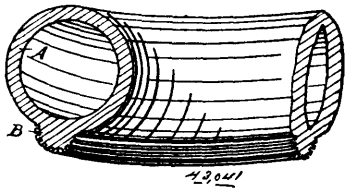
Claim.—1st. A caster wheel spindle, fitted into a vertical hole made through a nut screwed into a bracket fixed to the leg of a stove, substantially as and for the purpose specified. 2nd. A caster wheel spindle, fitted into a vertical hole made through a nut screwed into a bracket, the base of which fits into a notch made in a stove leg, a plate fixed to the top of the bracket and arranged to butt against the interior surface of the leg, in combination with a bolt C, fixed to the said bracket and carried through a hole in the stove leg to which it is secured by means of a nut, substantially as and for the purpose specified. 3rd. A caster wheel spindle, fitted into a vertical hole made through a nut screwed into a bracket, the base of which fits into a notch made in a stove leg, a plate adjustably fixed to the top of the bracket, and arranged to butt against the interior surface of the stove leg, in combination with a bolt fixed to the said bracket and carried through a hole in the stove leg to which it is secured by means of a nut, substantially as and for the purpose specified. 4th. A caster wheel spindle, fitted into a vertical hole made through a nut screwed into a bracket, the base of which fits into a notch made in the stove leg, a plate fixed to the bracket and arranged to butt against the interior surface of the stove leg, a bolt fixed to the said bracket and carried through a hole in the stove leg to which it is secured by means of a nut, in combination with the bent rods J, the ends of each rod fitting into a bracket connected as described to a stove leg, the two rods being drawn together by the link K, and set screw L, substantially as and for the purpose specified.

No. 43,041. Tires for Cycles. (*Bandage pour cycles.*)

Robert Stretton and Henry Arthur Neithercott, both of 23 Hindon Street, London, England, 27th May, 1893; 6 years.

Claim.—1st. In pneumatic or other air tires and additional solid rubber bearing piece, either formed therewith or applied thereto,

substantially as and for the purposes hereinbefore described. 2nd.



The improved pheumatic or other air tire described, and illustrated in the accompanying drawings.

No. 43,042. Musical Instrument.
(*Instrument de musique.*)

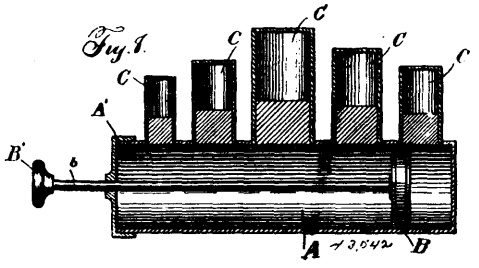
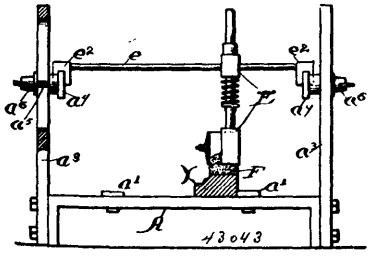


Fig. 3

James Buchanan Galloway, Chicago, Illinois, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. In a musical instrument, the combination of a main cylinder, a piston therein, means for operating the piston, and a series of organ pipes connected with the interior of the cylinder, whereby as the piston is moved back and forth the pipes will be played upon, substantially as described. 2nd. In a musical instrument, the combination of a cylinder, a piston therein, means for operating such piston, and a series of organ pipes of various sizes connecting with the interior of such cylinder, whereby as the piston is moved back and forth the pipes will be played upon, substantially as described. 3rd. In a musical instrument, the combination of a cylinder, a piston therein, means for operating such piston, and a series of pipes arranged in a row along the outside of the cylinder and communicating with the interior thereof, whereby as the piston is moved back and forth the pipes will be played upon, substantially as described.

No. 43,043. Block Setting Rack for Sand Papering Machines. (*Râtelier pour le montage des blocs pour machines à appliquer le papier de verre.*)



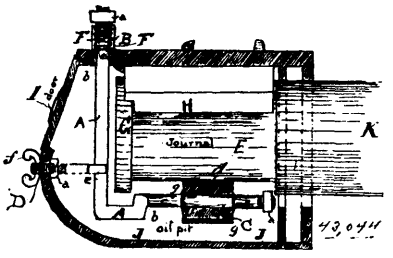
Charles L. Ruehes, Chicago, Illinois, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. A block setting rack for sand papering machines, consisting of a suitable base provided with guides adjustable thereon and uprights carrying horizontal bars adjustable thereupon and provided with means for clamping them in any desired position, substantially as described. 2nd. A block setting rack for sand papering machines comprising the flat base A, having the guide bars a^1, adjustably secured thereto, the corner posts a^3, vertically slotted side bars a^4, adjustably secured to said posts by means of the nuts and bolts a^6, a^5, substantially as described.

No. 43,044. Device for Oiling the Axles of Coaches and Cars. (*Boîte à graisse.*)

Sampson Walker, Winnipeg, Manitoba, Canada, 27th May, 1893; 6 years.

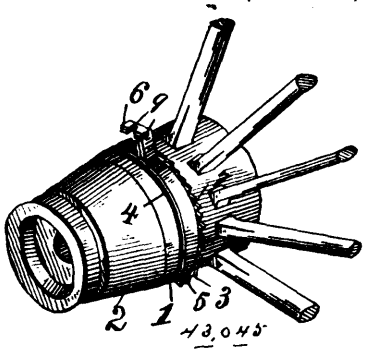
Claim.—The rod A having nut on each end; spring B; ferule cover F, roller C, covered with flannel or equivalent material, and bolt or regulator D, having nuts *f* and a_7 to hold rod A in position,



Longitudinal Section

all parts or elements, formed arranged and combined, substantially as and for the purpose hereinbefore set forth.

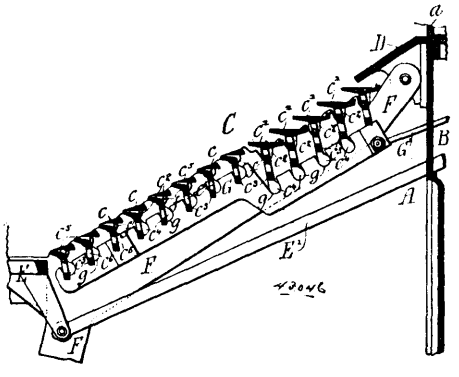
No. 43,045. Hitching Device. (*Enrênoire.*)



Jacob E. Terry, Heach, Montana, U.S.A., 27th May, 1893; 6 years.

Claim.—A hitching device comprising a cylindrical band adapted to be fixed to the hub of a wheel and provided at its inner and outer edges with parallel annular periphral flanges forming at the exterior of the band, a circumferential depression or trough, one of said flanges having a series of ratchet teeth, an adjustable band arranged on the exterior of the cylindrical band in the trough or depression between the flanges and provided with a pawl engaging said ratchet teeth, and an extension carried by the movable band and provided with rein receiving recesses, substantially as described.

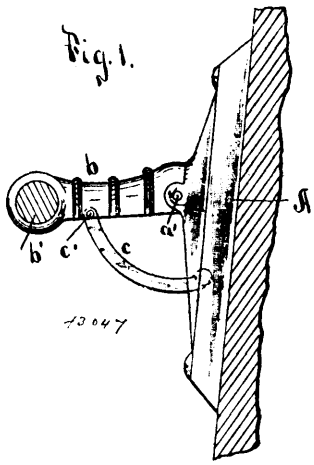
No. 43,046. Inclined Furnace Grate.
(*Grille inclinée pour foyer.*)



William Kufus Roney, Boston, Massachusetts, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. An inclined grate consisting of horizontally arranged grate bars, having depending webs or flanges provided with longitudinal slots or openings. 2nd. An inclined grate consisting of horizontally arranged grate bars having inclined top surfaces and depending webs or flanges, said grate bars having openings or slots extending horizontally from their inclined faces to their rear or outer surfaces and the depending webs or flanges being provided with longitudinal slots or openings arranged opposite said slots or openings in the grate bars. 3rd. The combination, with an inclined grate consisting of a series of horizontal, transversely arranged grate bars, of a reciprocating actuating bar provided with notches to engage the grate bars, said notches being of unequal widths to give the bars a greater movement in one part of the grate than in another.

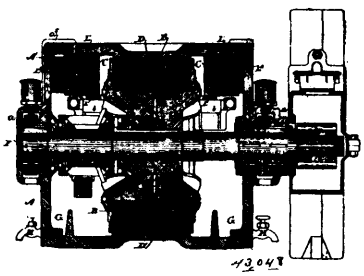
No. 43,047. Casket Handle. (*Poignée de cercueil.*)



John McCarthy, Syracuse, New York, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. The combination, with the handle, the arm carrying it, and the body plate to which said arm is hinged, of a relief bar connected to said arm, and passing through a slot in said plate and provided on its inner end with a head. 2nd. The combination, with the handle, the arm carrying it and the body plate to which said arm is hinged, of a relief bar pivotally connected to said arm and passing through a slot in said plate and provided on its inner end with a head. 3rd. The combination, with the handle, the arm carrying it, and the body plate to which said arm is hinged, of a relief bar connected to said arm on its lower side and passing through a slot in said plate, having a head on its inner end, and a relief bar loosely secured to the handle bar and extending upward and engaging with the plate and adapted to travel therein, as set forth.

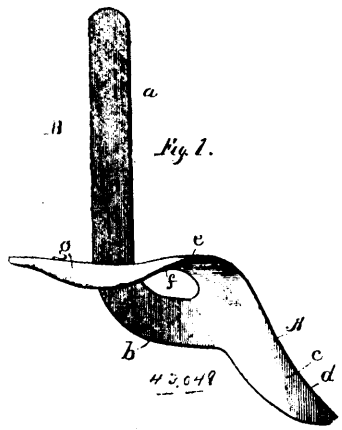
No. 43,048. Electric Railway Motor.
(*Moteur pour chemins de fer électriques.*)



Norman C. Bassett, Lynn, Massachusetts, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. An electric railway motor having a field magnet frame or shell inclosing the armature on all sides, and having projecting inwardly therefrom an upper pole surrounded by a field coil and a lower unwound pole. 2nd. An electric railway motor having a field magnet, frame or shell inclosing the armature on all sides, and having a water tight lower portion and a ventilated upper portion. 3rd. An electric railway motor having a field magnet, frame or shell inclosing the armature on all sides, but provided with ventilating openings, and having an upper coil wound pole and a lower unwound pole. 4th. An electric railway motor frame journalled on the axle, and having its lower portion, up to the line of the armature shaft snd axle, cast in one piece to form a water tight shell with closed bottom and sides, completely inclosing the lower half of the armature. 5th. The combination, with a motor frame, in the form of a closed shell inclosing and having journal bearnings for the armature, of the oil receptacles within said frame, beneath said bearnings, and drainage outlets for said receptacles. 6th. A motor frame in the form of a closed shell surrounding the armature, and having a water tight lower portion, a ventilated upper portion, and receptacles beneath the ventilating openings, substantially as set forth.. 7th. The combination, with the water tight lower frame or shell of the railway car motor, of the drainage receptacle therein, and a self closing stop cock for said receptacle. 8th. A motor inclosing shell having a ventilating opening with outwardly and downwardly directed slats. 9th. The combination, with a motor inclosing frame having a groove in its top, of a ventilating sliding window with a cap and flange extending into said groove. 10th. The motor inclosing frame having ventilating openings and water deflecting ribs or equivalent portions on its top. 11th. The motor frame having upper and lower portions hinged together at each end, substantially as and for the purposes set forth. 12th. A motor frame having an upper portion hinged together at each end and fastened together by bolts. 13th. The combination, with a motor frame formed in two portions hinged together, the upper portion supported by a journal bearing on the axle and the lower portion being suspended therefrom, of the independent support for the lower portion, substantially as described. 14th. The combination, of the upper motor frame portion journalled on the axle, the lower frame portion hung therefrom, and the strap or hook attached to the lower frame and extending over the axle. 15th. An electric motor having its field spool out of direct contact with its core or frame, with insulating and elastic supports between said spool and the core or frame. 16th. The combination, with the field magnet frame of a motor, of the field coil supported thereon by elastic cushions. 17th. The combination, with the field magnet frame of the motor, of the yieldingly supported field spool.

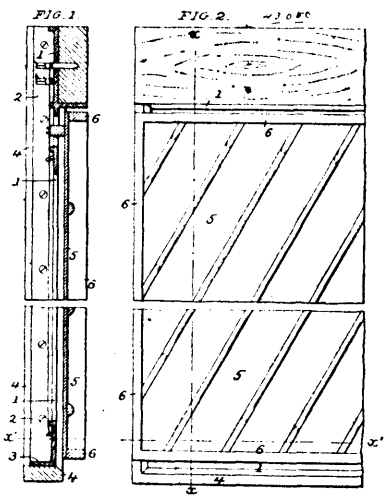
No. 43,049. Plow Colter. (*Coutre de charrue.*)



George Alfred Lambert, Belfast, Maine, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. A plow colter consisting of a shank portion, attached to the rear of the cutting blade, said blade having a downwardly and forwardly projecting cutting point, and being deflected laterally and rearwardly above its connection with the shank, its extreme rear portion being twisted to form a spiral and extending towards the rear of the shank in a substantially horizontal direction and having a sharp front edge, substantially as and for the purpose specified.

No, 43,050. Upright Piano Back.
(*Dos de piano droit.*)



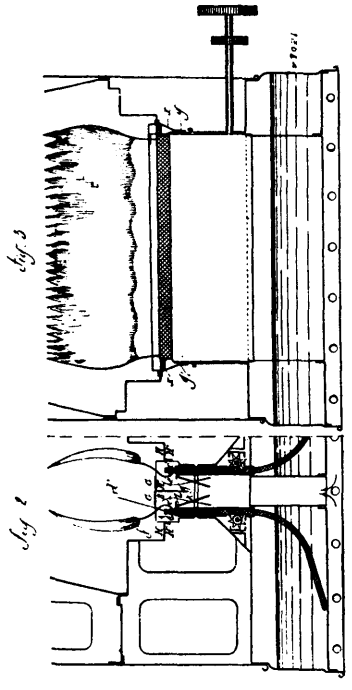
John Warner Reed, Chicago, Illinois, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. In a frame or back for pianos, the combination of a piano string plate, an outer marginal wooden frame secured thereto, so as to enclose the same and project rearwardly, and a sounding

board secured to the back of the outer marginal frame, with its top edge left free and unsupported except by the marginal sounding board frame, substantially as set forth. 2nd. In a frame or back for pianos, the combination of a piano string plate, an outer marginal wooden frame secured thereto so as to enclose the same and project rearwardly, and a sounding board secured to the back of the outer marginal frame, with its top and bottom edges left free and unsupported except by the marginal sounding board frame, substantially as set forth.

No. 43,051. Mineral Oil Burner.

(*Brûleur d'huile minérale.*)

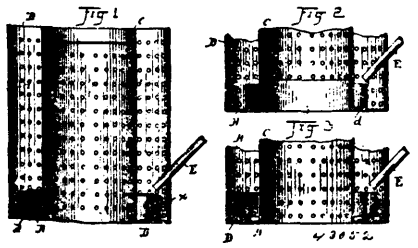


Jacques Aimé Vagner, Paris, France, 27th May, 1893; 6 years.

Claim.—1st. The method hereinbefore described, consisting in supplying a current of air to one side of a wick to keep the gases emitted therefrom igniting at the surface, and retarding the current of air on the opposite side to prevent ignition, substantially as described. 2nd. In combination, with the burner, a wick, a confined passage on one side for accellerating the current of air and an enlarged space on the opposite side to retard the flow of air, substantially as described. 3rd. In combination with a burner, a wick, a confined passage on one side and an enlarged passage on the other and cheek pieces g, g^1, substantially as described.

No. 43,052. Hydro Carbon Burner.

(*Foyer à hydrocarbures.*)



John A. Lannert and William A. Jeavons, both of Cleveland, Ohio, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. A hydro carbon vapour burner consisting of a vapour holder constructed for the free and uniform distribution of the vapour therein by gravity and having a free opening for the escape of vapour, in combination with perforated combustion walls having a flame space between them in communication with the said holder, substantially as described. 2nd. A vapour burner having the channel in which the vapour is distributed or conveyed by gravity, substantially as described. 3rd. A vapour burner having a vapour receiving and conveying channel or chamber provided with a free opening of relatively small area communicating with the combustion chamber, in combination with a combustion chamber having openings for the admission of air to support combustion, substantially as described. 4th. The process herein described, consisting first in converting the oil into vavour and then conveying the vapour by gravity to the place where it is oxygenized, substantially as described. 5th. The process herein described of converting liquid hydro carbon into vapour, and conveying and burning the vapour, which consists first in vapourizing the oil by exposure to a heated surface, then conveying the vapour by gravity to the points where it is to be burned, and then supplying air to the vapor in limited quantities to meet the demands of combustion, substantially as described. 6th. A vapour burner provided with perforated combustion walls, and an air tight bottom between the lower ends of said walls, and an oil and vapour distributing channel having greater depth than width, and one or both of its sides out of line with the said perforated walls, said channel open about its top, substantially as described.

No. 43,053. Gas Pressure Governor.

(*Régulateur à pression pour le gaz.*)

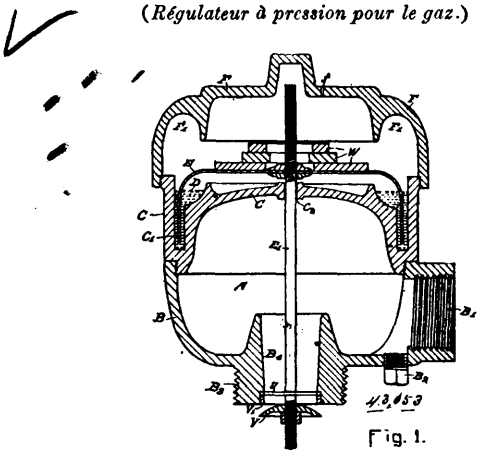
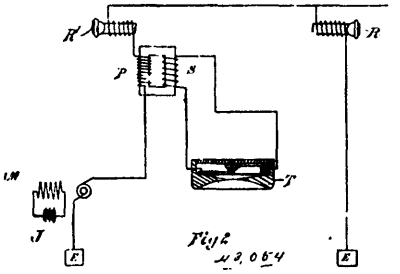


Fig. 1.

Frank Peterson, Seattle, Washington, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. The combination of the gas chamber A, having inlet and outlet openings, cup E, stem E^1, attached thereto, valve V upon the lower end of the stem, and adapted to close the inlet and the centering guide bar H, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the gas chamber A, inlet B^4 and outlet B^1, mercury chamber C^1, cup E having its lower edge in the mercury, a passage from the gas chamber to the under side of the cup E, stem E^1 attached thereto, valve V on the lower end of the stem and adapted to close the inlet opening when the gas pressure raises the cup, ring V^1, forming the valve seat and the guiding bar H, having a central opening for the stem and held in place by the seat, substantially as and for the purpose hereinbefore set forth.

No. 43,054. Telephony. (*Téléphonie.*)



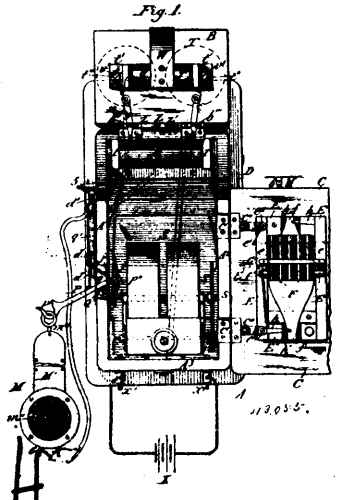
John W. Gibboney, Lynn, Massachusetts, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. The method of transmitting speech, consisting in passing over the line waves of alternating current or varying current of slight audibility in the receivers and superposing thereon waves of current corresponding to vocal waves, substantially as described. 2nd. The method of transmitting speech, consisting in putting upon the line alternating or pulsating waves of current inaudible, or nearly so, in receivers and inductively superposing waves of current corresponding to the vocal waves received by a transmitter. 3rd. The method of transmitting speech, consisting in passing over a line or circuit, including the receivers and transmitting devices, waves of electric current incapable or nearly incapable of producing audible tones in the receivers, and modifying the induction between

the line transmitter coil and a local coil in inductive relation thereto through the agency of voice waves. 4th. The method of transmitting speech along a line having receivers and transmitters, consisting in producing induction between a pulsating or alternating current in the line of such rate as not to produce strongly audible tones or sounds in the receiver and a local circuit in inductive relation to a coil in the line and modifying the resistance capacity of self induction of such local circuit by the vocal waves received by the transmitter. 5th. In combination, with a telephone line, having receivers thereon of means for producing in said line varying or alternating current impulses of such period as not to produce strongly audible tones or sounds in the receivers, and means, such as a local coil in inductive relation to a coil in the line, for superimposing undulations inductively transfered from the local coil to the line coil, the local being provided with a telephone transmitter in its circuit, whereby the capacity or resistance of its circuit may be varied by the waves of the voice communicated to said transmitter. 6th. In a telephone system, in which alternating or varying impulses are passed over the line, an induction coil, the primary of which is in the line and the secondary of which is local to the transmitter and connected to the said transmitter, whereby the variations of resistance, capacity or self induction set up in the transmitter by the voice waves are inductively transferred to the primary coil in the line to vary its current or superimpose the vocal undulatory current on the alternating or varying line current. 7th. The combination, in a telephone system, of an induction coil provided with a primary coil of many turns transversed by alternating or varying impulses of current, and also provided with a secondary coil of few turns locally connected through a transmitter, whereby the resistance of said local coil circuit is varied, as described, and for the purposes specified. 8th. The combination, in a telephone apparatus, of a source of alternating or varying electric current, a line circuit connected to said current source, a transformer or inductorium, the primary coil of which is in said line circuit or inductively related thereto, and a secondary circuit for said transformer, whose resistance, capacity, or self induction is adapted to be modified by sound waves, as set forth. 9th. The method of telephoning, consisting in passing over a circuit an alternating current or a current periodically changing in value and inductively modifying said current in correspondence with sound vibrations. 10th. The method of telephoning, consisting in passing over a circuit an alternating current or a current of changing value, passing said current through a coil of inductorium, and varying the counter induction of said inductorium by the agency of sound vibrations. 11th. The method of telephoning, consisting in feeding the line with an electric current of periodically rising and falling potential, passing said current through a counter inductive device included in the line circuit, and varying the counter induction of said device by the agency of sound vibrations, whereby the said current is made to flow over said line in impulses or waves corresponding to the sound vibrations.

No. 43,055. Electric Telephone. (*Téléphone électrique.*)

Fig. 1.

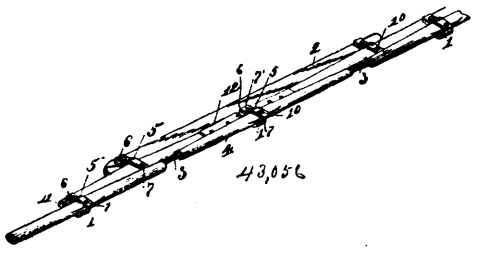


Edward Marshall Morrison, Fort Smith, Arkansas, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. A telephone case provided with a fixed top piece, an upper inclined door hinged at its inner edge to said top piece, and having a rabbeted or recessed outer edge, and with a front lower door hinged to one of the side walls of the case, and fitting at its top inner edge into the rabbet of said inclined door, making a tight joint therewith whereby the case may be fully opened for inspection, and the inclined door may be held closed by the lower door and dust excluded, substantially as described. 2nd. A telephone case provided with a fixed top piece, the upper inclined door B, hinged to said top piece, and having a rabbeted outer or front edge, and also having the ringer secured to its under side, said case being also provided with a lower door C, fitting at its upper edge into the rabbet of door B, and having secured to its inner side the phonetic transmitter, substantially as described. 3rd. In a phonetic transmitter, the diaphragm having an elliptical, in combination with means for supporting it and leaving its edges free, substantially as described. 4th. In a phonetic transmitter, the diaphragm of an elliptical shape with narrow extensions at the ends of the long axis, in combination with supporting devices to the edges of the diaphragm being left free, substantially as described. 5th. In combination with a frame, an elliptical diaphragm having extensions at the ends of its long axis resting on the frame, and supporting springs bearing on said extensions, substantially as described. 6th. In combination with a frame, an elliptical diaphragm cushions interposed between its ends and said frame, and supporting springs bearing on the ends of the diaphragm above said cushions, substantially as described. 7th. In combination with a frame, an elliptical diaphragm resting at its ends on the frame, and having a transverse bridge and carbon rod electrode, and springs adapted to hold the diaphragm in the frame, substantially as described. 8th. A frame provided with side brackets at its upper ends, having pivotally supported therein the pendent carbon electrodes, in combination with the elliptical diaphragm supported at its ends in said frame, and provided with a transverse bridge and carbon rod electrode in contact with said pendent electrodes, substantially as described. 9th. The combination in a telephone switch, of a swinging metallic bar or lever having secured to its inner end a thin horizontal metallic bar, an escutcheon having an upper cylindrical end, and a socket q having a pivotal eye, a strong spiral spring in said cylindrical end for the purpose of pulling the switch lever up, said bar being pivotally connected to said socket, three flat springs to make the different connections with the horizontal bar as the switch lever is moved up and down, substantially as described. 10th. In a phonetic transmitter, the diaphragm having a transverse bridge and a carbon electrode secured to said bridge, and provided with a sharp contact edge and secured to said bridge for making contact with the pendent anvil electrodes, substantially as described. 11th. In a phonetic transmitter, the carbon hammer electrode having a sharp contact edge and secured to the diaphragm, in combination with pendent electrodes having flat contact surfaces at their lower ends, substantially as described. 12th. In a phonetic transmitter, the frame provided with an adjustable transverse bar, in combination with the diaphragm resting at one end upon said bar, substantially as described. 13th. In combination with the transmitter frame, the elliptical diaphragm and supporting cushions h^{11}, h^{11}, connected at one of their ends to the diaphragm and at their other ends to the frame, substantially as described. 14th. In an induction coil, the secondary coil composed of sections of coils, and interposed soft iron rings for increasing the intensity of the secondary coil, substantially as described. 15th. In an induction coil, the secondary coil composed of sections of coils, and interposed soft iron rings for increasing the intensity of the secondary coils, in combination with the primary coil wound on the spool inside of the secondary, and also on the outside of the secondary for evenly distributing the galvanic current, substantially as described. 16th. In an electro phonetic motor or receiver, an octagon or circular diaphragm plate with a long projection extending the full length of the receiver case with the small or projected end of the plate in contact with the electro-magnet at the lower end of the case, substantially as described. 17th. In an electro phonetic motor or receiver, the combination with the permanent magnet and an electro-magnet, of a diaphragm plate having circumferential projections by which it is supported in the case leaving its circumferential edges free to vibrate, substantially as described. 18th. In combination with the permanent magnet, a long diaphragm plate in contact with one pole of said magnet, a second diaphragm plate provided with circumferential projections by which it is supported in the case leaving its edges free to vibrate, and an electro-magnet between said plate and the permanent magnet, substantially as described. 19th. In combination with the permanent magnet and one or more electro-magnets, a long diaphragm plate, a short diaphragm plate and a layer of insulating material between them, substantially as described. 20th. In a receiver, the combination with the permanent magnet and one or more electro-magnets, of a long diaphragm plate extending from end to end of the case, a cover and a long shallow sounding chamber between said long plate and cover, substantially as described. 21st. In a magneto electric generator the horse shoe magnets, a shaft extending transversely across both legs of the horse shoe magnet and provided with the radially arranged electro-magnets between the legs of said horse shoe magnet, said electro-magnets having armatures at their outer ends, substantially as described. 22nd. In a magneto electro generator, the horse shoe magnets, the transverse iron shaft carrying the electro-magnets between the legs of said horse shoe magnet and having one end formed with radial ribs between which are inserted segments of diamagnetic metal and insulating material forming the commutator, substantially as described. 23rd. In a magneto ringer the horse shoe magnet having attached to one of its legs or poles a soft iron bar in combination with the two electro-magnets supported by said bar transversely between the two poles of the horse shoe magnet, and an armature connected to the other pole of the horse shoe magnet and passing between the two electro-magnets, substantially as described. 24th. In a magneto ringer, the horse shoe magnet hav-

ing attached to one of its legs or poles, a soft iron bar, adjustably slotted brackets attached to said bar and carrying the two electro-magnets for adjusting the said magnets, substantially as described. 25th. In combination with the telephone case, a lightning arrester composed of two outer plates having notches y^1, y^1, at their adjacent end and an interior diamond shaped plate arranged in said notches and having a binding post for the ground wire, substantially as described. 26th. In combination with the telephone case, a lightning arrester for cutting out the ringer composed of two metallic strips, respectively notched and pointed, secured to the hinges and located between the edge of the door and case, substantially as described.

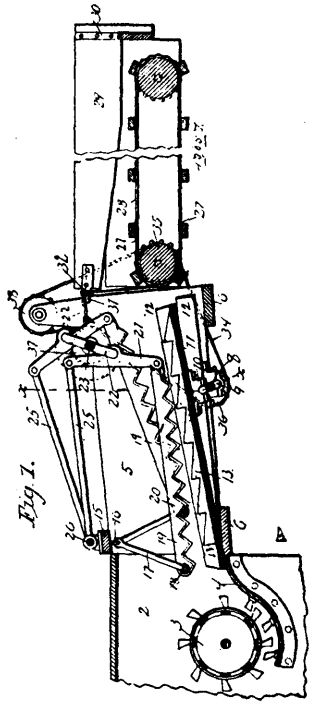
No. 43,056. Clip for Single and Double Trees.
(*Crochet pour palonniers.*)



Eldridge H. Sawyers, Unionville, Iowa, U.S.A., 27th May, 1893; 6 years.

Claim.—1st. In a device of the character set forth, a clip consisting of a lower U-shaped plate bent into form and extending the entire length of the device, and an upper brace having its rear end secured to the upper part of said plate, by a bolt that extends therethrough and through the said plate and the front part of the same bent upward and having a bolt extending therethrough and through the front of the said plate, said brace and plate being separated and bent into proper form and the bolts forming pivots and means of attachment for the parts of whiffletree, substantially as described.

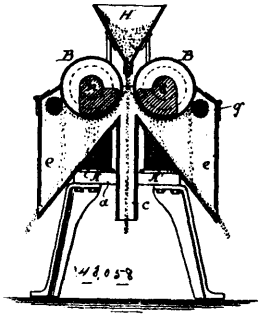
No. 43,057. Machine for Feeding Threshing Machines. *Machine pour alimenter les machines à battre.*)



George S. Richardson, Forest, Ontario, Canada, 29th May, 1893; 6 years.

Claim.—1st. The combination, in an automatic band cutter and feeder, of the feeder box, reciprocating and toothed bottoms therefor, longitudinally arranged toothed cutter bars or sickles, and means for driving the same, substantially as described and for the purpose specified. 2nd. The combination, in an automatic band cutter and feeder for threshing machines, of a feeder box having reciprocating toothed bottoms, a driven crank shaft for driving said bottoms, a conveyor for delivering the bundles upon said bottoms, and a series of vertically and longitudinally operating toothed cutter or sickle bars having their teeth sharpened, substantially as described and for the purpose specified. 3rd. The combination, with the threshing machine and the cylinder thereof, of the feeder box arranged before the same, the inclined reciprocating toothed bottoms therefor, a cross bar 16, V-links 17 depending therefrom, a crank shaft 23 extending across the outer end of said feeder box and journalled therein, the lever arm 21 journalled upon the cranks of said shaft, links 25 pivotally connecting the upper ends of said arms with a stationary cross shaft or bar, longitudinal cutter bars or sickles having sharpened teeth and pivoted to the lower ends of said V-links to the lower ends of opposite lever arms 21, and means for driving said crank shaft 23, substantially as and for the purpose specified. 4th. The combination with the threshing machine and the cylinder thereof, of a feeder box arranged before said cylinder, the crank shaft 8, the toothed reciprocating bottoms journalled upon said crank shaft, to be operated thereby, the cross bar 16, the V-link 17, depending therefrom and pivoted thereon, the large crank shaft 23, the lever arms 21, journalled upon the cranks of said shaft 23, links 25, connecting the upper ends of said lever arms 21, with a stationary cross bar or shaft, the longitudinal cutter bars or sickles 19, pivotally connected with the lower ends of said V-links and said lever arms, said bars having the sharpened teeth 20, a sprocket upon the shaft 8, a sprocket upon the shaft 23, means for driving said shaft, a belt connecting said sprockets, and a conveyor driven by said belt and adapted to deliver the bundles upon said reciprocating bottoms, substantially as and for the purpose specified. 5th. The combination, with the threshing machine and the cylinder thereof, of a feeder box arranged before said cylinder, the crank shaft 8, the toothed reciprocating bottoms journalled upon said crank shaft, to be operated thereby, the cross bar 16, the V-link 17, depending therefrom and pivoted thereon, the large crank shaft 23, the lever arms 21, journalled upon the cranks of said shaft 23, links 25, connecting the upper ends of said lever arms 21, with a stationary cross bar or shaft, the longitudinal cutter bars or sickles 19, pivotally connected with the lower ends of said V-links and said lever arms, said bars having the sharpened teeth 20, a sprocket upon the shaft 8, a sprocket upon the shaft 23, a conveyor trough secured to the outer end of the feeder box, a conveyor arranged therein, a sprocket wheel arranged upon the inner shaft of said conveyor, a raised idler sprocket wheel 38, and a sprocket belt 34, extending over said sprockets and over the sprockets upon the shafts 8 and 23, substantially as and for the purpose specified.

No. 43,058. Magnetic Separator for Ores.
(*Séparateur magnétique pour minerais.*)



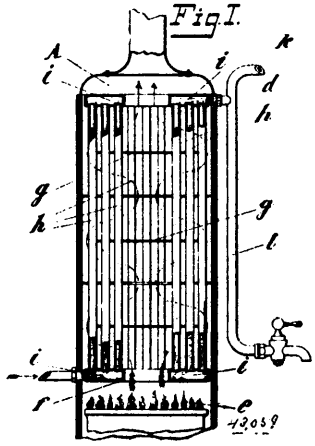
Richard R. Moffatt, New York City, New York, U.S.A., 29th May, 1893; 6 years.

Claim.—1st. In a magnetic separator, the combination of two rotating drums, with a stationary electro-magnet or magnets located outside of the drums and having pole pieces or extensions within the drums substantially as specified. 2nd. In a magnetic separator, the combination of two rotating drums mounted horizontally and having an open space between them, with a stationary magnet or magnets located outside of the drums, and having pole pieces or pole extensions within the drums, substantially as specified. 3rd. In a magnetic separator, the combination, of two rotating drums, with an electro-magnet or magnets located outside of the drums, and having a stationary pole piece within each drum, said pole piece being magnetically connected with the magnet core through the axis of the drums, substantially as specified. 4th. In a magnetic separator, the combination of two rotating drums with a stationary electro-magnet or magnets located outside the drums and provided with pole pieces within the drums, with which they make magnetic contact through the axis of the drums, said pole pieces extending from the axis of the drums toward each other, reducing the space between them to produce a strong magnetic field substantially as specified. 5th. In a magnetic separator, the combination of two rotating drums with a stationary electro-magnet or magnets located outside of the drums, and provided with a pole piece in each drum, which

is constructed in such a manner as to serve as an axle or shaft upon which the drums are mounted and rotate, substantially as specified. 6th. In a magnetic separator, the combination of two rotating drums mounted horizontally and having an open space between them, with a stationary electro-magnet or magnets located outside and having a pole piece of opposite polarity within each drum, said pole piece arranged in a manner so as to produce a condensation of lines of force in the lower part of the drums, being most intense at a point where the surfaces of the drums are nearest each other, substantially as herein specified. 7th. In a magnetic separator, the combination of two rotating drums having an open space between them with a stationary compound electro-magnet, the helix coils of which are located on the outside of the drums with their consequent poles located within the drums in such a manner that the pole in each drum will be of an opposite nature to that in the other, so as to produce a magnetic field in the open space between the drums, substantially as herein specified.

No. 43,059. Stove for Heating Water in Circulation.

(*Poêle pour le chauffage de l'eau en circulation.*)

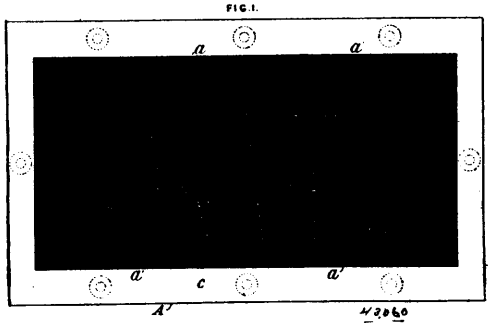


Max Galley, Hanover, Prussia, 29th May, 1893; 6 years.

Claim.—An apparatus for heating and circulating water for the purposes described, wherein the water tubes (such as *h*) are so disposed in respect to each other, and the flat or spirally formed deflecting plates (such as *g*) are so arranged in respect to such water tubes that the course of the heating gases about such water tubes is deflected and retarded, substantially as herein set forth and as shown in the drawings hereto annexed.

No. 43,060. Sieve for the Separation of Ores, etc.

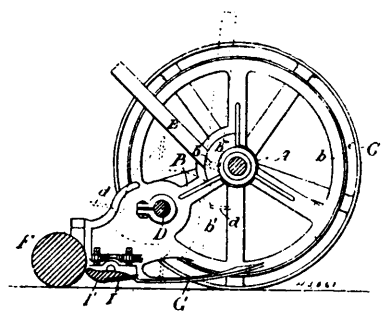
(*Tamis pour les séparateurs des minerais, etc.*)



Charles Raleigh, Johannesburg, South African Republic, 27th May, 1893; 6 years.

Claim.—1st. For use in stamp batteries and otherwise for the separation of ore and other substances, the improved construction of screen or sieve in which the wire gauze or perforated plate employed for screening is corrugated or formed with numerous prominences and depressions, whereby, in addition to the screening area being increased, the tendency of the substance under treatment to glance off, instead of to pass through, is greatly diminished. 2nd. For use in stamp batteries and otherwise for the separation of ore and other substances, the improved screen or sieve consisting of a corrugated sheet of wire gauze or perforated plate, packed and held in a bipart frame A, A', substantially as herein described. 3rd. In screens or sieves for use in stamp batteries and otherwise for the separation of ore and other substances, providing the gauze screen with threads or strips of jute, flax or other packing material woven, sewn or otherwise attached to the margins to be covered by the sieve frame.

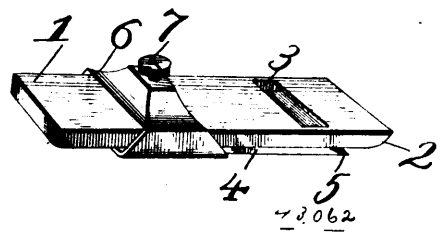
No. 43,061. Lawn Mower. (*Faucheuse de pelouse.*)



Augustus Richard Woodyatt, Guelph, Ontario, Canada, 29th May, 1893; 6 years.

Claim.—1st. In a lawn mower, the combination with a large driving wheel of an internal spur rim projecting inwardly clear of the spokes and forming two sides of a casing, a casing enclosing the other two sides of the rim and making horizontal joints therewith, and forming part of a stationary frame, and an axle upon which said frame is secured, substantially as set forth. 2nd. In a lawn mower, the combination with a large driving wheel of an internal spur rim projecting inwardly clear of the spokes and forming two sides of a casing, a frame part of which forms the other two sides of the spur rim casing, and forming horizontal joints therewith, and having a recess for the pinion gearing in said spur rim with removable end or cap, and a bearing for the shaft carrying said pinion, and an axle on which said frame is mounted stationarily, substantially as set forth. 3rd. In a lawn mower, the combination of the driving wheels mounted on a shaft and supporting a frame at each end, a pair of frames supported stationarily on a shaft, a slotted extension of the hub of each frame between two spokes provided with a pintle, and a pair of arms E, each having one end provided with eye pass into said slot and engage said pintle, said pintle placed at or below the level of the centre of the shaft supporting said frame, substantially as set forth. 4th. In a lawn mower, the combination of a frame mounted stationarily on a shaft supported by wheels and consisting of a hub, spokes, rim forming a casing and extensions forming supports of other parts, of a grass guard G, consisting of a strip formed integrally with said rim at one end and with the extensions at the other, and sloping gradually outwards as far as the end of the knives from the casing towards the extension of the frame, substansially as set forth.

No. 43,062. Pencil Sharpener. (*Taille-crayon.*)



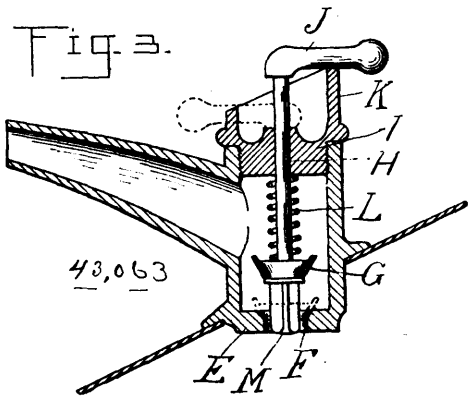
George Diez, San Bernardino, California, U.S.A., 29th May, 1893; 6 years.

Claim.—1st. The herein described pencil sharpener, consisting of the oblong body portion, having its front end undercut or beveled, and immediately in rear of the same provided with a transverse slot, the blade located upon the under side of and lying flat against said body portion and having its front end beveled in a direction opposite to that of the body portion and terminating opposite the slot therein, and devices for securing the blade upon the body portion, substantially as specified. 2nd. The herein described pencil sharpener, consisting of the oblong body portion, having its front end undercut or beveled, and immediately in rear of the same provided with a transverse slot, the blade located upon the under side of and lying flat against said body portion and having its front end beveled in a direction opposite to that of the body portion and terminating opposite the slot therein, and means for adjustably securing said blade upon the body portion, substantially as specified. 3rd. The herein described pencil sharpener, the same consisting of the oblong body portion formed of hardwood having its front end undercut, and in rear of the same and contiguous thereto provided with a transverse slot whose front edge is undercut in a direction opposite to that of the front end of the body portion, the blade located upon the under side of the body portion and having its front

end terminating under the slot therein and bevelled in a direction opposite to that of the front end of the body portion, the rectangular clip embracing the blade and body portion and having its upper side provided with a threaded perforation, and the thumb screw passed through the clip and bearing on the body portion, substantially as specified.

No. 43,063. Tap and Filler for Oil Cans.

(*Robinet et entonnoir pour bidons à huile.*)

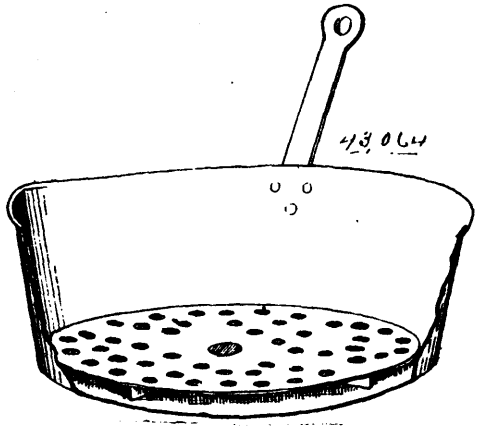


Nicholas Hardoin, Detroit, Michigan, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. In a combined oil tap and filler, the combination, with the can, of a vertical tubular casing secured thereto, apertured at top and bottom, a detachable plug at the top thereof, a discharge spout on the side of said tube, a vertical movable valve stem carried by and passing through said plug, a crank handle on the valve stem, a valve on the opposite end of said stem, a valve seat at the lower aperture of the casing, a spring to normally force the valve down and an inclined circumferential flange on the upper face of said plug adapted to support the valve stem against the tension of the spring when the valve is open, substantially as described. 2nd. In a combined oil tap and filler, the combination of the vertical tubular casing apertured at top and bottom, a lateral discharge spout on the casing, the annular flange by means of which the casing may be secured upon a can, the detachable plug in the aperture at the upper end of the casing, the inclined flange on the upper face of said plug, the valve in the casing, the valve stem carrying said valve and extending through the block, a crank at the upper end of the valve stem adapted to bear upon the inclined flange, a spring sleeved upon the stem between the valve and plug to normally close the valve, substantially as described.

No. 43,064. Protector for Saucepans.

(*Protecteur pour casseroles.*)

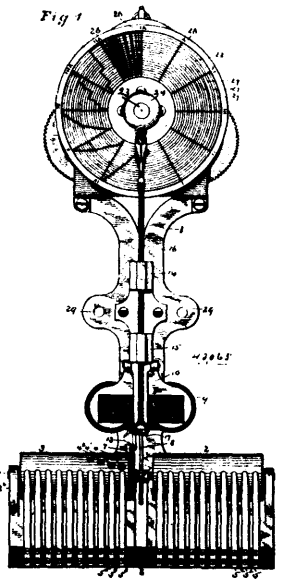


Frank R. Graham, Vancouver, British Columbia, Canada, 30th May, 1893; 6 years.

Claim.—The combination of the disc of tin, perforated as shown in figure 1, and the radiating flanges shown underneath in figures 2 and 3.

No. 43,065. Time and Station Recorder.

(*Régistre horaire et de station.*)

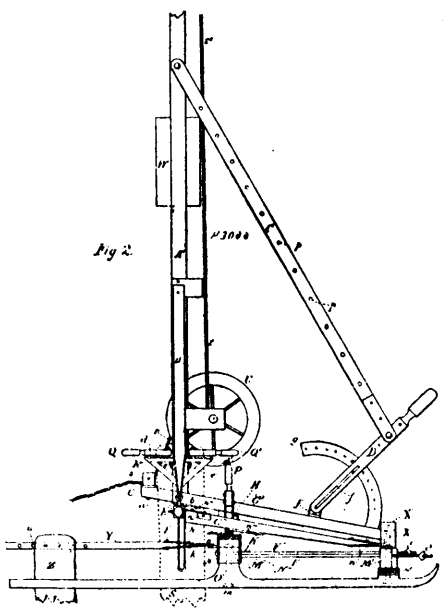


James A. Tilden, Hyde Park, Massachusetts, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. The combination of a cylinder operated by a motor controlled by electrical contact, the said cylinder being in contact with a series of spring current brushes, and provided with a series of insulating points which pass under successively said spring brushes, whereby the motor is devitalized by the cutting out of the current, and the cylinder caused to stop at the point determined by the spring so cut out, and a marking device controlled by said cylinder which will indicate the relative location to each other of the several insulated points on the cylinder as they become cut out and the cylinder comes to rest, substantially as set forth and described. 2nd. The herein described electric time and station recording apparatus, composed of an electro-magnetic motor in electrical connection with a series of circuit closers, a series of insulated circuit breakers located in the circuit of said station keys and controlled by the operation of said motor, a cam controlled by said motor to operate a marking pen or pencil, a clock movement carrying a recording dial in such relation to the marking pen or pencil, so combined that a diagram will be traced upon the dial representing the operation of the station keys and the time of their operation, substantially as set forth and described. 3rd. The herein described time and station recording apparatus composed of an electro-magnetic motor controlled by circuit closing keys, a series of circuit breakers arranged to interrupt the motor circuit in successive order by the operation of said motor, a cam arranged to rotate with said circuit breakers and formed to lift a recording pen which traces upon a dial mounted upon a clock movement, the exact movement of the arm and also the movement of the dial, substantially as set forth and described. 4th. A watchman's electric time and station recording apparatus composed of an electro-magnetic motor, a cylinder or cylinders rotated by the action of said motor, spirally arranged contact breakers forming part of said cylinder or cylinders, a series of separately insulated springs in contact with said cylinder or cylinders, an arm carrying a recording pen governed by a rotating cam, and a clock movement carrying a dial in such relation to the marking arm that a record is made of the movement of the marking arm and the rotation of the dial, substantially as set forth and described. 5th. An electric time and station recording apparatus composed of an electro-magnetic motor adapted to rotate a cylinder having spirally arranged circuit breakers upon its surface, and carrying a cam formed to lift an arm upon which is a marking pen, a series of insulated springs or arms in electrical contact with said cylinder and arranged to be insulated from the cylinder in successive order as it revolves, by means of spirally arranged contact breakers, and a clock movement carrying a recording dial in such relation to the recording pen that a diagram will be traced upon the dial corresponding to the movement of the pen and rotation of the dial, substantially as set forth and described. 6th. The combination in a watchman's time and station recording apparatus of an electro-magnet, a vibrating armature controlled by said magnet, a ratchet mounted upon end of said armature, a ratchet wheel mounted upon a shaft and engaging with said ratchet so that the operation of the vibrating armature causes a rotation of said shaft, a cylinder or cylinders mounted upon said shaft to rotate with it, a series of circuit breakers spirally arranged upon said cylinder or cylinders, a series of separately insulated contact springs

in electrical connection with said cylinders, a series of circuit closers respectively in electrical connection with said contact springs, a cam mounted upon the cylinder shaft and rotating therewith, a sliding arm arranged to rest upon said cam to be lifted by its movement, and a marking pen or pencil mounted upon the opposite end of said arm, a clock-movement set in relation to the marking pen or pencil so that a diagram will be traced upon a dial secured to and operating with said clock, said diagram representing by a step by step movement the operation of the several station keys and time of their operation, substantially as set forth and described. 7th. The combination in a time and station recording apparatus of a battery, one terminal of which is connected with a series of circuit closers, a series of electric wires leading from said circuit closers to a series of separately insulated circuit breaking springs, a cylinder or cylinders mounted upon a shaft and in electric contact with said circuit breaking keys, a series of insulated points arranged spirally upon said cylinder and in line with said springs, an electro-magnet, one terminal of which is connected with said cylinder, the other terminal of which returns through a vibrating armature spring to the battery, a ratchet wheel mounted upon the cylinder shaft and arranged to engage with a ratchet mounted upon the magnet armature, a cam mounted upon the cylinder shaft to rotate with it, a sliding arm resting upon said cam to move in accordance with the form of the cam, a pen or pencil, hinged upon the opposite end of said arm, and a clock movement and dial, the whole organized and assembled as described, so that by the operation of one of said circuit closers the magnet would be caused to vibrate and rotate the cylinder until its corresponding circuit breaker engages with the insulated point upon the cylinder and causes an interruption of the circuit, at the same time causing the marking pen to be moved by the cam a distance corresponding to the circuit closer operated, and at the same time indicating by the diagram the interval of space between the operation of other circuit closers, substantially as set forth and described. 8th. The combination in a time and station recording apparatus of an electrically controlled motor adapted to rotate a cylinder having spirally arranged circuit breakers upon its surface, a series of circuit brushing springs in contact with said cylinder and arranged to come in successive contact with said breakers, a series of slow contact keys in electrical connection with said brushes, constructed to occupy sufficient time in their operation to equal the time consumed in the complete revolution of the cylinder, a marking device controlled by said cylinder and arranged to record upon a dial placed upon a clock movement the relative location to each other of the said circuit breakers as they interrupt the passage of the current from the brushes to the motor, substantially as set forth and described.

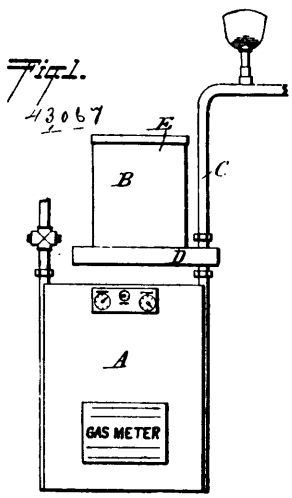
No. 43,066. Pile Driver. (*Mouton.*)



William Cowen, Maryborough, Ontario, Canada, 30th May, 1893; 6 years.

Claim.—1st. The construction and combination with the ordinary pile driver of the lever D, the arc *g*, the frame G G^1 G^{11}, the pin *f*, the braces C C^1 and B, the steel bolts 11 and the hinge *b*, substantially as and for the purposes hereinbefore set forth. 2nd. The construction and combination with the ordinary pile driver of the bowed braces C C^1, and rings *p p*^{1} in the form of a ladder connected with the lever D, substantially as and for the purposes hereinbefore set forth. 3rd. The construction and combination with the ordinary pile driver of the lever E, the beams G and G^{11}, the arc F, the pin *a*, the brace B, the bolster H, the steel bolt *t* and the iron projection I, substantially as and for the purposes hereinbefore set forth. 4th. The construction and the combination with the ordinary pile driver of the iron slide K, the iron covered sill M, the iron clamps N N^1 N^{11} N^{111} the pall lever P, the pivot bolt X, the ratchet wheel T, the poll *c*, the iron bolts W, the pin *h*, the iron wheel X and the sill M^1 and the iron guard X^1, substantially as and for the purposes hereinbefore set forth. 5th. The construction and combination, with the ordinary pile driver of the sills M and M^1, the runners O and O^1, the steel bolts *m m*^{1} *m*^{11} *m*^{111}, the rocking bearing *w*^{1}, the rods V V^1, and the nuts *o o*^{1}, substantially as and for the purposes hereinbefore set forth. 6th. The construction and combination, with the ordinary pile driver of the arms Q Q^1, the leads A A^1, the iron hings *e e*, the iron plates *d d*, and the iron toothed bar R, substantially as and for the purpose hereinbefore set forth. 7th. The construction and combination, with the ordinary pile driver of the staker Y, the sill M, the hook *k*, and the iron bolt *u*, substantially as and for the purposes hereinbefore set forth.

No. 43,067. Machine for Regulating the Supply and Pressure of Gas. (*Régulateur de pression pour le gaz.*)



Darius Wilson, Boston, Massachusetts, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. In a gas pressure regulator, the combination of the base, the casing fixed thereon, the said base and casing being divided by partitions into a series of expansion chambers successively connected, and the automatically operated valve controlling the opening connecting two adjacent chambers, substantially as described. 2nd. In a gas pressure regulator, the combination of the base divided by a partition into an inlet and an outlet chamber, the casing secured thereon, the partition dividing the said casing into expansion chambers and a fluid chamber. the said expansion chambers connecting with each other, and with the inlet, and the outlet chamber successively, and the valve controlling the opening leading from the inlet chamber to the expansion chambers, and the float connected with the said valve, substantially as described. 3rd. In a gas pressure regulator, the combination of the base, the partition dividing the same into an inlet and an outlet chamber, the casing fixed thereon, the partition dividing the casing into a fluid chamber and expansion chambers, the last mentioned chambers being connected with each other and the outlet chamber of the base successively, the pipe connecting the inlet chamber of the base with the expansion chambers of the casing and having a valve seat formed in its lower end, the float placed in the fluid chamber, and the valve connected with the said float, and adapted to register with the said valve seat, substantially as described.

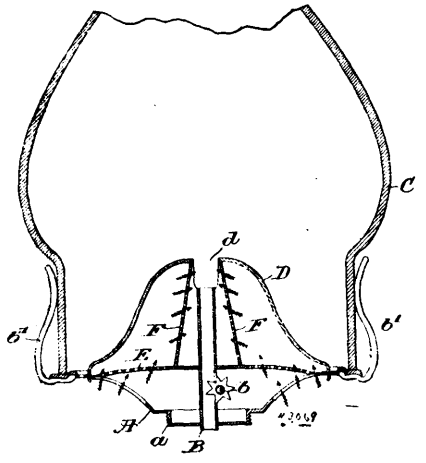
No. 43,068. Process of Manufacturing Manganese and Manganese Alloys. (*Procédé de fabrication des alliages de manganèse.*)

William Houston Greene and William Henry Wahl, Philadelphia, Pennsylvania, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. In the art of producing metallic manganese, of manganese alloys free from carbon, the herein described process which consists in reducing the ore to the condition of a lower oxide, and then reducing such lower oxide to the metallic state by heating it, in a reducing chamber free from carbon, in contact with substantially the chemically equivalent quantity of a metal capable of removing its oxygen, substantially as described. 2nd. In the art of producing metallic manganese, or manganese alloys free from carbon, the herein described process which consists in reducing the ore to the condition of a lower oxide, and then reducing said lower oxide to the metallic state by heating it, in a reducing chamber free from carbon and silica, in contact with substantially the chemical equivalent quantity of a metal capable of reducing its oxygen, substantially

as described. 3rd. In the art of producing metallic manganese, or manganese alloys free from carbon, the herein described process which consists in digesting the manganese ore with diluted sulphuric acid, then reducing the purified ore to the condition of a lower oxide, and then reducing such lower oxide to the metallic state by heating, in a reducing chamber free from carbon, in contact with substantially the chemically equivalent quantity of a metal capable of removing its oxygen, substantially as described. 4th. In the art of producing metallic manganese, or manganese alloys free from carbon, the herein described process which consists in digesting the manganese ore with diluted sulphuric acid, then reducing purified ore to the condition of a lower oxide, and the nreducing the lower oxide to the metallic state by heating it, in a reducing chamber free from carbon and silica, in contact with substantially the chemically equivalent quantity of a metal capable of removing its oxygen, substantially as described. 5th. In the art of producing metallic manganese of manganese alloys free from carbon, the herein described process which consists in reducing the ore to manganese monoxide, then reducing said monoxide to the metallic state by heating it in contact with substantially the chemically equivalent quantity of a metal capable of removing its oxygen, substantially as set forth.

No. 43,069. Oil Burner. (*Bruleur d' huile.*)

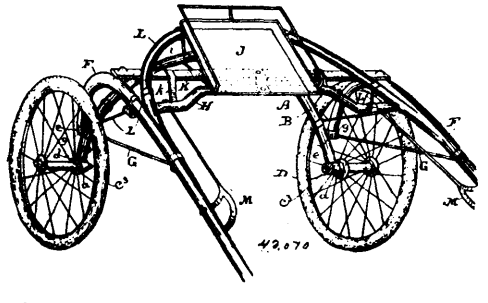


Emile Riva Weston, Bangor, Maine, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. In an oil burner, the combination with a wick tube and a dome surrounding the same and having a flame opening, of perforated side walls projecting vertically above the top of said wick tube to cause the air drawn to the flame to be projected through the perforations in said walls laterally into and through the said flame to provide complete combustion of the latter, substantially as described. 2nd. In an oil burner, a base, a dome having a flame opening, and a wick tube provided with a wick moving device, combined with perforated side walls inclined slightly inwardly and upwardly and extended above the top of said wick tube to and in contact with said dome, whereby the air drawn into the dome between it and said side walls by the flame is projected through the perforations above the said tube into and through the flame, substantially as described.

No. 43,070. Two Wheeled Vehicle.
(*Voiture à deux roues.*)

Fig. 1



John A. Bilz, Pleasanton, California, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. In a two wheeled vehicle, the combination of an arched or bowed axle, wheel spindles projecting horizontally from the extremities of the arch or bow of said axle, and shafts having downwardly curved rear ends connected with said axle near its extremities, and above the plane of the spindles, substantially as herein described. 2nd. In a two wheeled vehicle, the combination of an arched or bowed axle, shafts connected therewith, and independent wheel spindles projecting horizontally from and removably connected at their inner ends with the extremities of said axle, substantially as herein described. 3rd. In a two-wheeled vehicle, the combination of an arched or bowed axle, independent wheel spindles projecting horizontally from and removably connected at their inner ends with the extremities of said axle, and shafts having downwardly bent rear ends connected to the axle near its extremities and above the plane of the spindles, substantially as herein described. 4th. In a two wheeled vehicle, the combination of an arched or bowed axle having bearings at its extremities, and wheel spindles having stems at their inner ends passing through and secured in said bearings, substantially as herein described. 5th. In a two wheeled vehicle, the combination of an arched or bowed axle having the bearings at its extremities, said bearings having bevelled recesses in their outer ends, and the wheel spindles having stems at their inner ends fitted and secured in said bearings, and provided with bevelled flanges fitting the bevelled recesses of said bearings, substantially as herein described. 6th. In a two wheeled vehicle, the combination of an arched or bowed axle having bearings at its extremities, horizontal wheel spindles fitted to said bearings and steadying plates on the outer surfaces of the axle near its ends and impinging on the tops of said bearings, substantially as herein described. 7th. In a two wheeled vehicle, the combination of an arched or bowed axle, having bearings at its extremities, horizontal wheel spindles fitted to said bearings, steadying plates on the outer surfaces of the axle near its ends and impinging on the tops of said bearings, and shafts secured to said plates above the spindles, substantially as herein described. 8th. In a two wheeled vehicle, the combination of an arched or bowed axle having bearings at its extremities, horizontal wheel spindles fitted at their inner ends to said bearings, steadying plates on the outer surfaces of the axle near its ends and impinging on the tops of the bearings, lugs on said plates above the spindles, and shafts having downwardly bent rear ends resting upon and secured to said lugs, substantially as herein described. 9th. In a two wheeled vehicle, the combination of an arched or bowed axle having outwarding projecting bearings at its extremities, and a wooden sheath the ends of which impinge on said bearings, horizontal wheel spindles fitted to said bearings, steadying plates on the outer surfaces of the axle near its ends and impinging on the top of the outer ends of the bearings, said plates having projecting lugs above the spindles, and shafts with downwardly bent rear ends resting upon and secured to said lugs, substantially as herein described. 10th. In a two wheeled vehicle, the combination of an arched or bowed axle having outwardly projecting bearings at its extremities, and a wooden sheath the ends of which impinge on said bearings, horizontal wheel spindles fitted to said bearings, steadying plates on the outer surfaces of the axle near its ends and impinging on the tops of the outer ends of the bearings, said plates having projecting lugs above the spindles, shafts with downwardly bent rear ends resting upon and secured to said lugs, and braces secured to said lugs and to the shafts at points forward, substantially as herein described. 11th. In a two-wheeled vehicle, the combination of the arched or bowed axle, the shafts with downwardly bent rear ends secured to said axle near its extremities, the cross bar secured between the shafts and having a raised centre, the backwardly curved horizontal back bar secured to the shafts and supported above the axle and the seat supported upon and between the cross bar and back bar, substantially as herein described.

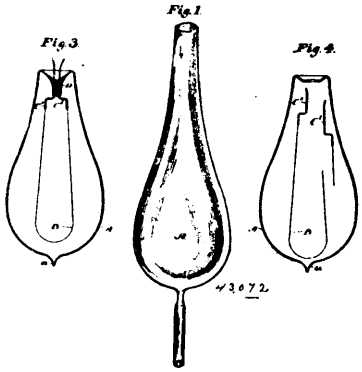
No. 43,071. Treatment of Nickel and Copper Ores and Matte. (*Traitement des minerais de nickel, cuivre et de matte.*)

Stephen Henry Emmens, London, England, 30th May, 1893; 6 years.

Claim.—1st. The improved process of treating nickel and copper ores and matte for the extraction of the copper and nickel in a state of solution, which process consists in, first, crushing such ore or matte; secondly, exposing it to the action of the atmosphere; thirdly, roasting it so as to partially oxidise its contained sulphur; fourthly, exposing such roasted ore or matte to the action of the atmosphere; fifthly, lixiviating such roasted and weathered ore or matte in water; sixthly, draining off the lixivation liquid and exposing such lixiviated ore or matte to the action of the atmosphere; and, seventhly, relixiviating such ore or matte by means of an aqueous solution of ferric sulphate, substantially as hereinbefore described. 2nd. In the treatment of nickel and copper ores and matte, the within described process of treating such ore or matte, which consists in subjecting the same to a series of alternate weatherings in the air and lixiviations with water containing ferric sulphate in solution. 3rd. In the treatment of nickel and copper ores and matte, the process of subjecting such ore or matte in a comminuted condition to a partial oxidizing roast, and afterward to lixiviation with an aqueous solution of ferric sulphate, substantially as hereinbefore described, for the purposes set forth.

No. 43,072. Incandescent Electric Lamp.

(*Lampe électrique à incandescence.*)

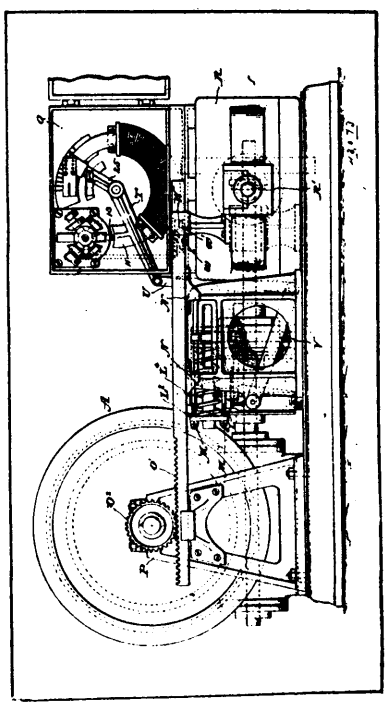


Frank A. Smith, Pittsburg, Pennsylvania, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. An incandescent lamp consisting of a filament, leading in wires, and an enclosing chamber consisting in part of glass and in part of a soluble substance. 2nd. An incandescent lamp consisting of a filament and leading in wires, and an enclosing chamber composed of two sections, one consisting of glass and the other consisting of soluble compound surrounding the leading in wires. 3rd. An incandescent lamp, consisting of a filament and leading in wires, and an enclosing chamber consisting of two sections, one consisting of glass and the other consisting of a compound of one or more members of the alkaline group of elements with one or more members of the silicon group. 4th. In an incandescent electric lamp a soluble stem. 5th. In an incandescent electric lamp, a chamber consisting in part of glass and in part of a soluble substance.

No. 43,073. Electric Elevator.

(*Elévateur électrique.*)

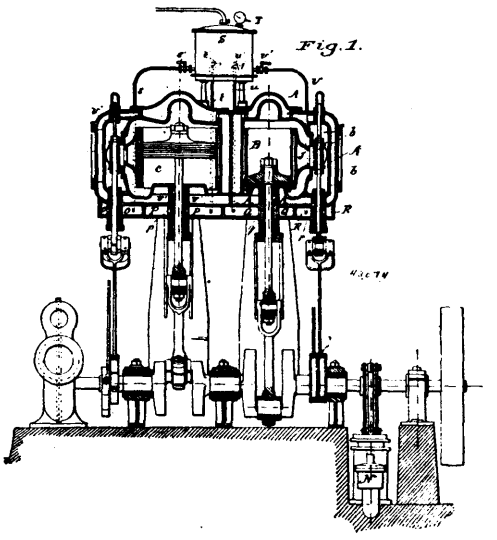


Frank E. Herdman, Indianapolis, Indiana, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. In a elevator, in combination, a worm, a lever, connection between said lever and worm, whereby said lever is adapted to move with said worm, a tension device connected to said lever, and intermediate connection between said lever and the source of power, whereby when the movement of the worm exceeds the tension device, the lever moves and shuts off the power. 2nd. In an elevator, in combination, a worm shaft, a lever, one end connected to said shaft, so as to move with said shaft, a tension device connected to said lever, and intermediate connection between said lever and the source of power, whereby when the movement of the shaft exceeds the tension device, the lever moves over and shuts off the power. 3rd. In an elevator, in combination, a worm; a lever, connection between said worm and lever, whereby said lever is adapted to move with said worm, spring acting against said lever, and intermediate connection between said lever and source of power, whereby when the movement of the shaft overcomes the spring, the lever moves and shuts off the power. 4th. In an elevator, in combination, a worm shaft, a lever, one end connected to said shaft, so as to move with said shaft, a spring acting against said lever, and intermediate connection between said lever and the source of power, whereby when the movement of the shaft overcomes the sping acting against the lever said lever moves over and shuts off the power. 5th. In combination, a power shaft, a friction wheel driven by said shaft, an elevator driving shaft, a friction wheel upon said shaft in contact with the power driving shaft friction wheel, an operating sheave, an operating bar operated by said operating sheave, and intermediate connection between said bar and the power shaft friction wheel, whereby the power shaft friction wheel is adapted to be moved across the face of the elevator shaft friction wheel. 6th. In combination, a power shaft, a friction wheel upon said shaft, an elevator driving shaft, a friction wheel upon said shaft, said friction wheels being in contact with each other, a driving worm, a lever, connection between said lever and the worm, whereby said lever is adapted to move with said worm, a resistance device connected to said lever, and intermediate connection between said lever and the friction wheels, whereby the movement of the lever causes the position of the friction wheels to carry with relation to each other. 7th. In combination, a power shaft, an elevator driving shaft, a fricton wheel upon said shaft, said friction wheels being in contact with each other, an operating sheave, an operating bar operated by said sheave, stops upon said bar, a driving worm, a lever, connection between said lever and the worm, whereby said lever is adapted to move with said worm, a tension device connected to said lever, the end of said lever being in line of travel of the stops upon the operating bar, and intermediate connection between said bar and the friction wheels. 8th. In combination, a power shaft, a friction wheel driven by said shaft, an elevator driving shaft, a friction wheel upon said shaft in contact with the power driving shaft friction wheel, an opening sheave, an operating sheave, an operating bar operated by said sheave, stops upon said bar, a lever, one end connected to the elevator driving shaft, so as to be capable of moving with said shaft, the other end being in line of travel of the stops upon operating bar, and a tension device connected to said lever, and intermediate connection between the operating bar and the power driving shaft friction wheel. 9th. In combination, an electric motor, an electric switch, means to operate said switch, brushes, as 5, 6, connected to said switch, contact points as 1, 1, 2, 2, in electrical connection with the source of current supply and in the path of movement of brushes, an electrical connection directly from one of the said brushes, to the armature of the motor, a solenoid, a solenoid core, a brush, as 8 connected to and insulated from the core of said solenoid, electric connection between said brush and the other of said brushes, a resistance in path of travel of the solenoid core, a contact, as 9, in electrical connection with said resistance, an electrical connection between said contact and the armature of the motor, an electric connection between solenoid and the brushes, whereby when the switch is turned the solenoid is rendered active and draws the core in, causing the brush 8 to travel over the resistance and finally pass directly in contact with said contact point 9, and mechanism to draw out the solenoid core when the current is shut off. 10th. In combination, an electric motor, an electric switch, means to operate said switch, brushes as 5, 6, connected to said switch, contacts as 1, 1, 2, 2, in electrical connection with the source of current supply and in the path of movement of brushes, an electrical connection directly from one of said brushes to the armature of the motor, a solenoid, a solenoid core, a brush as 8, connected to and insulated from the core of said solenoid, electrical connection between said brush and the other of said brushes, a resistance in path of travel of the solenoid core, a contact as 9, in electrical connection with said resistance, an electrical connection between said contact and the armature of the motor, an electric connection between solenoid and the brushes 5 and 6, whereby when the switch is turned the magnet of the solenoid is rendered active and draws the core in, causing the brush 8 to travel over the resistance and finally pass directly in contact with said contact point 9, a brake wheel, a brake connected to said wheel provided with a weighted lever, and intermediate connection between said lever and the solenoid core, whereby the lever draws out and holds the cord at its most outward position when the current is off. 11th. In combination, an electric motor, an electric switch, means to operate said switch, brushes as 5, 6, connected to said switch, contacts as 1, 1, 2, 2, in electrical connection with the source of current supply and in the path of movement of brushes, an electric connection directly from one of said brushes to the armature of said motor, a solenoid, a solenoid core, a brush as 8, connected to and insulated from the core of said solenoid, an electrical connection between said brush and the other of said brushes, a resistance in path of travel of the solenoid core, a contact as 9, in electrical connection with said resistance, an electrical connection between said contact and the armature of the motor, an electric connection between said solenoid and the brushes 5 and 6, an insulated plate as 7, at the end of the outward travel of the solenoid core, whereby when the switch is

turned the magnet of the solenoid is rendered active and draws the core in, causing the brush 8 to travel over the resistance and finally pass directly in contact with said contact point 9, and mechanism to draw out the solenoid core when the current is shut off. 12th. In combination, an electric motor, an electric switch, means to operate said switch, brushes as 5, 6, connected to said switch, contacts as 1, 1, 2, 2, in electrical connection with the source of current supply and in the path of movement of brushes, an electric connection directly from one of said brushes to the armature of the motor, a solenoid, a solenoid core, a brush as 8, connected to and insulated from the core of said solenoid, electrical connection between said brush and the other brushes, a resistance in path of travel of said solenoid core, a contact as 9, in electrical connection with said resistance, an electrical connection between said contact and the armature of motor, an electric connection between said solenoid and the brushes 5 and 6, a direct electric connection between the source of current supply and one magnet of motor, a contact point plate as 25, electric connection between said plate and the magnet of the motor, a lever connected to the core of the solenoid, a brush as 10, carried by said lever, said plate being in line of travel of said brush, and electric connection between the brush 10 and source of current supply. 13th. In combination, an electric motor, an electric switch, means to operate said switch, contacts as 1, 1, 2, 2, in electrical connection with the source of current supply, and in the path of movement of said brushes an electric connection directly from one of said brushes to the armature of the motor, a solenoid, a core of said solenoid, a brush as 8, connected to and insulated from the core of said solenoid, electric connection between said brush 8 and the other brushes, resistance in path of travel of the solenoid core, a contact, as 9, in electrical connection with said resistance, an electrical connection between said contact and armature of the motor, an electric connection between solenoid and the brushes 5 and 6, whereby when the switch is turned the solenoid is rendered active and draws the core in, causing the brush 8 to travel over the resistance and finally pass directly in contact with said contact point 9, and mechanism to draw out the solenoid core when the current is shut off, a stop, as 13, connected to the switch, and a stop, as 11, connected to the solenoid core, said stop 11 being in the path of movement of the stop 13 unless the solenoid core is in its most outward position. 14th. In combination an electric motor, an electric switch, means to operate said switch, brushes as 5, 6, connected to said switch, contacts as 1, 1, 2, 2, in electrical connection with the source of current supply and in the path of movement of brushes, an electric connection directly from one of said brushes to the armature of the motor, a solenoid, a solenoid core, a brush as 8, connected to and insulated from the core of said solenoid, electric connection between said brush and the other brushes, a resistance in path of travel of the solenoid core, a contact as 9, in electrical connection with said resistance, an electrical connection between said contact and the armature of motor, contacts as 3 and 4, electrical connection between said contacts and the solenoid, electrical connection between said solenoid and brush 6, whereby, when the switch is turned, the solenoid is rendered active and draws the core in, causing the brush 8 to travel over the resistance and finally pass directly in contact with said contact point 9, and mechanism to draw out the solenoid core when the current is shut off. 15th. In combination, an elevator car, a power shaft, a friction wheel driven by said shaft, an elevator driving shaft, a friction wheel upon said shaft in contact with the power driving shaft friction wheel, intermediate connection between elevator and power shaft, an operating bar, intermediate connection between the bar and a device carried in said car, and intermediate connection between said bar and the power shaft friction wheel, whereby the power shaft friction wheel is adapted to be moved across the face of the elevator shaft friction wheel from the car. 16th. In combination, an elevator car, an operating sheave, a driving worm, mechanism to operate said worm, intermediate connection between said worm and the sheave, a lever, connection between said lever and the worm, whereby the lever is adapted to be moved with the worm, an indicating device carried by tha car, and intermediate connection between said lever and the indicating device, whereby the movement of the lever is indicated in the car. 17th. In combination, an electric motor, a source of current supply, connection between said source of current supply and the motor, an electric current switch, an operating bar, intermediate connection between said bar and the switch, stops upon said bar, a driving worm, and a counterbalanced pivoted lever connected to said worm, the stops being in line of travel of said pivoted lever. 18th. In combination, an electric motor, a source of current supply, connection between said source of current supply and the motor, an operating bar, a switch intermediate connection between said bar and the switch, stops upon said bar, a driving shaft, a counterbalanced pivoted lever connected to said driving shaft, the stops being in line of travel of said pivoted lever, whereby when said lever swings and strikes said stops the switch is operated to turn off the current. 19th. In combination, an elevating apparatus, a power shaft, a friction wheel driven by said shaft, a driving shaft, a friction wheel on said shaft in such position that its face rests against the power shaft friction wheel, a pivoted lever, counterbalanced, substantially as described, connected to said driving shaft and connection between said lever and the power shaft friction wheel, whereby when said lever swings out of its normal position the power shaft friction wheel is moved on the face of the driving shaft friction wheel. 20th. In combination, an elevating apparatus, a driving power adapted to drive said elevating apparatus, a pivoted lever counterbalanced and connected to the elevating apparatus, said lever being counterbalanced to the desired load and adapted when said load is increased to swing on its pivot, point, and intermediate connection between said lever and the source of power, whereby when the lever swings on its pivot point the mechanism is stopped.

No. 43,074. Motor. (*Moteur.*)



Paul de Susine, Paris, France, 30th May, 1893; 6 years.

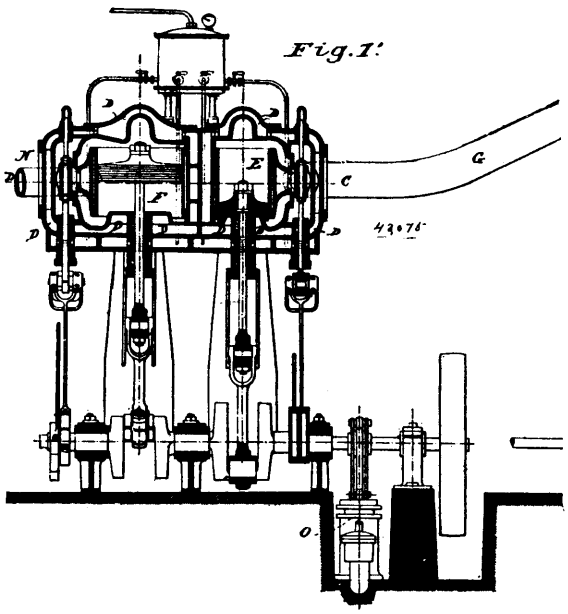
Résumé.—1° Dans un moteur à vapeur d'éther la combinaison du cylindre et du piston, le générateur de vapeur étant en connection avec le cylindre, avec l'échappement de la machine à vapeur d'eau ordinaire dans le générateur pour la circulation de la vapeur, et avec le tuyau conducteur de la vapeur d'eau arrivant d'un point distant, le tout comme il a été décrit en substance. 2° La combinaison du cylindre et du piston du générateur de vapeur de la connection tubulaire entre ce dernier et le cylindre afin de lui fournir de la vapeur, et du tuyau de vapeur d'eau ordinaire conduisant au dit générateur et entourant le tuyau de vapeur d'éther, le tout comme il a été décrit en substance. 3° La combinaison du cylindre et du piston, de l'enveloppe contenant la vapeur entourant ce dernier, du tuyau de vapeur d'eau ordinaire conduisant cette dernière à l'enveloppe en question, du générateur de vapeur d'éther du tuyau conducteur de la vapeur d'eau ordinaire de l'enveloppe susdite au générateur et du tuyau à vapeur d'éther ramenant cette dernière en arrière à travers le tuyau à vapeur d'eau ordinaire vers la boîte à tiroir, le tout comme il a été décrit en substance. 4° La combinaison du piston et du cylindre, du générateur composé d'une chambre centrale pour l'éther liquide et d'une enveloppe contenant de la vapeur d'eau ordinaire autour du générateur susdit, du tuyau de vapeur d'eau ordinaire conduisant vers la dite enveloppe et du tuyau conduisant la vapeur d'éther à travers l'enveloppe de vapeur d'eau ordinaire, et à travers le tuyau à vapeur d'eau ordinaire au cylindre et au piston, tout comme il a été décrit en substance. 5° La combinaison du piston et du cylindre, du générateur consistant en une chambre centrale avec des tuyaux d'échappement la parcourant verticalement, des chambres supérieure et inférieure F, H, du tuyau de côté I, établissant une connection entre ces chambres du tuyau à vapeur d'eau ordinaire menant à la chambre supérieure et du tuyan conducteur de vapeur d'éther allant de la chambre à éther à travers le tuyau à vapeur d'eau ordinaire, le tout comme il a été décrit en substance. 6° La combinaison du cylindre et du piston, du générateur en connection avec eux, du condenseur fait pour recevoir la vapeur d'éther d'échappement et de la pompe pour refouler l'éther liquide du condenseur dans le générateur, le tout comme il a été décrit en substance. 7° La combinaison du cylindre B, avec son piston, du second cylindre C, avec son piston, de la connection K entre les deux cylindres, du générateur G en connection avec le cylindre B, et du générateur U en connection avec l'espace K entre les deux cylindres, le tout comme il a été décrit en substance.

No. 43,075. Motor (*Moteur.*)

Paul de Susine, Paris, France, 30th May, 1893; 6 years.

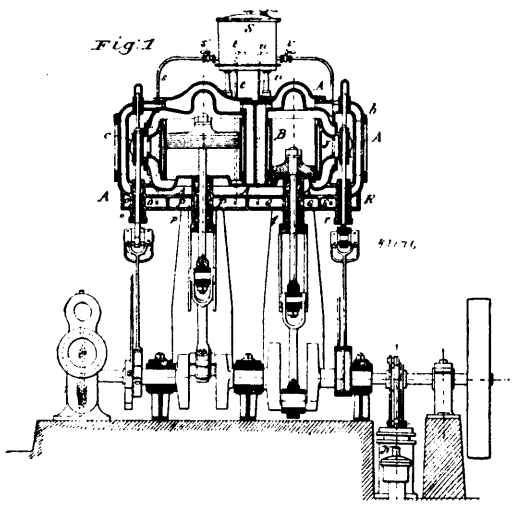
Claim.—1st. The herein described motor operated by vapour or ether or other volatile liquids, in which all heat is utilized, substantially as and for the purpose specified. 2nd. The herein described motor, consisting of the combination of a boiler operated by the vapour of ether or other volatile liquid, with the jacket of the cylinder of some gas motor with a view to obtaining around this cylinder the relative cooling of the walls thereof, substantially as described. 3rd. The herein described motor, consisting

of the combination of a boiler operated by the vapour of ether or other volatile liquid, with the jacket of the cylinder of



some gas motor, with a view to obtaining around this cylinder the vapourization of the ether necessary to the work of said motor, substantially as described. 4th. The herein described motor consisting of the combination of a boiler operated by the vapour of ether or other volatile liquid, with the jacket of the cylinder of some gas motor with a view to obtaining around this cylinder the relative cooling of the walls thereof, and the vapourization of the ether necessary to the work of said motor, substantially as described.

No. 43,076. Motor. (*Moteur.*)

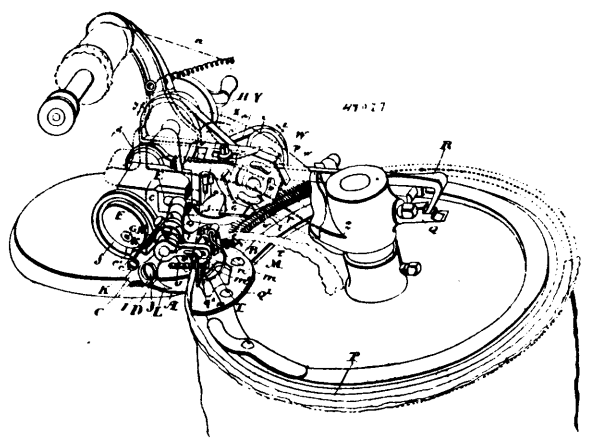


Paul de Susine, Paris, France, 30th May, 1893; 6 years.

Résumé.—1° Dans un moteur à vapeur d'éther la combinaison du cylindre et du piston, avec le condenseur et avec le séparateur comme il a été décrit en substance. 2° Dans un moteur à vapeur d'éther la combinaison du cylindre et du condenseur avec le séparateur qui est en connection avec le tuyau d'échappement du cylindre avec le générateur qui lui est en connection avec le cylindre et avec le conduit ramenant du séparateur au générateur, le tout comme il a été décrit en substance. 3° Dans un moteur à vapeur d'éther, la combinaison du cylindre et du piston avec le condenseur et avec le séparateur qui est en connection avec le tuyau d'échappement du cylindre, le dit séparateur comprenant le passage central d'entrée, les capacités concentriques les tissus et les conduits menant des capacités concentriques au générateur, le tout comme il a été décrit en substance. 4° Dans un moteur à vapeur d'éther la combinaison du cylindre et du piston avec le tuyau d'échappement du cylindre et avec le séparateur qui est en connection avec le dit tuyau d'échappement, le dit séparateur comprenant l'ouverture centrale, les capacités concentriques, la plaque conique supérieure s'étendant au-dessus des capacités concentriques et en-dessous de l'ouverture d'échappement mais non au-dessus de la capacité extérieure, et le conduit partant du séparateur et entraînant la matière rassemblée, le tout comme il a été décrit en substance. 5° Dans un moteur à vapeur d'éther, la combinaison du cylindre et du piston avec les boîtes-étoupe, avec les réservoirs pour la matière lubrifiante qui communiquent avec les dites boîtes-étoupe, avec le récipient pour les vapeurs qui s'échappent avec les connections tubulaires entre ce dernier et les diverses boîtes-étoupe, les dites connections étant pourvues de soupapes convenables et avec le manomètre du récipient, le tout comme il a été décrit en substance. 6° Dans un moteur à vapeur d'éther la combinaison du cylindre et du piston avec les boîtes-étoupe du piston avec le réservoir d'huile qui est en communication avec la boîte-étoupe avec le récipient pour la vapeur qui pourrait s'échapper et avec l'appareil mettant ce dernier en communication avec le boîte-étoupe, le tout comme il a été décrit en substance. 7° Dans un moteur à vapeur d'éther la combinaison du cylindre et du piston avec le réservoir à huile avec le tampon d'en haut et le tampon d'en bas du dit réservoir et avec la tige du piston passant à travers ces tampons, le tout comme il a été décrit en substance. 8° Dans un moteur à vapeur d'éther la combinaison du cylindre et du piston, avec le réservoir à huile avec le tampon d'en haut et celui d'en bas de ce dernier, comprenant la garniture, et les anneaux, le manchon rebondissant concentrique entre les anneaux, le tout comme il a été décrit en substance. 9° Dans un moteur à vapeur d'éther, la combinaison du cylindre et du piston avec le réservoir à huile, avec le tampon d'en haut et celui d'en bas de ce dernier, comprenant la garniture et les anneaux et le manchon rebondissant concentrique, composé d'une matière en forme d'accordéon étant perforé de trous, le tout comme il a été décrit en substance.

No. 43,077. Looping Machine.

(*Machine pour faire les ganses.*)

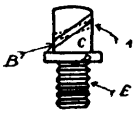


Daniel Maus, Toronto, Ontario, Canada, 30th May, 1893; 6 years.

Claim.—1st. In a looping machine, the combination with the looping wheel, of a knife designed to sever the double row of loops above the double row on the points and means whereby the knife derives a forward and backward movement successively through each loop of the row, as and for the purpose specified. 2nd. In a looping machine, the combination with the looping wheel, of a knife designed to sever the double row of loops above the double row on the points and means whereby the knife derives a forward, backward and upward movement through and in each loop of the row, as and for the purpose specified. 3rd. In a looping machine, the combination with the looping wheel, needle, and looper, of a knife secured to the needle arm above and in proxmity to the needle and designed to be actuated simultaneously with the needle so as to successively sever the loops of the double row above the points during the period that the needle is stitching the double row of loops of the web located on the points of the looping ring, as and for the purpose specified. 4th. In a looping machine, the combination with the looping wheel, of a knife designed to sever the double row of loops above the double row on the points and a trimming wheel designed to co-act with a stationary knife located above the points of of the looping ring and means whereby both the severing knife and trimming wheel are operated, as and for the purpose specified. 5th. The combination with the looping wheel provided with points p, of the knife L, secured at the lower end of the arm C, which has a rearward projection c, on which is pivoted the block c^1, which fits within a cam groove f, of the eccentric F, which is driven as specified. 6th. The combination with the looping wheel provided with points p, of the knife L, secured to the lower end of the rocking detent I, pivoted at J, on the arm C, and normally held down in position by the pressure of the spring upon the

stop pin on the upper rear end *i*, which comes in contact with the gauge cam O, and the roller M, secured on the end of the adjustable stud *m*, and designed to come in contact with the forward end i^1, of the detent I, the said arm C, and rocking detent I, deriving a forward and backward movement as specified. 7th. The combination with the arm C, having a needle A, secured in its lower end, the rocking detent I, having the knife L, secured on its lower end above the needle A, of the plate Q^1, having an opening *q*, open above the points *p*, and having a butler T, provided with a notch t^1, above the open end of the hole *q*, and swung and held in position by the spring V, and set screw U, which comes in contact with the arm C, as and for the purpose specified. 8th. The combination with the looping wheel P, provided with the point *p*, of the trimming wheel W, adjustably held as specified provided with knives *w*, and designed to co-act with the stationary knife plate 6, the trimming wheel being driven from a pulley *z*, connected by a cross belt *x* to the pulley *y* on the main driving spindle G, as and for the purpose specified. 9th. The combination with the looping wheel or ring provided with points *p* and driven as specified, of the severing knife L, deriving a forward and backward movement as described and the trimming wheel W, rotated as specified provided with knives *w*, and designed to co-act with the stationary knife plate 6, located above the points *p*, as and for the purpose specified.

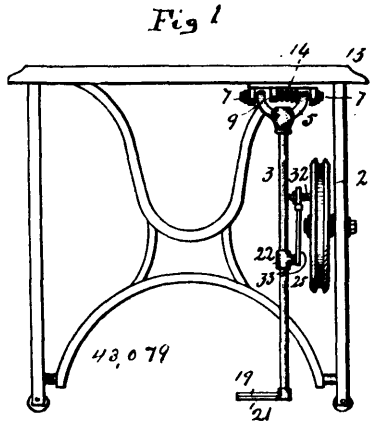
No. 43,078. Agraffe for Pianos. (*Agrafe pour pianos.*)



John B. Mitchel, Bowmansville, Ontario, Canada, 30th May, 1893; 6 years.

Claim.—The combination of the square head C, round base D, the angle groove B, drilled hole A, and pin thread E, substantially and for the purpose hereinbefore set forth.

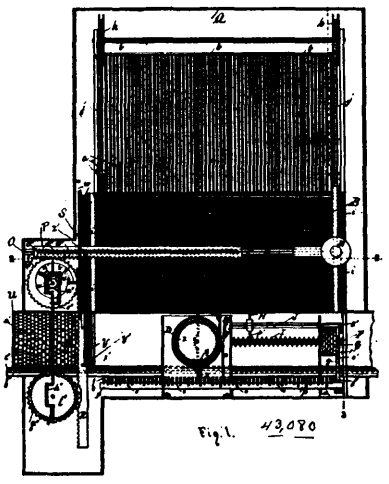
No. 43,079. Treadle for Sewing Machines.
(*Pédale pour machines à coudre.*)



Charles W. Smart, Carbondale, Illinois, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. In a treadle for sewing machines, the combination of an oscillating treadle rod depending from the machine, a treadle carried by the rod, shiftable devices on the treadle rod adjustable longitudinally thereon and located above the treadle, and an adjustable pitman shiftable longitudinally relatively to and connected with said adjustable device and with the power wheel, substantially as set forth. 2nd. In a treadle, the combination of a bearing plate, an oscillating treadle rod movably connected with the same, a clamp provided with a bearing pin, said clamp being adjustable upon the treadle rod, a pitman having bearings for said pin, and a clamp for holding said bearings, said clamp having a device for adjustably holding the pitman, substantially as set forth. 3rd. An oscillating treadle having pitman 25, clamps 26, for receiving each end of said pitman, whereby it is adapted to be adjusted within said clamps at both ends, arms 27, also adjustable within said clamps, extensions 28, formed with the clamps 26, one of said clamps having a pin 33, and the blocks 31 within the arms 27, and extensions 38, and the blocks 31, for encircling both the pin 33 and the crank pin of the drive wheel, substantially as set forth. 4th. In an oscillating treadle, the combination of the bearing plate 4, a shaft 11, carried by the same, the extension 14, formed with the shaft, the casting 5, movably connected to the said bearing plate, the coil spring 13, interposed between said casting and extension 14, the adjustable clamp 22, carrying a crank pin 33, and adjustable pitman 25, carrying adjustable bearings, substantially as set forth.

No. 43,080. Type Setting Machine.
(*Machine à composer.*)



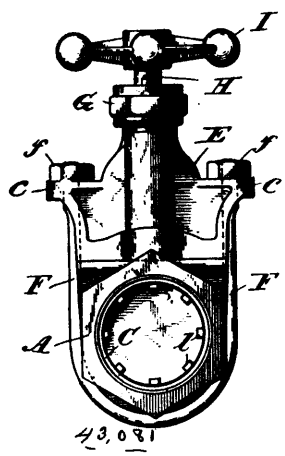
John Ignatus Haynes, St. Louis, Missouri, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. In a type setting machine vertical receptacles for the supply of type formed with an opening at the bottom through which the type can be pushed out pushing bars for pushing the type out of the supply receptacles operated by keys arranged so as to form a convenient keyboard, a compound stick formed with a separate place to receive the several types as they are pushed out of the supply receptacles, means for gathering the several types set together, so as to form the line and place the same in the galley consisting in a comb-shaped piece so placed as to slide the type to one end of the horizontal races forming the composed stick automatically actuated type supporters for letting the type down to a position from which it is convenient to push it into the galley, an automatically operated line pushing device for placing the line in the galley, and an automatically moved galley, the whole combined and operated, substantially as described. 2nd. In a type setting machine, the combination, with the channel ways having shoulders at their bottoms to support the columns of type, and an exit opening for said type of a type pusher having a spring on its upper face for engaging the type, and having a rack on its under side, a sector wheel for engaging said rack and means for actuating said sector wheel, substantially as and for the purpose described. 3rd. In a type setting machine, type pushing bars for pushing the type out of the vertical receptacles suitably supported formed with a spring actuated pushing catch sliding in suitably cut grooves immediately under the columns of type in the vertical type receptacles, and operated by the depression of a key, through intermediate gearing and connecting rods, substantially as described, 4th. In a type setting machine, a frame work of horizontally placed slats or bars forming a compound stick of the several channels or races for receiving the type when pushed out of the type receptacles the whole rigidly secured together and sliding in suitable grooves permitting of a vertical movement of the compound stick immediately in front of the openings in the type receptacles, so that the different races can be placed in a position convenient to receive the type when pushed out of the receptacles and supporting mechanism for the whole, so as to permit of such different positions relative to the openings in the type receptacles, substantially as described. 5th. In a type setting machine, a vertically moving compound stick or frame of horizontal type races open at the back and front and at one end in combination with supports for the same, consisting in a strap or straps secured to the frame and carried over a spring actuated drum or drums, the springs tending to and being capable of raising the frame, a connecting strap or straps between the frame and a spring actuated drum, the tendency and the strength of the spring being able to lower the frame against the raising spring or springs, a retaining pawl engaging a ratchet wheel governing the rotation of the lowering spring drum, and a spring pushing pallet for forcing the ratchet wheel a step forward so as to allow the frame to move a race upward attached to a pivotally secured cradle frame so placed as to be depressed and the pallet actuated by the keys when they are operated to push the type out of the type receptacles, substantially as described and for the purposes specified. 6th. In a type setting machine, a vertically moving frame of horizontal type, receiving races in combination with a comb shaped piece which has its teeth extending into and across the type races and moves with the frame and a handle piece mounted on a sleeve sliding on a horizontal guide bar, substantially as and for the purposes described. 7th. In a type setting machine, a vertically moving frame of type receiving

races in combination with a comb shaped piece for gathering the types set in the different type races, a handle for operating the comb springs carrying the lugs or projections on their ends, which are normally in a position to leave an open space between them and the ends of the bars or slats forming the horizontal type races, and when pushed in against the frame when it is down to form a continuation of the same, a rocking frame for pushing the springs in actuated through intermediate cams, gears, racks and wheels by the movement of the comb handle, a vertically moving bar for releasing the springs from their normal position actuated through intermediate gearing by the movement of the comb handle and a spring supported frame for receiving the line of type when it is dropped from the spring lugs, substantially as described. 8th. In a type setting machine, a line pushing piece sliding in grooves in the frame work of the machine for pushing the line of type from the supporting frame on to which it has been dropped after being gathered together into the galley operated through intermediate gear wheels and racks by the comb handle, substantially as described. 9th. In a type setting machine, the combination, with a rod and spiral thereon, of a series of step by step ratchets on said rod, pallets for actuating said ratchets and an indicator having a depending arm for engaging the spiral whereby the indicator will show how much space there is to justify, substantially as and for the purposes described. 10th. In a type setting machine, an indicator for showing how much of the line has been set, in combination with an endless screw for operating said indicator, a ratchet wheel mounted on the shaft of said screw, a pallet for operating said ratchet wheel secured to a pivotally secured cradle frame which is operated by the type setting key bars, substantially as described. 11th. In a type setting machine, the combination of a compound stick moving in vertical grooves supported and governed in such movement by being secured to spring operated drums with a wheel secured to the same shaft as the governing spring drums supplied with pins which are thrown into a position of interference with a locking bar by the depression of the key bar used to set the spaces between words, thereby marking or locating the place or race in the compound stick in which to insert the justifying spaces in the descent of the compound stick, substantially as described. 12th. In a type setting machine, a galley rigidly secured to a platform sliding in grooves or ways so as present different portions of the galley in a position convenient to receive the line of type when set and gathered together, the movement of said platform being caused and governed by a rack attached to the platform engaging a gear wheel, to the shaft of which is attached a spiral spring, against the tension of which the platform is forced and to the said shaft of which is attached a ratchet wheel, the unlocking or tripping of which is operated by the same mechanism that operates the device for pushing the line of type into the galley through intermediate racks, gears and pinions, permitting the platform with attached galley to move a step or line forward subsequent to each movement thereof, substantially as described.

No. 43,081. Valve. (*Soupape.*)

Fig. 1



Edmund H. Lunken, Cincinnati, Ohio, U.S.A., 30th May, 1893; 6 years.

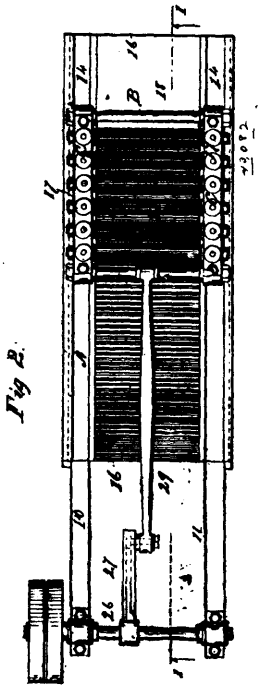
Claim.—1st. In a straight way valve, the combination, with the body and its disc or discs, a stem for operating the latter and having a threaded portion engaging threads formed in the recess occupied by the disc or discs when the valve is open. 2nd. In a straight way valve, the combination, with the body and its disc or discs, of a stem for operating the latter having thereon a threaded portion engaging part nuts on opposite sides of the space occupied by the disc or discs when the valve is open. 3rd. In a straight way valve, the combination of the body and its disc or discs, a stem for operating the latter and having a threaded portion thereon and a bonnet having threads on its inner sides on opposite sides of the space occupied by the disc or discs when the valve is open and engaging the threaded portion of the stem, substantially as described. 4th. In a straight way valve, the combination of the body and its disc or discs and a stem for operating the latter and having a threaded portion thereon, a bonnet having threads on its inner sides on opposite sides of the space occupied by the disc or discs when the valve is open and engaging the threaded portion of the stem, and a wedging half ring secured in the body to cause the tight seating of the valve when closed. 5th. The combination in a straight way valve of the body and its removable seat, the valve disc, the elongated narrow two eared bonnet provided with means for operating the valve disc, a tie bolt surrounding the body with its ends projecting through the ears of the hood and secured by means of nuts, whereby a secure compact connection between the body and bonnet in close proximity to the removable valve seat is effected, substantially as described. 6th. The combination in a straight way valve of the body and its removable seat, the valve disc, the threaded disc carrier, the elongated narrow two eared bonnet having part threads formed in its inner sides engaging the threads on the disc carrier, and a tie bolt surrounding the body and held from lateral movement by lugs, said tie bolt having its ends projecting through the ears of the bonnet and secured by nuts, substantially as described. 7th. In a straight way valve, the combination with the valve body provided with a narrow elongated opening in close proximity to the valve seat, of a removable valve seat consisting of a ring having threads on its outer periphery, a series of lugs set back from the valve seating surface on its inner periphery, and a double faced flange projecting from the end of said ring with its outer edge provided with a roughened or gripping surface, the whole being so constructed that the valve seat can be inserted through said opening or taken out through the same without injury to the bearing surfaces of the valve seat, substantially as described. 8th. In a valve, the combination of an iron body, a brass ring secured therein and threaded interiorly to form a seat bearing, and a threaded ring seat having gripping surfaces and adapted to be inserted through the disc opening of the body and screwed into said brass ring, substantially as described. 9th. In a straight way valve, the combination of the body having a valve seat, a valve disc for said seat, means for opening and closing the valve, and a self adjusting wedging piece for forcing the disc to its seat, substantially as described. 10th. In a straight way valve, the combination of the body having a valve seat, a valve disc for said seat, means for opening and closing the valve, and a self adjusting wedging half ring for for forcing the disc to its seat, substantially as described. 11th. In a straight way valve, the combination with the body and valve disc, of a self adjusting wedging half ring, and projections in rear of the same to aid it in adjusting itself to the valve disc, substantially as described. 12th. In a straight way valve having opposing valve seats and valve discs, the body having a wedging half ring secured therein with its ends upward so as to be interposed between the discs when lowered to force them to their seats, substantially as described. 13th. In a straight way valve having opposing valve seats, and valve discs with wedging shoulders on an approximately diametrical line, the body having a wedging half ring secured therein with its ends upward so as to be interposed between the discs when lowered, and to engage said wedging shoulders to force the discs to their seats, substantially as described. 14th. In a straight way valve having opposing valve seats and valve discs, a self adjusting wedging half ring interposed between the valve discs to cause them to seat uniformly, substantially as described.

No. 43,082. Machine for Decorticating and Stripping Waste Matter from Textile Plants. (*Machine pour décortiquer et dépouiller les rebuts des plantes à tissus.*)

Auguste Waugniez Goethals, Paris, France, 30th May, 1893; 6 years.

Claim.—1st. In a machine for treating fibre, the combination with a fixed bed, having a fluted surface, of fluted rollers located on the bed, and a mechanism, substantially as described, imparting a reciprocating motion to the rollers, as and for the purpose specified. 2nd. In a machine for treating fibre, the combination, with a bed provided with a fluted surface, of a carriage having sliding movement over the bed, fluted rollers journalled in the carriage, a drive shaft, and a reciprocating mechanism connecting the shaft and carriage, substantially as described. 3rd. In a machine for treating fibre, the combination, with a fixed bed provided with a fluted surface, of a carriage having sliding movement over the bed, fluted rollers journalled in the carriage, extending over and parallel with the fluting of the bed, tension devices connected with the rollers, a drive shaft and a connecting medium between the shaft and the carriage, imparting to the latter a reciprocating motion, substantially as shown and described. 4th. In a machine for treating fibre, the combination, with a fixed bed, having one face partly fluted and the remainder plain, and a carriage having sliding movement over the bed, of fluted rollers journalled in the carriage, extending transversely above the table, tension devices controlling the vertical

movements of the rollers, a drive shaft, a crank attached to the



shaft, and a pitman attached to the carriage, and having adjustable connection with the crank, substantially as shown and described.

No. 43,083. Book Holder. (*Porte-livre.*)

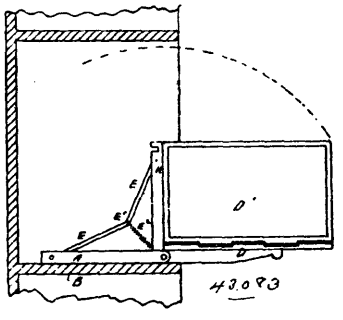


Fig. 2.

John A. Sinclair, Kingston, Ontario, Canada, 30th May, 1893; 6 years.

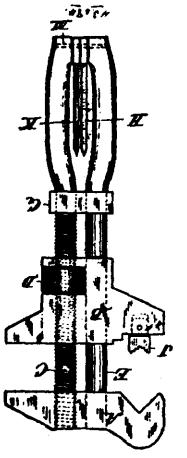
Claim.—1st. A book holder having the back D, pivoted to the bar A, and the sides D^1 and D^2, hinged to the back D, as herein described and for the purpose set forth. 2nd. A book holder having a bar rigidly attached to a shelf and the back D, pivoted to said bar and the sides D^1 and D^2, hinged to the back D, as herein set forth. 3rd. A book holder formed of a back D, the hinged sides D^1 and D^2, the stop H, and the stop H^1, projecting at right angles from the back D, the back D, pivoted to a bar A, and the bar A, rigidly secured to a shelf, as herein described and for the purpose set forth. 4th. In a bookholder, the combination of the back D, and the bar A, and links E, E, as herein described and for the purpose specified. 5th. In a book holder, the combination of the back D, with the sides D^1 and D^2, and the links F, F, as herein described and for the purpose specified.

No. 43,084. Nut and Pipe Wrench.

(*Clé à écrou et tuyau.*)

Alexander Fletcher, Moose Jaw, Assiniboia, Canada, 30th May, 1893; 6 years.

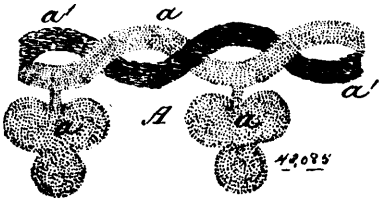
Claim.—The combination of the fixed jaw A, having duplex ends, one end provided with a V-shaped notch, the parallel stems C and E, fixed into said jaw, one stem screw threaded, the movable jaw B, having duplex ends and reciprocated on said stems by a nut D,



screwing on stem C, one end of said jaw B, provided with a serrated pawl P, the tie plate G, connecting said stems, and the tools H, K, pivoted between said stems near their terminations, as set forth.

No. 43,085. Fur as Substitute for Lace.

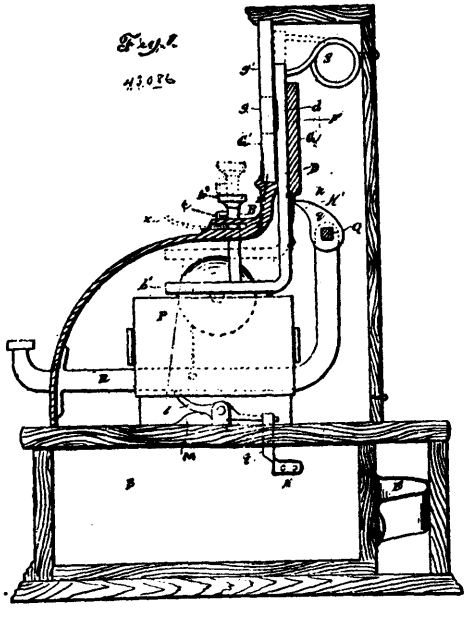
(*Fourrure comme substitut pour dentelle.*)



George Szuhanek, Venna, Lower Austria, Empire of Austria, 30th May, 1893; 6 years.

Claim.—1st. As an article of manufacture trimmings for garments for garments composed of pieces of fur shaped and united to form a predetermined design, 2nd. As an article of manufacture an open work fur trimming, substantially as and for the purposes set forth.

No. 43,086. Cash Register. (*Registre à monnaie.*)



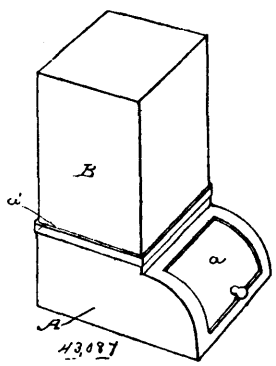
Frederick H. Seymour, Detroit, Michigan, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. In a cash register, the combination of a case divided into two parts and hinged together, registering mechanism and

record actuating mechanism being contained in the upper part, record paper and mechanism for moving the record paper being contained in the lower part, whereby the record made on said paper is disclosed by throwing the upper part back on its hinges, substantially as and for the purpose described. 2nd. In a cash register, the combination of a vertically movable key, a spring actuator adapted to lift said key, a spring catch adapted to hold said key in a depressed position, a readjusting lever adapted to release said catch, substantially as and for the purpose described. 3rd. In a cash register, the combination of two or more tablet bars in a series, a paper roll adapted to carry a web of paper transverse the series, a printing type on each tablet bar of said series, the said printing type so located on the tablet bars as to make their imprint in lines proper to each individual type, substantially as and for the purpose described. 4th. In a cash register, the combination of two or more tablet rods, having tablets adapted to be brought into view by the downward motion of said rod, an actuating lifting spring for each tablet rod, paper rolls adapted to move a web of paper under said tablet rods, printing type on the several tablet rods, arranged to make their imprint each in its own proper column on said web of paper, substantially as and for the purpose described. 5th. In a cash register, the combination with type carrying tablet rods, actuating springs, holding catches, a readjusting lever and paper carrying rolls, and a spring pawl carried by said readjusting lever, and a ratchet wheel carried by one of said paper rolls, adapted to engage with and be operated by a spring pawl, substantially as and for the purpose described. 6th. In combination with the paper rolls of a cash register, a ratchet wheel, a spring pawl on a movable actuating lever, substantially as and for the purpose described. 7th. In a cash register, in combination with a key duplicate printing type, adapted to print at the same time a record for preservation and a record for temporary use, substantially as and for the purpose described.

No. 43,087. Caddy. (*Boîte à thé.*)

Fig. 1.



Cornelius Toohey, San Francisco, California, U.S.A., 30th May, 1893; 6 years.

Claim.—As a new article of manufacture, a grocer's caddy, consisting of a base having an open top and provided with a horizontal ledge surrounding its inner walls below said top, and a removable top B, having its lower end adapted to enter said opening and rest upon said ledge, substantially as herein described.

No. 43,088. Toy Bank. (*Banque-jouet.*)

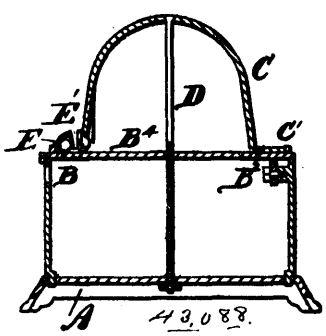


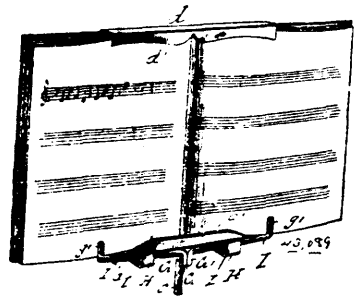
Fig. 1.

Arthur Colton, Detroit, Michigan, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. In a toy savings bank, in combination with the rotary cap C, provided with the slot E^1, the deposit chamber B, provided with the series of compartments B^4, each having a slot B^3, alternately registering with the slot of the cap, substantially as set forth. 2nd. The deposit chamber B, of a toy savings bank, made up of base A, four sides and a top plate B^4, in combination with the threaded rod D, by which the parts are confined, a lug on the under side of the top plate, a threaded boss on the interior face of the door plate, a headed bolt B^2, connecting the two, and an opening B^1, in the opposite side plate, through which a socket wrench may be inserted to unlock the door. 3rd. In combination, with the savings chamber B, having a series of compartments and corresponding slots B^3, a rotary cap C, with flange C^1, and slotted lip E, a series of balls K, and internal flanges by which they are respectively confined, substantially as and for the purposes set forth. 4th. In a small savings bank, a savings chamber having two or more compartments, in combination with a rotary top provided with a single coin slot, substantially as described.

No. 43,089. Holder for Music Books.

(*Dossier pour musique.*)

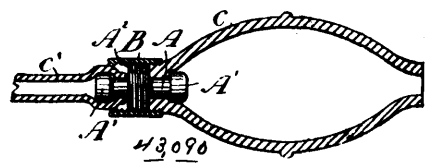


Ignatius W. Zavadil, Humphrey, Nebraska, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. The book holder described, consisting of the base portion with flanges and tubular rods, the movable portion, with flanges and rods movable in the tubular rods, the spring connecting the two portions, the cross bar connecting the tubular rods, the rod connected to the base portion and to said cross bar, the loops on the base portion, the pivoted arms with clamping portions and with finger pieces and the springs around the pivots of the said arms in the loops and bearing on the arms, substantially as and for the purpose specified.

No. 43,090. Syringe. (*Seringue.*)

Fig. 1.



Charles Edward Longden, New Haven, Connecticut, U.S.A., 30th May, 1893; 6 years.

Claim.—1st. In an elastic bulb syringe, the combination, with the bulb thereof, of a coupling comprising a hollow head having a knob for insertion into the bulb at one end, and a hub of larger diameter than the said knob, and adapted at its opposite end to have a tube attached to it, and a collar constructed to be passed over and secured to the said hub with one of its ends forced against the bulb to grip the same between it and the said knob, substantially as described. 2nd. In an elastic bulb syringe, the combination, with the hub thereof, of a coupling comprising a hollow head having a know for insertion into the hub at one end, and a peripherally threaded hub of larger diameter than the said knob and adapted at its opposite end to have a tube attached to it, and an internally threaded collar constructed to be screwed over the said hub, one of its ends being forced against the bulb to grip the same between it and the said knob, substantially as described.

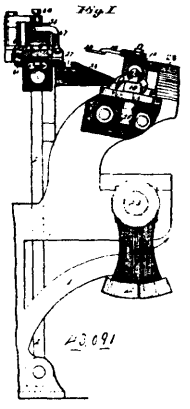
No. 43,091. Type Casting and Dressing Machine.

(*Machine pour mouler et aligner les caractères.*)

James Gabriel Pavyer, St. Louis, Missouri, U.S.A., 30th May, 1893; 6 years.

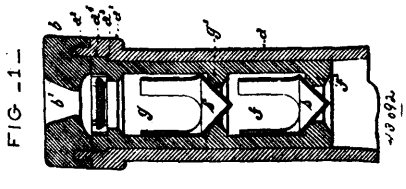
Claim.—1st. In a type casting and dressing machine, the four motion feed consisting of an arm 14, having pusher 20, and hinged upon a slide 10, having a cam stud, an actuating cam 22, and its shaft spring 13, and a swinging mould frame having a notched inclined 24 adapted to lift the arm 14 on the forward movement of

the mould frame, substantially as set forth. 2nd. The combination, in a type casting machine, of the movable upper member 4 of the



mould, a jet breaker 32, secured thereto, and the type holding plate 29, arranged adjacently to and below the jet breaker, substantially as set forth. 3rd. The combination, in a type dresser, of an unyielding roller 33, arranged in the path of the movement of the type, and adapted to bear on the upper side of the type, a plate 7 beneath the roller, having a rib or bead 8 to fit the side nick of the type, and the grooving cutter 35, arranged to act upon the lower ends of the types and quads, and upon the upper ends of the quads, substantially as and for the purpose set forth. 4th. The combination, in a type casting and dressing machine, of a swinging mould frame and a type stick 39 40, supported at one end upon a standard having a pivoted support in line with the axis of oscillation of the mould frame in position to receive the types discharged from the swinging mould frame, substantially as and for the purpose set forth. 5th. The stick 39 40 for type casting and dressing machines, the part 39 having a longitudinal recess, a removable guide rib 41, and key strips 42, constructed and adapted to operate, substantially as set forth. 6th. The combination, in a type machine, of a rocking mould frame, a type stick secured to the mould frame at one end, and a rocking standard supporting the other end of the type stick, substantially as set forth. 7th. The combination, in a type machine, of a pivoted mould frame, a type stick 39 40, removably connected to the mould frame at one end and adapted to receive the types from the mould frame, and a pivoted standard supporting the other end of the type stick, pivoted on an axis coincident with that of the mould frame, and having a counterbalance weight attached to it and adapted to elevate it, substantially as set forth. 8th. The combination, in a type machine, of a pivoted mould frame, a removable type stick arranged to receive the types from the mould frame, and a pivoted standard supporting one end of the said stick, pivoted on an axis coincident with that of the mould frame, and having a counterbalance, substantially as set forth. 9th. In a type casting machine, the combination, with the movable upper member of the mould, of the jet breaker 32, secured to and projecting from said member, and the clamping plate 29, arranged adjacent to and below the jet breaker, for holding the type while the jet is broken, substantially as set forth. 10th. In a type casting and dressing machine, the type stick having members 39 40, and the member 39 being provided with a longitudinal recess containing the movable guide rib 41, and the flange 43, against which the member 40 rests, and the strips 42, substantially as set forth.

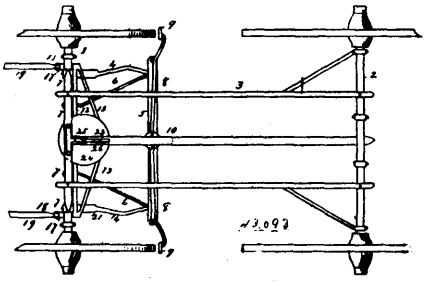
No. 43,092. Apparatus for Preventing the Refilling of Bottles. (*Appareil pour empêcher le remplissage des bouteilles.*)



Ernest Guerbois, Plaisance, France, 30th May, 1893; 6 years.

Claim.—1st. The new or improved device or apparatus for preventing a bottle from being wholly or partially refilled, which consists of a valve box, formed of glass or other suitable material, in two parts *c*, *d*, which, when placed together, fill the neck of the bottle and are secured therein, the said valve box containing two valves *s*, *s*^{1}, place one above the other in two separate compartments *f*, *g*, substantially as hereinbefore described and illustrated in the drawing. 2nd. In combination, with the device or apparatus, forming the subject of the first claiming clause hereof, the grating *k*, which prevents access to the valves *s*, *s*^{1}, but allows the liquid to run out of the bottle when the same is tilted, the said grating being secured in the mouth of the bottle by a perforated cap *b*, cemented or otherwise secured thereto, substantially as hereinbefore described and illustrated in the drawing. 3rd. The new or improved device or apparatus for preventing a bottle from being wholly or partially refilled, constructed and operating, substantially as hereinbefore described and illustrated in the drawing.

No. 43,093. Vehicle Brake. (*Frein de voiture.*)



William H. Grant, Waltham, Maine, U.S.A., 31st May, 1893; 6 years.

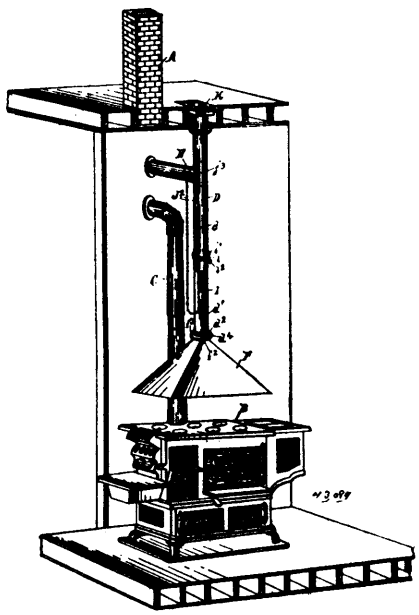
Claim.—1st. A vehicle, consisting of the front and rear axles, the running gear mounted thereon, the frame carried by the front axle, the brake levers pivoted to said frame, and carrying brake blocks, the longitudinal bar pivoted to the inner ends of the brake levers, the transverse frame connected to said bar, the links carried by the transverse frame, the rod having its lower end engaging the frame for moving the same, and the shafts connected to said links. 2nd. A vehicle consisting of the front and rear axle, the running gear, mounted thereon, the frame connected to the front axle, the brake levers pivoted to said frame, and having the brake blocks, the transverse frame connected to said brake levers, the flat and cupped discs having the central perforation and hub, and the rod passing through said discs and having a crank for operating on the transverse frame. 3rd. A vehicle consisting of the front and rear axle and running gear, a frame secured to said front axle, brake levers pivoted to the said frame and having brake blocks, a longitudinal bar having its inner end pivoted to the inner ends of the brake levers, the rod connected to said bars, the disc and cup, the guide in which the front end of said bar moves, the transverse frame connected to said longitudinal bar, and the shaft movably connected to said frame. 4th. A vehicle consisting of the front end, rear axle and running gear mounted thereon, the frame connected to the front axle, the brake levers pivoted to said frame and carrying brake blocks, the longitudinal bar pivotally connected to the inner ends of the brake levers, the guide in which the inner end of said bar moves the transverse frame connected to the longitudinal bar, the stop for limiting the inward movement of the frame, the links connected to the outer ends of said transverse frame and having ears, the shaft to be connected to said ears, and the guides for said links. 5th. A vehicle consisting of the front and rear axle, the wheels and the running gear, the frame connected to the front axle, the brake levers pivoted to said frame and carrying brake blocks, the transverse frame connected to said brake levers and having the plate provided with a slot, the discs mounted on the axle and having a central perforation, and the rod passing through said discs having the lower end journalled in the arm secured to the under side of the axle, and having the crank engaging the slot of the plate carried by the transverse frame, all arranged and adapted to operate in the manner described.

No. 43,094. Ventilator. (*Ventilateur.*)

Clark Henry Norton, Syracuse, New York, U.S.A., 31st May, 1893; 6 years.

Claim.—1st. The combination with a chimney A having an outlet passage, a stove B and stove pipe C connecting the chimney and stove, of a rectilinearly movable hood F mounted above the stove and provided with a contracted elevated central portion, a telescoping ventilator pipe D opening from said contracted portion of the hood, and a branch pipe E communicating with the ventilator pipe, and opening into the outlet passage of the chimney at one side of the stove pipe, substantially as and for the purpose described. 2nd. The combination with a hood F, a ventilator pipe D communicating with the hood, a branch pipe E leading from the ventilator pipe D, an inner sleeve *j* at the union of the pipes D, E, and a damper J movably mounted at the union of said pipes, and adapted to make contact with said inner sleeve, substantially as and for the purpose set forth. 3rd. The combination with a hood F, a ventilator pipe D communicating with the hood, and composed of telescoping sections *d*, *d*^{1}, a branch pipe E leading from the pipe D, an inner sleeve *j*, at the union of said pipes D, E, a damper J, movably mounted at the union of said pipes and arranged to make contact with said sleeve, and a rod I, having one end rigidly secured to the hood and the other movably secured to one of the sections of the pipes D, substantially as and for the purpose described. 4th. The combination, with a hood F, of an upper

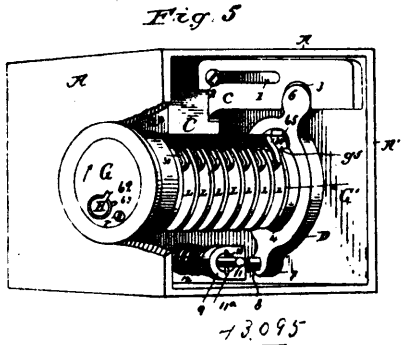
pipe section d, a lower pipe section d^1, telescoping within the former section, a collar i^1, on the lower extremity of the pipe section d,



formed with an eye i, a collar d^2, on the pipe section d^1, having a latterally projecting flange d^4, a rod I, having one end rigidly secured to the flange d^4, and the other movable in the eye i, and a clamp i^2, movable in the eye i, for securing the rod I, in its adjusted position, substantially as and for the purpose specified. 5th. In combination, an upper pipe section d, a lower pipe section d^1, telescoping within the former section, a collar i^1, on the lower extremity of the pipe section d, formed with an eye i, a collar d^2, on the pipe section d^1, having a latterally projecting flange d^4, formed with an elongated slot d^3, a rod I, having one end rigidly secured to the flange d^4, and the other movable in the eye i, and a clamp i^2, movable in the eye i, for securing the rod I, in its adjusted position, and a ventilator hood F, formed with a collar provided with projections f^2, adapted to enter the slot d^3, and having laterally extending arms f^3, for resting upon the top face of the flange d^4, substantially as set forth.

No. 43,095. Lock. (*Serrure.*)

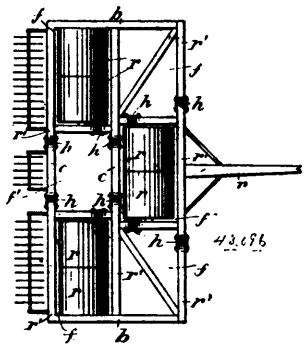
Fig. 5



Eugene C. Smith, New York City, State of New York, U.S.A., 31st May, 1893; 6 years.

Claim.—1st. In cylinder locks and in combination with a bolt and a strike lever, an idler pivoted to move independently of the cylinder, and devices for connecting the idler with the cylinder, so that the idler may be moved by the cylinder. 2nd. The combination in cylinder locks, of shiftable tumblers, a shiftable locking bar actuated by the tumblers, and an idler pivoted so as to move independently of the cylinder and having a socket adapted to be engaged by a spring cam on the locking bar. 3rd. The combination in cylinder locks of a locking bar actuated by tumblers and having a cam adapted to enter a socket in the fixed case of the lock, and also having a spring actuated cam, to enter a socket in an idler that is pivoted to move independently of the cylinder. 4th. The combination of a lock cylinder carrying a shiftable cam and an idler pivoted to move independently of the cylinder and having a socket to be engaged by the cam. 5th. The combination in a lock of a lock cylinder, a bolt, a strike lever, an idler connected with the bolt and the strike lever and pivoted to move independently of the lock cylinder, and devices for connecting the idler with the lock cylinder. 6th. In cylinder locks a lever connected with the lock and with devices for throwing the lock by the closing of the door, and said lever pivoted to move independently of the cylinder, and devices for connecting the lever with the cylinder. 7th. In locks, a locking bar adapted to be actuated by tumblers, a spring cam pivoted on the locking bar and a shoulder on the locking bar to engage the cam, as described. 8th. In combination in a lock of a cylinder and an idler adapted to move independently of the cylinder, and devices for connecting said idler with said cylinder, so that the cylinder can move the idler. 9th. The combination in a lock of a shiftable locking bar and tumblers, each having a projection adapted to shift said locking bar, and also an auxiliary projection adapted to prevent moving said locking bar.

No. 43,096. Land Roller. (*Rouleau d'agriculture.*)

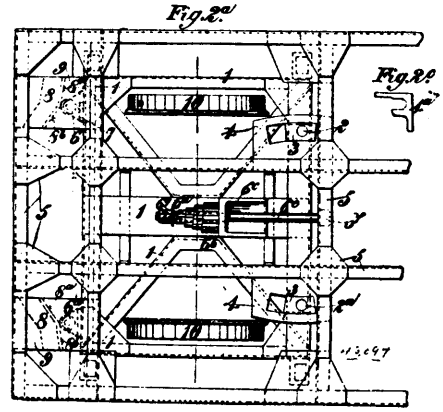


Enoch Kime, Senr., Milton, Ohio, U.S.A., 31st May, 1893; 6 years.

Claim.—In land rollers, the land roller formed by the combination of three similar rectangular frames $f\,f\,f$, each provided within its quadrangle with two similar rollers $r\,r$ having the common fixed axle a, the middle frame f advanced forward of the two rear frames $f\,f$ and joined together by the hinge joints h formed of two horizontal parts overlapping and firmly pivoted to the vertical rounded contiguous ends of the rails r and the cross bars b of the frames, in double joints between the rear frames $f\,f$, and in single joints for the forward frame f, to which is attached the neap n, and the empty frame f^1, f^1, f^1, all substantially as described and for the purpose expressed.

No. 43,097. Locomotives and Other Vehicles.
(*Locomotive et autres voitures.*)

Fig. 2

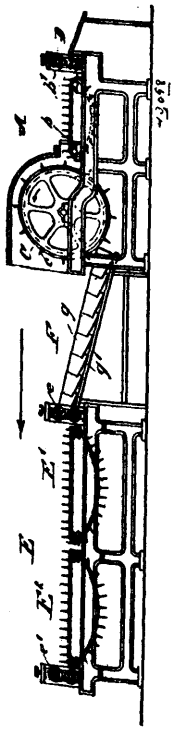


John James Davedge Clemonson, London, England, 31st May, 1893; 6 years.

Claim.—1st. A railway or tramway vehicle having a truck pivotally connected thereto at two points. 2nd. A railway or tramway vehicle having a truck pivotally connected thereto at two points so that the truck can turn about either of said pivots as a centre. 3rd. A railway or tramway vehicle, having a truck pivotally connected thereto on each side of the longitudinal centre line of the truck, substantially as herein described for the purpose specified. 4th. A railway or tramway vehicle having a truck pivotally connected thereto at two points, and means for controlling the turning movement of said truck about each of said points, substantially as herein described. 5th. A railway or tramway vehicle having a truck pivotally connected thereto on each side of the longitudinal centre line of the truck, and a spring arranged between the underside of said vehicle and said truck, and adapted to resist a turning movement of the latter, substantially as herein described. 6th. In a railway or tramway vehicle, a wheel

base comprising a main frame, a truck and pivotal connections between the two, each of said pivotal connections comprising a pivot pin and slide block engaging one of the pivoted parts and forming a pivot therefor, and a curved guide fixed to the other pivoted part, and in which said slide block is fitted to work the guiding surfaces of each of said guides, having the form of arcs of circles, each struck from the axis of the opposite pivot pin, substantially as herein described. 7th. A railway or tramway vehicle, having a truck pivoted thereto at two points, one at each side of the longitudinal centre line of said truck, and a controlling device comprising an anti-friction wheel or roller carried by one of said pivoted parts, and a guide carried by the other pivoted part, and formed with two curved guiding surfaces, each having one of the pivots as a centre, and against which said anti-friction wheel or roller is arranged to act, substantially as herein described. 8th. A railway or tramway vehicle, having a truck pivoted thereto at two points, one at each side of the longitudinal centre line of said truck, and a controlling device comprising a lever mounted on one of the pivoted parts, and a guide having guiding surfaces in the form of arcs of circles, and against which anti-friction devices carried by said lever work, substantially as described. 9th. A railway or tramway vehicle having two end trucks, each pivotally connected thereto at two points, substantially as herein described. 10th. In a railway tramway vehicle, a flexible wheel base comprising a main frame, and trucks connected with each other, pivotal connections between each of said trucks and said main frame, said pivotal connections being arranged one at each side of the longitudinal centre line of the truck, and devices acting to control the turning movement of said trucks substantially as described. 11th. In a railway or tramway vehicle, an intermediate truck, a pivot pin about the axis of which said truck can turn, a slide block engaging said pin, and a transverse guide fixed to one of the pivoted parts, and wherein said slide block is fitted to work in a lateral direction, substantially as herein described. 12th. A railway or tramway vehicle having end trucks each pivotally connected thereto at two points, and an intermediate truck capable of a combined movement, namely, about a vertical axis and also in a lateral sense, substantially as herein described. 13th. In a railway or tramway vehicle, a wheel base, comprising a main frame, end trucks each pivoted to said frame at opposite sides of the longitudinal centre line of the truck, controlling devices adapted to control the turning movement of said end trucks and one or more pivoted intermediate trucks connected with said end trucks, substantially as herein described. 14th. In a railway or tramway vehicle, a wheel base, comprising a main frame, end trucks, pivotal connections between each of said end trucks and said frame, controlling devices adapted to control the turning movement of said end trucks, an intermediate truck capable of turning movement about a vertical axis and of movement in a lateral direction relatively to said main frame and jointed rods and links connecting the several trucks, substantially as herein described.

No. 43,098. Machine for Hackling and Preparing Fibres. (*Machine pour sérancer et préparer les fibres.*)

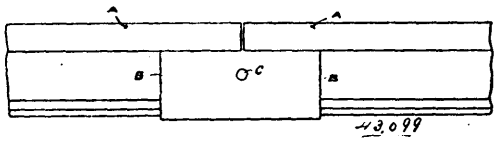


Theodore B. Allen, Brooklyn, New York, U.S.A., 31st May, 1893; 6 years.

Claim.—1st. In hackling machines, the combination of an initial hackling mechanism, comprising a combing cylinder and a combing belt or chain forming the feed for the cylinder, and a final hackling and combing mechanism beyond the cylinder, consisting of a drawing frame comprising differentially moving combing chains that take up and finish the material thrown off from the cylinder, all combined and co-operating, substantially as shown and described. 2nd. In hackling machines, the combination of an initial hackling mechanism, comprising a combing cylinder and a combing chain forming a feed for the cylinder and having its upper side or part moving toward the latter, and a final hackling and combing mechanism beyond the combing cylinder, consisting of a drawing frame comprising differentially moving combing chains or belts, all arranged substantially as shown and described. 3rd. In hackling machines, the combination of an initial hackling mechanism, comprising a combing cylinder and a combing chain or belt forming a feed for the cylinder, a final hackling mechanism beyond the cylinder, consisting of a drawing frame comprising differentially moving combing chains or belts and a receiving table interposed between the cylinder and drawing frame, for receiving the material thrown off from the cylinder, substantially as described. 4th. In a machine for hackling and preparing fibre, a receiving chute leading to and in combination with a drawing frame, the said chute being made up of overlapping sections, the overlapping ends being spaced vertically, substantially as described. 5th. In a machine for hackling and preparing fibres, a receiving chute leading to and in combination with drawing frames, the said chute being inclined and made up of overlapping sections, the overlapping ends being spaced vertically and forming openings.

No. 43,099. Fastening for Rail Joints for Railways. (*Attache pour joints de rails.*)

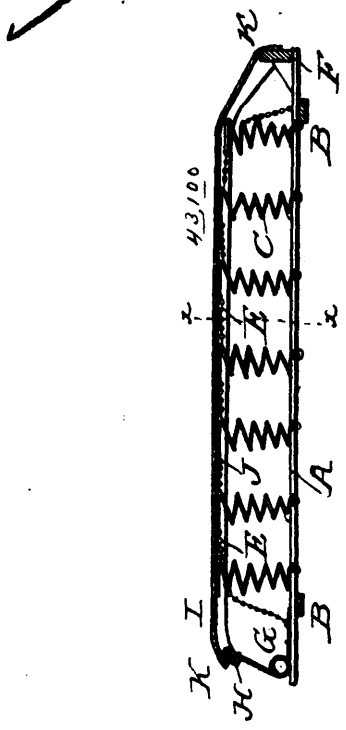
Fig 1



Edward Lawson Fenerty, Halifax, Nova Scotia, Canada, 31st May, 1893; 6 years.

Claim.—1st. The rails recessed in the web at each end D, D, substantially as and for the purpose hereinbefore described. 2nd. The combination of the scabbard or plates B, B, and the bolt tang or rivet C, substantially as and for the purpose hereinbefore described. 3rd. The combination of the scabbard or plates B, B, the bolt tang or rivet C, the rails A, A, and recesses D, D, substantially as and for the purpose hereinbefore described.

No. 43,100. Spring Bed. (*Sommier élastique.*)



Herbert L. Day, Ellsworth, Maine, U.S.A., 31st May, 1893; 6 years.

Claim.—The combination, in a spring bed, of the bottom frame consisting of the longitudinal slats A and traverse slats B, the rigid or stationary foot board secured to slats A, the end springs G, secured to the slats A and to the movable head board H, the coiled springs C, connected together at their upper ends by chains E and secured to slats A, the chains D, secured to said slats and to the springs C intermediate their ends, and flexible cover fastened at one end to the rigid foot board and at the other end to the yielding head board and overlapping the upper coils of the springs C at opposite sides, substantially as described.

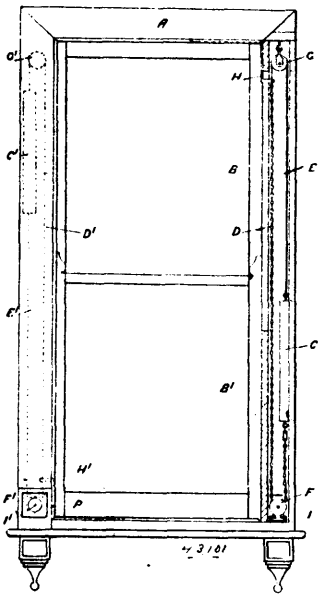
No. 43,101. Gear Lock for Window Sashes. (*Serrure à engrenage pour croisées de fenêtre.*)

Robert Robinson Cowl, South Melbourne, Colony of Victoria, Australia, 31st May, 1893; 6 years.

Claim.—1st. The combination and arrangement with a window sash such as B, of an endless belt D provided with a weight C and carried by the sheaves F and G, substantially as herein described and as illustrated. 2nd. The combination and arrangement with a

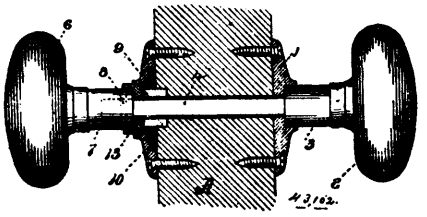
spindle I carrying a sheave F, of a spring pawl L to engage a toothed plate M, substantially as herein specified and as illustrated.

FIG. 1.



3rd. The combination and arrangement with a spring pawl L projected from the spindle I, of a toothed plate M arranged as described and as illustrated. 4th. The combination and arrangement with a spindle I of a frame J provided with a detachable base plate J^3, substantially as herein described and as illustrated. 5th. The combination and arrangement with the hinged door P, of a catch pin Q provided with a lever arm R and the hooked projection Q^1 to engage the eye Q^2 upon the said door P, substantially as herein described and as illustrated. 6th. The combination and arrangement with a catch pin Q, of operating mechanism consisting essentially of a secretly laid wire S, lever arm R and spring T, substantially as herein described and as illustrated.

No. 43,102. Knob Attachment. (*Attache pour boutons.*)



Henry J. P. Whipple, New Haven, Connecticut, U.S.A., 31st May, 1893; 6 years.

Claim.—1st. The combination with the knob spindle and its attached knob, of the complementary knob having its shank socketed, means of connection between the socketed shank and the spindle, the knob rose, the tubular threaded thimble seated therein, and means for securing the thimble as against rotation within the rose, substantially as specified. 2nd. In a knob attachment, a knob rose having seated therein a screw threaded collar or thimble capable of inward and outward movement relative to the rose, the knobs and knob handle, and a lock interposed between the rose and the thimble, substantially as set forth. 3rd. In a knob attachment, a knob spindle having one fixed and one movable knob, in combination with the knob rose having therein a locking device, and a screw threaded collar or thimble seated in the knob rose and movable inward and outward therein, and provided with slots for engagement with the locking device. 4th. The combination with the knobs and knob spindle, of the knob rose, the screw threaded collar seated in said rose and movable outward in its threads to abut against the end of one of the knob shanks, and means for locking said collar and the rose together.

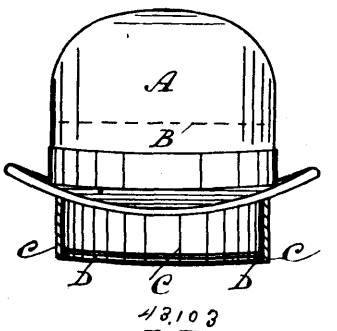
No. 43,103. Sweat Bands.

(*Coussinet absorbant la sueur.*)

William Wyndham, Hamilton, Ontario, Canada, 31st May, 1893; 6 years.

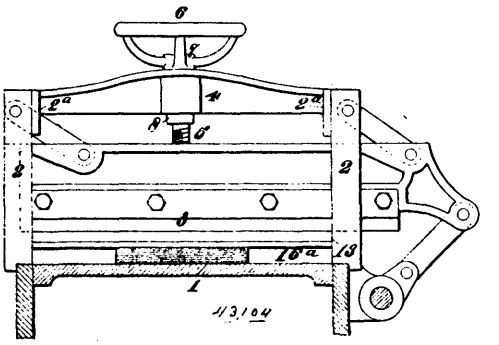
Claim.—1st. The combination with a hat or cap, of a sweat band attached to the lower interior part of said hat or cap, the hind part of which is capable of being adjusted to an inner upward or outward downward position, substantially as and for the purpose hereinbefore set forth. 2nd. The combination in a hat or cap, of the sweat band C attached to the hind part of said hat or cap, and adjustable to an upward or downward position, and provided with a spring support D^1, substantially as described and set forth.

Fig. 1.



No. 43,104. Paper Cutting Machine.

(*Machine à couper le papier.*)



James Gabriel Pavyer, assignee of Benjamin James Pavyer and Thomas Burns, all of St. Louis, Missouri, U.S.A., 31st May, 1893; 6 years.

Claim.—1st. The combination, in a paper cutting machine, of the standards, guides in said standards, in which a clamp bar operates, and adjustable plates on one side of said standards, allowing the removal of said clamp bar, substantially as set forth. 2nd. The combination, with the paper clamp member 9, of the hinged member 16, adapted to be raised and lowered on the paper clamp member, substantially as described. 3rd. In a paper cutting machine, a paper clamp consisting of a member 9, sliding in fixed ways, and a member 16, hinged to the member 9, and having a broad base 16^a, adapted to extend below the lower edge of the member 9, substantially as set forth. 4th. The combination, in a paper cutting machine, of the clamp, having a sliding member 9, and a member 16, having slots 19, and orifices 20, and hinged to fixed pins 15, of the member 9, carrying set screws 18, all constructed and adapted to operate, substantially as set forth. 5th. The combination, in a paper cutting machine, of the clamp having a sliding member 9, and a member 16, hinged to the member 9, so as to be raised and lowered, the knife 3, and the gage 14, the clamp being constructed and adapted to operate, substantially as set forth.

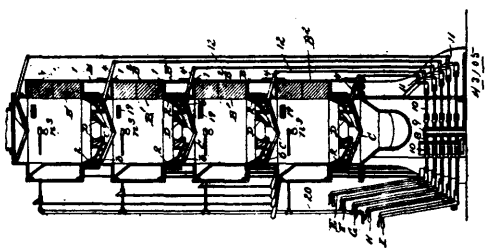
No. 43,105. Apparatus for Treating Refractory Ores.

(*Appareil pour le traitement des minerais réfractaires.*)

Julius Leede, Lumbert Hays and Daniel B. Burdett, all of Minneapolis, Minnesota, U.S.A., 31st May, 1893; 6 years.

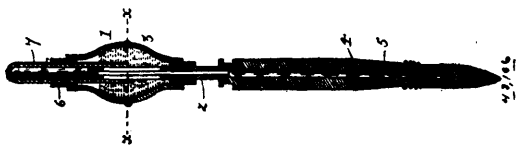
Claim.—1st. The continuous process of treating refractory auriferous ores and argentiferous ores, which consists in subjecting the ore to the continuous action of an oxidizing blow pipe flame in direct contact with the ore at a moderate degree of heat and intermittently subjecting the heated ore to the action of water, whereby the volatile elements or compounds are driven off the oxidizable elements or compounds are oxidized, and the precious metals are left, substantially free and in suitable condition for amalgamation or chlorination, substantially as described. 2nd. The continuous process of treating refractory auriferous and argentiferous ores, which consists in subjecting the ores to the continuous action of an oxidizing blow

pipe flame in direct contact with the ore at a moderate heat, intermittently subjecting the heated ore to the action of water, agitating the ore and then repeating the operation at a higher heat, and finally subjecting it to an oxidizing roast without chills, whereby



the volatile elements or compounds are driven off, the oxidizable metals or compounds are oxidized and the precious metals are left free, and in suitable condition for amalgamation or chlorination, substantially as described. 3rd. The continuous process of treating refractory auriferous and argentiferous ores, which consists in subjecting the ore to the continuous action of an oxidizing blow-pipe flame in direct contact with the ore at a moderate heat, intermittently subjecting the heated ore to the action of water for a period of time, then to a "sweet" or oxidizing roast without chills, and finally subjecting them to the action of a chloridizing agent, substantially as described. 4th. In an apparatus for heating refractory ores, the combination of an ore and combustion chamber having closed bottom or hearth, gas burners extending into the bottom of, and close to the hearth of said chamber, separate air and gas conduits communicating with said burners and a source of gas and air supply under pressure communicating with the conduits whereby a blow pipe flame extends entirely within the combustion chamber across the hearth and beneath the body of the ore, substantially as described. 5th. In an apparatus for treating refractory ores, the combination of an ore and combustion chamber, gas burners leading to said chamber, separate air and gas conduits communicating with said burners, a source of gas and of oil supply under pressure communicating with the conduits, and means, substantially as described, for introducing chemicals at will, whereby the mass is subjected to an oxidizing flame and chemical reagents, substantially as described. 6th. In an apparatus for treating refractory ores, the combination of a fire chamber, hearth or dumping plate sections pivotally supported in the fire chamber and an internally projecting lip in the fire chamber above the dumping plate section, substantially as described. 7th. In an ore treating apparatus, the combination of a fire chamber, a chemical chamber communicating with said fire chamber, a pipe for fluids extending from supply to chemical chamber, and means, substantially as described, to divert the steam or liquid past or through the said chemical chamber, as specified. 8th. In an apparatus for treating refractory ores, the combination of a fire chamber, inclined dumping plates pivotally supported within the walls of the fire chamber to form a conical bottom or hearth, and means for operating said plates, substantially as described, 9th. In an apparatus for treating refractory auriferous and argentiferous ores, the combination of a furnace wall, an annular chambered casting connected with said wall, separate gas and air conduits, each leading from a source of supply under pressure to said annular chamber, and gas burners connected with the casting and leading from the chamber to and partially across the bottom of the furnace chamber, substantially as described. 10th. The combination of roasting chambers having dumping hearth sections, operating levers and intermediate connections consisting of spider links, bell cranks and rods connecting the hearth sections and bell cranks, whereby all the sections of the dumping hearth are simultaneously and conveniently operated, substantially as described. 11th. In an ore treating apparatus, the combination of an ore chamber, a series of movable nipples or burners arranged to pass through the ore in said chamber, and air blast and gas supply pipes leading to said burners, whereby the ore is agitated and a blow pipe flame is brought into direct contact with the moving ore, substantially as described. 12th. In an ore treating apparatus, the combination of an ore chamber, a series of rotable nipples or burners arranged to move through the ore, air blast and gas supply pipes leading to the burners, and a movable gate in the bottom of the combustion chamber, substantially as described. 13th. In an ore treating apparatus, the combination of an ore chamber, a series of rotable nipples or burners arranged to pass through the ore in the chamber and air blast and gas supply pipes leading to said burners, substantially as described. 14th. The combination of a fire chamber, a rotating pipe or tube and a cross head arranged within the ore chamber having nipples or burners mounted on said pipe, air blast and gas supply pipes communicating with said rotating pipe, substantially as described. 15th. In an apparatus for treating fine ore, the combination of a fire chamber, a series of rotable nipples or burners arranged within the chamber, air blast and gas supply pipes connected to the burners, a pipe communicating with the upper part of the chamber, and means, substantially as described, for supplying chemicals through the wall into the fire chamber, substantially as described.

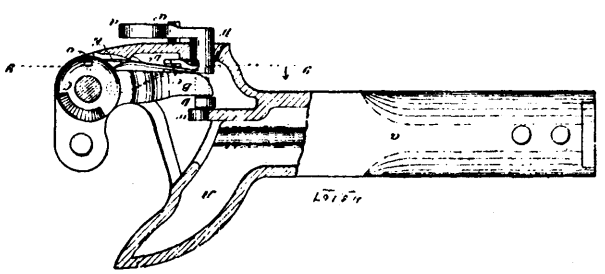
No. 43,106. Fountain Marking Brush.
(*Pinceau-fontaine pour marquer.*)



The Fountain Marking Brush Company, assignees of David Westley Whitaker and Sterling R. Carrington, all of Durham, North Carolina, U.S.A., 31st May, 1893; 6 years.

Claim.—In a fountain marking brush, the combination, with the elastic and flexible bulb open at top and at its upper end, provided with a thimble of the supply tube having an elongated opening near its upper end, a removable hollow plug to which the bristles are secured located in its lower end, and the vertically movable tube passing through the thimble and slidable upon the supply tube, substantially as and for the purpose specfied.

No. 43,107. Car Coupler. (*Attelage de chars.*)



The Empire Car Coupler Company of Weehawken, New Jersey, assignees of Charles H. Dale, New York City, New York, all in U.S.A., 31st May, 1893; 6 years.

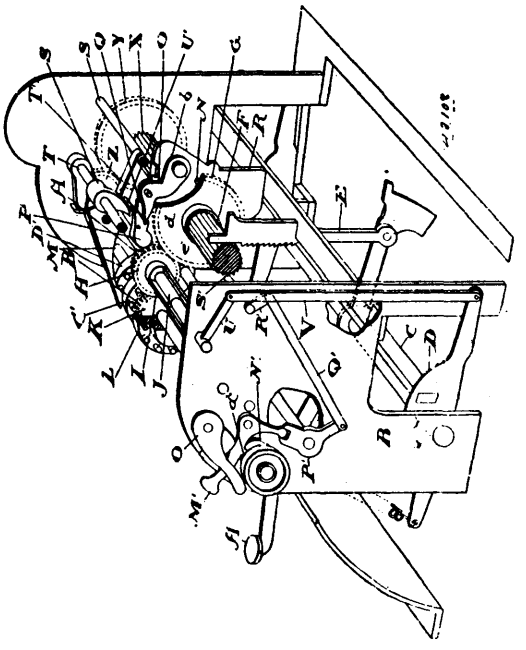
Claim.—1st. The combination with a draw head, and a knuckle pivotally connected thereto, of a movable dog or block for locking the knuckle in position for coupling, and means for swinging said knuckle open after it is unlocked by the dog or block, substantially as specified. 2nd. The combination with a draw head, and a knuckle pivotally connected thereto, of a dog or block for locking the knuckle when closed, means for forcing said knuckle open after it is unlocked, and connections with the portion of appurtenance of the car body, whereby on the detachment of the draw head its knuckle will be unlocked and swung open, substantially as specified. 3rd. The combination with a draw head, and a knuckle pivotally connected thereto, of a dog or block for locking the knuckle, and a rod between the draw head and the knuckle for swinging the knuckle open, substantially as specified. 4th. The combination with a draw head, and a knuckle pivotally connected thereto, of a dog or block for locking the knuckle, an arm connected with the drawhead, and a rod connected pivotally with the knuckle, and also connected with said arm for swinging said knuckle open after it is locked, substantially as specified. 5th. The combination with a draw head, and a knuckle pivotally connected thereto, of a movable dog or block for locking the knuckle when closed, a rock shaft supported in the draw head, an arm extending from the rock shaft, and a rod pivotally connected with the knuckle, and having a loose connection with the arm extending from the rock shaft, substantially as specified. 6th. The combination with a draw head, and a knuckle pivotally connected thereto, of a dog or block consisting of an arm, a rock shaft supported in the draw head, and having the said arm connected with it, a second arm extending from said rock shaft, and a rod pivotally connected with the knuckle, and having a loose connection with the second mentioned arm, substantially as specified.

No. 43,108. Cash Register. (*Compte monnaie.*)

Charles Raymond, Guelph, Ontario, Canada, 31st May, 1893; 6 years.

Claim.—1st. A roller geared to the tens of cents numbered disc and operated by a key lever, a pin projecting from one of the gear wheels into the path of a pivoted dog arranged to lock a dog pivoted on a sliding plate carrying a pawl engaging with the roller geared to the dollar numbered disc, in combination with a wiper fixed to a rod provided with mechanism by which the movement of the key lever rocks the said rod, substantially as and for the purpose specified. 2nd. A roller geared to a numbered registering disc in combination, with a notched bar adapted to operate the said roller and having an arm formed on or connected to it, which is adapted to come into contact with and stop the motion of the said roller after it has been operated by the said notched bar, substantially as and for the purpose specified. 3rd. A gear wheel pivoted on the end of a rock arm, in combination, with two registering discs engaging with the said gear wheel, substantially as and for the purpose

specified. 4th. A pivoted arm extending between the flatened collar formed on the dollar numbered disc and the gear wheel in

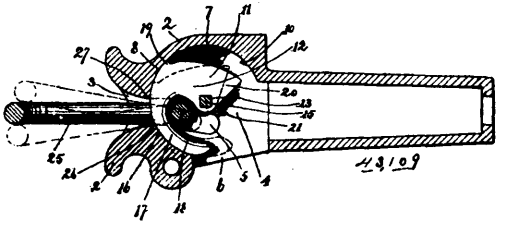


proximity to the said disc, substantially as and for the purpose specified. 5th. A bell crank having a projection formed on it to engage with a notch made in a collar connected to the rod on which the numbered discs are carried, in combination, with a dog arranged to lock the said bell crank, substantially as and for the purpose specified. 6th. A bell crank P^1, engaging with one of the arms of the crank M^1, and connected by the bar Q, to the crank on the rod S^1, in combination with a finger T, extending across the pin U^1, which projects from the pivoted dog P, substantially as and for the purpose specified. 7th. The slide Q, having a projection on its lower edge adapted to engage with the teeth of the roller X, when the slide is moved, substantially as and for the purpose specified. 8th. The combination of the bell crank M^1, engaging with a collar on the rod M, the bell crank P^1, fast on the shaft to which the arm E^1, and pinion G^1, are connected and engaging with the bell crank M^1, and the rod S, having a crank arm R^1, connected to the bell crank P^1, and having an arm T^1, adapted to lock the mechanism for conveying the motion of one registering disc operating roller to the other, substantially as and for the purpose specified. 9th. A roller geared to the tens of cents numbered disc and operated by a key lever, a pin projecting from one of the gear wheels into the path of a pivoted dog arranged to lock a dog pivoted on a sliding plate carrying a pawl engaging with the roller geared to the dollar numbered disc, the said sliding plate having a projection formed on it adapted to engage with the said roller when the plate is moved, substantially as and for the purpose specified.

No. 43,109. Car Coupler. (*Attelage de chars.*)

Balos F. Sheldon, Saginaw, Michigan, U.S.A., 31st May, 1893; 6 years.

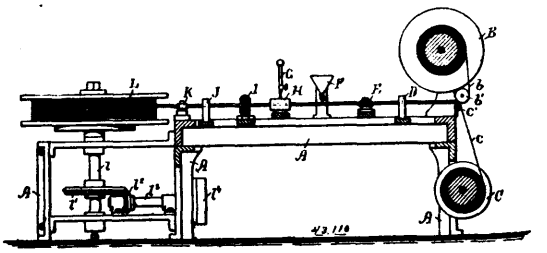
Claim.—1st. In a car coupler the combination of a draw head provided with an end opening having inwardly converging sides and transverse side openings and provided with a chamber having its front and upper sides arranged in the arc of a circle of a coupling device within the chamber and having its outer surface fitted to conform to the curve of the front portion with a dog and having a body portion provided with a transverse opening and a shaft passed through said openings in the draw head and the coupling device and adapted for oscilliating the coupling device to move the dog across said end opening in the draw head, substantially as described. 2nd. In a car coupler the combination of a draw head provided with an end opening having inwardly converging sides and provided with a chamber having its front and upper sides in the form of the arc of a circle and with elongated openings in its lateral sides and with a downwardly projecting lug on its upper side with a coupling dog within the chamber and having its front side fitted to the curve of the front side of the chamber and provided on its upper portion with a stop for engaging with said lug and with a rearwardly extending body portion having a rectangular transverse opening in alignment with said elongated openings and a transverse shaft passed through said openings in the sides of the chamber and in the body portion and provided with a rectangular portion fitted to the rectangular opening of the body portion and means as a lever for oscilliating the shaft and dog, substantially as set forth. 3rd. In a car coupler, the combination of a draw head provided in its outer end with an opening 3, having inwardly converging sides



and provided with a chamber 4, having its front and upper sides arranged in the arc of a circle and provided with a projecting lug 10, and with elongated transverse openings 9, in the lateral sides of the draw head, with a shaft 14 passed through said openings 9, and the chamber, and provided with a rectangular portion 15, within the chamber a coupling device 11, within the chamber and provided on its lower body portion with a transverse rectangular opening 13 mounted on the shaft and having on its outer front portion a dog 17 with the outer surface of the dog fitted to the curve of the front side of the chamber and with a stop 19 on its upper rear portion and having a portion 20 extending rearward from the shaft and provided with a lower inclined surface 21, and levers connected to the outer ends of said shaft for oscilliating the same, substanially as set forth. 4th. In a car coupler the combination of the link, the draw head provided with a chamber having a concave front side and having an opening through the outer end of the draw for the entrance of the link of a coupling device as described within the chamber, and mounted on a transverse shaft extending through openings in the sides of the chamber and having on its front portion an inwardly curved dog adapted for engaging with the link and having a convex outer surface fitted to the concave surface of the chamber, and means as a lever for oscillating said shaft, and coupling device for engaging the said dog with the links and for disengaging the same, substantially as set forth. 5th. In a car coupler, the combination of the link, a draw head provided with a chamber having a front surface arranged in the arc of a circle and with an end opening for the link extending into the chamber, and provided with inwardly converging sides and having in its opposite lateral sides, horizontally elongated slots located on a plane above said opening, a shaft passed through said slots and through the chamber and with its ends extending to the opposite sides of the car, and each provided with a lever for oscillating the shaft, a coupling device within the chamber and provided with a body portion mounted on said shaft for oscillation therewith, and having on its front portion an inwardly curved dog with its outer surface fitted to the curved front surface of the chamber, and provided with a portion extending below the shaft for contact with the link when the dog is lifted above said end opening, substantially as and for the purpose set forth.

No. 43,110. Apparatus for Covering Electric Wire.

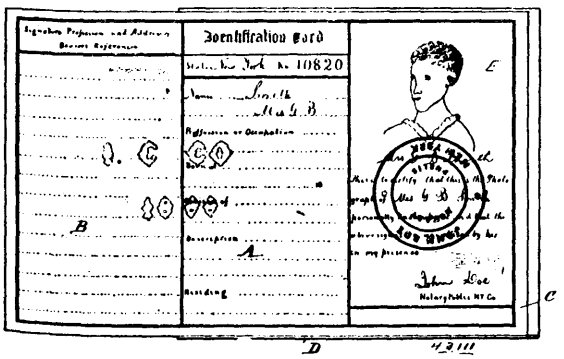
(*Appareil pour couvrir le fil électrique.*)



Jubez Ellis Walcott and Henry Randall Wilcox, Providence, Rhode Island, U.S.A., 31st May, 1893; 6 years.

Claim.—1st. An improved method of covering wire with sheet metal, the same consisting in bending the strip around the wire or wires, and forming lips or raised edges upon said strip, and then burning said edges together, substantially as and for the purposes specified. 2nd. An improved method of forming covers or sheaths for wires, the same consisting in bending a soft metal strip partially around the wire or wires and forming raised edges or lips thereon, then burning or fusing said lips, and finally rolling down said fused lips, as set forth. 3rd. An improved apparatus for forming soft metal covers or sheaths for wires, consisting of a forming die plate rolls for bending the strip partially around the wire or wires, a pair of for forming raised edges or lips upon said strip, a heater for burning down said edges, and a pair of rolls for depressing said burned edges, substantially as described. 4th. The combination with a suitable frame carrying the drums B, C and L, of the forming die plate D, the forming rolls E, the reservoir F, the pipe G and chamber H, the covering rolls I, the finishing die plate J, and the guiding sheaves K, all constructed and arranged to operate substantially as described.

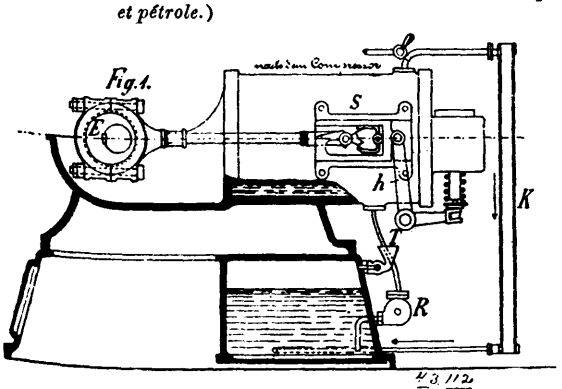
No. 43,111. Identification Card. (*Carte d'identification.*)



George H. Ward, New York City, New York, assignee of Henry Pincus, Philadelphia, Pennsylvania, all of U.S.A., 31st May, 1893; 6 years.

Claim.—In combination with the folded case or cover D, the identification card herein described having three adjoining leaves A, B, C, formed of a single sheet of paper, by one of which leaves A, said card is permanently attached to said case having the remaining leaves B, C, detached, the said detached leaf c, having mounted thereon a sheet E, containing integral a photograph of the person to be identified, the written signature of said person and a duly attested certificate of his or her identity, combined with an impression as of a notarial seal which is formed in both leaf c of the card and photographic sheet, mounted thereon at a point to overlap said segnature, the seal thus causing these two parts to firmly interlock, and assume a fixed relation to each other, whereby an attempt to remove the photographic sheet and replace it by another is prevented, as set forth.

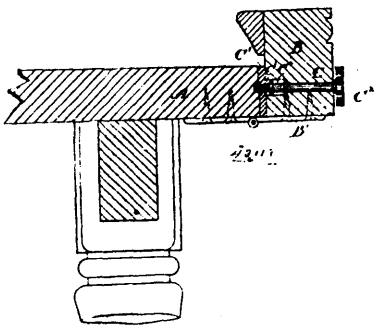
No. 43,112. Gas and Petroleum Engine. (*Machine à gaz et pétrole.*)



The firm of Frederich Dürr & Co., assignees of Fredrich Dürr, all of Breslau, Prussia, 31st May, 1893; 6 years.

Claim.—1st. A hydrocarbon engine of the type described, wherein the hydrocarbon liquid from which the combustible charge is drawn, is caused to jacketting circulate through the working cylinder jacketting thus cooling such cylinder, the stream of liquid being subsequently divided, a portion entering the working cylinder and compressor and the remainder being led through cooling tubes back again to the reservoir, the explosion of the charge within the working cylinder being effected by the flame of spontaneous combustion produced in the compressor, substantially as and for the purpose herein described and set forth with reference to the drawing hereto annexed. 2nd. A hydrocarbon engine of the type described, wherein the products of combustion are not wholly exhausted from the working cylinder, but are compressed by the next instroke, and again expanded by the flame of spontaneous combustion originating in the compressor, also wherein the heat developed by the previous explosion combined with the ordinary working compression of the working cylinder is utilized to produce spontaneous combustion of a charge of combustible matter and air introduced into such working cylinder, substantially as and for the purposes herein described and set forth with reference to the drawing hereto annexed. 3rd. In a hydrocarbon engine of the type described, the means of operating the inlet and exhaust valves of such engine consisting of the eccentric E, rod s^1, slide s, tumblers k, r, claw u, and accessory parts, arranged and adapted to operate, substantially as and for the purposes herein described and set forth with reference to the drawing hereto annexed. 4th. In a hydrocarbon engine, a reservoir containing a liquid hydrocarbon, in combination with a rotary pump driven in any suitable manner from the crank shaft of the engine, and adapted to pump the liquid into a jacketting surrounding the cylinder, substantially as and for the purpose specified.

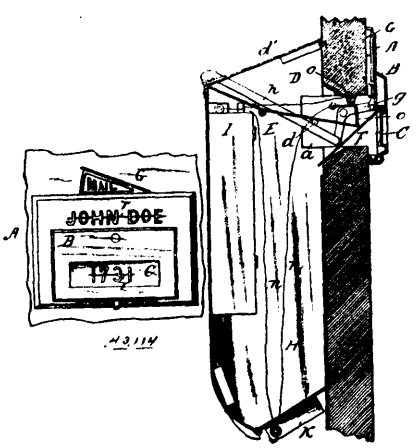
No. 43,113. Billiard and Dining Table.
(*Billard et table à manger.*)



Harold Richard Carter, assignee of David Carter, both of Victoria, Australia, 31st May, 1893; 6 years.

Claim.—1st. A combination billiard and dining table having cushions hinged to its edge or to the edge of frame work carrying it so that they can be turned up into their raised position around said table or can be swung underneath same in combination with the removable pocket carrying frames, substantially as herein described and explained and as illustrated in the accompanying drawings. 2nd. In combination billiard and dining tables the employment of cushions hinged to its edge so that they can be swung underneath when not in use, substantially as and for the purposes herein described and explained and as illustrated in the accompanying drawings. 3rd. In combination billiard and dining tables the employment of cushion frames as B hinged to the edge of the table top in combination with set screws as C screwed into plates fitted into said table top, substantially as herein described and explained and as illustrated in the accompanying drawings. 4th. In combination billiard and dining tables the employment of removable pocket carrying frames as E^1 each having downwardly projecting pins E^2 arranged to fit a bore formed in a plate attached to the frames carrying the cushion and having a curved or bent wire or rod such as E^3 arranged to support the inner side of said pockets, substantially as and for the purposes herein described and explained and as illustrated in accompanying drawing.

No. 43,114. Mail Box. (*Boîte à lettres.*)



The Postal Improvement Company, Morristown, Pennsylvania, assignee of Alfred D. Cushing and Alexander Mitchell, both of Wheeling, West Verginia, all in the U.S.A., 31st May, 1893; 6 years.

Claim.—1st. The combination of a face plate having a port, a door having a mail slot or port, a box or receptacle for mail to be collected, an apron flexibly connected with the box, a flap, and means, controlled by the door, for holding the apron above the flap when the door is closed and for permitting it to drop and form a chute over or on to the door when the same is opened, substantially as described. 2nd. The combination of a face plate having a port, a door having a mail slot, a flap pivoted to the door, a box or receptacle for collection mail, an apron flexibly connected with the box and a tongue connected at the door for holding and dropping the apron, substantially as described. 3rd. The combination of a mail box, a lid or cover for said box, a door leading from outside a wall to said box, a signal outside the box, a lever directly connected with the signal, a direct connection between the lever and the lid and a catch or dog arranged to engage the signal bar and hold it in adjusted position when the door is closed, substantially as described.

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

2973. WILLIAM ABERNETHY, 2nd five years of No. 29,154, from the 12th day of May, 1893. Improvements in Gate Catches, 2nd May, 1893.

2974. WILLIAM HOCHIN, 2nd five years of No. 29,169, from the 17th day of May, 1893. Improvements in Hoop Machines, 2nd May, 1893.

2975. FRANCIS McKAY, 2rd five years of No. 16,845, from the 12th day of May, 1893. Improvements in a Composition of Matter or Medicinal Compound for the treatment and cure of Salt Rheume, Ringworm, Chilblains, Running Sores, Itch, and all forms of skin diseases, 5th May, 1893.

2976. WILLIAM GOWAN, 2nd five years of No. 29,099, from the 7th day of May, 1893. Improvements in saw mill carriages, 5th May, 1893.

2977. THE COMPAGNIE GÉNÉRALE des Explosifs Favier, 2nd five years of No. 29,378, from the 12th day of June, 1893. Improvements in the manufacture of Explosives and in Cartridges formed for containing such explosives, 6th May, 1893.

2978. JEREMIAH A. SCRIVEN, 2nd five years of No. 29,188, from the 19th day of May, 1893. Improvements on Under Garments, 6th May, 1893.

2979. GEORGE S. BAKER, 2nd five years of No. 29,166, from the 14th day of May, 1893. Improvements in Baker's Ovens, 10th May, 1893.

2980. PHILIP WILLIAMS, 2nd five years of No. 29,164, from 14th day of May, 1893. Improvements in Fire Arresters and Heat Retainers, 10th May, 1893.

2981. ALVIN P. GRANGER, 2nd five years of No. 29,144, from the 11th day of May, 1893. Improvements in Rock and Ore Crushing Machines, 10th May, 1893.

2982. JOSEPH M. MERROW, 2nd five years of No. 30,198, from the 14th day of November, 1893. Improvements in Method of and machine for crocheting, 10th May, 1893.

2983. JOHN M. McLEOD, 2nd five years of No. 29,559, from the 25th day of July, 1893. Improvements in Medicinal Compound or Mixture for the cure of Dyspepsia, Indigestion, Neuralgia and Kindred Diseases, 13th May, 1893.

2984. N. W. HELME, RICHARD STOCKDALE and R. N. HELME, 3rd five years of No. 29,303, from the 8th day of June, 1893. Improvements in Printing upon Oil, Baize, Leather, Cloth and other similar non-absorbent materials, 13th May, 1893.

2985. N. W. HELME, RICHARD STOCKDALE and R. N. HELME, 3rd five years of No. 29,394, from the 25th day of June, 1893. Improvements in the Manufacture of Paper Hangings, 13th May, 1893.

2986. ROBERT TORRANCE, 2nd five years of No. 29,287, from the 6th day of June, 1893. Improvements in Working Tapers on Metals, 15th May, 1893.

2987. STEPHEN J. WHITE, 2nd five years of No. 29,163, from the 14th day of May, 1893. Improved Capsules for Packing Bottles, 15th May, 1893.

2988. JAMES B. FORSYTH, 2nd five years of No. 29,532, from the 23rd day of July, 1893. Improvements in Belting, 18th May, 1893.

2989. HUGHES & STEPHENSON (assignees), 2nd five years of No. 29,219, from the 28th day of May, 1893. Improvements in Air Inlets for Sewers, Traps and Drains, 18th May, 1893.

2990. HUGHES & STEPHENSON (assignees) 2nd five years of No. 29,571, from the 27th day of July, 1893. Improvements in Air Inlets and Seals for Waste Pipes and Traps, 18th May, 1893.

2991. THE SMITH MANUFACTURING COMPANY (assignees), 3rd five years of No. 16,968, from the 18th day of June, 1893. Improvements on Butter Plates, 18th May, 1893.

2992. THE SMITH MANUFACTURING COMPANY (assignees), 3rd five years of No. 17,310, from the 16th day of July, 1893. Improvements on Machines for Cutting Wooden Plates, 18th May, 1893.

2993. THE HART EMERY WHEEL COMPANY, (assignee) 3rd five years of No. 16,877, from the 23rd day of May, 1893. Improvements in Polishing or Buffing Wheels, 19th May, 1893.

2994. LORAN E. WALLEY, 2nd five years of No. 29,523, from the 23rd day of July, 1893. Improvements in Double Acting Submerged Force Pumps, 19th May, 1893.

2995. THE AIR BRUSH MANUFACTURING COMPANY, (assignee) 3rd five years of No. 17,066, from the 22nd day of June, 1893. Improvements in Pigment Distributers, 22nd May, 1893.

2996. PETER B. BRAZEL, 2nd five years of No. 29,281, from the 5th day of June, 1893. Improvements in Snow Plows, 25th May, 1893.

2997. THE ONTARIO COMPANY, (assignee) 2nd five years of No. 29,245, from the 30th day of May, 1893. Improvements in Apparatus for forming Sheet Metal by Electro Deposition, 29th May, 1893.

2998. FREDERICK C. AUSTIN, 2nd five years of No. 29,294, from the 7th day of June, 1893. Improvements in Road Grades, 29th May, 1893.

2999. FRANCIS A. WALSH, 2nd five years of No. 29,344, from the 14th day of June, 1893. Improvements in Sewing Machines, 29th May, 1893.

3000. SIDNEY McCLOUD and CHARLES E. DOOLITTLE, 2nd five years of No. 29,439, from the 2nd day of July, 1893. Improvements in Machines for Reducing Railroad Rails, 31st May, 1893.

TRADE MARKS

Registered during the month of May, 1893, at the Department of Agriculture—Copyright and Trade Mark Branch.

4622. JOSEPH WATSON & SONS, of Whitehall Soap Works, Leeds, England, 1st May, 1893.

4623. WILLIAM CLAPPERTON & CO., of Montreal, Que. Threads and Yarns, 2nd May, 1893.

4624. JOHN ALLISTER CURRIE, of Toronto, Ont. Pills, 2nd May, 1893.

4625. MANLIUS BULL & WILLIAM RAE ALLEN, of Winnipeg, Man. Trading as THE ROYAL SOAP CO. Soap, 2nd May, 1893.

4626. ELIZA LEITÉ SCOTT, of 28 Elvaston Place, Westminster, England. Trading as EDMUND & CO. Medicines for Dogs and other animals, 3rd May, 1893.

4627. AUSTEN T. FOSTER, of Derby, Orleans Co., Vermont, U.S.A. Boots and Shoes, 5th May, 1893.

4628. SCHWELMER EMAILLIRWERK BRASELMANN, PUTMANN & CO., of Schwelm, Kingdom of Prussia, Germany. Enamelled Hollow Ware, 6th May, 1893.

4629. THE MONTREAL SILK MILLS Co. LD., of Montreal, Que. Abdominal Bands for the Prevention of Cholera, Cholera Morbus, Cramps, Colds, &c., 12th May, 1893.

4630. THE P. LORILLARD CO., of Jersey City, New Jersey, U.S.A. Tobacco in all forms, 13th May, 1893.

4631. THE GARLOCK PACKING CO., of Palmyra, New York, U.S.A., a co-partnership composed of FREDERICK W. GRIFFITH and EUGENE NICHOLLS, of said Palmyra, and OLIN J. GARLOCK, of Brooklyn, New York. Steam Packing, particularly Piston Rod Packing, 13th May, 1893.

4632. STEWART & WOOD, of Toronto, Ont. Paints, Oils, Colours and ground White Lead, 15th May, 1893.

4633. THE CHRISTY KNIFE CO., of Fremont, Ohio, U.S.A. Bread, Cake, Paring and other Knives, 15th May, 1893.

4634. CHARLES E. McININCH, of Calais, Maine, U.S.A. A Medicine, 15th May, 1893.

4635. RUSSELL JAMES SMITH, of Toronto, Ont. A Patent Medicine, 16th May, 1893.

4636. WILLIAM BRAYBROOKE BAYLEY, of Toronto, Ont. Fruits and Vegetables, 17th May, 1893.

4637. BOORD & SON, of Allhallows Lane, Upper Thames Street, London, England, Fermented Liquors and Spirits, 17th May, 1893.

4638.
4639.
4640.
4641. } JOHN L. SPINK, of Toronto, Ont. Flour, 18th May, 1893.

4642. JAMES YOUNG GRIFFIN, of Winnipeg, Man. Trading as J. Y. GRIFFIN & CO. Hams, Bacon and Lard, 18th May, 1893.

4643. THE GURNEY TILDEN CO., LD., of Hamilton, Ont., Stoves and Ranges, 19th May, 1893.

4644. MARIE GABRIELLE GOSSELIN (née Thierry) de Montréal, Qué. Poudre Laxative, 20 mai 1893.

4645. MARIE GABRIELLE GOSSELIN (née Thierry) de Montréal, Qué. Tonique de Peptone Phosphate, 20 mai 1893.

4646. PATRICK McCORMACK, of Montreal, Que. A Medicinal Preparation for the cure of Callosities, 22nd May, 1893.

4647. THE P. LORILLARD CO., of Jersey City, New Jersey, U.S.A. Fine Cut Chewing and all kinds of Cut and Granulated Tobacco, 23rd May, 1893.

4648. THE P. LORILLARD CO., of Jersey City, New Jersey, U.S.A. Tobacco in all forms, excepting Cigars, 23rd May, 1893.

4649. VILLENEUVE & CO., of Montreal, Que. Cigars, 25th May, 1893.

4650.
4651.
4652. JOHN L. SPINK, of Toronto, Ont. Flour, 26th May, 1893.
4653.
4654.

4655. THE PREMIER CYCLE CO., Ld., of Coventry, County of Warwick, England, 26th May, 1893.

4656. McKESSON & ROBBINS, of New York, U.S.A. General Trade Mark, 31st May, 1893.

4657. THE AMERICAN DRUG SUPPLY CO., Toronto, Ont. Oil of Lemon, Bergamot and Orange, 31st May, 1893.

4658. ZEPHIRIN ARCAND ET WILFRED ARCAND, faisant affaires sous la raison sociale de ARCAND & FRÈRES, de Montréal, Qué. Café Hygienique, 31 mai, 1893.

4659. SAUNDERS, LORIE & CO., of Toronto, Ont. Jewellery, 31st May, 1893.

COPYRIGHTS

Entered during the month of May, 1893, at the Department of Agriculture—Copyright and Trade Mark Branch.

6904. FOREVER WITH THE LORD. Words by J. Montgomery. Music by Ch. Gounod. Phillips & Page, London, England, 1st May, 1893.

6905. TORONTO POCKET STREET GUIDE. Stewart Malcolmson, Publisher, Toronto, Ont., 2nd May, 1893.

6906. THE OLD FAMILY BIBLE THAT LAY ON THE STAND. Song and Chorus, by S. W. Farnham, Toronto, Ontario, 5th May, 1893.

6907. IVAN DELL POLKA, by L. V. Williams. The Anglo-Canadian Music Publishers' Association, (Limited), London, England, 4th May, 1893.

6908. META: MILITARY SCOTTISHE, by Joseph Monk. The Anglo-Canadian Music Publishers' Association, (Limited), London, England, 4th May, 1893.

6909. MURIEL. Rye or Ripple, by J. Rubens. The Anglo-Canadian Music Publishers' Association, (Limited), London, England, 4th May, 1893.

6910. OLIVIA MAZURKA. For the Piano, by Henry Roubier. The Anglo-Canadian Music Publishers' Association, (Limited), London, England, 4th May, 1893.

6911. LEONA VALSE, par Wm. Caven Barron. The Anglo-Canadian Music Publishers' Association, Ltd., London, England, 5th May, 1893.

6912. AFLOAT FOR ETERNITY; or, A PILGRIM'S PROGRESS FOR THE TIMES, by James B. Kennedy, B.A., with Introduction by Crossley & Hunter. Wm. Briggs, (Book-Stewart of the Methodist Book and Publishing House) Toronto, Ont., 6th May, 1893.

6913. THE HARBOUR OF MONTREAL (view). The Sabiston Lithographic and Publishing Company, Montreal, Quebec, 6th May, 1893.

6914. A SYNOPSIS OF THE BRITISH PHARMACOPŒIA PREPARATIONS, by Chas. F. Heebner, Ph. G., Phm. B., Toronto, Ont., 9th May, 1893.

6915. CIRCULAR INVITING ATTENTION TO THE PROSPECTUS OF THE BIRKBECK INVESTMENT, SECURITY AND SAVINGS COMPANY OF CANADA (marked A). The Birkbeck Investment, Security and Savings Company of Canada, Toronto, Ont., 10th May, 1893.

6916. PROSPECTUS OF THE BIRKBECK INVESTMENT, SECURITY AND SAVINGS COMPANY OF CANADA (circular marked B). The Birkbeck Investment, Security and Savings Company of Canada, Toronto, Ont., 10th May, 1893.

6917. CIRCULAR re THE BIRKBECK INVESTMENT, SECURITY AND SAVINGS COMPANY OF CANADA (marked C). The Birkbeck Investment, Security and Savings Company of Canada, Toronto, Ont., 10th May, 1893.

6918. DORAN'S SCIENCE OF SELF-DEFENCE. A Manual for Beginners, by Bart J. Doran. The National Publishing Company, Toronto, Ont., 12th May, 1893.

6919. ALLIANCE BIBLE NOTES. Following the Bible Reading and Prayer Alliance Course of Readings. Alfred Sandham, Toronto, Ont., 12th May, 1893.

6920. MAP OF THE TOWNSHIP OF EAST GWILLIMBURY. Scale 45 chains 1 inch. Joseph Lloyd, Aurora, Ont., 13th May, 1893.

6921. ISLAND ECHOES SCOTTISCHE. For Piano, by F. Archer Wilson. Whaley, Royce & Co., Toronto, Ont., 15th May, 1893.

6922. SCALA SANCTA OU LE SAINT ESCALIER (livre). Francois N. Faveur, Quebec, Que., 15 mai, 1893.

6923. PROBLEMS IN ARITHMETIC, by C. Clarkson, B.A., Teachers' Edition. W. J. Gage, Toronto, Ont., 17th May, 1893.

6924. BISCAIENNE, pour Piano, par Clotilde L'Hote. Whaley, Royce & Co., Toronto, Ont., 18th May, 1893.

6925. LA CORNEMUSE. Scotch Dance, pour Piano, par Clotilde L'Hote. Whaley, Royce & Co., Toronto, Ont., 18th May, 1893.

6926. CATALANE. Spanish Dance, pour Piano, par Clotilde L'Hote. Whaley, Royce & Co., Toronto, Ont., 18th May, 1893.

6927. LA PIROETTA Polka Mazurke pour Piano, par Clotilde L'Hote. Whaley, Royce & Co., Toronto, Ont., 18th May, 1893.

6928. SPRING BEAUTY SCHOTTISCHE, by T. M. Harrington. Whaley, Royce & Co., Toronto, Ont., 18th May, 1893.

6929. PLAN N, CITY OF WINNIPEG. Shewing Plans registered on parts of D. G. S. Lots 35 and 36, Parish of St. John. Scale 200 ft. 1 in. Robt. Chas. McPhillips, Winnipeg, Man., 20th May, 1893.

6930. PLAN O, CITY OF WINNIPEG. Shewing Plans registered on parts of D. G. S., Lots 35 and 36, Parish of St. John. Scale 200 ft. 1 in. Robt. Chas. McPhillips, Winnipeg, Man., 20th May, 1893.

6931. THE FARMERS' FRIEND AND ACCOUNT BOOK. By Geo. A. Reid, Peterborough, Ont., 22nd May, 1893.

6932. KIRK AND RITCHIE'S ABSTRACT OF MINERAL CLAIMS, SLOCAN, BRITISH COLUMBIA. John Albert Kirk and Joseph Frederick Ritchie, Nelson, B.C., 22nd May, 1893.

6933. THE BELL TELEPHONE COMPANY OF CANADA, LIMITED, TORONTO AND TORONTO JUNCTION EXCHANGES, SUBSCRIBERS' DIRECTORY, ONTARIO DEPARTMENT, APRIL, 1893. The Bell Telephone Company of Canada, Limited, Montreal, Que., 23rd May, 1893.

6934. AGRICUTURAL LESSONS FOR SCHOOLS AND YOUNG STUDENTS, by Henry Stewart, book which is now being preliminarily published in separate articles in "The Family Herald and Weekly Star," of Montreal. Hugh Graham, Montreal, Que., 23rd May, 1893.

6935. MAP OF VICTORIA, BRITISH COLUMBIA. Shewing subdivisions on Official Record up to 1893. Compiled and drawn by Gotfred Jörgensen, C.E. M. A. Waitt & Co., Victoria, B.C., 23rd May, 1893.

6936. PICTURE REPRESENTING A MAN ENDEAVOURING TO BLOW OUT AN ELECTRIC LAMP BEFORE GOING TO BED. The Packard Lamp Co., Montreal, Que., 25th May, 1893.

6937. EVENTIDE. Transcription for the Pianoforte. By J. Hoffmann. Chappell & Co., London, England, 25th May, 1893.

6938. HAPPY DAYS. Song. Words by Henly Thompson. Music by A. Strelezki. I. Suckling & Sons, Toronto, Ont., 25th May, 1893.

6939. HEART OF HEARTS VALSE. For Piano, by Katharine T. Fuller. I. Suckling & Sons, Toronto, Ont., 25th May, 1893.

6940. MORNING, NOON AND NIGHT. Song. Words by Mrs. Edgar Jarvis. Music by Francesco D'Auria. A. & S. Nordheimer, Toronto, Ont., 25th May, 1893.

6941. THE GEORGIAN BAY: An Account of its Position, Inhabitants, Mineral Interests, Fish, Timber and Other Resources, with Map and Illustrations. By James Cleland, Hamilton, M. A., LL.B., Toronto, Ont., 26th May, 1893.

6942. L'INDICATEUR DE QUÉBEC ET LÉVIS, 1893-4. (Quebec and Lévis Directory.) T. L. Boulanger et Ed. Marcotte, Québec, Qué. 26 mai 1893.

6943. NOUVEAU DICTIONNAIRE ILLUSTRÉ. Historique, Géographique, Biographique et Mythologique. Nouvelle Edition. Par P. Théberge. C. O. Beauchemin & fils, Montreal Qué., 27 mai 1893.

6944. LE PÉLERIN DE SAINTE ANNE. Roman de Mœurs. Nouvelle Edition. Par Pamphile LeMay. C. O. Beauchemin & fils, Montréal, Qué., 27 mai 1893.

6945. CODE DE PROCÉDURE CIVILE DE LA PROVINCE DE QUÉBEC. Par L'Honorable M. Mathieu. C. O. Beauchemin & fils, Montréal, Qué. 29 mai 1893.

6946. CODE CIVIL DE LA PROVINCE DE QUÉBEC. Par L'Honorable M. Mathieu. C. O. Beauchemin & fils, Montréal, Qué. 29 mai 1893.

6947. THE WILLIAMS OFFICIAL BRITISH COLUMBIA DIRECTORY, 1893. The Williams Official British Columbia Directory Co., Ld., Victoria, B.C., 30th May, 1893.

INDEX OF INVENTIONS.

Vehicles. Trace hook for. Frederick Giles..... 42,943
Ventilator. Clark H. Norton..... 43,094
Ventilator and air moistener. Otto Hoffman..... 43,010
Wagon dump and elevator. John S. Kidd..... 42,890
Water escape valve. Frederick A. Russell..... 42,950
Water power. Alonzo C. Mather..... 42,863
Weather strip. Elihu P. Kootz..... 42,785
Welding. See electric welding.
Wheel. See pneumatic vehicle wheel.
Wheel box and axle. Oscar M. Allen, et al..... 42,790
Whip. Frank Foley, et al..... 42,976
Wrench. Alexander Fletcher..... 43,084
Wrench, Howard A. Post, et al 42,889
Writing desk, bureau, book and dressing case combined. Neal P. Shulin..... 42,896

INDEX OF PATENTEES.

Gurney, Emory W. Loader for timber 43,035
Hall, John H. Caster for stoves 43,040
Hall, Joseph C. Pneumatic vehicle wheel 42,951
Hamilton, James A., et al. Shaft support for vehicles 42,904
Hanlon, Peter. Ditching machine 42,962
Hannigan, Willis H. Hame 42,906
Hardeman, Thomas S., et al. Nut lock 42,886
Hardoin, Nicholas. Tap and filler for oil cans 43,063
Harris, Levé, et al. Wheel box and axle 42,790
Harrison, Edward M. Telephone 43,055
Harry, Herbert E., et al. Floor cloth 42,932
Hartin, John. Distributing apparatus for beer, &c. 42,915
Haub, Charles C., et al. Car coupler 42,803
Haynes, John J. Type setting machine 43,080
Hays, Lambert, et al. Method of and apparatus for treating refractory ores 43,105
Heartley, George W. Hanger for eaves troughs 42,929
Heene, George W. Recorder for workmen's time 42,832
Heiland, Lawrence, et al. Fence post 42,986
Hendee, George W., et al. Truss 42,973
Herdman, Frank E. Elevator 43,073
Hobbs, John E., et al. Sleigh runner 43,021
Hodgins, John C. Method of cooling and drying grain 43,006
Hoepfner, Carl. Electrolytic treatment of cupreous liquors and ores 42,815
Hoffmann, Otto. Ventilator and air moistener 43,010
Holmes, Herbert L., et al. Valve for engines 42,884
Holmes, William A., et al. Lamp 43,014
Holyoke Envelope Company. Machine for making and imprinting envelopes 42,867
Hope Electric Appliance Co. Electric switch and case for same 42,787
Horton, William P., et al. Dental appliance 42,888
Houghton, Lewis T., et al. Snow guard 42,922
Houser, George H., et al. Lamp 42,967
Hughes, John. Safety buffer for street cars 42,935
Humphrey, Henry L. Car coupler 42,870
Jarvis, Edgar B. Method of heating and ventilating buildings 42,917
Jeavons, William R. Burner for hydro carbon 43,052
Jeffery, Frank M., et al. Machine for making springs 42,880
Jewett, Luther K. Anti-friction bearing 42,984
Johnson, Charles B., and Frank B., et al. Hoisting and transfer apparatus 42,874
Johnson, Edward H. Electrical propulsion of vehicles 42,893
Johnson, Edward H. Power transmitting device 42,961
Johnson, Edward H. Power transmitting device for electric railways 42,901
Johnson, Edward H. Switch for electric circuits 42,982, 43,039
Johnson, Ira H., et al. Vehicle 42,928
Johnston, Andrew. Cultivator 42,789
Johnston, John H., et al. Sash holder 42,891
Jones, Ansel B., et al. Dental appliance 42,888
Judd, Thomas L. Gripper for scaling ladders 43,033
Jukes, H. A. Bowl for water closets 42,920
Justin, Joel G. Shell for high explosives 42,997
Kean, William C., et al. Paper fastener 42,927
Kelliher, Alfred T. Elevated carrier 42,892
Kemp, William A. Sap spout 43,003
Kenfield, William W. Bicycle 42,985
Kerman, Herbert C. and William S. Cigarette machine .. 42,966
Kermaghan, William, et al. Fire escape 42,853
Kernodle, James A. Churn 42,834
Kerwin, Patrick H., et al. Whip 42,976
Kidd, John S. Waggon dump and elevator 42,890
Kilgore, John S. Folding seat 42,851
Kine, Enoch. Land roller 43,096
Kinsman, Frank E. Apparatus for controlling the movements of trains 42,960
Kinsman, Frank E. Signal for railways 42,979
Knapp, Edgar. Machine for separating beans 42,940
Knudsen, Augustus. Steam engine 42,931
Kootz, Elihu P. Weather strip 42,785
Kring, Levi, et al. Stump extractor 42,799
Kruisbrink, Johannes A., et al. Ice breaking and cleaning apparatus 42,839
Label, Florian. Carriage axle 42,947
Laird, Robert H. Process of and apparatus for deodorizing oil 42,812
Lambert, George A. Plow colter 43,049
Lancaster, John L. Gate 43,012
Lane, William G. Car 42,907
Lang and, Campbell. Truss 42,973
Lang, George C., et al. Truss 42,973
Lannert, John A., et al. Burner for hydro-carbon 43,052
Layton, Ralph DeRefer. Mechanical movement 42,894
Leach, E. Allen, et al. Truss 42,973
Leaker, Richard H., et al. Art of and apparatus for preserving milk 42,806
Lecellier, Leon R. Lock 42,900
Leede, Julius, et al. Method of and apparatus for treating refractory ores 43,105
Lelm, Otto. Apparatus for delivering money 43,007
Lemieux, Lucius A. Valve for steam engines 42,955
Lemp, Hermann, et al. Apparatus for electric welding 42,883
Lewis, Samuel R. Nippers for oil cup feeder lifters 42,912
Loewenberg, Joseph, et al. Electric car lighting system .. 42,999
Long, Esther A., and Joseph H. Mattress frame 43,020
Longden, Charles E. Spring 43,090
Loud, Herbert. Pulley block 42,957
Loud, Herbert. Snatch block 42,918
Lunken, Edmund H. Valve 43,081
Luther, Henry R. Frog for railway rails 42,993
Lynam, John S., et al. Signal for railways 42,856
MacNaughton, James. Process of reducing ores 42,869
Major, Edmund. Guide for stamp mills 42,946
Maloon, Edgar H., et al. Plow 43,015
Martin, Adelbert C., et al. Vehicle 42,928
Mather, Alonzo C. Water power 42,863
Matthews, Richard L., et al. Lubricator for pistons 42,925
Mans, Daniel. Trimming attachment for knitting machines 43,077
McCabe, Edward T. Heating drum for stoves 42,924
McCarthy, John. Handle for caskets 43,047
McClusky, Henry, et al. Vehicle spring 42,965
McDonald, William T. B. Sap spout 42,862
McElroy, James F. Temperature regulator 42,964
McElroy, James F. Valve 42,974, 42,975
McGray, Arthur. Apparatus for shipping live lobsters ... 42,844
McKeggie, James H., et al. Hot air heating device 43,018
McLaren, James. Car coupler 42,870
Merry, Elwin J., and Horace R. Couplings for attaching shafts to velocipedes 43,029
Merz Universal Extractor and Construction Company. Extracting apparatus 42,926
Meyer, Henry C., et al. Truss 42,969
Middlebrooks, Hobart C. Finger board for stringed instruments 42,845
Mitchamore, C. H. Fly paper 42,878
Mitchell, Alexander, et al. Mail box 43,114
Mitchell, John B. Agraffe for pianos 43,078
Moeller, Julius. Apparatus for making oil gas 42,841
Moffatt, Richard R. Ore separator 43,058
Moore, Harry. Sewing machine 42,791
Morden, Walter H., et al. Desk 42,829
Morgan, Reese. Core seat for pipe flasks 42,835
Morris, George, et al. Buggy 42,835
Morris, Joseph L. Bicycle 42,854
Morse, Everett F., et al. Vehicle 43,016
Moskowitz, Morris, et al. Electric car lighting system 42,999
Murray, Alexander M. Gate 42,908
Musser, Frank, et al. Car brake shoe 43,017
Nance, John D. Spring roller and cabinet for ledger index sheets 42,843
Neithercott, Henry A., et al. Tyre for cycles 43,041
Nichols, Marshall C., et al. Sheathing lath attachment for planing machines 43,026
Nickerson, Freeman, et al. Vehicle spring 42,965
Nielsen, Jens. Milking machine 42,899
Nogar, William H. Saw sharpener 42,990
Norton, Clark H. Ventilator 43,094
Norton, Wendell. Feed mechanism for screw cutting lathes 42,941
Oakhill, Joseph, et al. Art of and apparatus for preserving milk 42,806
Oehrle, Emanuel. Machine for moulding cement pipes, 42,786
O'Gorman, John. Egg crate 42,850
Ontario Standard Oil Co. Method of distilling petroleum oil 42,971
Page, Richard V., et al. Paper fastener 42,927
Painter, William. Bottle sealing device 42,980
Painter, William. Method of bottling liquids 42,866
Palmer, Frank H. Jar cover and clamp 42,811
Pangborn, James K. and Henry. Sleigh runner 43,009
Parmelee, Leander, et al. Fastener for lace 42,998
Pavyer, James G. Paper cutting machine 43,104
Pavyer, James G. Type casting and dressing machine 43,091
Peck, Horace B., et al. Wheel box and axle 42,790
Peck, Royal H., et al. Truss 42,973
Peel, William F. Method of attaching fire arms to cavalry harness and manipulating same 42,822
Pelton, George W. Press 42,827
Pennycuick, James G. Skylight 43,025
Penrose, Hallack A., et al. Machine for making targets ... 42,968
Peter Hamilton Manufacturing Co. Cultivator 42,789
Peterson, Frank. Governor for gas pressure 43,053
Pfouts, Leroy S., et al. Boot and shoe sole 42,823
Pincus, Henry. Identification card 43,111
Pizzey, William J. Spring wheel for vehicles 43,023
Pizzuti, Joseph S. F. Musical instrument 42,802
Poor, Alfred L., et al. Potato digger 42,972
Pope, Joseph H. Heel nailing machine 42,808
Post, Howard A., et al. Wrench 42,889
Postal Improvement Co. Mail box 42,881, 43,114
Preston, Charles W. Extracting apparatus 42,926
Proctor, Harlan P., et al. Sheathing lath attachment for planing machines 43,026

Raleigh, Charles. Ore sieve 43,060
Ralston, Charles, et al. Lamp 43,014
Randall, David, et al. Truss 42,973
Rapson, Philip T. Gate latch 42,981
Raymond, Charles. Register for cash 43,108
Reed, John W. Piano back 43,050
Reinhardt, Charles S. Pump 42,871
Reichman, Moses, et al. Burglar alarm 42,801
Reinsberg, Ephraim, et al. Car coupler 42,885
Rich, Charles W. Cutting knife for stave machines 42,820
Rich, Charles W. Stave cutting machine ... 42,817 42,818
Rich, Charles W. Stave jointing machine 42,819
Richards, David L. Car coupler 42,821
Richards, Willard F. Car coupler 42,788 42,837
Richards, Willard F. Car buffer 42,860
Richardson, George S. Machine for feeding threshing machines 43,027
Robinson, Benjamin E. Aerator for milk 43,057
Roche, William E., et al. Potato digger 42,864
Roney, William R. Grate for furnaces 42,972
Rony, Gustave. Vehicle 43,046
Rossi, Auguste J., et al. Process of reducing ore 42,930
Ruchs, Charles L. Sand preparing machine 42,869
Ruchs, Charles L. Block setting rack for sand papering machine 43,000 43,043
Russell, Frederick A. Water escape valve 42,950
Russell, James W. Snow plough for railways 42,861
Russell, Josephine. Tag holder for umbrellas 42,836
Sanborn, George F., et al. Plough 43,015
Sanford, Sydney J. Fire alarm 42,805
Sands, George, et al. Car brake shoe 43,017
Sawyer, Eldridge. Clip for single and double trees 43,056
Sawyer and Massey Company. Traction engine 42,887
Saxton, David B., et al. Paper fastener 42,927
Scales, William S. Raisin seeding device 42,905
Schaeffer, Henry, et al. Car coupler 42,885
Schaffer, John A. Puzzle 42,959
Schmidt, Louis M., et al. Apparatus for electric welding. 42,883
Schneller, Otto. Shaking machine 42,921
Scott, Frank G. and George L. Hanger for pipes 42,978
Seymour, Frederick H. Register for cash 43,086
Sheldon, Balos F. Car coupler 43,109
Shepard, Huldah A. Steam cooker, dish washer and clothes press, combined 42,816
Sherman, Willis D., et al. Hoisting and transfer apparatus 42,874
Shulin, Neal P. Writing desk, bureau, book and dressing case, combined 42,896
Silverberg, Issac L, et al. Burglar alarm 42,801
Simmons, Sydney. Fire escape 42,838
Simmonds, George F. Ball bearing 42,913
Simonet, Maxime H. Triturating machine 42,903
Simonson, Flavel. Apparatus for handling logs 42,970
Sinclair, John A. Holder for books 43,083
Skinner, Edwin M., et al. Combination lock 43,032
Slayton, Cortes J., George S. and William H., et al. Truss 42,973
Sly, William W. Machine for crushing ore, &c 42,855
Smart, Charles W. Sewing machine treadle 43,079
Smith, Charles G. Excelsior cutting machine 42,934
Smith, Eugene C. Lock 43,095
Smith, Frank A. Incandescent electric lamp 43,072
Smith, John T. Flax and hemp brake 42,923
Smith, Millage M. Ironing table 43,034
Smith, Stephen D., et al. Electric appliance for canes, &c. 42,873
Snow, Willie N. Sleigh 42,825
Southeran, Andrew C. Power storing attachment for bicycles 42,988
Southern Stove Works Company. Heating drum for stoves 42,924
Spaethe, Otto. Piano 42,840
Spaulding, Joseph W., et al. Truss 42,973
Stark, James M. Car coupler 42,870
Starr, Stephen. Ditching machine 42,962
Starratt, George, et al. Valve 43,037
Stearns, Frank H. and Albie E. Machine for rossing bark 42,852
Stiles, Henry. Spout for jugs, cans, &c 42,933
Stirsky, Joseph F. Burglar alarm 42,824
Stone, William, et al. Lamp 43,014
Stretton, Robert, et al. Tyre for cycles 43,041
Sullivan, Henry J. Locomotive for hauling logs 42,857
Sulzner, Charles, et al. Paper fastener 42,927
Swensen, Hans P., et al. Neck yoke 43,038
Szuhanek, Georg. Trimming 43,085
Terry, Jacob E. Hitching device 43,045
Theroux, Alexandre, et al. Medicinal compound 43,019
Thomas, George L. Signal for railways 42,810
Thomas, James H. Sash lock 42,949
Thompson, Robert, et al. Guard for street cars 43,028
Thompson, Samuel H. Cigarette machine 42,792
Thompson, William H., et al. Buggy 42,878
Tilden, James A. Recorder for workmen's time, &c 43,065
Toohey, Cornelius. Caddie for grocers' use 43,087
Tower, Clinton A. Car coupler 43,030
Tower, George K., et al. Valve 43,037
Towne, Frank H. Check rein attachment 42,858
Tracey, Harriet R. Sewing machine 42,813, 42,983
Troxler, Gustavus, et al. Burglar alarm 42,801
Tuck, John. Medicinal compound 42,954
Turner, Ebenezer, T., et al. Vehicle 43,016
Turney, Frederick N. Process of and apparatus for purifying oil 43,001
Urquhart, Ridley J., et al. Tire 42,995
Vagner, Jacques A. Burner for mineral oil 43,051
Van Leeuwen, Jacobus J., et al. Ice breaking and cleaning apparatus 42,839
Van Patten, Frederick. Fastener for lace 42,998
Victor, Robert J., et al. Towing machine 42,798
Vincent, Robert G. Mattress 42,898
Wadley, George D. Draw bar 42,910, 42,911
Wahl, William H. Process of making magnesia and magnesia alloys free from carbon 43,068
Waite, Henry, et al. Truss 42,973
Walcott, Jabez E., et al. Method of and apparatus for covering electric wire 43,110
Walker, Sampson. Lubricator for axles 43,044
Ward, George H. Identification card 43,111
Waterman, John H. Boiler 42,963
Watts, Albert. Signal transmitting apparatus 42,794, 42,795
Weaver, George M., et al. Shaft support for vehicles 42,904
Webber, William O. Steam engine governor 42,942
Welch, Michael J. Car coupler 42,882
Wells, Oscar J., et al. Electrical appliance for canes, &c. 42,873
Wemp, Norman. Tester for eggs 42,826
Wendell, Menzo E., et al. Compound doffer for mangles 42,987
Wentworth, Barton M., et al. Sleigh runner 43,021
Weston, Emile R. Burner for oil 43,069
Whipple, Henry J. P. Knob attachment 43,102
Whitaker, David W. Fountain marking brush 43,106
Whitburn, Daniel. Cradle 42,902
White, William G., et al. Floor cloth 42,932
Wilcox, Henry R., et al Method of and apparatus for covering electric wire 43,110
Willes, Thomas S., et al. Compound doffer for mangles 42,987
Wilson, Darius. Machine for regulating the supply of gas. 43,067
Wilson, John J., et al. Hoisting and transfer apparatus 42,874
Wiswell, Frederick A. Crushing mill 43,031
Woodyatt, Augustus R. Lawn mower 43,061
Worthing, Harry. Method of distilling petroleum 42;971
Wright, Augustus. Electric switch and case for same 42,787
Wright, Frank W., et al. Wrench 42,889
Wyndham, William. Sweat band for hats 43,103
Young, Samuel, et al. Electric car lighting system 42,999
Zavadil, Ignatius W. Rack for music 43 089