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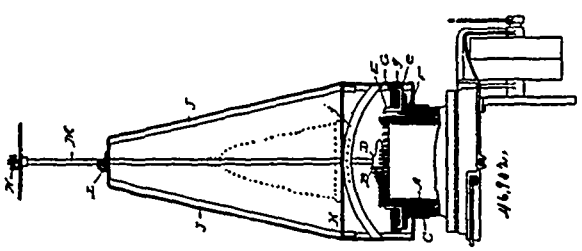
INVENTIONS PATENTED.

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

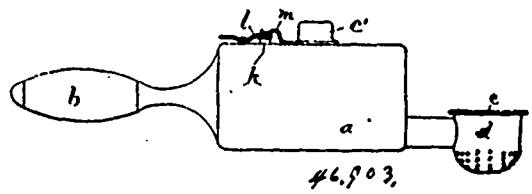
No. 46,902. Knitting Machine. (*Machine à tricoter.*)



Chicago Hosiery Company, assignee of Frederick C. Rehm, all of Chicago, Illinois, U.S.A., 1st September, 1894: 6 years.

Claim.—1st. A knitter provided with looping devices located outside of the needles and means for actuating said looping devices also located outside of the needles, whereby the central opening of the machine remains uncovered and unobstructed, and the operator is enabled to watch the work as it proceeds, substantially as specified. 2nd. The combination, with a knitting machine of a series of radially moving yarn lifters located outside of the needles and means for moving such lifters into and out of acton, substantially as specified. 3rd. The combination, with a knitting machine having a needle cylinder and a cam cylinder for operating the needles, of a series of radially movable yarn lifters located outside of the needle cylinder and means for moving said lifters into and out of acting position, such actuating means being also located outside of the needle cylinder, substantially as specified. 4th. The knitter having a stationary needle cylinder, a rotating cam cylinder and a yarn guide secured to the cam cylinder, in combination with radially moving yarn lifters supported from the needle cylinder, and a cam ring rotated by the yarn guide and acting to move said lifters, substantially as specified. 5th. The combination, with the needle cylinder having the slotted outwardly projecting flange, the rotating cam cylinder, the yarn guide moving with the latter cylinder, the radially movable yarn lifters located in the slots of the needle cylinder flange, and the cam ring rotated by contact with the yarn guide and serving to move said lifters, substantially as specified. 6th. The combination, with the yarn guide, the radially movable yarn lifters, and a support for said lifters located outside of the needles, of the cam ring having projections H, H, and adjustable contacts *k*, substantially as specified. 7th. The combination of the moving yarn guide, the series of yarn lifters, the support for said lifters located outside of the needles and the cam ring adapted to retract the lifters to give clearance to the guide, substantially as specified.

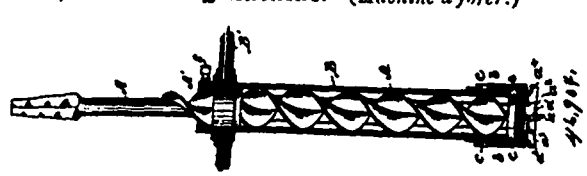
No. 46,903. Clothes Sprinkler. (*Goupillon.*)



Patrick Giblin, and William Tracy, both of Montreal, Quebec, Canada, 1st September, 1894; 6 years.

Claim.—1st. A clothes sprinkler comprising a water carrier or reservoir, having suitable inlet and a distributor connected therewith for the purpose set forth. 2nd. A clothes sprinkler comprising a water carrier or reservoir having suitable inlet, a distributing chamber connected therewith, and a restricted passage for the water between the carrier and the distributing chamber for the purpose set forth. 3rd. A clothes sprinkler comprising a water carrier or reservoir, provided with suitable handle and water inlet, a distributor having a perforated bottom and formed with a cover allowing access thereto and containing a sponge, a tubular connection between the reservoir and the distributor, and communicating openings of small diameter into said tubular connection from the reservoir and distributor for the purpose set forth. 4th. A clothes sprinkler comprising a water carrier or reservoir provided with suitable handle and water inlet, a distributor having a perforated bottom and formed with a cover allowing access thereto and containing a sponge, a tubular connection between the reservoir and the distributor, communicating openings of small diameter into said tubular connection from the reservoir and distributor, said reservoir having an air vent with automatic closing device and thumb lever for opening same, for the purpose set forth.

No. 46,904. Boring Machine. (*Machine à forer.*)



Charles W. Meggenhofen, Franklin and Albert S. Courtright, Indianapolis, both of Indiana, U.S.A., 31st September, 1894; 6 years.

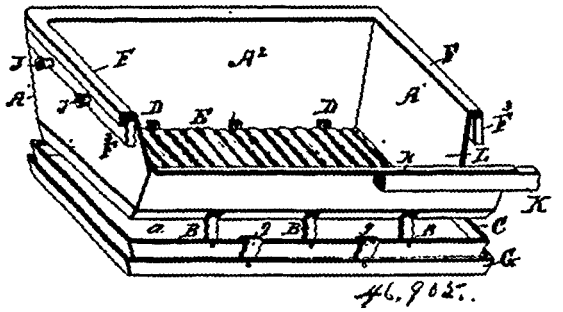
Claim.—The combination, in a boring machine, of an auger having a spur gear formed therewith or secured thereto, a surrounding sleeve, and a series of cutters mounted on said sleeve, and provided with spoke-like open cogs engaging with and driven by said gear, whereby a hole corresponding to the shape of said cutters is produced, substantially as set forth.

No. 46,905. Refrigerator. (*Réfrigérateur.*)

James Theodore Gurney, Boston, Massachusetts, and Chancey J. Medberry, Fond du Lac, Wisconsin, both in the U.S.A., 1st September, 1894; 6 years.

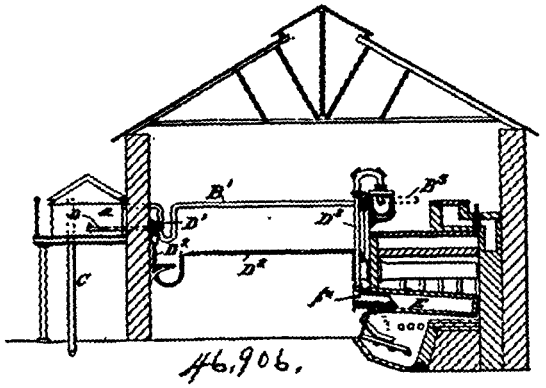
Claim.—1st. The combination with the ice tank having an ice en-

trance below the top, of the horizontal supporting bars at the top and supplemental horizontal supports below those at the top, substantially as set forth. 2nd. The combination with the ice tank of



the supporting frame F^3, on the sides and the back, and having at the front an unobstructed passage horizontally opposite the frame for the ice tank, whereby the latter can be supported on said frame and also can be withdrawn therefrom by moving it forward, substantially as set forth. 3rd. The combination with the ice tank having the vertical wall at the back, and the two vertical side walls, and having outwardly turned flanges or hangers at the upper edges, of the bars F^3, remote from the back wall and side walls of the casing, the bolts J^1, extending through the inner part of the casing and through the bars F^3, and the expanded spacing devices J, against which the bars F^3 are clamped by the bolts J^1, said bars F^3, holding the back walls and side walls of the ice tank remote from the casing, whereby the ice tank is supported from its upper edges and a circulation of air is permitted over said edges, substantially as set forth. 4th. The combination with the refrigerator having a door in the front thereof, and a frame secured to the inner walls of said refrigerator, of a removable ice tank depending from said frame, and having a front wall which is reduced in width so as to leave an opening opposite the said door, substantially as set forth. 5th. The combination with the refrigerator having a door at the front thereof, of frame bars extending around the end and the rear walls of the refrigerator, spacing devices for holding said frame bars at a distance from the said walls, an ice tank depending from said frame bars and having an opening in the front opposite the said door, the front wall of said ice tank having a lip extending along its length, and a bar as at K, secured to the refrigerator and upon which the said lip rests, substantially as set forth.

No. 46,906. Process of Producing Illuminating Gas.
(*Procédé pour la production du gaz d'éclairage.*)



William Young, Priorsford, County of Peebles, Scotland, 1st September, 1894; 6 years.

Claim.—The process of producing illuminating gas by the decomposition of tar and liquid hydrocarbons, in ordinary coal gas plant, said process consisting in first running the crude tar into the retorts whilst the latter are heated to a high temperature suitable for effecting the decomposition of the tar, and whereby the retorts are rendered impermeable to more liquid oils, then running in the lighter oil into the retorts when their temperature has been thus reduced to a point at which such lighter oils are readily decomposed, the tar and oil being led into the retorts against the current of the outflowing gas and vapour, substantially as described.

No. 46,907. Food Product. (*Produit alimentaire.*)

John J. Angus, Green Bush, Wisconsin, U.S.A., 1st September, 1894; 6 years.

Claim.—The hereinbefore described improved food product, consisting of cheese in its ripened or mellow state, having incorporated therewith evaporated whey, in the proportions substantially as set forth.

No. 46,908. Process of Waterproofing Leather.

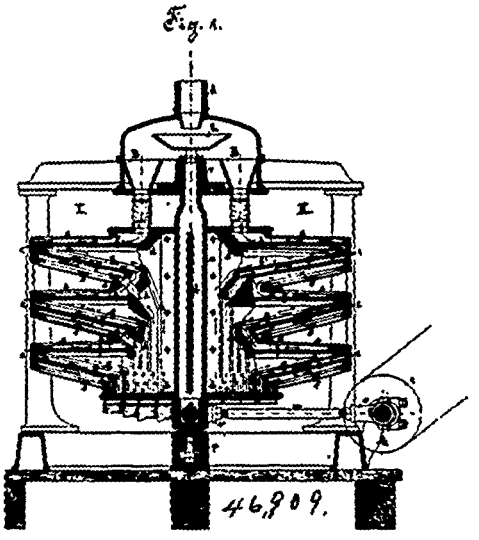
(*Procédé pour rendre le cuir imperméable à l'eau.*)

Edward H. Lewis, St. Louis, Missouri, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. The herein described process of rendering leather pliable and waterproof, which consists in subjecting the same to a hot bath composed of molten wax and a penetrating volatile solvent vehicle, then removing the same and permitting the vehicle to volatilize and leave a deposit of wax in the undisturbed pores of the leather, substantially as described. 2nd. The herein described process of treating leather to render the same pliable and waterproof, which consists in immersing the leather in a bath composed of wax and a volatile solvent heated to about 150 to 170 degrees Fahrenheit, leaving the leather in the bath until completely saturated, and finally removing the same, when the solvent vehicle volatilizes, leaving a deposit of wax in the undisturbed pores of the leather, which deposit completely fills the same, substantially as described. 3rd. The process herein described, of rendering shoe-soles pliable and waterproof, which consists in subjecting the same to a hot bath composed of molten wax, a solvent volatile vehicle and turpentine, substantially as described. 4th. A shoe sole, which has been treated with waterproofing material, the pores and fibres of which sole are undisturbed and unmutilated after treatment, and which remain in such condition until used.

No. 46,909. Sifting Machine. (*Tamis.*)

Fig. 1.

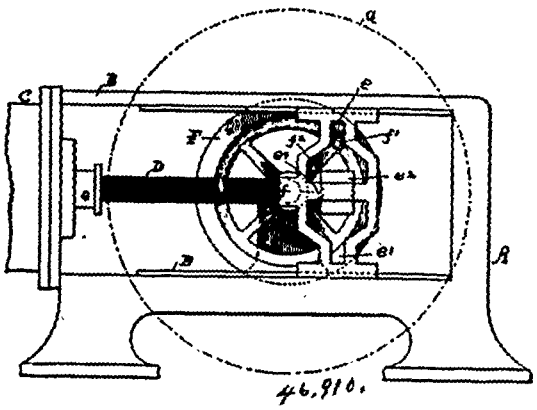


Alexius Müller, Jakob Soler, and Fridrich Gutjahr, all of Budapest, Hungaria, 1st September, 1894; 6 years.

Claim.—1st. In machines for sifting or bolting sieves, and means for imparting to them a reciprocating rotary motion such that every point of the sieves is caused to describe an arc of a circle, so as to cause the material under treatment to travel in a sinuous or zigzag manner over the said sieves, constructed and arranged, substantially as hereinbefore described. 2nd. In flat sifting or bolting apparatus, the combination of annular sieves and means for vibrating them in a horizontal plane about a vertical axis, the said sieves being placed in an inclined position relatively to the axis with intermediate collecting partitions for the finer parts passing through each sieve connected with discharge tubes or shoots i, arranged about the axis in the interior of the sieves, so that either the coarser or finer portions from each sieve are caused to travel through the machine in a zigzag path and undergo repeated sifting and separating, constructed and arranged, substantially as hereinbefore described. 3rd. An annular sieve divided into separate bolting chambers by means of partitions in order to sift different kinds of produce or materials simultaneously, constructed and arranged, substantially as hereinbefore described. 4th. In the annular sieves, an arrangement for holding or retaining the sieves by means of movable rods lying either under or over the sieves between the bars of the sieves and causing the sieves to shake when the bolting machine is moved, constructed and arranged, substantially as hereinbefore described. 5th. Cleaning or clearing the sieves, by means of slack chains arranged above the sieves, constructed and arranged, substantially as hereinbefore described. 6th. In the sieves, arranging the silk covering of the sieve loosely instead of straining it tightly as heretofore for the purpose of enabling cleaning or clearing materials to be dispensed with, constructed and arranged, substantially as hereinbefore described.

No. 46,910. Device for Changing Motion.

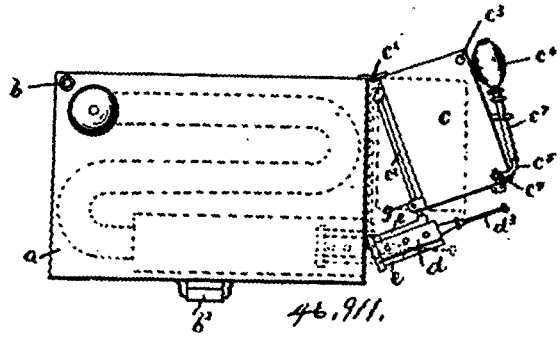
(*Appareil pour changer le mouvement.*)



Jonathan J. Hamilton, Neepawa, Manitoba, Canada, 1st September, 1894; 6 years.

Claim.—1st. The herein described device for changing motion, consisting of a reciprocating block or cross-head having slots and grooves therein engaging a crank in such a manner as to rotate same less than one-half a revolution at each movement of said cross-head, or if the power be rotary, causing the said cross-head to reciprocate less than the diameter of the circle described by the outer projection on the crank-wheel, substantially as and for the purpose set forth. 2nd. The combination with the cross-head and means for reciprocating said cross-head, of a crank having two projections arranged in the same radial line, the said projections adapted to engage the cross-head, substantially as described. 3rd. The combination with the cylinder, power-rod and cross-head arranged on the power-arm, of a crank having two projections arranged in the same radial line, the said projections adapted to engage grooves and slots in the cross-head, substantially as described. 4th. The combination with the crank, having two studs arranged thereon, of a reciprocating cross-head provided with a slot in the upper and lower portion thereof, in which one of the studs is adapted to work, a block arranged in the central portion of the cross-head, forming a groove on each side thereof for the passage of the other stud and means for moving the cross-head, substantially as described. 5th. The combination with the cylinder and power-arm, of a cross-head arranged thereon, the said cross-head having a slot in the upper and lower portion thereof, a block centrally located on the cross-head forming a groove in the opposite sides, a crank-wheel having two studs or pins arranged in the same radial line, one of said studs engaging the slots of said cross-head, while the other studs engages the grooves formed by the block, substantially as described. 6th. The combination with the crank-wheel and studs arranged thereon, of an adjustable cross-head having an adjustable block centrally located thereon, the said cross-head engaging the studs of the cross-wheel, substantially as and for the purpose set forth.

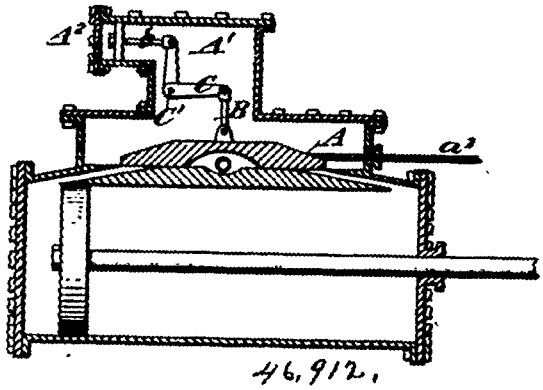
No. 46,911. Foot Warmer. (*Chaufferette.*)



Fred Lied and Thomas E. French, both of the City of Columbus, Ohio, U.S.A.. September 1st, 1894; 6 years.

Claim.—In a foot warmer, the combination with the water reservoir and heat conducting pipes passing therethrough, of an oil reservoir hinged to said water reservoir as described, and an oil burner supported from and fed from said oil reservoir, said burner adapted to be projected into the mouth of the heat conducting pipe of the water reservoir by swinging said oil reservoir inward, substantially as and for the purpose set forth.

No. 46,912. Balanced Slide Valve. (*Tiroir à bascule.*)



Edwin Lloyd, Blue Island, Illinois, U.S.A., 1st September, 1894; 6 years.

Claim. 1st. The combination, with a steam engine slide valve and its enclosing steam chest, of a supplementary connecting steam chest having a balancing piston, the balancing piston rod and a link pivoted midway to the back of the slide valve, being respectively connected by a bell crank journalled within the supplementary steam chest. 2nd. The combination, with a steam engine slide valve provided with a link pivoted midway to the back of the same, and with a balancing piston provided with a plunger, of an intermediate connecting device constructed and arranged to pull against both the slide valve and balancing piston in lines approximately at right angles to their longitudinal axes. 3rd. The combination, with a steam engine slide valve and with a balancing piston, both subjected to steam pressure, of an intermediate connecting device whereby the pressure of the steam against the back of the slide valve is equalized at all times by the pull of the connecting device from the back of said slide valve. 4th. The combination, with the slide valve A, and link B, and with the balancing piston *a*, and rod *b*, of the intermediate bell crank C.

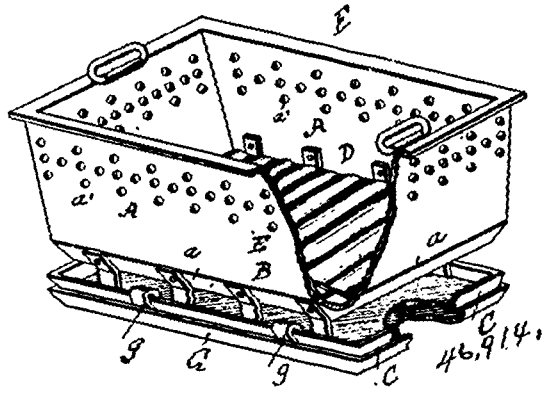
No. 46,913. Manufacture of Fuel.

(*Fabrication de combustible.*)

William Baker Hartridge, Sainfoin Road, Balham, County Surrey, England, 1st September, 1894; 6 years.

Claim.—A fuel block consisting of a combustible porous casing or shell enclosing coal, substantially as described.

No. 46,914. Refrigerator. (*Réfrigérateur.*)

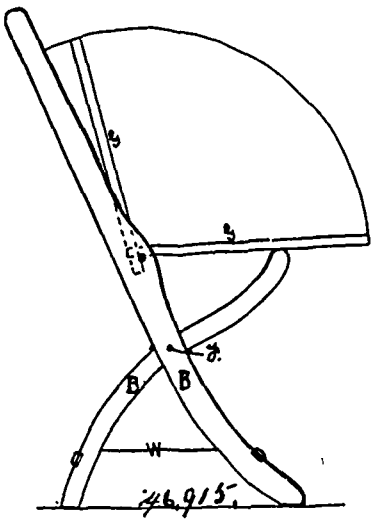


James Theodore Gurney, Boston, Massachusetts, and Chauncey J. Medberry, Font du Lac, Wisconsin, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. The combination with the removable ice tank having an open bottom for the exposure of the ice, of the main drip pan C, formed separate from and situated below the ice tank and extending out to the side walls thereof, whereby it collects the water of condensation, and having a bottom which is continuous except at the water escape over the waste pipe, and a second drip pan G, below the pan C, extended to the outer edges thereof, and having the detachable hangers *g*, *g*, which engage with the edges of the pan C, whereby both pans can be lifted together from the refrigerator, but are separable from each other to permit cleansing, substantially as set forth. 2nd. The combination of the removable ice tank formed of sheet metal having outwardly turned flanges at the upper edges from which the ice tank and connected parts depend, and having

inwardly turned flanges *a*, *a*, at the lower edges arranged to expose substantially the entire bottom of the tank, the cross-bars D secured to the inner sides of the tank, the ice rack supported on said bars, the waste pipe H, the main drip pan C, having a substantially continuous bottom and extending to the vertical lines of the walls of the ice tank to catch the condensed water therefrom and situated below the bottom of the ice tank, and the lower supplemental pan G, having a substantially continuous bottom and co-extensive with the pan C, substantially as set forth. 3rd. The combination in a refrigerator, of the ice rack, the four enclosing walls extending above and below said rack, means for supporting said walls from the refrigerator walls, a drip pan for collecting the water of melting, extending out beyond the ice rack on all sides horizontally, and having a single water escape, and a supplemental inclined pan for the water of condensation of the first said pan co-extensive horizontally with the first said drip pan, and detachably suspended below said pan and having a discharge aperture substantially under the discharge aperture of the first said pan for the water of melting whereby the water of melting is discharged without collecting in the said supplemental drip pan, and a waste pipe for receiving the water of melting and the water of condensation, substantially as set forth. 4th. In a refrigerator, the combination with the refrigerator walls enclosing a provision chamber, and a discharge pipe, of an ice tank supported within the walls above the provision chamber, cross-bars mounted in said tank, a corrugated plate therein which receives the immediate water of melting from the ice, a pan C, supported below the corrugated plate and coextensive with the same for receiving the water of condensation therefrom, and a supplemental pan G, detachably supported below the last said pan, for receiving the water of condensation from the last said pan C, the last said pans C and G being inclined and each having a discharge aperture substantially above the discharge pipe, as set forth. 5th. In a refrigerator, the combination with the refrigerator walls, of the ice tank A supported thereon, said tank having converging walls on three or more sides and an escape pipe for the water of melting, of an ice rack or rest in said tank, an inclined pan or plate below said ice rest and adapted to receive and conduct the water of melting to a point of discharge at or near the discharge pipe, and a supplemental inclined pan below that aforesaid and coextensive therewith for receiving water of condensation from the first said pan or plate and having a single discharge outlet in the vertical lines of the discharge pipes, substantially as set forth. 6th. In a refrigerator, the combination with the four enclosing walls, the waste pipe, the brackets F^1 secured to the said walls, and the ice tank having four walls, the laterally extending flanges F, F resting on said brackets, and the inwardly extending lips *a*, of the cross braces D, D secured in said tank, the corrugated plate E loosely resting on said cross-bars D, the enclosing pan C for the water of melting, the hangers B by which is secured to the tank A, the supplemental tank G for the water of condensation from the said pan C, detachably supported from the said pan C by means of the hooked hangers *g*, said pans C and G each having a continuous bottom with a discharge aperture in line with the escape pipe, substantially as set forth. 7th. In a refrigerator, the combination with the refrigerator walls, of the ice tank supported thereon and provided with an ice support, a drip pan supported below the tank and adapted to receive the water of melting, and a supplemental pan supported beneath said drip pan for receiving the water of condensation therefrom.

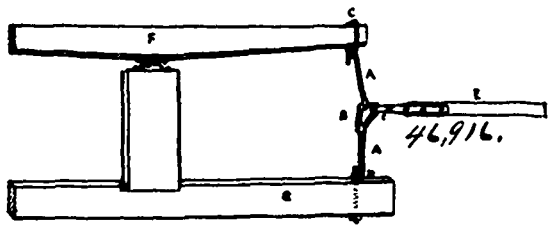
No. 46,915. Folding Chair. (*Chaise pliante.*)



John Dobery Pennington, Dundas, Ontario, Canada, 1st September, 1894; 6 years.

Claim.—1st. The combination of hinge A, or link *b*, and frame B, as and for the purposes hereinbefore set forth. 2nd. The combination of steel tie rod F, and the frame B, and seat G, as and for the purposes hereinbefore set forth. 3rd. The combination of the frame B, B and webbing, as and for the purposes hereinbefore set forth.

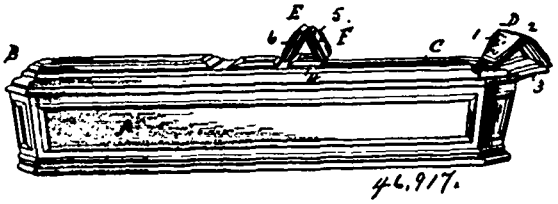
No. 46,916. Apparatus for Operating Pumps in Deep Wells. (*Appareil pour le fonctionnement des pompes dans les puits.*)



Frederick Charles Blackwell, Enniskillen, Ontario, Canada, 1st September, 1894; 6 years.

Claim.—1st. The combination of the rods A, A, the triangular coupler B, and eye-bolt D, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the rods A, A, the triangular coupler B, with the walking beam F, the sill G, and jerker line E, substantially as and for the purpose herinbefore set forth.

No. 46,917. Burial Casket. (*Cercueil.*)

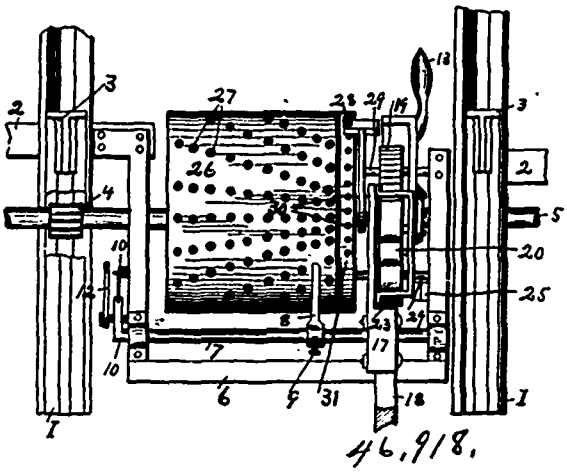


William Allen Roe, Manchester, Iowa, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. The combination of a burial casket A, provided in its upper surface with the opening C, a lid D, composed of flexibly connected panels 1, 2, and 3, and hinged to the upper edge of said opening C, the lid E, consisting of mutually flexibly connected panels 4, 5, and 6, and suitably hinged to the lower edge of said opening C, the said lids D, and E, being adapted to fold more or less toward each other, and to close completely, or in any desired degree, the said opening C, substantially as shown and for the purpose described. 2nd. In a burial casket, the folding lids D, and E, constructed respectively, of mutually pivoted panels, and adapted to be hinged transversely to the upper portion of said casket, and form ornamental projections thereon when said casket is opened, substantially as shown and for the purpose specified.

No. 46,918. Automatic Receding Saw Mill Set-Works.

(*Déclic de chariot de scierie à rétrogade automatique.*)

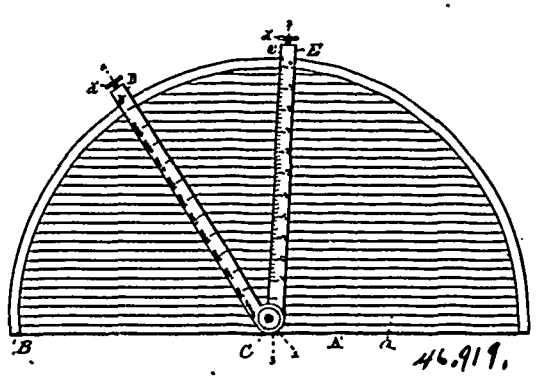


Algernon S. Pettierew, St. Louis, Missouri, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. The combination, with knee-blocks, of a shaft carrying pinions engaging therewith, a drum having a perforated peri-

phery loosely mounted upon said shaft, a stationary head adjacent said drum, a stud carried by said head, a pinion operating upon said stud, and a pinion keyed upon a shaft with which the pinion upon the stud meshes in order to revolve the drum. 2nd. In a device of the class described, a drum having a stationary head, a stud carried by said head, a pinion operating upon said stud and adapted to mesh with the internal gear of the drum, and a pinion keyed upon said shaft. 3rd. In a device of the class described, an arm provided with a head, a spring-actuated pin passing through said head, and a screw-bolt passing through said head, thus forming means for operating different thicknesses of lumber. 4th. In a device of the class described, a segmental lever carrying a plurality of series of pawls, said pawls engaging with the teeth of the ratchet-wheel. 5th. In a device of the class described, a segmental pawl-trip provided with an outwardly projecting flange and handle, said outwardly projecting flange adapted to engage upon the rear ends of the stationary and moving pawls, thereby disengaging the points of the pawls from the ratchet-wheel and allowing the drum to reverse its motion. 6th. The combination, with knee-blocks, of a shaft, a drum loosely mounted upon said shaft and having a perforated periphery and internal cog-teeth, a pinion upon said shaft opposite said teeth, a pinion mounted upon the stationary head and meshing with the pinion and internal gear of the drum, a spring actuated pawl adapted to engage the perforations of the drum, means for disengaging the pawl from the perforations, an arm provided with a rectangular head, a spring actuated pin passing through said head and engaging in the perforations of the stationary head, a screw-bolt passing through the head to form a stop, and a segmental lever carrying a plurality of series of pawls engaging with a ratchet-wheel, said ratchet-wheel being rigidly mounted upon said shaft. 7th. In a device of the class described, the combination of the automatic setting mechanism comprising a perforated drum, a shaft carrying a pawl and spring actuated arms, and the stationary head peripherally perforated, together with the arm provided with the integral head in which is mounted a spring actuated pin and screw threaded adjustable stop-bolt. 8th. The combination, with knee-blocks, of a shaft carrying pinions engaging therewith, a drum having a perforated periphery loosely mounted upon the said shaft, but revolved thereby, a dog adapted to engage the perforations in the said drum, means for rotating the said shaft, and a spring contained within the drum and around the shaft for rotating the latter in the opposite direction, substantially as described. 9th. The combination, with knee-blocks, of a shaft carrying pinions engaging therewith, a headed drum loosely mounted upon the said shaft, and having a perforated periphery and internal cog teeth, a spring adapted to rotate the said cylinder in one direction, a pinion upon the said shaft opposite the said teeth, and a pinion mounted upon the head of the drum and gearing with the said teeth and with the opposite pinion upon the shaft, and a spring actuated dog adapted to engage in the perforations in the said drum, substantially as described. 10th. The combination, with knee-blocks, of a shaft carrying pinions engaging therewith, a headed drum loosely mounted upon the shaft and having a perforated periphery and internal cog-teeth, a pinion upon the said shaft opposite the said teeth, a pinion mounted upon the head of the drum and gearing with the said teeth and with the opposite pinion upon the shaft, a spring actuated dog adapted to engage in the perforations in the said drum, means for rotating the shaft, and a spring contained within the drum and around the shaft for rotating the latter in the opposite direction, substantially as described.

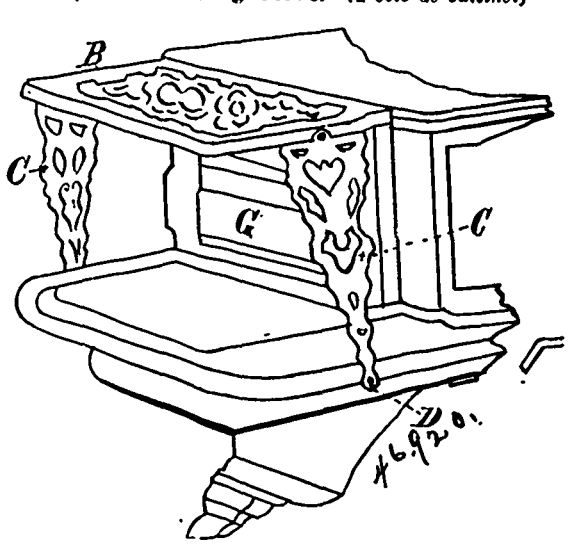
No. 46,919. Device for Determining the Location of a Distant Object. (*Appareil pour déterminer la position d'un objet éloigné.*)



William C. Rafferty, Governor's Island, New York, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. A device for determining the location of a distant point, comprising a base having a scale or graduation and pivotally mounted arms operating upon said base, substantially as set forth. 2nd. A device for determining the location of a distant point, comprising a base having a scale or graduation, the surface of said base being provided with parallel grooves or lines pivotally mounted arms operating upon said base and means for limiting the movement of said arms relatively to each other, substantially as set forth. 3rd. A device for determining the location of a distant point, comprising a base having a graduated rim, arms pivotally mounted upon said board and having scales or graduations, and a spacing piece adapted to be placed between said arms, substantially as set forth. 4th. A device for determining the location of a distant object, comprising a semi-circular board having a diagonal graduation near its periphery, pivotally mounted arms having graduations or scales and vernners for use in connection with said diagonal graduation upon the board, and a spacing piece, substantially as set forth. 5th. A device for determining the location of a distant point, comprising a board, two arms mounted upon a pivot secured thereto, and a spacing piece having sharp edges and adapted to be placed between said arms, substantially as set forth. 6th. A base for use in connection with a device for determining the location of a distant object, said base being provided with parallel divisions and having a scale or graduation indicating the degrees of a circle, substantially as set forth. 7th. A base for use in connection with a device for determining the location of a distant object, said base having a diagonal scale or graduation numbered on both sides and indicating the degrees of a circle, substantially as set forth. 8th. A base for use in connection with a device for determining the location of a distant object, said base having a diagonal scale or graduation indicating the degrees of a circle, and an arm operating in conjunction with said board, and having a vernier indicating the parts of a degree upon said scale or graduation, substantially as set forth. 9th. A device for determining the location of a distant object, comprising a base, two arms mounted upon a common centre on said base, one of said arms having a graduation indicating, on reduced scale, the distance of an object from a third point, and the other arm having a graduation indicating, also on reduced scale, the distance of the object from the device, and a spacing piece for limiting the movement of the said arms toward each other, substantially as set forth. 10th. A device for determining the location of a distant object, comprising a base, two arms mounted upon a common centre, a spacing piece for limiting the movement of said arms toward each other and a guide for said spacing piece, substantially as set forth. 11th. A device for determining the location of a distant object, comprising a base, two arms pivotally mounted upon a common centre, means for clamping said arms in any position upon said base, a spacing piece and means for guiding the same, substantially as set forth. 12th. A device for determining the location of a distant object, comprising a base, two arms mounted thereon, one of which is provided with a curved edge, and a spacing piece for limiting the movement of said arms toward each other, substantially as set forth. 13th. A device for determining the location of a distant object, comprising a base, two arms mounted thereon, one of which is made in two parts, one of said parts having a curved outer edge, substantially as set forth. 14th. A device for determining the location of a distant object, comprising two arms mounted upon a common pivot and representing two of the sides of a triangle, the apex of which is the object, one of said arms having a scale or graduation indicating the distance of the object relatively to a third point and the other having a scale or graduation indicating the distance from the object to the device, and a spacing piece representing the base of the triangle and determining the movement of the latter arm toward the former, substantially as set forth.

No. 46,920. Cooking Stove. (*Poêle de cuisine.*)



William Joseph Copp, Hamilton, Ontario, Canada, 1st September, 1894; 6 years.

Claim. 1st. The combination of the levers M, with the brackets C, for holding the shelf B, against the top plate A of the stove,

substantially as described. 2nd. The combination in a stove fire la of the shaking grate E, operated by the handle L, on the arm K, in connection with the guards I, I, on the grate F, between the checks H, H, on the front grate G, the space of side to side motion between the guards I, and the checks H being equal to the space of movement on the arm K, between the handles L, and the wall of stove T, as described. 3rd. The combination in a stove front of the falling fire front grate G, having its lower ends J, on the open bearings X, X, on the reveal U, and its upper corner joints Z, held when in a vertical position between the inner checks V, and the outer checks W, (both on the reveal U,) in connection with the central lifting device at Y, for placing the grate G, in either a vertical or horizontal position, as set forth.

No. 46,921. Process of Crystallizing Liquors.

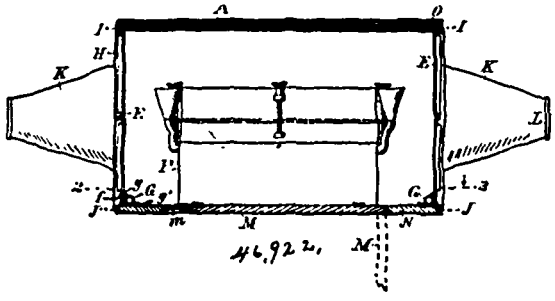
(*Procédé pour cristalliser les liqueurs.*)

Phillippe Condamin, Marvejols, France, 1st September, 1894; 6 years.

Claim.—A process for crystallizing liquors by means of alcohol, perfumed or not, and syrup formed from loaf sugar, throughly stirred together, filtered, bottled and set aside for crystallization.

No. 46,922. Portable Dark Room.

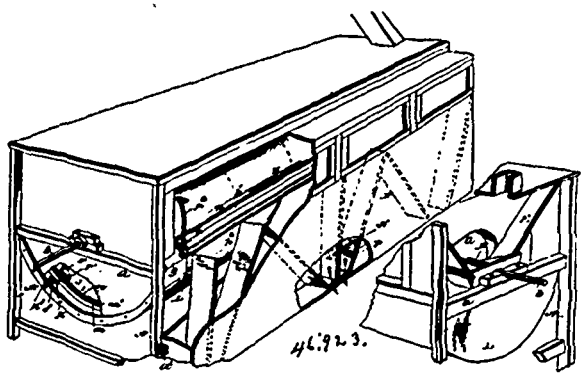
(*Chambre-noire portative.*)



Arthur D. F. Randolph, New York, State of New York, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. A folding portable dark room for photographers, consisting of a top and bottom frame, flexible sides connected at their top and bottom edges with the said top and bottom frames, corner supports connected midway of their ends by a rule joint and hinged at the ends, respectively, to the said top and bottom frames and arranged to stiffen the said flexible sides at the angles when the structure is in use, said supports having depressions *f* near one of the hinged ends, and coil springs having arms *g* seated in the said depressions and having arm g^1 secured to the contiguous frame, substantially as set forth. 2nd. The folding portable dark room for photographs herein set forth, consisting of a bottom having a downwardly opening door and grooved in the edge, a top frame having grooves in its inner edges, a frame I secured to the said top frame, flexible sides having the top edge clamped between the top frame and the frame I, and having the lower edge held in the said grooved edge of the bottom by a clamp wire, and having flexible cuffs on the opposite sides provided with contractable wrist bands, folding corner supports connected midway of their ends by rule joints and hinged at their ends, respectively, to the top and the bottom and adapted to stiffen the flexible sides when the structure is in use, and springs to hold the corner supports distended, substantially as described.

No. 46,923. Flour Bolting Reel. (*Bluteau.*)



Samuel D. Barr, Minerva, Ohio, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. The combination of a reel, having located thereunder a concave, a sweeping blade fixed to and revolving with said reel, the bars C and D, provided with inclined faces and the adjustable plates *c*, and a brush, all arranged substantially as and for the purpose set forth. 2nd. The combination of a reel having located below said reel a concave, a sweeping blade attached to and rotating with the reel, the V-shaped bars O, the brush h^1, carrying the brush *h*, the arms h^3, provided with the lugs k^1, the springs k^2, and the bar K, substantially as and for the purpose specified. 3rd. The combination of a reel, having located to one side thereof a brush head provided with a brush, and arms carrying said brush heads and springs, substantially as and for the purpose specified.

No. 46,924. Manufacture of Floor Cloths.

(*Toile de plancher.*)

Anton Hagele, Philadelphia, Pennsylvania, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. As a new article of manufacture, a floor cloth provided with a backing material such as burlap, canvas or the like, having a composition applied thereto composed of dried and ground leaves and a binder, substantially as and for the purposes set forth. 2nd. As a new article of manufacture, a floor cloth having a composition applied thereto consisting of dried and ground deciduous leaves and a binder, substantially as and for the purpose set forth. 3rd. As a new article of manufacture, a floor cloth having a composition applied thereto, consisting of dried and ground leaves and a binder such as an oil, rosin and gum, substantially as and for the purposes set forth. 4th. As an article of manufacture, a floor cloth having a composition applied thereto consisting of dried and ground deciduous leaves, an oil, rosin and gum arabic, substantially as and for the purposes set forth.

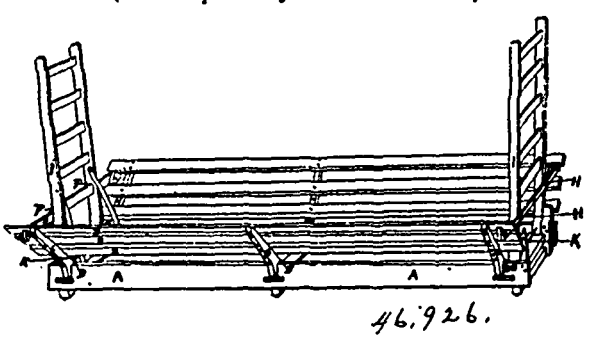
No. 46,925. Maple Syrup. (*Sirop d'érable.*)

Ira Allen Shanton, Carson City, Michigan, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. The herein described method of producing maple syrup or sugar, which consists in finely dividing green maple wood and boiling the same, together with water and with oily matter, substantially as set forth. 2nd. The method of producing maple syrup, which consists in boiling together green maple wood, oleaginous matter, and alkaline matter in substantially the proportions stated, whereby the flavouring and colouring principles are liberated from the wood and the tanning is precipitated or absorbed. 3rd. The method of producing maple syrup, which consists in boiling comminuted green maple sugar wood, together with water and maize in substantially the proportions stated, whereby the oil of the maize is caused to aid in extracting the flavouring principle from the wood, the starch of the maize precipitates the tannin, the glucose of the maize aids in sweetening the liquor, and the alcoholic principle of the maize render it less liable to fermentation.

No. 46,926. Hay and Stock Rack.

(*Râtelier pour le foin et les bestiaux.*)



William Daniels and Ernest Clarence Daniels, both of Orangeville, Ontario, Canada, 1st September, 1894; 6 years.

Claim.—1st. The combination of arms *c*, *c*, *c*, right angles cut in at base of same, hinged collapsably to sills A, A, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the trusses E, E, right angles cut in near ends of same and clamps F, F, H, H, on ladders I, I, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of rods O, O, passing through vertical pieces of ladders I, I, and side sections, substantially as and for the purpose hereinbefore set forth. 4th. The combination of rods K, K, passing through the vertical pieces of ladders I, I, and sills A, A, substantially as and for the purpose hereinbefore set forth.

No. 46,927. Insect Powder Duster.

(*Machine à distribuer la poudre à insecte.*)

Herbert Clarence Adams, Mexico, New York, U.S.A., 1st September, 1894; 6 years.

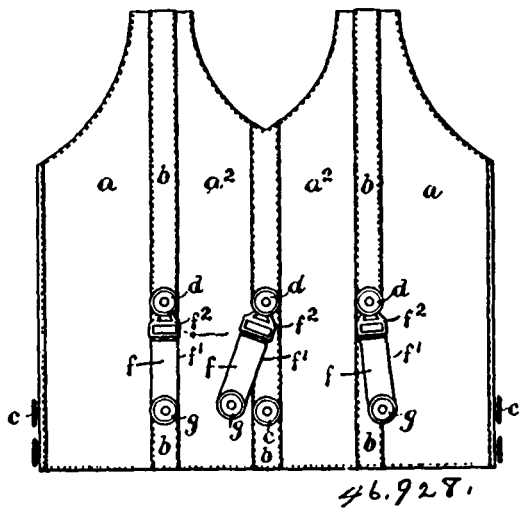
Claim.—1st. An insect powder duster, comprising a bellows

having a mouth-piece extending into the bellows and its outer end enlarged. 2nd. An insect powder duster, comprising a pair of

Fig. 1. 46,927.

bellows, a mouth-piece having its inner end perforated and its outer end enlarged, as set forth. 3rd. An insect powder duster, comprising a bellows, a mouth-piece having its inner end perforated, its outer end enlarged and an agitator located within the bellows, substantially as described for the purpose, as set forth.

No. 46,928. Waist. (*Ceinture.*)



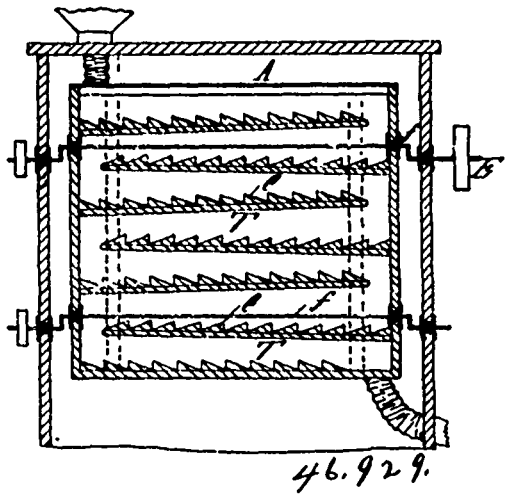
Sarah C. Benham, Columbus, Ohio, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. A waist having removable elastic supporting straps or tabs loosely fastened at their upper ends to the middle of the back portion of the waist above the lower under garment supports and provided with means at their lower ends for connecting the pantaloons thereto, substantially as described. 2nd. A waist having an upper series of buttons located across the middle of the back portion of the waist above the lower undergarment supports, and the removable elastic supporting straps or tabs loosely fastened to the upper series of buttons at their upper ends, and provided with means at their lower ends for connecting the pantaloons thereto, substantially as described. 3rd. A waist having a lower series of under garment supports extending around it, an upper series of buttons extending across the middle of the back portion of the waist, above the lower under garment supports, and the removable elastic supporting straps or tabs loosely fastened to the upper series of buttons at their upper ends and provided with means at their lower ends for connecting the pantaloons thereto, substantially as described. 4th. A waist having at desired intervals at the back portion thereof reinforcing strips or stays, an upper series of fastenings connected to the strips or stays across the middle of the back portion above the lower under garment supports, and the removable elastic supporting straps or tabs loosely fastened at their upper ends to the upper series of fastenings and provided with means at their lower ends for connecting the pantaloons thereto, substantially as described. 5th. A waist having shoulder strips extending lengthways of the body of the waist at the front and at the back, and a strip located intermediate of or between the shoulder strips at the back portion of the body, and the removable elastic supporting straps or tabs loosely fastened at their upper ends to the strips at the middle back portion, and provided with means at their lower ends for connecting the pantaloons thereto, substantially as described. 6th. A waist having shoulder strips extending lengthways of the body at the front and at the back, the intermediate strip at the back of the body, lower series of buttons secured around the waist to the strips, the upper series of buttons secured at the middle of the back portion of the waist to the strips, and the removable elastic supporting straps or tabs loosely fastened at their upper ends to the upper series of buttons, and having their lower ends located in the vicinity of the lower series of buttons and provided with means at their ends for connecting the pantaloons thereto, substantially as described.

No. 46,929. Sifting Apparatus. (*Crible.*)

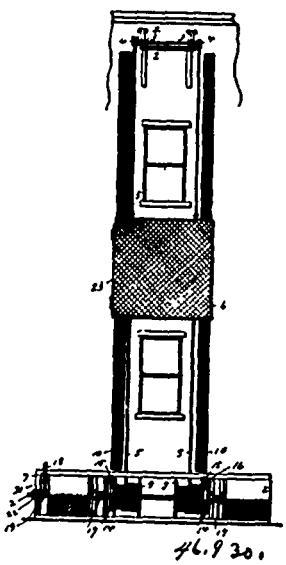
Otto Fuchs, Buttstaed, Germany, 1st September, 1894; 6 years.

Claim.—A sifting apparatus in which a closed gauze covered sifting device is caused to oscillate circularly in a vertical plane (without rotation about its axis) within a tightly fitting hermetically closed casing in such a manner that the sifting or separation



of the material to be sifted is effected by centrifugal action according to specific gravity, and the sifting device is at the same time subjected to powerful one sided puffs or impacts of air produced by the oscillation of the sifting device inside the closely fitting casing of the sifting apparatus, which cause the heavier particles to be forced through the gauze, substantially as and for the purpose hereinbefore set forth.

No. 46,930. Fire Escape. (*Sauveteur d'incendie.*)



James L. Gregory, Washoe City, Nevada, U.S.A., 1st September, 1894; 6 years.

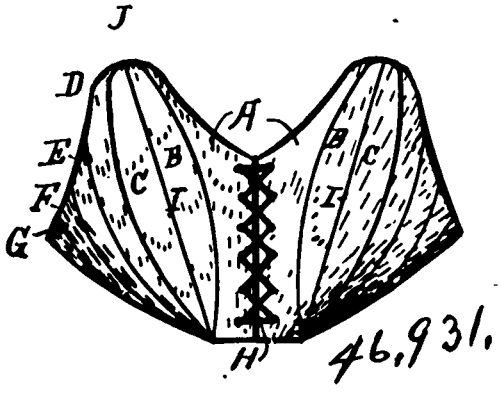
Claim.—A fire escape consisting of a cage, one or more cables secured to said cage and passing over suitable pullery or rollers, a stay for the outer cable, a signal mechanism operated by the movement of the several parts, means for stopping the cage from the ground, drums mounted on a section or shaft, and having bearings in a framework secured to the building at the base thereof, and upon which, said cable is adapted to be wound, spiral springs encircling said shaft and means for controlling the winding and release of said springs, substantially as described.

No. 46,931. Bust Form. (*Forme de buste.*)

Hannah E. Matthews and Adaline M. Mathews, both of Grand Rapids, Michigan, U.S.A., 1st September, 1894; 6 years.

Claim.—A bust form consisting of two connected concave-convex lobes each constructed of a long base gore, obtuse at the upper end, diverging thence upon convex lines to the longitudinal centre, thence converging in a like manner to a point at the lower end, a centre gore straight upon the inner line, broad at the lower end, thence diverging from the centre line upon a convex line to the

upper end of the base gore sufficiently to hold the centre line of the base gore at an angle of about 20 degrees from the perpendicular, and the several outer gores, each broad at the upper end to form



the line J, D, E, F, G, thence each converging by curved lines to a point at the lower end, each outer gore united to, and drawing slightly upon each successive inner gore to form the desired curvatures both longitudinally and laterally, substantially as and for the purpose set forth.

No. 46,932. Process of Treating Fabrics.

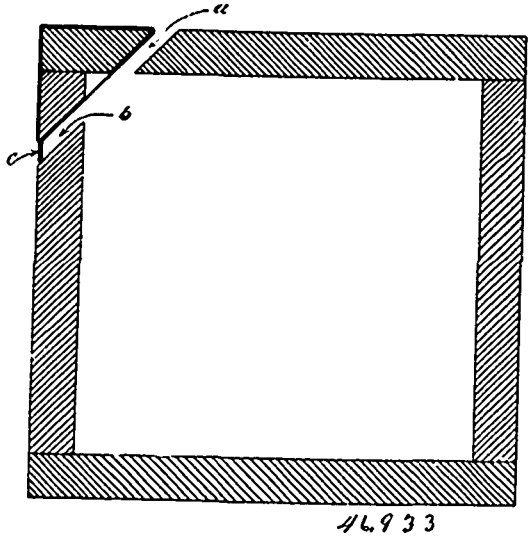
(*Procédé pour le traitement des tissus.*)

Frederick George Annison, 218 Burdett Road, Bow, County London, England, 1st September, 1894; 6 years.

Claim.—The process of treating fabrics by impregnating such fabrics with liquid hylonite or celluloid, substantially as described.

No. 46,933. Means of Sealing Boxes.

(*Manière de sceller les boîtes.*)



Joseph Adolphe Christin, Montréal, Québec, Canada, 1er Septembre 1894; 6 ans.

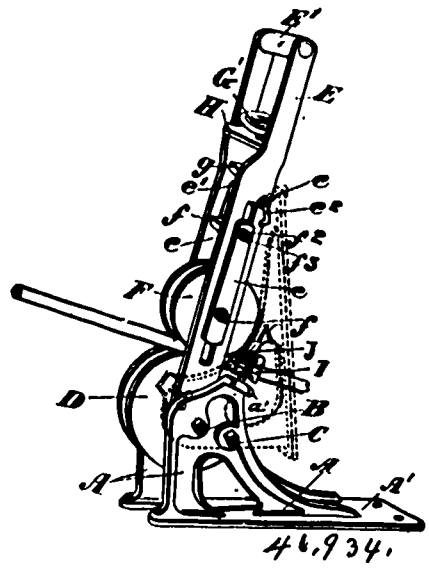
Résumé—Ce procédé ou manière de sceller les boîtes consistant à percer en ligne droite les trous *a*, dans le couvercle et *b*, dans le côté de la boîte et à passer dans ces trous *a* et *b*, un fil de fer, de laiton ou une corde quelconque que l'on scelle ensuite au plomb ou à la cire, le cachet de plomb ou de cire *c*, étant ensuite enfoncé dans l'un des trous *a* ou *b*, afin de ne pas occuper d'espace extérieur ni être exposé à être brisé, le tout tel que décrit et pour les fins indiquées.

No. 46,934. Pipe Bender.

(*Machine pour courber les tuyaux.*)

Thomas Seaton, sr., Toronto, Ontario, Canada, 1st September, 1894; 6 years.

Claim.—1st. In a pipe bender, the combination with the standards and stationary grooved wheel supported therein and means for holding one end of the pipe, of a swing-arm, pivoted on the central bolt supporting the stationary-wheel and provided with a grooved wheel adjustably held within the arm, as and for the purpose specified. 2nd. In a pipe bender, the combination with the standards and



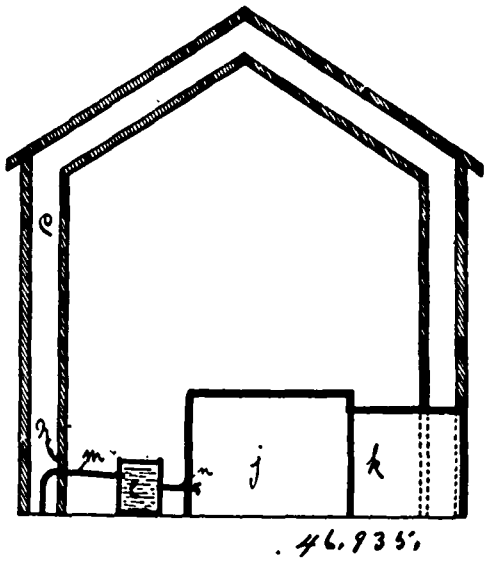
stationary grooved wheel supported therein and means for holding one end of the pipe, of a swing-arm E, E, pivoted on the central bolt supporting the stationary wheel and provided with a grooved wheel E, journalled on the bolt *f*, extending through the slots e^1, e^1, into the side-bars *e*, *e*, the cross-bar f^1, the ends of which also extend through the slots e^1, e^1, into the side-bars *e*, *e*, and the screw spindle G, screwed through the cross-bar *g*, secured in the cross-bar f^1, at the bottom, as and for the purpose specified. 3rd. In a pipe bender, the combination with the standard and stationary grooved-wheel supported therein and means for holding one end of the pipe, of a swing-arm E, E, pivoted on the central bolt supporting the stationary wheel and provided with a grooved wheel F, journalled on the bolt *f*, extending through the slots e^1, e^1, into the side-bars *e*, *e*, the cross-bar f^1, the ends of which also extend through the slots e^1, e^1, into the side-bars *e*, *e*, and the screw spindle G, screwed through the cross-bar *g*, secured in the cross-bar f^1, at the bottom and the guard H, and handle E^1, arranged as and for the purpose specified. 4th. In a pipe bender, the combination with the standards and stationary grooved wheel supported therein by the bolts B and C, which extend through the radial recess *d*, and means for holding one end of the pipe, of the swing-arm E, E, provided with adjustable held grooved wheel F, as and for the purpose specified. 5th. In a pipe bender, the combination with the standards A, A, and stationary grooved wheel supported therein by the bolts B and C, which extend through the radial recess *d*, the segmental recess d^1, made in the wheel D, and means for holding one end of the pipe, of the swing arm E, E, provided with adjustably held grooved wheel F, as and for the purpose specified. 6th. The combination with the standards and stationary grooved wheel supported therein, and the swing arm having the adjustable grooved wheel F, capable of rotation, of the holding blocks I, I^1, the block I^1, of which has recesses i^4, to fit upon the upwardly extending projections *a*, *a*, of the standard A, A, and provided with the central arc-shaped recesses *i*, i^1, for the reception of the pipe, and means for holdin such blocks together, so as to clamp the pipe during bending, as and for the purpose specified. 7th. The combination with the standards and stationary grooved wheel supported therein, and the swing arm having the adjustable grooved wheel F, capable of rotation of the holding block blocks I, I^1, having the notches i^2, and i^3, respectively, and the lower block I^1, having the recesses i^4, and the swing bolts J, designed to be brought to fit into the notches i^2, and i^3, and clamp the blocks together by means of the butterfly bolts K, as and for the purpose specified.

No. 46,935. Ice House. (*Glacière.*)

Mathias B. Eaton, Boston, Massachusetts, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. In a building for storing ice, a containing shell having expansible walls to accommodate the lateral expansion of the ice during the process of freezing, substantially as and for the purposes set forth. 2nd. In a building for storing ice, an expansible shell having walls adapted to yield laterally to accommodate the lateral expansion of the ice during the process of freezing, and angular plates loosely set in the corners formed by said walls, and adapted to be forced closely into said corners by the expansion of the ice, substantially as and for the purposes set forth. 3rd. In a building

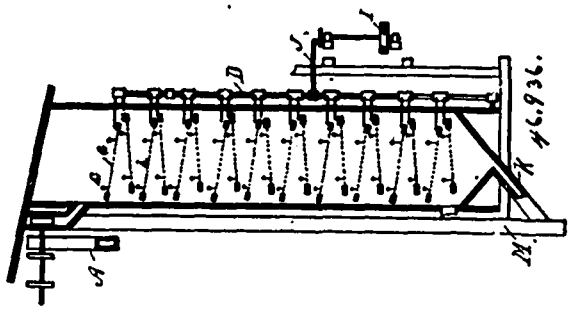
for storing ice, an exterior shell, a containing shell having expansible walls adapted to yield laterally to accommodate the lateral expan-



sion of the ice during the process of freezing, a space between said exterior and expansible shells, and storage compartments within said expansible shell, substantially as and for the purposes set forth.

No. 46,936. Salt Screening Apparatus.

(*Appareil pour tasser le sel.*)



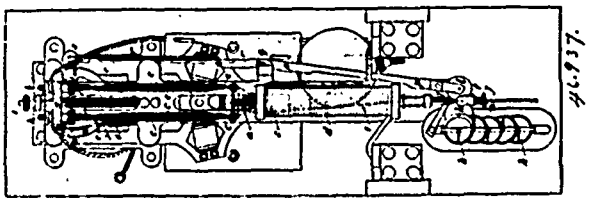
Thomas Craney, Bay City, Michigan, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. In a salt screening device, the combination of a series of adjacent towers, a series of vibrating screens in said towers, of increasing fineness from the first to the last, and elevators for conveying the salt from the bottom of one tower to the top of the adjoining one, substantially as described. 2nd. In a salt screening device, the combination of adjacent towers, a series of inclined screens therein, having overlapping ends, a vertical rock shaft between each pair of towers, cross-heads thereon, links connecting the screens with the ends of said cross-heads, a connection between the rock shafts, actuating means for vibrating the screens and elevators from the foot of one to the top of the adjoining one, substantially as described. 3rd. In a salt screening device, the combination of a series of towers, each containing a series of vibrating screens, each increasing in fineness in each successive tower, hoppers at the foot of the towers and elevators into which the spouts discharge, for carrying the salt from the foot of one tower to the top of the adjoining tower, substantially as described.

No. 46,937. Electric Meter. (*Electromètre.*)

William Thomson, Baron Kelvin of Largs, Glasgow, North Britain, 1st September, 1894; 5 years.

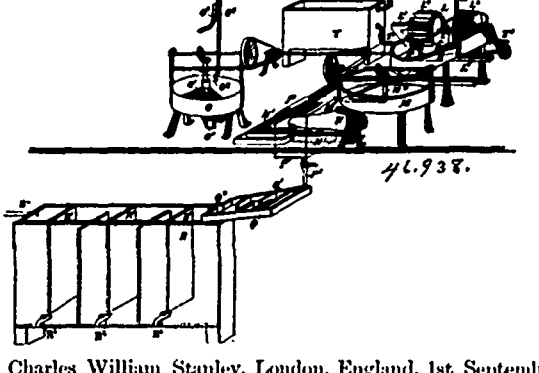
Claim.—1st. In an electric meter, the combination of the fixed solenoid carrying a scale, the movable magnet carrying an indicator and a yielding support for holding the magnet normally in elevation and in proper relation to be attracted by the solenoid, substantially as described. 2nd. In an electric meter, the combination of the fixed solenoid energized by the current to be measured, the movable magnet supported in proper relation to be attracted by the solenoid, and the yieding support for holding the movable magnet normally in elevation, consisting of a pair of oppositely wound spiral springs, substantially as set forth. 3rd. In an electric meter, the combination of the fixed solenoid energized by the current to be measured, the movable electro magnet supported in proper relation to be attracted by the solenoid, the yielding support for the movable magnet, forming conductors for its winding and suitable conductors for supplying cur-



rent to the movable electro-magnet, as and for the purpose set forth. 4th. In an electric meter, the combination of the fixed solenoid energized by the current to be measured, the movable electro-magnet supported in proper relation to be attracted by said solenoid, the spiral springs affording a yielding support for electro-magnet and conductors for its winding, and a suitable resistance for controlling the energizing of the movable magnet, substantially as and for the purpose set forth. 5th. In an electric meter, the combination with the fixed solenoid and yieldingly suspended movable magnet attracted by said solenoid, of suitable registering device for recording the movement of the movable magnet, for the purposes explained. 6th. In an electric meter, the combination with the fixed solenoid and the movable magnet yieldingly supported in a position to be attracted by said solenoid, of a recording or registering device having working connections with the movable magnet for recording the extent of its movement by the solenoid, substantially as explained. 7th. In an electric meter, the combination with the fixed solenoid and the movable magnet yieldingly supported in proper relation to be attracted by said solenoid, of the device for recording the extent of relative movement between the solenoid and magnet, and a suitable clock-work for periodically establishing working connection between the movable magnet and the recorder, substantially as described. 8th. The combination of a fixed solenoid, a movable magnet yieldingly supported in proper relation to be attracted by the fixed solenoid, a suitable recording device and a clock-work having a periodically reciprocating presser-foot, a longitudinally movable bar *j*, supported by the movable magnet in the path of the presser-foot and periodically returned to normal position by the same, and an arm controlled by the clock-work for forcing the bar *j* into actuating relation with the clock-work simultaneously with the movement of said bar by the presser-foot, substantially as and for the purpose explained. 9th. In an electric meter, the combination of the fixed and movable magnets, the longitudinal bar *j*, controlled in its position by the movable magnet, a recording device actuated by the longitudinal movement of the bar when forced into engagement therewith, and a clock-work having connections for periodically moving the bar and simultaneously forcing the same into engagement with the recording device, substantially as and for the purpose set forth. 10th. The use of two spiral springs, right-handed and left-handed for the purpose of preventing the suspended electro-magnet from turning under the influence of the forces concerned.

No. 46,938. Method of Treating Fish or Fish Offal.

(*Méthode de traiter le poisson ou rebuts de poisson.*)

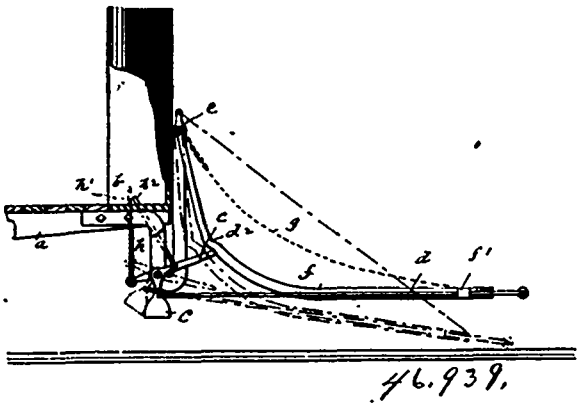


John Charles William Stanley, London, England, 1st September, 1894; 6 years.

Claim.—1st. The complete process for the treatment of fish or fish offal and the separation of its constituent parts consisting in cooking the fish in closed vessels in which the temperature is raised to a height sufficient to destroy germs or microbes and then separating the oil from the fibrous material of the fish by decanting the oil and then pressing such fibrous material and afterwards separating the fibre from the bones by the action of the water as described. 2nd. In the treatment of fish or fish offal, the separation of the fibre from the bones by the action of water, substantially as described. 3rd. In the treatment of fish or fish offal, precipitating the fibrous

material for the double purpose of recovering the fibre and purifying the effluent, substantially as described. 4th. In the treatment of fish or fish offal, the combination of a worm compressor E, a devil or disintegrator F, perforated drum H, straining tanks J, and chemical tank K, with their respective connections and appurtenances, substantially as described. 5th. In the treatment of fish or fish offal, the apparatus O, O^1, substantially as described. 6th. In the treatment of fish or fish offal, the combination of the washer L, feeding tray M, worn compresser N, drier O, O^1, chemical tank P, and precipitating tray and tank Q, R, with their respective connections and appurtenances, substantially as described. 7th. In the treatment of fish or fish offal, the combination with the oil tank D, D^1, D^2, of settling tanks S, and chemical tank K, and their respective connections and appurtenances, substantially as described.

No. 46,939. Car Fender. (*Défense de chars.*)

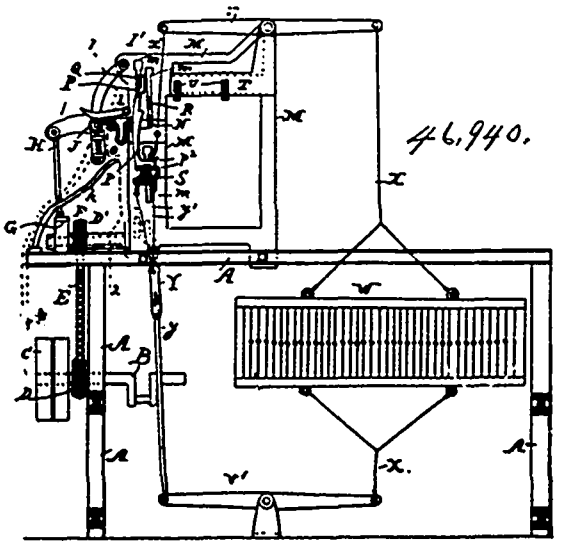


Stephen Smith Kemball, Montreal, Quebec, Canada, 1st September, 1894; 6 years.

Claim.—1st. A pivoted car fender with means for automatically lowering same for the purpose set forth. 2nd. In a car fender, the combination with suitable standards at the end of the car, of a guard pivoted at its inner end to said standards and movable supports by which said guard is normally elevated, with a trip or feeler connected with said supports and extending forward of said guard for the purpose set forth. 3rd. In a car fender, the combination with the sills or framework of a car, of standards secured at the ends thereof, a guard composed of a rectangular frame, with wire mesh filling, pivotally connected with said standards, a shaft extending between said standards, rocker arms or levers rigidly mounted on said shaft and adapted to support said guard, a trip rod or feeler extending forward of the guard and having inner ends connected with said rocker arms and means carried by said shaft, whereby the motorman can partially rotate same, for the purpose set forth.

No. 46,940. Heddle Actuating Mechanism for Looms.

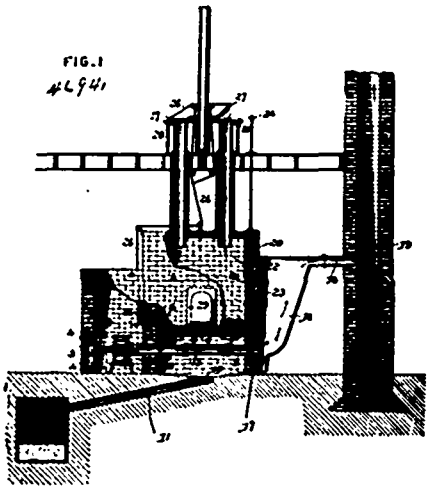
(*Mécanisme pour actionner les lisses de métiers.*)



Florentin Buyck, Philadelphia, Pennsylvania, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. In a machine for actuating loom heddles, vertical hooks P, having notches p and p^1, therein close to their upper ends and adapted to engage with the reciprocating bars Q and R, and also having orifices p^4, therein at their lower ends to which are attached suitable cords connecting said hooks P with the heddles, said hooks also being adapted to rest upon and be retained laterally by the reciprocating bar S, in combination with the partition bracket N, carrying spring fingers O, adapted to impigne against said hooks P, and actuated by intermittently rotating cards and card cylinder, bars Q, R and S, link S^1, heddles W, rotating cards J, and card cylinder K therefor, double crank F^1, rods Q^1, and R^1, and bracket T^1, all substantially as and for the purposes set forth. 2nd. In a machine for actuating loom heddles, vertical hooks P, having notches p and p^1, therein close to their upper ends and adapted to engage with reciprocating bars Q and R, and also having orifices p^2 therein at their lower ends to which are attached suitable cords connecting said hooks P with the heddles, said hooks also being adapted to rest upon and be retained laterally by the reciprocating bar S, in combination with a partition bracket N, carrying spring fingers O, adapted to impinge said hooks P, and actuated by intermittently rotating cards and card cylinder bars Q, R, and S, link S^1, heddles W, rotating cards J, and card cylinder K therefor, double crank F^1, rods Q^1, and R^1, and bracket T^1, having adjustable plates for the reception of the bars Q, R, and S, all substantially as and for the purposes set forth.

No. 46,941. Dry-Air Closet. (*Cabinet d'aisance à air sec.*)



George R. Scates and Elbert S. Rogers, both of Knoxville, Tennessee, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. In a dry-air closet, the combination of the kiln or cremating furnace arranged beneath the stools and provided with an arched perforated floor, a subjacent heating chamber provided with a drain communicating with a waste cistern for liquid excrement, a hot air room arranged at one side of the kiln and communicating therewith and with said heating chamber, a heating device arranged in said hot air room, a drum located adjacent to the opposite side of the kiln and communicating therewith and with the heating chamber, a smoke pipe connected to said heating device, extending horizontally through the heating chamber and communicating with said drum, and a smoke flue or stack with which the drum communicates, substantially as specified. 2nd. In a dry-air closet, the combination of the kiln having an arched floor, a subjacent heating chamber, a dry-air room communicating by openings 4, with the kiln and containing a heating device having a smoke pipe which extends horizontally through the heating chamber beneath the arched floor of the kiln, a drum with which said smoke stack communicates, and which in turn communicates with a smoke flue or stack, a flue being formed in the wall of the kiln, connected at its upper end with the drum and provided with side openings into the kiln, a slide valve arranged to close certain of the said openings to direct the draught through the kiln whereby it will pass close to the contained excrement, a valve arranged to close said openings 5, and lids or covers for the stools, connected to said valve, whereby when the covers are open the valve is closed to cause a downward draught through the stools, substantially as specified. 3rd. In a dry-air closet, the combination with a drying kiln communicating at one side with a flue or stack, and a furnace room adjacent to the kiln, of a valve arranged to close openings 5, whereby the furnace room communicates with the kiln, and lids or covers for the stools connected to said valve, whereby when the lids are closed the hot air from the furnace room passes through the kiln, and when said lids are open a downward draught through the stool openings is produced, substantially as and for the purpose specified.

No. 46,942. Purification and Manufacture of Sugar.

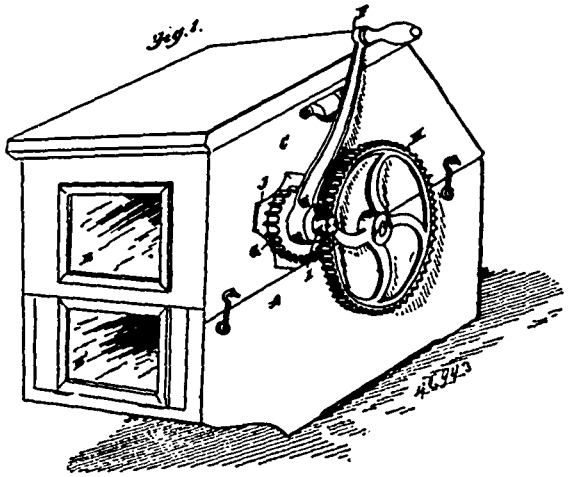
(*Purification et fabrication du sucre.*)

The Honourable George A. Drummond, Montreal, Quebec, Canada, assignee of Moriz Weinrich, St. Louis, Missouri, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. As a material for the filtration of sugar solutions or other solutions or liquids, the fibre, crude or charred of the described grasses whose stalks or stems have an internal narrow or pith, reduced to a meal. 2nd. As a material for the filtration of sugar solutions or other solutions or liquids, the comminuted stalks and cobs of indian corn, crude or charred.

No. 46,943. Ice Cream Freezer.

(*Appareil de congélation pour crèmes.*)



Henry O. Thies, Muskegon, and Nathan E. Serwood, Detroit, both in Michigan, U.S.A., 1st September, 1894; 6 years.

Claim.—The combination of a drum adapted to receive and contain a freezing mixture, a casing surrounding said drum and containing auxiliary freezing chambers, said drum being removable from said casing, a removing knife impinging upon the periphery of said drum, means for rotating said drum, and means for feeding and removing from the casing the ice cream, substantially as specified.

No. 46,944. Art of Producing Dyestuffs.

(*Art de produire des matières tinctoriales.*)

The Grasselli Chemical Company, assignee of Hans A. Frasch, both of Cleveland, Ohio, U.S.A., 1st September, 1894; 6 years.

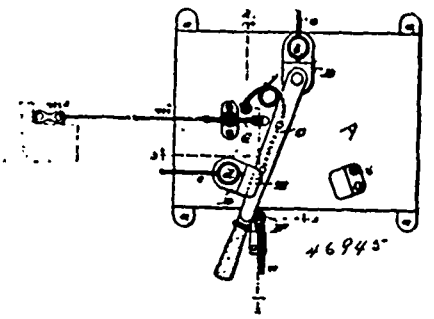
Claim.—1st. The method of producing dyestuff from petroleum by subjecting natural mineral oil, the distillates or residuum of the distillation or refining thereof, to sulfonation, washing the products of sulfonation with water, treating the products soluble in hot water with a base, such as lime, and isolating from the sulfo salts thereby obtained a dyestuff by treatment with an alkali and then with a precipitant, such as sodium chloride, substantially as set forth. 2nd. The method of producing a yellow dyestuff from petroleum, which consists in subjecting natural mineral oil, the distillates or residuum of the distillation or refining thereof, to sulfonation, leaching the products of sulfonation with water, treating the products soluble in hot water with a base, such as lime, and saturating the solution thereby obtained with a suitable reagent, such as sodium chloride, and thereby precipitating a yellow dyestuff, substantially as set forth. 3rd. As an article of manufacture, sulfonated petroleum hydrocarbon, which is capable of dyeing wool or silk, in acidulated solution, without mordant, substantially as set forth. 4th. As an article of manufacture, a sulfo body of the petroleum series of hydrocarbons, solid in form, having a yellow cover, soluble in water, glycerine and acetone, fluorescent in solution, and dyeing wool or silk, without mordant, in acidulated solution, a canary yellow colour, substantially as set forth.

No. 46,945. Electro-Magnetic Switch.

(*Aiguille électro-magnétique.*)

Florence L. Hartel, administratrix of the estate of John G. Hartel, Keokuk, Iowa, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. The combination with an electric motor, of a pivoted spring-pressed lever forming part of an electric circuit, a contact or stop forming part of such circuit, a trip catch for holding the lever normally engaged with such contact, a pivoted weighted lever, a tension device connecting the latter with the catch, an armature, and means for connecting it with the weighted lever, as shown and described to operate as specified. 2nd. The combination in an



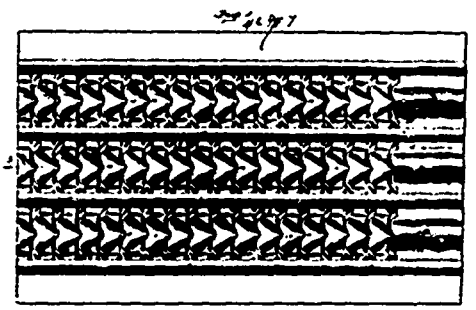
electro-magnetic switch, of a spring-actuated switch-lever in the circuit of a motor, a spring catch for holding said switch-lever against a contact, a pivoted lever connected with the catch and a weight normally held detachably on an arm of said lever, an armature and flexible connection between it and the aforesaid pivoted lever, all substantially as shown and described.

No. 46,946. Illuminant Appliance for Gas and other Burners. (*Appareil illuminant pour brûleurs à gaz et autres.*)

The Welsbach Incandescent Gas Light Company, Montreal, Quebec, Canada, 1st September, 1894; 6 years.

Claim.—The method herein described of making incandescent devices, which consists in impregnating a filament, thread or fabric of combustible material with a solution of metallic salts of refractory earths, suitable when oxidized for an incandescent and then exposing the impregnated filament, thread or fabric to heat until the combustible matter is consumed.

No. 46,947. Grain Sieve. (*Sas.*)

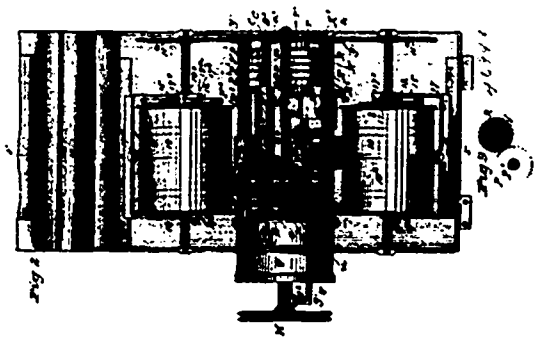


The Closz and Howard Manufacturing Company, assignee of Charles Closz, both of Webster City, Iowa, U.S.A., 1st September, 1894; 6 years.

Claim.—1st. A sheet metal grain sieve having longitudinal rows of transverse openings, one edge of which is raised directly above the other, the under edge having the upturned pommel-point 17, dividing and partially closing said opening at the middle of the raised edge, for the purpose stated. 2nd. A sieve formed of a sheet metal platform having longitudinal rows of openings in transverse relation, the raised edges of which openings have the form of a bow, the lowest edge having a raised point 17, mediately of and partially closing said opening, the surface between the openings formed with steep side-walls 8, obliquely extending from the lobes to said raised point and terminating in oblique flat surfaces 14, and channels 10 joining said flat surfaces and extending straight in longitudinal lines along said flat surfaces, substantially as described. 3rd. A sheet metal platform sieve having longitudinal rows of transverse openings one edge whereof is raised directly above the other, the upper edge having lobes 4, 4, and the under edge having upturned pommel-point 17, mediately of said lobes and partially closing said opening at the middle point between the lobes, the surfaces 16 being substantially flat across between the lobes and sloping to the transverse ridge 7, from which the pitch to the edge is greater, said sloping surface having steep sides 8, 8, and flat parts 14, 14 which terminate in said ridge, for the purpose stated. 4th. A sheet metal platform sieve having parallel longitudinal corrugations and transverse openings between them, the surface between the openings raised and having a bow-shaped forward edge forming lobes 4, 4, a substantially flat top between the lobes, which terminate in raised points 17 standing under and mediately of the lobes, the steep side walls 8, 8, the oblique flat side surfaces 14, 14, the cross ridge 7, terminating at the said raised point, the channels 10, 10, the sur-

faces 6, 6, sloping from the corrugations to the channels, the depressions 11, 11 joining the sloping surfaces at the ridge, the oblique ridges 12, 12 joining the depressions and the surface sloping downward from said point along the transverse ridge 7 to the edge, substantially as described. 5th. A sheet metal platform sieve having parallel corrugations and transverse openings between them, the surfaces between said openings raised and having bow shaped forward edges forming lobes 4, 4, a substantially flat top surface 16, between said lobes sloping downward and having oblique sides, terminating in a raised point 17 at the lowest edge of said surface, the cross ridge 7 extending from said point and the surface therefrom having sloping pitch to the opening and dividing the same at the said raised point under and mediately of said lobes, substantially as described.

No. 46,948. Recording Machine. (*Machine pour compter.*)

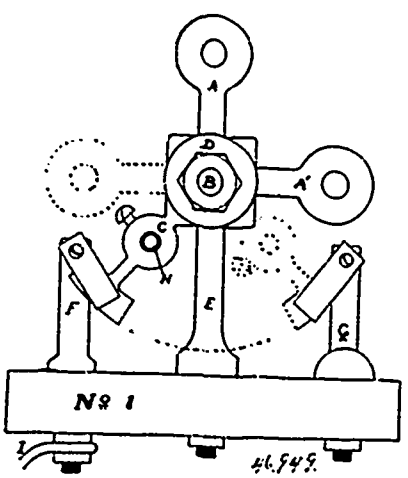


Charles H. Hall, Murdock W. McAskill, both of Glidden, and Josiah A. King, jun., Fond du Lac, all in Wisconsin, U.S.A., 4th September, 1894; 6 years.

Claim.—1st. In a recording machine, the combination with a suitable case, of a printing mechanism and a card carrying cylinder adapted to be brought into engagement with the printing mechanism, substantially as shown and described. 2nd. In a recording mechanism, the combination with a suitable case, of a revoluble printing mechanism and a card carrying cylinder adapted to be revolved in unison with the printing mechanism, substantially as shown and described. 3rd. In a recording machine, the combination with a case, of a series of printing wheels adapted to be operated to form numbers, a series of indicating wheels operating in unison with the printing wheels, the card carrying cylinders, and means for revolving all of the said parts, substantially as shown and described. 4th. In a recording machine, the combination with the main axle, tubular shafts and discs, of the printing wheels and intermediate connections, and the milled wheel and gear, all arranged substantially as shown and described. 5th. In a recording machine, the combination with the main axle and tubular shaft carrying a gear and milled wheel, of the printing and indicating wheels, the intermediate gears, the pointer and means for operating the same, substantially as shown and described. 6th. In a recording machine, the combination with the main axle, tubular shaft, gear and milled wheel, of the printing wheels, the indicator wheels, the intermediate connections, the pointer, and the spring barrels all arranged, substantially as shown and described. 7th. In a recording machine, the combination with the main axle, tubular shaft, having a gear and milled wheel, the printing and indicator wheels and intermediate gears, the locking casting and the spring barrels connected with the indicator wheels, substantially as shown and described. 8th. In a recording machine, the combination with the main axle, tubular shaft, carrying the gear and milled wheels, the discs arranged as described, the printing and indicator wheels, the intermediate connections, the pointer, the slide rod and casting, the plate, the ratchet wheel and lever and the spring barrels, all arranged substantially as shown and described. 9th. In a recording machine, the combination with a case, of the main axle and tubular shaft carrying the gear and milled wheels, the discs, the cylinder and cap, the plate upon the tubular shaft, the slide rod, and tubular guide connected thereto, the locking casting, the printing and indicating wheels, and connecting gears, the spring barrels, the pointer, and means for connecting said pointer with the slide rods, substantially as shown and described. 10th. In a recording machine, the combination with a case having a spring stud, a printing mechanism arranged between discs, one of which is apertured to receive said stud, a second stud carried by said disc, and a sliding rod adapted to bear upon the second stud to disengage the first mentioned stud, substantially as shown and described. 11th. In a recording machine, the combination with a case cut away at opposite ends, of a main shaft, the discs C, D and E, connected as described, the recording mechanism contained between said disks, the card carrying cylinders on each side of the recording mechanism, the shafts upon which they are mounted, the gear upon said shafts and the devices for feeding said cylinders, one space at each impression, substantially as shown and described. 12th. In a recording machine, the combination with a case, of the recording mechanism arranged therein, a heating chamber having a discharge opening into the case, and a lamp pivotally arranged in said chamber, substantially as shown and described. 13th. In a recording machine of the kind described, the combination with the case, having pocket portions, of slides arranged therein, said slide having a clasp for holding a card, substantially as shown and described. 14th. In a recording machine, the combination with the cylinder and its shaft, of the gear-wheel upon the end of the shaft, the tubular bearing carrying an arm, the ratchet disc, the rectangular frame, an arm carrying a roller, adapted to engage the lever and operate the pawls, substantially as shown and described. 15th. In a recording machine, the combination with the cylinders, having a transverse recess, of the spring clasps pivoted thereon, said clasps having an overlapping portion to bind against the paper stretched around said cylinder, substantially as shown and described. 16th. In a recording machine, a case consisting of a box-like lower part and a cover comprising three arched sections, the end sections having hinged lids and each section having an opening provided with a sliding cover, substantially as shown and described. 17th. The combination with a case constructed as described, of the cylinders carrying cards and adapted to slide from side to side, the frame and feeding mechanism, the shaft and gear thereon, the main shafts and discs C, D and E, the indicating wheels and operating gears, the spring barrels and pointers, the tubular shaft carrying gear, casting, plate, ratchet and milled wheel, the cylinder and cap, the pawl and operating lever, the toothed nose on the disc D, the slide rod and the spring studs upon the disc C, and the spring stud upon the box, said last stud being adapted to enter an aperture in the disc C, substantially as and for the purposes described. 18th. As in an improvement in loggers recording machines, the combination of a supporting frame, a casing having a pivotal connection therewith, carrying the recording mechanism and spring catch for locking the casing in against the support, and a lever device, for releasing such catch, substantially as shown and described. 19th. In a recording machine, substantially as described, a supporting frame having a shoulder and waist supporting means, and a casing pivotally connected to such body, carrying the recording mechanism, substantially as set forth. 20th. The combination in a recording mechanism as described, with the casing A, and the recording devices, said casing having a pendant drum opening into the casing, of the supporting frame having a heating chamber at its lower end, and an intermediate heating drum connecting such chamber and the casing drum, as specified. 21st. In a recording mechanism as described in combination, a recording mechanism, a casing therefor, a supporting frame for such casing, having a heating lamp holding chamber at its lower end, and an intermediate drum connection between such chamber and the casing, said drum connection forming also a hinged connection between such chamber and casing, as set forth. 22nd. In a recording mechanism as described, the combination with a case, of a series of printing wheels adapted to be operated to form numbers, a series of indicating wheels operating in unison therewith, said printing and indicating wheels being interchangeably held in such casing, the card carrying cylinders and means for revolving all of the said parts, as specified.

No. 46,949. Automatic Two Pole Electric Switch.

(*Commutateur électrique automatique à deux pôles.*)



James Reginald Stocks and Richard Grundy, both in Toronto, Ontario, Canada, 4th September, 1894; 6 years.

Claim. The automatic two pole electric switch itself being the combination of the shaft B, supported by the two upright posts E, and having projecting from the centre of it at right angles to each other, the levers A and A', with the knives C, which swing from the post F, to post G, as the switch is lowered or raised as the

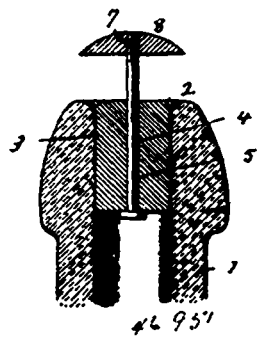
case may be and by which the current is completely cut-off from the lamp and closed on the short circuit illustrated at posts F and G, and substantially as and for the purpose hereinbefore set forth.

No. 46,950. Art of Obtaining Lactyl Derivatives of Paraphenetidin. (*Art d'obtenir du lactate de paraphenetidine.*)

Freidrich Engelhorn, Waldhof, assignee of Freidrich Geromont, Winkel-in-the Rheingau, Hesse Nassau, Prussia, all in Germany, 4th September, 1894; 6 years.

Claim. 1st. In the art of obtaining the lactyl derivatives of paraphenetidin, the process which consists in heating the lactate of paraphenetidin until all the water resulting from the heating and the resulting decomposition of the lactate has been separated, substantially as described. 2nd. The process of obtaining a lactyl derivative of paraphenetidin, which consists in heating the lactate of paraphenetidin obtained by any suitable method to 180° centigrade, and continuing the heating until all the water resulting from the heating and the resulting decomposition of the lactate has been separated, substantially as described. 3rd. In the art of obtaining the lactyl derivatives of paraphenetidin, the process which consists in dissolving paraphenetidin in an acid, mixing the same with a solution of a mineral lactate, then removing the resulting mineral salt, and evaporating the residue, consisting of lactate of paraphenetidin to dryness and finally heating the same above the boiling point until no more vapours escape from the fused mass, substantially as described. 4th. The process which consists in dissolving paraphenetidin in dilute sulphuric acid, then mixing the same with a solution of lactate of calcium, then precipating the resulting sulphate of calcium by alcohol, then filtering, then evaporating the filtrate to dryness, and finally heating the residue consisting of lactate of paraphenetidin above the boiling point until no more vapours escape from the fused mass. 5th. As a new compound, lactyl-paraphenetidin, having the formula C^{11}, H^{15}, N^{03}, whose melting point is 117·5° centigrade, which crystallizes in white needles and is soluble in two hundred and fifty-five parts of water at 30° centigrade and four hundred and thirty-five parts of water at 20° centrigrade, and very soluble in alcohol.

No. 46,951. Stopper Puller. (*Tire bouchon.*)



46 951

Alfred W. Butterfield, Bozeman, Montana, U.S.A., 4th September, 1894; 6 years.

Claim.—In a device of the class described, the combination with a cork having a central longitudinal opening therein, of a pull rod arranged to snugly work in the central opening of said cork and provided with a stop head at its inner end and with a threaded outer end, and a pull cap provided with a central threaded opening removably engaging the outer threaded end of said pull rod, said cap being of a greater diameter than the outer end of the cork over which it works and provided with a flat under face adapted to snugly contact with the outer end of the cork and the mouth of the bottle or the like in which the cork is fitted, substantially as set forth.

No. 46,952. Extension Car Step.

(*Marchepied à rallonge pour chars.*)

Thomas Thatcher, Utica, New York, U.S.A., 4th September, 1894; 6 years.

Claim.—1st. The combination with a fixed car step or support, of a swinging arm depending from the front edge of the step or support, a swinging arm mounted on a rocking shaft depending from the rear edge of the step or support, an extension step hinged to the lower end of the front swinging arm and having an arm extending to and coupled with the rear swinging arm with means connected with the rocking shaft for operating the device, substantially as set forth. 2nd. The combination with a permanent car step or other similar support, of a pair of hangers adapted to be secured on the under side of the step or support, a pair of depending arms hinged to the front end of the hangers, a rocking shaft mounted in the rear end of the hangers having swinging arms adapted to project downwardly, a folding step hinged to the swinging end of the front arms and projecting outwardly therefrom and having rigid arms extending to and hinged to the swinging end of the shaft arms with mechanism for operating the step attached to the rocking shaft, substantially as

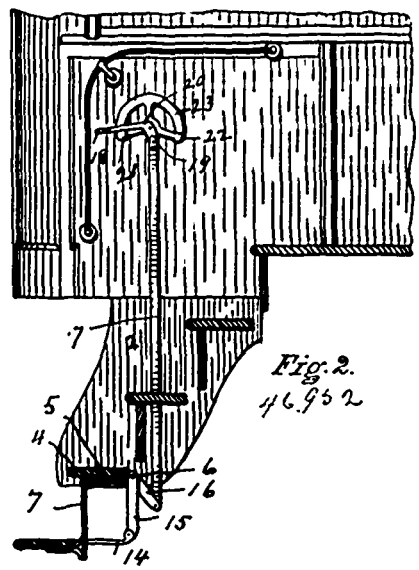
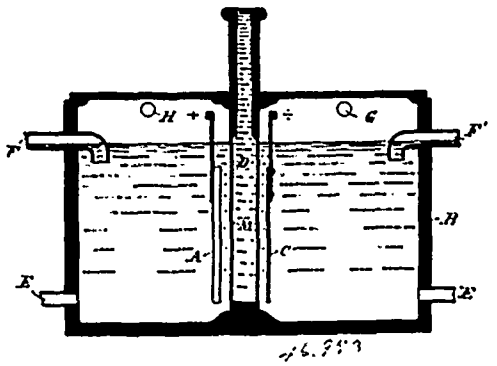


Fig. 2.
46,952

set forth. 3rd. The combination with a fixed car step or other similar support, of a hinged arm adapted to be depended from the front edge of the fixed step or support, a swinging arm depending from the rear edge of the fixed step or support, a folding step hinged to the lower end of the front swinging arm and having a fixed arm extending to and coupled with the lower end of the rear arm, and operating mechanism connected with the rear swinging arm consisting of a connecting rod and crank secured on a fixed support, substantially as set forth. 4th. The combination with a fixed step or support 4, of the swinging arms or levers 15 and 7, hinged to the rear and front of the step or support respectively, a folding step 8, hinged to the lower end of the depending arms 7, and having an arm 14, extending to and hinged to the end of arm 15, a rocking shaft 6, on which the arm 15 is mounted, a crank thereon, and a connecting rod attached to the crank, and an operating crank mounted on a fixed support to which the connecting rod is attached, and operating in either direction beyond the pivotal point whereby the step is locked in either position, substantially as set forth. 5th. The combination of a fixed car step, a pair of depending swinging arms, one from the front of the step and the other from the rear, an extension step hinged to the lower end of the front arm, and having a rigid arm extending substantially in the plane of the step to and hinged to the swinging end of the rear arm, a crank arm at angle with the rear hanger arm, and means for operating the step connected with the crank arm, substantially as set forth. 6th. In an extension step, the combination of a front and rear depending arm hinged at their upper ends, an extension step hinged to the lower end of the front arm, and having a rigid arm extending substantially in the plane of the extension step to and hinged to the lower end of the rear arm, a crank arm at an angle with the hanger arm, and operating mechanism connected with the crank arm, substantially as set forth. 7th. A fixed car step, a hanger, depending swinging arms hinged to opposite ends of the hanger, a projecting step hinged to the lower end of one of the arms and projecting outwardly therefrom, and a rigid arm on the step extending to and hinged to the lower end of the other arm, combined substantially as set forth. 8th. The combination of a fixed step or support, a depending arm hinged to the front part of the fixed step or support, an extension step hinged at its rear side to the lower end of the depending arm, a pair of rigid arms extending rearwardly from the step, a rocking shaft having a pair of arms hinged to the rigid arms of extension step, and means for operating the step connected with the rocking shaft, substantially as set forth. 9th. The combination of a fixed step or support, of a pair of depending hanger arms hinged to the front part of the fixed step or support, an extension step hinged to the lower end of the depending arms, a rigid arm projecting to the rear of the extension step between the depending hanger arms, rear arms hinged at one end to the fixed step or support, and at the other to the rigid arm, substantially as set forth. 10th. A hanger, swinging arms depending from each end of the hanger, hinged to swing in parallel planes, an extension step hinged to the swinging end of one of the arms, and having a rigid arm extending parallel with the hanger and hinged to the other swinging arm, one of the hinging joints having a shoulder or stop to limit the extending movement of the extension step combined, substantially as set forth. 11th. The combination of a fixed step or support, of a pair of swinging arms hinged to the front portion of the step or support, a pair of rear arms rigidly

secured on a rocking shaft, and mounted in bearings at the rear of the fixed step or support, and adapted to swing in parallel planes with the front pair of arms, an extension step hinged to the swinging end of the front pair of arms, and provided with rigid arms extending to and hinged with the rear pair of arms, and operating mechanism connected with the rocking shaft, substantially as set forth.

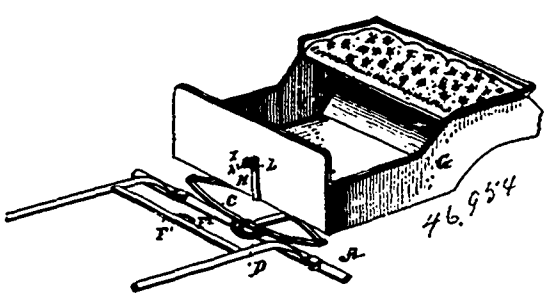
No. 46,933. Treating Salts in Solution by Electrolysis. (*Traitement du sel en solution par l'électrolyse.*)



Henrik Christian Fredrick Stormer, Christiana, Norway, 4th September, 1894; 6 years.

Claim.—1st. In the electrolysis of salts in solution or in molten state, the method for preventing the wandering of the ions from the electro-negative field to the electro-positive field and vice versa, and the reunion of such ions in the diaphragm separating the two fields of action from each other, consisting in placing a liquid under pressure in a space between the said electric fields, said space being in communication with said fields, substantially as described. 2nd. In combination, a vessel B, and the hollow diaphragm within the same, said diaphragm being porous or perforated and adapted to receive a separating fluid, substantially as described. 3rd. In combination, a hollow diaphragm or partition wall D, provided with porous or perforated membranes M, and with a connection to a source of supply, substantially as described.

No. 46,934. Thill Support. (*Armon de limonière.*)



Ruben Cox, assignee of Samuel Dillard Webb, and George Theoabold Jacobs, all of Washington, Columbia, U.S.A., 5th September, 1894; 6 years.

Claim.—1st. In a shaft supporting device, a bracket adapted to be connected with the vehicle body, a hook pivoted and adapted to oscillate relative thereto, a loop or bar adapted to be connected with the shafts, substantially as described, whereby the loop or bar is adapted to be engaged by the hook or bracket to hold the shafts elevated, and to act upon the hook to oscillate the same, to release the shafts from engagement with the hook, as set forth. 2nd. In a shaft support, an oscillating head provided with a hook arm, and with a throw-off arm, in combination with a loop or bar connected with the shafts, adapted to be engaged by the hook as the shafts are raised to hook the same, and to engage the throw-off arm in depressing the shafts to release the same from the hook, substantially as and for the purpose set forth. 3rd. In a shaft support, the combination with a loop or bar adapted to be connected with the cross-bar of the shafts, of an oscillating hook mounted on an arm or bracket adapted to be connected with the vehicle body, a stop on the hook to engage the arm or support, and a throw-off arm rigidly connected with the hook, arranged and operating, substantially in the manner and for the purpose set forth. 4th. In a shaft support, an oscillating hook mounted on a bracket extending from the vehicle body, a throw-off arm formed integral with the hook, a stop on the hook to engage the bracket, a spring adapted to engage stop faces on the oscillating hook, and an arm, a hook connected with the cross-bar of the shafts, all combined and operating, substantially as and for the purpose set forth. 5th. In a shaft support, the arm or bracket having the oscillating hook mounted thereon, in combination with a stop on the hook provided with a cushioned face to engage the arm or bracket, substantially as and for the purpose set forth.

No. 46,935. Manufacture of Nickel and Cobalt.

(*Fabrication de nickel et cobalt.*)

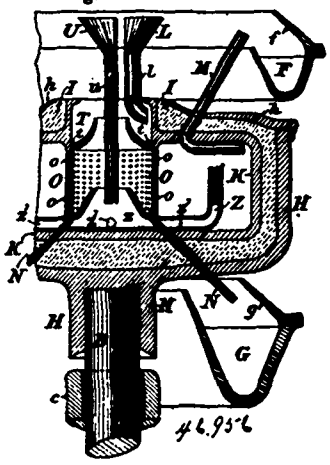
Pierre Manhes and Societé Anonyme de Metallurgie du Cuivre (Procédés Pre Manhes) all of Lyon, France, 5th September, 1894; 6 years.

Claim.—1st. The art or process of refining nickel and cobalt after elimination of iron and partial desulphurization, to obtain said metals commercially pure, which consists in first crushing or granulating said impure nickel or cobalt and mixing the same with basic or alkaline re-agents or fluxes mixed with chlorides of the same nature (said re-agents being lime, baryta, magnesia, soda, potash or the like, and the chlorides, chloride of lime, barum, magnesium, sodium, potassium) then covering the soie of a metallurgical furnace with a layer of lime and chloride of lime mixed, then placing the granulated nickel or metal and mixed re-agents aforesaid in said furnace, and heating the same to separate the metal and scoria, the latter during transformation removing all the remaining sulphur, and when flowed out of the furnace the pure metal is withdrawn. 2nd. The art of desulphurizing nickel or cobalt after elimination of iron and partial desulphurization, which consists in fusing said metals with a flux consisting of basic or alkaline re-agents and chlorides of the same nature, as set forth.

No. 46,936. Centrifugal Apparatus.

(*Appareil centrifuge.*)

Fig.

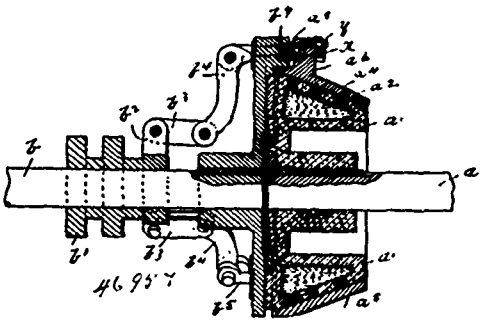


Jonathan Aldous Mays, Belsize Terrace, Aamstead, County London, England, 5th September, 1894; 6 years.

Claim.—1st. The centrifugal apparatus for separating other metals from molten argentiferous lead consisting essentially of a revoluble receiver or vessel for containing the molten zinc or other menstruum, means for rotating the same, a feeding device for supplying the argentiferous lead in minute particles to the menstruum, and an eduction passage or passages through which the purified lead passes out. 2nd. The centrifugal apparatus for separating other metals from molten argentiferous lead consisting essentially of a revoluble receiver or vessel for containing the molten zinc or other menstruum, means for rotating the same, a feeding device for supplying the argentiferous lead in minute particles to the menstruum, an eduction passage or passages through which the purified lead passes out, a supplying device for the molten zinc or other menstruum, and an eduction passage or passages for the same. 3rd. The centrifugal apparatus for separating other metals from molten argentiferous lead consisting essentially of a revoluble receiver or vessel for containing the molten zinc or other menstruum, means for rotating the same, a feeding device for supplying the argentiferous lead in minute particles to the menstruum, an eduction passage or passages through which the purified lead passes out, and a stationary collector for receiving and holding the purified lead. 4th. The centrifugal apparatus for separating other metals from molten argentiferous lead consisting essentially of a revoluble receiver or vessel for containing the molten zinc or other menstruum, means for rotating the same, a feeding device for supplying the argentiferous lead in minute particles to the menstruum, an eduction passage or passages through which the purified lead passes out, a supplying device for the molten zinc or other menstruum, an eduction passage or passages for the same, and stationary collectors for receiving and holding the purified

lead and zinc alloy respectively. 5th. In a centrifugal apparatus for separating other metals from molten argentiferous lead, the means for heating the revoluble containing vessel or receiver, and the stationary collectors, substantially as described.

No. 46,957. Friction Clutch. (*Embrayage à friction.*)

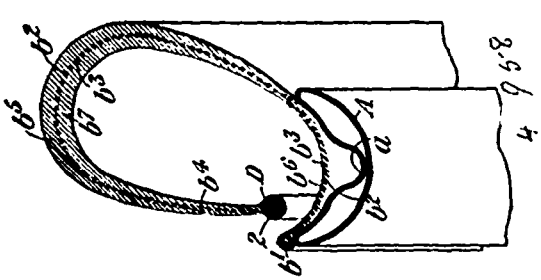


The Cole Manufacturing Company, assignee of Romanzo Bailey Priest, both of Laconia, New Hampshire, U.S.A., 5th September, 1894; 6 years.

Claim.—1st. In a friction clutch, in combination, a frusto-conical head fixed to one rotary part, a frusto-conical ring carried by another rotary part, and means for frictionally connecting said ring and head, substantially as and for the purpose described. 2nd. In a friction clutch, in combination, a frusto-conical head fixed to one rotary part, a frusto-conical ring carried by another rotary part, a sliding sleeve, and cam-levers for frictionally connecting said head and ring, substantially as and for the purpose described. 3rd. In a friction clutch, in combination, a frusto-conical head fixed to one rotary part, a disc fixed to another rotary part, a frusto-conical ring surrounding the periphery of said head and carried by said disc, but capable of longitudinal movement in respect thereto, and means including cam-levers for moving the ring into and out of frictional contact with said head, substantially as and for the purpose described. 4th. In a friction clutch, in combination, a frusto-conical head fixed to one rotary part, a disc fixed to another rotary part and confronting said head, a frusto-conical ring surrounding the periphery of said head, a sliding sleeve, cam-levers, bolts b^5, springs a^8, substantially as and for the purpose described. 5th. In a friction clutch, in combination, a frusto-conical head fixed to one rotary part, a frusto-conical ring carried by another rotary part, means for frictionally connecting said ring and head, an oil reservoir in the interior of said head, and apertures in the periphery of said head communicating with said reservoir, said apertures being closed with porous plugs, substantially as and for the purpose described. 6th. In a friction clutch, in combination, a frusto-conical head fixed to one rotary part, a disc fixed to another rotary part, a frusto conical ring surrounding the periphery of said head, a sliding sleeve b^1, and connections such as cam-levers between said sleeve and head, an oil reservoir a^4, apertures a^5, springs a^8, bolts b^5, substantially as and for the purpose described. 7th. In a friction clutch, in combination, a frusto-conical head fixed to one rotary part, a disc fixed to another rotary part, a frusto-conical ring surrounding the periphery of said head, a sliding sleeve b^1, cam connections between said sleeve and head, stops s, substantially as and for the purpose described. 8th. In a friction clutch, in combination, a frusto-conical head fixed to one rotary part, a disc fixed to another rotary part, a frusto conical ring surrounding the periphery of said head, a sliding sleeve b^1, cam connections between said sleeve and head, bolts b^5, and locking means x, substantially as and for the purpose described.

No. 46,958. Pneumatic Tire and Rim for Wheels.

(*Bandage pneumatique et jante de roues.*)



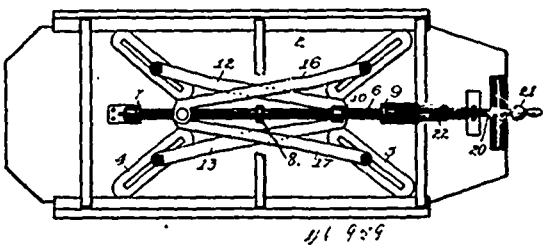
The Pneumatic Tire Company, Dublin, Ireland, assignee of Charles Kingston Welch, Coventry, England, 5th September, 1894; 6 years.

Claim.—1st. The combination, with a wheel rim of a pneumatic tire detachably secured in position thereon by a single endless inextensible core placed inside the tire and detachable therewith. 2nd. The combination, with a pneumatic tire enclosing a single endless retaining core, of a rim having a central groove or depression of such debt as will admit of the removal of the tire. 3rd. The piece E, for joining the ends of the wires and constructed to allow the valve to pass therethrough, substantially as described for the purpose specified. 4th. For a wheel, a pneumatic tire which is not permanently tubular the two edges of said tire being lapped one over the other to form a circumferential lapped joint which is rendered air-tight by the pressure of air in the tire, and with or without a viscid substance introduced between said edges, and an inextensible endless core provided in one edge of the tire for securing the same to the wheel rim. 5th. A tire as described provided with a separate air tube enclosed therein, substantially as described. 6th. A pneumatic tire constructed and secured to a wheel rim, substantially as described.

No. 46,959. Casket Clamps for Hearses.

(*Emboîture de corbillard pour cercueils.*)

Fig. 1



George Frederick Baird, Austin, Minnesota, U.S.A., 5th September, 1894; 6 years.

Claim.—1st. In a hearse, the combination with the bottom thereof having slots converging from each corner toward the centre line, of the stops working in said slots, the reverse screw shaft arranged longitudinally of the body intermediate of said stops, the blocks threaded upon said shaft, and the pair of arms connecting each of said blocks with the stop at the opposite end of the body, substantially as described. 2nd. In a hearse, the combination with the bottom of the body thereof having slots converging from the corners towards the centre line, of the reverse screw shaft arranged on said centre line, the journals for said shaft, the common supports for said journals, arranged to slide in line with said shaft, the blocks threaded upon said shaft, the stops working in said slots, and the arms connecting said blocks with said stops, substantially as described. 3rd. The combination with the hearse having slots converging from the corners toward the centre line of the bottom of the body, of the reverse screw shaft mounted underneath said body along said centre line, the longitudinally slidable journals for said shaft, the blocks threaded upon said shaft, stops working in said slots, and the arms connecting said blocks with the stops at the opposite ends of the hearse, substantially as described. 4th. In a hearse, the combination with the stops slidable toward and from the corners of the bottom of the body and the middle line thereof, of the reverse screw shaft arranged upon said middle line, the blocks threaded upon said shaft, the arms connecting said blocks with said stops, the journal support for said shaft slidable longitudinally thereof, the rack connected to said support, and the gear meshing with said rack and adapted to adjust the position of said journal support and screw shaft, substantially as described.

No. 46,960. Bag Lock. (*Serrure de sac.*)

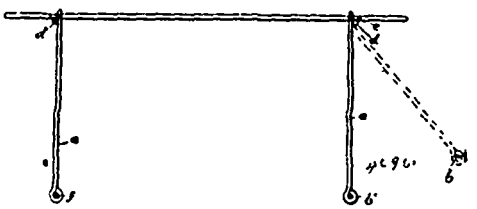
Frederick Ernest Windsor, Warren, Pennsylvania, U.S.A., 5th September, 1894; 6 years.

Claim.—1st. In a lock, the combination with a spring actuated bolt, of a detent for engaging the casing and holding the bolt in its retracted position, and a trip for said detent having a movement longitudinally of said bolt independently of said bolt and detent, said trip projecting beyond the end of the keeper engaging end of the bolt, substantially as described. 2nd. In a lock, the combination with the spring actuated bolt, of a detent pivoted to said bolt for engaging the casing and holding the bolt in its retracted position, a trip carried by said bolt having a movement longitudinally of said bolt, independently of the bolt and detent, said trip projecting beyond the keeper engaging end of the bolt, substantially as de-

scribed. 3rd. In a lock, the combination with the spring bolt, of a detent pivotally secured thereto for holding the bolt in its retracted position, said detent having an inclined face, and a trip secured to said bolt and movable longitudinally of said bolt, having an inclined face to engage the inclined face of the detent to release the same, substantially as described. 4th. The herein described card retaining device for a bag lock consisting of a plate, of the lock casing provided with sheet metal turned over upon the plate to form grooves to receive the edges of the card, said grooves being closed at one end of the holder, a projection of the sheet metal turned up between the open ends or said grooves to retain the card, substantially as described.

No. 46,961. Combined Bracket and Shelf.

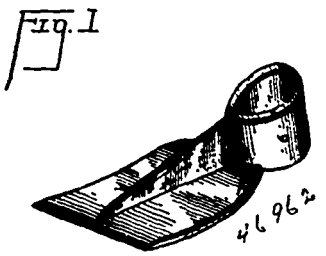
(*Console et tablette combinées.*)



The Firm of Darling Brothers, Montreal, Quebec, Canada, assignees of Charles Laforest Morse, Athol, Massachusetts, U.S.A., 5th September, 1894; 6 years.

Claim. -1st. A combined bracket and shelf comprising a pair of supporting brackets formed of wire and each having an integral gimlet-pointed projection serving to secure them to the wall, and a removable shelf adapted to be secured to and carried by said brackets. 2nd. A shelf bracket formed of wire bent to provide a series of hooks or projecting fingers and having an integral gimlet-pointed projection whereby it is secured to the wall. 3rd. A shelf bracket formed of wire bent to provide a horizontal supporting arm for the shelf, an integral gimlet-pointed projection and an eye through which a screw or other holdfast can be passed into the wall. 4th. A combined bracket and shelf comprising a pair of supporting brackets formed of wire each adapted to be secured to the wall and having horizontal supporting arms with portions of their length offset, and a shelf formed of wire and having transverse connections with which the offset portions of the bracket arms can interlock. 5th. A combined bracket and shelf comprising a pair of supporting brackets formed of wire each having an integral gimlet-pointed projection by which they are secured to the wall, horizontal supporting arms with portions of their length offset, and a removable shelf formed of wire and having transverse connections with which the offset portions of the bracket arms can interlock. 6th. A combined bracket and shelf comprising a pair of supporting brackets formed of wire each having an integral gimlet-pointed projection and an eye by which projection and a screw passed through said eye they are secured to the wall, horizontal supporting arms with portions of their length offset, and a removable shelf formed of wire and having transverse connections with which the offset portions of the bracket arms can interlock.

No. 46,962. Hoe. (*Houe.*)



Elize Bland Hazel, Orange Mills, Florida, U.S.A., 5th September, 1894; 6 years.

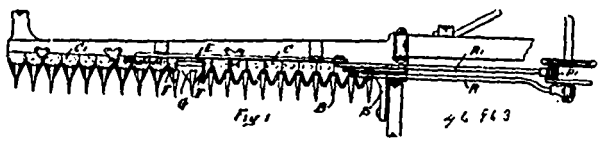
Claim.—A hoe provided on its rear side with a longitudinal central cutting fin having a sharpened cutting edge, said fin extending from the eye of the hoe to the cutting edge of the blade and tapering from said eye to the edge of said blade, substantially as shown and described for the purpose set forth.

No. 46,963. Cutting Mechanism for Mowers, &c.

(*Mécanisme à couper pour faucheuses, etc.*)

Alfred G. Campbell, Sherbrooke, Quebec, Canada, 5th September, 1894; 6 years.

Claim.—1st. An improvement in cutting mechanism for mowers and reapers, consisting of a cutter-bar divided into two or more sections, each section being provided with four or more ordinary knives, with extension rods connecting each of said sections with



cranks or eccentrics to operate the same, substantially as and for the purpose hereinbefore set forth. 2nd. In a mowing or reaping machine, a cutter-bar divided into two or more sections in combination with two or more cranks at a suitable distance from each other, and connected therewith by pitman and extension rods, substantially as and for the purpose hereinbefore set forth. 3rd. In a mowing or reaping machine, a cutter bar divided into two or more sections in combination with cranks, pitman and extension rods and finger guards, so arranged that while one or more sections of the cutter bar are at the end of their stroke and inert, the others are *making their stroke and cutting, the whole substantially as and* for the purpose hereinbefore set forth. 4th. In a mowing machine or reaper, an inside shoe formed with two or more guide-ways to form bearings for ends of extension and pitman rods, in combination with a finger bar and sectional cutter-bar and cranks, so adjusted as to cause the sections of the cutter-bar to act alternately, and to allow the finger-bar to be raised to a vertical position, the whole substantially as and for the purpose hereinbefore set forth. 5th. In a mowing machine or repear, a finger guard made of a suitable width in order to allow the end knives of the inside sections to cut, without interfering with each other, in combination with a cutter-bar divided into two or more sections, the whole substantially as and for the purpose hereinbefore set forth. 6th. In a mowing machine or repear, a cutter-bar divided into two or more sections with the outside edge of the end knives, where they cut in the centre, made on such an angle as to allow the end knives in combination with said finger guard to cut against said finger guard so as not to interfere, the whole substantially as and for the purpose hereinbefore set forth.

No. 46,964. Pegging Machine. (*Machine à cheviller.*)

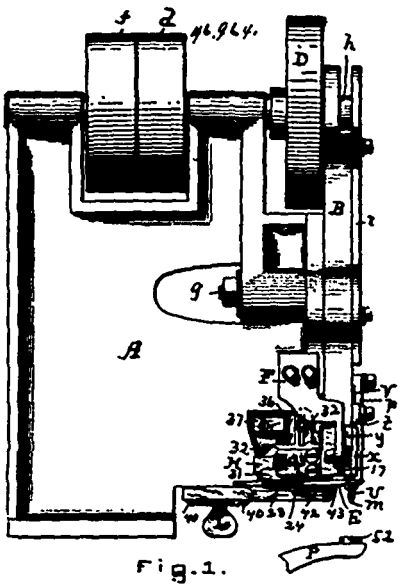


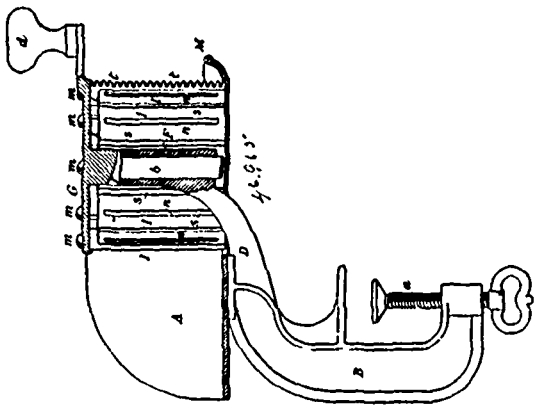
Fig. 1.

John Francis Davey, Marlborough, Massachusetts, U.S.A., 5th September, 1894; 6 years.

Claim.—1st. The awl, hammer-bar and their actuating-mechanism in combination with the presser-foot E, having the hooked-head 15, disposed adjacent the line of travel of said hammer and provided with the cutting edge 16, substantially as and for the purpose set forth. 2nd. The body in combination with the sliding-gage K, the wheel 43, fitted to rotate on said arm, a projection on said body and the cam-screw L, in said arm working against said projection whereby the arm may be adjusted. 3rd. In a pegging machine, a rocking-arm and an awl and hammer mechanism fitted to slide thereon in combination with a stationary knife on the machine-body, a peg-strip feed-mechanism carried by said arm, and a cutter-head for forcing the strip against said knife. 4th. The combination with the pegging machine provided with the gage K, of the horn having the slotted rotating head 52, and actuating mechanism for said head. 5th. The combination of the body, drive-shaft and cams

with the rocking-arm, the cam actuated block sliding thereon and carrying the awl and hammer, the grooved guide-plates for said hammer, the stationary knife on said body, the cutter-head on said arm and the peg-strip feed-mechanism carried by said arm all being arranged to operate, substantially as described.

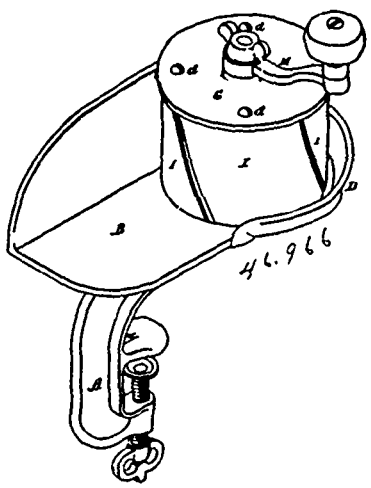
No. 46,965. Vegetable Grater. (*Râpe pour légumes.*)



John Gulic Baker, Philadelphia, Pennsylvania, U.S.A., 5th September, 1894; 6 years.

Claim.—1st. A grater consisting of a frame with guide trough and bearing, and a grating drum consisting of a disc having a spindle adapted to said bearing and provided with a series of depending grating fingers separated from each other and having projecting teeth on their forward edge, substantially as specified. 2nd. The within described grating device consisting of a frame having a guide trough and bearing, and a disc having a spindle adapted to said bearing, said disc being provided with a series of depending grating fingers with spaces between them, each of said fingers having projecting teeth on its forward edge and having one or more vertical slots with projecting teeth at the rear edge of the same, substantially as specified.

No. 46,966. Vegetable Cutter. (*Coupe-légumes.*)

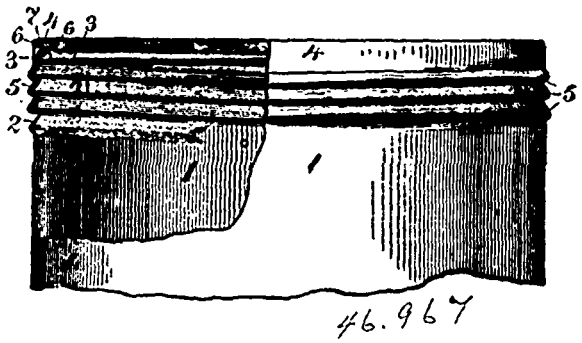


John Gulic Baker, Philadelphia, Pennsylvania, U.S.A., 5th September, 1894; 6 years.

Claim.—1st. A rotating drum for a vegetable cutter, consisting of a disc having segments pivoted thereto, each segment having inclined front and rear edges, the front edge forming or carrying a cutter and the rear edge serving as a guard for the cutter of the following segment. 2nd. A rotating drum for a vegetable cutter, consisting of a disc having segments pivoted thereto, each segment having an inclined front edge forming or provided with a cutter and a correspondingly inclined rear edge forming a guard, in combination with a cam structure acting upon the segments so as to simultaneously adjust the same, either in one or both directions. 3rd. The combination of the fixed structure comprising the supporting frame, with its guide trough and upwardly projecting shaft bearing, with a cutting drum consisting of a disc having a depending shaft adapted to said bearing, and a series of depending segments pivoted to the disc, and having inclined front edges forming or carrying cutters and inclined rear edges serving as guards. 4th. In combination, with the disc having the depending pivoted segments and adjusting cam, I claim the construction whereby the same handle which serves to rotate the drum, is also available for operating the cam to adjust the segments.

No. 46,967. Hermetically Sealing Metallic Vessels.

(*Appareil à sceller hermétiquement les boîtes métalliques.*)

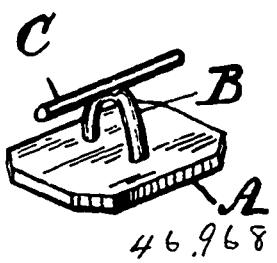


John Foster Ross, Toronto, Ontario, Canada, 5th September, 1894; 6 years.

Claim.—1st. A metallic can having a ratchet spiral or thread formed in its periphery and near the mouth of the can, in combination with the round roll edge turned inward, substantially as shown and for the purpose set forth. 2nd. The combination in a metallic can, of ratchet thread formed in its periphery, a round inwardly turned roll edge as specified, and a lid having a corresponding ratchet thread formed therein to fit on the can and having a groove into which a gasket-ring is fitted, substantially as shown and for the purpose set forth.

No. 46,968. Cuff or Dress Button or Stud.

(*Bouton de chemise ou poignet.*)



Richard Ball Blackhurst, Winnipeg, Manitoba, Canada, 5th September, 1894; 6 years.

Claim.—1st. A dress stud or cuff button, having a front or body A, a flat post or arched wire stem B, fixed thereto to project from the back of said body and occupy a button hole, and a bar C, intersecting said post or stem and secured to the top integrally, to cross a button hole, as set forth. 2nd. A button or stud, comprising an ornamental front plate or body A, a flat post or stem B, tapering at the top and projecting from the back of said body and secured fixedly thereto, and a retaining bar C, rigidly secured to the top of said post and intersecting the same, substantially as described.

No. 46,969. Cement. (*Ciment.*)

George Bélanger, Beauport et Pierre Marie Alphonse Genest, Québec, Canada, 5 Septembre, 1894; 6 ans.

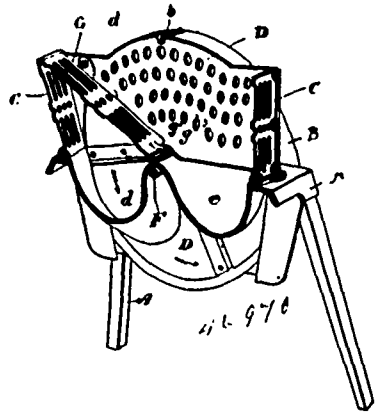
Résumé.—Un ciment formé de quartz, de sable magnétique et de terre glaise mélangés dans les proportions et pour les fins décrites.

No. 46,970. Root Cutter. (*Coupe-racines.*)

David Tolton, Guelph, Ontario, Canada, 6th September, 1894; 6 years.

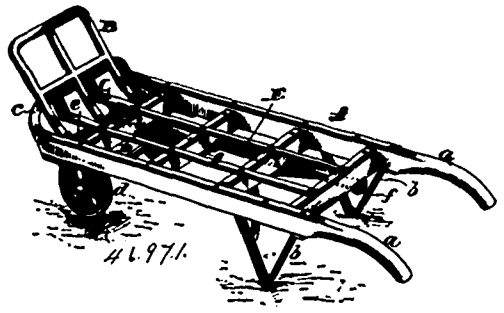
Claim.—1st. In a root cutter, the combination with the knife wheel of a stationary shield to cover the rotating portion of such wheel where the knives are not actively employed in slicing or pulping, as and for the purpose specified. 2nd. In a root cutter, the combination with a slicing knife wheel, and a pulping knife wheel and intermediate hopper, having pockets leading to the sliding and pulping wheels respectively, of a slanting central grate suitably supported at the centre and one end of the hopper, as and for the purpose specified. 3rd. In a root cutter, the combination with a slicing knife wheel and a pulping knife wheel, and intermediate hopper having pockets leading to the slicing and pulping

wheels respectively, of a slanting central grate and shields to cover portion of each knife-wheel, having slanting edges reversely located, one of which edges is designed to be flush with the central grate



when it is placed in one position and the other edge flush with the centre grate when it is placed in the other position, so as to direct the roots into the proper hopper, as and for the purpose specified. 4th. The combination with the knife-wheels D and E, secured on the shaft F, and rotated as specified, and the central hopper located between the wheels, of the knife shields D^1 and E^1, suitably secured in position, and the pockets *d* and *e*, bolted to the end grates C, and supported in the centre by the lugs d^2 and e^2, upon the rod g^1, and the central adjustable grate G, supported by the jaws *g*, upon the rod g^1, as and for the purpose specified. 5th. The combination with the knife-wheels D and E, secured in the shaft F, and rotated as specified, of the shields D^1 and E^1, suitably secured in position and the covers B, secured in position by the spring clips *b*, extending over the edge of the shields D^1 and E^1, as and for the purpose specified.

No. 46,971. Hand Truck. (*Camion*)



Joseph Frenette, Chippewa Falls, Wisconsin, U.S.A., 6th September, 1894; 6 years.

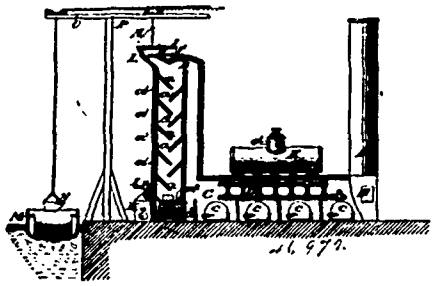
Claim.—1st. A hand-truck, a pivoted toe-section connected thereto, and means for operating it, consisting of a toothed rack and pinion, substantially as and for the purpose set forth. 2nd. A hand-truck, a transverse rod pivoted to the sides of the truck-frame or body, a toe-section rigidly connected to the rod, a pinion upon the rod, and means for operating the pinion, consisting of a toothed-rack and a hand-lever connecting therewith, substantially as and for the purpose specified. 3rd. The combination, with a hand-truck provided with a stationary toe-section, of a pivoted toe-section, and a pinion, toothed-rack and a hand lever for operating it, said hand-lever extending along the under side of the truck-frame or body to the rear end thereof, substantially as and for the purpose described.

No. 46,972. Method of Cremating Garbage, &c.

(*Méthode de détruire les tripailles, etc.*)

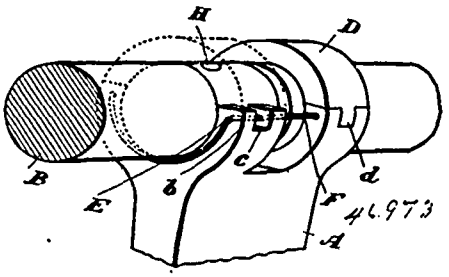
Robert Augustus Chesebrough, New York, State of New York, U.S.A., 6th September, 1894; 6 years.

Claim.—1st. The method of cremating garbage and other refuse, consisting in passing such refuse under the influence of gravity within a hollow shaft, and exposing it while passing along the shaft, to a coking flame, substantially as set forth. 2nd. The method of cremating garbage and other refuse, consisting in raising such refuse to an elevation, discharging it into a hollow shaft, subdividing it as it passes downwardly through the shaft under the influence of gravity, and exposing it during its discharge to a coking flame, substantially as set forth. 3rd. The method of cremating garbage and other refuse, consisting in discharging such refuse into the upper portion of a hollow shaft, subjecting it to a coking flame as it passes through the shaft under the influence of gravity, and removing the coked product from the bottom of the



shaft, substantially as set forth. 4th. The method of cremating garbage and other refuse, consisting in subjecting such refuse to a coking flame, within a hollow shaft, utilizing the hot products of combustion to generate steam, and utilizing the steam to support the flame for coking the said refuse, substantially as set.

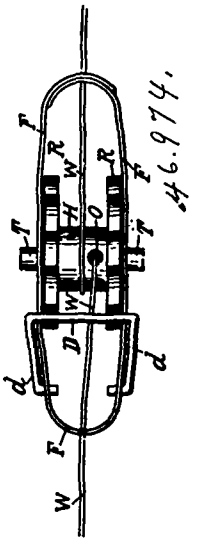
No. 46,973. Fence. (*Clôture.*)



Angelo Massena, Fort McLeod, North-west Territories, Canada, 6th September, 1894; 6 years.

Claim.—1st. A fence consisting of a standard *a*, having its upper end bifurcated, a rider B, supported in the bifurcated end of the standard *a*, a removable locking piece D, arranged to hold the rider B, in the bifurcated end, and means for fastening the locking piece to the said bifurcated end, substantially as specified. 2nd. The combination of the fence post A, consisting of a standard *a* and a forked end *b*, a removable locking piece D, provided with tongues *d*, to enter recesses in the bifurcated end *b*, a downwardly projecting pin G, connected to the locking piece, means for fastening the locking piece to the bifurcated end of the fence post, a rider B, supported in the bifurcated end, an opening H, in the rider B, into which enters the pin G, substantially as specified.

No. 46,974. Wire Tightener. (*Cric tendeur des fils.*)

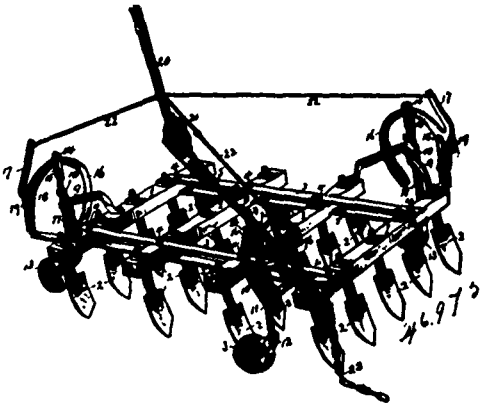


George Dickie, Hyde Park, Ontario, Canada, 6th September, 1894; 6 years.

Claim.—1st. The hub H, the ratchet-wheels R, R, and the frame

F, formed with the openings B, A, in combination with the detention link D, substantially as shown and described, and for the purpose specified. 2nd. The hub H, the ratchet-wheels *r*, R, and the frame F, formed with the notches N, M, in combination with the detention link D, substantially as shown and described, and for the purpose specified. 3rd. A lever L, formed with the sockets S, S, in combination with a gripping link G, substantially as shown and described, and for the purpose specified. 4th. The hub H, the ratchet-wheels R, R, the frame F, formed with the openings B, A, and the detention link D, in combination with a lever L, and means for engaging said lever with the ratchet-wheels R, substantially as shown and described, and for the purpose specified. 5th. The hub H, the ratchet-wheels R, R, the frame F, and the detention link D, in combination with a lever L, formed with the sockets S, S, and the gripping link G, substantially as shown and described, and for the purpose specified. 6th. A hub H, formed with an opening O, and the projections T, T, the ratchet-wheels R, R, the frame F, formed with the openings B, A, and the detention link D, in combination with a lever L, formed with the sockets S, S, and the gripping link G, substantially as shown and described, and for the purpose specified.

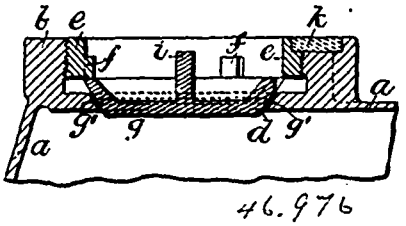
No. 46,975. Cultivator. (*Cultivateur.*)



Joseph L. Staley, and Lee Radcliff, both of Donvers, Illinois, U.S.A., 6th September, 1894; 6 years.

Claim.—1st. In a cultivator, the combination with shovel bars and transverse strips pivotally connected thereto, and an extensible diagonal adjusting part, of a lever located at the rear end of the extensible part operatively connected with mechanism adapted to raise or lower the frame to facilitate such diagonal adjustment, substantially as specified. 2nd. In a cultivator, the combination with a frame composed of shovel bars and transverse strips, of vertically adjustable-wheel shafts and independent bell-crank levers operatively connected to each of the shafts, respectively, and to an adjustable lever adapted to actuate them simultaneously, substantially as and for the purpose specified. 3rd. In a cultivator, the combination of the frame and vertically adjustable-wheel shafts, of yokes upon the wheel shafts, elevator arms passing through the yokes, bell-crank lever arms connected therewith, a pivotal support for the same, and adjustable lever and rods connecting the adjustable lever with each of the bell-crank arms, substantially as and for the purpose specified. 4th. In a cultivator, the combination with shovel bars provided with angular recesses, and transverse strips pivoted therein, of an extensible diagonal adjusting part, vertically adjustable-wheels, and an adjustable lever operatively connected with each of the wheel shafts, respectively, and adapted to actuate them simultaneously to raise or lower the frame to admit of the desired adjustment, substantially as and for the purpose specified.

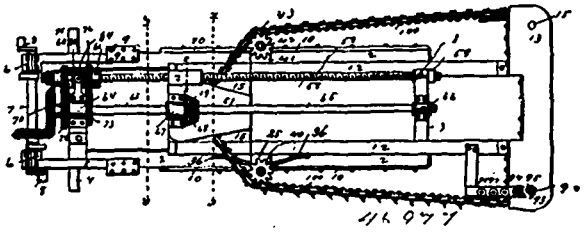
No. 46,976. Bungs, Valves, Stoppers and Their Seatings. (*Bonde, soupape, bouchon, etc.*)



Thomas Critchley Barraclough and Thomas Tannett Heaton, both of London, England, 6th September, 1894; 6 years.

Claim.—1st. For closing or opening a bung hole or other aperture, a fixed internally threaded bush, and a fixed valve seat, in combination with a valve fitting and engaging said seat, and a hollow screw-threaded nut fitting and engaging the screw threads of said bush, said nut having projections which, when in one position relatively to said valve give passage to the valve, and when in another position relatively to said valve engage with and hold said valve on said seat, whereby the valve can be passed through said nut to the valve seat, and can be engaged and held down upon the seat by said nut when a partial turn is given to the latter in one direction, and when the nut is given a partial turn in the reverse direction the valve is released and can be withdrawn through the said hollow nut, all substantially as set forth. 2nd. In a stopper, a screw-threaded bush and a valve seat fixed relatively thereto, in combination with the hollow screw-threaded nut *c*, engaging said bush, and having projections *f*, *f*, and the valve *g*, having corresponding gaps *h*, *h*, said valve movable through said nut when in one position and engaged thereby when in another position, and when so engaged held by said nut against said seat, substantially as set forth. 3rd. In a stopper, a screw-threaded bush, and a valve seat fixed relatively thereto, in combination with the hollow screw-threaded nut *c*, engaging said bush and having projections *f*, *f*, and the valve *g*, having corresponding gaps *h*, *h*, and a narrow circumferential band g^1, said valve movable through said nut when in one position and engaged thereby when in another position, and when so held by said nut against said seat, substantially as set forth. 3rd. In a stopper, a screw-threaded bush and a valve seat fixed relatively thereto in combination with the hollow screw-threaded nut *c*, engaging said bush and having projections *f f* and the valve *g*, having corresponding gaps *h h* and a narrow circumferential band g^1, said valve movable through said nut when in one position and engaged thereby when in another position and when so held by said nut against said seat, substantially as set forth. 4th. In a stopper, a screw-threaded bush, and a valve seat fixed relatively thereto, in combination with the hollow screw-threaded nut *c* engaging said bush and having projections *f f*, and the valve *g* having corresponding gaps *h h*, said valve movable through said nut when in one position and engaged thereby when in another position, and when so engaged held by said nut against said seat, said valve having also the shank *i* projecting within said hollow nut, substantially as and for the purpose set forth. 5th. In a stopper, a screw-threaded bush *b* having a recess *k* at top, a valve seat, and a valve engaging said seat in combination with a screw-threaded nut entering and engaging the screw-threads of said bush holding said valve on said seat and having notches *m m* in its top edge coinciding with said recess in said bush, substantially as and for the purpose set forth. 6th. In a stopper, a screw-threaded bush *b*, having a recess *k* at top, a valve seat, and a valve engaging said seat and the undercuts *l l* in said recess, in combination with a screw-threaded nut holding said valve on said seat entering and engaging the screw-threads of said bush and having notches *m m* in its top edge coinciding with said recess and said undercuts in said bush, substantially as and for the purpose set forth.

No. 46,977. Mining Machine. (*Machine pour mines.*)



Francis Marion Lechner, and Mark E. Gallimore, both of Columbus, Ohio, U.S.A., 6th September, 1894; 6 years.

Claim—1st. In a mining machine, the combination with a stationary frame, a side cleat 10 thereon, a sliding frame mounted on said stationary frame, sprocket-wheels mounted on said sliding frame, and a chain cutter carried by said sprocket-wheels, of a bracket 25 having parallel arms 26, which terminate in a hook-shaped extension 28 as described, said extension engaging with the under side of said cleat 10, a sliding block 30, supported between said arms 26, a spring strip 36, bearing between said sliding block and the machine frame and a pin 32, supported from said sliding block upon which one of said sprocket-wheels is loosely mounted, substantially as and for the purpose specified. 2nd. In a mining machine, the combination with a stationary frame, sprocket-wheel carrying shafts 15, on the forward portion of said sliding frame, a cutter-head on the end of one of said shafts, a following bar supported in rear of said cutter-head, and rollers journalled on said bar and projecting therefrom, substantially as and for the purpose specified.

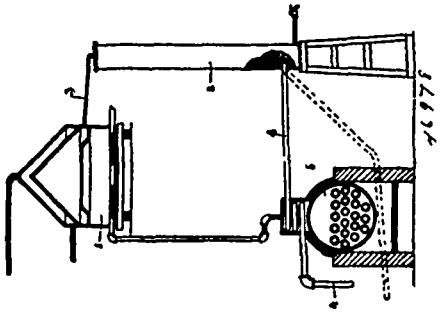
No. 46,978. Aerating Distilled Water.

(*Aération d'eau distillée.*)

James E. Thomas, and Elisha P. Grow, both of Bay City, Michigan, U.S.A., 6th September, 1894; 6 years.

Claim.—The process herein described for producing distilled and

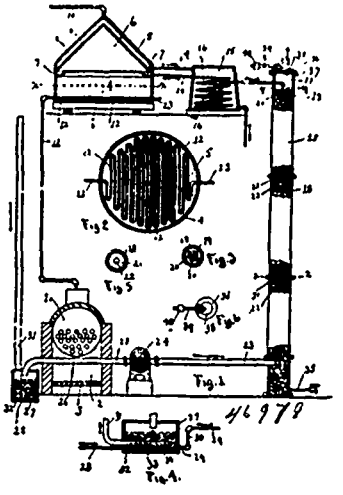
aerated water, which consists in distilling and condensing water, directly confining and subjecting atmospheric air for a prolonged



period to an independent source of heat of the desired temperature, and combining the said heated air and distilled water in an aerator, substantially as set forth.

No. 46,979. Apparatus for Aerating Distilled Water.

(*Appareil pour aérer l'eau distillée.*)



James E. Thomas, and Elisha P. Grow, both of Bay City, Michigan, U.S.A., 6th September, 1894; 6 years.

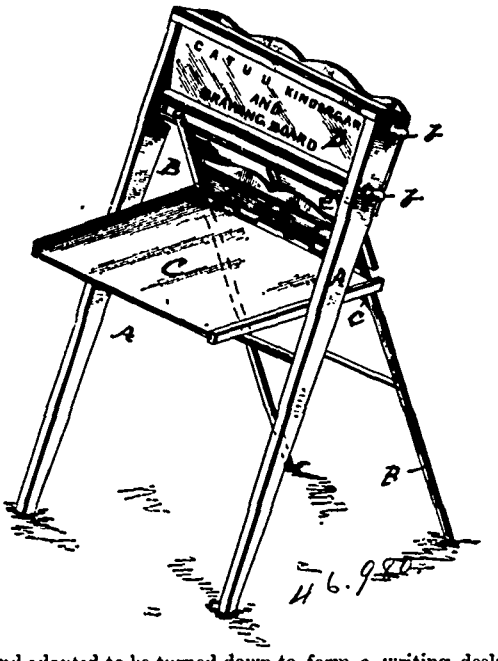
Claim.—1st. The combination of the water still, with a hollow vertical cylinder provided with a filling of crushed or disintegrated stone, a pipe leading from the still to the upper portion of said cylinder, an air pipe passing through a furnace for heating the contained air and leading to the bottom of the cylinder, substantially as set forth. 2nd. The combination of the water still, with a hollow vertical cylinder as described, and provided with a filling of crushed or disintegrated stone, and a pipe for conducting the water from the still to the upper end of said cylinder, an air pipe connected to the lower end of the cylinder, a blower for supplying air currents to said pipe, and a furnace for heating a portion of the pipe to purify the air passing through the same, substantially as set forth. 3rd. The combination of the water still, the aerator, a pipe for conducting the water from the still to the aerator, a pipe passing through a heater for conducting purified air to the aerator, a blower for supplying air currents to the pipe, a closed tank for containing water in its lower portion, and having the said air pipe connected with its upper portion and an air supply pipe having its inner end passed into the tank and exhausted below the water surface thereof, substantially as set forth. 4th. The combination of the water still, the long vertical aerator cylinder having a filling of disintegrated or crushed stone, and a pipe for conducting water from the still to the aerator, an air pipe provided with a blower for conducting air to the aerator, and a series of discs depressed toward their centre and placed at intervals within the aerator cylinder, and provided with a central opening for deflecting the decending water and the ascending air current from the outer portions of the filling material to the central portion thereof, substantially as described.

No. 46,980. Combined Blackboard and Desk.

(*Tableau et pupitre combinés.*)

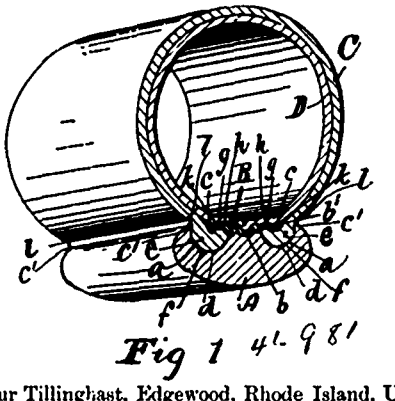
Hiram E. Butler, Jamestown, New York, U.S.A., 6th September, 1894; 6 years.

Claim.—A combined blackboard and easel consisting of an easel frame, having side pieces, the upper end of which are joined by a back, having two rolls mounted within the frame and carrying copy sheets thereon, with suitable mechanism for turning the same, in combination with a blackboard hinged or pivoted in said main



frame and adapted to be turned down to form a writing desk, the easel being given any desired angle by the rear legs, substantially as shown and for the purpose set forth. 2nd. A combined blackboard and easel consisting of the frame A, B, having a movable blackboard C, suitably hinged therein, in combination with a copy sheet D, mounted on rolls *b*, *b*, with suitable means of turning the same, the easel being given the desired angle by adjustable legs hinged near their top and provided with receptacles *d*, *d*, for paper and pencil, substantially as shown and for the purpose set forth.

No. 46,981. Means for Attaching Pneumatic Tires to Vehicle Wheels. (*Moyen d'attacher des bandages pneumatiques aux roues de voitures.*)

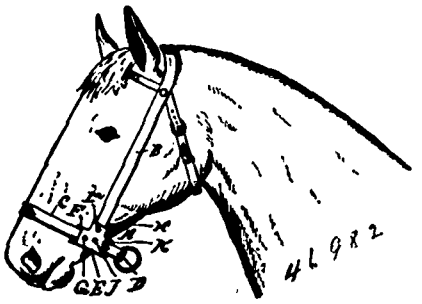


Pardon Wilbur Tillinghast, Edgewood, Rhode Island, U.S.A., 6th September, 1894; 6 years.

Claim.—1st. The combination with a wheel-rim provided with annular grooves at its opposite edges, and an annular band secured to the rim and extending partially over the said grooves, of a pneumatic tire provided with an outer covering, having its edges molded and vulcanized with stiff beads provided with rounded outer surfaces and adapted to enter said grooves in an inward circular direction, substantially as described. 2nd. The combination with a wheel-rim provided with annular grooves at its opposite edges, and an annular band secured to the rim and extending partially over the said grooves, of a pneumatic-tire provided with an outer covering, having its edges moulded and vulcanized with stiff beads provided with rounded outer surfaces, and adapted to enter said grooves in an inward circular direction, and the shoulders adapted to bear against the underside of the edges of the annular band, substantially as described. 3rd. The combination with a wheel-rim provided with annular grooves at its opposite edges and an intervening annular groove, of the annular band provided with the ridge adapted to enter the intervening annular grooves of the rim and having its edges extending par-

tially over the annular grooves of the opposite edges of the rim, of a pneumatic tire provided with an outer covering, having its edges moulded and vulcanized with stiff beads provided with rounded outer surfaces, and adapted to enter said grooves in an inward circular direction, and the shoulders adapted to bear against the edge of the annular band, substantially as described. 4th. The combination with a wheel rim provided with annular grooves at its opposite edges, and the annular band provided with the perforations at its ends, and having its edges extending partially over the said grooves in the rim, of the button pivoted to one end of the band, and the notched staple adapted to enter the perforations of the band, for locking engagement with the button, to fasten the band to the rim, substantially as described.

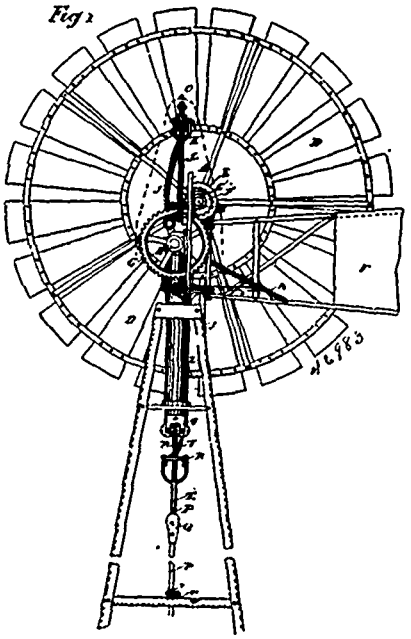
No. 46,982. Halter Square. (*Plaque de licou.*)



Thomas Nelson Martin, Cheyenne, Wyoming, U.S.A., 6th September, 1894; 6 years.

Claim.—The herein described halter square or corner clasp the same consisting of a flat metal plate provided at the top and one side edge with integral off-standing rectangular loops H and F, projected from the inner side of the plate and adapted to respectively receive the end of a halter cheek piece and nose band which overlap at the rear side of said plate, at the opposite side edge with an attaching eye or loop K, projected off from the body of the plate in a direct line with and in a plane parallel to the opposite off-standing loop F, to receive one end of the halter chin strap and to hold such chin strap in alignment with the nose band, and on the inner side below the top loop H, with a projected transverse lug I, and rivets passed singly through the plate and the nose band and cheek piece, and also through the overlapped ends of these parts, substantially as set forth.

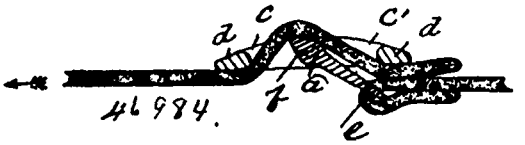
No. 46,983. Windmill. (*Moulin à vent.*)



William H. McKay, Brantford, Ontario, Canada, 6th September, 1894; 6 years.

Claim.—1st. The combination in a windmill for pumping or other purposes of a frictionless carrier with its friction rollers and guide rods working in conjunction with the crank rod, pump or other rods, and gearing, and actuated by the wind or driving wheel, all substantially as described and for the purposes as set forth. 2nd. A pump rod and crank carrier with its friction rollers and adjustable guide rods, as adapted to my own or any windmill for pumping purposes, as already described and set sorth. 3rd. Adjustable pump-rod guide-rollers for windmill purposes, attachable to any part of frame or tower, as described and for the purposes set forth. 4th. A pull-in apparatus with its connecting rods or bars in combination with a tail-vane as adapted to any style of windmill, and for the purposes as described and set forth. 5th. A ball and socket coupler for pump rods of windmills with removable ball and oiling device, as described and set forth. 6th. A main head A for carrying the mechanism of a windmill pumping or other purposes, as shown on drawings and for the purposes as described and set forth. 7th. A removable hood of metal or other material for covering or protecting the mechanism, as already described and set forth.

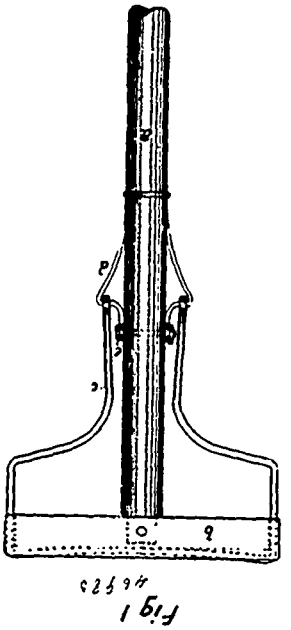
No. 46,984. Buckle. (*Boucle.*)



Walter Pritchard, Whitecross, Hereford, England, 6th September, 1894; 6 years.

Claim.—In a buckle with a tail piece, the broadened movable centre bar, as herein described and set forth.

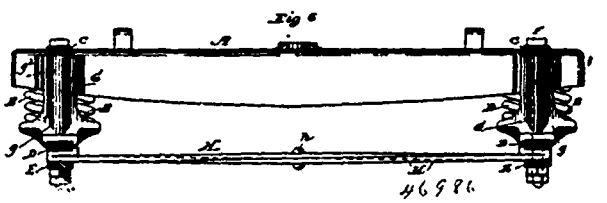
No. 46,985. Mop Holder. (*Porte-guipon.*)



Henry B. Mogk, Almira, Ontario, Canada, 6th September, 1894; 6 years.

Claim.—1st. The combination in a mop holder of the metal clamp *c*, and the lever *d*, having its fulcrum at *c*, substantially as hereinbefore described. 2nd. The combination in a mop holder of the handle, the metal clamp passing through grooves in the cross-piece and having its ends attached to the lever, the cross-piece and lever having its fulcrum on the handle and arranged to raise the clamps when opened and to return the clamp and clasp the handle when closed, all substantially as hereinbefore described.

No. 46,986. Car Truck. (*Châssis de chars.*)



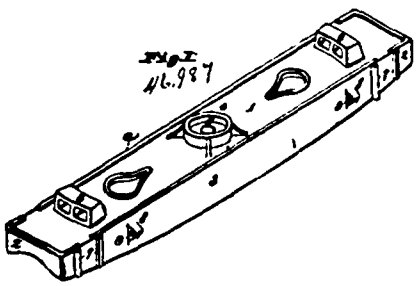
Morse B. Schaffer, St. Louis, Missouri, U.S.A., 6th September, 1894; 6 years.

Claim.—1st. In a car-truck, the combination of the bolster, the

bolster springs, the two spring seats, and the two pairs of bolster columns respectively integral with said seats, but said seats being distinct from, and having no direct connection with each other, substantially as described. 2nd. In a car-truck, the combination of the bolster, the bolster springs, the two spring seats, and the two pairs of bolster columns, said seats and said pairs being respectively integral, but the combined seat and columns at one side of the truck having no direct connection with the combined seat and columns at the opposite disc of the truck, substantially as described.

No. 46,987. Car Truck Bolster.

(*Sellette de châssis de chars.*)

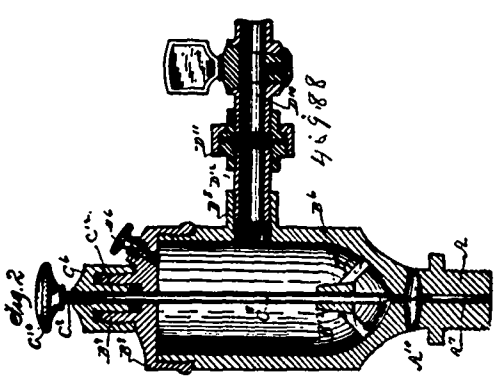


Edward F. Goltra and Morse B. Schaffer, both of St. Louis, Missouri, U.S.A., 6th September, 1894; 6 years.

Claim.—1st. In a car-truck bolster, the combination of a web and girders, said web and girders being cast in one piece, and said web being wholly or partly below the top of said girders. 2nd. In a car-truck bolster, the combination of a web and sides, said web and sides being cast in one piece, and said bolster having integral side-bearings, and said sides being united beneath the tops of said side-bearings, by means of said web. 3rd. In a car truck bolster, the combination of a web and girders, said web and girders, at a point or points between the ends of the bolster, having integral cross-ribs, substantially as described. 4th. In a car-truck bolster, the combination of a web and sides, said bolster having centre and side bearings, said sides, wholly or in part throughout their length, extending above said web, said sides, at a point or points between the ends of the bolster, being connected by cross-ribs with said web, and said sides, web, bearings and ribs being an integral casting.

No. 46,988. Lubricating System.

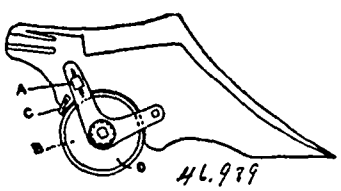
(*Système de graissage.*)



The Wilson Whiting Davis Oiling Company, Jersey City, New Jersey, assignee of Phineas Spalding Whiting, Des Moines, Iowa, all in the U.S.A., 7th September, 1894; 6 years.

Claim.—1st. The combination in a lubricating system of a reservoir containing a lubricant under pressure, a feed valve connected therewith, apparatus to be lubricated, and a continuously open pipe leading from the feed valve to the apparatus, substantially as described. 2nd. The combination in a lubricating system, of a reservoir containing a lubricant under pressure, a feed valve connected therewith, apparatus containing a fluid under pressure, a continuously open pipe from the feed valve and to the apparatus, and a normally open valve between the reservoir and the feed valve adapted to close automatically when the pressure in the apparatus falls, substantially as described. 3rd. The combination in a lubricating system, of a reservoir containing a lubricant under pressure, a feed valve connected therewith, a filter interposed between said reservoir and said feed valve, apparatus to be lubricated, and a continuously open pipe from said feed valve to said apparatus, substantially as described. 4th. In a lubricating system, a valve consisting of the following parts in combination to wit: a chambered case, an inlet thereto, a fine vent therefrom, a discharge pipe connected with said vent, a valve spindle adapted to open and close said vent, and a locknut on said spindle adapted to set the same, substantially as described. 5th. In a lubricating system, a filter operatively connected with said system, and consisting of a case *o*, and alternating rings *t*, and meshes *v*, arranged therein, substantially as described. 6th. In an apparatus for lubricating machinery, the combination of the following elements, viz.: a reservoir adapted to contain oil and receive and contain air under pressure for forcing said oil to the parts to be lubricated, a closed oil cup or oil cups and connections thereto from that portion of the reservoir containing the oil, said oil cup or cups each having a shank at its lower end to adapt it to be attached to the part to be lubricated, and having a longitudinal passage through said shank from said cup, and after said cup having a vent, and removable plug in the upper portion thereof, and a bearing for a valve stem within, the valve stem adapted to pass through an opening in the top of the oil cup and through said bearing, and to control the exit passage from said cup, substantially as described

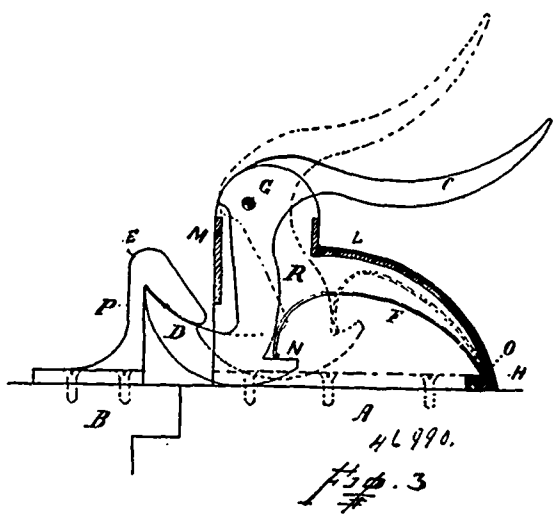
No. 46,989. Plow. (*Charrue.*)



Malcolm Campbell, Crosswell, Michigan, U.S.A., 7th September, 1894; 6 years.

Claim.—1st. A wheel or revolving land-side for plows as shown in figure 1, substantially as and for the purposes set forth. 2nd. The combination of the wheel or revolving land-side, and the adjustable bracket as shown in figure 3, substantially as and for the purposes hereinbefore set forth. 3rd. The combination of the wheel or revolving land-side, and the scraper C, in figure 2, substantially as and for the purpose hereinbefore set forth.

No. 46,990. Spring Latch. (*Loquet à ressort.*)



William Addison, Hamilton, Ontario, Canada, 7th September, 1894; 6 years.

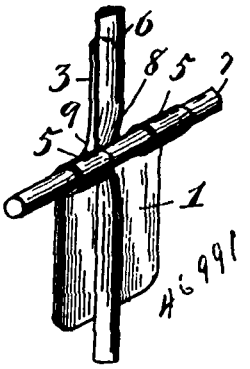
Claim.—In a spring latch, the frame formed all in one piece or casting, in combination with the lever C, suspended and working on the pin G, between the walls K, K, by direct action and connection for operating the bolt D, to engage with the holder E, as set forth. 2nd. In a spring latch, the line of contact P, of the bolt D, with the lever E, being an arc of a circle from the centre pin G, as herein described. 3rd. In a spring latch, the combination of the removable spring F, with the bolt D, in the cavity R, and the recess I, through which the spring F can be taken out of said cavity, as set forth.

No. 46,991. Clamp. (*Crampon.*)

Daniel W. Aylworth and Noble B. Leslie, both of Cleveland, Ohio, U.S.A., 7th September, 1894; 6 years.

Claim.—The herein described clamp for fence wires and the like consisting of a sheet metal plate provided with a central longitudinal groove, said plate being provided at one end with parallel slits

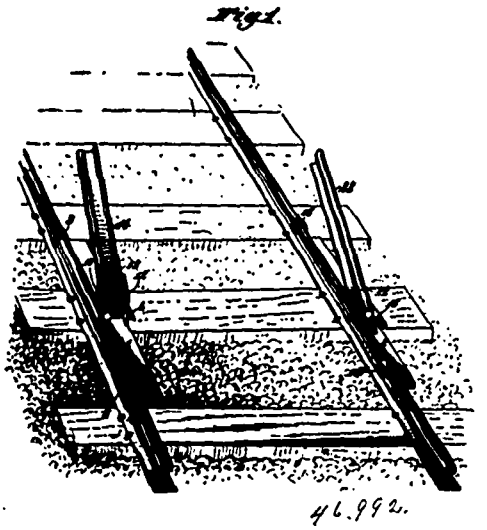
or cuts extending along the opposite sides of one of said grooves, whereby partially detached side portions formed, said side portions



being bent over to form loops, and having their extremities pressed down against the body portion of said plate below said loops, the axes of said loops being aligned with one another and arranged at right angles to the said longitudinal groove, substantially as set forth.

No. 46,992. Wrecking Frog.

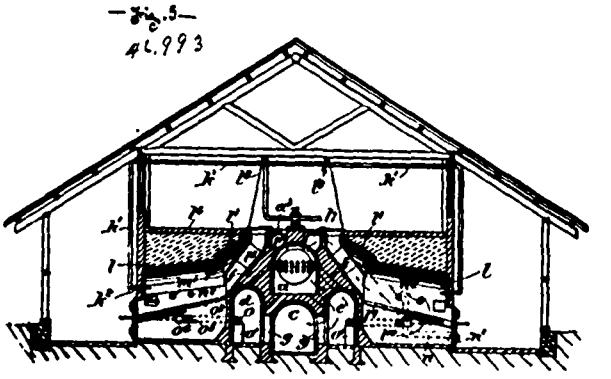
(*Rail de croisement pour remettre les chars sur la voie.*)



Willis Chester Bourdette, Gunnison, Colorado, U.S.A., 7th September, 1894; 6 years.

Claim.—1st. In a wrecking frog or car-replacer, the combination with a base frame having suitable means to engage a track rail, of a shoe slidable longitudinally on the base frame and constructed to engage and hold a car-replacing rail section, substantially as described. 2nd. In a wrecking frog or car-replacer, the combination with the base frame having suitable means to engage a track rail, of a shoe composed of a shoe base slidable longitudinally on the base frame, and a shoe-section pivoted to the said shoe base, and having means to engage and hold a car-replacing rail section, substantially as described. 3rd. In a wrecking frog or car-replacer, the combination with a base frame composed of a bar having hooks at its ends to engage over the tread of a main track rail, of a shoe composed of a shoe base slidable longitudinally along said bar, and a shoe-section pivoted to said shoe base and constructed to engage and hold a car-replacing rail section, substantially as described. 4th. In a wrecking frog or car-replacer, the combination with a base-frame having suitable means to engage a track rail, of a shoe slidable along the base-frame and provided with spurs to engage a cross-tie, and flanges to engage a car-replacing rail section, substantially as described. 5th. In a wrecking frog or car-replacer, the combination with a base-frame composed of a bar having hooks to engage the tread of a main track rail, of a shoe composed of a shoe base slidable longitudinally on the said bar and having spurs to engage a cross-tie, and a shoe-section pivoted to said shoe-base and having means to engage and hold a car-replacing rail section, substantially as described. 6th. In a wrecking frog or car-replacer, the combination with a base-frame having suitable means to engage a track-rail, of a shoe adjustable on the base-frame and provided with projecting spurs, and a sharpened flange for holding the shoe in a fixed position on a cross-tie and bracing the base-frame against the main track rail, substantially as described. 7th. In a wrecking frog or car-replacer, the combination with a base-frame having suitable means to engage a track rail, of a shoe having upwardly projecting arms provided at their edges with recesses 22, substantially as and for the purpose described. 8th. In a wrecking frog or car-replacer, the combination with a base-frame having suitable means to engage a track rail, of a shoe composed of a shoe base slidable on the base frame, and a shoe section pivoted to said shoe base and having upwardly projecting arms provided with notches 22 at their edges, substantially as and for the *purposes* described.

No. 46,993. Incinerator. (*Incinérateur.*)



Charles Thackeray, Montreal, Quebec, Canada, 7th September, 1894; 6 years.

Claim.—1st. An incinerator having a variable system of circulation or travel for the products of combustion, for the purpose set forth. 2nd. An incinerator having a main flue, leading directly from the furnaces to the chimney and auxiliary flues connected with said main flue, with means for directing the products of combustion into the auxiliary flues to prevent their direct passage to the chimney for the purpose set forth. 3rd. An incinerator having a main flue leading directly from the furnaces to the chimney, a steam boiler located within said flue, auxiliary flues connected with said main flue, and means for controlling the passage of the products of combustion through said flues and the boiler, for the purpose set forth. 4th. An incinerator having a series of main furnaces or cells communicating with the chimney and a series of auxiliary furnaces or cells communicating with said main cells, for the purpose set forth. 5th. An incinerator having a series of main furnaces or cells and a series of auxiliary cells arranged in alternate order beside each other for the purpose set forth. 6th. In an incinerator having one or more furnaces to receive the garbage and communicating with a flue leading to the chimney thereof, a garbage, receiver or chute located in the flue through which the products of combustion pass, for the purpose set forth. 7th. In an incinerator having one or more furnaces to receive the garbage and communicating with a flue leading to the chimney thereof, a garbage receiver or chute located in the flue through which the products of combustion pass and being elongated, for the purpose set forth. 8th. In an incinerator having one or more furnaces to receive the garbage, and a flue leading from such furnace for the passage of the products of combination therefrom and in which a garbage receiver or chute is located, said flue being larger at its end adjoining said furnace than at its opposite end, for the purpose set forth. 9th. An incinerator furnace provided with rocking grate bars and means for operating same from the outside of the incinerator, for the purpose set forth. 10th. An incinerator having a main flue, one or more auxiliary flues, one or more furnaces, each with a damper controlled communicating flue leading to said main flue for the products of combustion and a damper controlled passage leading from the furnace to the auxiliary flue and forming an alternative course for the products of combustion for the purpose set forth. 11th. In an incinerator having a series of furnaces or cells and auxiliary flues through which the heated products of combustion may pass, suitable conductors arranged in said flues for conveying a blast to the interiors of such furnaces, as and for the purposes set forth. 12th. In an incinerator having a series of furnaces or cells, a main flue conducting the products of combustion from said furnaces to the chimney and a steam boiler located in said flue, suitable conductors connected with said boiler and serving to convey superheated steam to said furnace or cells, as and for the purpose set forth.

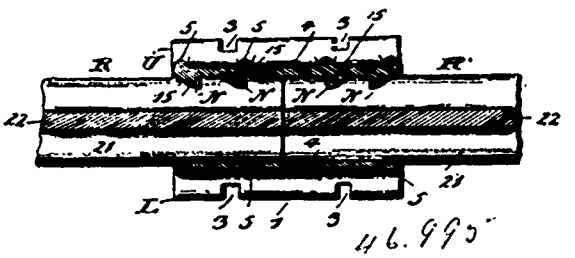
No. 46,994. Pneumatic Tire. (*Bandage pneumatique.*)

Philipp Reidel, Mannheim, Baden, Germany, 7th September, 1894; 6 years.

Claim.—1st. An elastic protective covering pad or lining for pneumatic tires for bicycles, tricycles and the like, consisting of a fibrous material such as cellulose, cotton, flax fibres, jute or the like, saturated with glue or other animal or vegetable binding material

and treated with a solution of alum or tanic acid, and waterproofed by a bath of chromic acid or tungstate of iron and rendered elastic by impregnation with a solution of india-rubber and a solution of acetate of alumina then impregnated with an india-rubber varnish and coated with india-rubber on both sides, substantially as described. 2nd. An elastic protective covering, pad or lining for pneumatic tires for bicycles, tricycles and the like consisting of cellulose dissolved to form a thin paste and thoroughly mixed with prepared flax or cotton fibres and formed in a mould corresponding to the shape of the tread of the tire, this paste being compressed, and then covered with a thin layer of compressed flax fibre on which a further quantity of paste is poured the whole again slightly pressed saturated or rendered insoluble and practically waterproof and elastic, then varnished and coated with india-rubber, substantially as described. 3rd. An elastic protective covering, pad or lining for pneumatic tires for bicycles, tricycles and the like consisting of a linen or canvas tube lined with flax fibres on which is poured a paste formed of a solution of cellulose and flax and cotton fibres, the tube thus prepared being pressed in a mould and quickly dried, then saturated with an adhesive binding material and completed in the manner described in claim 1. 4th. An elastic protective covering, pad or linen for pneumatic tires for bicycles, tricycles and the like consisting of raw cotton or cotton wool wadding which has been carefully purified from all foreign matter and made into as thick a flock as possible saturated with an adhesive binding material subjected to slight pressure, and completed in the manner described in claim 1. 5th. A protective covering, pad or lining similar to the foregoing for pneumatic tires for bicycles, tricycles and the like, in which wood pulp, esparto or similar fibrous material and sylsal, manilla, jute, aloe or the like, is substituted for cellulose and linen and cotton fibres. 6th. In an elastic protective covering pad or lining for pneumatic tires for bicycles, tricycles and the like consisting of a linen hose, india-rubber, or like tube impregnated with india-rubber varnish and into which are placed strips of raw cotton or cotton wool wadding or similar material which has been purified, made into a thick flock and impregnated with licopodium powder or licopodium substitute, a thin coating of india-rubber being then applied, substantially as described. 7th. The manufacture of a powder and its use in a protective covering or the use of asphalt powder alone pad or lining such as described formed by boiling asphalt, adding thereto naptha until consistent paste is formed adding a distillate of coal tar thickening the whole by indirect steam boiling and after congelation grinding the product to a powder.

No. 46,995. Rail Joint. (*Joint de rail.*)



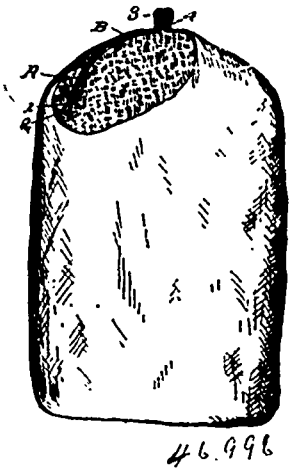
Gilbert A. Bartholomew, and Ruben B. Mitchell, both of Maumee, Ohio, U.S.A., 10th September, 1894; 6 years.

Claim.—1st. A railway chair, consisting of two members with means for locking them together and securing them to the tie, each member having a base adapted to fit under the base of the rail, and a body rising from the outer edge of said base and passing closely over the base of the rail, the inner edge of said body being dished on its inner face and of sufficient height to fit snugly between the top of the base plate and the bottom of the ball of the rail, as and for the purpose set forth. 2nd. In a rail joint, the combination with the meeting ends of two rails whose base plates are provided in the same edges with notches the sides of which nearest the end of the rail are at right angles to the length thereof, and the other sides of which are bevelled, of a chair composed of two members with means for locking them together and to the tie, one member fitting over the notched edges of the rails and having teeth of the same shape as but smaller than said notches, as and for the purpose set forth. 3rd. In a rail joint, the combination with the meeting ends of two rails, of a chair composed of two members each comprising a base standing under the rail and a body passing outside of the base and resting against the web of the rail, the bases of the two members being provided with an interlocking tongue and groove standing oblique to the axial line of the joint, substantially as set forth.

No. 46,996. Bag Fastener. (*Fermeture de sacs.*)

Yeamans Smith Merriott, Baltimore, Maryland, assignee of Adolph Osterlok, Richmond, Virginia, both in the U.S.A., 10th September, 1894; 6 years.

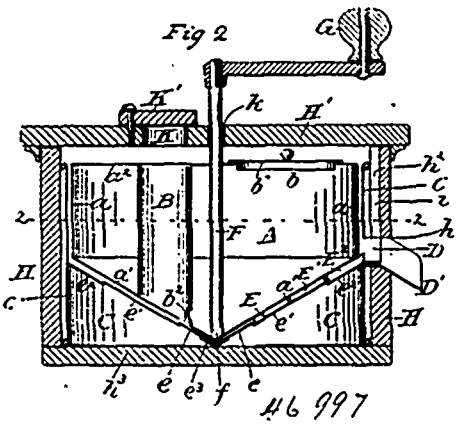
Claim. 1st. A bag, the mouth whereof is provided with two wire bails, as A, B, hinged together so as to open or close the same, said bails having integral engaging fastenings formed by bending or shaping the bail itself, substantially as described. 2nd. A bag mouth controlling device, consistining of a pair of wire bails hinged



together so as to move to and from each other, which bails are provided with integral fastenings for engaging and locking them together, which consist of loops, hooks or projections bent or shaped out of the bail itself, substantially as described.

No. 46,997. Ice Cream Freezer.

(*Congélateur pour crème glacée.*)



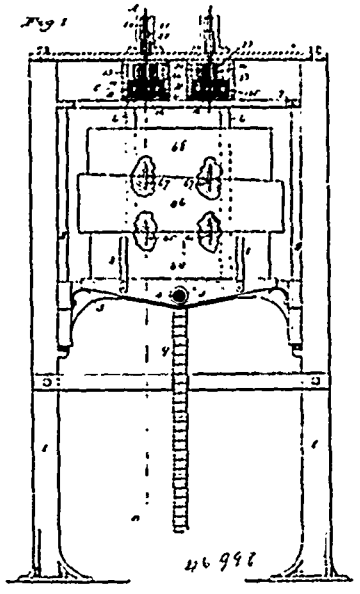
The Thatcher Freezer Company, Albany, New York, assignee of Walter R. Thatcher, Oskaloosa, Iowa, both in the U.S.A., 10th September, 1894; 6 years.

Claim.—1st. In an ice cream freezer having a revolving ice cylinder, provided with a conical form bottom, the combination with the same, of a conical material supporting bottom which corresponds with the angle of the conical bottom of the said ice cylinder, and having the series zones or concentric planes c, c^1, c^2, of upper side surfaces in which each succeeding zone or plane is at a short distance below the line of surface of the preceding one, and the series of guide bars E, E^1, E^2, fixed to said material supporting bottom, substantially as and for the purposes set forth. 2nd. The combination with the revolving ice cylinder having a conical form of bottom, and the fixed conical form of material supporting bottom secured within the cylinder case C, and provided with the central step f, of the vertical shaft F, passing through the chamber of the ice cylinder, and secured with the top and bottom of the same, so as to revolve with the said shaft, and a bearing suitably supported above the top wall of the ice cylinder, and receiving the upper portion of the said shaft and provided with means for revolving the same, substantially as and for the purposes set forth. 3rd. The combination with a revolving ice cylinder, provided with a bottom for separating the freezing material within the said cylinder from the material to be frozen within the chamber beneath, and a case provided with the material supporting bottom and including the said revolving ice cylinder, of the outer case H, made of non-conducting material, and calculated to exclude and prevent the air from having contact with the said ice cylinder within, and a removable cover provided with a bearing for the shaft of the said ice cylinder, and with means for the ready passage of the liquid to be frozen into the liquid chamber in the said ice cylinder, substantially as and for the purposes set forth. 4th. The combination with the case supporting the revolving ice cylinder, and a fixed discharge spout, fixed to the

same, for leading the frozen material to an exit, of the outer case H, provided within its wall with opening h, and a vertical way h^1, through which the said fixed discharge may pass to opposite said perforation, and a supplemental discharge spout contained within the said opening, and telescoping with the said fixed discharge spout, substantially as and for the purposes set forth.

No. 46,998. Method of and Machine for Dowelling.

(*Méthode et machine d'assemblage.*)

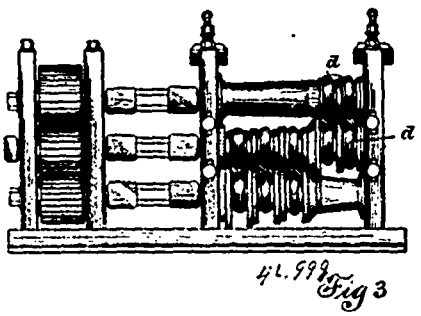


Henry Campbell, Baltimore, Maryland, U.S.A., 10th September, 1894; 6 years.

Claim.—1st. The herein described method of dowelling which consists in first causing the end of a continuous dowel strip, rod or wire to be inserted in one of the pieces to be joined, then severing the wire at a distance from said piece, and then forcing said piece and the other piece to be joined together substantially as set forth. 2nd. The herein described method of dowelling which consists in first causing the end of a continuous dowel strip, rod or wire to be inserted in one of the pieces be joined, then severing the wire at a distance from said piece and forming cutting edges on the wire at each side of the point of severance, and then forcing said piece, and the other piece to be joined together, substantially as set forth. 3rd. In a dowelling machine, the combination of a holder or rest for the work, means for holding the pieces to be joined in line with each other, devices for cutting and holding the dowels, and mechanism for causing said holder and devices to approach each other to insert the dowels, substantially as set forth. 4th. In a dowelling machine, the combination with the dowel cutting and holding devices and means for holding the pieces to be joined in line with each other, of a freely oscillatory work holder mounted upon a pivot or hinge, substantially as set forth. 5th. In a dowelling machine, the combination of a work holder, means for holding the pieces to be joined in line with each other, cutters for forming the dowels, and feeding and gripping devices for supplying the material for the dowels from a continuous wire or rod, substantially as set forth. 6th. In a dowelling machine, the combination with means for holding or supporting the work, of dowelling cutters having four co-operating cutting edges operating to sever the dowels and form on each of the same at the point of severance a central chisel edge, and mechanism for causing said dowels and the work to be forced together, substantially as set forth. 7th. In a dowelling machine, the dowel-cutting devices comprising opposite dies having a longitudinal passage for the material from which the dowels are to be formed, and having faces bevelled to a central line, and bevelled cutters or dies correspondingly bevelled to fit said faces and movable transversely of the first mentioned cutters or dies, substantially as set forth. 8th. The combination with the dowel holding devices of the vertically movable work holder, mechanism for actuating the same, and the guide 6 along which the pieces to be joined together are adapted to slide, substantially as set forth. 9th. In a dowelling machine the combination with the dowel holding devices, of a frame movable toward and from said devices, the pivot 4 carried by said frame, a work holder mounted on said pivot, springs for maintaining said holder in a normal or average position but adapted to yield to enable the work to be presented properly to the dowels, and mechanism for moving said frame, and guides for the pieces of work to be joined, substantially as set forth. 10th. In a dowelling machine the combination of a work holder movable as described, guides 6 arranged parallel to its line of movement, and adapted to maintain in line with each other the pieces to be joined, holding devices for the dowels, and cutters movable transversely to said work holder and adapted to produce chisel edges upon the dowels extending crosswise to the grain of the pieces to be joined, substantially as set forth.

No. 46,999. Method of Renewing Old Steel Rails.

(*Méthode de renouveler les vieilles rails d'acier.*)

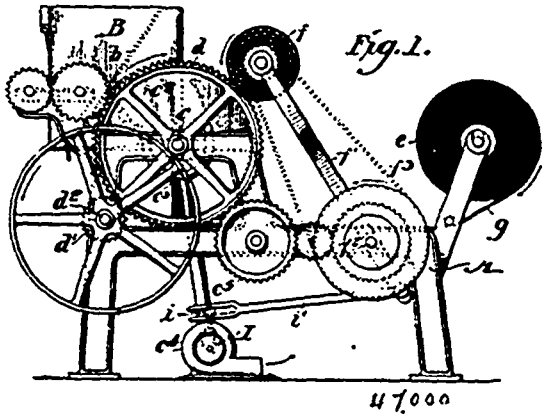


Edward W. McKenna, Milwaukee, Wisconsin, U. S. A., 10th September, 1894; 6 years.

Claim.—1st. The process of adapting old steel rails to further use, which consists in heating the same to a temperature near to, but below, the point at which the carbon contained therein would be materially affected, simultaneously straightening and reducing the cross-section thereof equally in all its parts, but keeping the rail of the original height, and then sawing off the ends; whereby a rail of reduced cross-section, but of the same or greater length and the same height as the original rail is produced. 2nd. The process of adapting old steel rails to further use for their original purpose, which consists in heating the same to a temperature below a point at which the carbon contained therein would be materially affected, straightening the rail and reducing the cross-section thereof sufficiently to remove the irregularities due to wear or other cause, whereby a rail is produced of a standard height, with a reduced cross-section properly proportioned, and so formed as to be used interchangeably with rails of standard pattern which are approximately of the same weight as that of the renewed rail, substantially as described.

No. 47,000. Match Making Machine.

(*Machine à faire des allumettes.*)



Joseph Charles Donnelly, Philadelphia, Pennsylvania, U.S.A., 10th September, 1894; 6 years.

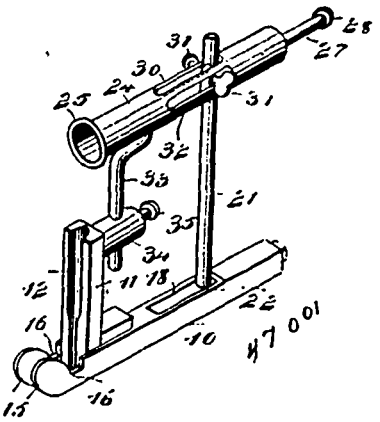
Claim.—1st. In a match making machine, the combination with a hopper or splint feeding device, of a perforated splint receiver adjacent thereto, a chamber communicating with the perforations in said receiver and means for exhausting the air from said chamber, the perforations in the receiver being so disposed that the splints in the hopper or feeding device will be drawn upon the perforations when the latter are in the path of the splints and will be thereby maintained upon the receiver at intervals apart, substantially as described. 2nd. In a match making machine, the combination with a hopper, or splint feeding device, of a perforated splint carrier communicating therewith, a chamber communicating with the perforations in said carrier, and means for exhausting the air from said chamber, the perforations in the carrier being disposed in parallel rows that the individual splints in the hopper or feeding device shall be drawn to and upon the succeeding rows during the traverse of the latter, substantially as described. 3rd. In a match making machine, the combination with a hopper, of a peripherially perforated rotable

roller or drum, a stationary air chamber within said drum, a pipe or pipes leading from said chamber, and an exhaust communicating with said pipe or pipes, the perforations in the said roller or drum being disposed in parallel series, whereby the individual splints will be drawn successively upon said perforations and thus be maintained at intervals apart upon the roller or drum, substantially as described. 4th. In a match making machine, the combination of a carrier provided with perforations arranged in parallel rows, a chamber below the perforated surface, means for exhausting the air from said chamber, and a bunching spool coacting with said carrier, whereby the splints feed to the carrier will be maintained thereon at intervals apart, and be conducted thereby to the bunching spool, substantially as described. 5th. In a match making machine, the combination of a hopper, a drum communicating therewith, said drum being provided with a circumferential groove and with parallel series of peripherial perforations, a chamber below the perforated surface, means for exhausting air from said chamber, a bunching tape or web passing around the circumferential groove, and a bunching spool with which said tape or web is connected, substantially as described. 6th. In a match making machine, the combination of a splint containing hopper provided with an outlet for the withdrawal of the splints in single file, a carrier provided with perforations arranged in parallel series which are adapted successively to communicate with said outlet, chamber communicating with the perforated surface, and means for exhausting the air from said chamber, substantially as described. 7th. In a match making machine, the combination of a splint containing hopper provided with an outlet for the withdrawal of the splints in single file, a carrier provided with perforations arranged in parallel series which are adapted successively to communicate with said outlet, a chamber communicating with the perforated surface, means for exhausting the air from said chamber, and a splint bunching spool and tape coacting with said carrier, substantially as described. 8th. In a match making machine, the combination of a splint containing hopper provided with a frame therein, between which and the bottom of the hopper is formed a space for the outward passage of the splints, a carrier provided with perforations which are adapted successively to communicate with said outlet, a chamber communicating with the perforated surface, and means for exhausting the air from said chamber, substantially as described. 9th. In a match making machine, the combination of a splint containing hopper provided with a lateral passage for the withdrawal of the splints singly, of a splint carrier laterally adjacent to said passage, and means for transferring the splints laterally from said passage to the carrier, substantially as described. 10th. In a match making machine, the combination of a splint containing hopper provided with a lateral passage for the withdrawal of the splints singly, of a splint carrier laterally adjacent to said passage provided with perforations which are adapted successively to communicate with the mouth of said passage, a chamber communicating with the perforations, and means for exhausting air from said chamber, substantially as described. 11th. In a match making machine, the splint carrying drum provided with a median circumferential groove, and with transverse rows of peripherial perforations on each side of said groove, substantially as described. 12th. In a match making machine, the splint carrying drum provided with transverse rows of peripherial perforations, in combination with a pair of stationary exhaust chambers arranged side by side within said drum in communication with the perforations, an exhaust engine, and connections between the same and said chambers, substantially as described. 13th. In a match splint bunching machine, the combination of a perforated splint carrier, a chamber below the perforated surface, means for exhausting the air from said chamber, a splint bunching or assembling device, its supporting and operating parts, and means for automatically checking the air exhaust when the bunching or assembling operation has reached a predetermined stage, substantially as described. 14th. The combination of a perforated carrier, a chamber below the perforated surface, an air exhaust device, a pipe connecting the same with said chamber, a valve on said pipe, a bunching spool, the rocking-arm supporting said spool, means for rotating said spool, and a connection between said rocking-arm and the valve, whereby the latter is closed at a predetermined period, substantially as described. 15th. In a match making machine, the combination with coacting splint carriers, the surface of one of which is perforated transversely at intervals, of an air engine communicating with the perforated surface in a manner to effect the transference of the successively advancing splints from one carrier to the other, substantially as described.

No. 47,001. Needle Threader. (*Enfileur d'aiguille*)

Cimon S. Goldman, New York, State of New York, U.S.A., 10th September, 1894; 6 years.

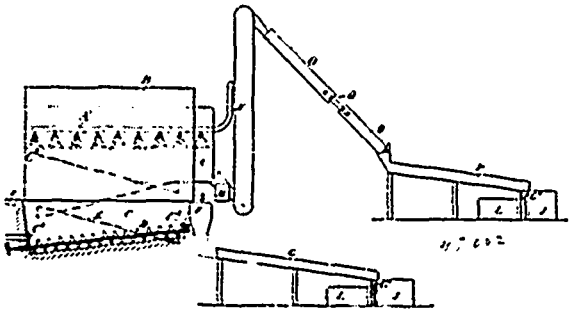
Claim.—1st. A needle threader, comprising a body, and a spring-repressed threading hook held in the body and adapted to be forced through a needle eye, substantially as described. 2nd. A needle threader, comprising a hollow body having guide lips at one end to embrace a needle, and a spring repressed threading hook held in the body and adapted to project through a needle eye, substantially as described. 3rd. A needle threader, comprising a hollow body having a guide at one end to engage a needle, and a threading hook held in the body and adapted to penetrate the needle eye, substantially as described. 4th. A needle threader, comprising a hollow body having a grooved offset at one end, a hanging device connected with the offset and adapted to be attached to the needle bar of the machine, and a threading hook held in the body and adapted to



penetrate the needle eye, substantially as described. 5th. A needle threader, comprising a hollow body having a guide groove at one end to receive a needle, a threading hook held in the body and adapted to penetrate a needle eye, a hanger tube held to engage the set screw of a needle bar, and an adjustable connection between the hanger tube and the body, substantially as described. 6th. The combination, with the longitudinally bored body and the slotted hanger tube, of a connection between the tube and body, a sliding threading hook held in the body, a spring repressed slide in the hanger tube, and a rod connecting the slide and hook, substantially as described. 7th The combination, with the body and the longitudinally movable hook therein, of the hanger tube, the adjustable connection between the tube and body, the spring-repressed slide block in the hanger tube, and a rod connecting the slide block with the hook, substantially as described. 8th. The combination of the hollow body having a longitudinal bore reduced and tapered at one end, and the threading hook held to slide through the tapered end of the bore, substantially as described. 9th. The combination of the hollow body, the longitudinally movable threading hook therein, and the guard lips projecting forward from the body on opposite sides of its bore, substantially as described. 10th. The combination of the hollow body, the longitudinally movable threading hook therein, and the forwardly projecting lips on opposite sides of the body bore, the lips having notches on their upper and inner edges, substantially as described.

No. 47,002. Manufacture of Block Fuel, &c.

(*Fabrication de combustible en bloc, etc.*)

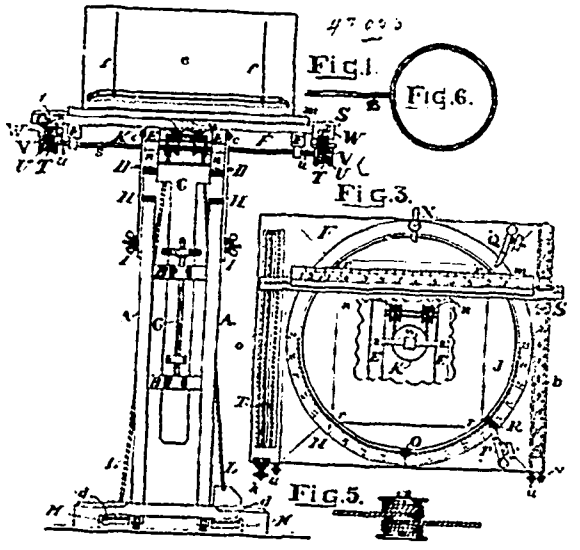


John Charles William Stanley, London, England, 10th September, 1894; 6 years.

Claim.—1st. The method or process of dealing with finer materials of house refuse consisting in sieving and washing to eliminate the larger and coarser portions then separating and removing the finer portions from the tailings utilizing a stream of water in so doing and then carrying the finer portions to a suitable tank or receptacle filled with water, and the tailings over a magnetizing machine from which they are conveyed into a tank, as shown and for the purpose specified. 2nd. In the treatment of finer ingredients of house refuse, the combination, with two sieves the second of which has a smaller mesh than the first, of a series of reversory inclined chambers C, and worm conveyors D, substantially as and for the purpose specified. 3rd. In the treatment of the finer ingredients of house refuse, the combination, with two sieves the second of which has a smaller mesh than the first, of a washer G, and tanks J, K, L, substantially as described. 4th. In the treatment of the finer ingredients of house refuse, the combination, with two sieves, the second of which has a smaller mesh than the first, of a magnetizing machine, an elevator N, separation shoot O, O^1, and washer P, substantially

as and for the purpose described. 5th. In the treatment of the finer ingredients of house refuse, the combination, with the two sieves, the second of which has a smaller mesh than the first, of washers consisting of double trough and sluice for directing the tailings into either one or the other of the troughs and partition boards or plates extending throughout the length of the trough and lying at the bottom thereof, and means for raising such partition boards, as and for the purpose specified. 6th. In the treatment of the finer ingredients of house refuse, the combination, with the two sieves, the second of which has a smaller mesh than the first, of washers consisting of double trough and sluice for directing the tailings into either one or the other of the troughs and partition boards or plates extending throughout the length of the trough and lying at the bottom thereof, for raising such partition boards, a lower sluice to close the end of the trough, and a shoot G¹, for directing the contents of the trough into the tank L, as and for the purpose specified.

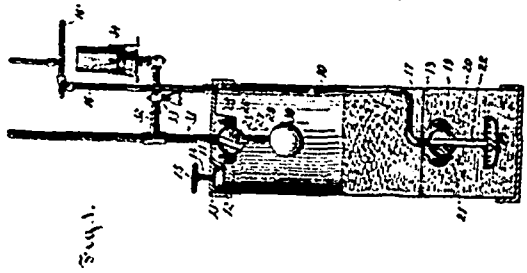
No. 47,003. Drawing, Sketching and Designing Table. (*Table à dessiner, esquisser et ébaucher.*)



Samuel John Laughlin and James Hough, both of Guelph, Ontario Canada, 10th September, 1894; 6 years.

Claim.—1st. In a drawing, sketching and designing table, legs or upright sides, A, A, and upright support C, in combination with a top or rim F, treadles M, M, hinged at *d*, *d*, and connected to cords or chains L, L, said cords or chains passing over pulleys *n*, *n*, and connected to a pulley K, said pulley held in position by clips fastened to cleats E, a projecting part *w*, fitting into the underside of revolving table J, for the purpose of turning said table J, when treadles M, M, are operated upon, substantially as described. 2nd. In a drawing, sketching and designing table, legs or upright sides A, A, connected together by cross-bars B, B, upright support C, hinged or pivoted at D, D, to cleats E, said cleats fastened to the underside of top or rim F, stays H, H, connecting to cleats E, underneath top or rim F, and to legs or upright sides A, A, by means of thumb nuts I, I, adapted to hold said top or rim F firm, when tilted to any desired slant, substantially as specified. 3rd. In a drawing, sketching and designing table, shaft *s* carrying two drums U, U, cord or flexible bands T, T, reversibly wound around said drums, thumb nuts *u*, *u*, for the purpose of adjusting same, said cords or flexible bands passing over pulleys V, V, and connected to brackets W, W, said brackets fastened to a straight edge S, sliding rule *m*, mounted and sliding horizontally upon said straight edge, a rule *b* placed upon one side of said top or rim F, and adjusted by a thumb nut *r*, Stops P, Q, secured to top or rim F, catch R, on revolving table J, for regulating the distance of revolution of said revolving table J, protractor N, forming part of top or rim F, A, pointer O, secured to the edge of revolving table J, for the purpose of setting to any figure upon said protractor, a thumb nut X for holding revolving table J, firm when to any desired angle, as described. 4th. In a drawing, sketching and designing table, the combination of legs or upright sides A, A, upright support C, stays H, H, with a top F, and protractor N, inserted or figured on said top or rim F, a revolving table J, mounted on rollers, said rollers inserted in cleats E, stops P and Q, and catch R, for regulating the distance revolution of said revolving table J, spring fastenings *r*, locking into L-shaped catches Y, on the sides of revolving J, for the purpose of holding the drawing paper firmly on said revolving table J, an octangular or other shaped ratchet-bar *o*, on which each of the sides or edges are differently divided by notches in equal parts of rule measurements, said bar to be turned by thumb nut *h*, and held in position by a pinion and catch *y*, a catch in the end of straight edge S directly over said ratchet-bar for the purpose of dropping in notches of said octangular or other shaped ratchet-bar, and a thumb nut *h*, pivot and catch *y*, a rest *e*, connected to square top or rim F, carrying two springs *f*, *f*, all substantially as set forth. 5th. In a drawing, sketching and designing table, revolving table J, substantially as specified. 6th. In a drawing, sketching and designing table, top or rim F, substantially as specified. 7th. In a drawing, sketching and designing table, straight edge S, with sliding rule *m*, mounted thereon to be operated by flexible bands or cords, all substantially as specified. 8th. In a drawing, sketching and designing table, a sliding rule *m*, mounted upon a straight edge, as specified. 9th. In a drawing, sketching and designing table, cords or flexible bands T, T passing over pulleys, and reversibly wound upon drums upon shaft *s*, and connected at W, to straight edge S, for the purpose of operating said straight edge, and allowing said straight edge to be moved up and down in a horizontal position, all substantially as specified. 10th. In a drawing, sketching and designing table, a protractor N, in combination with revolving table J, and top or rim F, for the purpose of setting revolving table to any desired angle. 11th. In a drawing, sketching and designing table, a perpendicular rule *b*, in combination with rim or top F, and revolving table J, said perpendicular rule to be adjusted or moved up or down by thumb nut *r*. 12th. In a drawing, sketching and designing table, an octangular or other shaped ratchet-bar *o*, upon which each of the sides are divided by notches into different equal rule measurements or parts of inches, for the purpose of spacing, sectional lining, or measuring by notches or ratchets. 13th. In a drawing, sketching and designing table, spring fastenings *r*, closing down into catch Y, for the purpose of fastening and holding paper firmly to table. 14th. In a drawing, sketching and designing table, stops P and Q, catch R, thumb nut X, and pointer O, in combination with top or rim F, and revolving table J, all substantially as set forth. 15th. In a drawing, sketching and designing table, a rest *e*, adapted to be removed, if required, connected to top or rim F, and having two springs *f*, *f*, in connection therewith for purpose of holding a drawing or book for copying purposes, as specified. 16th. In a drawing, sketching and designing table, a slide extension rest (Fig. 6) adapted to slide upon a support rod Z, and held firm by thumb nut, all substantially as specified. 17th. In a drawing, sketching and designing table, revolving table J, and top or rim F, in combination with perpendicular rule *b*, protractor N, and straight edge S, with sliding rule *m*, mounted on said straight edge, cords or flexible bands T, T, passing over pulleys, and wound on drums U, U, said drums connected to shaft *s*, for purpose of operating said straight edge, fastenings *r*, stops P, Q, and catch R, pointer O, and thumb nut X, all substantially as specified.

No. 47,004. Carburetor. (*Carburateur.*)



Harry Button Cornish, Hampton, Iowa, U.S.A., 10th September 1894; 6 years.

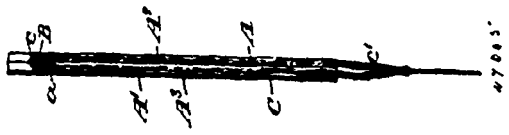
Claim.—1st. The combination with the oil tank provided with an outlet in its top and an air inlet pipe terminating within the tank above its bottom, of two pendulous swinging valves depending from the said inlet and outlet pipes, and having a universal connection therewith to permit the valves to swing in all directions and close the inlet and outlet pipes, the bores of the valves registering with the pipes when the pendulous valves are in a vertical position, substantially as set forth. 2nd. The combination with the tank provided with an inlet and an outlet pipe and pendulous swinging inlet and outlet valves within the tank and ball and socketed to the inner ends of said inlet and outlet pipes, and having their bores normally registering with the bores thereof, whereby said pipes will be automatically closed when said bores are out of register, substantially as set forth. 3rd. The combination, with the carburetting tank, having a suitable discharge pipe, of an air supply pipe delivering into the tank, a ball valve at the inner end of the pipe, and a weighted rose connected with the valve to swing therewith and adapted to discharge into the lower portion of the tank, substantially as described. 4th. The combination with the tank and its inlet pipe, of a pendulous swinging rose in the tank and ball and socketed to the inner end of the said pipe with its bore normally registering with the bore thereof, substantially as set forth.

No. 47,005. Thread Package. (*Enveloppe pour fil.*)

Benjamin Latham Armstrong, New London, Connecticut, U.S.A., 10th September, 1894; 6 years.

Claim.—1st. A thread package consisting of a folded casing for

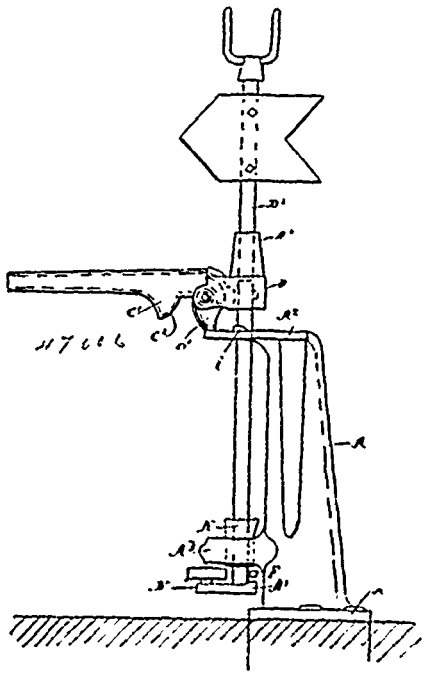
embracing the skein, the said casing being provided with a folded bearing piece located between the walls of the package and forming a partition between the sides of the skein, substantially as set forth.



2nd. A thread package consisting of a *folded casing for embracing the skein*, a portion of one of the folded parts of the casing being further folded in the longitudinal direction of the skein and forming a partition between the sides of the skein, substantially as set forth. 3rd. A thread package consisting of a folded casing for embracing the skein, a portion of one of the folded parts being further folded in the longitudinal direction of the skein and provided with a reinforcing rod or stem at the bight of such additional fold, said additional fold forming a partition between the sides of the skein, substantially as set forth.

No. 47,006. Railway Switch Stand.

(*Table pour aiguilles de chemin de fer.*)



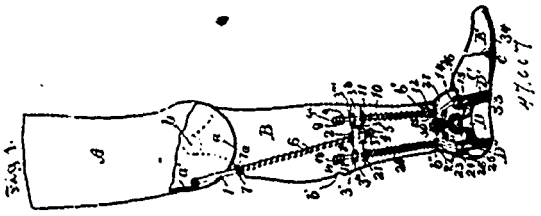
Walter Rowlands, Montreal, Quebec, Canada, 10th September, 1894; 6 years.

Claim.—1st. A switch stand having its pedestal formed with a vertical recess in its side for the purpose set forth. 2nd. In a switch stand, the holder section of the lift casting, formed a square vertical recess or socket, to receive the correspondingly-shaped end of a target rod for the purpose set forth. 3rd. In a switch stand, the operating handle thereof formed with a projecting lip or shoulder adapted to engage the end of the table portion of the stand, for the purpose set forth. 4th. In a switch stand, the operating handle thereof formed with a downwardly projecting lip or shoulder with inclined side, adapted to engage beneath the edge of the table portion of the stand, for the purpose set forth. 5th. In a switch stand, the combination with the lock plate G, having inward projection G^1, of the locking bar, formed with openings F^1, for the purpose set forth. 6th. In a switch stand, the combination with the locking bar thereof, and the operating spindle, of the crank on such spindle having its free end extended to support said locking bar, and the lock casting on such spindle adapted to bear upon and retain such bar in place, for the purpose set forth. 7th. The table portion A^2, of the switch stand having stops *l*, *l*, formed thereon, for the purpose set forth. 8th. The lift casting of the switch stand having its underside cut away, for the purpose set forth.

No. 47,007. Artificial Limb. (*Membre artificiel.*)

John Foster Read, Denver, Colorado, U.S.A., 10th September, 1894; 6 years.

Claim.—1st. In an artificial limb, the combination with the leg and lower limb sections pivoted together at the knee joint, of a knee-rod pivotally attached to the leg section to the rear of the knee joint, and slidingly connected to the lower limb section, said rod being surrounded by a compression spring, and check nuts, substantially as described. 2nd. In an artificial limb, the combination with the leg and lower limb sections pivoted together at the knee-joint, of a knee-rod attached to the leg section to the rear of the knee-joint, a cross-piece in the lower limb section through which said rod passes, a yielding washer on the rod beyond the seat, check



nuts for adjusting the washer on the rod, a spring, a pivoted seat therefor through which the rod passes, and an adjustable collar on the rod for regulating the compression of the spring, substantially as and for the purposes described. 3rd. In an artificial limb, the combination with the sections A and B pivoted together, of a knee-rod attached to the upper section and having a check connection in a bridge bearing piece in the lower section, a spring surrounding said rod, a foot section, a universal connection between the foot section and the lower limb section, and heel and toe rods attached to the foot section, and having a check connection with the lower limb section, substantially as described. 4th. In an artificial limb, the combination with the lower limb section and foot section, of a universal joint between the two sections, and toe and heel rods having ball and socket connections in the foot section, and sliding check connections in the leg section, substantially as described. 5th. In an artificial limb, the combination with the lower limb section, having a spider formed with an interiorly threaded boss at its lower end, an inverted cup mounted in the spider, a foot section, a frame in the foot section formed with a crown or semi-spherically-shaped projection which fits into the inverted cup, said projection being threaded around its base, and a confining cap which is received on the threads and retains the inverted cup in position, substantially as described. 6th. In an artificial limb, the combination with the section B and C, of a universal connection therebetween, comprising a spider 27, mounted in the lower end of the section B, and formed with an interiorly threaded boss, an inverted cup formed with a hollow stem, which is screwed into the boss, a jam nut on the end of the hollow stem, a semi-spherical bearing surface which is mounted in the section C, and which projects up into the cup, and a confining cap which is screwed on the projection for holding the parts together, substantially as described. 7th. In an artificial limb, the combination with the two sections A and B, pivoted together, of a foot section, having a universal connection with the lower section B, a bridge bearing piece in the last-named section, a knee-rod attached to the section A, and having a check connection in the bridge, toe and heel rods universally connected in the foot section at its front and back, respectively, and having check connections with the bridge piece, substantially as described.

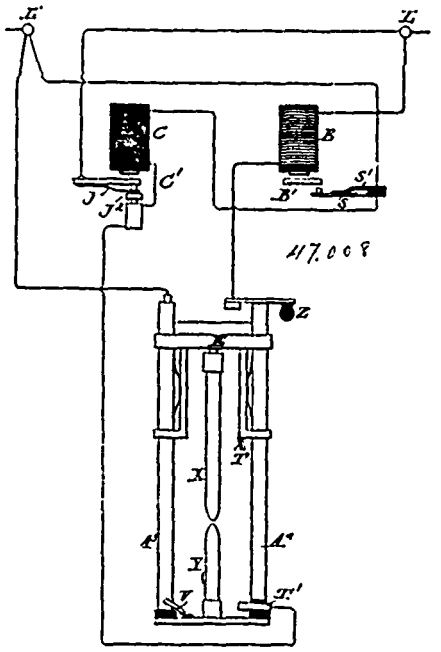
No. 47,008. Electric Arc Lamp.

(*Lampe électrique à arc.*)

William Smith Pendleton, New York, State of New York, U.S.A., 10th September, 1894; 6 years.

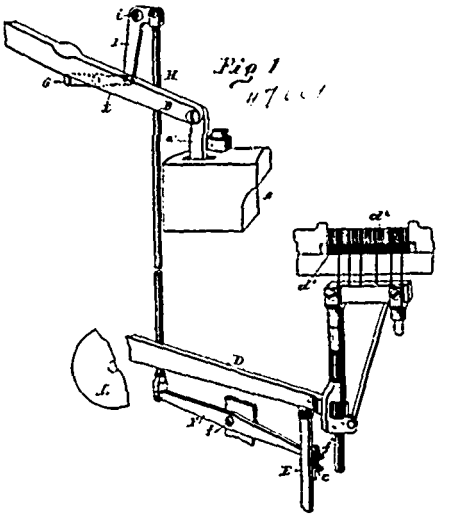
Claim.—1st. The combination, substantially as set forth, of the magnet B, the rocking frame actuated thereby, a wheel mounted in the frame and having a peripheral groove, in which is wound the suspending cord of the carbon carriage, and a peripheral gear formed thereon, a spring applied to said wheel to wind the cord thereon, a pinion on a shaft mounted in said frame, meshing with said peripheral gear, a ratchet-wheel at one end of said shaft, and a brake-wheel at the other end of the shaft, a brake shoe against which the brake-wheel is pressed when the carriage is actuated, the magnet C, its rocking frame, the pawl on said frame into engagement with which the ratchet-wheel is thrown by the movement of the first-mentioned frame, and means for automatically opening the circuit of the magnet C, when the rocking frame carrying the pawl has been actuated by it. 2nd. The combination, substantially as set forth, of the top and bottom plates, the magnets B, C, pendant from the top plate, the arch-shaped frame B^2, pivoted upon the lower plate, and consisting of two side bars connected by the armature of the magnet B, the arch-shaped portion of the frame extending up between the magnets, the shaft uniting the upper parts of the two side bars, the peripherally geared or toothed winding wheel mounted centrally on said shaft and supporting the carbon carriage, the shaft F^1, mounted in the lower part of the frame, and carrying a pinion F, with which the geared-wheel meshes, a ratchet-wheel on one end of the last-named shaft, and a bracket-wheel upon the other, the arch-shaped frame C^2,

pivoted on the bottom plate, and consisting of two side bars connected with the armature of the magnet C, said side bars being arranged on the outer sides of the frame B^2, and arching up over the shaft F^1, the pawl carried by the frame C^2, and the brake shoe mounted on the bottom plate. 3rd. The combination, substantially



as set forth, of the top and bottom plates, the magnets B, C, pendant from the top plate, the arch-shaped rocking frame B^2, actuated by the magnet B, and extending up between the magnets B, C, the carbon carriage suspending wheel mounted in said frame, a gear moving with the wheel and driving a pinion on a shaft mounted in said frame, a ratchet-wheel and brake-wheel carried at opposite ends of said shaft, the rocking arch-shaped frame C^2, actuated by the magnet C, and extending up between the two magnets B, C, the pawl on the frame C^2, engaging the ratchet-wheel, the brake shoe, and the contacts for automatically opening the circuits of the magnet C, when it has caused the movement of the rocking frame. 4th. The combination, substatinally as set forth, of the magnet B, the rocking frame carried thereby, the carbon carriage suspending wheel mounted in said frame, a coil spring applied thereto, and tending normally to raise the carriage, a gear moving with said wheel and driving a pinion on a shaft mounted in the frame, a ratchet-wheel, and a brake-wheel carried at opposite ends of said shaft, the frame C^2, actuated by the magnet C, the pawl on the frame engaging the ratchet-wheel, the brake shoe, and the contacts for automatically opening the circuit of the magnet C, when it has caused the movement of its frame. 5th. The combination, substantially as set forth, of the magnet B, included in the main circuit with the carbons, the rocking frame controlled by said magnet, and from which is suspended the movable carbon carriage, whereby, on the rocking of the carriage, the carbons are separated to establish the arc, the magnet C, included in a shunt circuit around the magnet B, the separable contacts S, S^1, in said shunt, and opened by the frame of magnet B, when the circuit through said magnet is interrupted, the carbon feeding devices controlled by the magnet C, and means for opening the shunt circuit including said magnet, after its armature has been attracted. 6th. The combination, substantially as set forth, with the magnet B, included with the carbons in the main circuit, means controlled thereby for raising the carbon carriage to separate the carbons to establish the arc, the magnet C, included in a shunt circuit, means controlled thereby to feed the carbon to maintain the normal condition of the arc, and a cut-out contact adapted in the lowest position of the carbon carriage, to close against a cut-out contact permanently connected through the coils of the magnet C, whereby the armatures of both magnet are held attracted, but, with the mechanism of the lamp at rest, with a complete circuit through the lamp. 7th. The combination, substantially as set forth, of the magnet B, included in the main circuit with the carbons, the rocking frame controlled by said magnet and from which is suspended the movable carbon carriage, whereby, on the rocking of the carriage, the carbons are separated to establish the arc, the magnet C included in the shunt circuit around the magnet B, the separable contacts S, S^1 in said shunt, means for opening such contacts when the magnet B, is de-energized, the carbon feeding devices controlled by the magnet C, and means for opening the shunt circuit, including said magnet after the armature has been attracted.

No. 47,009. Linotype Machine. (*Machine linotype.*)



Ernest Bertram and Ernest Sanders, both of New York, State of New York, U.S.A., 10th September, 1894; 18 years.

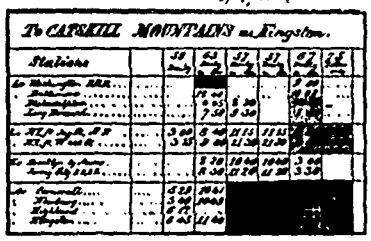
Claim.—1st. In combination with the pumping and justification mechanism of a linotype or type-casting machine, an automatic locking or arresting device controlled by said justification mechanism, whereby the casting operation is prevented, substantially as described. 2nd. In a linotype or type casting machine, an automatic lock and an alarm connected therewith, in combination with and under control of the justifying mechanism, whereby the casting operation is prevented and the operator notified when the line is not filled out or the moulds are empty. 3rd. In combination, with the pump, dash-pot, lever and justifying mechanism of a linotype or type-casting machine, a locking bolt and an alarm connected therewith and under the control of the justifying mechanism, as and for the purpose specified. 4th. In a casting machine, the combination of a metal pot and a piston or plunger, with an automatic locking device adapted to be operated so as to lock the piston, and means for operating the locking device, substantially as described. 5th. In a casting machine, the combination of a metal pot, a piston or plunger, and a pump lever adapted to operate the piston, with an automatic locking device adapted to lock the pump lever, and means for operating the locking device, substantially as described. 6th. In a casting machine, a metal-pot, a piston or plunger, a locking device adapted to be operated to lock the piston, in combination with a justification-lever, and means interposed between the justification-lever and the locking device for actuating the same, substantially as described. 7th. In a casting machine, a pump-lever for actuating the pump of the metal-pot, and a justification-lever in combination with a locking device for the pump-lever, and means interposed between the pump-lever and the justification-lever, whereby the justification-lever will cause the locking device to operate when the justification lever exceeds its normal stroke, substantially as described. 8th. In a casting machine, a pump lever and a justification-lever in combination with a locking-bolt adapted to be projected under the pump lever, a bell crank, and means between the bell crank and the justification-lever for operating the bell crank, when the justification-lever exceeds its normal stroke, substantially as described. 9th. In a casting machine, the combination of the following parts: a justification-lever, a lug as *c*, connected therewith, a lever, as F, a bell crank, a pitman connecting the bell-crank with the lever F, a locking bolt connected to the bell crank and a pump lever, the locking bolt being so arranged as to stop the pump lever when it is projected by the bell crank, substantially as described. 10th. In combination, with the justification and pumping mechanism, a pump lever locking bolt provided with a lateral stud, a casing for the locking bolt when casing is provided with a slot through which the lateral stud projects, the length of the slot being greater than the throw of the lateral stud, so that the same will strike neither end wall of the slot in its reciprocations, substantially as described. 11th. In a casting machine, a pump piston, and locking device adapted to lock or arrest the pump piston, in combination with an alarm, and a connecting rod arranged between the locking device and the alarm, whereby the alarm is sounded whenever the pump piston is locked or arrested, substantially as described. 12th. In a casting machine, a pump lever and a locking bolt adapted to be projected under the pump lever, in combination with an alarm, and a connecting rod between the alarm and the locking bolt, whereby the alarm is sounded whenever the pump lever is locked by the locking bolt, substantially as described. 13th. A justification lever provided with a lug or shelf, and a lever such as F, in combination, with a pump locking mechanism, substantially as described, said lever being provided with an adjusting screw, such as f^2 to accurately time the action of the pump locking mechanism. 14th. In

a line casting machine, the combination of a pump, a stop device to prevent the action of the pump, and means controlled by the line of matrices to determine the action of the stop device.

No. 47,010. Railway Time Table.

(*Tableau horaire pour chemins de fer.*)

Fig. 1. #7,010.



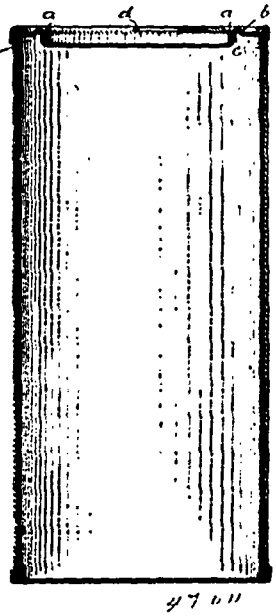
John Henry Morrissey, Chicago, Illinois, U.S.A., 10th September, 1894; 6 years.

Claim.—1st. A time table having back ground of one shade or colour on which the hours for one division of a day are printed, and a back ground of another distinguishing shade or colour on which the hours of another division of the day are printed, substantially as and for the purpose herein set forth. 2nd. A time table having white or light back ground on which the daylight hours, namely from six in the morning to six in the evening are printed, and a dark back ground on which the night hours are printed, namely from six in the evening to six in the morning, substantially as and for the purpose herein set forth.

No. 47,011. Method of Opening Tin Boxes, &c.

(*Méthode d'ouvrir les boîtes métalliques, etc.*)

Fig. 1



#7,011

James Paul and John Thomson Paul, both of Grove Works, Edinburgh, County Midlothian, North Britain, William John Roberts, Chapel Galashields, County Selkirk, and Frank Montgomery Henderson Young, Edinburgh, North Britain, 11th September, 1894; 6 years.

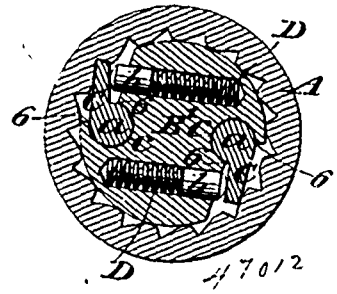
Claim.—1st. A can or sheet metal box, comprising a lid or cover formed with a rim, and a wire located in the rim having one of its ends soldered to the lid or cover, and the other end terminating in a loop, substantially as and for the purpose set forth. 2nd. A can or sheet metal box, comprising a lid or cover formed with a rim and opening, and a wire located in the rim with its ends passed through the opening in the can, and having one end soldered to the lid or cover, and the other terminating in a loop, substantially as and for the purpose set forth.

No. 47,012. Rotating Device for Rock Drills.

(*Appareil de rotation pour forets de mines*)

The Ingersoll-Sergeant Drill Company, New York, State of New York, assignee of Henry Clark Sergeant, Westfield, New Jersey, all in the U.S.A., 11th September, 1894; 6 years.

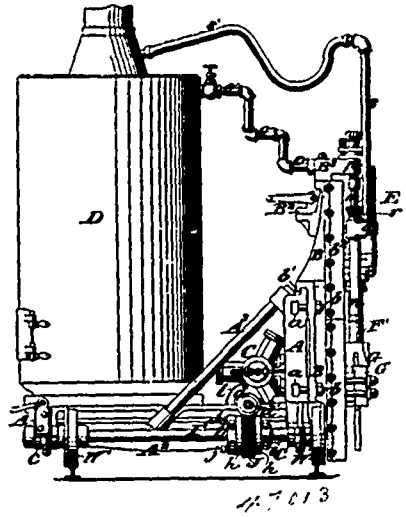
Claim.—1st. The combination with the ratchet-ring, of the rifle-bar provided with swinging pawls located and self-pivoted within its head, substantially as herein set forth. 2nd. The combination with



the ratchet-ring, of the rifle-bar having in its head cylindrical sockets parallel with its axis, and the swinging pawls having stocks of cylindrical form constituting pivots fitted to and retained by and within the said sockets, substantially as herein set forth.

No. 47,013. Channelling Machine.

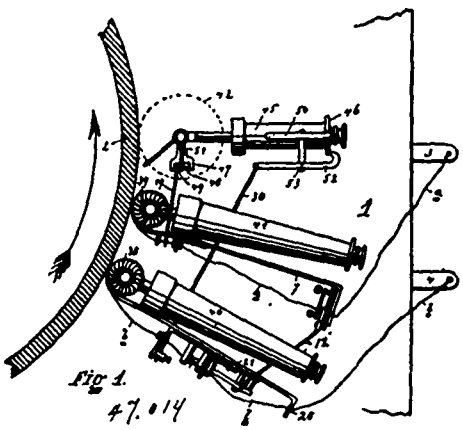
(*Machine à canneler.*)



The Ingersoll-Sergeant Drill Company, New York, State of New York, assignee of Henry Clark Sergeant, Westfield, New Jersey, all in the U.S.A., 11th September, 1894; 6 years.

Claim.—1st. In a channelling machine, the combination of a carriage comprising a frame with a straight upper edge and provided with grooves parallel with said upper edge and having widened backs, a drill shell having on its back a flange which overlaps said upper edge, and screw-bolts, the heads of which are received in said grooves for securing the shell to the carriage, substantially as herein set forth. 2nd. In a channelling machine, the combination with the carriage and its driving axle and driving wheels, of a transversely divided worm gear on said driving axle arranged between said driving wheels, two caps or collars fitted to said axle and capable of moving lengthwise thereon for receiving projections on said worm gear, and means, substantially as herein described for securing said caps or collars on the axle, and screws in one of said two caps or collars for clamping the worm gear between the said caps or collars, all substantially as herein set forth. 3rd. The combination in a channelling machine, of a carriage and a drill shell movable lengthwise thereon, a drill cylinder with valve-chest and valve movable lengthwise within said shell, a steam boiler on said carriage and steam pipes communicating between said boiler and valve-chest, a portion of said shell being made hollow to form part of said steam pipe communication, all substantially as herein set forth. 4th. The combination in a channelling machine, of a carriage, a drill shell which is movable lengthwise on said carriage and a part of which contains a steam cavity, a drill cylinder with valve-chest and valve movable lengthwise within said shell, a steam boiler on said carriage, a flexible steam pipe between the boiler and said cavity in the drill shell, and a telescopic steam pipe forming a communication between said steam cavity and the valve-chest, all substantially as herein set forth. 5th. The combination of the cross-head, having slots open at its sides and the drill clamp having slots similarly open, of swinging clamping bolts permanently attached to the cross-head to engage with and be disengaged from said slots in the cross-head and clamp by their swinging movement, substantially as herein set forth.

No. 47,014. Automatic Feed Stop for Knitting Machines. (*Arrêtoir automatique d'alimentation pour machines à tricoter.*)



George W. Snyder, Herkimer, New York, U.S.A., 11th September, 1894; 6 years.

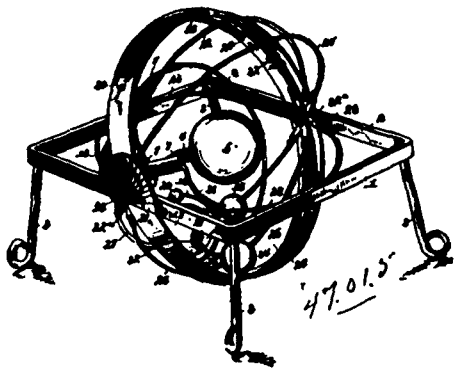
Claim.—1st. The combination of two cutters or yarn severing devices for severing yarns passing through the same, and devices for controlling and for actuating said cutters, the controlling devices having provisions by virtue of which each yarn controls the cutter for the other yarn. 2nd. The combination of two automatic yarn severing devices for severing yarns passing through the same, mechanism for operating, and devices for controlling the same, the controlling device of each severing device engaging with yarn passing through the other. 3rd. The combination of a movable cylinder, two cutters or yarn severing devices for yarn passing through the same, a throw-out means adapted to be engaged by the knitting cylinder for operating the same, provisions for controlling said means and adapted to be controlled by engagement with one of the yarns, and a connection between the throw out and cutter of the other yarn. 4th. The combination, in a knitting machine of yarn guides for feeding two yarns to the needles, a cutting or severing device for each yarn, one operated by mechanism engaging with the moving knitting cylinder or other moving part of the machine, the other cutter by a spring held in operative position by a controlling device engaging with the yarn passing through the first mentioned cutting device. 5th. The combination, with a knitting machine of two cutting or severing devices for two yarns passing through the same, a spring for automatically operating one of the cutters, a cutter controller operating to hold in check the spring actuated cutter by engagement with the yarn of the other cutter, mechanism for operating the other cutter by engagement with the moving knitting cylinder or other moving portion of the machine, which cutter operating mechanism is held normally out of engagement with the moving cylinder by a controller engaging the yarn passing through the first mentioned cutter. 6th. In a device for automatically discontinuing the feed to a knitting or similar machine using two threads or yarns, a presser, an automatic throw-out for the presser, a controller for holding the throw-out in check by engagement with one of the yarns, a cutter for each of the yarns, a connection between the presser mechanism and one of the cutters for operating the cutter, a spring for operating the other cutter, a cutter holder for holding the spring actuated cutter normally in check in operative position by connections engaging with the other thread or yarn combined, substantially as set forth. 7th. The combination of two automatic yarn severing devices for severing yarns passing through the same, each having mechanism for controlling the same and engaging with yarn passing through the other. 8th. In a device for feeding two yarns, a yarn cutting or severing device through which one of the yarns passes, and a controlling device for controlling the cutting or severing device and engaging with the other yarn.

No. 47,015. Armillary Sphere.

(*Sphère armillaire.*)

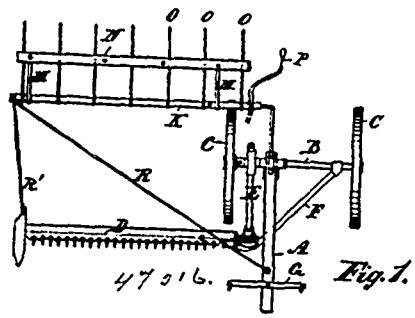
Sylvester M. Gibbs, Danville, Pennsylvania, U.S.A., 11th September, 1894; 6 years.

Claim.—1st. In a device of the class described, a horizontal supporting frame provided with opposite pivots 33, upon which are mounted independently adjustable rings, representing meridians on the celestial sphere, a fixed graduated indicator arranged concentrically with one of said pivots, and globes representing the various bodies of the solar system, substantially as set forth. 2nd. The combination of a supporting frame having opposite pivots, independently adjustable rings representing meridians on the solar sphere and mounted upon such pivots, a band 30, mounted upon the pivots, a graduated indicator, and globes representing the various bodies of the solar system, substantially as set forth. 3rd. The combination with a supporting frame, of a spindle, a globe mounted upon such spindle, a rotatable frame carried by the spindle, a swinging weighted arm connected to said rotatable frame, and a spindle connected to the said arm and bearing a globe, substantially as



specified. 4th. The combination with a supporting frame, having a curved arm 11, of a spindle, means for clamping the same to said arm, a globe 5, and a rotatable frame mounted upon the said spindle, and a swinging weighted arm connected to said rotatable frame and provided with a spindle bearing a globe, substantially as set forth. 5th. The combination with a supporting frame, of a depending curved slotted arm 11, a spindle 4, bearing a globe 5, a sleeve 6, a tubular bearing 9, threaded exteriorly, a clamping nut 10, a spider 7, and a ring 8 supported by said sleeve, and a weighted swinging arm provided with a spindle bearing a globe 17, substantially as set forth. 6th. The combination with a globe 5 representing the sun, of a rotary frame concentric with the globe 5, and carrying a globe representing the earth, said frame being capable of angular adjustment with relation to a horizontal plane to correspond with the latitude of the observer, ssubstantially as specified.

No. 47,016. Mowing Machine Attachment for Raking Pea Vines. (*Attache de faucheuses pour râcler les pois.*)



Robert Moffatt, and Samuel G. Moffatt, both of Baltimore, Ontario, Canada, 11th September, 1894; 6 years.

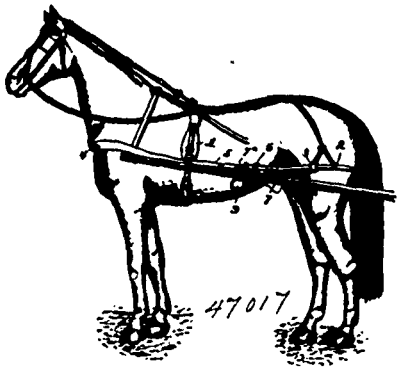
Claim.—1st. An attachment to the rear of a mowing machine for gathering pea vines simultaneously with being cut, of a rake, comprising a bent arm or elbow bracket H, a rock-shaft K, sleeved thereon, radial arms M, M, secured to said shaft and connected by a bar N, rake teeth O, secured at one end to said rock-shaft and supported by said bar N, and a lever P, for rocking said shaft to dump the rake, as set forth. 2nd. The combination of a mowing machine and a rake attachment applied and operating, substantially as set forth. 3rd. The combination with a mowing machine, of a rake attachment, comprising an elbow bracket or bent bar H, secured at one end of the draft tongue to the mowing machine, a rock-shaft K, sleeved on the other end of said bar or bracket, radial arms fixed to said rock-bar and connected by a bar N, rake teeth, secured to said rock-shaft and supported by said bar N, a lever for rocking said shaft and lifting the teeth, and a brace from the machine to said rock-shaft, as set forth for the purpose described.

No. 47,017. Harness. (*Harnais.*)

William E. A. Pipher, Parker's Landing, Pennsylvania, U.S.A., 11th September, 1894; 6 years.

Claim.—1st. The combination with a thill and a harness, having a short trace extending from the breast-strap to the breech-strap, of a coupler comprising a horizontal portion arranged longitudinally on the lower face of the thill and secured thereto, intermediate of the ends thereof, a vertically disposed portion located at the inner side

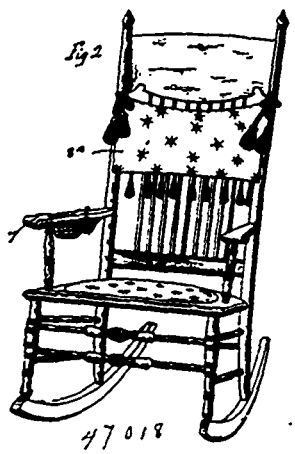
of the thill adjacent to the front terminus of the horizontal portion and extending above the thill, and connected with the short trace of the harness, and an integral spring loop, connecting the horizontal



and vertical portions and arranged below and in advance of the same, substantially as described. 2nd. The combination with a thill, and a harness having a short trace extending from the breast-strap to the breech-strap, of the herein described coupler constructed of a single piece of resilient metal and comprising an approximately horizontal portion secured to the lower face of the thill, a vertically disposed portion located at the front terminus of the horizontal portion at the inner side thereof and provided at its top with a transverse arm 11, having vertically disposed shoulders 12, at its ends, and engaging the short trace and the integral spring loop connecting the vertical and horizontal portions and extending forward and downward therefrom, substantially as described. 3rd. The combination with a thill, of the herein described coupler, the same consisting of a metal rod, having its rear end let into the thill and extending along the under side of the same as at 8ª, thence bent upon itself to form the spring-coil 9, and extending upwardly at the inner side of the thill, and finally terminating in the transverse end 11, having opposite shoulders 12, and adapted to engage with the perforation of a trace, the clip arranged upon the thill, and having its opposite terminals embracing the rod, and the clip-plate arranged under the rod and receiving the terminals of the clip which are provided with nuts, substantially as specified.

No. 47,018. Advertising Device.

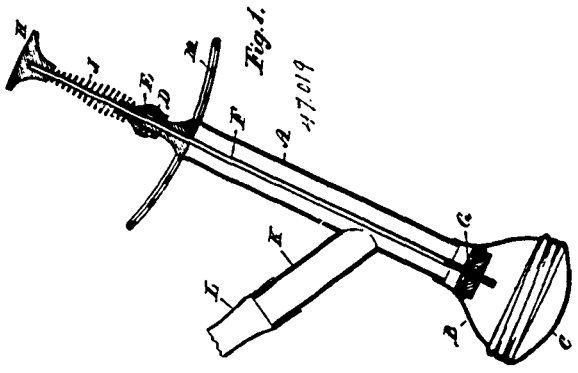
(*Appareil de publicité.*)



Albert Augustus Root, Buffalo, New York, U.S.A., 11th September, 1894; 6 years.

Claim.—1st. In a device for exhibiting advertisements, letters, or other matter, the combination with a holding case secured to a rocking device for giving the necessary oscillating movement, of a feed roller provided with a ratchet-wheel on one side and mounted on a shaft secured in said case so that the feed roller can rotate thereon, an arm at each side of the feed roller hung loosely on the shaft, a weight connecting the lower ends of the arms for keeping them in a substantially vertical position while the roller is being rotated, a pivoted pawl for preventing the feed roller from turning back, and a pivoted pawl on the lower part of one weight supporting arm for engaging with the teeth in the ratchet-wheel and turning the feed roller by an oscillating movement of the device, substantially as described. 2nd. In a device for exhibiting letters or other matter, the combination with the arm of a rocking chair, of a holding case secured to said arm, an opening through said arm covered by a plate of glass, an endless ribbon located in said case so that its upper side passes between the glass and over a table or plate having a friction roller pivoted to its front and over which the ribbon passes to and between feed rollers by which it is carried continually around in one direction so as to exhibit the characters upon its face, as they pass successively under the glass, and mechanism substantially as above described for giving the main feed roller its proper forward feeding movements, operated by rocking the case in which the mechanism is enclosed, substantially as herein set forth. 3rd. In a device for exhibiting letters or other matter, the combination with a main feeding roller and its connected operating mechanism, of two surrounding peripheral grooves in said feed roller, a wire frame pivoted to the front of the case and extending back through the peripheral grooves, and down to the bottom rear portion of the case where the two side portions of the frame are connected by a flat weight, whereby the endless ribbon is prevented from passing down and under said feed roller, substantially as described. 4th. In a device for exhibiting letters or other characters, the combination with the arm of a rocking chair having an opening through it covered by a plate of glass through which the characters may be seen, a holding case secured to the underside of said arm, a main feeding roller 6, having a ratchet-wheel on one side and a feeding roller 21, mounted in said case so as to rotate easily on a fixed shaft, a swinging weight mounted so as to swing easily on the shaft 5, and provided with a pawl for engaging with the ratchet-wheel and rotating the roller, a pawl for preventing the roller from moving backward, a small feed roller mounted on a swinging frame and resting on the main feed roller, an endless ribbon having the characters to be exhibited printed upon its face, a supporting plate located below the glass having a friction roller pivoted to its front end, for supporting the ribbon which passes over it under the glass and between the feed rollers, and means for preventing the ribbon from going under or over the rollers, whereby the ribbon is moved forward during every rocking movement of the chair, substantially as described. 5th. In a device for exhibiting letters or other matter, the combination of the supporting plate, the glass covering above it, a main feed roller having a ratchet-wheel on one side and a small feed roller resting on the main roller, with an endless ribbon carrying a series of letters or other matter, one side passing around the supporting plate, and between the feed rollers and means substantially as above described for keeping the ribbon in place and feeding it forward every time, a rocking movement is given to the device, substantially as above set forth. 6th. In a device for exhibiting letters or other matter, the combination with the main feed roller the small feed roller resting on and receiving its motion therefrom a hooked frame bar, the hooked portions of which clasp around in grooves surrounding the small roller so as to swing lightly thereon, for preventing the ribbon from being carried up around said roller, substantially as described. 7th. In a device for exhibiting letters or other matter, the combination with a main feed roller, a small feed roller resting on and receiving its motion therefrom, a hooked frame bar connected in the grooves in the small feed roller so as to swing easily thereon, a supporting plate mounted in the case below the glass, an endless ribbon having advertisements printed thereon, mounted in the case, so one side will pass between the supporting plate and glass through the feed rollers, and an angle plate over which the ribbon passes on its way back to the supporting plate, for preventing the ribbon from being carried over and between the small roller and the supporting plate, substantially as described. 8th. In a device for exhibiting letters or other matter, the combination with a rocking chair on it, a case carrying an endless ribbon provided with letters or other matter on its exposed face, a glass covered opening through which the matter may be seen, and mechanism substantially as herein described for giving the ribbon an intermitting forward movement and successively exposing letters or other matter, the whole being operated by the rocking of the chair, substantially as above specified. 9th. In a device for exhibiting letters or other matter, the combination with suitable rocking or oscillating mechanism of a supporting inclosing case, a main feed roller having two surrounding grooves and provided with a ratchet-wheel on one side and suspended on a shaft secured within the supporting case, a pawl pivoted to the inner front end of the supporting case and engaging with the ratchet-wheel to prevent it from going backward, a swinging weight suspended on the shaft carrying a pawl for turning the ratchet-wheel and roller by means of the weight as the case oscillates, a small feed roller, also having two surrounding grooves, mounted on a pivoted frame, and resting on the feed roller and receiving its motion therefrom, an endless ribbon having letters or other matter on its face, and one side passed through between the glass, and the supporting plate, then down between the feed rollers, back to the starting point, mechanism substantially as above described for preventing the ribbon from either going below or up on the feed rollers, and keeping it in place, whereby the ribbon is fed forward and the letters or other matter intermittingly presented to view by the oscillating of the supporting case, substantially as described. 10th. In a rocking chair, the combination of a chair arm, a glass covered opening through it, a supporting case below the opening, and an endless ribbon mounted below the glass having a series of letters or other matter on its exposed face, and means for feeding forward or moving the said ribbon intermittingly so as to successively expose the matter as it is moved, the whole being actuated by the rocking of the chair, substantially as described.

No. 47,019. Spraying Nozzle. (*Lance de pulvérisateur.*)

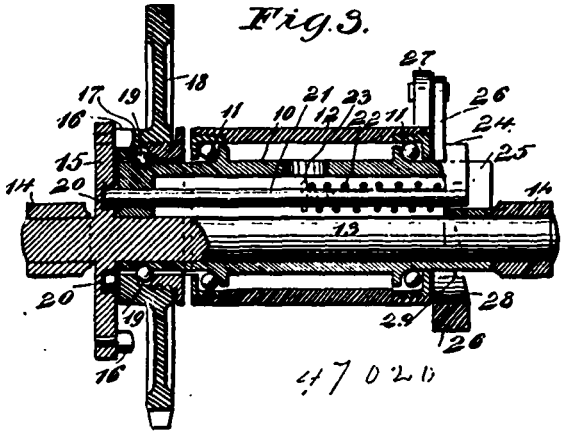


Oliver A. Smith, Clarkston, Michigan, U.S.A., 11th September, 1894; 6 years.

Claim.—1st. A spraying nozzle, comprising a tube A, having at one end a distributor B, provided with a perforated screw cap C, and a pack g box D, at the opposite end, and intermediately a feed branch pipe or connection K, and a cross-bar M, a valve rod F, passing through said tube and packing box and provided with a valve G, closing the inlet to the distributor, and a hand knob H, at the other end, and a spiral spring J, surrounding the portion of said rod between said packing box and knob, as set forth. 2nd. In combination with a spraying nozzle A, having a valve rod F, valve G, bar M, and spring J, the distributor B, provided with a perforated screw cap C, for the purpose set forth. 3rd. The combination with the nozzle tube A, having the perforated distributor B, and finger bar M, of a valve rod F, valve G, and spiral spring J, to shut off spraying by the hand directing the nozzle, as set forth.

No. 47,020. Variable Driving Gear.

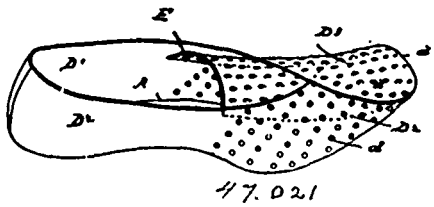
(*Roue de commande variable.*)



Arthur O. Collier, Manchester, England, 11th September, 1894; 6 years.

Claim.—1st. A variable driving gear, comprising a hollow axle journalled in ball bearings, a crank-shaft extending through the hollow axle, a sprocket-wheel journalled on the hollow axle, and a lever controlled gear mechanism for connecting the sprocket-wheel independently to the crank-shaft or simultaneously to the crank-shaft and axle, substantially as described. 2nd. A variable driving gear, comprising a hollow axle, a crank-shaft journalled eccentrically therein, a ball bearing support for the hollow axle, a sprocket-wheel journalled on the axle, a stud-wheel carried by the crank shaft and geared to the sprocket-wheel, and a slide bolt longitudinally movable in the axle and adapted to engage recesses in the stud-wheel, substantially as described. 3rd. A variable driving gear, comprising a hollow axle journalled in ball bearings, a crank shaft journalled eccentrically in the hollow axle, a recessed stud-wheel on the crank-shaft, a sprocket-wheel journalled on the hollow axle and geared to the stud-wheel, a longitudinally movable slide bolt to engage the recesses of the stud-wheel, and a lever for moving the slide bolt, substantially as described. 4th. The combination, with the hollow axle, its support, the sprocket-wheel thereon, the crank shaft journalled in the axle, and the recessed stud-wheel carried by the crank-shaft and geared to the sprocket-wheel, of the spring-pressed slide-bolt, having a lug at one end, the swinging lever fulcrumed on the support of the hollow axle and provided with an inclined notched edge to engage the lug of the slide-bolt, and mechanism for moving the lever, substantially as described.

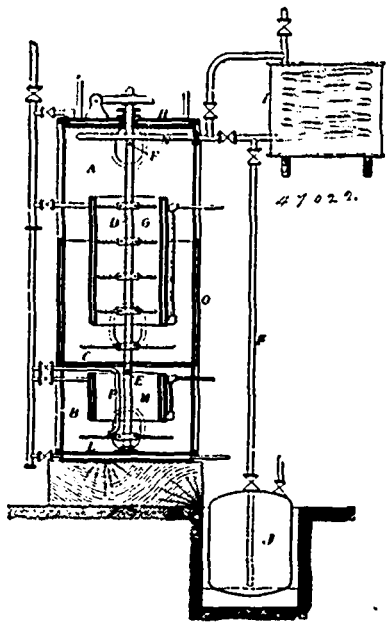
No. 47,021. Inside Shoe. (*Chaussure.*)



John Henry Foss, Passaic, New Jersey, U.S.A., 11th September, 1894; 6 years.

Claim.—1st. In a shoe of thin material adapted for use inside of an ordinary shoe or boot, the two parts of the upper held separate and distinct at the front and attached each independently to the sole, with a portion of the toe overlapped, as specified. 2nd. An inside shoe of gut, flexed and perforated and formed with the two sides of the upper extended independently to the front and overlapping each other, as specified.

No. 47,022. Apparatus for Extracting Substances by Volatile Solvents. (*Appareil pour extraire des substances par des dissolvants volatiles.*)



The Ruchill Chemical Company, London, England, assignee of James Meikle, Glasgow, Scotland, 12th September, 1894; 6 years.

Claim.—1st. An apparatus for extracting substances by volatile solvents and recovering the solvents, consisting of a vessel having two compartments separated by a perforated partition, a steam heater located in each compartment, a steam jacket at the bottom of one compartment, a steam jacket at the side of the other compartment, a hollow cover having projections on its inner side, a central tubular shaft having lateral openings and agitator arms, a condenser, a receptacle for the solvent and connecting pipes, substantially as described. 2nd. An apparatus for extracting substances by volatile solvents and recovering the solvents, consisting of a vessel divided into two compartments by a perforated partition and having a steam jacket, a steam heater arranged in each compartment, a steam supply pipe connected with both heaters, a central tubular shaft having lateral openings and agitator arms, a condenser, a receptacle for the solvent and connecting pipes, substantially as described.

No. 47,023. Barb Wire Making Machine.

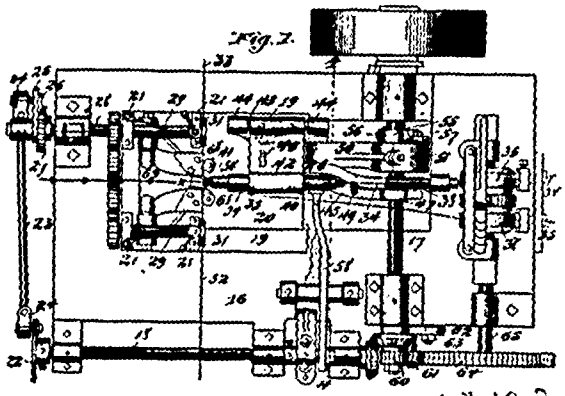
(*Machine à faire le fil de fer barbelé.*)

The I. L. Ellwood Manufacturing Company, assignee of Sanford Swanburn, both of the City of De Kalb, Illinois, U.S.A., 12th September, 1894; 6 years.

Claim.—1st. In a barbed wire machine, the combination with

means for continuously feeding a strand wire and means for intermittently feeding barb wires across its path, of a reciprocating carriage having a twister spindle rotatably mounted thereon and capable of endwise movement independent of its carriage, means for

Fig. 1.



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reciprocating the carriage, and means for rotating the twister spindle and retracting it during its rotation, substantially as described. 2nd. In a machine for making barbed wire, the combination with means for continuously feeding a strand wire and for intermittently feeding barb wires across the path thereof, a reciprocating carriage, a twister spindle carrying the strand wire and twister pins rotatably mounted upon said carriage, the said spindle being capable of being raised, and shearing mechanism whereby the barb wire may be severed by a bevelled cut on the outside of its barbs, and said barbs raised to pass the shears, substantially as described. 3rd. In a barb wire machine, the combination with the reciprocating carriage, of a revolvable and vibratory twister spindle, and means for retracting said spindle during the act of coiling the barbs, substantially as described. 4th. In a barbed wire machine, the combination with the reciprocating carriage, of a revolvable and vibratory twister spindle and means for retracting said spindle, and a shearing mechanism mounted upon the carriage, and adapted to sever the barb wire by a bevelled cut upon the outside of said barbs whereby the barbs have their points disposed at substantially right angles to the strand wires, substantially as described. 5th. In a barbed wire machine, the combination with the reciprocating carriage having a twister spindle and a shearing mechanism mounted upon said carriage, of means for reciprocating said carriage, consisting of a pitman and a variable eccentric, substantially as described. 6th. In a barbed wire machine, the combination with the reciprocating carriage, and a twister spindle, and shearing mechanism mounted upon such carriage, of means for reciprocating the carriage comprising a variable eccentric and means for feeding the strand wire, said latter means being also capable of adjustment whereby the distance between adjacent barbs may be varied, substantially as described. 7th. In a barbed wire machine, the combination with the means for feeding the strand wires and barb wires, of means for forming and severing the barbs, a reciprocating carriage carrying the barb forming and severing mechanism, the feed mechanism for the barb wire being also mounted upon and reciprocating with said carriage, and a ratchet mechanism for operating said feed mechanism intermittently, and a pitman for driving said ratchet mechanism, said pitman being pivotally connected at each of its ends, whereby it is adapted to follow the movement of the carriage, substantially as described.

No. 47,024. Machine for Making Paper Boxes.

(Machine pour faire les boîtes de papier.)

Chauncey Wolcott Gay and W. L. Brown & Company, all in Springfield, Massachusetts, U.S.A., 12th September, 1894; 6 years.

Claim.- 1st. In a machine of the character described, the combination, with the vertical reciprocatory picker-shaft, having fixed in its lower end the horizontal bar f^2, the bars g, g, adjustably secured upon, and at right angles to the end portions of the said bar f^2, and having the pickers individually supported upon and detachably connected for longitudinal adjustment along the end portions of said bars f^2, substantially as and for the purpose set forth. 2nd. In a machine of the character described, the combination, with the vertical reciprocatory shaft having fixed at its lower end, by its middle, the horizontal transverse bar f^2, with the adjustably confined collars f^1 at its ends, the horizontal bars g, g, ranging in parallelism fore and aft and secured in socket lugs of said adjustable collars, and the individual pickers having split socket lugs and set screws whereby they have adjustable engagements along the end portions of said bars g, g, substantially as and for the purposes set forth. 3rd. In a paper-box machine, the combination, with the table having the aperture and reciprocatory folding plunger, movable relative thereto, of the slide followers which constitute opposite sides of the throat or folding-box and the bottom sections hinged to the working ends of the follower-slides and means for imparting reciprocatory movements to the follower slides, and swinging movements to the hinged bottom sections, while the followers are in their approached relations, substantially as described. 4th. In a paper-

Fig. 1.

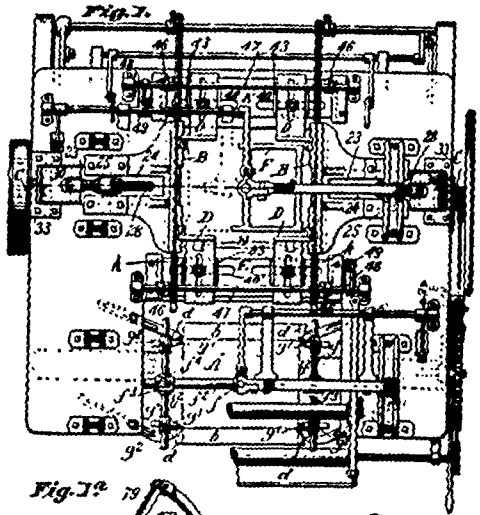
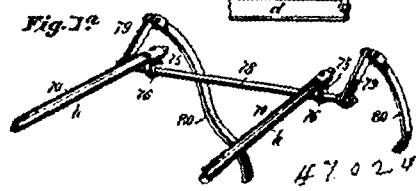


Fig. 1a.



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box machine, the combination, with the table having the aperture and the plunger vertically movable relatively thereto, of the followers each comprising the horizontal slide base with the aperture 24, and a vertical inner end member B, the collar 27, supported within said aperture and having lateral journals in bearings at the top of the slide at each side of the said aperture, the link member 30 pivotally secured upon the table, the screw-shaft 28 pivotally connected to the link member and having its shank extended through said collar, with the lock-nuts thereon at each side of the collar, the cam, and the thrust rod actuated thereby which has a connection with one of the said link members, substantially as described and for the purposes set forth. 5th. In a paper-box machine, the combination, with the movably supported followers with the slide ways, of the blank conveyor having the slide bars thereof longitudinally movable through said ways of the followers, and also bodily movable transversely of their length in unison with said followers, and means for imparting the approaching and retreating movements to the followers, and for moving the conveyor bars longitudinally, substantially as and for the purpose set forth. 6th. In a paper-box machine, the combination, with the movably supported followers with ways, of the blank-conveyor comprising the parallel side bars longitudinally movable through said ways of the follower and bodily movable transversely of their length in unison with said followers, and having at their rear ends the angularly extended perforated lugs 75, 75, the bar 78, extended transversely of said bars loosely through the said perforated lugs, and driving connections for imparting to said bar a forward and rearward reciprocatory movement, substantially as described. 7th. In a paper-box machine, the combination, with the reciprocatory plunger, and the throat or folding box consisting of opposing sets of vertical plates, or members, which are movable towards and from each other, and means for imparting said movements thereto, of a clearer or stripper set within a recess which is formed within the face of one of said vertical plates and which has, by a hooked portion thereof, a position of extension outwardly beyond the plane of the face of said member, substantially as described. 8th. A paper-box machine, the combination, with the plunger and the throat or folding box constituted by the plates D, D, and the follower members B, B, of the slides on which said members are mounted and means for imparting to the respective sets thereof reciprocatory movements at right angles to each other, and the hinged bottom sections G, G, secured to the lower inner edges of the follower-slides and means for swinging them into their horizontal positions when the followers are in their approached relations to the plunger, substantially as described. 9th. In a paper-box machine, the combination, with the plunger and the folding-box or throat, the walls of which are constituted by upright members of opposing end followers, and the upright opposing plates D, D, at right angles to the followers, and which have projections at the tops of their vertical edges adjacent the followers, the upper edges of the followers and plates constituting edges by and upon which are bent, as the plunger descends, the end and side sections of the box blank while the integral stay sections are, by said corner projections, turned in at right angles to the side sections, substantially as described. 10th. In a paper-box machine,

the combination with the plunger, of a folding-box or throat having one or both of its opposite sides constituted by one or more upright plates D, each with an edgewise longitudinal projection g, at an upper corner thereof, which is also laterally extended relative to the inner face of the plate, and having with the plate proper the common upward and outward bevel 52, 53, and said projection having the inner surface 54, which is in a plane perpendicular to the face of the plate downwardly and inwardly inclining towards the plane of movement of the vertical end of the plunger, substantially as described. 11th. In a paper-box machine, the combination with the plunger and the follower slides 20, and the slides E, E, and means for imparting slight reciprocatory movements thereto, of a folding-box or throat constituted by the opposing upright members B, B, of the end followers, and the upright plates D, D, of the slides, the said plates having a height greater than that of the members B, and having their upper edges bevelled, and with the projections g, at the corners near and above the followers which have the bevelled surfaces 53 and 54, all substantially as and for the purpose set forth. 12th. In a paper-box machine, the combination with a reciprocating folding-plunger, and the followers B, B, movable towards and from the ends thereof, and adjustable for ensuring, at pleasure, variations as to their normal relative dispositions of the slides at opposite sides of the plunger and having the upright plates D, D, of the slides, the said plates having a height greater than that of the members B, and having their upper edges bevelled, and with the projections g, at the corners near and above the followers which have the bevelled surfaces 53 and 54, all substantially as and for the purpose set forth. 13th. In a paper-box machine, the combination with a reciprocating folding-plunger and the followers B, B, movable towards and from the ends thereof, and adjustable for ensuring, at pleasure, variations as to their normal relative dispositions, of the slides at opposite sides of the plunger having the upright plates D, D, which are adjustable on the slides in the direction of the movement thereof, and which are also adjustable along the lengths of the slides at right angles to the slide movement, all substantially as and for the purposes set forth. 14th. In a paper-box machine, the combination, with the reciprocating folding plunger and the end followers, of the slides E, E each longitudinally slotted, and having the clamp-block 43, with the rib 42, and the edge flanges 44, and the vertical plates D, D, with the bevelled upper edges, the upper edgewise corner projections g, and having the foot members 45, which are slotted at right angles to the slot of the slide, the locking bolt for rigidly clamping the slide, clamp-block, and foot-member, and means for imparting a fore-and-aft movement to the slide, substantially as described. 15th. In a paper-box machine, the combination, with the end followers, of the slide plates D, and the slides E in which they are mounted, the cams, the rock-shafts 47, having arms 46, connected to the slides and having the arms 48, and the thrust rods 49, in operative relations to said cams and connected to said arms 48, substantially as described. 16th. In a paper-box machine, the combination, with the folding plunger and the end followers and conveyor having its movement at about the level of the top of the end followers and the front and rear plates D, D, constituting the side folders, the upper edges of which are higher than the conveyor, and the front plates D, having the deflectors 81, substantially as described. 17th. In a paper-box machine, the combination, with the followers B, B, having the ways in their upper portions, of the blank conveyor comprising the bars h, h, with the upwardly extended ribs or feathers 70, movable through the said ways, the upper edges of the feathers standing above the tops of the followers, substantially as and for the purpose set forth. 18th In a paper-box machine, the combination, with the followers of the conveyor bars h, movable in the ways of the follower and transversely bodily movable with the follower, and the bar 78 having the sliding connection, substantially as described, with the conveyor of the levers 80, and the rock-shaft 83 on which they are mounted, the links 79 connecting the upper ends of said levers to said bar 78, the cam 88, and the intermediately pivoted lever 87, one arm of which is in operative relation to the cam, and an arm on the rock-shaft having a connection with the other arm of the lever, substantially as described. 19th. In a paper-box machine, the combination, with a reciprocatory plunger, of a throat consisting of opposing upright plates with the projections g, for folding the side and stay sections and the end followers at right angles to the plates which, together with the said plates are mounted for reciprocatory movements, the said followers and plate being adjustable in directions of their movement whereby they may, at pleasure, be caused to have, normally, relations to constitute different sized folding throats, substantially as described. 20th. In a paper-box machine, the combination, with the parallel upright front and rear plates D, D, with the projection g, extended longitudinally edgewise and also laterally inward at the upper outer corners of the plates, of the end followers at right angles to the said plates and having their working faces of greater extent than the distance between the plates D, D, and having their tops slightly lower than the under sides of the said projections g, substantially as shown and described.

No. 47,023. Machine for Driving Tacks.

(*Machine à chasser la broquette.*)

The Goodyear Shoe Machinery Company, Portland, Maine, assignee of Joseph Ephraim Crisp, and Leander Dixon Junkins, Summerville, Massachusetts, both in the U.S.A., 12th September, 1894; 6 years.

Claim.—1st. In a tack-driving mechanism of the class described, the combination with the elevator-slides B, of the pins B^3, the slotted connections B^3, the cranks D^1, and suitable operating mechanism therefor, substantially as described and for the purpose

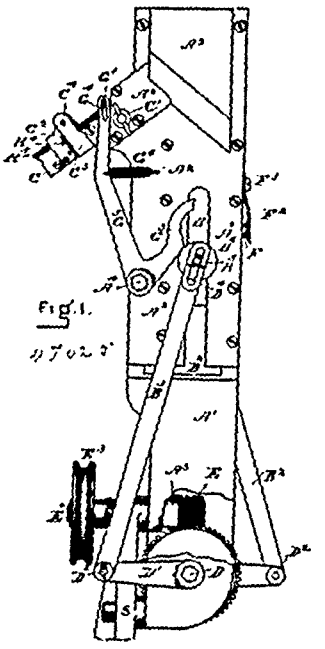


Fig. 1.

set forth. 2nd. In a tack-driving mechanism of the class described, the combination with the elevator-slide B, of the slide F, and the spring F^1, substantially as shown and described. 3rd. In tack-driving mechanism of the class described, the combination with the tack-hopper of a removable chute, secured in a suitable slideway by the thumb screws $^8C^1$, substantially as described and for the purpose set forth. 4th. In tack-driving mechanism of the class described, the combination with the tack-arranging chute, of the reciprocating cover G, the pin G^3, the lever G^5, and suitable operating and connecting mechanism, substantially as shown and described. 5th. In tack-driving mechanism of the class described, the combination with the elevator-slide of the pin or wire C^6, fixed in the tack chute, substantially as and for the purpose set forth. 6th. In tack-driving mechanism of the class described, the combination with the fixed and separable parts of the tack chute of the hook C, the standards C^4, the pin C^4, gate H, cover G^7, and cover H^5, all arranged and operating substantially as shown and described. 7th. The combination with the shell of a hand tack-driving machine and suitable tack-feeding mechanism of a hollow slotted plunger carrying the tack-driver, a raising spring therefor secured therein, a flatted cross pin, substantially as described for guiding the motion and limiting the rise of said plunger, which is held in position by the action of the raising spring, all operating substantially as shown and described. 8th. The combination with the shell of a hand tack-driving machine and suitable tack feeding mechanism of a hollow slotted plunger carrying the tack-driver, a raising spring therefor secured therein, a flatted cross pin and slotted piston, substantially as described for guiding the motion and limiting the rise of said plunger, which are held in position by the action of the raising spring and form in combination with the interior of said plunger, a dash pot to reduce concussion at the termination of the rise of said plunger, substantially as shown and described. 9th. In combination with the shell of a hand tack-driving machine, the hollow plunger L, provided with the slots L^1, the screw plug L^3, the spring L^2, the cross pin K^1, the slotted piston K^4, the driver L^4, the cam L^5, and suitable tack separating and feeding mechanism, all operating substantially as described. 10th. In combination with suitable tack-driving mechanism and an inclined chute for guiding loose tacks to the driveway thereof, a tack separating, feed and holding device consisting of the finger N, arm N^1, hinge N^2, gate A^3, and bearing N^5, constructed, located and operating, substantially as shown and described. 11th. In combination with suitable tack-driving mechanism, an inclined chute for guiding loose tacks to the driveway thereof, and tack separating, feeding and holding mechanism substantially as described with the reciprocating inclined cam L^5, located with reference to the lower end of the driver, substantially as shown and described for the purpose set forth.

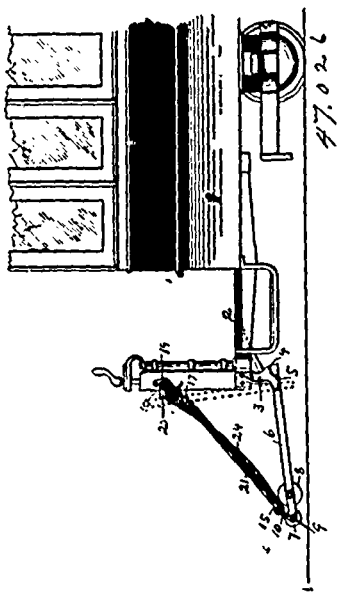
No. 47,026. Safety Attachment for Cars.

(*Appareil de sûreté pour chars.*)

Robert Bustin, Boston, Massachusetts, U.S.A., John R. McConnell, Saint Mary's and James A. Van Wart, Fredericton, both in New Brunswick, Canada, 12th September, 1894; 6 years.

Claim.—1st. In a railway car, the combination, with hanging

brackets having forked lower ends, of stretcher-bars pivoted in said forks and extending rearward beneath lugs on said brackets, and a netting connected to sustaining bars at the forward ends of the

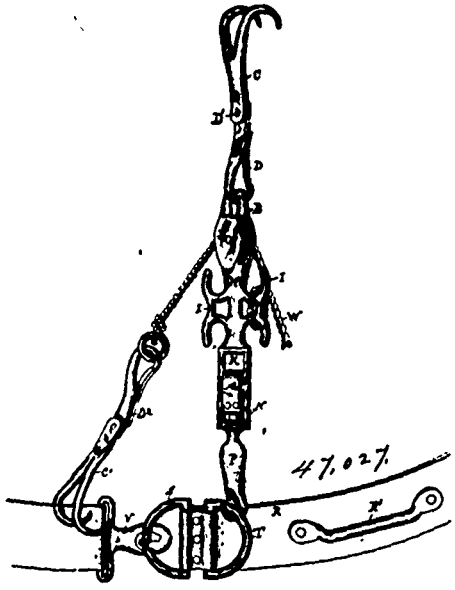


stretcher-bars, and on the end-guard, substantially as described. 2nd. In a railway car, the combination, with the stretcher-bars pivoted to and extending forward of hanging brackets on the car platform, of lateral, flexible sustaining devices detachably connected to sustaining bars at the forward ends of the stretcher-bars and on the end guard of the car, and a netting laced to the attaching strips on the lateral sustaining devices, substantially as described. 3rd. In a railway car, the combination, with pivoted stretcher-bars of flexible, lateral sustaining devices, each enclosed in a sheath, or covering, having a narrow attaching strip provided with openings, and a netting laced to said strips, substantially as described. 4th. In a railway car, the combination, with pivoted stretcher-bars, of flexible, lateral sustaining devices detachably secured at one end to a sustaining bar which unites the forward ends of the stretcher-bars, and at the other end to a sustaining-bar upon the end-guard of the car, and a netting supported by said sustaining devices and bars, substantially as described. 5th. In a railway car, the combination, with stretcher-bars, of flexible, lateral sustaining devices, each consisting of a rope having a snap-hook permanently secured to one end and a ring to the other, said rope being enclosed in a sheath or covering, of canvas or other flexible material, and provided with an attaching strip having a series of apertures, short ropes having snap hooks engaging the rings and secured to loops in a sustaining bar on the end yard of the car, a sustaining bar connecting the forward ends of the stretcher-bars, and having loops which are engaged by the snap-hooks on the sustaining devices, and a netting laced to the attaching strips of the latter, substantially as described. 6th. In a railway car, the combination, with stretcher-bars, pivoted in forked brackets hanging from the car platform, of an elastic concussion-roll journalled in the forward ends of said bars, a sustaining-roll of greater diameter journalled in the forward ends of said bars, a sustaining-roll of greater diameter journalled in said bars immediately in rear of the concussion-roll, and a netting secured to sustaining devices and bars at its sides and ends, respectively, substantially as described. 7th. In a railway car, the combination, with stretcher-bars pivoted in forked brackets hanging from the car platform, of a concussion-roll journalled in the forward ends of said bars, a sustaining bar parallel with the surface of said roll and having arms at its ends provided with eyes which engage the projecting ends of the journals of the concussion-roll, lateral, flexible sustaining devices detachably connected to loops on said sustaining bar and secured to a second bar on the end guard of the car by short ropes having snap-hooks engaging rings on the sustaining devices and a netting laced to attaching strips which form part of sheaths or covers, enclosing the sustaining devices and bars, substantially as described.

No. 47,027. Fire Escape. (*Sauveteur d'incendie.*)

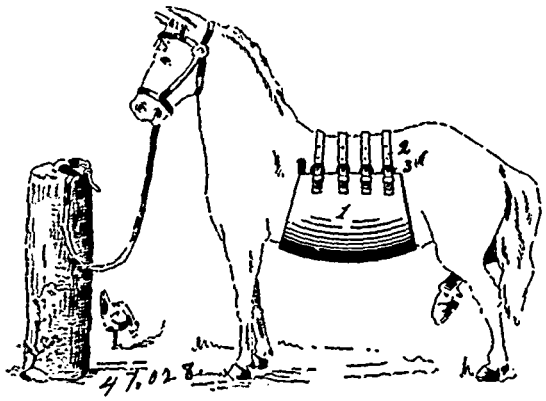
Robert Bustin, Boston, Massachusetts, U.S.A., John R. McConnell, Saint Mary's, and James A. Van Wart, Fredericton, both in New Brunswick, Canada, 12th September, 1894; 6 years.

Claim.—1st. In a fire escape, the combination with a pulley block and a grappling hook, of a pivotal connection between said block and hook, substantially as described. 2nd. In a fire escape, the combination of a pulley block, means for suspending the same, a rope passing over the pulley in said block, and a belt adapted to be secured to said rope or said pulley block, and provided with a series of loops or handles, substantially as described. 3rd. In a fire escape, the combination of a pulley block, means for suspending



the same, a pair of cleats located at opposite sides of said pulley block and a rope passing over the pulley in said block and adapted to be turned around one or both of said cleats, substantially as described.

No. 47,028. Hot Water Appliance for Treating Horses, etc. (*Appareil à eau chaude pour traiter les chevaux, etc.*)



Robert Bustin, Boston, Massachusetts, U.S.A., John R. McConnell, Saint Mary's, and James A. Van Wart, Fredericton, both of New Brunswick, Canada, 12th September, 1894; 6 years.

Claim.—1st. An abdominal pad for the treatment of disease in animals, consisting of a sheet of flexible material provided upon one side with a series of tubes formed or united in one piece with said pad, and a pipe having communication with all of said tubes, at one end of the latter, said pad being provided with straps and buckles, whereby it may be applied to the abdomen of an animal, substantially as described. 2nd. An abdominal pad, for the purpose described, consisting of a sheet of rubber, a series of tubes arranged transversely to the length of said pad and formed or united in one piece with the latter, a pipe arranged along one longitudinal margin of the pad and communicating with all the tubes, the latter being integral with said pipes, and straps and buckles secured to the ends of the pad, substantially as described.

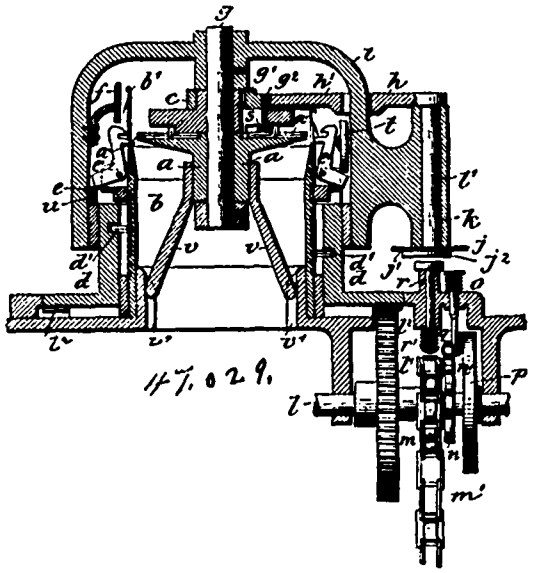
No. 47,029. Circular Knitting Machine.

(*Machine à tricot circulaire.*)

The Appleton Automatic Machinery Company, assignee of Charles James Appleton, both of Long Island City, New York, U.S.A., 12th September, 1894; 6 years.

Claim.—1st. In a circular rib knitting machine, the combination with the vertical and horizontal needles, and means for actuating them, of hold-down devices and means whereby the said hold-down devices are operated, substantially in the manner and for the purposes described. 2nd. In a circular rib knitting machine, the com-

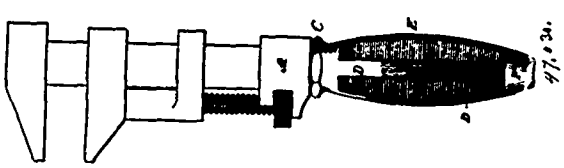
bination with the vertical and horizontal needles, and means for operating them, of hold-downs c^1, and means for operating the same depressing roller t, lifting cam plate u, and ring c, said devices for



holding down the loops arranged in such manner that two of such hold-down devices will be within each pair of vertical needles, and one horizontal needle within each pair of hold-down devices, substantially as and for the purposes set forth. 3rd. In a circular rib knitting machine, the combination of vertical and horizontal needles, means for operating the same, and means for throwing said horizontal needles automatically into and out of operation, with hold-downs adapted to hold the work down on the vertical needles when the horizontal needles are out of operation, and means for operating said hold-downs, substantially as described. 4th. The combination with the cam cap a, the drawing in cam c^1, the movable cam s, provided with the pin g^2, for operating the horizontal needles of the sectors g^1, and h, spindle k, provided with tripping device j^1, and spring actuated spindle r, of the sprocket-wheel m, and its pattern chain, driving shaft l, ratchet n, pawl n^1, tripping device q, and disc p, having pin p^1, all being constructed and arranged, substantially as and for the purposes set forth.

No. 47,030. Tool Handle.

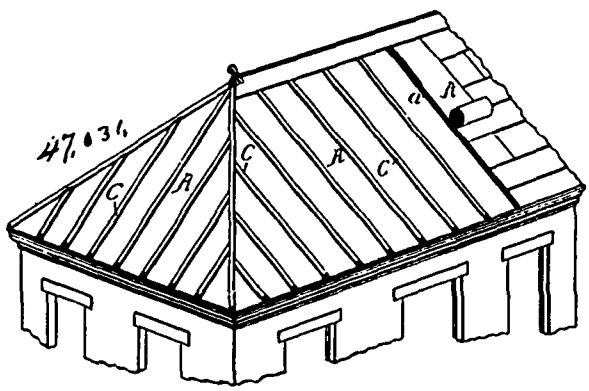
(*Manche d'outil.*)



Louis Henry Schmitt, New York, State of New York, and George Elmer Sternberg, Jersey City, New Jersey, both in the U.S.A., 12th September, 1894; 6 years.

Claim.—1st. The combination in a tool-handle, of a collar adapted to fit over the tool-shank, said collar having formed integral therewith two or more longitudinal tines, with the handle E, and the nut at the outer end adapted to secure the parts, substantially as described. 2nd. The combination of a threaded tool-shank, the threaded collar adapted to screw on to the shank, and having formed integral therewith longitudinal tines grasping a channelled handle E, with means as described to secure the outer ends of the tines together, substantially as described. 3rd. The combination in a tool-handle of threaded shank extending entirely through and slightly beyond the end of the handle E, with the collar C, adapted to screw on to the said tool-shank and provided with longitudinal tines D, D, all secured together at the outer end of the handle by means of the nut F, having an upwardly projecting flange G, substantially as described. 4th. The combination in a tool handle, of the threaded shank extending entirely through and beyond the end of the handle E, with the collar C, adapted to screw on to the said tool-shank and provided with longitudinal tines D, D, said tines being secured together at their outer extremities by the nut F^1, provided with the upwardly projecting flange G^1, screw-threaded on its inner surface, substantially as and for the purpose specified. 5th. The combination in a tool-handle, of the longitudinally perforated handle E, provided with longitudinal channels to receive tines D, D, extending from and formed integral with the collar C, adapted to fit over the tool-shank, the outer ends of the tines D, D, being secured together by means of the upwardly projecting screw-threaded flange G^1, from the nut F^1, with the nut H, adapted to screw on to the end of the tool shank, substantially as and for the purpose specified.

No. 47,031. Roofing. (*Toiture.*)

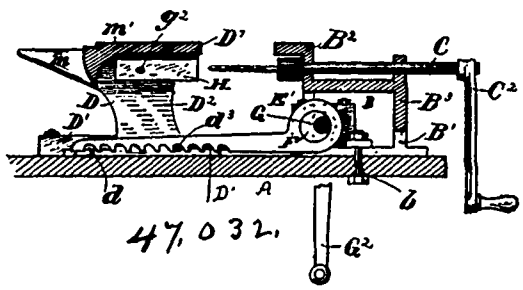


Charles H. Dalrymple, Detroit, Michigan, U.S.A., and Charles E. Hessey, Hamilton, Ontario, Canada, 12th September, 1894; 6 years.

Claim.—1st. A roofing consisting of a series of sheets or strips of sulphite fibre rendered imperious to water, and adapted for covering a roof, substantially as set forth. 2nd. A roofing composition consisting of wood-fiber, liquid rubber, white lead and oil, substantially as set forth. 3rd. A covering for roofs, consisting of thin pressed sheets of sulphite fiber, said sheets of fiber being saturated in a solution of rubber, white lead and oil. 4th. A roofing consisting of sheets of wood-fiber rendered pervious to moisture and having abutting upturned edges, the battens provided with a groove in their under edge which receives the upturned edges of said sheets to close the joints between the sheets, as set forth.

No. 47,032. Combined Vise, Drill, and Anvil.

(*Etau de foret et enclume combinés.*)



James Weathers, and John R. Robbins, both of Indianapolis, Indiana, U.S.A., 12th September, 1894; 6 years.

Claim.—In a combined drill and vise, a movable block made in the form of an anvil, and adapted to be used as such, and also serve as one of the jaws of the vise, and as a bearing for the material to be drilled, a stationary head forming the opposite jaw of the vise, and also forming the journals for a stationary drill, a drill journalled to said head block, and a stationary shaft having an eccentric secured thereto, a crank to rotate said shaft, a rack-bar having a ring to engage said eccentric whereby the rack-bar may be reciprocated by the rotation of the shaft, and a pin or catch on the movable block by means of which the block may be drawn forward by the rack-bar, the parts being combined, substantially as described.

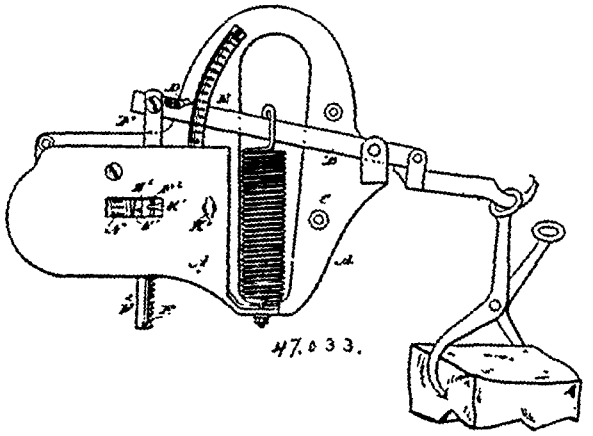
No. 47,033. Self-Register for Weighing Scales.

(*Registre automatique pour balances.*)

Oscar Raney and Thomas P. Lenville, both of Topeka, Kansas, U.S.A., 12th September, 1894; 6 years.

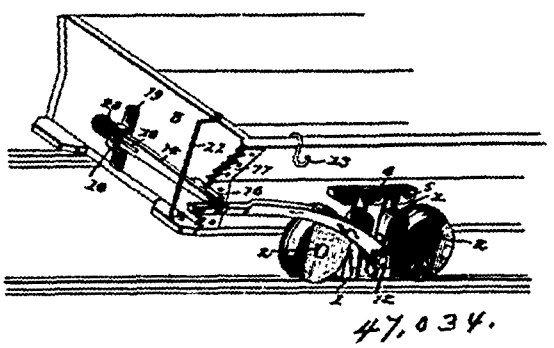
Claim.—1st. A self-registering weighing scale, comprising a fixed frame, a pivoted beam, a spring holding the same in normal position, a rack-bar pivoted to said beam, a rotatable toothed wheel with which the rack-bar engages, a dial indicating wheel mounted on the same axis as the toothed wheel, and a pawl mechanism for connecting said wheels when the toothed one rotates in one direction, but which leaves them disconnected when rotating in the opposite direction, as shown and described. 2nd. A self-register for weighing scales, comprising a pivoted scale beam and spring for retracting the same after being tilted, a rack adapted to be operated

by the scale beam, a pinion in mesh with the said rack, an indicating wheel on which rotates loosely the said pinion, the said indicating wheel being provided with a dial, and a pawl arranged



within the said indicating wheel and carried by yielding connection from the said pinion, substantially as shown and described. 3rd. A self-register for weighing scales, comprising a pivoted scale beam and spring for retracting the same after being tilted, a rack adapted to be operated by the scale-beam, a pinion in mesh with the said rack, an indicating wheel on which rotates loosely the said pinion, the said indicating wheel being provided with a dial, a pawl arranged within the said indicating wheel and carried by yielding connection from the said pinion, and a spring-pressed friction pawl engaging the said indicating wheel to prevent the return movement thereof, substantially as shown and described. 4th. A self-register for weighing scales, comprising a rack pivoted on the scale-beam, a pinion adapted to be engaged by the said rack, and indicating wheel on which indicates a pointer on the said rack, a pawl mechanism for rotating the said indicating wheel from the said pinion, a ratchet-wheel adapted to be engaged by a tooth on the said indicating wheel, and a hundreds dial held on the said ratchet-wheel, substantially as shown and described. 5th. A self-register for weighing scales, comprising a rack pivoted on the scale beam and provided with a guide bar, a pinion adapted to be engaged by the said rack, a bolt engaging the said guide arm, and means, substantially as described, for operating the said bolt to move the said rack in and out of mesh with the said pinion, substantially as shown and described.

No. 47,034. Car Brake. (*Frein de chars.*)

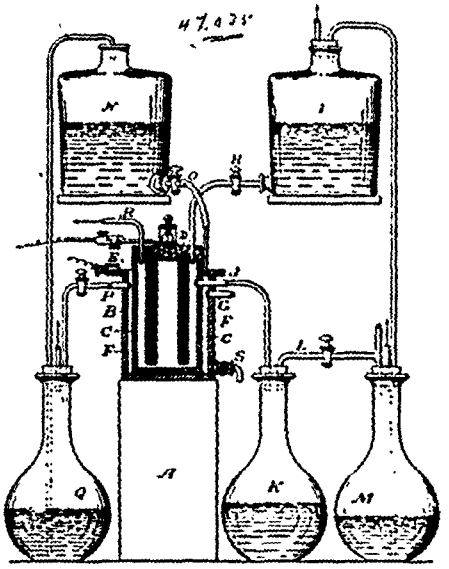


Michael McNulty, Samuel A. Collier, and William O'Neil, all in Norton, Virginia, U.S.A., 12th September, 1894; 6 years.

Claim.—1st. In a brake, the combination of a car, a pair of brake shoes arranged adjacent to each other, and located between the wheels of a car, and adapted to be spread apart to engage the wheels, a brake lever, a shaft journalled on the car and provided with a head located between the brake shoes, said shaft having the brake lever secured to it, and adapted to be turned by the same, a ratchet mounted on the car, a pivotally mounted locking bar mounted on the car, and having a limited longitudinal movement and arranged to engage the brake lever and the ratchet, substantially as described. 2nd. In a brake, the combination of a car, brake shoes arranged in pairs between the wheels thereof, a transverse shaft journalled on the car, and provided with heads located between the brake-shoes for spreading the same, a brake lever secured to the shaft, a ratchet mounted on the car, a keeper arranged on the car, and provided with a central fastening device, and a locking bar arranged in the keeper, and provided with a longitudinal slot to receive the central fastening device, and having its outer end engaging the ratchet, and adapted to engage the brake lever, substantially as described.

No. 47,035. Manufacture of Caustic Soda, etc.

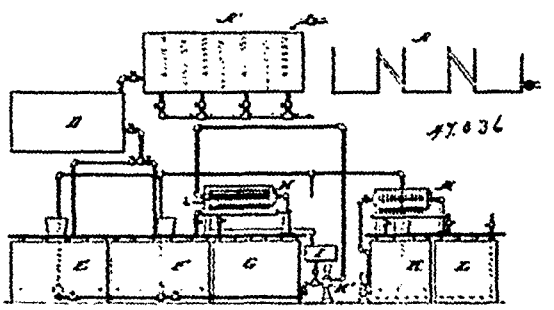
(*Fabrication de soude caustique, etc.*)



Thomas Drake, Huddersfield, County York, England, 13th September, 1894; 6 years.

Claim.—1st. In the manufacture of caustic soda first filling the outer chamber or cathode of an electric cell with mercury, then flowing a solution of common salt through the inner chamber or anode of the cell, and passing an electric current through the cell and its contents as herein set forth. 2nd. In the manufacture of caustic soda, first filling the outer chamber or cathode of an electric cell with mercury, then flowing a solution of common salt through the inner chamber or anode of the cell flowing water through said outer chamber or cathode above the mercury therein and passing an electric current through the cell and its contents, as herein set forth.

No. 47,036. Process of and Apparatus for Recovering Products from Spent Soap Lye. (*Procédé et appareil pour obtenir des produits des lessives de savon.*)



Joseph Van Ruymbeke and William Frederick Jobbins, both of Chicago, Illinois, U.S.A., 13th September, 1894; 18 years.

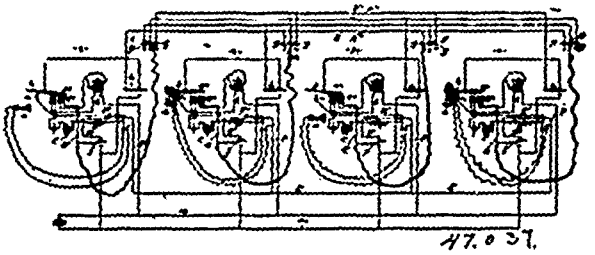
Claim. 1st. In the art of recovering products from spent soap lye, the improvement which consists in removing the suspended heavy impurities as a sediment, allowing the lye to cool, whereby suspended soap is brought to the surface and dissolved soap is separated and suspended, and as such is brought to the surface, the operation being carried on previous to the addition of any chemical to the lye. 2nd. In the art of recovering products from spent soap lye, the improvement which consists in first allowing the lye to cool, then removing separately the suspended heavy impurities and part of the soap contained therein and subsequently liming the lye, as and for the purpose described. 3rd. In the art of recovering products from spent soap lye, the improvement which consists in separately removing the suspended heavy impurities and part of the soap contained therein previous to any addition of chemicals, and subsequently adding to the lye sufficient ferric sulfate to almost neutralize the contained alkaline hydrate and carbonate, as and for the purpose described. 4th. In the art of recovering products from spent soap lye, the improvement which consists in separately removing the suspended heavy impurities and part of the contained soap, then liming the lye and adding to the lye sufficient ferric sulphate to almost practically neutralize its contained alkaline hydrate and car-

bonate, as and for the purpose described. 5th. In the art of recovering products from spent soap lye, the improvement which consists in first separately removing suspended impurities and part of the soap previous to any addition of the chemicals, then adding ferric sulphate to the lye to almost neutralize its contained alkaline hydrate and carbonate, and then filtering the lye, as and for the purpose described. 6th. In the art of recovering products from spent soap lye, the improvement which consists in precipitating fatty and other impurities by addition of ferric sulphate in quantity sufficient to almost neutralize the contained alkaline hydrate and carbonate, passing the lye through a filter press and subsequently steaming the filter cake produced, as and for the purpose described. 7th. In the art of recovering products from spent soap lye, the improvement which consists in precipitating fatty and other impurities by addition of ferric sulphate in quantity sufficient to almost neutralize the contained alkaline hydrate and carbonate, passing the lye through a heated filter press, and subsequently steaming the filter cake produced, as and for the purpose described. 8th. In the art of recovering products from spent soap lye, the improvement which consists in precipitating fatty and other impurities by addition of ferric sulphate in quantity sufficient to almost neutralize the contained alkaline hydrate and carbonate, passing the lye through a filter press, removing the filter cake, mixing it with water and passing the mixture through a filter press, as and for the purpose described. 9th. In the art of recovering products from spent soap lye, the improvement which consists in precipitating fatty and other impurities by the addition of ferric sulphate without previous addition of acid, filtering the liquid, bringing it up to the boiling point and filtering it again, as and for the purpose described. 10th. In the art of recovering products from spent soap lye, the improvement which consists in precipitating fatty and other impurities by the addition of ferric sulphate, filtering the liquid, adding a small quantity of an alkali, bringing the liquid to the boiling point and filtering again, as and for the purpose described. 11th. In the art of recovering products from spent soap lye, the improvement which consists in precipitating fatty and other impurities by the addition of ferric sulphate without previous addition of acid, filtering the liquid, evaporating the liquid, and recovering separately a mixture of sodium sulphate and chlorid and separating the sulphate from such mixture, as and for the purpose described. 12th. In the art of recovering products from spent soap lye containing sodium sulphate, the improvement which consists in recovering separately a mixture of sodium sulphate and chlorid by evaporating the liquid to a density of 30° Beaume at 15° C., and separating the sulphate and chlorid obtained, as and for the purpose described. 13th. In the art of recovering products from spent soap lye containing sodium sulphate, the improvement which consists in recovering separately a mixture of sodium sulphate and chlorid by evaporating the liquid, then concentrating the liquid up to a density of 30° Beaume at 15° C., as and for the purpose described. 14th. In the art of recovering products from spent soap lye, the improvement which consists in first purifying the lye by a suitable precipitating agent, then evaporating the lye until it reaches a density of about 30° Beaume at 15° C., and separating the salt obtained during such evaporation, then continuing the evaporation until the liquid is sufficiently concentrated and recovering separately the salt obtained in the latter operation, as and for the purpose described. 15th. In the art of recovering products from spent soap lye, the improvement which consists in first precipitating the impurities from the lye, filtering the lye, precipitating crystaline salts by concentration, removing the adherent liquid material from such crystaline salts and subjecting the salts to the action of a steam spray to cause further removal of the adhering liquid, as and for the purpose described. 16th. In the art of recovering products from spent soap lye, the improvement which consists in first precipitating impurities from the lye, filtering the lye, precipitating crystaline salts by concentration, removing the adherent liquid material from such crystaline salts and subjecting the salts to the action of a steam spray in vacuo to cause further removal of the adhering liquid, as and for the purpose described. 17th. As an improvement in vacuum evaporators, the combination of an evaporator body and eduction pipe therefrom, connected with a chamber and a perpendicular pipe in said chamber, communicating by means of its upper open end located in the upper part of said chamber with a vacuum pump, substantially as described. 18th. As an improvement in vacuum evaporators, the combination of an evaporator body, an annular dash plate in the upper part thereof and a circular dash plate located beneath the annular dash plate, substantially as described. 19th. As an improvement in vacuum evaporators, the combination of an evaporator body, an annular dash plate in the upper part thereof, a circular dash plate located beneath the annular dash plate, an eduction pipe from said evaporator body connected with a chamber and a perpendicular pipe in said chamber communicating by means of its upper open end located in the upper part of said chamber with a vacuum pump, substantially as described. 20th. As an improvement in vacuum evaporators, the combination of an evaporator body an eduction pipe therefrom connected with a chamber, a perpendicular pipe in said chamber communicating by means of its upper open end located in the upper part of said chamber with a second chamber, and a vacuum pipe connected with said second chamber, substantially as described. 21st. As an improvement in vacuum evaporators, the combination of an evaporator body, a tubular steam heating drum in the lower part thereof, an eduction pipe therefrom connected with a chamber and a perpendicular pipe in said chamber communicating by means of its upper open end located in the upper part of said chamber with a vacuum pump, substantially as described. 22nd. As an improvement in vacuum evaporators, the combination of an evaporator body, a tubular steam heating drum in the lower part thereof, draw-off pipes below said drum and located at a distance from the bottom of the evaporator, an eduction pipe from said evaporator connected with a chamber and a perpendicular pipe in said chamber communicating by means of its upper open end and located in the upper part of said chamber with a vacuum pump, substantially as described. 23rd. As an improvement in vacuum evaporators, the combination of the evaporator body, an annular dash plate in the upper part of the evaporator, a circular dash plate located beneath the annular dash plate, and a tubular steam heating drum in the lower part of the evaporator, substantially as described. 24th. As an improvement in vacuum evaporators, the combination of the evaporator, an annular dash plate in the upper part of the evaporator, a circular dash plate beneath the annular dash plate, a tubular steam heating drum in the lower part of the evaporator, and draw-off pipes below said drum and located at a distance from the bottom of the evaporator, substantially as described. 25th. As an improvement in vacuum evaporators, the combination of the evaporator body, an annular dash plate in the upper part of the evaporator, a circular dash plate located beneath the annular dash plate, a tubular steam heating drum in the lower part of the evaporator, an eduction pipe therefrom connected with a chamber, and a perpendicular pipe in said chamber communicating with a vacuum pump by means of its upper open end located in the upper part of said chamber, substantially as described. 26th. As an improvement in vacuum evaporators, the combination of an evaporator body, an annular dash plate in the upper part thereof, a circular dash plate located beneath the annular dash plate, a tubular steam heating drum in the lower part of the evaporator, draw-off pipes beneath said drum and located at a distance from the lower part of the evaporator, an eduction pipe in said evaporator connected with a chamber, and a perpendicular pipe in said chamber communicating by means of its upper open end located in the upper part of said chamber with a vacuum pump, substantially as described. 27th. In an evaporating apparatus, the combination of the evaporators 1 and 2, and a catch-all 57 common to both evaporators, substantially as described. 28th. In an evaporating apparatus, the combination of the evaporators 1 and 2, a catch-all 57 common to both evaporators, and a vacuum pump connected with said catch-all, substantially as described. 29th. In an evaporating apparatus, the combination of the evaporators 1 and 2 a catch-all common to both evaporators, a receiving vessel 60 connected with said catch-all, and a vacuum pump connected with said receiving tank, substantially as described. 30th. In an evaporating apparatus, the combination of the evaporators 1 and 2, a catch-all 57 common to both evaporators, a perpendicular pipe 58 in said catch-all communicating by means of its upper open end located in the upper part of said catch-all, with a receiving vessel 60, and a vacuum pump connected with said receiving vessel, substantially as described. 31st. As an improvement in vacuum evaporators, the combination of the evaporator body, a tubular steam heating drum in the lower part thereof, a door in the evaporator beneath said steam heating drum, and one or more draw-off pipes beneath said steam heating drum, arranged vertically one above the other for the purpose mentioned, substantially as described. 32nd. As an improvement in vacuum evaporators, the combination of an evaporator body, a tubular steam heating drum in the lower part thereof, a door in the evaporator beneath said steam heating drum and one or more draw-off pipes beneath said steam heating drum, arranged vertically one above the other for the purpose mentioned, substantially as described. 33rd. As an improvement in vacuum evaporators, the combination of an evaporator body, a tubular steam heating drum in the lower part thereof, one or more draw-off pipes beneath said steam heating drum and a vacuum draw-off pipe 19 beneath said steam heating drum, for the purpose mentioned, substantially as described. 34th. As an improvement in vacuum evaporators, the combination of an evaporator body, a tubular steam heating drum in the lower part thereof, a door in the lower part of said evaporator beneath said steam heating drum for the purpose mentioned, one or more draw-off pipes 15, beneath said steam heating drum, and a door 14, above said steam heating drum substantially as described. 35th. In an evaporating apparatus, the combination of the evaporators 1 and 2, the pipe 33, from the evaporator 1, and the pipe 35, from the evaporator 2, connected with the pipe 33, at the top of the same for the purpose mentioned, substantially as described. 36th. In an evaporating apparatus, the combination of the pillars 3, the braces 4, at the top of said pillars, the evaporators 1 and 2, supported by said braces and a catch-all 57, common to both evaporators, substantially as described. 37th. In an evaporating apparatus, the combination of the still, the heater and expansion coil in the heater, a coil in the still, and a steam pipe connected with the coil in the still, the expansion coil in the heater, a coil in the still and a steam pipe connected with the coil in the still, the expansion coil of the heater and the space in the heater surrounding the expansion coil, substantially as described. 38th. In an evaporating apparatus, the combination of the still, a heater and expansion coil in the heater, a coil in the still, a steam pipe connected with the coil of the still, an expansion coil of the heater and the space in the heater surrounding the expansion coil, and a perforated delivery

pipe in the still connected with the expansion coil, substantially as described. 39th. The combination of a still and eduction pipe connected with the first of a series of communicating drums, and a perpendicular pipe connected with the last of said drums and with a condenser, substantially as described. 40th. In an evaporating apparatus, the combination of a still and eduction pipe connected with the first of a series of communicating drums, pipes communicating between said drums and the still, and a perpendicular pipe connected with the last of such drums and with a condenser, substantially as described. 41st. In an evaporating apparatus, the combination of a still, a catch-all drum or drums connected therewith, a condenser 114 connected with said catch-all drum or drums, a receiving tank 116 connected with said condenser, and a vacuum pump connected with said receiving tank, substantially as described. 42nd. In an evaporating apparatus, the combination of a still, a heater and expansion coil in the heater, a coil in the still, a steam pipe connected with the coil of the still, the expansion coil of the heater and the space in the heater surrounding the expansion coil, a perforated pipe in the still connected with the expansion coil, an eduction pipe connected with the first of a series of communicating drums, a perpendicular pipe connected with the last of said drums and with a condenser, and a vacuum pump connected with said condenser, substantially as described. 43rd. In an evaporating apparatus, the combination of a still, catch all drums 69 and 70 connected together and with said still, a pipe 103 from each of said catch-all drums, a pipe 105 connecting said pipes 103 and communicating with the still, a pipe 105 connected with the pipe 103, a condenser 114 connected with the catch-all drum 70, a receiving tank 116 connected with the condenser 114, and a vacuum pump connected with said receiving tank, substantially as described. 44th. In an evaporating apparatus, the combination of the standards 68, the braces 71 at the tops of said standards, the heater 66, still 67, and catch-all drums 69 and 70 supported by said braces, the condenser 114, connected with the catch-all drum 70, the receiving tank 116 connected with the condenser 114, and a vacuum pump connected with said receiving tank, substantially as described. 45th. As an improvement in vacuum concentrating apparatus, the combination of a concentrator and eduction pipe leading into a chamber, a perpendicular pipe in said chamber open at its upper end and a pipe connecting said chamber with the concentrator, substantially as described. 46th. As an improvement in vacuum concentrating apparatus, the combination of two concentrators communicating with a common catch-all and a pipe establishing a communication between said catch-all and one of said concentrators, substantially as described. 47th. As an improvement in vacuum concentrating apparatus, the combination of a dash plate in the upper part of a still, an opening therein, of a circular imperforate dash plate located below or above and opposite the opening in the large dash plate, substantially as described. 48th. As an improvement in vacuum evaporators, the combination of an evaporator body, the annular dash plate in the upper part thereof, a circular dash plate located above or beneath the annular dash plate, an eduction pipe from said evaporator body connected with a chamber and a perpendicular pipe in said chamber with its upper open end located above the level of the eduction pipe and communicating with a vacuum pump, substantially as described. 49th. An improved dash plate for use in vacuum evaporators or similar chambers, in which liquids or fusible solids are heated, comprising an annular dash plate within the chamber and an imperforate dash plate supported above or below the annular dash plate, and in line with the opening therein, substantially as described.

No. 47,037. Warehouse Telephone System.

(*Système de téléphone pour magasins.*)

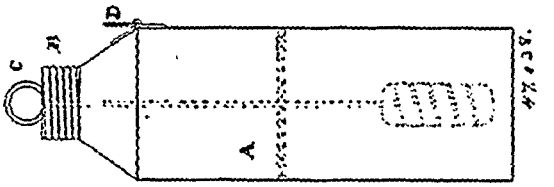


The Bell Telephone Company of Canada, assignee of Frank Allen Field, both of Montreal, Quebec, Canada, 13th September, 1894; 6 years.

Claim.—1st. A warehouse telephone system comprising a number of stations containing the usual telephone apparatus, line connecting and calling mechanisms, with battery circuit and connecting lines allowing of an exclusive connection between any two stations, as and for the purpose set forth. 2nd. A warehouse telephone system comprising a number of stations, each of which contains the usual telephone apparatus, a plug and calling key, a socket or jack for each station that may be called, a return wire and an extra key whereby the station called may send a return signal, with battery circuit and line connections, as and for the purpose set forth. 3rd. A warehouse telephone system comprising a number of stations, each of which contains the usual telephone apparatus, with an additional pair of contacts under control of an insulated connecting pin carried by the telephone hook, a plug and calling key, a socket or jack for each station that may be called, a special return wire and an extra key whereby the station called may send a return signal, with battery circuit and line connections, as and for the purpose set forth.

No. 47,038. Fire Lighter.

(*Appareil pour allumer le feu.*)

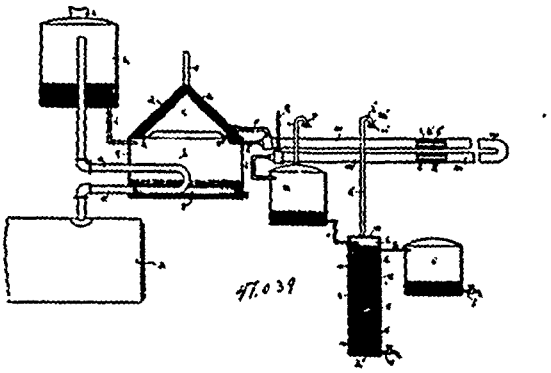


John Robert Carle, and Wellington Le Baron Hamm, both of St. John, New Brunswick, Canada, 13th September, 1894; 6 years.

Claim.—1st. A fire lighter for kindling fuel, comprising a shaft or stem E, having an eye or suitable termination C, at one end and at the other end a swab F, of asbestus or other capillary non-combustible material, bound thereto by a wire G, coiled spirally, substantially as set forth. 2nd. The combination with a can A, having a screw cap or stopper B, and handle or loop D, of the shaft or stem E, passing through said cap and provided at one end with an eye or knob C, and having at the other end a swab F, of asbestus or other capillary material bound to said stem by an exterior wire G, spirally wound, as set forth.

No. 47,039. Water Distilling Apparatus.

(*Appareil à distiller l'eau.*)



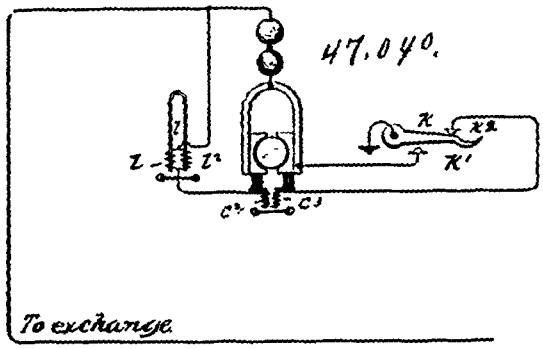
Edward C. Hargrave, Bay City, Michigan, U.S.A., 13th September, 1894; 6 years.

Claim.—1st. The combination in a distilling apparatus, of the boiler, a condensing chamber having an opening to the atmosphere, and a steam pipe leading from the boiler to the condensing chamber, and provided with a series of coils or bends, with a closed evaporating chamber, enclosing the said coils or bends of the steam pipe, and provided with a conical roof having its outer surface covered with a water space, and provided at the base of the inner side of the roof with an angular drip trough, a pipe passing through the walls of the chamber, and connected to the drip trough, and a pipe for conducting water from the condensing chamber to the said evaporating chamber, substantially as set forth. 2nd. In a water distilling apparatus, the combination with the boiler, a condensing chamber open to the atmosphere, and evaporating chamber closed to the atmosphere, and provided with condensing surfaces, of a steam pipe leading from the boiler through the said evaporating chamber to the said condensing chamber, and provided on the portion within the evaporating chamber with coils or bends, and a pipe for conducting water from the condensing chamber to the evaporating chamber, substantially as set forth. 3rd. In a water distilling and aerating apparatus, the combination with devices for distilling water, of the aerating tanks connected by pipes to the said distilling devices, and provided with a filling of crushed or pulverized charcoal charged with purified air as described, substantially as set forth. 4th. In a water distilling and aerating apparatus, the combination of the devices for distilling water enclosed from air contact, and an aerating tank having as described a filling of pulverized or crushed charcoal charged with purified atmospheric air, and a pipe for conducting the water from the distilling apparatus to the aerating tank, and means for cooling the water within the pipes, substantially as set forth. 5th. The combination with the water distilling devices and aerator containing charcoal charged as

described with purified air, and a water pipe for conveying water from the distilling devices to the aerator, of a cooling pipe surrounding a portion of the said water pipe, and means for forming a circulation of cold water through the cooling pipes, substantially as set forth. 6th. The combination with the water distilling device, an aerator tank containing charcoal, crushed or broken, and means for cooling and for conducting the water from the distilling device to the aerator tank, of an air pipe extending upwardly from the said aerator and provided with a downwardly turned outer end, and having its end opening covered with fibrous material, for the purpose set forth, substantially as described.

No. 47,040. Magneto Telephone Apparatus.

(*Appareil magneto-téléphonique.*)

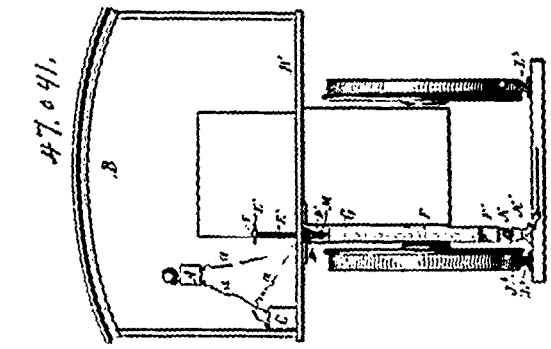


Alfred Stromberg and Andrew Carlson, both of Chicago, Illinois, U.S.A., 13th September, 1894; 6 years.

Claim.—1st. In a telephone, the combination with a magneto generator, of extensions from the poles thereof, the ends of said extensions being placed in proximity, a diaphragm opposite the ends of said extensions, and coils mounted upon said extensions, said coils being connected together in series, whereby the permanent magnetism of the magneto generator is utilized in producing voice currents and the voltage of said currents is the result of the added effect of the two coils, substantially as described. 2nd. In a telephone apparatus, the combination with a magneto generator, of soft iron extensions of the poles thereof, the ends of said extensions being brought into close proximity, a diaphragm opposite the ends of said extensions, and coils provided upon said extensions, whereby a completed magnetic field of minimum reluctance is provided for the telephone, the same being in shunt with the magnetic field of the generator, substantially as described. 3rd. In a telephone receiver, the combination with a diaphragm, of an electro-magnet having its ends brought into proximity to said diaphragm, a coil surrounding each of the limbs of said magnet, said coils being connected in circuit in parallel, whereby both coils exert their maximum influence upon the diaphragm at the same time, substantially as described. 4th. In a magneto telephone receiver, the combination, with a plurality of magnetic cores having their ends placed in proximity and opposed to a common diaphragm, of coils surrounding said magnetic cores and connected in multiple in such a manner that no two of said coils may be included in series, substantially as described. 5th. The combination, with permanent bar magnets, of pole pieces mounted upon the ends of said magnets, between which the armature is adapted to rotate, soft iron cores extending from the poles of said magnets, the ends thereof being in proximity and surrounded by telephone coils, and a diaphragm mounted opposite the ends of said cores, substantially as described. 6th. The combination, with permanent bar magnets, of pole pieces mounted upon the ends of said magnets, between which the armature is adapted to rotate, soft iron cores extending from the ends of said magnets opposite those upon which said pole pieces are mounted, the ends of said cores lying in proximity and surrounded by telephone coils, and a diaphragm mounted opposite the ends of said cores, substantially as described. 7th. The combination, with permanent bar magnets, of pole pieces mounted upon the ends of said magnets, between which the armature is adapted to rotate, soft iron cores extending from the ends of said magnets opposite those upon which said pole pieces are mounted, the ends of said cores lying in proximity and surrounded by telephone coils, a diaphragm mounted opposite the ends of said cores, and a bar of magnetic material connecting the ends of said bar magnets upon which said soft iron cores are mounted, thereby providing a magnetic shunt about the same, substantially as described. 8th. The combination, with the straight bar magnets c, c^1, of the pole pieces a, a^1 mounted upon the ends of said magnets, the cast iron pieces f, f^1, mounted upon the opposite ends of said magnets, the casing or diaphragm support d^2, mounted upon said cast iron pieces f, f^1, the soft iron cores c, c^1, mounted upon said pieces f, f^1, and the diaphragm d, supported upon said diaphragm support d^2, and mounted opposite the approached ends of said soft iron cores c, c^1, substantially as described. 9th. The combination, with a permanent magnet, of a casing supporting the diaphragm and metallically mounted upon said magnet, soft iron cores extending from the poles of said magnet through the bottom of said casing, the ends thereof being approached and situated opposite said diaphragm, and telephone coils provided on said cores, substantially as described. 10th. The combination, with a cap, of a diaphragm resting against the under side of the same, a threaded ring adapted to be screwed within said cap against said diaphragm, and a casing provided with threads adapted to engage threads upon said cap, substantially as described. 11th. The combination, with a cap, of a diaphragm secured to the under side of the same, a casing provided with threads adapted to engage threads within said cap, whereby said diaphragm may be adjusted, and a threaded ring adapted to be screwed upon said casing, and against said cap to lock the same in its adjusted position, substantially as described. 12th. The combination, with a cap, of a diaphragm resting against the under side of the same, a threaded ring adapted to be screwed within said cap against said diaphragm, a casing provided with threads adapted to engage threads upon said cap whereby the diaphragm may be adjusted and a threaded ring adapted to be screwed upon said casing and against said cap to lock the same in its adjusted position, substantially as described. 13th. In an adjustable diaphragm support, the combination, with a case having interior and exterior threads of different pitch, a diaphragm seat with threads adapted to fit said interior threads, and an inclosing cap adapted to fit said exterior thread, substantially as described. 14th. In a magneto telephone, the combination, with an electro-magnet, of an adjustably mounted diaphragm adapted to be adjustably moved toward and from the pole of said electro-magnet, a cap inclosing said diaphragm, said cap being provided with a mouth piece located upon the side of said diaphragm opposite said electro-magnet.

No. 47,041. Electric Railway Signal.

(*Signal de chemin de fer électrique.*)



Frank Beattie, Leete Island, Connecticut, U.S.A., 13th September, 1894; 6 years.

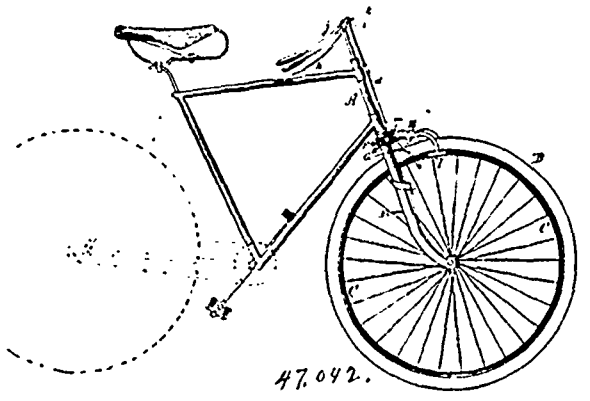
Claim.—1st. In an electric railway signal, the combination with a bell located in an electric circuit, of a reciprocal and rotable operating-rod controlling the making and breaking of the said circuit, a plunger, a button secured to the lower end of the rod, and connecting the plunger thereto, and a pivotal trip adapted at its lower end to be operated upon by a tripping device applied to the railway, and constructed at its upper end to be coupled with the rod through the medium of the said button, substantially as described. 2nd. In an electric railway signal, the combination with a bell located in an electric circuit, of a reciprocal and rotable operating-rod adapted to make and break said circuit, a spring exerting its force to lift the rod and close the circuit, a chambered plunger, a button fixed to the lower end of the rod connecting the plunger therewith and entering the chamber of the plunger when the rod is rotated, a pivotal trip adapted at its lower end to engage a tripping device permanently applied to the railway, and constructed at its upper end with a bearing face which co-operates with the lower edge of the plunger to restore it to its vertical position, and with a vertical locking-notch, and a clearance groove for the reception of said button, substantially as described. 3rd. In an electric railway signal, the combination with a bell located in an electric circuit, of a reciprocal and rotable operating-rod adapted to make and break the said circuit, a spring exerting its force to lift the rod and close the circuit, a chambered plunger located at the lower end of the rod, an operating-button secured to the lower end of the rod, connecting the plunger therewith, and entering the chamber of the plunger when the rod is rotated, a housing containing a plunger, and guiding the same in its vertical movement with the rod, and a trip pivoted in the said housing, adapted at its lower end to engage a tripping device permanently applied to the railway, and constructed at its upper end with a righting face which co-operates with the plunger, and with a locking-notch and a clearance groove to receive the said button, substantially as described.

No. 47,042. Bicycle Brake. (*Frein de bicycle.*)

Frank Hammond, Paris, Ontario, Canada, 13th September, 1894; 6 years.

Claim.—1st. A bicycle brake constructed and arranged to press

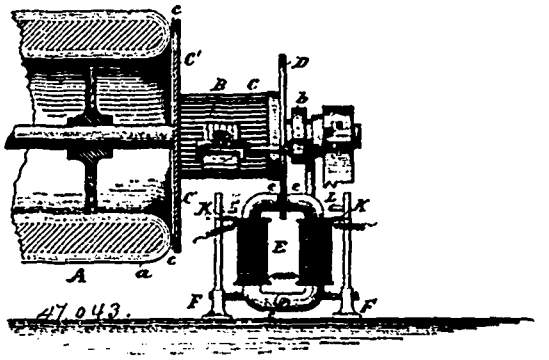
on the under portion of the metal or wood rim of the wheel when applied, in order to prevent wear, by a brake, on the rubber tire. 2nd. In combination with a bicycle (or analagous vehicle) a semi-



circular shaped collar E, brake rods H, H, the foot lever G, brake shoes I, I, attached thereto, springs J, J, to press the brake shoes downward, and the foot lever to press them upwards against the underside of the rim C of the wheel, to prevent wear of the brake on the outer or rubber tire, substantially as described. 3rd. In combination with a bicycle (or analogous vehicle) the brake shoes I, I, attached to the brake rods H, H, and vertical rod *d*, the said rod *d* having secured thereto at its top end a hand lever *h*, pivoted at the extreme end, at the point *k*, to the handle bar *j* which an upward pressure on the outer end of the said lever *h*, draws the brake shoes I, I, in contact with the underside of the rim of the wheel (or plate interposed between the two) to brake the wheel, and the spring *g* to press the brake shoes downwards off the rim of the wheel to release it, substantially as and for the purpose specified. 4th. The combination with a bicycle of the brake-shoes I, I, brake rods H, H, collar *c*, spring *g*, rod *d*, hand lever *h* secured as shown to the rod *d* and handle bar *j*, all constructed to apply the brake to the underside of the rim of the wheel and release the same, substantially as described.

No. 47,043. Regulator for Electric Machines.

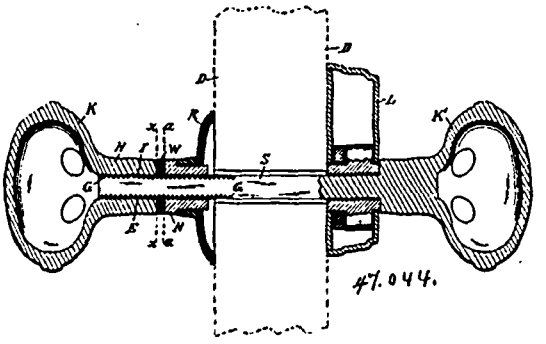
(*Régulateur pour machines électriques.*)



John Cummings Henry, Westfield, New Jersey, U.S.A., 13th September, 1894; 6 years.

Claim.—1st. An automatic regulator for a constant current dynamo electrical machine having a movable brush holder, comprising a disc of diamagnetic metal rotating with the armature shaft, a movable electro-magnet in circuit with the armature and having a polar projection in proximity to said disc, and connections between said magnet and the movable brush holder, substantially as described. 2nd. The combination with a dynamo electric machine having a movable brush holder, of a disc of diamagnetic metal rotating with the armature shaft, a tilting electro-magnet in circuit with the armature, and having a polar projection in proximity, to said disc, and connections between said magnet and the brush holder, substantially as set forth. 3rd. The combination with a dynamo electric machine having a movable brush holder, of a disc of diamagnetic metal rotating with the armature shaft, a U-shaped electro-magnet having its poles embracing the edge of the disc, and hinged at its lower end, and an arm rigidly attached to said magnet and connected with the brush holder, substantially as set forth. 4th. The combination with a dynamo electric machine having a movable brush holder, of a disc of diamagnetic metal rotating with the armature shaft, an electro-magnet having a polar projection arranged in proximity to said disc, and movable toward and away from said disc, and connections between said magnet and the brush holder, substantially as set forth. 5th. The combination with a dynamo electric machine having a movable brush holder, of a disc of diamagnetic metal rotating with the armature shaft, an electro-magnet movable toward and away from said disc, a spring holding said magnet normally away from the disc, and connections between the magnet and the brush holder, substantially as set forth. 6th. The combination with a dynamo electric machine having a movable brush holder, of a disc of diamagnetic metal rotating with the armature shaft, a tilting U-shaped electro-magnet comprising two cores hinged together and having their poles on opposite sides of said disc, springs for holding said poles away from the disc, stops to limit the movement of said poles, and connections between the magnet and the brush holder, substantially as described.

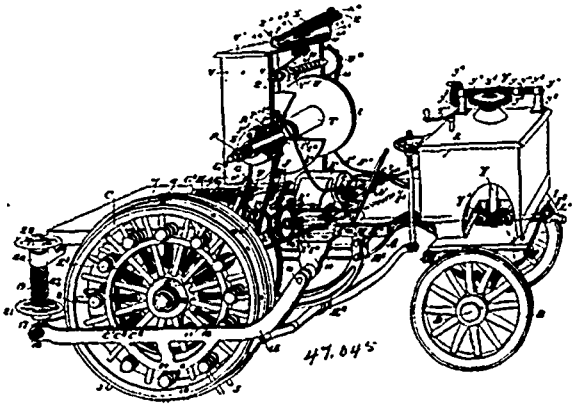
No. 47,044. Door Knob. (*Bouton de porte.*)



Albert E. White, Dutton, Ontario, Canada, 13th September, 1894; 6 years.

Claim. 1st. The washer W, having an internal opening O, and a screw threaded spindle S, fitted to said opening, in combination with the nut N, formed with a screw threaded socket I, and knobs K¹, and K, the latter having a shank H, formed with a screw threaded socket E, substantially as shown and described, and for the purpose set forth. 2nd. The washer W, having an internal opening O, formed with an angular or semi-circular face, in combination with a screw threaded spindle S, fitted to said angular or semi-circular face in said opening, the nut N, formed with a screw threaded socket I, and knobs K¹, and K, the latter having a shank H, formed with a screw threaded socket E, substantially as shown and described, and for the purpose set forth.

No. 47,045. Electric Wagon. (*Wagon électrique.*)



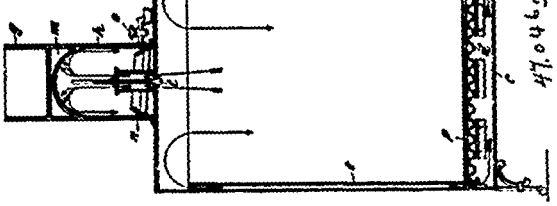
Oliver William Ketchum, Toronto, Ontario, Canada, 13th September, 1894; 6 years.

Claim—1st. In an electric wagon, the combination, with the motor connected to a stationary source of an electric supply by two insulated cables, and driving wheels driven through gearing from the motor, of a wheel supporting the two wire cables and means by which the reel is rotated so that the cable is wound by the motor or unwound automatically in exact ratio to the travel of the vehicle, as and for the purpose specified. 2nd. In an electric wagon or vehicle a reel or coil located on the wagon and having wound upon it a cable of two insulating wires through which the current is conveyed from the dynamo to the motor on the wagon and means whereby the reel may be manipulated so as to wind or unwind the cable as the wagon is traveling, as and for the purpose specified. 3rd. The combination, with the motor F, main axle and driving wheels driven therefrom, of the reel and means for driving the same in the manner specified, the cable of the reel consisting of two insulated wires through which the current is conveyed from the dynamo to the motor as it is being wound or unwound off the reel during the travelling of the wagon, as and for the purpose specified. 4th. The combination, with the motor F, main axle and driving wheels

driven therefrom, of the reel secured to the shaft Q, the sprocket-wheel P, driven by a sprocket chain and gearing from the motor and frictionally connected by the discs P^1 and R, to the friction discs P^2, keyed on the shaft Q, and the cable on the reel arranged to lead from the reel, as shown and for the purpose specified. 5th. The combination, with the motor F, main axle and driving wheels driven therefrom, of the reel secured to the shaft Q, the sprocket-wheel P, driven by a sprocket chain and gearing from the motor, the friction discs P^1, R, P^2, spiral spring S, and nut *p*, on the outer end of the shaft Q, and the cable on the reel arranged to lead from the reel, as shown and for the purpose specified. 6th. The combination, with the motor F, main axle and driving wheels driven therefrom, of the sprocket-wheel P, loose on the shaft Q, friction discs P^1, R, P^2, springs S, nut *p*, the sprocket-wheel P, being driven by the sprocket-chain o^1, sprocket pinion O^1, bevel gear-wheel O, bevel pinion l^4, gear-wheel L_1, pinion k^4, gear-wheel *k*, and pinion J, on the shaft G, of the motor as and for the purpose specified. 7th. The combination with the motor F, the main shaft G, divided into sections connected together by universal couplings *g*, as specified, of the worm *h*, secured to the rear section, journalled in the arms G^2, connected to the hub G^3, loosely journalled on the axle and the worm-wheel I, secured to the axle, as and for the purpose specified. 8th. The combination, with the motor F, and shaft G, and intermediate gearings J, K, k^3, and the gear L_1, on the shaft *l*, which is connected at its front end by the universal coupling l^5, to the shaft L^1, of the clutch l^1, l^2, forked lever *m*, pivotally connected to the portion l^2, of the clutch at the rear end and at the forward end to the lever M, as shown as and for the purpose specified. 9th. The combination with the motor F, and rear axle E, driven from the motor shaft G, by the worm H, and gear-wheel *l* as specified, of intermediate gearing connecting the shaft, G, to the friction disc P^1, loose on the reel shaft, which friction disc is held in frictional contact with the discs R, and P^2, secured to the reel shaft, as and for the purpose specified. 10th. The combination with the motor, and friction discs P^1, R, P^2, on the reel shaft and intermediate gearing for driving the disc P^1, which is loose on the shaft, from the motor, of means whereby the cable is guided to wind or unwind evenly upon the reel, as and for the purpose specified. 11th. The combination with the motor and friction discs P^1, R, P^2, reel, shaft and intermediate gearing for driving the disc P^1, which is loose on the shaft, from the motor, of the sleeve *v*, supported on the spindle U^1, and on the spindle v^2, by the arm v^1, and provided with a traveller v^3, by which the sleeve is caused to have reciprocating movement on the spindle as it rotates and guiding rollers v^4, journalled on the sleeve and designed to guide the cable evenly on to and off the reel, as and for the purpose specified. 12th. The combination with the motor and friction discs P^1, R, P^2, reel shaft and intermediate gearing for driving the disc P^1, which is loose on the shaft, from the motor of the sleeve *v*, supported on the spindle U, and on the spindle v^2, by the arm v^1, and provided with a traveller v^3, by which the sleeve is caused to have reciprocating movement on the spindle as it rotates, and guiding rollers v^4, journalled on the sleeve and designed to guide the cable evenly on to and off the reel, turn table X^1, guiding rollers v^5, situated beneath the hollow vertical bearing U, of the turn table, hollow guiding pole X, having a guiding pulley *w*, at the bottom end, and guiding rollers w^2, journalled at the top in the hollow swivelled end w^3, all arranged to guide the cable from the guiding rollers v^4, off the wagon, as and for the purpose specified. 13th. The combination with the reel T, having a cable 2, wound upon it and leading from it to the dynamo as specified, of the sleeve *v*, supported on the spindle U, and upon the spindle v^2, by the arm v^1, and provided with a traveller v^3, the sprocket pinion Q^1, secured to one end of the reel shaft and connected by a sprocket chain *a*, to the sprocket-wheel U^2, at one end of the double spirally grooved spindle U, as and for the purpose specified. 14th. The combination with the reel T, having a cable 2, wound upon it and leading from it to the dynamo as specified, of the sleeve *v*, supported on the spindle U, and upon the spindle v^2, by the arm v^1, and provided with a traveller v^3, the sprocket pinion Q^1, secured to one end of the reel shaft and connected by a sprocket chain *u*, to the sprocket-wheel U^2, at one end of the double spiral grooved spindle U, and handle Y, secured on the other end of the spindle U, as and for the purpose specified. 15th. The combination with the motor F, and reel T, driven by frictional contact through the intermediate gearing between the friction discs and motor as specified, of the cable 2, consisting of the two wires 3, and 4, which lead from the dynamo to the reel, and are wound upon the reel as specified, the wire 3, of which leads to the collar t^3, and the wire 4, to the collar t^2, the brushes t^3, t^4, held in frictional contact with the collars t^1, t^2, respectively, and connected by the wires t^5, t^6, to the switch and motor, as shown as and for the purpose specified. 16th. The combination with the main axle E, driven from the motor, of the main driving wheels C, and frictional means for connecting them to the main axle, as and for the purpose specified. 17th. The combination with the motor, of the main axle E, journalled, and driven from the motor as specified, and having secured to it the peripheral friction wheel C^3, capable of lateral movement on the shaft, each of which wheels is designed to be brought independently into or out of engagement with the ring C^1, forming part of each of the main driving wheels, as shown, as and for the purpose specified. 18th. The combination with the motor, of the main axle E, journalled and driven from the motor, as specified, and the frictional wheel C^3, supported on the collar C^4, as specified, and laterally adjustable by the lever C^5, the forked end of which is pivotally connected to the collar C^4, and the front end of which lever C^5, has a spring plunger c^6, which is designed to be brought into one of the notches of the quadrant c^7, so as to hold the periphery of the wheel C^3, into or out of frictional contact with the inner bevelled periphery of the ring C^1, as and for the purpose specified. 19th. The combination with each rear wheel, of a series of pairs of plungers 5, 5, extending into holes 6, means for retaining them within the rim and for throwing them out into the ground as they rotate, as and for the purpose specified. 20th. The combination with each rear wheel, and a series of plungers 5, 5, connected at their inner ends to a cross-bar 8, to the centre of which is connected the spring actuated plunger 11, which extends through the ring C^1, on the double bar 15, within which the rear wheel turns, the front end of the double bar being pivoted at 16, and the rear end flexibly supported and having downwardly extending cams 24, to come in contact with friction rollers 9, on the cross-bars 8, so as to gradually throw out the plungers 5, 5, as they arrive, in their rotation, near the bottom of the wheel, and to allow of their being drawn in as they leave the bottom of the wheel, as and for the purpose specified. 21st. The combination with each rear wheel, having a series of pairs of plungers 5, 5, actuated so as to be retained within the rim of the wheel, of the double-bar 15, pivoted at the front end at 16, having cams 24, connected together at the rear end, and the screw 19, bracket 20, hand-wheel 22 and spring 23, arranged as and for the purpose specified. 22nd. The combination with each rear wheel, having a series of pairs of plungers 5, 5, spring actuated so as to be retained within the rim of the wheel, of the double-bar 15, pivoted at the front end at 16, having cams 24, and connected together at the rear end, and the screw 19, bracket 20, hand-wheel 22, spring 23, and hand-wheel 21, as and for the purpose specified. 23rd. The combination with the vehicle of the class described, of the turning post Y, secured to the bottom of the fifth wheel and rotated by means of the worm-wheel *p*, and worm p^1, on the spindle p^2, which is rotated by the hand-wheel p^6, as and for the purpose specified. 24th. The combination with the vehicle of the class described, of the front wheels connected to the ordinary fifth wheel and the post Y, fitting into a socket in the lower portion of the fifth wheel, and means whereby the post is rotated, as and for the purpose specified. 25th. The combination with the vehicle of the class described, the turning post Y, secured to the bottom of the fifth wheel and rotated by means of the worm-wheel *p*, and worm p^1, on the spindle p^2, which is rotated by the hand-wheel p^6, of springs p^4, on the spindle on each side of the worm, as and for the purpose specified.

No. 47,046. Hygienic Dry Air Apparatus.

(*Appareil hygiénique à air sec.*)



Karl Ludwig Sandrowski, Berlin, Prussia, Germany, 13th September, 1894; 6 years.

Claim.—1st. An hygienic dry-air apparatus for treating diseased parts of the human body having a chamber formed by the bottom *c* and false bottom *d*, the hot air from said chamber passing up between the inner and outer walls of the apparatus and entering the perspiring chamber from above, an insulating plate being also provided to prevent one part of the body acted on being subjected to a greater heat than the other parts, substantially as hereinbefore set forth with reference to the drawings annexed, constructed and arranged, substantially as hereinbefore described. 2nd. In an apparatus of the class hereinbefore set forth the method whereby the body, or a part of it, can be made to perspire at a certain temperature, the perspiration being evaporated and then condensed and collected for further investigation or experiment, substantially as hereinbefore set forth, constructed and arranged, substantially as hereinbefore described.

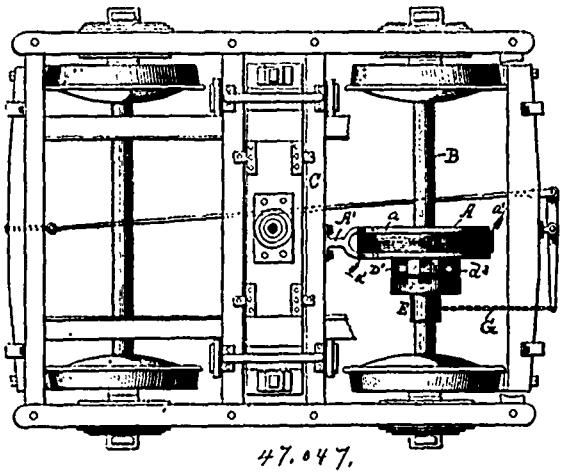
No. 47,047. Electro-magnetic Car Brake.

(*Frein électro-magnétique de char.*)

John Cummings Henry, Westfield, New Jersey, U.S.A., 13th September, 1894; 6 years.

Claim.—1st. An electric train-brake, comprising a dynamo on each car, a magnetic clutch connected with said dynamo, and brake gearing operated by said clutch, substantially as described. 2nd. An electric train-brake, comprising a dynamo on each car, a magnetic clutch connected with said dynamo, and a drum operated by said clutch, substantially as described. 3rd. An electric train-

brake, comprising a field magnet, an armature having its circuit permanently closed through a magnetic clutch, brake gearing operated by said clutch, and means for opening and closing the field,



47,047.

substantially as described. 4th. An electric train-brake, comprising a field magnet, an armature having its circuit closed through a magnetic clutch, couplings connected with the terminals of the field, and means for automatically grounding said terminals when the train breaks in two, substantially as described. 5th. An electric train-brake, comprising a field magnet, an armature having a magnetic core or cores projecting from one face thereof, a loose drum having a magnetic face adjacent to said cores, and a closed armature winding including the cores, substantially as described. 6th. An electric train-brake, comprising a stationary electro-magnet on the car, a rotating electro-magnet arranged in inductive relation to the stationary one, means for rotating said magnet from the car axle, a magnetic clutch in circuit with said magnet, and means for controlling the circuit of the stationary electro-magnet, substantially as described. 7th. The combination, with a car axle, of a drum mounted loosely thereon, a magnetic clutch for connecting the drum and the axle, and an electric generator driven from said axle, substantially as set forth. 8th. An electric brake, comprising a stationary annular field magnet, an armature concentric therewith, and carrying magnetic cores on one face, a closed armature winding including said cores, a loose drum having a magnetic face adjacent to said cores, and a rheostat in the field circuit, substantially as described. 9th. The combination, with a plurality of cars, each provided with a field magnet, of couplings between the cars connecting said fields in series, a ground circuit at each end of each car, and means for automatically connecting said couplings with said ground circuits upon any car that is detached from the train, substantially as described. 10th. In an electric train-brake, the combination, with a car axle, of a stationary field magnet concentric therewith, an armature fast upon the axle, a drum loose upon the axle, and a magnetic clutch in circuit with the armature, substantially as described. 11th. In an electric train-brake, the combination, with a car axle, of a stationary field magnet concentric therewith, an armature fast upon the axle and carrying cores arranged around the axle with their faces in the same plane of rotation, an armature winding continued in closed circuit around said cores, and a drum loose on the axle and having a magnetic face adjacent to said cores, substantially as set forth. 12th. An electric train-brake, comprising a plurality of stationary field magnets arranged in series with a rheostat, an armature rotating within each field and having its circuit closed, and a magnetic clutch included in said closed circuit, substantially as set forth. 13th. In an electric train-brake, the combination, with a car provided with a dynamo, of a field circuit coupling consisting of a plunger, a spring engaging said plunger, and a ground circuit with which said spring keeps the plunger normally in contact, substantially as described. 14th. The combination, with a car, of a dynamo driven by the car axle and having its field terminals normally grounded, means for breaking said ground circuit, and brake mechanism adapted to be operated by said dynamo, substantially as set forth.

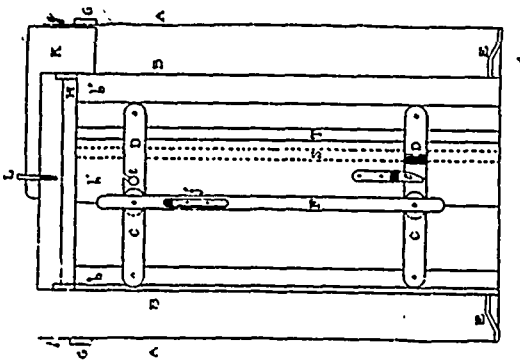
No. 47,048. Treatment of Sulphite Pulp.

(*Traitement de pulpe de sulfite.*)

Edward Partington, Glossop, Derby, England, 13th September, 1894; 6 years.

Claim.—The improvement in the treatment of sulphite pulp used in the manufacture of paper and the like from wood, consisting in the application or addition to such sulphite pulp during the process of manufacture of petroleum or paraffin oil or other suitable mineral hydro-carbon oils for the purpose of removing or preventing the formation of partly insoluble specks of a pitchy or resinous nature in the said pulp, and for preventing the partial coating or fouling of the vessels or other parts of the machinery therewith.

No. 47,049. Moulds for Forming Concrete into Pipes for Drains, &c. (*Moule pour former les tuyaux de béton pour égouts, etc.*

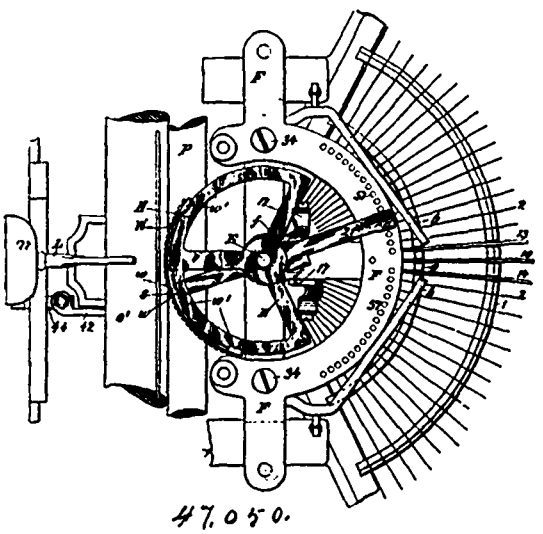


47,049.

John Heard, Strathroy, Ontario, Canada, 13th September, 1894; 6 years.

Claim.—1st. An improvement in moulds for forming concretes into pipes for culverts, drains, &c., and consists of expanding, contracting and locking devices C, D, and D, (securely attached to elastic cylinders A, A, and B, B, of metal or wood or both combined), falling behind and against catch c or over, and behind stud c, both of which are securely attached to cylinders aforesaid, and operated by perpendicular bar F, and attached thereto. 2nd. Shoulder A, and flange *a*, *a*, and shoulder B, attached to cylinder B, B, acted upon by circular device D, operated by perpendicular bar F, locked by lock-block E, moved by perpendicular rod C, and spiral or other spring. 3rd. Wrought or cast core, and cast rings A, and H, core cover J, sway-bar, and gauge K, rotating from centre pin L of core cover, substantially as and for the purpose set forth.

No. 47,050. Type Writing Machine. (*Clavigraphe.*)



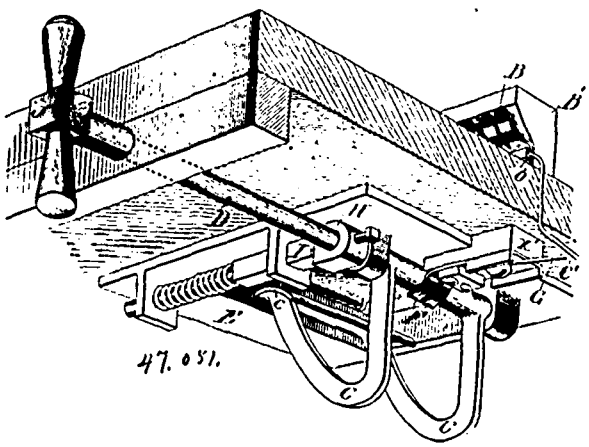
47,050.

James B. Hammond, New York, State of New York, U.S.A., 14th September, 1894; 6 years.

Claim.—1st. A detachable, segmental type shuttle bearing upon its face letters or characters and provided with a strengthening and supporting device, substantially as described. 2nd. The combination of a shuttle, an independent shuttle and stop arm pivoted upon a centre, common with the type shuttle, and a key actuated driving lever imparting motion to said arm, substantially as described. 3rd. The combination of a type shuttle, an independent shuttle and stop arm and a key actuated driving lever imparting motion to said arm, substantially as described. 4th. The combination of a shuttle, a pivoted shuttle arm and a lever actuated by a key lever whereby motion is imparted to said arm, substantially as described. 5th. The combination of a shuttle arm provided with means for engaging the shuttle, a cylindrical sleeve rigidly united to said arm and adapted to fit, upon a supporting shaft and a key operated driving lever for actuating said arm, substantially as described. 6th. A shuttle arm provided with means for engaging a type shuttle at one end and adapted at its other end to engage a stop pin, substantially as described. 7th. The combination of a type anvil consisting of a circular segment rigidly mounted upon a shaft and suitable levers for shifting the same, substantially as described. 8th. The combination of a type shuttle and a supporting anvil, substantially as

described. 9th. The combination of a type shuttle and a movable supporting anvil, substantially as described. 10th. The combination of a type shuttle and an anvil having a sliding connection therewith, substantially as described. 11th. The combination with a type shuttle of an anvil and means for preventing a rotary motion while permitting the vertical movement of the same, substantially as described. 12th. The combination with a type shuttle having a metal rib of an anvil provided with means for supporting such shuttle and permitting its reciprocation thereupon, substantially as described. 13th. The combination of a type shuttle, a supporting anvil and means whereby the same may be raised or lowered, substantially as described. 14th. The combination of a type shuttle, a supporting anvil and an independent shuttle arm adapted to actuate said shuttle, substantially as described. 15th. The combination of a type shuttle, a supporting anvil, an independent shuttle arm with means for actuating said shuttle arm, substantially as described. 16th. The combination of a type shuttle, a supporting anvil, an independent shuttle arm and a driving lever or levers adapted to actuate said shuttle arm, substantially as described. 17th. The combination of a type shuttle, a supporting anvil, an independent shuttle arm, a stop arm and a series of stop pins, substantially as described. 18th. The combination of a type shuttle, a supporting anvil, an independent shuttle arm, a stop arm, a series of stop pins and means to actuate said shuttle and stop arm and stop pins, substantially as described. 19th. The combination of a segmental type shuttle removably supported upon an anvil, suitable key levers, a propelling mechanism between said shuttle and key levers and adapted to be actuated by said levers, substantially as described. 20th. The combination of a type shuttle, suitable key levers, a propelling mechanism between said shuttle, and key levers, adapted to be actuated by said levers, and a stop mechanism, substantially as described. 21st. A shuttle arm having a finger at one end and being rigidly united with a cylindrical sleeve adapted to fit upon a supporting shaft, substantially as described. 22nd. A shuttle arm provided with means for engaging a type shuttle and with a stop arm adapted to strike against an index pin raised by a key-lever also adapted to actuate said shuttle arm through intermediate mechanism, substantially as described. 23rd. A type anvil consisting of a lower section rigidly mounted upon a supporting shaft, so as to be capable of being rotated thereupon, substantially as described. 24th. A type anvil consisting of a lower section permanently fastened upon a supporting shaft and having an upper removable section adapted to be secured to said shaft by suitable means, substantially as described. 25th. The combination with a type anvil having upper and lower sections, of a type shuttle adapted to project within said sections and adapted to receive an actuating device reciprocated within said anvil, substantially as described. 26th. The combination with a double type anvil of a type shuttle provided with a rib on its inner side and having means to engage a shuttle finger adapted to be actuated within the circumference of said anvil, substantially as described. 27th. The combination of a type anvil having upper and lower sections, a type shuttle supported thereupon between the same, and a type finger mounted upon a shuttle arm and adapted to engage said type shuttle substantially as described. 28th. The combination with a type shuttle supported between the sections of a double type anvil, of a shuttle finger adapted to engage said shuttle, a shuttle arm supporting said shuttle finger and mechanism adapted to operate the same, substantially as described. 29th. The combination of a type shuttle, a supporting anvil, a shuttle arm adapted to reciprocate said shuttle, a driving lever and means for actuating the same, substantially as described. 30th. The combination of a type shuttle, suitable key-levers, and a propelling mechanism between said shuttle and key-levers, substantially as described. 31st. The combination of a type shuttle, suitable key-levers, a propelling mechanism between said shuttle, and key-levers, and a stop mechanism, substantially as described. 32nd. The combination with a series of finger key levers, each of which operates to actuate the type shuttle of a type shuttle, a supporting anvil, mechanism between the finger key levers and type shuttle whereby motion imparted to the key levers is transmitted to the type shuttle, and means for retaining the type shuttle in the desired position, substantially as described. 33rd. In a type writing machine, the combination with a type shuttle adapted to reciprocate in either direction from a normal position through a series of characters to present any desired letter at a given point, of an anvil upon which said shuttle reciprocates, finger key levers by thich the operating power is supplied, intermediate mechanism, between said key-lever and the shuttle, by which motion is imparted to said shuttle, and a stop mechanism operated by the key-levers and acting to arrest said shuttle at the proper point, all substantially as described. 34th. The combination of a type shuttle adapted to be reciprocated in either direction from a normal point through a series of characters to bring any one of said characters to said point, key levers to produce said motion and intermediate mechanism whereby said right and left hand motion is communicated to said shuttle, and a stop mechanism set in motion by said key levers, and adapted to arrest said shuttle at a series of points on the right or left of said normal point, all substantially as described. 35th. In a type writing machine, the combination of the type shuttle, the anvil upon which the same is reciprocated, the independent shuttle arm adapted to actuate the shuttle, the driving levers arranged to rotate the shuttle arm, and suitable devices whereby motion may be imparted to said driving lever through a finger key lever, all substantially as described. 36th. In a type writing machine, the combination of the reciprocating type shuttle, the shuttle arm actuating the same, the supporting type anvil and stop pins acting against the stop arm to arrest the motion thereof, key levers adapted to raise said stop pin, and driving levers adapted to be operated by said key levers, and to engage and operate said shuttle and stop arm, substantially as described.

No. 47,051. Electrical Switch. (*Commutateur électrique.*)

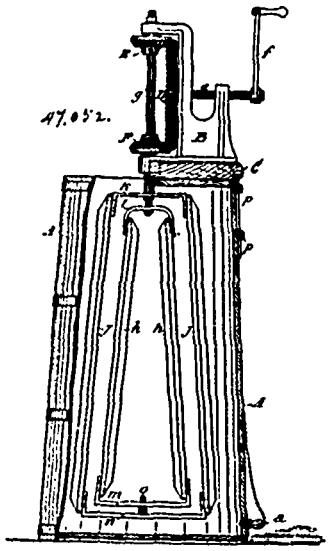


Ernst Ruebel, St. Louis, Missouri, U.S.A., 14th September, 1894; 6 years.

Claim.—1st. In an electrical switch, the combination with a swinging contact arm formed with an axle of irregular shape, of a spring contact located juxtaposition to said axle and adapted to contact therewith when said axle is in certain of its positions, the rigidly-mounted contacts B, with which said swinging arm is adapted to co-operate and make circuit when the spring contacts are in electrical contact with the irregularly shaped axle, substantially as described. 2nd. In an electrical switch, the combination with a swinging contact arm, formed with an axle of irregular shape, of a spring contact located juxtaposition to said axle and adapted to contact therewith when said axle is in certain of its positions, a shaft for moving said swinging contact arm, a collar on the shaft formed with squared faces, a spring-impelled bolt for co-operating with the squared faces on the collar, and rigidly-mounted contacts B, with which the swinging arm co-operates when the bolt engages one of the squared faces on the collar, substantially as described. 3rd. In an electrical switch, the combination with a swinging contact arm formed with a cam-shaped axle, of a split contact spring located juxtaposition to said axle to engage the same when in certain of its positions, a shaft for moving said arm and axle, a collar mounted on the shaft formed with two squared faces forming an apex, a spring-impelled bolt having a squared face for engaging and co-operating with the squared faces of the collar whereby the apex is caused to pass the spring-impelled bolt and present a dead-centre for a short time only, and causing the arm to assume either of its extreme positions with accelerated speed, and contacts B with which said arm is adapted to co-operate when in one of its positions and when the split spring is engaging the cam-shaped axle thereof, substantially as described. 4th. In an electrical switch, the combination with an insulation slab provided with an opening, of a trap-door normally closing said opening, a swinging arm mounted below said opening and adapted to be swung up therethrough beyond the trap-door, and suitable contacts located above said trap-door with which the swinging arm is adapted to co-operate, substantially as described. 5th. In an electrical switch, the combination with an insulation slab, of a series of spring contacts mounted thereabove, a strip for electrically connecting said contacts, terminals or electrodes which are adapted to be so arranged that one of said terminals will be in electrical connection with said contact springs, and a swinging contact arm, mounted on the under side of the slab, which is adapted to pass through an opening in the slab and make contact with the other terminal, substantially as described. 6th. In an electrical switch, the combination with an insulation slab having spring contacts rigidly mounted thereon, of an insulation piece 4, provided with contacts 3 and 6, said latter contacts being in the form of U-shaped springs clasping a conducting strip, a swinging arm mounted on the under side of the slab, which is electrically disconnected when in its lowered position from the source of supply, and means for raising said arm through an opening in the slab so that it will contact with the U-shaped spring end, at the same time, be thrown into electrical connection with the source of supply, substantially as described. 7th. In an electrical switch, the combination with an insulation slab formed with an opening, of a trap-door normally closing said opening, a swinging contact arm mounted on the under side of the slab, and adapted to be forced up through the opening beyond the trap-door, means for retaining said arm in each

of its positions above and below the trap-door, and a rigidly mounted contact located to one side of the opening and on top of the slab with which the swinging arm is adapted to co-operate, substantially as described.

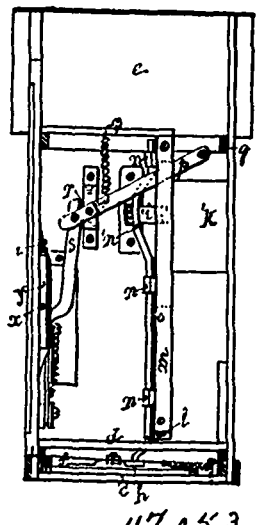
No. 47,052. Churn. (*Baratte.*)



James Franklin Willson, Brantford, Ontario, Canada, 14th September, 1894; 6 years.

Claim.—1st. The combination in an upright barrel or churn A, of gear-wheels D, E, F, so arranged as to give motion to two sets of beaters *h*, *j*, working concentrically, but in opposite or contrary directions, as already described and set forth. 2nd. A standard B, so arranged as to carry gear-wheels D, E, F, with their axles, etc., and beaters *h*, *j*, and attached to the cover C, of an upright barrel or churn A, so that the same can be easily applied or removed and handled as if it were in one piece. 3rd. The concentric beaters *h*, *j*, as applied to a churn A, of a section as described and shown in Fig. 3, *h*, and in combination with other mechanism giving the beaters *h*, *j*, motion as already described and for the purposes as fully set forth.

No. 47,053. Fire Box Alarm. (*Cellule d'alarme.*)

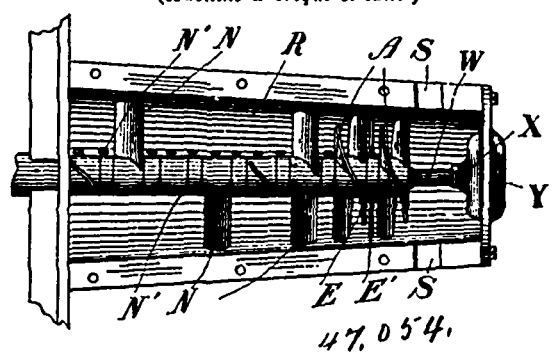


Henri Trudel, Montréal, Québec, Canada, 17th Septembre, 1894; 6 ans.

Résumé.—1° La combinaison d'un mécanisme et d'une boîte ou cellule ordinaire de forme quelconque déjà connue produisant l'effet de renfermer celui qui sonne à l'intérieur une alarme d'incendie. 2° Dans une cellule d'alarme d'incendie, un levier d'alarme muni d'un levier de fermeture actionné par le moyen d'une tige de lien, tel que décrit ci-dessus et pour les fins indiquées. 3° Dans une cellule d'alarme d'incendie, un levier d'alarme fonctionnant en rapport avec un loquet actionné par porte, avec l'effet indiqué ci-dessus. 4° Dans une cellule d'alarme d'incendie, une tige ou levier à coulisse attaché à la porte et muni d'une rainure et d'un ressort en combinaison avec un levier actionnant un arbre avec bielle à chaque extrémité et à angle droit l'une de l'autre, fonctionnant avec l'effet dit plus haut. 5° Dans une cellule d'alarme d'incendie, une alarme d'incendie combinée avec un loquet pour empêcher de sonner l'alarme avant que la porte ne soit fermée. 6° Dans une cellule d'alarme d'incendie, un loquet ou ouverture de porte actionné par un bras articulé jouant dans une mortaise à coulisse et un taquet pour l'empêcher d'échapper, pour les fins indiquées ci-dessus. 7° Dans une cellule d'alarme, un loquet, un crochet de boîte d'alarme et un mécanisme de fermeture de porte, pour les fins indiquées plus haut. 8° Dans une cellule d'alarme, une connection de loquet, un mécanisme propre à régler le jeu d'une porte et une pièce de serrurerie propre à tenir une porte fermée, pour les fins indiquées ci-dessus. 9° La combinaison de la tige *f*, avec son ressort *j*, et du levier *i*, avec son ressort *k*, la première attachée en dessous de la porte *a*, au moyen d'un pivot et le second s'adaptant à une bielle *l*, le tout placé sous un double fond *d*, la tige *f*, traversant la languette l^1, tel que ci-dessus décrit et pour les fins indiquées. 10° La combinaison du levier *p*, avec son ressort et de la tige *s*, aussi accompagnée de son ressort, du loquet *t*, le levier *p*, en se rabattant sur la boîte d'alarme devant déterminer la sonnerie, tel que ci-dessus décrit et pour les fins indiquées. 11° La combinaison du loquet combiné *t*, et de la tringle a^1, avec le lien c^1, la coulisse b^1, et la platine dentée *u*, enfermée dans une boîte *y*, et jouant dans un tiroir *x*, tel que ci-dessus décrit et pour les fins indiquées. 12° La combinaison de la tringle articulée d^1, se fermant à cadenas, de la crampe e^1, du cadenas f^1, et du bouton g^1, avec le levier *p*, et son ressort, et de la tige *s*, aussi, accompagnée de son ressort, du loquet *t*, le levier *p*, en se rabattant sur la boîte d'alarme devant déterminer la sonnerie, tel que ci-dessus décrit et pour les fins indiquées. 13° La combinaison du tasseau *m*, de la tige à manivelle *l*, supportée par les coussinets *n*, du loquet i^1, et du ressort double h^1, avec la tige *f*, avec son ressort *j*, et du levier *i*, avec son ressort *k*, la première attachée en dessous de la porte *a*, au moyen d'un pivot et le second s'adaptant à une bielle *l*, le tout placé sous un double fond *d*, la tige *f*, traversant la languette *l*, tel que ci-dessus décrit et pour les fins indiquées.

No. 47,054. Brick and Tile Machine.

(*Machine à brique et tuile.*)



Hugh Creighton Baird and Oliver Baird, both of Parkhill, assignees of James Elliott and Eli Elliott, both of Wingham, all in Ontario, Canada, 17th September, 1894; 6 years.

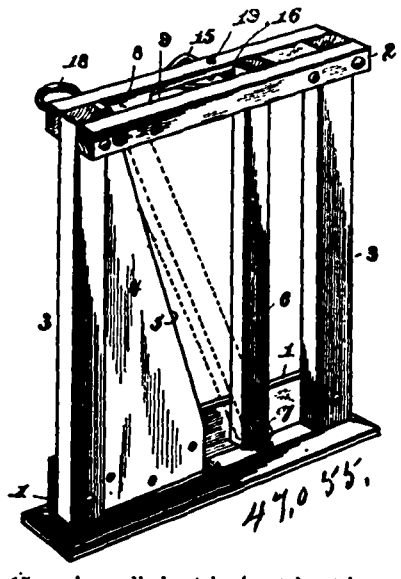
Claim.—1st. In a brick and tile machine, the combination, with the tub or tempering box of an auger shaft having a journal bearing near its delivery end, a bearing E supporting said journal, a spider consisting of rods passing through said tub and screwed into and supporting said bearing, a triple bladed auger at each side of said bearing, grinding knives N, and collars N^1 on said shaft, and a core pin W screwed into the end of said shaft and adapted to carry the tile core, substantially as set forth. 2nd. In a brick and tile machine, the combination, with the tub R, and auger shaft D, of a bearing E supporting said shaft near the delivery end, and a spider consisting of rods or bolts E^1 supporting said bearing, substantially as set forth. 3rd. In a brick and tile machine, the combination, with the auger shaft of a bearing supporting said shaft near the delivery end, of a rod or pin W secured to the end of the shaft as a continuation thereof and adapted to carry the tile core, substantially as set forth. 4th. In a brick and tile machine, the combination of an auger shaft D, two three bladed augers A, A at the delivery end of said shaft, a series of grinding knives N on said shaft, and a bearing E between said two augers suitably supported, substantially as set forth.

No. 47,055. Cattle Stanchion. (*Etançon pour bestiaux.*)

Warren Morgan, Houghton, New York, U.S.A., 17th September, 1894; 6 years.

Claim.—In a cattle stanchion, the combination, with the pivoted stanchion bar 6, a top cross-bar 2 having a longitudinal vertical slot 8, and a longitudinal horizontal slot 9 communicating therewith, of a spring locking catch composed of a single strip of wire rod formed

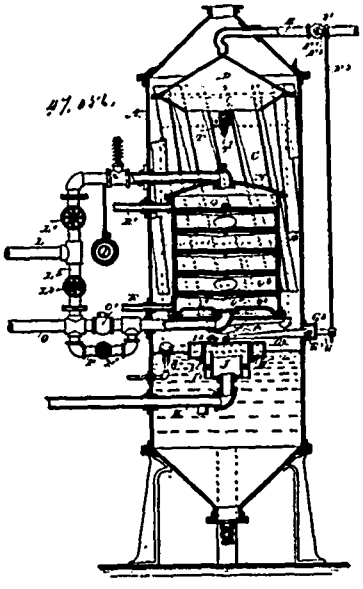
intermediate its ends with a coil 18, one end secured to the top cross-bar, and the other end portion formed with an outwardly bent



finger piece 15, an inwardly bent horizontal catch arm 16, and an inclined member 17, against which the upper end of the stanchion bar operates to press the catch arm outward for the passage of the stanchion bar into locking engagement with said catch arms, substantially as described.

No. 47,056. Feed Water Heater.

(*Réchauffeur d'eau d'alimentation.*)

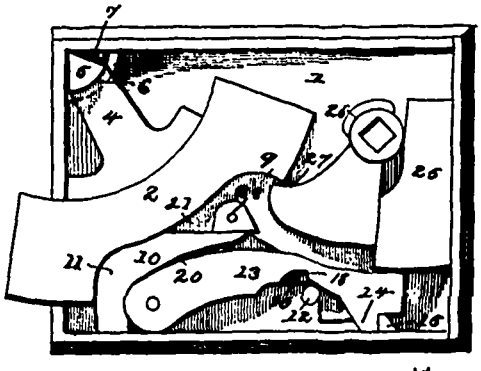


Joseph Bell, Troutdale, Oregon, U.S.A., 17th September, 1894; 6 years.

Claim.—1st. A feed water heater comprising a heater casing, a filter arranged within said casing, an outlet pipe leading from the said filter and to be connected with the boiler, and a water supply pipe for the said filter and adapted to be connected with the said filter outlet pipe, substantially as shown and described. 2nd. In a feed water heater, the combination with a casing, of a filter arranged within the said casing, a water supply pipe leading to the top of the said filter and connected with a pump or other device, an outlet pipe for said casing and connected with the pump discharging into the said filter pipe, and a discharge pipe leading from the bottom of the said filter and connected with the boiler, substantially as shown and described. 3rd. In a feed water, the combination with a heater casing provided with a water inlet pipe and a water outlet pipe, a valve arranged within the said water inlet pipe, and a float mechanism for controlling the said valve and forming part of the outlet for the said outlet pipe, substantially as shown and described. 4th. A feed water heater comprising a filter arranged within the heater casing, a water inlet pipe for the said filter and provided with a valve, a water outlet pipe for the said filter, and containing a crank valve and leading to the boiler, and a valved branch pipe connecting the said inlet pipe with the outlet pipe, substantially as shown and described. 5th. A feed water heater comprising a filter arranged within the heater casing, a water inlet pipe for the said filter and provided with a valve, a water outlet pipe for the said filter and containing a check valve and leading to the boiler, a valved branch pipe connecting the said inlet pipe with the outlet pipe, and a second valved branch pipe arranged in the outlet pipe on opposite sides of the said check valve, substantially as shown and described.

No. 47,057. Combined Latch and Lock.

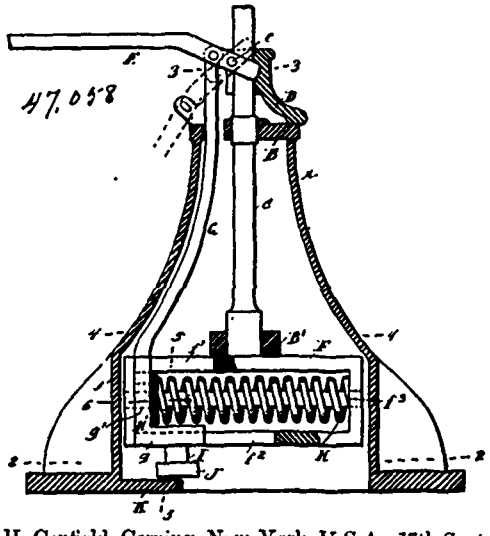
(*Loquet et serrure combinés.*)



Nathan B. Gregory, Joplin, Missouri, U.S.A., 17th September, 1894; 6 years.

Claim.—1st. The combination of a casing provided at a point above its bolt-opening with a seat having a curved flange 8, of a segmental bolt provided with a radial arm having a convexed shoulder to fit the concaved surface of said flange, and means for retracting the bolt, substantially as specified. 2nd. The combination, with a casing having an angular seat 7, of a reversible, right and left segmental gravity bolt, provided with a radial arm having an angular head which is shouldered upon opposite sides to engage a segmental flange of said seat, and means to retract said bolt, substantially as specified. 3rd. The combination, with a swinging segmental bolt provided with a pivoted arm and having shoulders 9, in its convex side, of a horizontally slidable locking-bar provided with a head to engage a shoulder 9, pivotal tumblers arranged between parallel webs carried by the locking-bar and provided with projections to engage stationary lug, and a weight resting upon the free terminals of said tumblers, substantially as specified. 4th. The combination of a reversible segmental gravity bolt operating upon a concentric pivot and provided in its convex sides with shoulders 9, a tumbler controlled locking-bar slidably mounted in operative relation with the bolt to engage one of said shoulders, and an operating lever 26, arranged to engage the remaining shoulder, substantially as specified.

No. 47,058. Switch-Stand. (*Table d'aiguille.*)

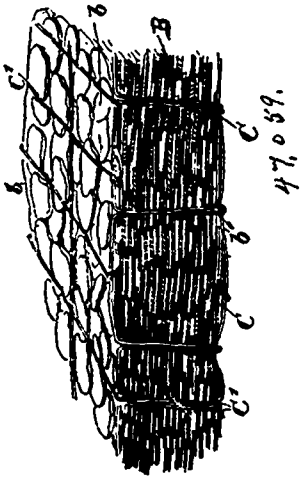


Robert H. Canfield, Corning, New York, U.S.A., 17th September, 1894; 6 years.

Claim.—1st. In combination with a switch, an operating crank

provided with a radially movable spring-supported crank-pin, whereby the switch is permitted to move while the crank is at rest. 2nd. In combination with a switch, a switch rod, an operating crank provided with a crank-pin movable toward and from the centre and a spring rotating with the crank and tending to prevent said movement of the crank-pin. 3rd. In combination with switch rails, a switch rod, an operating shaft having a radially movable crank-pin, a spring carried by the shaft and tending to hold the crank-pin outward, and means for turning and locking the shaft. 4th. A switch operating crank having a radially movable crank-pin, a cam surface co-operating therewith to resist the rotation of the crank, and a spring acting to hold the crank pin outward, substantially as described, whereby the spring is caused to serve the double purpose of locking the crank and switch in different positions and of permitting the switch to move without rotation of the crank. 5th. In a switch stand, the combination of the upright lever constructed to be connected to the switch rails, the spring-carrying frame mounted to turn on a vertical axis, the horizontal spring sustained by said frame and acting on the upright lever, and the cam arranged to be engaged by said lever. 6th. In a switch-stand, the combination of the upright vertically moving lever, the horizontal spring-carrying frame within which said lever moves, the vertical shaft sustaining said frame and movable around a longitudinal central axis, the horizontal spring sustained by the frame and acting on the lever, the cam adapted to be engaged by the lever and the switch-operating lever connected to the upper end of the same. 7th. In a switch-stand, the combination of the vertical lever, the horizontal revoluble spring-carrying frame within which the lever is adapted to move vertically and horizontally, the horizontal spring carried by the frame and acting on the lever, the recessed cam, the roller on the lever adapted to engage the cam and enter the recess, and the switch-operating lever connected to the upright lever. 8th. In a switch-stand, the combination of the upright vertically moving lever, the horizontal spring-carrying frame through which the lever extends and revoluble on a vertical axis, the horizontal rod mounted in said frame and extending through the lever, the spiral springs encircling said rod and acting on the lever, the roller on the lower end of the lever, the cam adapted to be engaged by the roller and the switch-operating lever pivoted to the upper end of the upright lever. 9th. In a switch-stand, the combination with the vertically moving lever and the frame within which the lever moves, of the spring carried by the frame and the washer interposed between the end of the spring and the lever and bearing on the frame, whereby the lever is relieved of the direct pressure of the spring. 10th. In a switch-stand, the combination of the spring-carrying frame, the vertical shaft sustaining the same and having a flattened portion, the pivoted operating lever having its end forked to receive the end of the shaft, the vertically moving lever connected to the switch-operating lever, and the spring sustained by the frame. 11th. In a switch-stand, of the type herein described, the combination of the spring-carrying frame provided with the transverse and longitudinal slots, of the vertically movable lever having its lower end formed to fit within the transverse slot and the portion of the lever above the same formed to enter the longitudinal slot, and the spring sustained by the frame and acting on the lever, whereby the lateral motion of the lever with relation to the frame is permitted only when the lever is lowered. 12th. In combination with the switch-operating shaft, its yielding crank-pin, and the spring, the shaft operating lever E, and the stand or frame with means for locking the lever thereto only in position to hold the switch for the main line.

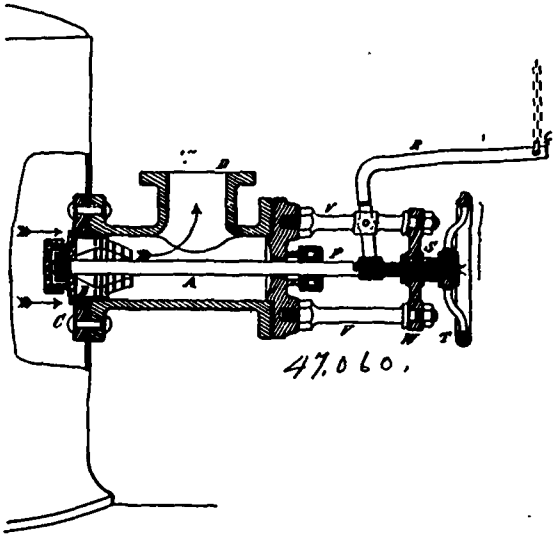
No. 47,059. Boiler Covering. (*Couverture de chaudière.*)



Henry Colbec Michell, Toronto, Ontario, Canada, 17th September, 1894, 6 years.

Claim.—1st. As a heat non-conducting covering for boilers and similar structures, a web of determinate thickness comprised of an infinite number of flakes of mica overlapping each other and thereby forming an infinite number of dead air spaces, as and for the purpose specified. 2nd. As a heat non-conducting covering for boilers and similar structures, a web of determinate thickness comprised of an infinite number of flakes of mica overlapping each other, thereby forming an infinite number of dead air spaces and bound by cross stitching into compact form, as and for the purpose specified. 3rd. As a heat non-conducting covering for boilers and similar structures, a web of determinate thickness comprised of an infinite number of flakes of mica overlapping each other and thereby forming an infinite number of dead air spaces and encased by a wire netting covering both the top and bottom surfaces of the web, as and for the purpose specified. 4th. As a heat non-conducting covering for boilers and similar structures, a web of determinate thickness comprised of an infinite number of flakes of mica overlapping each other, thereby forming an infinite number of dead air spaces and provided with a suitable canvas covering wrapped around the outer surface of the web, as and for the purpose specified. 5th. As a heat non-conducting covering for boilers and similar structures, a web of determinate thickness comprised of an infinite number of flakes of mica overlapping each other and thereby forming an infinite number of dead air spaces and encased by a wire netting covering both the top and bottom surfaces of the web and having a series of ribs interposed between the inner wire netting and the shell, and preferably attached to such netting, as and for the purpose specified. 6th. As a heat non-conducting covering for boilers and similar structures, a web of determinate thickness comprised of an infinite number of flakes of mica overlapping each other and thereby forming an infinite number of dead air spaces encased by a wire netting covering both the top and bottom surfaces of the web and retaining stitches extending at intervals through the web, as and for the purpose specified. 7th. As a heat non-conducting covering for boilers and similar structures, a web of determinate thickness comprised of an infinite number of flakes of mica overlapping each other and thereby forming an infinite number of dead air spaces and having the abutting edges bevelled and suitably fastened as and for the purpose specified.

No. 47,060. Valve. (*Soupape.*)



Gottfried Grossmann, Dortmund, Prussia, 17th September, 1894; 6 years.

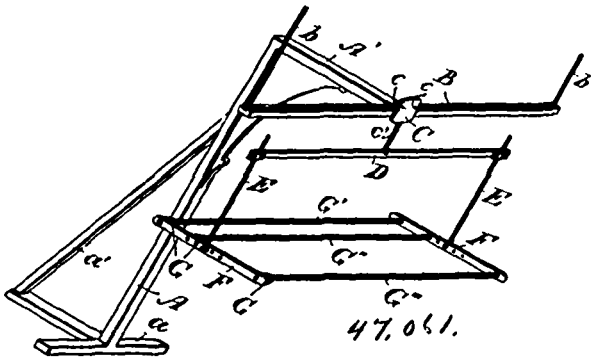
Claim.—1st. An automatically closing steam or other like valve constructed, arranged and operated, substantially as and for the purpose hereinbefore set forth, and as illustrated by the accompanying drawing. 2nd. In a steam or other like valve, the combination with the valve disc, of a perforated coned or stepped casing constructed and arranged, substantially as and for the purpose hereinbefore set forth, and as illustrated by the accompanying drawing. 3rd. In a steam or like valve constructed as before described, the combination with the valve stem of a screwed hand-wheel T, furnished with a sleeve or extension S, and a counter weight or similar lever R, all constructed, arranged and operated, substantially as hereinbefore set forth, and as illustrated by the accompanying drawing.

No. 47,061. Quilting Frame. (*Câdre pour piquer.*)

William Christopher Meggison, Quinn, Ontario, Canada, 17th September, 1894; 6 years.

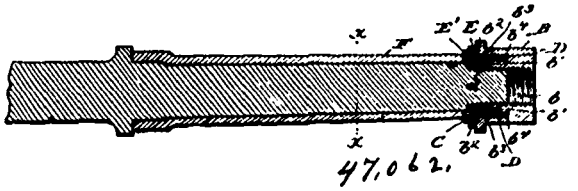
Claim.—In a quilting frame, the combination of a stand supporting an overhanging arm, a grooved track B, secured to said arm, a carriage C, having wheels adapted to run on said track, a swing rail

D, suspended from said carriage, uprights E held adjustably at the ends of said swing rail, a cross-bar F, secured adjustably to each of



the uprights, and three rollers G^1, G^{11}, G^{111}, journalled in said cross-bars, and provided with ratchet-wheels, and spring detents G and *g*, substantially as set forth.

No. 47,062. Vehicle Axle. (*Essieu de voiture.*)

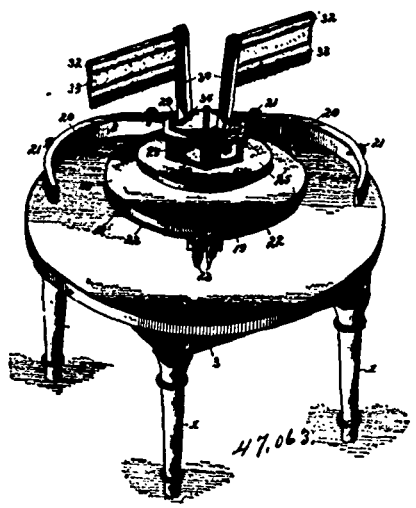


Cornelius Burns, Burnside, Pennsylvania, U.S.A., 17th September, 1894; 6 years.

Claim.—1st. The combination with the axle-skein having a reduced threaded end, of a nut having an inner female thread H, and a thimble carried by said nut, and provided with coincident female threaded openings, and means for removably connecting said thimble direct to said nut, substantially as set forth. 2nd. The combination with the axle-skein having a reduced threaded end, of a nut having an inner female and threaded holes or recesses, a thimble having a threaded opening and side recesses and fitted in said nut, and screws designed to work in said recesses and hold said thimble in said nut, substantially as set forth. 3rd. The combination with the axle-skein having a reduced threaded end, of a thimble, as a^4, fitted on said end, and a nut carrying an inner thimble as C, and also designed to fit on said threaded end, and means for removably connecting said latter thimble to said nut, as set forth. 4th. The combination with the skein having a threaded end of a thimble fitted thereon, a nut having inner recesses, a thimble in one of said recesses, holding screws threfor, and washers, one of which fits in one of said recesses of said nut, substantially as set forth.

No. 47,063. Self-Waiting Table.

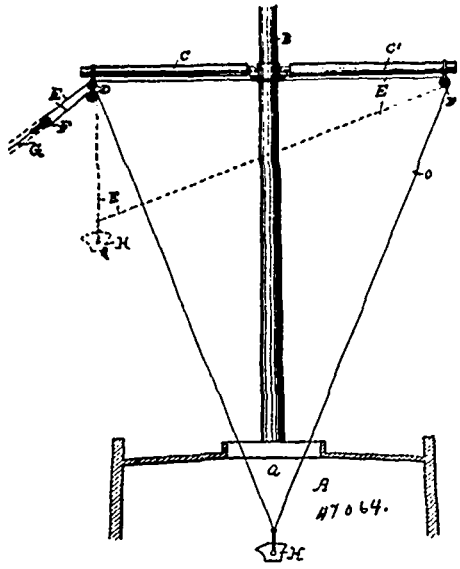
(*Table de service automatique.*)



Woodson R. Cummings, Critz, Virginia, U.S.A., 17th September, 1894; 6 years.

Claim.—1st. In a self-waiting table, the combination, with the circular base and its support, of a superimposed revoluble section, the same combining with the base to produce an intermediate compartment, and a door for closing the compartment, substantially as specified. 2nd. In a self waiting table, the combination, with a fixed table-top and its support, of a revoluble section arranged above the same and combining therewith to produce an intermediate compartment, doors for the compartment, and means for raising and lowering the section, substantially as specified. 3rd. In a self-waiting table, the combination, with a fixed table-top and its support, of a superimposed revoluble disc section having the lower portion of its periphery removed at opposite sides of opposite diametrical points, and the remaining portions left intact, the curved doors hinged to one of those portions left intact, and fastening devices carried by the opposite portion, substantially as specified. 4th. In a self-waiting table, the combination, with a fixed table-top and its support, of a superimposed revoluble disc section having the lower portion of its periphery removed at opposite sides of opposite diametrical points, and the remaining portions left intact, the curved doors hinged to one of those portions left intact, turn-buttons arranged on the remaining portion left intact, and the knots arranged at intervals upon the doors and having shanks extending through the same and removably engaging sockets formed in the bottoms of the recesses in the periphery of the disc, substantially as specified.

No. 47,064. Hoisting Apparatus. (*Vindas.*)



Louis Rosenfeld, New York, State of New York, U.S.A., 17th September, 1894; 6 years.

Claim.—1st. A hoisting apparatus consisting of guides, one on each side of the source of material to be hoisted, a doubled hoisting rope or cable directed from its bight to and by said guides and having its ends attached to the load receptacle, said rope or cable having in or on of its sides an obstruction adapted to arrest the movement of said side at a predetermined point while the other side is still moving, and a hauling block in which the bight of said rope or cable freely runs, substantially as described. 2nd. A hoisting apparatus consisting of a central support, arms, yards or gaffs extending therefrom on each side, guide blocks carried by the arms, yards or gaffs at points equidistant on each side of the central support, a doubled hoisting cable or rope directed by the guide blocks and connected with the load receptacle, said cable or rope having an obstruction in one of its sides, to arrest the movement of said side at a predetermined point, and a hauling block fitted to the bight of said rope or cable, substantially as described.

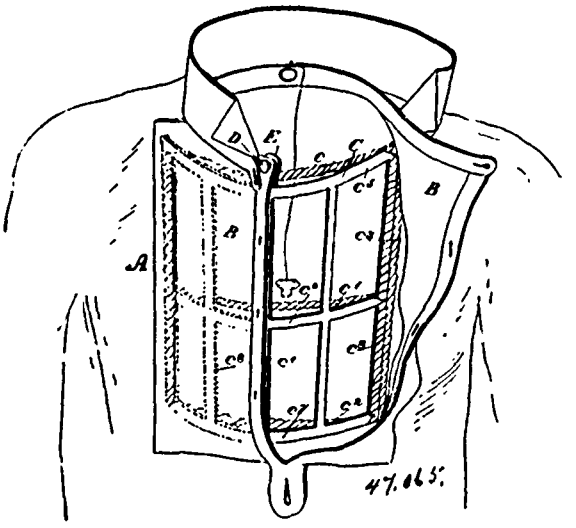
No. 47,065. Shirt Front Protector.

(*Protecteur de devant de chemise.*)

John Bedward Williams, Toronto, Ontario, Canada, 17th September, 1894; 6 years.

Claim.—1st. A shirt front protector of light spring steel frame, arched as shown, and having the top portion curved to fit partially around the neck, as and for the purpose specified. 2nd. A shirt front protector comprised of the rear ribs c, c^1, c^2, c^3, and front ribs c^4, c^5, c^6, c^7, and c^8, the cross-ribs being arched and suitably connected to the side ribs, and the top ribs c and c^5, being curved to fit partially around the neck, as and for the purpose specified. 3rd. A shirt front protector having front arched-cross ribs, connected together by vertical ribs, and to the side ribs, as specified, the

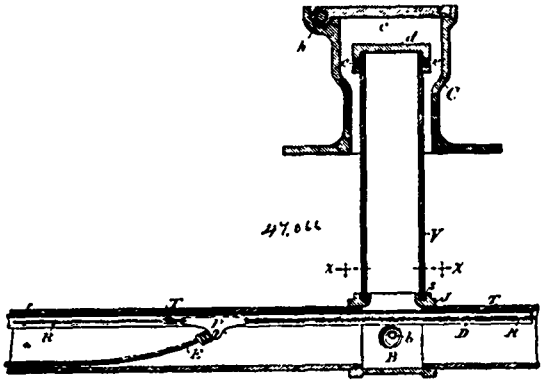
rear ribs being covered with chamois, as shown and for the purpose specified. 4th. The combination with the rear ribs, arched ribs and



side ribs forming the frame as specified, of a tab or fastener secured to the centre of the top arched and curved rib, as shown and for the purpose specified.

No. 47,066. Electric Subway System.

(*Système électrique de souterrain.*)

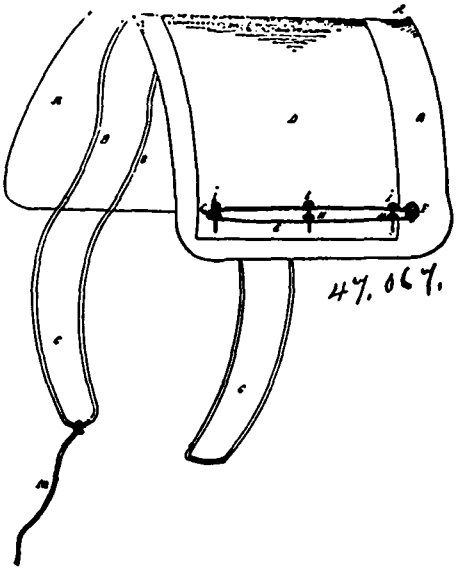


John C. Reilly, Brooklyn, New York, U.S.A., 17th September, 1894; 6 years.

Claim.—1st. In an electrical subway system, the combination of general distributing ducts to receive insulated conductors located at an angle to each other, and provided with manholes at intersecting points, a drawing-in device consisting of a plate or connection, and means for moving it in a slotted tube located within the duct, said tube forming an unbroken track or way from one manhole to another, a series of five-way coupling or connection boxes inserted in the line of a duct without breaking the continuity of its drawing-in device, said coupling comprising connections for the main duct, connection for opposite sub-station tubes, below the line of the drawing-in tube, and a vertical duct above said tube, extending to the street level, with means for drawing wires through sub-station tubes, substantially as described, whereby any conductor may be carried from any manhole to any sub-station junction and there connected to the drawing-in device and sub-station without opening the street or interrupting the passage through any main duct. 2nd. The combination in an electrical subway system of a main duct consisting of an iron pipe, manholes or working chambers at intervals, a series of five-way connecting or coupling boxes arranged at intervals between the manholes, forming a junction between the divided ends of the main duct, branch pipes extending in opposite directions to points within the walls of adjacent buildings, and a vertical pipe or tube extending to the street level, said coupling surrounding but forming no part of a slotted drawing-in tube located in the first named duct in a plane above the point of connection of said branch tubes, all arranged and operating substantially as described. 3rd. The combination of an iron subway pipe, manholes at suitable intervals, a slotted tube upon the interior of said pipe with drawing-in devices extending without interruption from manhole to manhole, and a series of five-way couplings interposed in the main duct between manholes, connected with tubes for branch conductors, and a vertical tube extending to the surface of the street, substantially as described. 4th. The combination of an iron subway pipe, manholes at suitable intervals, a slotted iron tube upon the interior of said pipe, with drawing-in devices, extending from one manhole to another without break or interruption, and a series of five-way couplings at intervals connecting divided ends of the subway pipe with branch tubes and a vertical iron pipe, said vertical pipe having a water-tight cap, and a tubular protecting case with a hinged cover flush with the street surface separated from said pipe cap by a variable space substantially as and for the purpose set forth. 5th. The combination of an iron subway pipe extending from one manhole to another, a series of five-way couplings at intervals in said pipe, connecting its divided ends with lateral branch pipes, a vertical iron pipe extending to the street surface, and a continuous drawing-in device consisting of a slotted tube located within the subway pipe, means for drawing a plate or connecting device along therein, and means for drawing wires into the the branch pipes, substantially as described.

No. 47,067. Device for Catching Flies on Cattle.

(*Attrape-mouches pour bestiaux.*)

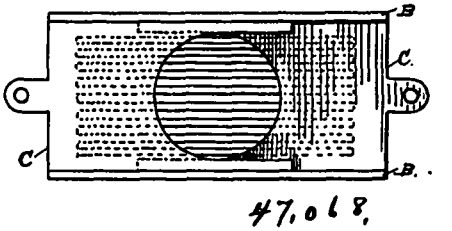


Arlington Ingalls Farnam, Dunham, Quebec, Canada, 17th September, 1894; 6 years.

Claim.—1st. The combination of a saddle-shaped device A, plate or pad, with a sticky fly-paper D, secured by hasps E, and loops H, H, and G, or with a sticky composition placed directly on the said saddle A, plate or pad, and secured to the back, neck or sides of an animal by a strap or cord, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of a wire frame B, with and supporting and carrying a saddle shaped device A, or plates or pads, carrying a sticky fly-paper D, removably attached thereto, or a sticky composition, secured to the back, sides or neck of an animal by the strap or cord M, substantially as and for the purpose hereinbefore set forth.

No. 47,068. Meat Broiler.

(*Gril pour la viande.*)

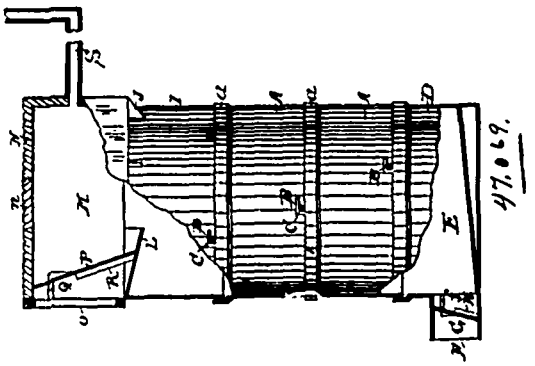


Francis Milward Blamyer, Alameda, California, U.S.A., 17th September, 1894; 6 years.

Claim.—The herein described improved broiler, consisting of a flat rectangular base of sheet-metal, with longitudinal slats extending longitudinally thereof, and terminating inside of the opposite ends, and turned up sides which are bent over in opposite directions to form guides, and a pair of independent slides entering said guides, of the base from opposite ends and having their inner opposing ends provided with arms that overlap, and which are located on opposite

sides of curved recess which unite to form a single central opening, which is adapted to be increased or decreased in accordance with the adjustment of the slides, substantially as described.

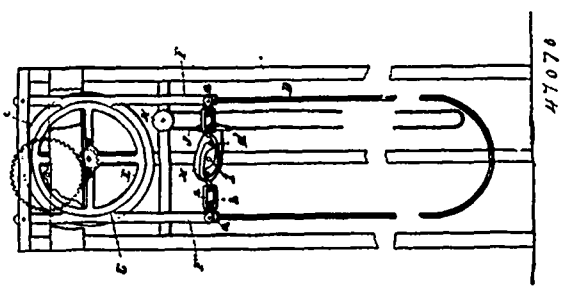
No. 47,069. Draining Well. (*Puits d'essèchement.*)



Jules Colas, Montreal, Quebec, Canada, 19th September, 1894; 6 years. Re-issue.

Claim.—1st. In a draining well, the combination of section D, inclined bottom E, tube or outlet F, outwardly opening door G, substantially as and for the purpose hereinbefore set forth. 2nd. The combination, in a draining well, of door P inwardly opening as stated, concave water table or spout L, pintles *p*, L-shaped grooves Q, stops R, substantially as and for the purpose hereinbefore set forth. 3rd. The combination, in a draining well, of the ventilating pipe S, with the cover M of the well, substantially as and for the purpose hereinbefore set forth.

No. 47,070. Elevator Brake. (*Frein d'élévateur.*)

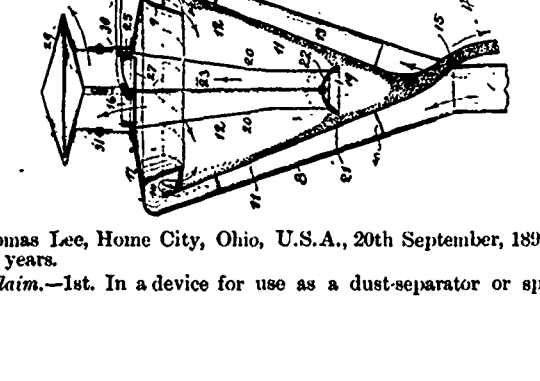


Ernst C. Heydenreich, Mount Clemens, Michigan, U.S.A., 20th September, 1894; 6 years.

Claim.—1st. In an elevator brake, the combination of the suspended brake levers carrying the shoes, a brake actuating lever pivoted between the brake levers, the adjustable connecting links and an operating cord connected directly to the actuating lever, and adapted to draw said links past the pivotal point of the actuating lever to a stop in applying the brake, substantially as described. 2nd. In an elevator brake, the combination of the suspended brake levers carrying the shoes, a brake actuating lever pivoted between the brake levers, the connecting links each consisting of the head block *a*, the turn-buckle *c*, and the curved arm *d*, extending beyond the pivotal point of the actuating lever, the parts arranged and adapted to operate, substantially as and for the purpose described.

No. 47,071. Dust Separator and Spark Arrester.

(*Tamis à poussière et garde-étincelle.*)



Thomas Lee, Home City, Ohio, U.S.A., 20th September, 1894; 6 years.

Claim.—1st. In a device for use as a dust-separator or spark-arrester, the combination of an inlet-pipe 7, flaring outwardly to form a cone 8, another smaller cone 11, forming an expansion-chamber 12, supported within cone 8 in a manner to form a passage 13, between the two cones, a passage 14, formed by the in and downwardly turned end of cone 8 and the upper part of cone 11, deflectors 18 within this latter passage, disposed in a manner to cause the charge passing through passage 14, to leave the same in a downwardly proceeding, spiral direction, an outlet opening in the expansion-chamber for air and gases and a discharge-pipe for the precipitate. 2nd. In a device for use as a dust-separator or spark-arrester, the combination of an expansion-chamber, an annular inlet to it around its upper end over which the charge enters, and outlet for air and gases above, an outlet for the precipitated separation in the lower end of the expansion-chamber, a horizontal partition 19 in the lower part of the latter to prevent the air from passing downwardly, a central opening in this partition and an adjustable regulator 22 for the latter. 3rd. In a device for use as a dust-separator or spark-arrester, the combination of an expansion-chamber, an annular inlet to it around its upper end over which the charge enters, a top for it with an air-outlet therein, an exit pipe in the lower end of it and a horizontal partition 19, suspended by rods 20 from the top, a central opening in this partition and an adjustable regulator 22, for the latter, said regulator guided by rods 20. 4th. In a device for use as a dust-separator or spark-arrester, the combination of an inlet-pipe 7, flaring outwardly to form a cone 8, another smaller cone 11, forming an expansion chamber 12, supported within cone 8 in a manner to form a passage 13 between the two cones, a passage 14 formed by the in and downwardly turned end of cone 8, and the upper part of cone 11, an outlet opening in the expansion-chamber for air and gases and an exit pipe in the latter, passing through the outer cone. 5th. In a device for use as a dust-separator or spark-arrester, where the separation is accomplished by the expansion of the entering charge, as well as by its retardation, caused by changing the direction of its current, the combination of an expansion-chamber 12, of inverted conical shape, an annular inlet to it, formed by a cone 8, of large diameter and higher than chamber 12, which latter is supported within cone 8 by stays and braces, the upper edge of cone 8, being turned over the upper edge of the expansion-chamber and partly into the same, the turn being on a curve, whereby back-pressure and rebound are avoided, spiral-deflectors 18, between the down-turned edge of cone 8, and the upper part of the wall of the expansion-chamber which change the direction of the entering current and retard the same, to aid the ensuing separation and outlet openings for air and gases and for the separated matter. 6th. In a device for use as a dust-separator or spark-arrester, where the separation is accomplished by the expansion of the entering charge, as well as by its retardation caused by changing the direction of its current, the combination of two cones and a cone-frustum, concentrically arranged within each other, the space between the two cones forming a passage 13 to the inner cone, which is lower than the outer one and constitutes the expansion-chamber 12, deflectors 18 between the inner cone and the cone-frustum, a top with an outlet opening for air and gases and an outlet in the expansion-chamber for the separated matter. 7th. In a device for use as a dust-separator or spark-arrester, where the separation is accomplished by the expansion of the entering charge as well as by its retardation caused by changing the direction of its current, the combination of an inlet-pipe 7, flaring outwardly to form a cone 8, another smaller cone 11, forming an expansion-chamber 12, supported within cone 8, in a manner to form a passage 13 between the two cones, said passage being decreasing in width towards its upper end to prevent premature expansion of the rising charge and separation of the solid particles by reason of increasing area, a passage 14 formed by the inwardly and downwardly turned end of cone 8, and the upper part of cone 11, and outlets for air and gases and separated matter. 8th. In a device for use as a dust-separator and spark-arrester, where the separation is accomplished by the expansion of the entering charge as well as by its retardation, caused by changing the direction of its current, the combination of an inlet-pipe 7, flaring outwardly to form a cone 8, another small cone 11, forming an expansion-chamber 12, supported within cone 8, in a manner to form a passage 13 between the two cones, the upper edge of cone 8 being turned over and around the upper edge of the expansion chamber and partly into the same, the turn being made on a curve substantially semi-circular to prevent back-pressure and rebound, spiral deflectors 18, between the down-turned edge of cone 8 and the upper part of the wall of the expansion chamber which change the direction of the entering current and retard the same to aid the ensuing separation, an outlet opening in the expansion chamber for air and gases and an exit-pipe in the latter passing through the outer cone.

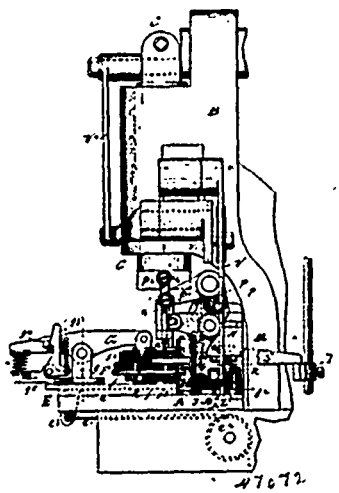
No. 47,072. Machine for Loading Heels with Nails.

(*Machine à clouer les talons.*)

Erastus Woodward, Sommerville, Massachusetts, U.S.A., 20th September, 1894; 6 years.

Claim.—1st. In a heel loading machine, a nail driving mechanism, a heel supporting-plate and a feeding mechanism, one member of which is connected with and adapted to operate said heel plate, in combination with a yielding slide, and mechanism whereby said slide is reciprocated, the front end of said slide being adapted to move across the line of motion of the nail driver, and engage with the head of a driven nail and its rear end being adapted to engage with one of the

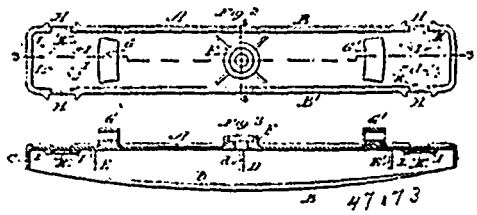
members of said feeding mechanism. 2nd. In a heel-loading machine, a nail-driving mechanism, a heel plate having a series of feeding points each representing the position of a nail to be driven, a feed



wheel adapted to engage with each point in turn, mechanism adapted to operate said feed wheel by a step by step motion and capable of a disengagement therefrom, and a disengaging mechanism adapted to move across the line of motion of the nail driver, and cause the separation of the members of the feed mechanism. 3rd. In a mechanism for feeding a heel plate in a nailing machine, a series of feeding points located on said heel plate, each adapted to engage in turn with one of the members of the feed mechanism, and a stop mechanism, one member of which is located at a fixed point, the other member being located on said plate and adapted to engage with said first member when the feed mechanism has engaged with the last feeding point in the series. 4th. In a heel-nailing machine, a heel-feeding mechanism consisting of a heel plate provided on its under surface with a series of pins, each representing the position of a nail to be driven, said heel plate being mounted on a slide, and a feed wheel provided with suitable teeth adapted to engage with said heel plate, in combination with mechanism substantially as described connected with said slide and adapted to hold the pins of said heel in contact with said feed wheel. 5th. In a heel-nailing machine, in combination with a heel plate, a clamp pivotally mounted on a frame capable of rotation, said clamp adapted to hold the heel lifts in place during the process of nailing, and on releasing said lifts, to be turned out of the way. 6th. In a heel-loading machine, a heel-supporting plate, a heel carried by said plate, a nail-driving mechanism for driving nails into the said heel, and feeding mechanism for operating said heel-supporting plate controlled by the driven nails. 7th. In a heel-loading machine, a heel-supporting plate, a heel carried by said plate, a nail-driving mechanism for driving nails into the said heel, feeding mechanism for operating said heel-supporting plate, consisting of members capable of engagement and disengagement, and means for causing the engagement of the members of the feeding mechanism after each nail has been driven into the said heel. 8th. In a heel-loading machine, a heel-supporting plate, a heel carried by said plate, a nail-driving mechanism for driving nails into the said heel, feeding mechanism for operating said heel-supporting plate, a controlling slide, and mechanism for actuating said slide across the line of motion of the nail driver, the said slide being adapted to contact with the driven nails and to co-operate with the feeding mechanism for the heel supporting plate to operate the same after each nail has been driven. 9th. In a heel-loading machine, a nail-driving mechanism, a heel-supporting plate having a series of feeding points, each representing the position of a nail to be driven, a feed wheel adapted to engage with each point in turn, mechanism adapted to operate said feed wheel by a step by step motion and capable of engagement and disengagement therefrom, and an engaging mechanism adapted to move across the line of motion of the nail driver and engage with the driven nail, and thereby cause the engagement of the members of the feed mechanism. 10th. In a heel-loading machine, a nail-driving mechanism, a heel-supporting plate having a series of feeding points located on said heel plate, and representing the position of a nail to be driven, a feed wheel adapted to engage with each point in turn, mechanism adapted to operate said feed wheel by a step by step motion and capable of engagement and disengagement therefrom, and an engaging mechanism adapted to move across the line of motion of the nail driver and engage with the driven nail and thereby cause the engagement of the members of the feed mechanism. 11th. In a heel-loading machine, a heel-supporting plate, a heel carried by said plate, a nail-driving mechanism for driving nails into said heel, feeding mechanism for operating said heel supporting plate, and a stop mechanism for automatically stopping the machine when the last nail has been driven into the heel. 12th. In a heel-loading machine, a heel-supporting plate, a heel carried by said plate, a nail-driving mechanism for driving nails into said heel, feeding mechanism for operating said heel-supporting plate, controlled by the driven nails, and a stop mechanism for automatically stopping the machine when the last nail has been driven into the heel.

No. 47,073. Car Truck Bolster.

(*Traversin pour châssis de char.*)

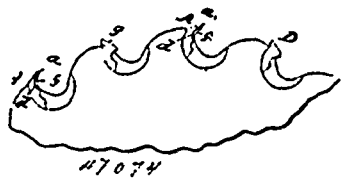


Edward F. Goltra, and Morse B. Schaffer, both of St. Louis, Missouri, U.S.A., 20th September, 1894; 6 years.

Claim.—1st. A cast steel car truck bolster in cross section of an inverted U-shape and having its sides thickened, substantially as described. 2nd. A cast steel car truck bolster in cross-section of an inverted U-shape, and having its sides thickened at the middle lower portion thereof, substantially as described. 3rd. A cast steel car truck bolster in cross-section of an inverted U-shape, and having an excess of metal in its sides to cause the top of the bolster, in casting, to solidify sooner than the sides, and having its top and sides integral and connected by integral brackets, ribs, or corner-pieces, and its top provided with integral projections, substantially as described. 4th. A cast steel car truck bolster in cross-section of an inverted U-shape, and having the end portions of its sides made thinner than the central portion thereof, but having integral projections containing sufficient metal to prevent said end portions from cooling too rapidly, substantially as described. 5th. A cast steel car truck bolster in cross-section of an inverted U-shape, and having an excess of metal in its sides to cause the top of the bolster, in casting, to solidify sooner than the sides, and having its top and sides integral and connected by integral brackets, ribs, or corner-pieces, and its top provided with integral projections, and the end portions of its sides provided with integral projections, all cast in one piece, substantially as described.

No. 47,074. Saw and Planer.

(*Scie et machine à raboter.*)



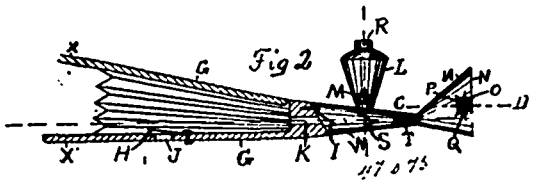
John Bowles, Washington, District of Columbia, U.S.A., 20th September, 1894; 6 years.

Claim.—1st. In a combined saw and planer, the planer and cutting teeth arranged in groups, each group having its cutting tooth and its planer tooth provided with shaving or paring edges on one side thereof, as and for the purposes described. 2nd. In a combined saw and planer, the planer and cutting teeth arranged in groups, the teeth of each group provided with shaving or paring edges on one side thereof, and the shaving edge of the planer tooth projecting farther beyond the axis of the saw blade than the corresponding edge of the cutter tooth, said cutting tooth of each group being longer than the planer tooth, as and for the purpose described. 3rd. In a combined saw and planer, the planer and cutting teeth arranged in groups, and the teeth of each group provided with a lateral shaving or paring edge on one side thereof, and the planer tooth of each group having its working face lying at a backward angle to the radius of the saw blade, and the corresponding face of the cutting tooth inclined forward of said radius, substantially as and for the purpose set forth. 4th. In a combined saw and planer, the planer and cutting teeth arranged alternately with relation to each other, and each pair or group of teeth being provided on one side with lateral planing or shaving edges, and the adjacent group or pair of teeth having similar edges on the other side, each pair or group being formed by one planer tooth and one cutting tooth, substantially as and for the purpose described. 5th. In a combined saw and planer, the alternate cutting and planing teeth arranged in groups, one group of teeth set to one side of the plane of the saw blade, and the adjacent groups being set to the other side of the saw blade, for the purpose described. 6th. In a saw, the tooth having the square incision point at the apex thereof, and provided on one side with the laterally-extended shaving or paring edge, the sides of the tooth being converged from the front working face toward the rear neutral part of the tooth, substantially as and for the purpose

described. 7th. The saw tooth having its front working face inclined or bevelled from one side to the other to advance one edge thereof, and the right angled or square incision point above said bevelled surface, one or both sides of the tooth being inclined inwardly from the front working face to the rear neutral edge of the same, substantially as and for the purpose described. 8th. A saw tooth having the shaving or paring edge within the cutting point thereof, and provided with the central ridge on the side thereof designed to steady the saw, as and for the purpose described.

No. 47,075. Sprayer for Insect Powder, &c.

(*Machine à saupoudrer pour la destruction des insectes.*)

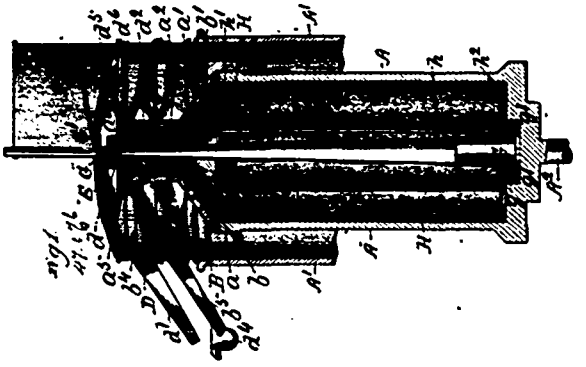


Cleveland G. Davis, Manistee, Michigan, U.S.A., 20th September 1894; 6 years.

Claim.—1st. In a sprayer, the combination of the funnel or bell shaped mouth piece N, with the fan wheel O, securely fastened to the shaft P, and the shaft P suitably journalled in the said funnel or bell shaped mouth piece N, all substantially as shown and described, and for the object set forth. 2nd. In a sprayer, the combination of the reservoir L, attached to the exit pipe of an ordinary bellows, with the small inverted funnel M, attached to the reservoir L, all substantially as shown and described, and for the object set forth. 3rd. In a funnel or bell shaped mouth piece, the combination of the fan wheel O, and the shaft P, properly journalled in the said funnel or bell shaped mouth piece N, and said fan wheel O, and shaft P, so situated in said funnel or bell shaped mouth piece, as to be revolved by the current of air, that issues from the said bellows, all substantially as shown and described, and for the object set forth.

No. 47,076. Centrifugal Cream Separator.

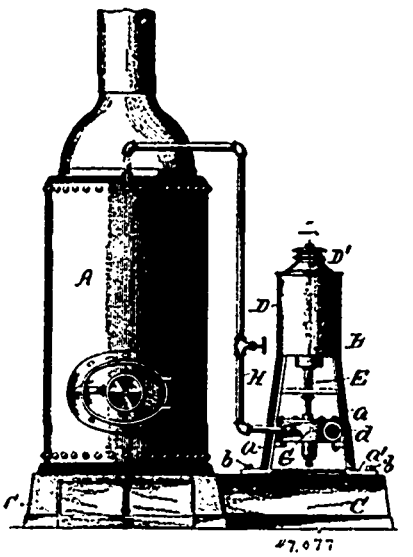
(*Séparateur centrifuge pour la crème.*)



Daniel Job Davis, Chicago, Illinois, U.S.A., 20th September, 1894; 6 years.

Claim.—1st. A centrifugal separator-vessel, provided internally with a diaphragm adapted to permanently divide the milk and cream-walls on the outflow, substantially as described. 2nd. In a centrifugal separator, a removable diaphragm located on the inside of the separator vessel and adapted to permanently divide the outgoing volume of milk and cream before the discharge-apertures are reached, substantially as described. 3rd. In centrifugal separators, the combination, with a separator or creaming-vessel, of a removable diaphragm, located in the upper part thereof and permanently dividing the milk and cream wall before either volume reaches the point of discharge from said vessel, substantially as described. 4th. The combination, with a centrifugal separator-vessel provided with a removable cap, of a diaphragm, detachably secured to the inside of said cap, substantially as described. 5th. The combination, with a centrifugal separator-vessel, of a removable cap, provided with a milk-outlet therefrom, and a diaphragm, detachably secured to the inside of said cap and leaving an annular space between said cap and diaphragm, the latter being provided with a cream-outlet, substantially as described. 6th. The combination, with a centrifugal separator-vessel, of a removable cap, having the lower part of a conical form and terminating in an elongated neck-part having a milk-outlet, and a conical diaphragm, secured to the removable cap and terminating in an elongated neck-part having a cream-outlet therefrom, the contour of said diaphragm corresponding to that of the vessel-cap, substantially as described. 7th. In centrifugal separators, a separating diaphragm, the lower part whereof is of a conical form, and the upper part terminating in an elongated neck extension having a flange on the interior thereof which is provided with a slot-opening for the upward flow of the cream to the discharge outlet, substantially as described. 8th. In centrifugal separators, the combination with the milk-spout, of a trapping-device, secured to the discharge-end thereof, substantially as described. 9th. In centrifugal separators, the combination, with a separator-vessel, provided in the interior bottom recesses, of a milk receiving tube, having its lower delivering end terminate in said recess, substantially as described. 10th. In centrifugal separators, the combination, with a separator-vessel, of a wing attachment loosely inserted therein, substantially as described.

No. 47,077. Centrifugal Cream Separating Apparatus. (*Appareil centrifuge pour séparer la crème.*)



William Job Davis, Chicago, Illinois, U.S.A., 20th September, 1894; 6 years.

Claim.—1st. An apparatus for mechanically creaming milk, consisting essentially of a supporting base, a steam boiler generator mounted thereon, the centrifugal separator-vessel and motor-wheel, both mounted on the same driving-spindle, all being assembled on a supporting-base common to each other, substantially as set forth. 2nd. An organized machine of the character described, consisting of a steam boiler, a centrifugal separator, and a motor-wheel for driving said separator, all being connected and mounted on a supporting base common to each other, substantially as set forth. 3rd. In an apparatus for mechanically creaming milk, the combination with a frame, adjustably mounted on the main supporting base, of a driving spindle, a separator vessel mounted on the upper end of said spindle, and a steam motor-wheel, mounted on the lower end thereof, substantially as set forth. 4th. In an apparatus for mechanically creaming milk, the combination of the separator vessel, the driving spindle, the frame supporting said vessel and its spindle, the adjusting bolts *b*, and the main supporting base, substantially as set forth.

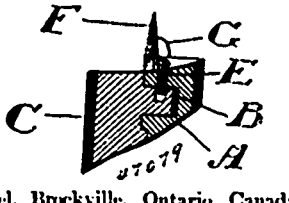
No. 47,078. Dressing for Leather and Rubber Goods.

(*Apprêtage pour le cuir et caoutchouc.*)

Minnie A. Hewson, Toronto, Ontario, Canada, 20th September 1894; 6 years.

Claim.—The herein described composition of matter to be used as a dressing, consisting of varnish, boiled linseed oil, colouring matter and a turpentine in the proportions specified.

No. 47,079. Auger Bit. (*Mèche de tarière.*)



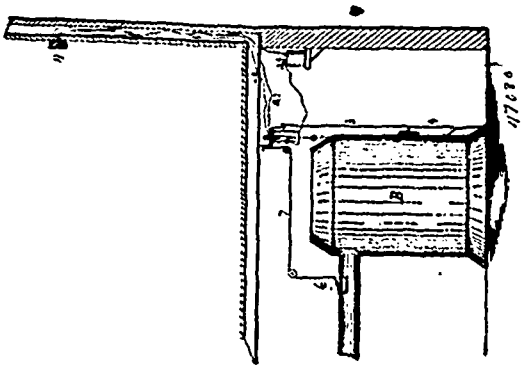
Aloysius Frenzel, Brockville, Ontario, Canada, 20th September, 1894; 6 years.

Claim. 1st. In an auger bit, the cutter-head A, having the hole B, formed therein, in combination with a blade C, having a pro-

jection D, formed thereon to fit the hole B, substantially as and for the purpose specified. 2nd. In an auger bit, the cutter-head A, having the hole B, formed therein, in combination with a blade C, having a projection D, formed thereon to fit the hole B, suitable shoulders being formed on the head and blade to hold the head from turning, substantially as and for the purpose specified. 3rd. In an auger bit, the combination of the cutter-head A, the hole B, blade C, projection D, and the set-screw E, substantially as and for the purpose specified. 4th. In an auger bit, the combination of the cutter-head A, the hole B, blade C, projection D, the set-screw E, and hole c, with a sloping side, substantially as and for the purpose specified. 5th. In an auger bit, the combination of the cutter-head A, the shoulder *b*, the hole B, blade C, shoulder *a*, projection D, the set-screw E, and hole *c*, with a sloping side, substantially as and for the purpose specified. 6th. In an auger bit, the cutter-head comprising the following elements: screw point F, cutting edge G, and cutting edge H, in combination with the blade C, to which the said cutter-head is detachably connected, substantially as and for the purpose specified. 7th. In an auger bit, the combination of the cutter-head A, the shoulder *b*, the hole B, blade C, shoulder *a*, projection D, and set-screw E, substantially as and for the purpose specified.

No. 47,080. Thermostatic Regulator.

(*Régulateur thermostatique.*)



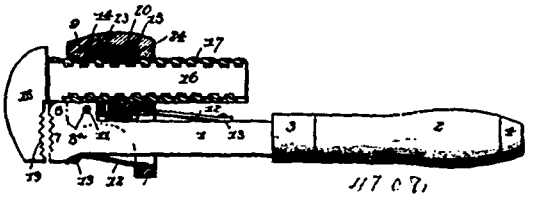
Ira F. Beers, and Frederic C. Beers, both of Elmira, New York, U.S.A., 20th September, 1894; 6 years.

Claim.—1st. In a draft regulator, the combination with the armature and the scape, of an intermediate catch engaging with both said armature and scape, a spring connected to said catch and for means varying its tension upon said catch. 2nd. In a draft regulator, the combination with the balance-wheel and the counter-balance weight, the scape connected to said wheel, and the armature of an electro-magnet, of a catch between and with which said scape and armature engage, a spring connected to said catch, and means for varying its tension upon said catch. 3rd. In a draft regulator, the combination with the thermostatic bar suitably mounted and adapted, by its deflection, to complete a circuit, the armature and scape, of an intermediate catch engaging with both said armature and scape, a spring connected to said catch and means to vary its tension upon said catch. 4th. In a draft regulator, the combination with an armature and a rotatable scape, of an interposed pivoted catch engaging the armature and scape, and stops limiting the movement of the catch, a retractible spring connected with the catch, and means for varying the tension of said spring, as specified. 5th. In a thermostat, the combination with the case, the binding posts insulated from the case and from each other, mounted therein, binding screws extending inwardly from said posts, a thermostatic bar suspended in the said case, a thumb-screw 38, mounted in the side of said case and connected by intermediate levers to said thermostatic bar, for the purpose of setting the thermostatic bar at any angle desired, whereby the temperature is regulated. 6th. In a thermostat, the combination with the case, binding posts insulated from the case and from each other, mounted therein, binding screws extending inwardly from said posts, a thermostatic bar suspended from the case, the set screw 38, mounted in the side of the case and connected at one end by intermediate levers to the upper end of the bar, and its lower end to an indicator, whereby the indicator indicates the deflection upon the dial. 7th. In a thermostat, the combination with the bar 23, mounted upon the lever 20, the lever 31, engaging therewith, the lever 32, secured at one end to the lever 31, and at its other end to the arm upon the post 34, and the indicating hand 36, as set forth.

No. 47,081. Wrench. (*Clé à écrou.*)

Milton Wenger, New Holland, Pennsylvania, U.S.A., 20th September, 1894; 6 years.

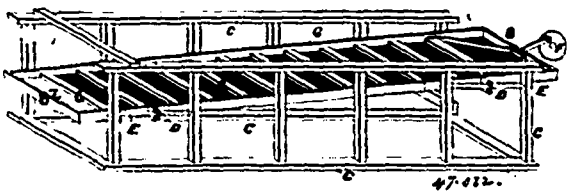
Claim.—1st. In a wrench, the combination of a shank provided with a plurality of threads of long pitch, a nut loosely mounted on the shank and provided with internal grooves or threads agreeing therewith, and means for locking the nut at any point of its rotation, substantially as set forth. 2nd. In a wrench, the combination with a stationary shank, of a yoke embracing the stationary shank, an exteriorly threaded shank working in the bore of said yoke, a



nut mounted for rotation in the yoke and internally grooved to work on said exteriorly threaded shank, teeth formed on the adjacent faces of the yoke and nut, and a spring arranged against the untoothed face of said nut to normally hold the same in engagement with the teeth of the yoke, substantially as set forth. 3rd. In a wrench, the combination with a stationary shank, of a yoke embracing said stationary shank, a catch ring secured within the yoke at one side of the opening and provided on one face with a radial series of teeth, an exteriorly threaded shank arranged to slide through the bore of said yoke, an adjusting nut loosely mounted on said threaded shank within the opening of the yoke, and provided on one face with a radial series of teeth engaging those of said ring, and a bowed spring washer interposed between one side of the nut and one side of the yoke, substantially as set forth. 4th. In a wrench, the combination of a fixed jaw or head, a yoke connected with said head and having a series of radial teeth, an exteriorly threaded shank embraced by said yoke and carrying a jaw or head opposed to the fixed jaw or head, a turning nut loosely mounted in the yoke and upon said shank, and having a series of radial teeth, and means for normally holding the teeth of the nut into engagement with those of the yoke, substantially as set forth. 5th. In a wrench, the combination with a stationary shank, terminating at one end in a jaw and at its opposite end in a handle, of a yoke loosely embracing the shank, and pivoted thereto at one side, said yoke being bored longitudinally and provided with a transverse opening and radial teeth at one side of said opening, a movable jaw in advance of the fixed jaw and provided with a shank having screw threads, said shank being passed through the bore of the yoke, an interiorly grooved nut mounted loosely on said threaded shank within the transverse opening of the yoke and provided upon one of its faces with teeth, and means for normally pressing the teeth of the nut into engagement with those of the yoke, substantially as set forth.

No. 47,082. Method of Treating Rubber Waste.

(*Méthode de traitement des déchets de caoutchouc.*)

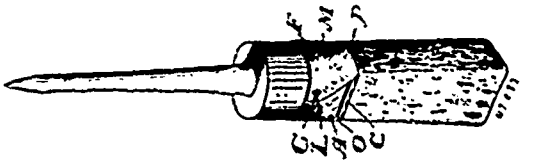


Joseph Anderson, Manchester, England, 20th September, 1894; 6 years.

Claim.—1st. In the treatment of rubber waste for the separation of metallic and other impurities of heavier specific gravity therefrom, the use of the tray aforesaid arranged at an angle, provided with transverse strips or other obstructions, mounted and operating substantially as and for the purpose hereinbefore described and illustrated on the accompanying drawing. 2nd. The use of the separating apparatus before described for the treatment of substances other than rubber waste substantially as and for the purposes hereinbefore described and illustrated on the accompanying drawing.

No. 47,083. Bridle for Paint Brushes.

(*Bride de pinceau.*)

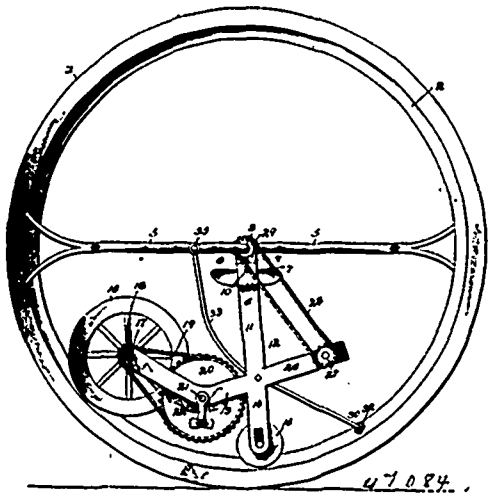


Charles Boeckh, Toronto, Ontario, Canada, 21st September, 1894; 6 years.

Claim.—1st. The combination with a brush, of a bridle secured to said brush and having a metal stiffening band secured to said bridle by clinching the same, substantially as described. 2nd. The com-

bination with a brush having a bridle secured thereto, of two independent metal stiffening strips secured to said bridle, leaving flexible portions between said strips, substantially as described. 3rd. The combination with a brush having a bridle secured thereto, of two independent metal stiffening strips secured to said bridle by bending and clinching said metal strips on the bottom edge of said bridle, leaving flexible portions between said metal strips, whereby said bridle may be secured to the brush, so that the stiff metal strips form flat sides on the bristles of said brush and tend to stiffen the same on the flat side only, substantially as described. 4th. In a brush bridle, an independent metal stiffening strip bent at H, so as to embrace and engage with a flap formed on a bridle band made of flexible material, and also bent at I, so that the edge of the flexible band may be pressed against that portion of the strip which engages with the flap, ssubstantially as and for the purpose specified. 5th. A brush bridle A, provided with flaps B, B^1, on the lower edge of the bridle, in combination with the independent stiffening strips C, C^1, attached to said flaps and leaving flexible portions between said strips, and eyelet holes D, E, F, and G, near the upper edge of the bridle, adapted to engage with studs formed on the head of the brush and a stud on the bridle, substantially as and for the purpose specified.

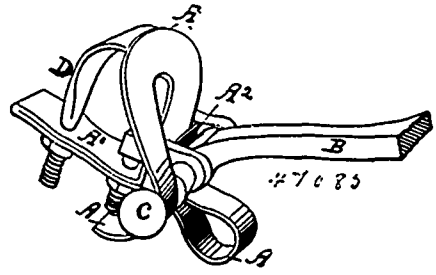
No. 47,084. Unicycle. (*Unicycle.*)



Fabian H. Armistead, Farmville, Virginia, U.S.A., 21st September, 1894; 6 years.

Claim.—1st. In a unicycle, the combination with a rim having a central spindle, of a bearing frame fulcrumed upon said spindle, guiding and driving-wheels mounted upon the bearing-frame and bearing upon the inner periphery of the rim, and means for operating the driving-wheel, substantially as specified. 2nd. In a unicycle, the combination with a rim having a central spindle, of a bearing-frame fulcrumed upon said spindle, guiding and driving-wheels mounted upon the frame and bearing upon the inner periphery of the rim, a crank-shaft connected by gearing with the driving-wheel, and connections between said crank-shaft and the spindle of the rim, substantially as specified. 3rd. In a unicycle, the combination with a rim having a central spindle, of a bearing-frame fulcrumed upon said spindle, guiding and driving-wheels mounted upon said frame, and bearing upon the inner or periphery of the rim, a crank-shaft mounted upon said frame, sprocket-chain and wheel connections between the crank-shaft and the driving-wheel, and sprocket chain and wheel connections between said crank-shaft and the spindle of the rim, substantially as specified. 4th. In a unicycle, the combination with a rim having a central divided spindle held in place by radial spokes, of a bearing-frame having extensible arms fulcrumed upon the spindle of the rim, a driving-wheel having its shaft mounted in said frame and bearing upon the inner periphery of the rim, a guiding-wheel also mounted in the bearing-frame and bearing upon the inner periphery of the rim, a crank-shaft provided with pedal cranks, and connections between the crank-shaft and the shaft of the driving-wheel, substantially as specified. 5th. In a unicycle, the combination with a rim having a central divided spindle held in place by radial spokes, of a bearing-frame having extensible arms fulcrumed upon said spindle upon opposite sides of the plane of the rim, a driving-wheel having its shaft mounted in bearings in the bearing-frame, a guiding-wheel mounted upon the bearing-frame, a crank-shaft, connections between the crank-shaft and the shaft of the driving-wheel, and independent connections between the crank-shaft and the spindle of the rim, substantially as specified. 6th. In a unicycle, the combination with a rim having a central divided spindle held in place by radial spokes, of a bearing-frame having extensible arms fulcrumed upon said spindle upon opposite sides of the plane of the rim, a driving-wheel having its shaft mounted in bearings in the bearing-frame, a guiding-wheel mounted upon the bearing-frame, a crank-shaft, chain-wheels carried by the crank-shaft and the shaft of the driving wheel, a chain connecting said chain-wheels, a counter shaft having chain-wheels, chain-wheels fixed to the spindle of the rim upon opposite sides of the plane of the rim, a chain connecting a chain-wheel upon the crank-shaft with one of the chain-wheels upon the counter shaft, and chains connecting other chain-wheels upon the counter shaft with said chain-wheel upon the spindle of the rim, substantially as specified. 7th. In a unicycle, the combination with a rim having a central spindle, a bearing-frame fulcrumed upon said spindle, driving and guiding-wheels mounted upon the bearing-frame and bearing upon the inner periphery of the rim, and means for imparting motion to the driving-wheel, of a braking and guiding mechanism having a shoe provided with a central bearing surface to engage the inner periphery of the rim, and lateral bearing surfaces to engage either side surface of the rim, and means for operating said shoe, substantially as specified. 8th. In a unicycle, the combination with a rim having a V-shaped track or guide and a central spindle, of a bearing-frame fulcrumed upon said spindle and provided with extensible arms, driving and guiding-wheels mounted upon the bearing-frame and bearing upon the V-shaped track or guide of the rim, means for imparting motion to the driving-wheel, and a braking and guiding mechanism comprising a shoe having a central and opposite lateral bearing surfaces, the central bearing surface being adapted to engage the apex of the V-shaped track or guide, and the lateral bearing surface being adapted to engage either side surface of said track or guide, and a stem carrying said shoe having a universal connection with the bearing-frame and provided with a handle bar, substantially as specified.

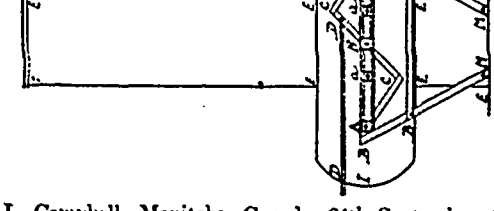
No. 47,085. Shaft Coupler for Vehicles.
(*Armon de limonière de voiture.*)



George Brownless, of Narracoorte, and Robert C. Miller, Casterton, Victoria, both in Australia, 24th September, 1894; 6 years.

Claim.—1st. In a shaft coupling for vehicles, a flat spring (portion of which fits into a recess in the coupling pin) which is bent to form the plate for holding the axle strap and also bent to prevent any rattling of the shaft or pin, as and for the purposes described and as illustrated in the drawing. 2nd. In a shaft coupling for vehicles, the combination of a coupling pin with a coned head and recess near same with a flat spring (secured to the axle bar strap) engaging in said recess, as and for the purposes described. 3rd. In a shaft coupling for vehicles, the combination of a coupling pin with a coned head and a recess near same with a flat spring (engaging in said recess) which is attached to the axle-bar strap and is so bent as to prevent any rattling of the shaft or pin, as and for the purposes described. 4th. In a shaft coupling for vehicles as before described the combination of a coupling pin with a coned head and recess near the same with a flat spring (engaging in said recess) which forms the plate for holding the axle-bar strap and is so bent as to prevent any rattling of the shaft or pin, as and for the purposes described and as illustrated in the drawing.

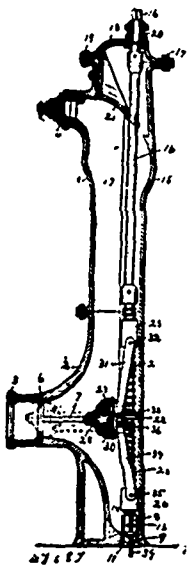
No. 47,086. Smoke Stack. (*Cheminée.*)



John L. Campbell, Manitoba, Canada, 24th September, 1894; 6 years.

Claim.—The combination of the fans, and the drawer in which they are contained, substantially as and for the purposes hereinbefore set forth.

No. 47,087. Hydrant. (*Borne-fontaine.*)



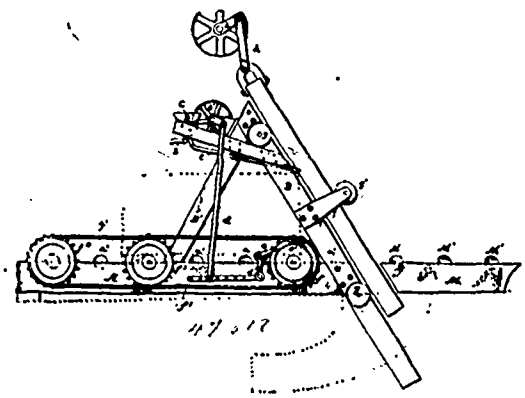
William W. Carey, St. Louis, Missouri, U.S.A., 24th September, 1894; 6 years.

Claim.—1st. The improved hydrant, having a main valve-seat, and a valve constructed to move bodily toward and from said seat in a direction substantially at a right angle to the face of the latter, and occupy a position within the hydrant casing when the valve is open with a clear water passage between itself and its seat, substantially as herein specified. 2nd. The improved hydrant, having a main valve-seat, and a valve constructed to move bodily toward and from said seat in a plane at right angles to the face of said seat within the hydrant casing when the valve is open, and occupy a position separated a distance from said seat with a clear water passage between said valve and said seat, in combination with means for guiding said valve, means for moving said valve, and a waste valve, substantially as herein specified. 3rd. The combination, in a hydrant, of a casing, a main valve-seat, a main valve, a valve-rod, toggle-links connecting said valve-rod and said valve, whereby when said rod is turned the valve will be moved toward and from said seat, and a drain or waste valve connected to said valve-rod, substantially as herein specified. 4th. The combination, in a hydrant, of a casing 1, having a hose connection 2, a main valve-seat 6, guides 7, formed in opposite walls of said casing and extending at right angles to the face of said valve-seat, a valve-rod 16, having right and left screw-threads adjacent its lower end, toggle-blocks 25, mounted on said screw-threads, a valve 27, having opposite projections 30, in engagement with said guides 7, links 31, 34 connecting said toggle-blocks and said valve, and a waste or drain connection, substantially as herein specified. 5th. The improved hydrant, having a continuous curved water passage 17, devoid of abrupt bends, eddies, off-sets, or projections, and extending from the mains to the hose connection thereof, substantially as herein specified. 6th. The combination, in a hydrant, of a casing, a main valve, a main valve-seat, means for operating said main valve, and a detachable cap 18, having a curved head 21 upon its under surface, the under surface of which head lies flush with the adjacent walls of the water passage upon the interior of the hydrant, substantially as herein specified. 7th. The combination, in a hydrant, of a casing, a main valve, a valve-rod, connections between said valve-rod and said main valve, whereby the latter may be operated, a vertical waste-valve cylinder 8, having a waste aperture in its wall, a screw-threaded pin or shaft 37, connected by screw-threads at its upper end to said valve-rod, a valve or piston mounted upon said pin or shaft within said cylinder to move up and down therein with said pin or shaft, and a bearing for the lower end of said pin or shaft, substantially as herein specified. 8th. In a hydrant, the casing thereof having walls which flare inward from the main valve-seat, in combination with a main valve and operative connections, said main valve constructed to move bodily toward and from said seat in a direction substantially at a right angle to the face of the latter, and occupy a position within the casing when the valve is open with a clear water passage between itself and its seat, so that when said valve is moving toward its seat the water will be shut-off very gradually by the periphery of said valve approaching the base of said flaring portion of said casing, substantially as herein specified.

No. 47,088. Stone Sawing Machine.
(*Machine à scier la pierre.*)

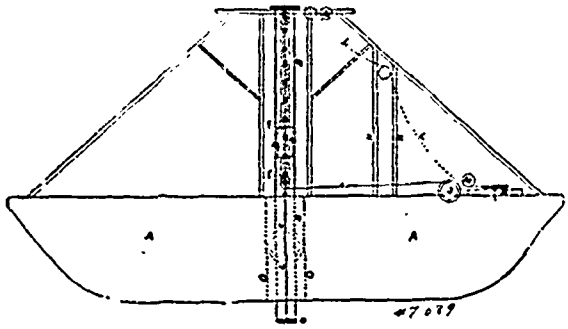
James Peckover, Harrisburg, and John E. Johnson, Philadelphia, both in Pennsylvania, U.S.A., 24th September, 1894; 6 years.

Claim.—1st. A stone-sawing machine in which are combined a saw, a frame therefor, rigid upright guides for said frame, and a stone supporting bed or table inclined in respect to the horizontal, the stone resting directly upon said bed, and travelling by gravity over the same toward the saw, substantially as specified. 2nd. The



combination in a stone-sawing machine, of the reciprocating saw frame mounted so as to move in a plane inclined in respect to the vertical, with means for feeding the abrading material to the bottoms of the saw kerfs at the top of the stone, substantially as specified. 3rd. A stone-cutting saw, having a blade or body with undercut recesses therein, and cutting-bits or teeth confined within said recesses and projecting beyond the front edge of the blade, said blade projecting laterally beyond the teeth, on both sides of the latter, substantially as specified. 4th. A stone-cutting saw consisting of a blade or body with recesses therein, notched cutting bits or teeth adapted to said recesses, and bolts or catches for retaining the teeth in said recesses, but permitting forward motion of the teeth to compensate for wear, substantially as specified. 5th. The combination of the sand box, having a sand supporting sieve, with water nozzles discharging upwardly into the sand box and on to the bottom of said sieve, and conduits for conveying the sand and water from the sand box to the stone, substantially as specified. 6th. The combination of the sand box, having a sand supporting sieve, with water nozzles discharging upwardly into the sand box and on to the bottom of said sieve, each of said nozzles having passages constructed to discharge water in the form of a fine sheet of spray, and conduits for conveying the sand and water from the sand box to the stone, substantially as specified.

No. 47,089. Mining Machinery. (*Machine de mine.*)



Frank S. Dobson, Francois X. Martin, and Albert E. Beck, all of Vancouver, British Columbia, Canada, 24th September, 1894, 6 years.

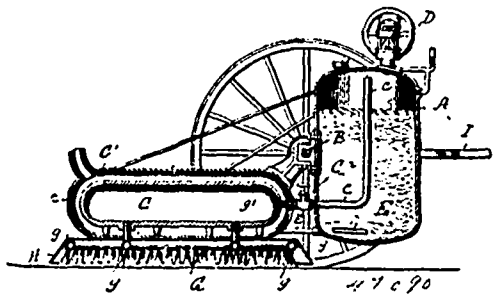
Claim.—1st. The combination of raising and lowering cylinder A, A, outlet openings B, B, inflow openings D, D, figure 1, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of cylinder A, A, figure 1, together with case containing orifices and gates C, C, pump F, F, and agitator G, G, figure 2, substantially as and for the purpose hereinbefore set forth.

No. 47,090. Method of and Apparatus for Repairing Asphalt Pavements. (*Méthode et appareil pour réparer les pavés d'asphalte.*)

The Western Paving and Supply Company, assignees of Amos Henry Perkins, all of Chicago, Illinois, U.S.A., 24th September, 1894; 6 years.

Claim.—1st. The method of repairing asphalt pavements, which consists in subjecting the part to be repaired to a blast of superheated air, adding new material, and smoothing and burnishing it, substantially as described. 2nd. In apparatus for repairing asphalt pavements, the combination of a receptacle for containing air under

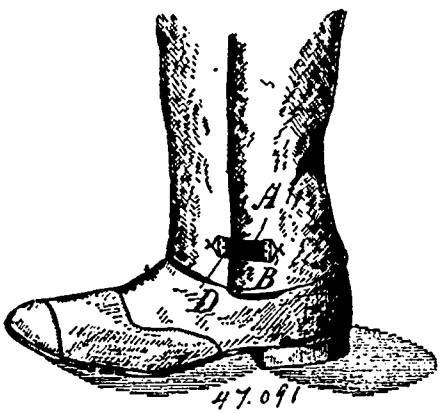
pressure, means for superheating the same, and means for projecting the heated air against the pavement, substantially as described. 3rd. In apparatus for repairing asphalt pavements, the combination



of a receptacle for containing air under pressure, means for superheating the same, means for projecting the heated air against the pavement, and means for confining the heated air in position against the pavement, substantially as described. 4th. In apparatus for repairing asphalt pavements, the combination of a metallic receptacle for containing air under pressure, means for furnishing a supply of air under pressure to the receptacle, means for superheating the same, means for projecting the heated air under pressure against the pavement, substantially as described. 5th. In apparatus for repairing asphalt pavements, the combination of a receptacle for containing air under pressure, a set of horizontal perforated pipes connected with the receptacle and held in position above the pavement, means for furnishing a supply of air under pressure to the receptacle, and means for superheating the air, substantially as described. 6th. In apparatus for repairing asphalt pavements, the combination of a receptacle for containing air under pressure, a set of horizontal perforated pipes connected with the receptacle and held in position above the pavement, means for furnishing a supply of air under pressure to the receptacle, means for superheating the air, and means for confining the superheated air in position against the pavement, substantially as described. 7th. In apparatus for repairing asphalt pavements, the combination of a cylinder for containing air under pressure, a jacket or envelope surrounding the same and leaving an air space between it and the cylinder, fuel burners arranged to enter such space and superheat the cylinder, and means for projecting the heated air against the pavement, substantially as described. 8th. In apparatus for repairing asphalt pavements, the combination of a reservoir for containing liquid hydro-carbons, means for furnishing a supply of air under pressure to the same, a cylinder communicating with the air space of the fuel reservoir, a series of burners connected with the fuel supply and adapted to superheat the cylinder with its contained air, means for projecting the heated air against the pavement, and means for confining the superheated air in position against the pavement, substantially as described.

No. 47,091. Trouser Clip for Bicyclists.

(*Lien de pantalon pour bicyclistes.*)

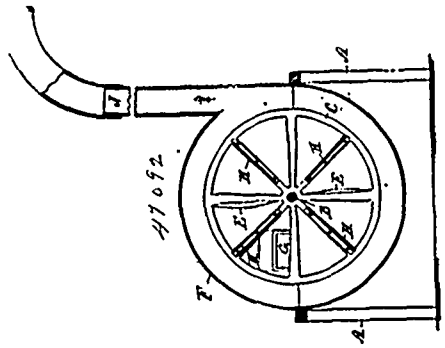


Stanley C. Peuchen and Peter Clarke, both of Toronto, Ontario, Canada, 24th September, 1894; 6 years.

Claim.—1st. A trouser clip for bicyclists consisting of a strip of elastic material to the opposite ends of which hooks are attached, substantially as described and for the purpose specified. 2nd. A trouser clip for bicyclists consisting of a strip of elastic material, to the opposite ends of which hooks are attached, the said hooks having their points extending beyond the general plane of the hook to adapt them to readily enter a substantially flat cloth surface, substantially as described and for the purpose specified. 3rd. The combination with a trouser leg of a clip consisting of a strip of elastic webbing having hooks attached to its ends, which hooks engage with the cloth of the trouser leg which is thus held tight round the ankle of the wearer, substantially as described and for the purpose specified.

No. 47,092. Rotary Feed Cutter.

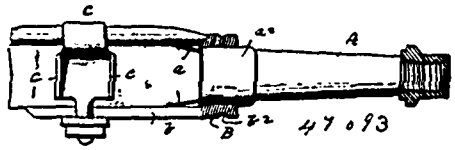
(*Coupe-nourriture rotatoire.*)



Reuben Morningstar, Alvinston, assignee of E. D. Morningstar, Arkona, all in Ontario, Canada, 26th September, 1894; 6 years.

Claim.—1st. The combination with a feed cutter having a wheel provided with radial knives, of a wind elevator, comprising fans secured to said wheel, a fan case enclosing said wheel and a discharge tube from said fan case, substantially as described. 2nd. A combined rotary feed cutter and wind elevator, having a fan case enclosing a wheel carrying knives and fans, and a discharge tube from the fan case, as set forth, whereby the cut feed is blown through the tube and connecting pipe to the place of deposit.

No. 47,093. Vehicle Axle. (*Essieu de voiture.*)

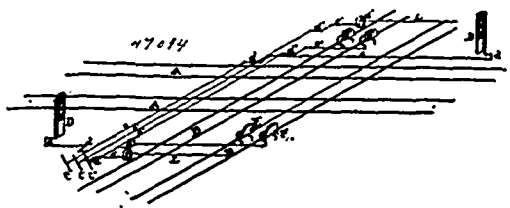


Augustus P. Craig and Henry Underwood, both of Michigan City, Indiana, U.S.A., 26th September, 1894; 6 years.

Claim.—1st. The combination with a vehicle axle, of an adjustable collar, having an oil strip extending around its periphery, and means for adjustably securing the collar to the spindle, substantially as described. 2nd. The combination with a vehicle-axle, of an adjustable collar, provided with a sleeve and flattened extension, loosely secured to the axle by means of a clip, substantially as described. 3rd. The combination with a vehicle axle, consisting of a rounded spindle having a square portion, said square portion being provided with a raised bearing at its heel, and an oil strip on its outer face, of a loose collar provided with a sleeve and flattened extension, adjustably secured to the axle by means of a clip, substantially as described.

No. 47,094. Safety Device for Railway Crossings.

(*Appareil de sûreté pour traverses de chemin de fer.*)

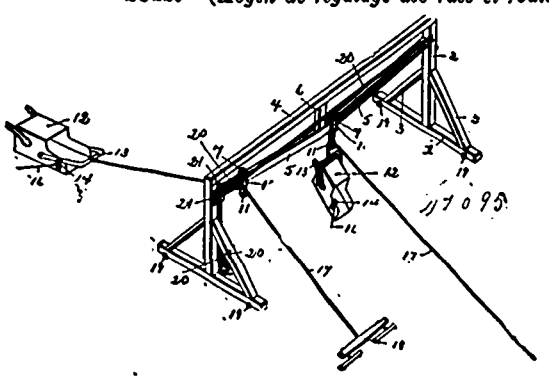


The Canada Switch Manufacturing Company, Montreal, Quebec, Canada, assignees of Charles Hodgson, Canterbury Road, Kilburn, Middlesex, England, 26th September, 1894; 6 years.

Claim.—1st. A safety device for railway crossings, consisting of movable Scotch blocks, one located normally flush with the ground beside each rail of the crossing railway, boxes flush with the ground adapted to contain the Scotch blocks when they are in their normal position, and provided with means for supporting the blocks when in that position, and means for moving the Scotch blocks into the path of the car wheels, substantially as and for the purposes set forth. 2nd. In a railway crossing, combination with the rails of the crossing railway, of hinged Scotch blocks, one located at the side of each rail and normally flush with the ground, but which places itself in the path of the car wheels when rotated a predetermined distance, boxes flush with the ground adapted to contain the blocks when they are in their normal position, and provided with the

shoulders J, in the path of the blocks, and the part *i* adjacent to the rails, and means for rotating the blocks, substantially as and for the purpose set forth. 3rd. In a railway crossing, the combination of Scotch blocks, one hinged to each rail of the crossing railway and normally flush with the ground, but which moves into the path of the car wheels when rotated a predetermined distance, boxes flush with the ground, adapted to contain the blocks when they are in their normal position, and provided with shoulders for supporting the blocks in that position, gates for the crossing, and means for rotating the Scotch blocks and for opening and closing the gates, substantially as and for the purposes set forth. 4th. In a railway crossing, the combination with the signals and the gate for the crossing, of hinged Scotch blocks, one located beside each rail of the crossing railway and normally flush with the ground, but which moves into the path of the car wheel when rotated a predetermined distance, boxes flush with the ground adapted to contain the blocks when they are in their normal position, and provided with shoulders for supporting the blocks and levers connected with the signals, the gates and the Scotch blocks, substantially as and for the purpose set forth. 5th. In a railway crossing, the combination with the signals and the gates for the crossing, of movable Scotch blocks, one located normally flush with the ground beside each rail of the crossing railway, but which places itself in the path of the car wheels when moved a predetermined distance, and interlocking levers connected with the signals, the gates and the Scotch blocks, the levers being so interlocked that, when the signals indicate clear, the gates must be closed and the blocks must be in the path of the car wheels, and when the gates are open and the blocks are in their normal position the signals must indicate danger, substantially as and for the purpose set forth. 6th. In a railway crossing, the combination with the signals and the gates for the crossing, of hinged Scotch blocks, one located beside each rail of the crossing railway and normally flush with the ground, but which moves into the path of the car wheels when rotated a predetermined distance, boxes flush with the ground, adapted to contain the blocks when they are in their normal position, and provided with shoulders for supporting the blocks in that position, and interlocking levers connected with the signals, the gates and the Scotch blocks, the levers being so interlocked that, when the signals indicate clear, the gates must be closed and the blocks must be in the path of the car wheels, and when the gates are open and the blocks are in their normal position, the signals must indicate danger, substantially as and for the purpose set forth.

No. 47,095. Means for Grading Streets and Roadbeds. (*Moyen de régalage des rues et routes.*)



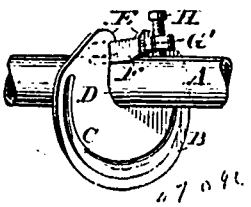
John J. McMahon and William J. McMahon, both of Toledo, Ohio, U.S.A., 26th September, 1894; 6 years.

Claim.—1st. In grading streets or roadbeds, a trestle, a track-way inclined from the centre upwardly toward each end, trolleys upon the track-way having an automatic movement to the centre, and means for moving the same outwardly, pulleys carried by the trolleys, draft ropes passed over the pulleys, dumping scrapers connected with the draft rope at one end, the opposite end being connected with the source of power. 2nd. In grading streets, a trestle comprising sills, each provided with removable rollers, vertical standards upon the sills, a cross beam connecting the standard tracks inclined from the standards to the centre of the trestle, dumping scrapers comprising bowl and bail, and automatic catch to hold the bowl from tilting, a sheave movably sustained upon the inclined tracks, a draft rope or cable, connected with the scraper passed over the sheave and connected with a source of power, and means for loosening the catch to allow the scraper to dump the load when elevated. 3rd. In grading streets or roadbeds, a trestle, inclined tracks, trolleys thereon carrying pulleys, scrapers, draft ropes connecting the scrapers and passing over the pulleys to the source of power, pulleys upon each side of the trestle, and ropes connecting each trolley passing over the pulleys in convenient reach at one side of the trestle.

No. 47,096. Spiral Conveyor. (*Transport en spiral.*)

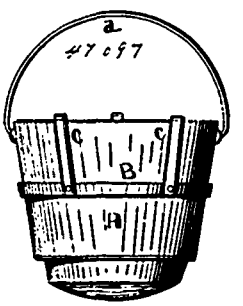
The Edward P. Allis Company, assignees of Alfred E. Baxter and Allen G. Mather, all of Milwaukee, Wisconsin, U.S.A, 26th September, 1894; 6 years.

Claim.—1st. The combination, with a conveyor shaft, of a semi-elliptical flight provided with a central shaft-seating recess deeper than the diameter of the shaft, and fingers projecting into the recess at the rear of the shaft seat, a gib having recesses arranged obliquely



to its axis in its outer face adapted to be inserted between the rearwardly extending parts of the flight and interposed between the shaft and the fingers of the flight, the fingers being adapted to enter the recesses at the rear of the shaft and thus to lock the flight to the shaft, substantially as described. 2nd. The combination, with a conveyor shaft, of a semi-elliptical flight provided with a central shaft-seating recess deeper than the diameter of the shaft, fingers projecting into the recess at the rear of the shaft-seat and at the rear of the shaft, a gib having a plurality of recesses in its outer surface arranged in sets reversely oblique to its axis, inserted at the rear of the shaft between the shaft and the fingers of the flight in such manner that the fingers engage the gib at the rear of and within the planes extending rearwardly from the sides of the shaft, and means for forcing the gib into engagement with the fingers of the flight and locking it to the shaft, substantially as described. 3rd. The combination, with a conveyor shaft, of a semi-elliptical flight provided with a central shaft-seating recess deeper than the diameter of the shaft, fingers projecting into the recess at the rear of the shaft, a gib having recesses in its outer face arranged oblique to its axis inserted in the flight-recess between the shaft and the fingers which enter the recesses and engage the gib at the rear of the shaft, and a set screw turning through the gib near its end against the shaft and tilting the gib so that one end bears against the shaft while it is forced medially against the fingers of the flight, substantially as described.

No. 47,097. Kettle. (*Chaudron.*)

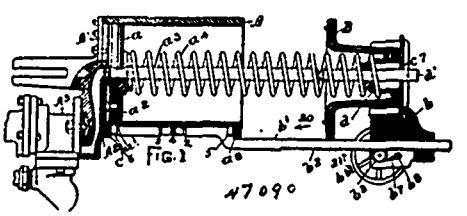


Charles A. Colgrove and Charles D. Watters, both of Hornellsville, assignees of Philip Rusco, Elmira, all in New York, U.S.A., 26th September, 1894; 6 years.

Claim.—1st. The combination with a kettle of an adjustable detachable band having upwardly and inwardly extending arms, as set forth. 2nd. The combination with a kettle of an adjustable band having upwardly and inwardly extending arms, a cover provided with notches, said notches adapted to engage with the inwardly extending ends of said arms, as set forth. 3rd. The combination with a kettle increased in size as it approaches its upper end, of an adjustable band, having means for adjusting it, and provided with upwardly and inwardly extending arms, a cover having notches in its periphery adapted to engage with said inwardly extending arms, said cover being perforated.

No. 47,098. Spring Compressing Apparatus.

(*Appareil de compression à ressort.*)

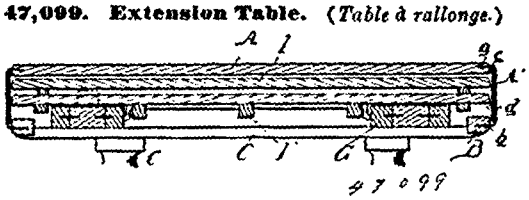


The Westinghouse Air Brake Company, Pittsburg, Pennsylvania, assignees of Elmer E. Chain, Boston, Massachusetts, all in the U.S.A., 26th September, 1894; 18 years.

Claim.—1st. In an apparatus for compressing springs into cylin-

ders, the combination of the following instrumentalities, viz., a guideway constructed to be attached to the cylinder within which the spring is compressed, a carriage movable on said guideway, and means to move said carriage, substantially as described. 2nd. In an apparatus for compressing springs into cylinders, the combination of the following instrumentalities, viz., a guideway constructed to be attached to the cylinder within which the spring is compressed, a carriage movable on said guideway, a support for the cylinder head on said carriage, and means to move the said carriage on its guideway to compress the spring into the cylinder and bring the cylinder head into position to be affixed to the cylinder, substantially as and for the purpose specified. 3rd. In an apparatus for compressing springs into cylinders, the combination of the following instrumentalities, viz., a guideway constructed to be attached to the cylinder within which the spring is compressed, a carriage movable longitudinally on said guideway, a support for the cylinder head adjustable toward and away from the guideway, and means to move said carriage, substantially as described. 4th. In a spring compressing apparatus, the combination of the following instrumentalities, viz., a movable carriage, a guideway on which said carriage travels consisting of a rack-bar provided with an extensible portion having cross-bars, a gear on said carriage in mesh with said rack-bar and means to rotate said gear, substantially as described. 5th. In an apparatus for compressing springs into cylinders, the combination of the following instrumentalities, viz., a guideway provided with an extensible portion constructed to be attached to the cylinder within which the spring is compressed, a carriage movable on said guideway, a support for the cylinder head on said carriage, and means to move said carriage on its guideway, substantially as described.

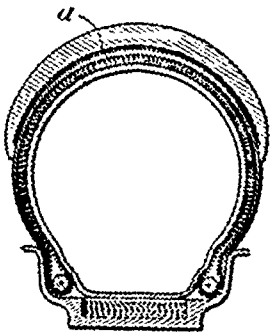
No. 47,099. Extension Table. (*Table à rallonge.*)



Charles W. Munz, Detroit, Michigan, U.S.A., 26th September, 1894; 6 years.

Claim.—1st. In an extension table, the combination of the stationary section, having legs, and an open receptacle having sides, an end extension carrying leaves and comprising slides and an end cross-bar adapted to engage beneath the edge of the top, substantially as described. 2nd. In an extension table, the combination of the stationary section having legs, a receptacle supported thereon having sides, of an end extension carrying leaves, and comprising slides, an end cross-bar and sides adapted to slidingly engage within the sides of the stationary section, substantially as described. 3rd. In an extension table, the combination of the stationary section having legs, a receptacle supported thereon having sides of an end extension carrying leaves comprising slides, a cross-bar at the end and sides adapted to slidingly engage within the sides of the stationary section, the sides and cross-bar engaging beneath the top of the stationary section in the closed position of the table, substantially as described. 4th. In an extension table, the stationary receptacle formed of the top having saw kerfs in the edges, side-bars below the edges, of the top having corresponding kerfs, a metallic side piece having flanges secured in the kerfs, and cross-bars connecting the side-bars, substantially as described. 5th. In an extension table, the combination with the stationary section having a receptacle formed by the top, the metallic sides A^1, side-bars B and the cross-bars C, the guide ways c formed between the side pieces and the top and side pieces, and the extension section having metallic sides engaging in said guide ways, substantially as described.

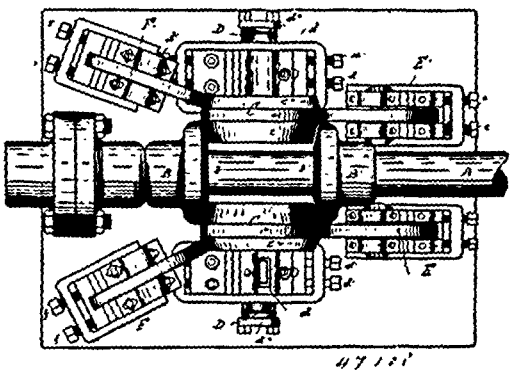
No. 47,100. Pneumatic Tire. (*Bandage pneumatique.*)



The Pneumatic Tire Company, of Dublin, Ireland, assignee of C. K. Welsh, Coventry, England, 26th September, 1894; 6 years.

Claim.—1st. The combination with a pneumatic tire, of an arched tread-piece, the outer surface of which is in compression, for the purpose set forth. 2nd. The combination with a pneumatic tire of an arched tread-piece the outer surface of which is in compression, and a layer of rubber interposed between said tread-piece and tire, for the purpose set forth. 3rd. The combination with a pneumatic tire of an arched tread-piece the curvature of which when the same is in place on the tire is approximately half the curvature of the tread-piece before being applied to the tire, substantially as set forth. 4th. The combination with a pneumatic tire of an arched tread-piece the outer surface of which is in compression and provided with thin flaps which cover the sides of the tire, substantially as set forth.

No. 47,101. Thrust Bearing. (*Butée.*)

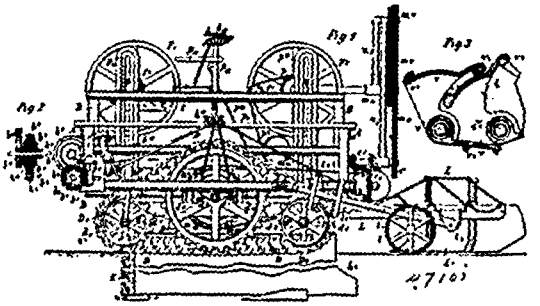


Edwin B. Sintzenich, Rochester, New York, U.S.A., 26th September, 1894; 6 years.

Claim.—1st. In a thrust bearing, the combination of a shaft, a collar fixed on said shaft and having an inclined face, rollers having each an axis at right angles to said shaft, and a bevelled face against which the collar bears, a flat face, and a second bevelled face and rollers having flat faces and bearing respectively against said last mentioned bevelled faces, substantially as and for the purposes described. 2nd. In a thrust bearing, the combination of a shaft A, a collar B, fixed on said shaft and having an inclined face *b*, rollers as C, having each an axis at right angles to said shaft, and a bevelled face c, against which the collar bears, a flat face c^1, and a second bevelled face c^2, a roller E, bearing against said flat face c^1, and having an axis at right angles to said shaft, and a roller F, bearing against said bevelled face c^2, and having an axis parallel to said face, substantially as and for the purposes described. 3rd. In a thrust bearing, the combination of a shaft, having a longitudinal movement, collars oppositely fixed on said shaft, and having inclined faces respectively, rollers having axes at right angles to said shaft and each having a bevelled face adapted to bear against the inclined faces of said collars and a flat face, said collars being so set on said shaft that when the shaft is moved in the other direction the other collar bears against said rollers, and rollers having axis at right angles to said shaft and bearing against said flat faces, substantially as described.

No. 47,102. Ditching and Tile Laying Machine.

(*Machine à fossoyer et poser les tuiles.*)



Odilon B. H. Hanneborg, Urskong, Norway, 26th September, 1894; 6 years.

Claim.—1st. A ditching and tile laying machine in which during the forward movement of the machine the earth is dug up and raised to the surface of the ground by a vertical cutter-screw placed in the front of the machine, and then heaped up on the sides of the trench by a spreader arranged behind the said screw, substantially as described. 2nd. In a ditching and tile laying machine, the combination with a vertical cutter-screw which digs up the earth and raises it to the surface of the ground, and a spreader which heaps up the said earth on each side of the trench formed by the screw, of a collector or gatherer placed at the back of the machine which throw

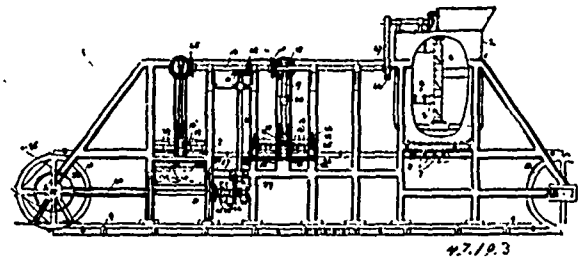
the ditched-up earth back again into the trench so that the machine during its forward movement both ditches and fills up the trench, substantially as described. 3rd. In a ditching and tile laying machine, the cutter screw E, made with increasing pitch in order that the earth shall not become pressed into a compact mass during the movement, substantially as described. 4th. In a ditching and tile laying machine a spreader consisting of two mould boards like those of a plough placed close behind a cutter screw and diverging backwards therefrom, which mould boards, during the forward movement of the machine heap, the earth ditched up by the screw on the sides of the trench, substantially as described, and illustrated in the accompanying drawings. 5th. In a ditching and tile laying machine, a collector consisting of two mould boards similar to those of a plough secured to a frame and converging backwards from the rear end of the machine, which mould boards during the forward movement of the machine, throw the earth ditched up by a cutter screw back into the trench again, substantially as described, and illustrated in the accompanying drawing. 6th. In a ditching and tile laying machine, the collector L, L^1, L^1 detachable from the main portion of the machine, by removing a pin l^3, when required to keep open the trench ditched up, substantially as set forth. 7th. In a ditching and tile laying machine, the collector L, L^1, L^1, with the toothed segments l^5, l^6, and intermediately placed pinion connected in such a manner with the frame A of the machine, that it always follows the irregularities of the ground, independent of the main portion of the machine, substantially as set forth. 8th. In a ditching and tile laying machine, comprising three main frames A, B and C, and in which the inner frame C, carries the cutter-screw E, and the outer frame A, carries the wheels D^1, D^2, D^3, the folding rails v, v^1, v^2, v^3 and v^4, hereinbefore described with reference to figure 3 on which the said wheels roll, substantially as set forth. 9th. In a ditching and tile laying machine of the kind claimed in claims 1 and 8, the tile laying apparatus h^1, h^2 placed on the inner frame C between the cutter-screw and the collector so that the machine can dig the trench, lay the tiles and fill the trench up again as the machine moves forward, substantially as described, and illustrated in the accompanying drawing. 10th. In a ditching and tile laying machine, of the kind claimed in claims 1, 8 and 9, a mechanism for feeding a strip of paper on to the top of the tiles, which mechanism derives its motion from the mechanism for effecting the forward movement of the machine so that the feeding of the paper strip continues and stops together with the said movement, substantially as described and illustrated in in the accompanying drawing. 11th. In a ditching and tile laying machine, the paper feeding mechanism constructed substantially as described and shown in figures 11 and 12 of the drawing. 12th. In a ditching and tile laying machine, the mechanism for effecting the forward movement of the machine, such movement being transmitted from the inner frame c, to the outer frame A, by chains and sprocket-wheels m^{10}, m^{11}, m^{12}, m^{13}, e^1, supported by pivoted rods n^1, n^2, in order that the movement may be transmitted in a steady and yielding manner, notwithstanding the varying positions of the frames relatively to one another, substantially as described and illustrated in the drawing. 13th. A ditching and tile laying machine, having three main frames A, B, C, arranged inside one another in such manner that the inner frame C, with the ditching and tile laying apparatus can, by a raising and lowering mechanism p^{12}, p^{13}, be adjusted for deeper or shallower trenches, and to make the bottom of the trench flat, notwithstanding the irregularities of the ground, the intermediate frame B, being always kept plumb by a balance mechanism e^{15}, e^{16}, in order to make the walls of the trench perpendicular, and the outer frame A, by means of a tilting mechanism b^{15}, b^{16}, ensuring the cutter-screw E, being always kept against the bottom of the trench, substantially as set forth. 14th. A ditching and tile laying machine, in which the movements of the different parts are effected automatically as well as by hand power, by means of a raising and lowering mechanism, a balance mechanism and a tilting mechanism, substantially as described and illustrated in the drawing. 15th. In a ditching and tile laying machine, an apparatus for indicating the different relative positions of the machine to the horizontal plane constructed as described and illustrated in fig. 20 and 21 of the drawing. 16th. A ditching and tile laying machine actuated by rope transmission from a portable steam engine situated in the field, substantially as described and illustrated in figures 22, 23 and 27, of the drawing. 17th. The improved ditching and tile laying machine described and illustrated in the drawing.

No. 47,103. Art of Making Brick and Artificial Stone.

(*Art de faire de la brique et pierre artificielles.*)

Theophile E. Ayotte, and Arthur A. Charbonneau, both of Montreal, Canada, 26th September, 1894; 6 years.

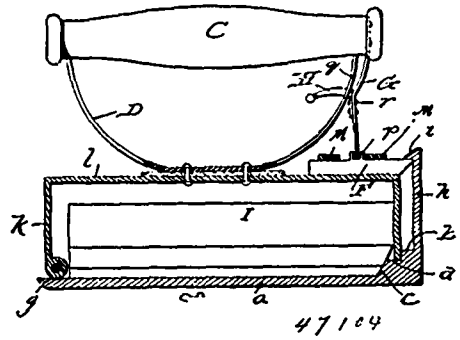
Résumé.—1° Dans une machine un malaxeur et fixé à un pivot vertical, les pièces suivantes, couteaux obliques 3, portant les petits couteaux 4, et formant le fond, un crible, ou épureur son fontionnement et sa construction, formé de lamelles métalliques, séparées par des triangles métalliques, le tout tel que décrit précédemment, et pour les fins indiquées. 2° Dans une presse la douille visée 20, régularisant la longueur de la bielle 19, la plaque 14, contenant de 15 à 40, fouloirs 13, la table 21, formée de la plaque 21, axes 22, excentriques 24, et manivelles 23, et mues par les tiges 25, et la cheville 27, le tout tel que décrit précédemment, et pour les fins



47,103

indiquées. 3° Dans un démouleur d'une presse formée de la plaque 14^1, contenant de 15 à 40, fouloirs 29, le tout tel que décrit précédemment et pour les fins indiquées. 4° Le châssis 8, formé de 15 à 40 moules 7, et unis par la charnière 9, pour former une chaîne sans fin, le tout tel que décrit précédemment et pour les fins indiquées. 5° Le receveur formé d'un cadre rempli par des languettes 30, et munis de pattes métalliques 34, la passerelle sans fin 32, fait de tringles espacées 31, fixées à une chaîne, le tout tel que décrit précédemment et pour les fins indiquées. 6° Dans le rouage de la machine de l'appareil commutatif, formé de l'axe 40, du manchon 43, des roues 41, 42, 45, chaîne 46, roue 47, axe 48, et roue 49, a rainure 50, et fiche 44, le tout tel que décrit précédement, et pour les fins indiquées. 7° Dans une machine à brique l'assemblage des parties tel que malaxeur, presse, démouleur sous lesquels se placent automatiquement et avec précision quinze à quarante moules 7, contenus dans des châssis 8, formant une chaîne sans fin, le tout mis en mouvement alternatif, par le rouage, le tout tel que décrit précédemment et pour les fins indiquées.

No. 47,104. Laundry Iron. (*Fer à repasser de buanderie.*)



47,104

Charles W. Potter and John C. Hewitt, both of Mineral, Ohio, U. S.A., 27th September, 1894; 6 years.

Claim.—1st. The bottom section, having the internal, sloping walls, and also having the shoulder at its rear end, and the latch post at its forward end, in combination, with the top section hinged to the rear end of the bottom or base section, the handle secured to the top section by a support which serves the additional function of a shield, and is slotted, the slide bolt, the spring lever, secured at its upper end to the handle, and engaging the slide bolt at its lower end, and the finger piece secured to said lever, and passing through the slot of the handle supporting shield, substantially as specified. 2nd. In a laundry iron, the combination of the base section comprising the plate *a*, and the vertical, marginal flange *b*, having the sloping surface *c* on its inner side, and the seat *d*, at the upper end of said sloping surface, and also having the latch post at its forward end and the shoulder *g*, at its rear end, the top section hinged to the rear end of the bottom section and carrying a latch to engage the latch post of the base section and adapted to rest on the seat *d*, of said section when closed and on the shoulder *g*, thereof, when open, and a slug adapted to rest on the sloping surface *c*, of the flange *b*, of the bottom section, substantially as specified.

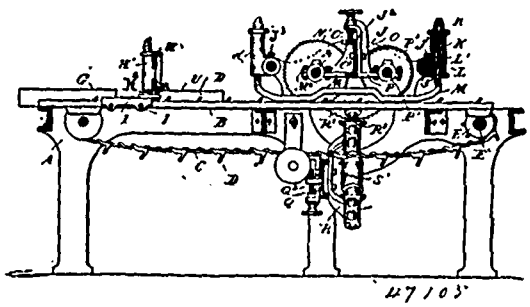
No. 47,105. Chamfering Machine.

(*Machine à chanfreiner.*)

Thomas Craney, Bay City, Michigan, U.S.A., 27th September, 1894; 6 years.

Claim.—1st. The combination of the frame, longitudinal channel-bars supported thereon and laterally adjustable, of a work table formed of bars supported on one side of said channel-bars, and carrier chains in the grooves therein, substantially as described. 2nd. The combination of the frame, longitudinal bars internally adjustably secured thereon, carrier chains running in the grooves therein, a work table formed of bars secured to the channel-bars, gage strips vertically adjustably secured to said channel-bars at the end of the

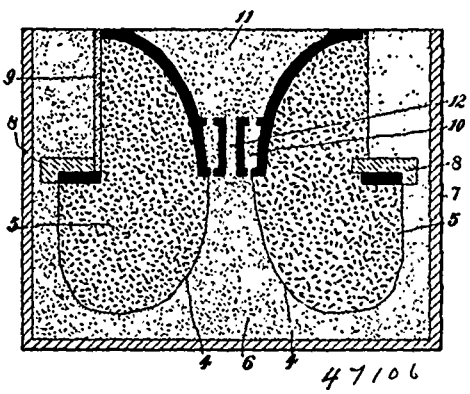
table, and spring latches above said gage strips, substantially as described. 3rd. The combination of the frame, the table having end board or fence T, the carrier, the adjustable inclined gage-bar T^1 at



one side of the carrier, and the adjustable spring presser arm U at the opposite side, substantially as described. 4th. The combination of the frame, the carrier, of the side standards I, cross-bars at the ends of the standards, the barrels K adjustably secured thereon, the springs thereon, and presser-bars extending beside the carrier, having shafts engaging in said barrels against the springs substantially as described. 5th. In a stave machine, the combination of a frame, a carrier side standards on the frame, a cross-bar connecting said standards above the carrier, brackets extending horizontally front and rear from said cross-bar, boxes at the outer ends of the brackets, saw mandrels journalled therein, and cutting off and crozing saws on the mandrels, substantially as described. 6th. In a stave machine, the combination of a frame, a carrier side standards on the frame, a cross-bar connecting said standard centrally above the carrier, rigid forwardly extending brackets having boxes at their outer ends, a mandrel journalled therein, having cutting off saws at the ends, brackets extending rearwardly from said cross-bar and vertically adjustable thereon, a mandrel journalled in boxes at the outer ends of said brackets and crozing saws on said mandrels, substantially as described. 7th. In a stave machine, the combination with the frame, and the carrier, of a cross-bar below the carrier, adjustably supported on the frame, yokes carrying chamfering saws secured to the cross-bar and means for adjusting said yokes to different angular positions in relation to the work, substantially as described. 8th. In a stave machine, the combination, with the frame and the carrier, of a cross-bar below the carrier adjustably supported on the frame, yokes on the cross-bars, means for adjusting said yokes longitudinally of the box, and angularly thereon, and chamfering saws supported in the yokes, substantially as described.

No. 47,106. Method of Making Moulds for Turbines.

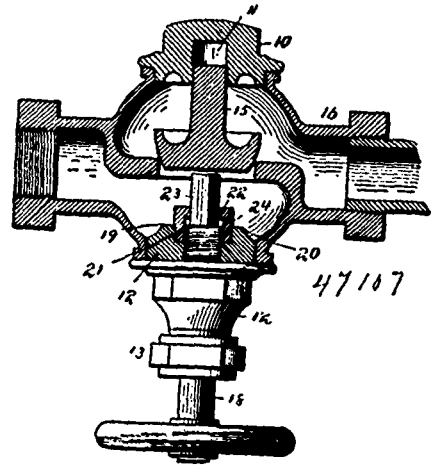
(*Méthode de faire des moules pour turbines.*)



Robert Graham and George G. Roe, both of Ottawa, Ontario, Canada, 27th September, 1894; 6 years.

Claim.—1st. The method of moulding turbines in one piece consisting of making a pattern wheel in sections consisting of a bell in sections, separate buckets adapted to be temporarily secured to the bell and having core prints, band and sectional hub, then temporarily securing the buckets to the bell, inverting the structure so formed and filling the spaces between the buckets so as to form cores 5 which overlap at the edges 4, parting material being inserted in the joints, drying the cores so formed then separating all the parts, re-erecting the bell and cores in their relative position, filling the internal spaces between the overlapping joints of the bucket cores, placing a flask upon it and re-inverting in its natural position, forming the band mould by box cores and filling the prints made by the bucket core prints, placing the hub sections and moulding in the spaces between and above them in the upper part of the bell, lifting out said moulded parts and patterns of the hub and bell and replacing the moulded parts, substantially as set forth. 2nd. In a method of moulding turbines in one piece, the formation of cores between detachable bucket patterns secured to a sectional bell pattern by filling out the spaces between said buckets while in an inverted position and making overlapping joints with parting material between them along the curved edges from the neck of the bell in the interior to the band on the exterior, substantially as set forth.

No. 47,107. Valve. (*Soupape.*)

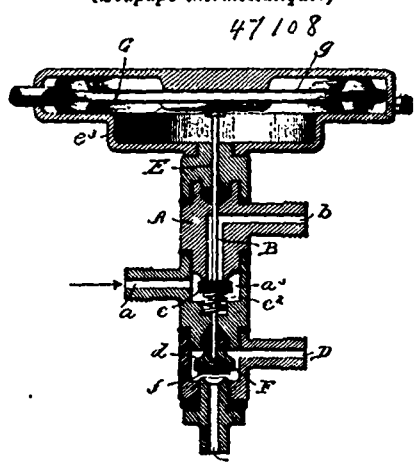


James F. Finley, Township of Union, New Jersey, U.S.A., 27th September, 1894; 6 years.

Claim.—1st. The combination, with a shell or casing, a horizontal valve-seat, and a check-valve, of a bushing, a check-nut provided with a stop, and a spindle threaded in said bushing and provided with a shoulder to engage said stop, the free terminal of the spindle being adapted to engage the valve. 2nd. The combination, with a shell or casing, and a valve-seat, of a valve provided with a winged stem fitting in a guide in the shell, a shoulder spindle mounted in a bushing and having a reduced end to engage said valve, and a check-nut having a stop to engage the shoulder of the spindle.

No. 47,108. Thermostatic Valve.

(*Soupape thermostatique.*)

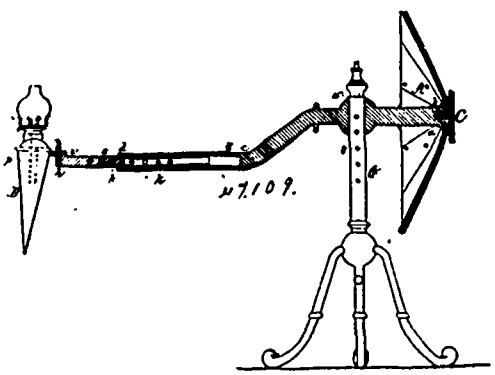


Albert M. Butz, Chicago, Illinois, U.S.A., 27th September, 1894; 6 years.

Claim.—1st. In a heat regulating system, a radiator, a pipe supplying a heating medium thereto, a valve governing the flow of the heating medium, a motor operating said valve, a branch pipe leading from the supply pipe to the valve motor, a compound valve placed in the branch pipe having an inlet chamber and an outlet chamber, and an inlet port and an outlet port for each chamber, a valve in the inlet chamber for controlling the flow of the pressure fluid from to the valve motor, a valve in the outlet chamber for controlling the escape of the operating fluid from the valve motor, a valve rod on which these two valves are mounted, a diaphragm chamber mounted above the compound valve chamber, a diaphragm therein contacting the valve rod and controlling the motion thereof, a thermostat so situated as to be effected by the radiation of heat from the radiator and arranged to communicate motion to the diaphragm through changes in its temperature, and means for establishing communication between the radiator valve motor and the inlet port of the outlet chamber of the compound valve, substantially as described. 2nd. In a heat regulating system, a radiator, a

pipe supplying the heating medium thereto, a valve governing the flow of the heating medium, a motor operating said valve, a branch pipe leading from the supply pipe to the valve motor, a compound placed in the branch pipe having an inlet chamber and an outlet chamber, and an inlet port and an outlet port for each chamber, a valve in the inlet chamber for controlling the flow of pressure fluid to the valve motor, a valve in the outlet chamber for controlling the escape of the operating fluid from the valve motor, a valve rod on which the two valves are mounted, a diaphragm chamber above the compound valve chamber, a diaphragm therein contacting the valve rod and controlling the motion thereof, a thermostat so situated as to be effected by the radiation of heat from the radiator, and arranged to communicate motion to the diaphragm through changes in its temperature, and a pipe connecting the radiator valve motor with the inlet port of the outlet chamber of the compound valve, substantially as described.

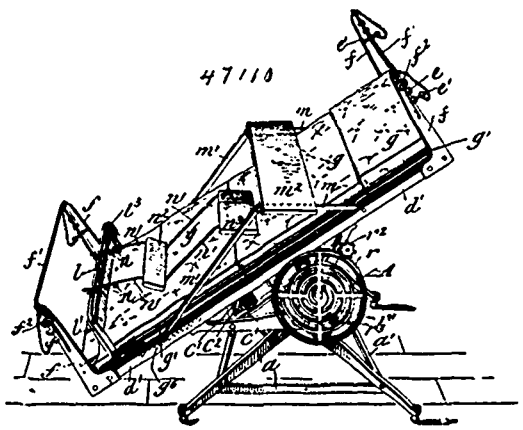
No. 47,109. Advertising Device. (*Appareil d'annonce.*)



Benjamin D. Milliken, Somerville, Massachusetts, U.S.A., 27th September, 1894; 6 years.

Claim.—1st. A reflector A, having a series of mirror plates, an object D, to be displayed and an interposed supporting rod B, combined and arranged as specified. 2nd. In an advertising device, the combination of a reflector having a series of tapering mirrors and a central perforation, a supporting rod B, with screw-tapped hole in one end, a plate C, with a screw-threaded projection *b*, a light and object holder at the opposite end of said rod B, and a standard G, on which the rod is capable of vertical adjustment, substantially as described. 3rd. The combination of a conical reflector frame, and mirror plates therein arranged around its centre, a rod B having one end pivotally entering and retained within said centre, a tubular sleeve in the opposite end of said rod B, an extension *c*, having one end received by said sleeve, and a light and object holder upon said extension, with a standard G between the ends of the rod B, and adjustably connected therewith, as set forth.

No. 47,110. Bedstead. (*Couchette.*)



George E. Gorham, Albany, New York, U.S.A., 27th September 1894; 6 years.

Claim.—1st. An invalid bedstead, comprising a supporting stand, a bed bottom tiltable longitudinally thereon into planes oppositely inclined with respect to a horizontal plane, means for tilting the bed bottom into the one inclination or the other, a seat, and means for removably securing the seat in place upon the bed bottom, whereby the tilting motion of the bed bottom may be utilized, first to facilitate the insertion of the seat beneath the invalid, and then to bring him into the sitting position, substantially as described. 2nd. An invalid bedstead, comprising a supporting stand, a bed bottom tiltable longitudinally thereon into planes oppositely inclined with respect to a horizontal plane, means for tilting the bed bottom into the one inclination or the other, and a stretcher made up of a frame, and independently insertible and removable body supporting cross strips, whereby on tilting the bed bottom forward the insertion of one of the cross strips is facilitated, and on tilting the bed bottom rearward, the insertion of the other cross strip is facilitated, substantially as described. 3rd. An invalid bedstead, comprising a supporting stand, a bed bottom centrally mounted upon the stand and located entirely above the stand and adapted to be tilted longitudinally thereon, and gearing intermediate of the stand and bed bottom and connecting the two, said gearing being of a character that can be freely operated in either direction by the attendant, and which will remain automatically set at any adjustment to which the attendant may operate it, whereby the bed bottom may be tilted longitudinally upon the stand into any desired position and will remain automatically fixed therein, substantially as described. 4th. An invalid bedstead, comprising a supporting stand, a bed bottom mounted upon the stand and adapted to be tilted longitudinally thereon, and gearing intermediate of the stand and bed bottom and connecting the two, said gearing being of a character that can be freely operated in either direction by the attendant, and which will remain automatically set at any adjustment to which the attendant may operate it, substantially as described. 5th. An invalid bedstead, comprising a supporting stand provided with a pin projection, a bed bottom mounted to tilt upon the stand, and a scroll wheel connected to the bed bottom and having its spiral engaged by the pin projection, substantially as described. 6th. An invalid bedstead, comprising a supporting stand provided on opposite sides with a pin projection, a bed bottom mounted to tilt upon the stand, scroll-wheels connected respectively to opposite sides of the frame and each having its spiral engaged by one of the pin projections, and connection gearing uniting the scroll-wheels, substantially as described. 7th. An invalid bedstead, comprising a supporting stand, and a bed bottom mounted to rock upon the stand, opposite sides of the bed bottom being geared to the stand and to each other, substantially as described. 8th. In an invalid bedstead, the combination with a longitudinally tiltable bed bottom provided with standards, of a stretcher frame resting upon the bed bottom, and means for supporting the stretcher frame from the standards, substantially as described. 9th. In an invalid bedstead, the combination with the longitudinally tiltable bed bottom provided with standards at its corners, of a stretcher frame having its side bars extending within said corner standards, and adjusting pins for supporting the stretcher frame from the standards, substantially as described. 10th. In an invalid bedstead, the combination with the tiltable bed bottom, having ratchetted side bars, of a table rest consisting of a removable top and a pair of jointed rods each pivoted at one end to a side bar of the bed bottom, and adapted to engage at the other end with one of the side bar ratchets, substantially as described. 11th. In an invalid bedstead, a stretcher frame having an end bar extensible with respect to the side bars, and means for connecting said end bar to the invalid's leg, said means including a registering scale, substantially as described. 12th. In an invalid bedstead, the combination with the tiltable bed bottom and stretcher-frame, of a seat rest and means for supporting the seat rest upon the stretcher-frame, substantially as described. 13th. In an invalid bedstead, a seat rest consisting of a frame made up of a seat, a cross-piece for the feet and side pieces connecting the seat and cross-piece, said side pieces having adjusting projections at their lower ends, in combination with a supporting piece mounted upon the bedstead and with which said adjusting projections are adapted to engage, substantially as described. 14th. In an invalid bedstead, a seat rest consisting of a frame made up of a seat, a cross-piece for the feet, and side pieces consisting of bent bars, connecting the seat and cross-piece, and provided with adjusting projections at their lower ends, in combination with a supporting piece mounted upon the bedstead, and with which said adjusting projections are adapted to engage, substantially as described. 15th. In an invalid bedstead, a foot-rest having a longitudinal groove, in combination with a seat rest having at the lower ends of the side bars of its frame, downwardly and forwardly projecting hooks adapted to engage within said groove, substantially as described. 16th. In an invalid bedstead, the combination with the stretcher frame, of a tilting bed bottom, having corner posts of angle-iron apertured at the angle, and pins adapted to be inserted through the apertures so as to afford supports for the stretcher frame, substantially as described.

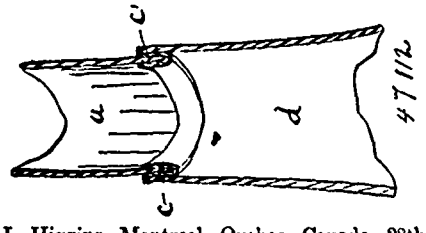
No. 47,111. Process of Imparting Drying Properties to Oils. (*Procédé pour faire sécher les huiles.*)

William N. Blakeman, Mount Vernon, New York, U.S.A., 27th September, 1894; 6 years.

Claim.—1st. The hereinbefore described process of imparting drying properties to oils, which consists in combining in chemical union with such oils, an absorbent or absorbents of carbon-dioxide, and then exposing the oil so treated to the presence of carbon-dioxide. 2nd. The process of imparting quick-drying properties to oils, which consists in first combining therewith alumina soap or other reagents basic to carbon-dioxide and adding reagents capable of absorbing carbon-dioxide. 3rd. The process of imparting drying properties to fatty oils consisting in incorporating with the oil, preferably cotton-seed oil, a metallic soap having an affinity for carbon-dioxide (pre-

ferably alumina soap), then adding a salt or salts having an affinity both for the oil and for carbon-dioxide (such as, preferably, basic acetate of lead) and then adding a salt capable of absorbing carbon-dioxide such as borate of magnesia, or other carbon-dioxide-absorbent-salt, the whole combined with or without the agency of heat. 4th. The process of treating drying-oils, consisting in first incorporating with the oil to be treated basic acetate of lead or an equivalent alkaline or basic element, and then incorporating with this mixture, a salt capable of absorbing carbon-dioxide, such as borate of magnesia or equivalent carbon-dioxide-absorbent. 5th. The process of imparting drying properties to oils, or hastening the drying action of the same, consisting in the first chemically combining with the oil an acidifying agent and then adding a carbonating agent. 6th. The hereinbefore described process of causing oils to absorb carbon dioxide, which consists in chemically combining with the oil an acidifying agent, and then adding an alkaline or basic agent capable of absorbing carbon-dioxide. 7th. The process of imparting drying properties to oils, or hastening the drying action of the same, consisting in first oxidizing the oil selected, by boiling it in mixture with an oxygen-carrier such as a metallic oxide or salt, and then adding an alkaline or basic agent capable of absorbing carbon-dioxide.

No. 47,112. Foot Wear. (*Chaussure.*)



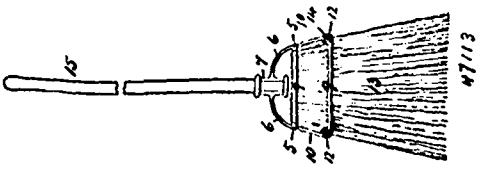
Charles L. Higgins, Montreal, Quebec, Canada, 28th September, 1894; 6 years.

Claim.—1st. In the manufacture of foot wear of the class described, first cutting the knitted leg portion, reinforcing the bottom edges of such knitted leg portions, connecting the lining of the rubber foot portion to the reinforced edge, and then securing such rubber foot portion to said lining. 2nd. A foot covering of the class described, composed of a knitted leg portion cut from knitted stock with reinforced bottom edge, and a rubber portion secured to said edge. 3rd. A foot covering of the class described, composed of a knitted leg portion with reinforced bottom edge, the lining for a rubber foot portion secured to said edge, and the rubber foot portion proper secured to said lining. 4th. A foot covering of the class described, composed of a leg portion cut from knitted stock having a reinforced bottom edge, and a rubber foot portion secured to said edge. 5th. A foot covering of the class described, composed of a leg portion cut from knitted stock, having a reinforced bottom edge secured by a tape binding fitting over the edge up each side of the leg portion, the lining for a rubber foot secured to said edge and the rubber foot portion secured to said lining. 6th. In a foot covering, the combination of the knitted leg portion *a*, reinforced bottom edge c^1, lining *d*, secured to such edge c^1, by stitching, and outer rubber foot portion *c*, substantially as and for the purpose set forth.

No. 47,113. Broom Head. (*Tête de balais.*)

Edward A. Watts, Ottawa, Ontario, Canada, 28th September, 1894; 6 years.

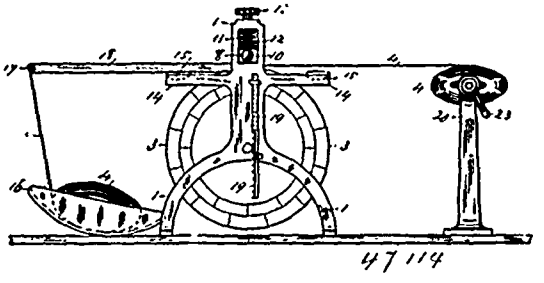
Claim.—1st. A broom head consisting of two skeleton sections, each having two parallel bars connected by end bars which are not parallel, and provided with bolt holes and nutted bolts at the corresponding corners of the longest side, one section having arms 4,



provided with hooked or notched ends, and said arms connected by an arched bar which includes a socket 7, for holding the handle of the broom, as set forth. 2nd. A broom head comprising a skeleton filling section having arms 4, hooked or notched at the ends, a clamping section corresponding to the filling section engaging said hooks and notches, and nutted bolts drawing said two sections together when filled with broom corn, whereby said bolts are exterior to said sections and outside the broom corn, as set forth.

No. 47,114. Machine for Measuring Cloth.

(*Machine à auner les draps.*)



J. Harvey Vanderburg'h, Winona, Ontario, Canada, 28th September, 1894; 6 years.

Claim.—1st. In a cloth measuring machine, the combination of the frames I, a measuring roll 3, journalled in said frames, said measuring roll being provided on its surface with a line for indicating the beginning of its rotation, a rachet-tooth 6, on one end of spindle of measuring roll, a dog 7, on the inner face of one of the frames and adjacent to said tooth 6, a register connected with said measuring roll for indicating the rotations thereof, a pressure roll 5, mounted above and contiguous to the measuring roll, said pressure roll journalled in boxes 10, in guides 11, a spring 12, a hand screw 13, capable of regulating the tension of the pressure roll 5, a covering of adhesive fabric material for the measuring and pressure rolls, the projecting arms 14, adapted to support the tension bars 15, extending bars 18, connected by rollers or bars 17, and a pan for holding material to be measured, substantially as described and for the purpose herein set forth. 2nd. In a cloth measuring machine, the two frames 1, having projecting arms 14, for supporting the tension bars 15, the guides 11, with boxes 10, and spring 12, the hand screw 13, the detachable bars 18, with rollers or bars 17, and a pan 16, for holding material in combination with the standards 20, supporting the rotary grips 21, provided with adjusting hand screw 22, and the the crank handle 23, substantially as described, and for the purpose herein set forth.

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

3608. JOHN H. DAY, 2nd five years of No. 32,316, from the 17th day of September, 1894. Improvements in Dry Flour Paste, 1st September, 1894.

3609. JOHN HERBY and MILO HARRIS, 2nd five years of No. 32,338, from the 18th day of September, 1894. Improvements in Farm Wagons, 1st September, 1894.

3610. ADAM H. EYSAMAN, 2nd five years of No. 32,172, from the 2nd day of September, 1894. Improvements on Whiffletree Snaps, 1st September, 1894.

3611. JOHN HEWTON, 2nd five years of No. 32,195, from the 3rd day of September, 1894. Improvements in Knitting Machines, 4th September, 1894.

3612. ALVA HILL TRAVER, 2nd five years of No. 32,538, from the 18th day of October, 1894. Improvements on Corsets, 4th September, 1894.

3613. ROBERT TORRANCE, 3rd five years of No. 20,130, from the 4th day of September, 1894. Improvements in Buggy or Carriage Gears, 4th September, 1894.

3614. ROBERT TORRANCE, 3rd five years of No. 20,131, from the 4th day of September, 1894. Improvements in Buggy or Carriage Gears, 4th September, 1894.

3615. ALEXANDER WILKIN, 2nd five years of No. 32,259, from the 14th day of September, 1894. Improvements on Potato Diggers, 4th September, 1894.

3616. E. W. B. SNIDER, 2nd five years of No. 32,464, from the 8th day of October, 1894. Improvements in Stove Drums or Heaters, 4th September, 1894.

3617. THE CANADIAN GENERAL ELECTRIC COMPANY (assignees) 2nd five years of No. 32,268, from the 16th day of September, 1894. Improvements in Electrical Measuring Instruments, 5th September, 1894.

3618. ARTHUR E. JONES, 2nd five years of No. 32,478, from 11th day of October, 1894. Improvements in Fire Escapes, 5th September, 1894.

3619. FRANCIS H. HYDE, 2nd five years of No. 32,227, from the 9th day of September, 1894. Improvements in Self Closing Water Taps, 5th September, 1894.

3620. THE INTERNATIONAL POSTAL SUPPLY CO., (assignees) 2nd five years of No. 32,247, from the 11th day of September, 1894. Improvements in Letter Post Marking and Cancelling Machines, 5th September, 1894.

3621. THE INTERNATIONAL POSTAL SUPPLY CO., (assignees) 2nd five years of No. 32,248, from the 11th day of September, 1894. Improvements in Machines for Separating and Feeding Letters, 5th September, 1894.

3622. THE INTERNATIONAL POSTAL SUPPLY CO., (assignees) 2nd five years of No. 32,367, from the 23rd day of September, 1894. Stamp Cancelling and Post Marking Machine, 5th September, 1894.

3623. FREDERICK Y. WOLSELEY, 2nd five years of No. 32,212, from the 9th day of September, 1894. Improved Flexible Driving Shaft, 6th September, 1894.

3624. WILLIAM C. MORRISON, 2nd five years of No. 32,203, from the 6th day of September, 1894. Improvements in Ballot Boxes, 6th September, 1894.

3625. THE WM. CANE & SONS MANUFACTURING CO., (assignees) 3rd five years of No. 20,191, from the 16th day of September, 1894. Improvements in Butter Tubs, 7th September, 1894.

3626. FRANCIS L. PERRY, 3rd five years of No. 20,156, from the 8th day of September, 1894. Improvements in Two Wheeled Vehicles, 7th September, 1894.

3627. J. O. ROBINSON AND J. H. McMECHAN, 2nd five years of No. 32,208, from the 9th day of September, 1894. Improvements in Lubricators, 8th September, 1894.

3628. JAMES W. ANDERSON, 2nd five years of No. 32,234, from the 9th day of September, 1894. Improvements on Force Pumps, 8th September, 1894.

3629. THOMAS M. MORTON, 2nd five years of No. 32,237, from the 9th day of September, 1894. Improvements in Car Heaters, 8th September, 1894.

3630. LOUIS DUNN, 2nd five years of No. 32,295, from the 17th day of September, 1894. Improvements in Safety Switches, 10th September, 1894.

3631. WILLIAM H. BECKS AND JOHN HASTIE, 2nd five years of No. 32,316, from the 19th day of September, 1894. Improvements in Bob Sleighs, 10th September, 1894.

3632. EDWARD E. GOLD, 2nd five years of No. 32,429, from the 3rd day of October, 1894. Improvement in Pipe Couplings for Railroad Cars, 10th September, 1864.

3633. JAMES D. STORIE, 2nd five years of No. 32,269, from the 16th day of September, 1894. Improvements in Feed Mechanism for Chain Link Machines, 11th September, 1894.

3634. C. T. RUSSELL and S. M. BOYD, 2nd five years of No. 32,254, from the 14th day of September, 1894. Improvements in the Process of Refining Oil, 12th September, 1894.

3635. FREDERICK KRANZ, 2nd five years of No. 32,279, from the 16th day of September, 1894. Improvements on Lime Kilns, 12th September, 1894.

3636. PIERRE MANHÈS, 3rd five years of No. 20,224, from the 19th day of September, 1894. Improvements in Converting Furnaces, 13th September, 1894.

3637. CARTER & COMPANY (assignees), 3rd five years of No. 20,235, from the 19th day of September, 1894. Machine for Numbering Paper, 14th September, 1894.

3638. F. H. WRIGHT, 2nd five years of No 32,630, from the 28th day of October, 1894. Improvements in Key Boards, 14th September, 1894.

3639. THE WM. A. FRASER WOOD MANUFACTURING COMPANY (assignees), 2nd five years of No. 32,267, from the 16th day of September 1894. Improvement in Burial Caskets, 15th September, 1894.

3640. JESSE M. SMITH, 3rd five years of No. 20,501, from the 4th day of November, 1894. Improvements in Governors for Steam Engines, 17th September, 1894.

3641. A. HARRIS, SON & COMPANY (assignees), 3rd five years of No. 20,256, from the 22nd day of September, 1894. Improvements on Harvester Binders, 17th September, 1894.

3642. THE MASSEY MANUFACTURING COMPANY (assignees), 3rd five years of No. 20,273, from the 26th day of September, 1894. Improvements in Mechanism for Knotting Grain Bands in the Automatic Grain Binders, 17th September, 1894.

3643. THE MASSEY MANUFACTURING COMPANY (assignees), 3rd five years of No. 20,274, from the 26th day of September, 1894. Improvements in Bundle Carriers for Harvesters, 17th September, 1894.

3644. THE MASSEY MANUFACTURING COMPANY (assignees) 3rd five years of No. 20,327, from the 1st day of October, 1894. Improvements in Automatic Grain Binders, 17th September, 1894.

3645. THE MASSEY-HARRIS CO. (assignees) 2nd five years of No. 32,326, from the 18th day of September, 1894. Improvements in Grain Drills, 17th September, 1894,

3646. H. DAVIS NORTHUP, 2nd five years of No. 32,347, from the 19th day of September, 1894. Improvements in combined Cock and Coupling for Barrels, 17th September, 1894.

3647. JOHN MILNE, 2nd five years of No. 32,354, from the 19th day of September, 1894. Improvements in Apparatus for recording the oscillations and vibrations of locomotives, rolling stock, various kinds of machinery and structures, 18th September, 1894.

3648. THE STRATFORD HEDGE FENCE COMPANY (assignees), 3rd five years of No. 20,561, from the 12th day of November, 1894. Implement for Driving Staples, 20th September, 1894.

3649. ALEXANDER W. LITTLE, 2nd five years of No. 32,378, from the 26th day of September, 1894. Swing. 20th September, 1894.

3650. JAMES G. CUTLER, 3rd five years of No. 20,238, from the 21st day of September, 1894. Improvements in Letter Box connections, 21st September, 1894.

3651. THE CONSOLIDATED CAR HEATING CO. (assignees) 2nd five years of No. 32,572, from the 21st day of October, 1894. Improvements in Car Couplers for Heating Purposes, 21st September, 1894.

3652. THE CONSOLIDATED CAR HEATING CO., (assignees) 2nd five years of No. 32,580, from the 24th day of October, 1894. Improvements in Car Couplers for Heating Purposes, 21st September, 1894.

3653. ERNST W. R. SCHROTER, 3rd five years of No. 20,620, from the 25th day of November, 1894. Medical Compound and the Process for Manufacturing the same, 21st September, 1894.

3654. WILLIAM J. COPP, 2nd five years of No. 32,373, from the 23rd day of September, 1894. Improvements in Hot Air Radiators, in combination with Hot Air Furnaces, 22nd September, 1894.

3655. FRED A. HOLCOMBE AND PERCY T. COOK, 2nd five years of No. 32,368, from the 23rd day of September, 1894. Improvements in Telephone Systems, 22nd September, 1894.

3656. THE PATENT NUT AND BOLT COMPANY (assignees), 3rd five years of No. 20,259, from the 24th day of September, 1894. Improvements in Nut Forging Machinery, 22nd September, 1894.

3657. THE UNION FURNITURE AND MERCHANDISE COMPANY (assignees), 2nd five years of No. 32,377, from the 26th day of September, 1894. Improvements in Baking Cabinets, 24th September, 1894.

3658. FREDERICK C. BROOKSBANK and JACOB B. PERKINS, 2nd five years of No. 32,589, from the 24th day of October, 1894. Improvements in Pneumatic Hammers, 24th September, 1894.

3659. ALEXANDER S. ELMORE, 2nd five years of No. 32,522, from the 15th day of October, 1894. Improvements in Electro-deposition of Metals and in apparatus used therein, 25th September, 1894.

3660. WILLIAM H. H. SISUM, 2nd five years of No. 32,518, from the 15th day of October, 1894. Improvements in Car Trucks, 26th September, 1894.

3661. M. C. BOOTH and J. O. PARKER, 3rd five years of No. 20,305, from the 30th day of September, 1894. Improvements in Baths, 27th September, 1894.

3662. GEORGE M. FORD, 2nd five years of No. 32,400, from the 1st day of October, 1894. Composition of Matter called Firimite Artificial Stone, 27th September, 1894.

3663. CHARLES BRODEUR and THEOPHILE LESSARD, 2nd five years of No. 32,395, from the 29th day of September, 1894. Spout for Eave Troughs, 29th September, 1894.

3664. ELIJAH HANEY, 2nd five years of No. 32,433, from the 3rd day of October, 1894. Improvements in School Desks and other Furniture, 29th September, 1894.

TRADE-MARKS

Registered during the month of September, 1894, at the Department of Agriculture—Copyright and Trade-Mark Branch.

5043. SARAH JANE WARRELL, of Parrsborough, N.S. A Medicinal Remedy for Erysipelas, 5th September, 1894.

5044. WOLFRED PHILIPPE NELSON, de Waterloo, Qué. Une Poudre de Condition, 6 septembre, 1894.

5045. ERIC MANN, of Montreal, Que. Hygienic Food known as Corean Bread, 6th September, 1894.

5046. JOSHUA BROTHERS, of Melbourne, Australia. Alcoholic Beverages and Wines, particularly Brandy, 8th September, 1894.

5047. LEVER BROTHERS, LIMITED, of Port Sunlight, near Birkenhead, Chester, England. Candles, Common Soap, Detergents, Matches, Starch, Blue and other preparations for laundry purposes, also perfumed soap, perfumery and other toilet preparations, 8th September, 1894.

5048. PURVIS M. LAWRASON, of London, Ont. Soap, 8th September, 1894.

5049. THE CANADA IRON FURNACE COMPANY, LD., of Montreal, Que. Mineral Water, 12th September, 1894.

5050. HENRY IEVERS, of Quebec, Que. A Dental Remedy, 14th September, 1894.

5051. FOWNES BROTHERS & COMPANY, of 71, 73 and 75 Gresham Street, London, England. Gloves, Cuffs and Mittens, 15th September, 1894.

5052. JOHN WALKER & SONS, LD., of London, England and Kilmarnock, Scotland. Whisky, 18th September, 1894.

5053. ROBERT HILLCOATS & SONS, of Glasgow, Scotland. Scotch Whisky, 18th September, 1894.

5054. LEON LA RUE, Jr., of Montreal, Que. Cut Tobacco, and Cigarettes, 19th September, 1894.

5055. D. RITCHIE & COMPANY, of Montreal, Que. Cigars, Cigarettes and Tobaccos of all kinds, 19th September, 1894.

5056. MACAIRE LAURIER, de Montréal, Qué. Une espèce de Vin, 19 septembre, 1894.

5057. WILLIAM WARD, London, Ont. Cigars, 20th September, 1894.

5058. J. L. PRESCOTT & CO., of North Berwick, State of Maine, U.S.A. Preparations for Polishing Stoves and similar articles, 24th September, 1894.

5059. THOMAS M. MORGAN, of Maisonneuve, County of Hochelaga, Que. Cement, 26th September, 1894.

5060. I. HARRIS & SON, of Montreal, Que. Cigars, 26th September, 1894.

5061. ROBERTS, SIMPSON & CO., of Halifax, N. S. Metals, in sheets, bars and pigs including tin plates 28th September, 1894.

COPYRIGHTS

Entered during the month of September, 1894, at the Department of Agriculture—Copyright and Trade-Mark Branch.

7554. TREATISE ON THE PATENT LAW OF THE DOMINION OF CANADA, by John Gibbs Ridout, Barrister, &c., Toronto, Ont., 1st September, 1894.

7555. CHAIR CATALOGUE. The James Hay Company, (Limited), Woodstock, Ont., 4th September, 1894.

7556. PETITE PEINTURE DE L'ANCIENNE EGLISE DE STE. ANNE DE BEAUPRE, par Agnès Barnard, Ste. Anne de Beaupré, Qué., 5 septembre, 1894.

7557. BELL TELEPHONE COMPANY OF CANADA, LD., LONDON EXCHANGE. SUBSCRIBERS' DIRECTORY. ONTARIO DEPARTMENT, AUGUST, 1894. The Bell Telephone Company of Canada, (Limited), Montreal, Que., 5th September, 1894.

7558. MAPLE LEAVES, 1894. CANADIAN HISTORY, LITERATURE, ORNITHOLOGY, by J. M. LeMoine, F.R.S.C., Sillery, Que., 5th September, 1894.

7559. GRAFTON'S WORD AND SENTENCE BOOK—A PRACTICAL SPELLER. F. E. Grafton & Sons, Montreal, Que., 7th September, 1894.

7560. RAPPORTS JUDICIAIRES REVISÉS DE LA PROVINCE DE QUÉBEC, par l'Hon. M. Mathieu. TOME VIII. Wilfrid John Wilson, Montréal, Qué., 7 septembre, 1894.

7561. RAPPORTS JUDICIAIRES REVISÉS DE LA PROVINCE DE QUÉBEC, par l'Hon. M. Mathieu. TOME IX. Wilfrid John Wilson, Montréal, Qué., 7 septembre, 1894.

7562. RAPPORTS JUDICIAIRES REVISÉS DE LA PROVINCE DE QUÉBEC, par l'Hon. M. Mathieu. TOME X. Wilfrid John Wilson, Montréal, Qué., 7 septembre, 1894.

7563. THE PUBLIC SCHOOL ARITHMETIC AND MENSURATION, by J. C. Glashan. Enlarged Edition. The Canada Publishing Co., Ld., Toronto, Ont., 10th September, 1894.

7564. THE VARSITY. New Round Dance, by Professor John F. Davis, Toronto, Ont., 11th September, 1894.

7565. COTTAM'S NEW ILLUSTRATED BOOK ON CAGE BIRDS. Bartholomew Cottam, London, Ont., 12th September, 1894.

7566. LOVELL'S MONTREAL CLASSIFIED BUSINESS DIRECTORY, 1894-'95. John Lovell & Son, Montreal, Que., 13th September, 1894.

7567. THE UNION CREDIT AND PROTECTIVE ASSOCIATION'S CONTRACT FOR COLLECTING (form). H. B. Andrews, Toronto, Ont., 13th September, 1894.

7568. LE RÈPERTOIRE DE LA REVUE LÉGALE, par J. J. Beauchamp, B.C.L., C.R. Whiteford & Theoret, Montréal, Qué., 13 septembre, 1894.

569. OUR LAND FOR CHRIST, by Eliza Wills, Toronto, Ont., 18th September, 1894.

7570. PINE-MALT. The New Remedy for all Bronchial and Lung Ailments (pamphlet). James T. H. McKay, Alvinston, Ont., 19th September, 1894.

7571. THE SAFETY TRADING SYSTEM AND AUTOMATIC ACCOUNT COLLECTOR. Arthur Gravelle, Renfrew, Ont., 19th September, 1894.

7572. SECRETS UNLOCKED. Jeremiah Mullen & Co. Ottawa, Ont., 19th September, 1894.

7573. TROLLEY CAR WALTZ. Composed by Albert E. Dion, Ottawa, Ont., 20th September, 1894.

7574. THE SHRINE OF THE MIRACLES, or ST. ANNE DE BEAUPRÉ, which is now being preliminarily published in the "Montreal Herald," of Montreal, Que. Temporary Copyright. The Montreal Herald Co., Montreal, Quebec, 20th September, 1894.

7575 CHRISTIAN ENDEAVOUR HYMNS, by Ira D. Sankey. The Copp, Clark Co., Ld., Toronto, Ont., 22nd September, 1894.

7576. THE 400 SELECT, Waltzes. By J. Turner Gillard. Whaley, Royce & Co., Toronto, Ont., 22nd September, 1894.

7577. HARRISON'S RAPID CALCULATOR FOR DAIRY PATRONS AND CHEESE FACTORIES. T. Wilson Harrison, Cressy, Ont., 24th September, 1894.

7578. TORONTO: AS SEEN FROM THE STREET CARS. A TOUR BY TROLLEY. Charles E. A. CARR, Toronto, Ont., 24th September, 1894.

7579. C. W. IRWIN'S HAND BOOK TO THE CANADA TARIFF AND RESUME OF ONTARIO COMMERCIAL LAW, 1894. Charles Warren Irwin, Toronto, Ont., 24th September, 1894.

7580. L'INTENDANT FRANÇOIS BIGOT. Roman actuellement en voie de publication par articles dans le journal "Le Temps," publié à Ottawa, Ont. Joseph Marmette, Ottawa, Ont., 24 Septembre, 1894. (Droit Temporaire d'Auteur.)

7581. LADIES AND GENTS' POCKET BENEFIT CARD. F. J. Higley Barrie, County of Simcoe, Ont., 26th September, 1894.

7582. BLUE EYED MAY. Waltz Song. Words and music by John N. F. Hillman. Whaley, Royce & Co., Toronto, Ont., 26th September, 1894.

7583. SUMMER SHADOWS SCHOTTISCHE. By Felix Burns. Patey & Willis, of London, England, 26th September, 1894.

7584. EN FETE, March in G., by Felix Burns. Patey & Willis, of London, England, 26th September, 1894.

7585. THE HIGH SCHOOL DRAWING COURSE. By A. C. Casselman. Books 1 and 2. The Canada Publishing Company, Ld., Toronto, Ont., 27th September, 1894.

7586. LESSONS IN LITERATURE FOR ENTRANCE EXAMINATIONS, 1895. Third Series. Edited by F. H. Sykes, M.A., Ph.D. The Canada Publishing Co., Ld., Toronto, Ont., 27th September, 1894.

7587. MARCHING! Song. Words by G. Clifton Bingham. Music by H. Trotère. The Anglo-Canadian Music Publishers' Association, Ld., London, England, 27th September, 1894.

7588. LA BELLE CANADIENNE. New Dance by W. Braybrooke Bailey. Easy arrangement. A. & S. Nordheimer, Toronto, Ont., 27th September, 1894.

7589. LA BELLE CANADIENNE. New Dance by W. Braybrooke Bailey, Pianoforte Duet. A. & S. Nordheimer, Toronto, Ont., 27th September, 1894.

7590. ONE SWEETLY SOLEMN THOUGHT. Sacred Song. Music by R. S. Ambrose. Easy Arrangement. A. & S. Nordheimer, Toronto, Ont., 27th September, 1894.

7591. ONE SWEETLY SOLEMN THOUGHT. Sacred Song. Music by R. S. Ambrose. Pianoforte Duet. A. & S. Nordheimer, Toronto, Ont., 27th September, 1894.

7592. LETTER FOR COLLECTING ACCOUNTS. H. B. Andrews, Toronto, Ont., 27th September, 1894.

7593. SERENADE. Pour Piano par C. Chaminade. Op. 29. The Anglo-Canadian Music Publishers' Association, Ld., London, England, 29th September, 1894.

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