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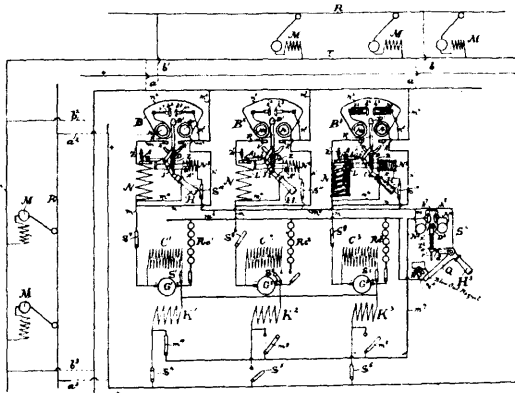
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INVENTIONS PATENTED.

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

No. 55,120. Electric Circuit Controller. (Contrôleur de circuit électrique.)



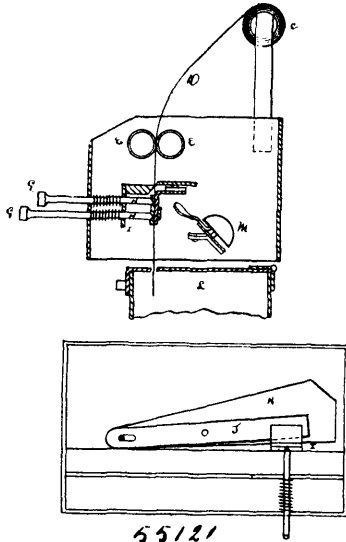
The Canadian General Electric Company, Toronto, Ontario, Canada assignee of William B. Potter, Schenectady, New York, U.S.A., 1st March, 1897; 6 years. (Filed 10th January, 1896.)

Claim.—1st. A plurality of dynamo-electric machines each provided with a circuit controller, and a series of electro-magnetic resetting devices for such circuit controllers actuated by a common circuit. 2nd. In a system of electric distribution, the combination, with a plurality of dynamo-electric machines, of electrically operated circuit-controlling switches, one in the circuit of each machine, magnets adapted to operate said switches having coils connected to a common controlling circuit, a switch adapted to control such common circuit and switches arranged to connect any of such magnets in a local controlling circuit at will. 3rd. In a system of electric distribution, the combination, with a dynamo electric generator, of a circuit controller adapted to connect such generator in a work circuit or disconnect it therefrom, such controller comprising a coil carrying the main current and adapted to open the circuit of the generator upon the flow of abnormal current therein, a magnet arranged to operate the circuit controller and close the circuit of such generator, a retractive device opposing the pull of the magnet, and an electric switch in the circuit of such magnet. 4th. The combination of a coil conveying the main current, mechanism controlled thereby adapted to open a main circuit switch, a magnet arranged

to close such switch and actuated by the magnet adapted to engage the releasing mechanism when the switch is closed. 5th. In an electric circuit controller, a main switch, an auxiliary switch in shunt thereto provided with a magnetic arc-disrupter and arranged to open after the main switch by the same movement of the operating handle, and a coil in series in the main circuit adapted to open the switch by the passage of abnormal current, substantially as described herein. 6th. In an electric circuit controller, switching apparatus adapted to open the circuit, a series coil in the main circuit, an armature attracted by the coil and adapted to release the switching mechanism, and an adjustable spring arranged to vary the pull upon the armature, whereby the effect of the series coil may be predetermined and the circuit may be opened by a definite excess of current. 7th. In an electric circuit controller, a switching mechanism adapted to open the main circuit, a series coil adapted to actuate such switching mechanism, an armature actuated by such series coil against the pull of an adjustable spring, an index connected to such spring and reciprocating over a scale, substantially as herein described, whereby the switching mechanism may be released upon a previously determined excess of current. 8th. In an electric circuit controller, switching mechanism adapted to open the main circuit, a series coil in such main circuit, an armature actuated by such series coil and carrying a detent lever adjustable toward or away from such armature and engaging with a lug arranged to prevent the operation of the switch, whereby the adjustment of the detent lever may be made more or less delicate, as required. 9th. A circuit-controlling mechanism comprising a main switch carried upon the same rod with an auxiliary switch in shunt thereto and arranged to break contact before such auxiliary switch, the auxiliary switch being provided with an arc-disrupter and removable contacts. 10th. An electric circuit controller, comprising a main switch carried upon the same rod with an auxiliary switch in shunt thereto and arranged to open before such auxiliary switch, the rod being operated by a spring adapted to open the contacts and by a toggle adapted to close such contacts, the toggle being connected to an electro-magnetically operated apparatus. 11th. In a circuit-controlling apparatus, the combination of a main switch comprising contact terminals and a bridge adapted to make sliding contact therewith, an auxiliary switch in shunt to such main switch, and provided with an arc-disrupting device, the main switch being adapted to open before the auxiliary switch and the two switches being carried upon the same rod, a spring adapted to open such switches, and a detent actuated by a series coil in the main circuit arranged to hold the switches closed until a predetermined excess of current in the series coil releases the detent and opens the circuit. 12th. In an electric circuit controller, a main switch comprising contacts and a flexible bridging piece operated by a toggle connected to an electro-magnetic apparatus, whereby the contact of the bridging piece is affected at the point of the greatest power of the toggle when the electro-magnetic apparatus is also in position to exert the greatest pull. 13th. In a system of electric distribution, a switch provided with double contact blades, separate circuits running to such blades, one of such circuits taking current through a resistance and the other circuit arranged to momentarily pass full current, substantially as herein set out. 14th. In a system of electric distribution, a plurality of generators provided with circuit-controlling switches adapted to be closed by electro-magnetic mechanisms and a switch, substantially as herein described, adapted to pass current through a resistance in series with such electro-magnetic switch-closing mechanism and then to momentarily pass the full current therethrough. 15th. In a system of electric distribution, a plurality of generators provided with circuit controllers adapted to be closed by electro-magnetic mechanisms, multiple circuits passing from the generators to such mechanism, one of such circuits including resistances and the other carrying the full current and a switch adapted to close

such circuits successively and by a further movement to suddenly break the circuit carrying the full current. 16th. A switching mechanism provided with double contacts, one of such contacts arranged to carry the current from a circuit including a resistance and the second contact arranged to make, and by a further movement of the switch handle to break a circuit carrying full current, substantially as set out and described herein.

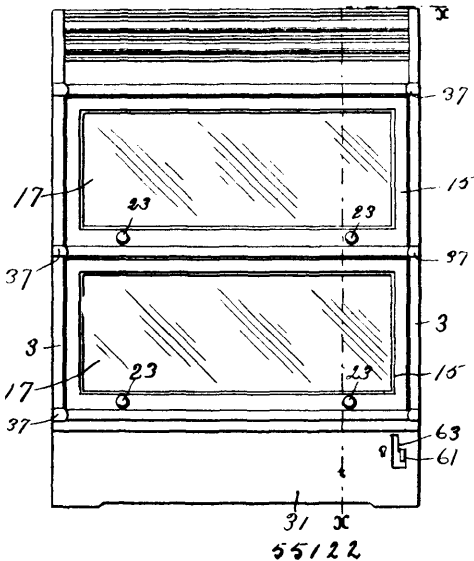
No. 55,121. Ballot Box. (*Urne de scrutin.*)



Joseph James Philip, Winnipeg, Manitoba, 1st March, 1897; 6 years. (Filed 14th October, 1896.)

Claim.—1st. The combination of rollers C and EE and the ballot paper D to the punches HH, substantially as and for the purpose as hereinbefore set forth. 2nd. The combination of the knife K and the feeding rollers C and EE and the ballot paper D and the lever J and the bell M, substantially as and for the purpose as hereinbefore set forth.

No. 55,122. Book-case. (*Bibliothèque.*)



Otto Heinrich Louis Wernicke, Minneapolis, Minnesota, U.S.A., 1st March, 1897; 6 years. (Filed 29th September, 1896.)

Claim.—1st. A case for holding books or other articles, comprising a series of boxes or crates, adapted to be arranged one upon top of another, and means for locking said crates together, each of said crates being provided with a door hinged at its upper edge and arranged to be turned down to close the front of the crate, or to be turned into a horizontal position and pushed back under the top of the crate. 2nd. The crates or sections, each having its bottom composed of independent longitudinal strips with a space between them, and with a thin pad arranged over said strips, and its top provided with a longitudinal strip adapted to fit into the space between the two longitudinal strips upon the bottom of another section. 3rd. A section or crate, provided with a folding removable back, folding

ends, a hinged top, and a removable door hinged at its upper edge to the ends of the crate and adapted to be swung down over the front of the crate or to be turned into a horizontal position and pushed back under the top. 4th. The finishing crates 35 arranged upon the ends of the crates, and having dove-tailed recesses and projections for interlocking with each other. 5th. The book case, comprising the separate crates or boxes, adapted to be piled one upon another, and each having a door hinged at its upper edge, locks for said doors, and means for simultaneously operating all of said locks. 6th. The combination, with the crate or section, provided with the door hinged at its upper edge to the ends of the section, and having lugs 47, with pivoted levers 41 and the sliding bars 59 for operating said levers. 7th. The box or crate, having its front bottom strips 7 provided with the curved recesses 27 and with the felt strip 29 and the door hinged by hooks 19 upon the pins 21. 8th. The combination, with the series of crates, means for securing the crates one upon top of another, means for securing the butting ends of the crates together, locks upon each of said crates, and means for connecting all of said locks whereby the same may be simultaneously operated.

No. 55,123. Electrode for Secondary Voltaic Batteries. (*Electrode pour batteries voltaïques secondaires.*)

FIG. 1.

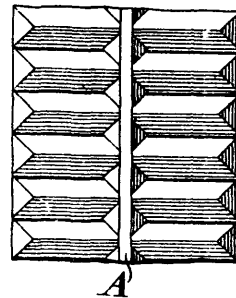
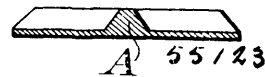


FIG. 2.



George Annesley Grindle, Addiscombe, Prestwich, Lancaster, England, 1st March, 1897; 6 years. (Filed 13th October, 1896.)

Claim.—For filling the holes of an electrode plate for a secondary voltaic battery, plugs each consisting of a rolled up strip of lead, having on its one side transverse ridges and furrows, all the ridges being connected by a central longitudinal ridge, substantially as and for the purpose set forth.

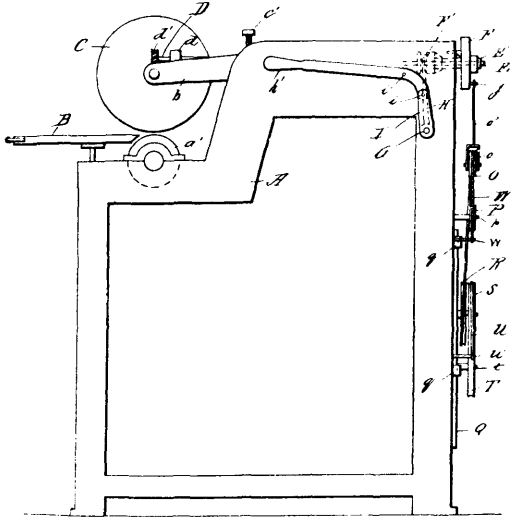
No. 55,124. Leather Measuring Machine.

(*Machine à mesurer le cuir.*)

Jean Baptiste Edmond Rousseau and Joseph Boulet, both of Quebec, Quebec, Canada, 1st March, 1897; 6 years. (Filed 31st October, 1896.)

Claim.—1st. In a measuring machine, the combination, with a pivoted frame, and a roller journaled in the free end thereof, of a crank-plate for actuating the indicator mechanism, and intermediate driving devices operatively connecting the said crank-plate with the said roller, substantially as set forth. 2nd. In a measuring machine, the combination, with a pivoted frame, and a roller and a worm secured and journaled in the free end thereof, of a crank-plate for actuating the indicator mechanism, a worm wheel gearing into the said worm, and driving connections between the said crank-plate and worm wheel, substantially as set forth. 3rd. In a measuring machine, the combination, with a pivoted frame, and a roller and worm secured together and journaled in the free end thereof, of a shaft D, journaled in the said frame, a worm wheel secured on the said shaft and gearing into the said worm, a shaft E, journaled in stationary bearings, a crank plate carried by the shaft E and affording a means for actuating the indicator mechanism, and a universal coupling connecting the adjacent ends of the shafts D and E, substantially as set forth. 4th. In a measuring machine, the combination, with a shaft provided with means for revolving it, of a crank plate for operating the indicator mechanism, a clutch sleeve secured to the said shaft, and a spring-pressed pawl pivoted to the said crank plate and engaging with the said clutch sleeves, substantially as set forth. 5th. In a measuring machine, the combination, with a shaft provided with a means for revolving it, of a crank plate for operating the indicator mechanism, a clutch sleeve secured to the said shaft, a spring pressed pawl pivoted to the said crank plate and provided with an inclined shoulder, and a slidable sleeve mounted on the said shaft and provided with a bevelled shoulder for

moving the said pawl out of engagement with the clutch sleeve, substantially as set forth. 6th. In a measuring maching, the combina-



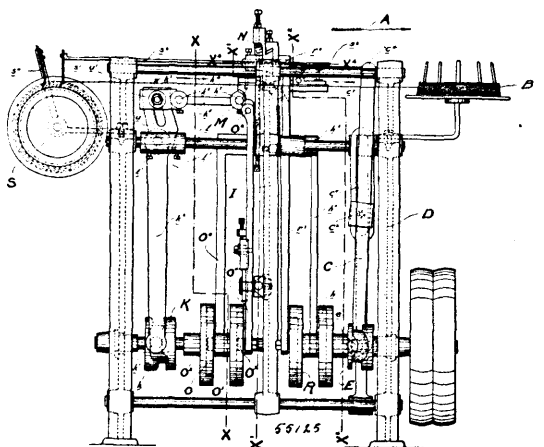
tion, with a series of shafts, each provided with separate means for revolving it, of crank plates carried by the said shafts, clutch and pawl mechanism operatively connecting the crank plates with the respective shafts, sleeves slidable on the said shafts and operating to disconnect the said pawls, and a single rock-shaft provided with levers engaging with the said sleeves whereby they are operated simultaneously, substantially as set forth. 7th. In a measuring machine, the combination, with an indicator provided with a revoluble pointer, and a worm wheel connected with the said pointer, of a worm gearing into the said worm wheel, an endless flexible connection for turning the said worm, and means for supporting the said connection and keeping it taut, substantially as set forth. 8th. In a measuring machine, the combination, with a series of vertically movable rollers for bearing on the leather, of a series of crank plates, each operatively connected with one of the said rollers, an indicator, and intermediate driving mechanism, positively connecting all the said crank plates with the said indicator and operating to transmit to it the sum of the movements of the said crank plates, substantially as set forth. 9th. In a measuring machine, the combination, with a series of vertically movable rollers for bearing on the leather, of a series of crank plates, each operatively connected with one of the said rollers, an indicator, a series of sheaves O, each suspended from one of the said crank plates, a series of stationary sheaves P, stationary sheaves T, vertically slidable sheaves R and S, journalled concentric with each other in pairs, a flexible connection W, passing over the sheaves O, and under the sheaves P and R, and a flexible connection U, passing over the sheaves S, and under the sheaves T, and operatively connected with the said indicator, substantially as set forth. 10th. In a measuring machine, the combination, with a series of revoluble crank plates, of a series of sheaves O, each suspended from one of the said crank plates, an indicator, a series of stationary sheaves P, stationary sheaves T, vertically slidable bars, guides for the said bars, sheaves R and S, journalled in pairs on pins projecting from the said bars, a flexible connection W, passing over the sheaves O, and under the sheaves P and R, and a flexible connection U, passing over the sheaves S, and under the sheaves T and operatively connected with the said indicator, substantially as set forth.

No. 55,125. Machine for Making Wire Nails.
(Machine pour faire du clou de fil de fer.)

Isaïe Fréchette, Montreal, Quebec, Canada, 1st March, 1897; 6 years. (Filed 16th November, 1896.)

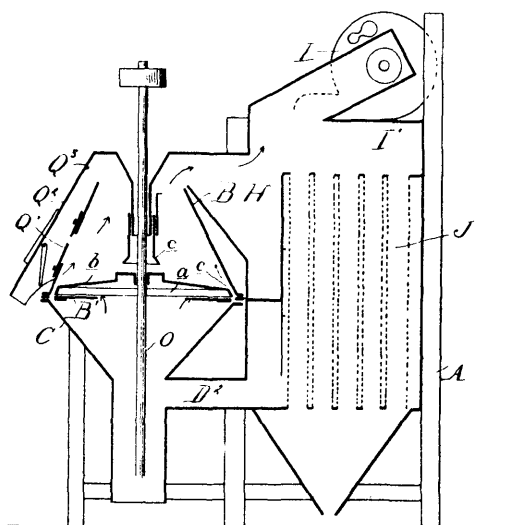
Claim.—1st. In a machine for making endless wire nails, a feeding device composed of a cross-head, provided on its upper surface with a grooved block for the passage of the wire, the said cross-head working back and forth in guides, and on to which is a pivoted rocking or oscillating clamping head, means for actuating the said cross-head and clamp, and means for regulating the feed, substantially as described and for the purposes set forth. 2nd. In a machine for making endless wire nails, a clamping device for holding the wire steady between the cutter and the feeding cross-head, and composed of a block secured to the frame of the machine, having a groove or channel for the passage of the wire, and into which is inserted a clamping piece or plate, secured to the head of an arm, pivoted to the frame of the machine, and means for operating the arm holding the clamping plate, substantially as described and for the purposes set forth. 3rd. In a machine for making endless wire nails, a clamping device for securing the wire on the far side of the cutter, and composed of two clamping pieces whose inward ends

are provided with depressions which overlap the wire where they are brought into contact and completely embrace it, the aforesaid



clamping pieces being each secured to the upper ends of separate arms or clamp holders, forming a pair of pincers that can be closed or opened, and that can also swing longitudinally with the wire; means for opening and closing these pincers, means for swinging them longitudinally with the wire, means to regulate the spacing and adjustment of the clamping pieces, means to regulate the length of the longitudinal swing, all substantially as described and for the purposes set forth. 4th. In a machine for making endless wire nails, a point making device, composed of a cutter secured to a head having a transversal movement to the wire, a piece on to which the cutting end of the cutter slides and which is provided with a groove into which passes the wire, means for operating the cutter, and means for adjusting and securing both the cutter and the pieces on to which it slides, substantially as described and for the purposes set forth. 5th. In a machine for making endless wire nails, a headmaking device, composed of a cutter securely holding down the wire on the piece on which it slides, and a clamping device placed on the far side of the cutter that clamps the wire a certain distance from the cutter, and then approaches the latter, raising a circumferential burr of metal before it, and which it flattens up against the cutter, thus producing a head resembling an ordinary tack head, substantially as described and for the purposes set forth. 6th. In a machine for making endless wire nails, the combination of a feed device that clamps the wire, and a cutter that forms the point of the nail, with a headmaking device, substantially as described and for the purposes set forth. 7th. In a machine for making endless wire nails, the combination of a cutter that firmly holds the point of the nail, with a headmaking device, all substantially as described and for the purposes set forth.

No. 55,126. Separator. (Séparateur.)



Orville Marion Morse, Jackson, Michigan, U.S.A., 1st March 1897; 6 years. (Filed 22nd October, 1891.)

Claim.—1st. The herein described method of purifying grain or grain products, which consists in separating the heavy dust from

the material by centrifugal force, removing the lighter dust with the air current, and finally purifying the dust-laden air, substantially as described. 2nd. The combination of a casing having air inlet and exit at opposite ends, devices for producing a spiral movement of the air within the casing, a cut-off inside of the casing, and a feed for delivering the material into the air current, substantially as described. 3rd. The combination of a casing having an inlet and exit at opposite ends, a partially closed bottom, a fan near the lower end, an open top, a feed for delivering the material into air current in the casing and cut-off in the side of the casing, substantially as described. 4th. The combination of a tapering casing having an inlet and exit, a partially closed bottom, a fan near the bottom having an imperforate top extending to near the side of the casing, an open top for the casing, and a feed for delivering the material into the casing, substantially as described. 5th. The combination of a tapering casing having air inlet and exit, an annular bottom, an open top, a fan above the bottom, a covering for the fan, and central feed tube for delivering the material upon the fan covering, substantially as described. 6th. In a centrifugal separator, having exit and inlet at opposite ends of the separator casing, and devices for producing a spiral movement of the air from the inlet to the exit, a diaphragm serving to form a restricted air passage around the wall of the separator chamber, and a feed for delivering the material into or across this passage. 7th. In a centrifugal separator having inlet and exit at opposite ends of the separator casing, and devices for producing a spiral movement of the air from the inlet to the exit, a diaphragm serving to form a restricted air passage around the wall of the separator chamber, a feed for delivering the material into or across this passage, and a fan for drawing the dust-laden air from the exit of the separator casing. 8th. In a centrifugal separator, having inlet and exit at opposite ends of the separator casing, and devices for producing a spiral movement of the air from the inlet to the exit, a diaphragm serving to form a restricted air passage around the wall of the separator chamber, a feed for delivering the material into or across this passage, and a fan having its suction side connected to the exit from the separating casing and its discharge to the dust collector. 9th. The combination with a centrifugal separator casing, of a fan having its suction side connected to the exit therefrom, substantially as described. 10th. The combination with a centrifugal separator casing, devices for forming a spiral circulation of the air under pressure through the casing, and a fan having its suction side connected to the exit therefrom. 11th. The combination with a centrifugal separator casing, a diaphragm therein forming an annular air passage near the inlet end thereof, a fan below said diaphragm, a fan having its suction side connected to the exit from the separator casing, and feed above the diaphragm, substantially as described. 12th. The combination of the tapering casing, having a free exit at the small end, of a ring-shaped bottom, a diaphragm above the bottom and a fan between, a feed above the diaphragm and discharge apertures through the ring-shaped bottom, substantially as described. 13th. In a centrifugal separator of the kind described, the ring-shaped bottom, and the tangential feed grooves C' therein, substantially as described. 14th. In a centrifugal separator of the kind described, the ring-shaped bottom B', the ring B², extending inwardly from the ring B', on top thereof, and the grooves B³ in the ring B', discharging under the ring B², substantially as described. 15th. The combination with a centrifugal separator, substantially as described, a dust collector, and a trunk forming a free exit from the separator chamber leading to the dust collector, substantially as described. 16th. The combination of a centrifugal separator having air inlet and exit at opposite ends, devices for producing a spiral movement of the air from the inlet to the outlet, and a fan having its suction side connected to the said outlet, and its discharge side to a dust collector, substantially as described. 17th. The combination of a centrifugal separator, having air inlet and exit at opposite ends, devices for producing a spiral movement of the air from the inlet to the outlet, a fan having its suction side connected to the outlet and its discharge to a dust collector, and a trunk connecting the inlet to the separator chamber with the purified air chamber of the dust collector, substantially as described. 18th. In a centrifugal separator of the kind described, devices for imparting a spiral movement of the air through a tapering casing, of a cut-off in the casing, and gates adapted to adjust the size or height of the cut-off opening, substantially as described.

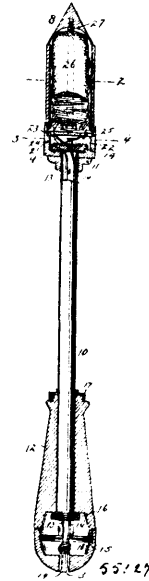
No. 55,127. Electric Soldering Iron.

(Machine électrique à souder.)

William Henry Osborne, Prince's Bay, and George R. Meitzler Chicago, Illinois, both in the U.S.A., 1st March, 1897; 6 years. (Filed 7th May, 1896.)

Claim.—1st. In an electrically heated soldering iron adapted to receive current carrying conductors and having a hollow soldering head, the combination of a heating core enclosed within the latter, consisting substantially of layers of wire of high resistance, forming part of the current carrying circuit supported and inclosed by a heat absorbing and conveying mass consisting substantially of calcined powdered soapstone with a small percentage of lamp-black held together by a suitable binder in which mass the resistance wire is embedded while in its plastic state, said mass also supporting the individual layers or bights of the wire in position with reference to the

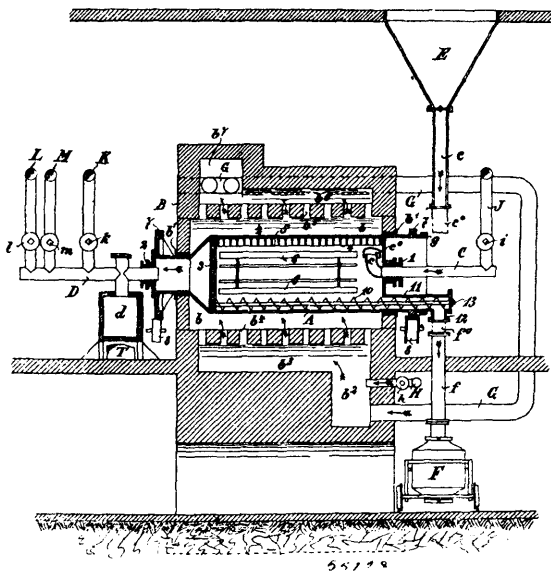
adjoining ones and insulating them from each other. 2nd. In an electrically heated soldering iron adapted to receive current carry-



ing conductors and having a hollow head, the combination of an iron heat transmitting core 27 affixed centrally within the interior of the head, back of the point and with its other free end extending inwardly a hollow heating core 26, consisting substantially of insulating layers of wire of high resistance which form a part of the current carrying circuit, said heating core occupying the interior of the hollow soldering head and surrounding loosely the iron core 27, with an air space between them. 3rd. In an electrically heated soldering iron, the combination of a removable hollow soldering head, a heating core for it consisting substantially of insulated layers of wire of high resistance, formed out of one continuous piece, the ends of which protrude at the open end of the soldering head where they are provided with contact pieces, a hollow shank 10, adapted to receive the soldering head and carrying current conveying wires, the ends of which protrude at the open end of the shank where they are also provided with contact pieces, all of which latter are so placed with reference to each other, that when the head is connected to the shank, these contact pieces meet and establish a complete electrical circuit. 4th. In an electrically heated soldering iron, the combination of shank 10, adapted to receive a soldering head and carrying wires forming electrical conductors, the end of which protrude out the hollow shank, a disc 19, of insulating material thereat through which these protruding wire ends pass, a ring 21 and a central plug 22, both forming conductors embedded in disc 19, and to each of which one of the wire ends connects, a hollow soldering head adapted to be connected to shank 10, a heating core within it, consisting substantially of insulated wire of high resistance, a disc 23 of insulating material which receives the ends of the resistance wire which pass therethrough, tongues 24, 25 forming conductors to which said ends connect, said tongues secured to disc 23 in a position that when this latter is brought opposite disc 19, during the connection of the head to the shank, one of them will come in contact with ring 21 while the other tongue comes in contact with plug 22, whereby the electrical circuit through the tool is completed. 5th. In an electrically heated soldering iron, the combination of a hollow soldering head, a heating core therein consisting substantially of insulated wire of high resistance, the ends of which terminate at the open end of the soldering head where they are provided with contact pieces, a hollow shank 10, provided with a screw-threaded socket 9, which is adapted to receive the soldering head, current carrying conductors passing through the hollow shank, their ends terminating in socket 9, where they are provided with contact pieces, all of these latter so placed, that when the soldering head is screwed into socket 9, they complete the electrical circuit. 6th. In an electrically heated soldering iron, the combination of a soldering head, provided with a heating core, a hollow shank with a hollow handle thereon, a removable perforated cap 15, on the end of the latter, current carrying-wires passing through shank and handle, knotted at 18, within the latter, such knot being larger than the perforation through cap 15, to prevent exterior strains on the wires from being transmitted to their interior connections. 7th. In an electrically heated soldering iron, the combination of a soldering head, a heating core for it, a hollow shank carrying electric conductors and provided with a shoulder 17, a hollow handle on the shank, a nut 16 on the latter and within the hollow part of the handle whereby this latter in conjunction with shoulder 17 is held and confined in position on the shank. 8th. In combination with an electrically heated soldering iron, having a soldering head with a heating core for it and a hollow shank and handle, a solder-supply-

ing attachment adapted to carry a rolled strip of solder, a snout 32, for guiding the latter to the point where it is to be used, a feed-mechanism for moving the solder, a hooked rod 36, provided with an armature and supported in guides in a manner to confine it to a longitudinal movement, a magnet opposite the armature, a spring for holding them normally separated, an electric circuit, and a switch whereby the magnet may be made to form a part of said circuit to render it active to attract the armature for the purpose of reciprocating rod 36, to operate the feed mechanism which moves the solder.

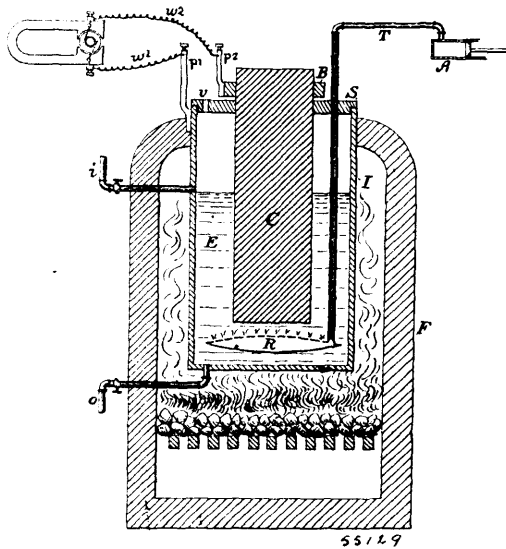
No. 55,128. Ammonia Extracting Apparatus.
(Appareil à extraire l'ammoniaque.)



Christian Fellner, Frankfort, Prussia, Germany, 1st March, 1897; 6 years. (Filed 8th May, 1896.)

Claim.—1st. An apparatus for treating nitrogenous substances, comprising an oven, a closed retort rotating within the heating space of such oven, an inlet pipe and a protecting cap for the inner end of said pipe within the retort, substantially as described. 2nd. An apparatus for treating nitrogenous substances, comprising an oven, a closed retort rotating within the heating space of such oven, an inlet pipe and an outlet pipe and a filter or screen for the mouth of the outlet pipe, substantially as described. 3rd. An apparatus for treating nitrogenous substances, comprising an oven, a rotating retort, an inlet pipe, an outlet and a dust collector in connection with the outlet, substantially as described. 4th. An apparatus for treating nitrogenous substances, comprising an oven, a rotating retort, an inlet pipe, an outlet and a dust collector comprising a water receptacle, a partition and diaphragm, substantially as described. 5th. An apparatus for treating nitrogenous substances, comprising an oven, a rotating retort, an inlet pipe, an outlet and a dust collector comprising a water receptacle, a partition and diaphragm, and an overflow for said receptacle, substantially as described. 6th. An apparatus for treating nitrogenous substances, comprising an oven, a retort and a feeding screw in said retort extending outside the same within a casing and a socket in said casing for feeding or discharging the material, substantially as described. 7th. A series or battery of ovens and retorts, steam, gas and air pipes, with connections to each oven or retort, discharge pipes for the products with connections to each retort, a series of passages between the ovens and retorts of the series with suitable valves whereby the waste gases of one retort may serve for heating others of the series, and one or more of the retorts may be cut out, and pipes Q between the discharge pipes D of the retorts and the inlet pipes of the adjacent retort, substantially as described. 8th. A battery of ovens and retorts adapted for a continuous operation, each retort having an inlet and outlet tube, said retort being connected by valved pipes and the conduits A and Q, so that a drying process can occur in one or more retorts at the same time while the distilling process occurs in another of the retorts, and a graduated steaming process in one or more retorts while the steam produced by the drying process can be used for the steaming process, and the waste gases of each retort serve for heating other retorts, while in case of a graduated steaming process the outlet pipe D of each retort is connected by means of a pipe with the steam inlet tube of the next following retort with the object of effecting the steaming process in such a manner that only the retort which is in the last stage of the steaming process will be heated by the overheated steam, while the steaming in the previous retorts is effected gradually by the mixture of steam, water, gas and ammonia, substantially as described.

No. 55,129. Electric Power Converter.
(Convertisseur électrique de la force.)



William W. Jacques, Newton, Massachusetts, U.S.A., 1st March, 1897; 18 years. (Filed 21st May, 1896.)

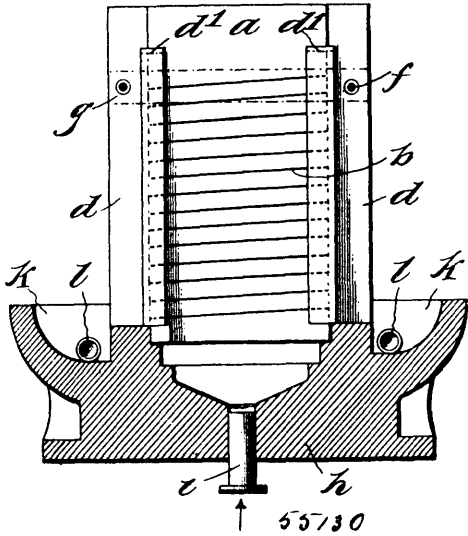
Claim.—1st. The method of converting the potential energy of carbon or carbonaceous material into electrical energy, which consists in chemically combining oxygen with said carbon or carbonaceous materials through an intervening electrolyte. 2nd. The method of converting the potential energy of carbon or carbonaceous materials into electrical energy, which consists in chemically combining oxygen with said carbon or carbonaceous materials by impregnating an intervening electrolyte with an excess of oxygen. 3rd. The method of converting the potential energy of carbon or carbonaceous materials into electrical energy, which consists in chemically combining oxygen with said carbon or carbonaceous materials by impregnating an intervening electrolyte with air. 4th. The method of converting the potential energy of carbon or carbonaceous materials into electrical energy, which consists in chemically combining oxygen with said carbon or carbonaceous materials by impregnating a molten basic electrolyte with oxygen or air and collecting the electricity from the electrolyte by an electrode not chemically acted upon by said impregnated electrolyte when the circuit is completed. 5th. The herein-described process of generating electricity through the combination of oxygen with carbon by supplying a blast of oxygen or air to a carbon electrode through an electrolyte. 6th. The herein-described process of generating electricity through the combination of oxygen with carbon which consists in supplying a blast of air to a carbon electrode through molten sodium or potassium hydrate. 7th. As a generator of electricity by the chemical combination of carbon with oxygen, an oxidizable electrode of carbon or carbonaceous material, an electrolyte continuously impregnated with oxygen and a collecting-electrode not chemically acted upon by said impregnated electrolyte when the circuit is completed. 8th. As a generator of electricity by the chemical combination of carbon with oxygen, an oxidizable electrode of carbon or carbonaceous material, a molten basic electrolyte continuously impregnated with oxygen or air, a collecting-electrode not chemically acted upon by said impregnated electrolyte when the circuit is completed, a containing-vessel of iron, and means for maintaining the electrolyte in a molten condition. 9th. As a generator of electricity by the chemical combination of carbon with the oxygen of the air, an oxidizable electrode of carbon or carbonaceous material, an electrolyte of molten sodium or potassium hydrate continuously impregnated with oxygen by a blast of air, a collecting-electrode not chemically acted upon by said impregnated electrolyte when the circuit is completed, a containing-vessel of iron, and means for maintaining the electrolyte in a molten condition.

No. 55,130. Electrode for Electrolytic Apparatus.
(Electrode pour appareil électrolytique.)

Dr. Carl Kellner, Vienna, Empire of Austria-Hungary, 1st March, 1897; 6 years. (Filed 24th July, 1896.)

Claim.—1st. Electrodes for using high tension currents, consisting of a carrier or support of insulating material to which is fastened pieces of platinum at such intervals that the lines of force radiating from each platinum part toward the next adjacent electrode do not cross one another, for the purpose described. 2nd. Electrodes for using high tension currents, consisting of a long platinum wire which is wound around a plate of insulating material in regular windings of such a distance apart that the lines of force radiating from each section of wire toward the next adjacent electrode do not fall within the field of those radiating from the other sections, for

the purpose described. 3rd. Electrodes for using high tension currents, consisting of a plate of insulating material wound or covered

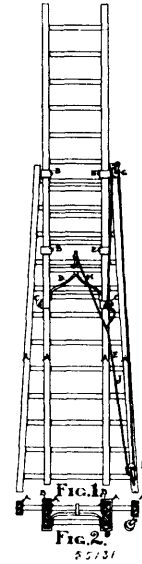


with a net of platinum wire of such a mesh that the lines of force radiating from each of the wires forming a mesh toward the next adjacent electrode just touch the lines of force from the adjacent wire, for the purpose set forth. 4th. Electrodes for using high tension currents, consisting of platinum wire nets which penetrate a non-conducting plate having their free ends projecting on either side of said plate and so spaced that their lines of force radiating from the ends of the wires of each piece do not come within the field of those radiating from the ends of the wires of the other pieces, for the purpose described. 5th. Electrodes for using high tension currents, composed of strips of platinum foil which are laid between the strips or sections of insulating material so spaced that their edges on either side of the insulating material radiate lines of force toward the next adjacent electrode so as not to fall within the field of each other, for the purpose described. 6th. Electrodes for using high tension currents, consisting of a platinum net on either side of an insulating material, said nets being held in conductive relation with each other by means of one or more platinum plated copper bolts or rivets, and the net of such a mesh that the lines of force radiating from the wires of each mesh do not cross one another, for the purpose set forth. 7th. Electrodes for using high tension currents, consisting of a platinum wire carried back and forth through an insulating plate in such manner as to appear on the faces of the plate like rows of stitches, presenting numbers of short exposed wires whose distances apart are such that the lines of force radiating from each exposed wire do not fall within the field of those radiating from the others, for the purpose set forth. 8th. A method of making electrodes for high tension currents, which consists in disposing a metal not affected by the electrolyte so that the lines of force emanating from each exposed part of the metal do not come within the field of action of the other exposed parts, for the purpose set forth. 9th. In an electrolytic apparatus, the combination of electrodes made in the described manner, with grooved side pieces or sheets of non-conducting material holding the electrodes and preventing the electrolyte held between the electrodes from forming a short circuit, for the purpose set forth. 10th. In an electrolytic apparatus, the combination of a series of electrodes of the described construction and side pieces of insulating material for holding and spacing the electrodes, with a vessel furnished with a central feed pipe for the electrolyte, suitable overflow, so that the liquid is compelled to rise in separate layers between the electrodes which are formed into a solid block-like structure, and after being electrolysed runs over a notch and down the sides in isolated streams. 11th. An electrode composed of an insulating material and a metal, the metal presenting points to the electrolyte and so situated with respect to each other that the lines of force emanating from each do not fall within the field of action of the others, for the purpose set forth. 12th. An electrode composed of an insulating material and a metal, the metal presenting a series of successions of points or edges to the electrolyte and so situated with respect to each other that the lines of force radiating from each series of points or edges do not cross or enter the field of action of the other series of points or edges. 13th. An electrode for using high tension currents consisting of an insulating plate in combination with a series of wire windings so situated that the lines of force radiating from each wire do not cross or fall within the field of action of those radiating from the others, for the purpose described.

No. 55,131. Extension Ladder. (*Echelle à rallonge.*)

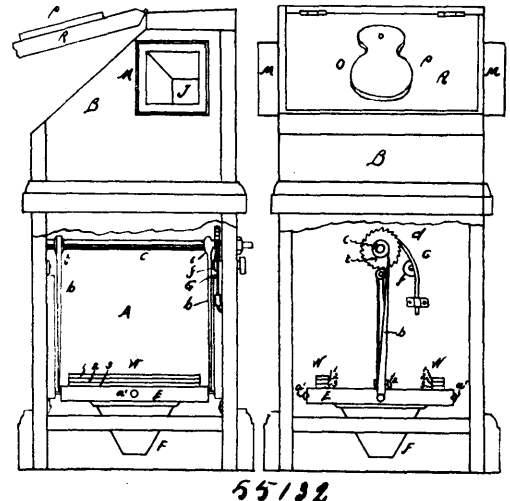
Lyman Andrew Weatherston and John Emmerson Rankin, both of Ogdensburg, New York, U.S.A., 1st March, 1897; 6 years. (Filed 6th October, 1896.)

Claim.—The combination with the ground section, having splayed side bars A, A, and intervening parallel bars A', A', said



bars connected by rounds A', of the extension section having side bars A', sliding upon the bars A', and connected thereto slidingly by guide bands B B, and having a hook D engaging said rounds A', and the endless rope E passing through pulleys F, G, near the top and bottom of the ground section and attached to the foot of the extension section, said rope having a branch H connected to said hook to effect disengagement with the rounds, as set forth.

No. 55,132. Machine for Holding, Lighting and Keeping in Position Mariners' Compasses. (*Machine pour éclairer et tenir en position les boussoles.*)



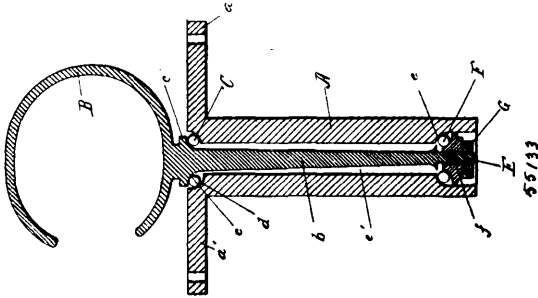
Ell B. Rockwell, Alburg, Vermont, U.S.A., 1st March, 1897; 6 years. (Filed 24th October, 1896.)

Claim.—1st. The combination of the elevator E and block W, holding the magnets piled three on each side and two in the middle, with the strips b, b, pulleys t, t, ratchet wheel d to raise and lower the magnets to the exact distance necessary to adjust the compass, as herein described. 2nd. The combination of the elevator E, block W and weight I, with the strips b, b, pulleys t, t, ratchet wheel d and catch C to raise and lower the magnets to the exact distance necessary to adjust the compass, as herein described. 3rd. The combination of the elevator E and block W, forming a double-balanced platform upon which the magnets are piled, the strongest on each side and the weaker in the middle, with the strips b, b, winding upon the pulleys t, t, operated by the ratchet wheel d and catch G to raise and lower the magnets, as herein described and for the purpose specified.

No. 55,133. Rowlock. (*Porte-rame.*)

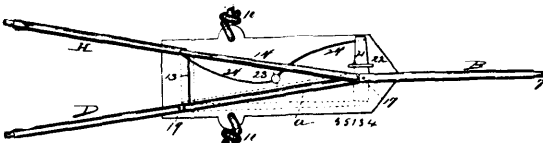
Frederick Russell Edwards, Thurso, Quebec, Canada, 1st March, 1897; 6 years. (Filed 5th December, 1896.)

Claim.—1st. The combination with a stationary sleeve, of a rowlock provided with a shank, and ball bearings arranged between



the said shank and sleeve, substantially as set forth. 2nd. The combination with a stationary sleeve, provided with cones at its upper and lower parts, of a rowlock provided with a shank having a cone on its upper part, an adjustable cone screwed on the lower end portion of the said shank, and balls interposed between the said cones on the shank and sleeve, substantially as set forth. 3rd. The combination with a stationary sleeve, and removable cones of hard material let into its upper and lower parts, of a rowlock provided with a shank having cones on it, and balls interposed between the cones on the said sleeve and shank, substantially as set forth.

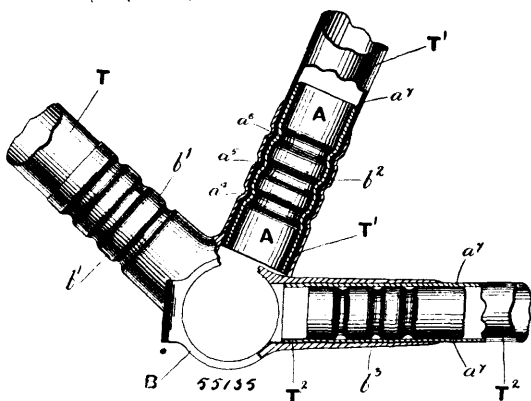
No. 55,134. Trolley Switch. (*Aiguille de trollée.*)



Moses Rangey and Peter Plante, both of Schenectady, New York, U.S.A., 1st March, 1897; 6 years. (Filed 9th December, 1896.)

Claim.—1st. A trolley switch comprising a body, a switch-rail pivoted at one end thereof, a way upon which the free end is mounted and a spring engaging with said free end to permit it to yield from and to return it to its normal position. 2nd. A trolley switch comprising a body, a switch-rail pivoted at one end thereof, in extension of a fixed rail section thereof, a way upon which the free end is mounted, and a spring engaging with said free end to hold it in alignment with a fixed rail section at the other end of said body, and permit it to be forced laterally into alignment with a branch-rail by the trolley-wheel, and to return it to its normal position when said wheel has passed.

No. 55,135. Means for Joining Tubing to Sockets, etc. (*Moyen de joindre les tubes aux douilles, etc.*)



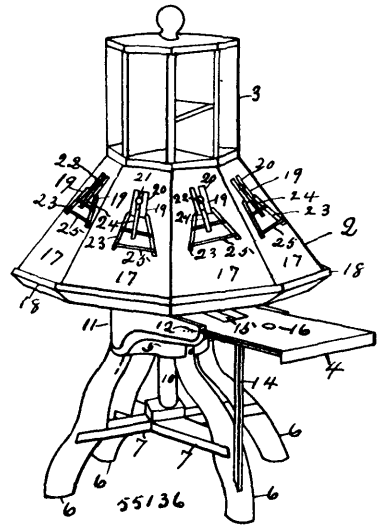
Frederick Billing and William Edward Partridge, both of Birmingham, Warwick, England, 1st March, 1897; 6 years. (Filed 24th December, 1896.)

Claim.—1st. The improvements in the mode and means for joining tubing to sockets or to other lengths of tubing by means of an internal anvil sleeve strengthening piece applied substantially as herein set forth and shown upon the accompanying drawing. 2nd. Joining light tubing to sockets by means of an internal sleeve or ring having depressions and fitting inside the end of the tube, the two being then inserted in a socket and the socket compressed upon the tube over the depressions so as to force the socket and tube into the said depressions in the internal ferrule or anvil as herein set forth and shown. 3rd. Joining light tubing to sockets by means of an internal sleeve or anvil or rings having depressions and fitting inside the end of the tube, the two being inserted in a socket and the

socket indented with several indentations so as to force parts of the socket and tube into the depressions, substantially as herein set forth and shown. 4th. Joining lengths of light tubing together by means of an internal anvil sleeve and external ferrule, substantially as set forth and shown.

No. 55,136. Revolving Book-holder.

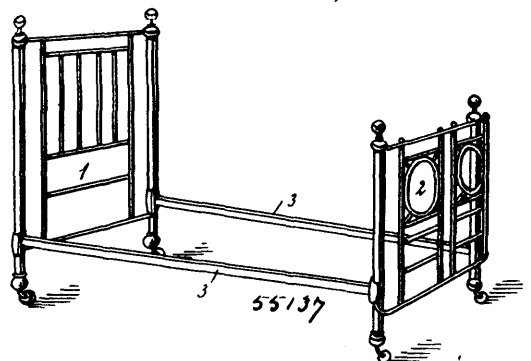
(*Bibliothèque tournante.*)



Calvert L. Ballard, Fort Worth, Texas, U.S.A., 1st March, 1897; 6 years. (Filed 27th January, 1897.)

Claim.—1st. The combination with a stand, a revolving desk having a vertical post journaled in the stand, and a support projected horizontally from the upper portion of the stand, of a writing-board slidably mounted in ways in the said support and having a slot to receive the said vertical post, whereby the writing-board can be pushed beneath the revolving desk when not in use and can be moved outward when required for service, substantially as specified. 2nd. In combination, a stand comprising a head and legs, arms extending laterally from the head of the stand and connected at their outer ends, a brace interposed between a portion of the stand and the outer end of the arms to support the latter, a revolving desk mounted in the stand, and a writing-board slidably supported by the said arms and adapted to move beneath the revolving desk, and having a slot to receive the vertical post, by means of which post the desk is rotatably supported, substantially as specified. 3rd. The combination with a desk, of a book-holder comprising a slotted plate, means for adjustably securing the plate to the desk, a frame having a pivotal or hinge connection with the plate and extending away from and in the plane thereof, and a spring secured to the plate and bearing upon the frame for moving the free end of the frame toward the desk, substantially as set forth for the purpose described.

No. 55,137. Bedstead. (*Bois de lit.*)

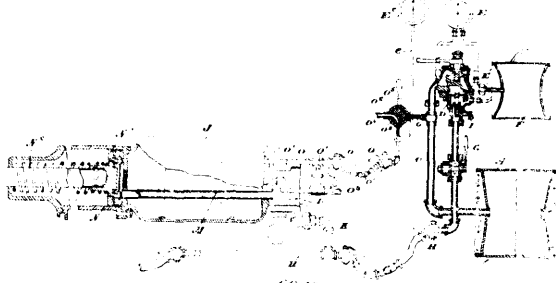


Foster Brothers Manufacturing Co., assignee of Oscar S. Foster, both of Utica, New York, U.S.A., 1st March, 1897; 6 years. (Filed 26th December, 1896.)

Claim.—1st. The combination of a post having means of attachment for angle side rails, of a reversible angle rail having means of attachment to the post, substantially as set forth. 2nd. The combination with a post having pins or studs projecting from opposite sides thereof, of a side rail constructed and arranged for use either side up, a rail hanger having two pairs of hooks, each pair being

adapted to simultaneously engage the projecting pins or hooks whereby the rail becomes reversible, substantially as set forth. 3rd. The combination with a post having an externally projecting stud or pin, of a rail hanger having a hook adapted to engage the stud or pin, and a shield or covering strengthening the hook and enclosing the pin or stud, substantially as set forth. 4th. The combination with a post having projecting pins or studs on opposite sides thereof, of a rail, a rail hanger having a pair of hooks adapted to engage the ends or studs, and shields or coverings enclosing the pins and strengthening the hook, substantially as set forth. 5th. The combination with a post of a pin passing through the post and projecting from either side, a rail hanger having hooks adapted to simultaneously engage the projecting ends of the pin, which hooks are connected with the body of the hanger by shields or covers opposite the ends of the pins, substantially as set forth. 6th. In a bedstead fastening device, the combination with a post of a headed projection and a rail or bed bottom fixture having wedged portions wedging between the head of the post projection and the side of the post, substantially as set forth. 7th. The combination of a bed post having a headed projection and a reversible side rail or frame fixture having two sets of oppositely disposed wedging parts adapted to wedge between the post and the head of the post projection, substantially as set forth.

No. 55,138. Safety Controlling Device for Automatic Air Brake retaining Valves. (*Appareil de contrôle de sûreté pour soupapes de frein atmosphérique.*)

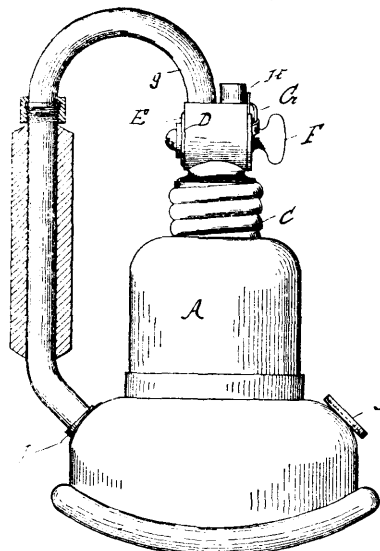


John Lee, East Toronto, Ontario, Canada. 1st March, 1897; 6 years. (Filed 10th February, 1897.)

Claim.—1st. The combination with the main reservoir, the engineer's brake valve, the pipe connecting the same, the pipe leading from the engineer's brake valve, the train pipe, the branch pipes, triple valve, auxiliary reservoirs and brake cylinder, of a retaining pipe communicating with the pipe leading from the main reservoir to the engineer's brake-valve and extending throughout the length of the train, branch pipes leading therefrom to the exhaust ports of the triple valve, exhaust opening in such branch pipe, a valve controlled by pressure from the retaining pipe so as to open or close the exhaust, and a suitable valve in the retaining pipe in the engine for allowing of a supply of air at a desired pressure to the retaining pipe, as and for the purpose specified. 2nd. The combination with the main reservoir, the engineer's brake valve, the pipe connecting the same, the pipe leading from the engineer's brake valve, the train pipe, the branch pipes, triple valve, auxiliary reservoirs and brake cylinder, of a retaining pipe communicating with the pipe leading from the main reservoir to the engineer's brake valve and extending throughout the length of the train, branch pipes leading therefrom to the exhaust ports of the triple valve, exhaust opening in such branch pipe, a valve controlled by pressure from the retaining pipe so as to open or close the exhaust, and a valve provided with a suitable handle and curvilinear passageway designed to open communication throughout the pipe, and to close the same and open communication with the forward end of the pipe and exhaust port of the valve, as and for the purpose specified. 3rd. The combination with the main reservoir, the engineer's brake valve, the pipe connecting the same, the pipe leading from the engineer's brake valve, the train pipe, the branch pipes, triple valve auxiliary reservoirs and brake cylinder, of a retaining pipe communicating with the pipe leading from the main reservoir to the engineer's brake valve and extending throughout the length of the train, branch pipes leading therefrom to the exhaust ports of the triple valve, exhaust opening in such branch pipe, a valve controlled by pressure from the retaining pipe so as to open or close the exhaust, and a valve provided with a suitable handle and curvilinear passageway designed to open communication throughout the pipe, and to close the same and open communication with the forward end of the pipe and exhaust port of the valve and a pressure gauge having a pipe communicating with the retaining pipe and designed to indicate to the engineer the desired pressure required, as and for the purpose specified. 4th. The combination with the main reservoir, the engineer's brake valve, the pipe connecting the same, the pipe leading from the engineer's brake valve, the train pipe, the branch pipes, triple valve auxiliary reservoir and brake cylinder, of a retaining pipe communicating with the pipe leading from the main reservoir to the engineer's brake valve and extending throughout the length of the train, branch pipes leading therefrom to the exhaust ports of

the triple valve, exhaust opening in such branch pipe, a valve controlled by pressure from the retaining pipe so as to open or close the exhaust, a tap between the valve and the air-retaining pipe and a suitable valve in the retaining pipe in the engine for allowing of the supply of air at a desired pressure to the retaining pipe, as and for the purpose specified.

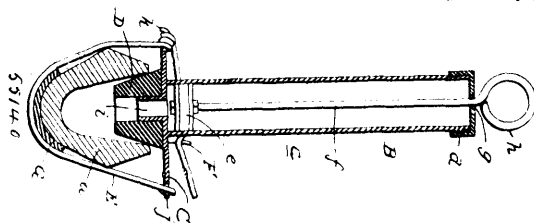
No. 55,139. Inhaler. (*Inhalateur.*)



John Knox Gailey, Detroit, Michigan, U.S.A., 1st March, 1897; 6 years. (Filed 13th January, 1897.)

Claim.—1st. A device for administering anesthetics, comprising an anesthetic vessel, a discharge pipe leading therefrom, a valved hood on the outer end of the discharge, an air-inlet port into the discharge pipe, an air inlet port into the vessel and valves for synchronously opening the air inlet port into the vessel and the vapour outlet therefrom and correspondingly closing the air port to the discharge pipe, substantially as described. 2nd. A device for administering anesthetics, comprising a vessel, a valved hood secured directly to the vessel, a supply pipe having a rigid section leading from the vessel to the hood and forming a handle, and valves for controlling the supply of anesthetics to the hood, substantially as described. 3rd. In a device for administering anesthetics, the combination with a receptacle, of an air supply pipe leading into the same, a discharge pipe leading from the receptacle and having an external inlet port at its inner end, a valved hood on the outer end of the discharge, and means for closing the discharge from the vessel and the air supply and opening the external inlet port, substantially as described.

No. 55,140. Tobacco Pipe Cleaner. (*Nettoyeur de pipe.*)



John J. Snyder, Chicago, Illinois, U.S.A., 1st March, 1897; 6 years. (Filed 18th January, 1897.)

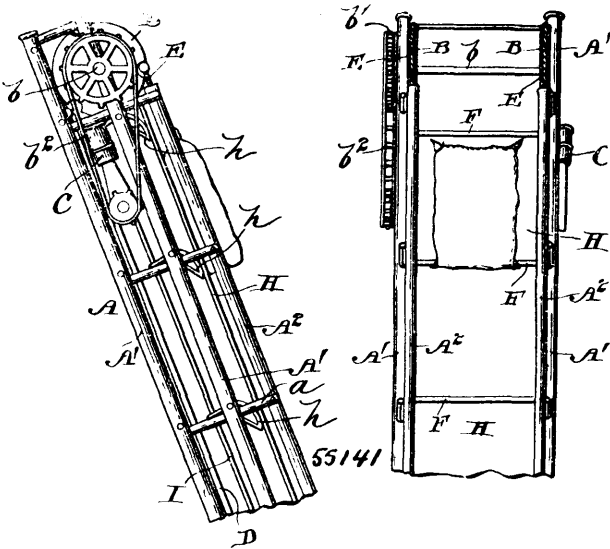
Claim.—A tobacco pipe cleaner comprising a pump having a cylinder and a gasket at one end of the cylinder adapted to effect a water-tight connection between the cylinder and a pipe bowl, and also having a plate provided with the projection *k*, and with a clamp arranged adjacent to the cylinder and a string connected with the plate at a point opposite to the projection thereof and adapted to be passed round a pipe bowl, wrapped around the projection of the plate and interposed between the clamp and the pump cylinder, substantially as specified.

No. 55,141. Portable Conveyer. (*Transport rotatif.*)

William L. McCabe and Charles H. Anderson, both of Tacoma, Washington, U.S.A., 1st March, 1897; 6 years. (Filed 21st January, 1897.)

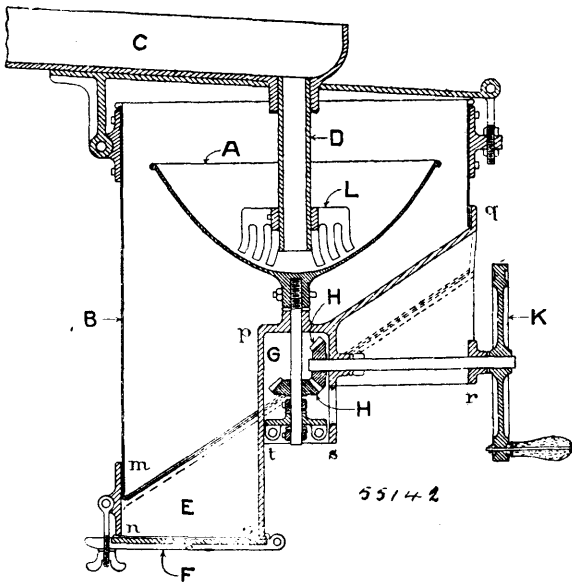
Claim.—1st. In a portable conveyer the combination with a suitable framework, of endless conveying belts and a vertically adjustable platform or support upon which articles to be conveyed are adapted to be placed and carried forward by said belts, substantially

as described. 2nd. In a portable conveyer the combination with a suitable framework, of endless conveying belts, a vertically adjustable



platform which is adapted to be brought nearer to or farther from the conveying belts for conveying different sized articles, and means for raising and lowering said platform, substantially as described. 3rd. In a portable conveyer the combination with a suitable supporting frame, of endless conveying belts, a vertically adjustable platform for bringing different sized articles to be conveyed nearer to or farther from the conveying belts, means for holding the platform in its adjusted positions and an automatic intermediate discharge chute for said platform, substantially as described. 4th. In a portable conveyer the combination with a suitable framework, of endless conveying belts connected by cross bars, guides for said belts, an adjustable platform, a series of cams for raising or lowering said platform, and means for operating all of said cams simultaneously, substantially as described. 5th. In a portable conveyer, the combination with a suitable framework, of endless conveying belts arranged on opposite sides of the same, tubular guides through which said belts pass, balls upon said belts, cross bars connecting the opposing balls of the respective belts, an adjustable platform, and means for securing the same in its adjusted positions, substantially as described. 6th. In a portable conveyer the combination with a suitable framework, of endless conveyer belts, an adjustable platform, a hinged section for said platform for discharging its contents at some intermediate point along its length, and a chute for receiving the discharge at said intermediate point, substantially as described.

No. 55,142. Gold Washer. (Laveur aurifère.)

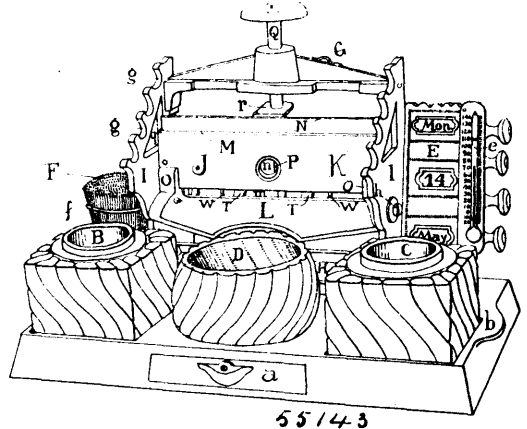


Joseph Gaston Legrand, Montréal, Québec, Canada, 1er mars 1897; 6 ans. (Déposé le 17 novembre 1896.)

Résumé. 1° La combinaison d'une cuvette de surface parabolique A polie surtout intérieurement, et d'un arbre de transmission

mû par les engrenages H et la manivelle ou poulie de transmission K. 2° La combinaison d'un cuvette de surface parabolique A, polie surtout intérieurement, d'un arbre de transmission mû par les engrenages H, et la manivelle ou poulie de transmission K, et d'un canal ou conduit C, muni d'un conduit vertical D, garni à son extrémité inférieure de peignes L. 3° La combinaison d'un cuvette de surface parabolique A, polie surtout intérieurement, d'un arbre de transmission mû par les engrenages H et la manivelle ou poulie de transmission K, d'un canal ou conduit C, muni d'un conduit vertical D, garni à son extrémité inférieure de peignes L, et d'un réservoir B à fond incliné, muni d'une trappe F, tel que décrit et pour les fins indiquées.

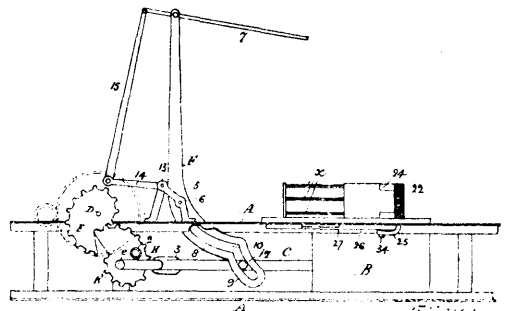
No. 55,143. Combined Inkstand, Envelope and Cigar Cutter. (Encrier, coupe-enveloppe et cigare.)



Donat Blondeau et Louis Harry Gaudry, tous deux de Québec, Qué., Canada, 1er mars 1897; 6 ans. (Déposé le 1er septembre 1896.)

Résumé. 1° La combinaison des couteaux M et N avec les ressorts T et N pour presser les couteaux l'un sur l'autre; et le ressort roulé U actionné par le piston Q tel que décrit. 2° La combinaison des ouvertures m du coupe-enveloppe et n du coupe-cigare dans un seul couteau, actionné par le piston (Q). 3° L'emploi des deux ressorts T, ou des deux ressorts T et des ressorts V combinés, de façon à diriger la pression du couteau, mobile N sur le couteau fixe M. 4° Les coupe-enveloppes et coupe-cigares appliqués aux encriers combinés et pourvus d'un bol à éponge, d'une brosse à plumes, d'un thermomètre, d'un porte-papier à lettre et papier buvard, etc., le tout tel que décrit et pour les fins indiquées.

No. 55,144. Machine for Baling Hay, Straw, etc. (Presse à foin, etc.)

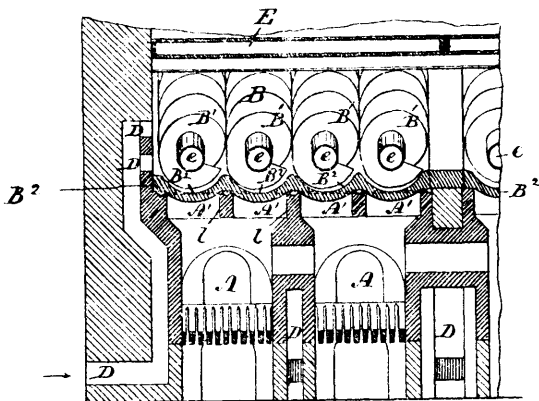


Moses C. Mixon, Omaha, Nebraska, U.S.A., 1st March, 1897; 6 years. (Filed 8th February, 1897.)

Claim.—1st. In a baling press, the combination, with a suitable supporting frame, of a reciprocating plunger, a feeder-bar pivotally secured to said supporting frame, provided with an end having a slot therein, a pin secured to said plunger-bar and working within said slot, an auxiliary shaft connected to said main supporting frame and provided with an outwardly extending arm, a feeder pivotally secured within the end of said feeder-bar and a connecting rod securing said feeder to the arm of said auxiliary shaft, all substantially as and for the purpose set forth. 2nd. In a baling press, the combination, with a suitable supporting frame, of a reciprocating plunger, a condenser mounted above said plunger and provided with two pivoted movable wings, said wings being provided with outwardly extending interlocking fingers, said wings further being secured to the plunger and being actuated by the same to open and close, all substantially as and for the purpose set forth. 3rd. In a baling press, the combination with a suitable supporting frame, of a condenser, said condenser comprising two pivoted wings, exten-

sions from said wings, a plunger-head, said wings and plunger-head being movably connected so that as the plunger-head reciprocates the pivoted wings are actuated, substantially as and for the purpose set forth. 4th. In a baling-press, the combination, with a supporting standard, A, of the reciprocating plunger-bar, C, provided with the plunger-head, B, a condenser comprising the stationary portion, 22, and the movable wing portions, *a, a*, provided with the interlocking fingers, *x*, the shaft, 23, provided with the curved ends, 25, securing said movable wings to the stationary portion, the pivoted levers, 26, being provided with the terminal slots, 29 and 31, said slots 29 being adapted to engage a projecting pin, 28, forming part of the plunger-head, and said slots 31 adapted to engage the curved ends, 25, of the shaft, 23, all arranged substantially as and for the purpose set forth. 5th. In a mechanical movement, the combination with two mating scroll-gears, a pin upon one of said gears, of a projecting arm provided with a shoe having two curved faces, said faces being adapted to engage said pin upon the mating scroll-gear, so that said scroll-gears are securely and snugly locked while making the change in speed, all substantially as and for the purpose set forth. 6th. In a baling press, the combination with a suitable supporting frame, of a condenser, comprising an upwardly extending sill, having two pivoted wings secured to said sill, said wings having downwardly extending arms, said wings being provided with interlocking fingers, of two slotted arms pivotally secured to the frame and having one end thereof secured to said arms, and a pin secured within the plunger-head and working within said arms to actuate said fingers, all substantially as and for the purpose set forth. 7th. In a baling press, the combination with a main supporting frame, of a condenser comprising an upwardly extending sill, 22, provided with the terminal shafts, 23, the binged wings, *a*, the rack-fingers, *x*, secured to each of said shafts, 23, being provided with the curved lower stem 25, the slotted levers, 26, working in conjunction with said curved stems, 25, said levers being pivotally secured to the main supporting frame, a reciprocating plunger-head provided with an upwardly extending pin adapted to reciprocate within the slotted openings, 29, of the arms, 30, to actuate said arms, all substantially as and for the purpose set forth. 8th. The combination, with two scroll-gears, of a mechanical means to catch and guide the teeth of said scroll-gears into proper contact at the moment of the change of speed, substantially as and for the purpose set forth.

No. 55,145. Process and Furnace for extracting precious Metals from the Ore. (*Procédé et fournaise pour extraire les métaux des minerais.*)



Frederick George Jordan, Spokane, Washington, U.S.A., 4th March, 1897; 6 years. (Filed 2nd May, 1896.)

Claim.—1st. The process of treating metallic ores, which consists in subjecting the ore when reduced or pulverized to gradually increased heat in the presence of oxygen, so that at various points of passage through a furnace the refractory elements, compound or base metals are eliminated, discharged or driven off, and the base metals secured by running off when the melting temperature is reached, and the precious metals run off when the highest temperature is obtained, substantially as set forth. 2nd. The process of treating precious ores, which consists in first pulverizing the ore, then gradually heating it in the presence of oxygen to a temperature above the melting point of any base metals contained in the ore, whereby said base metals are melted and run off or volatilized, and finally suddenly cooling the ore to disintegrate the matrix or similar impurities. 3rd. The process of treating precious ores, which consists in first pulverizing and drying the ore, then gradually raising the temperature of the ore and supplying it with an abundance of air, the heat being increased until above 1,200° Fahrenheit, then suddenly subjecting the ore to a bath of water, substantially as described. 4th. The process of treating precious ores, which consists in first pulverizing and drying the ore, then gradually raising the temperature of said ore above 1,200° Fahrenheit, then suddenly subjecting the ore to a bath of cold water, agitating and scouring by attrition the

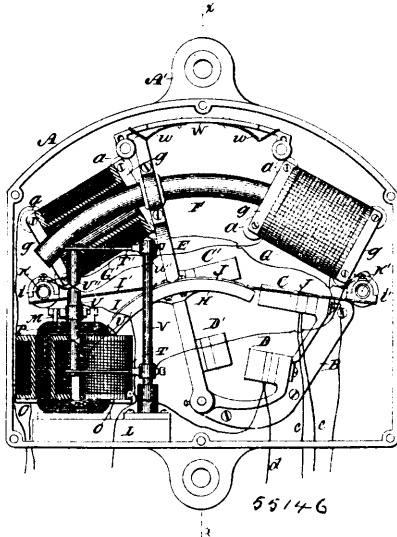
residue with an alkali, and then amalgamating the precious metals with mercury, substantially as described. 5th. A furnace for treating ore, provided with a combustion chamber, a hearth forming the bottom of said chamber, a stage above one end of the combustion chamber, a heating furnace beneath the end of the hearth opposite the stack, and a flue running beneath the hearth from the heating chamber to the stack, in combination with an ore hopper above and adjacent to the combustion chamber, said hopper being arranged to discharge into the cooler end of the hearth, mechanism for causing the ore to travel over the hearth from beneath the hopper to the opposite end of the hearth, and a water receptacle arranged to receive the ore as it is discharged from the hearth, substantially as described. 6th. A furnace for treating ores, having a combustion chamber, an inclined hearth forming the bottom of said chamber, a heating furnace below the lower end of said hearth, and a stack above the combustion chamber at the highest end of the hearth, and a series of flues opening into the combustion chamber near the lowest end of the hearth, a series of air holes arranged along the line of the conveyer shaft to distribute hot air freely into the ore, when said shaft is hollow for air passage, in lieu of containing water, in combination with a plurality of ore moving devices arranged to receive the ore from the highest end of the hearth, substantially as described. 7th. A furnace having a combustion chamber and an ore hearth forming the bottom of said chamber, a heating furnace below one end of said hearth and provided with a flue extending to the opposite end of the hearth and directly below the same, a stack above one end of the combustion chamber and connected therewith to the stack above the combustion chamber, in combination with a trough-shaped hollow condenser arranged to be filled with water and located between the stack and combustion chamber, substantially as and for the purpose described. 8th. In a furnace for treating precious ores, an inclined hearth provided near its lowest end with sinks or wells and channels leading therefrom, a crucible to which said channels lead, and a heating furnace beneath the lower end of the hearth, in combination with means for removing the ore from the highest to the lowest end of the hearth, and a water receptacle below the lower end of the hearth and arranged to receive the heated ore therefrom, substantially as described. 9th. In a furnace for treating precious ores, the combination with an inclined hearth, of a spiral conveyer having a hollow shaft arranged to receive air, or a cooling fluid, and placed adjacent to said hearth, and adjustable mechanism outside of furnace for imparting a rotary motion to the conveyer, substantially as and for the purpose described. 10th. An ore extracting furnace, comprising in combination with a combustion chamber or fire box A, an oxidizing desulphurizing, calcining or chloridizing chamber B, having an inclined corrugated or grooved ore path or hearth, forming the bottom of said chamber B, a smoke flue A¹ below said hearth, worm or screw conveyors B¹ within the corrugations or grooves in said hearth and feeding the descent of the ore, said worm or screw having a hollow shaft *e* provided with perforations *c*, water chambers E and condensers E¹, E², E³, forming the roof of said chamber B, a dust chamber J above said condensers, a drying and feed hopper F within said chamber B discharging at the upper end of the hearth and worm, crucibles B arranged to receive the melted base metals, and the cold water baths G at the lower end to receive the melted precious metals, substantially as set forth. 11th. In an ore treating furnace, the combination with the combustion chamber or fire box A, an oxidizing chamber B having an inclined hearth provided with a series of concave channels, and worm or screw conveyors, one in each channel, said hearth having passages connecting with a gutter *l*, to flow into a crucible *m*, the melted metal, as set forth. 12th. The combination in an ore treating furnace, of an inclined concave hearth and screw conveyors, and a differential gearing C, regulating the rotation of the conveyors, to increase and lessen the speed of the ore over the hearth, for the purpose set forth. 13th. The combination in an ore treating furnace, of an oxidizing chamber B, having water chambers E, and condensers E¹, E², E³, for utilizing waste heat, to heat water for amalgamating and steam uses, and the crucibles H, receiving the melted base metals from a gutter or gutters *l*, as set forth. 14th. In an ore treating furnace, the combination with the fire box A, and inclined hearth B², of the oxidizing chamber B, provided with inlet air passages D, and having water chambers E, condensers E¹, E², E³, and feed and drying hoppers F, located within said chamber B, as and for the purposes set forth. 15th. A furnace for treating ores having within it water chambers or tanks to economically obtain hot water for steam and amalgamating purposes, whereby the process of amalgamation may be carried on during any state or change in atmospheric temperature.

No. 55,146. Automatic Cut-Out for Electrical Transformer. (*Interrupteur automatique pour transformateurs électriques.*)

William Joseph Greene, Cedar Rapids, Iowa, U.S.A., 4th March, 1897; 6 years. (Filed 3rd August, 1896.)

Claim.—1st. In an automatic cut-out for electrical transformers, the combination of a switch-lever provided with switches to close and open the primary and secondary circuits, a working or service transformer, a pair of electro-magnets or solenoids adapted to actuate said switch-lever alternatively, and means for alternately energizing said electro magnets, consisting of a permanent source of electrical energy and an electro-magnet in series with the second-

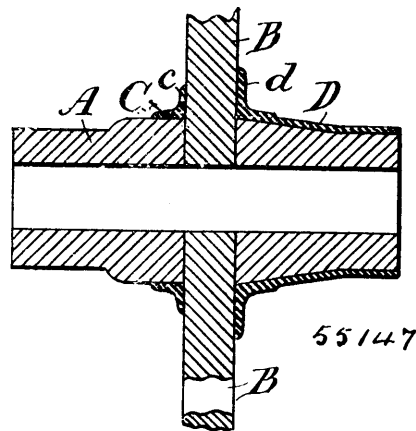
ary circuit and connections through said electro-magnet, armature and secondary circuit, whereby said armature alternately connects



said switch-actuating magnets with said permanent source of electrical energy. 2nd. The combination with a permanent source of electrical energy and primary and secondary mains communicating therewith, of a transformer in circuit with the primary and secondary mains through suitable switches, an electro-magnet in series with one of the secondary mains, an armature therefor having electrical connection with one of the secondary mains and provided with a suitable retractile spring, a pair of contacts with which said armature may alternately engage, a pair of switch-actuating electro-magnets having alternate electrical connection with the secondary mains through suitable switches, switch terminals for the primary and secondary transformer circuits, and for the auxiliary, switch-actuating electro-magnet circuits, and an oscillating switch-lever adapted to open or close said circuits, substantially as and for the purpose set forth. 3rd. In an organized cut-out for electrical transformers, the combination with a wall-plate or bracket having means for attaching the same to a wall or post and suitable supports for the fixed and moving parts, substantially as described, of an oscillating controller, one or more solenoids adapted to move it electrically in one direction, means substantially as described for moving it in the opposite direction, switches adapted to be alternately closed by the movement of said controller, an oscillating switch-closer, a pair of solenoids to actuate the same, alternately-operating switches adapted to close the solenoid circuits, and a pair of switches to close both the primary and secondary circuits through the temporary transformer, and operating in connection with the said switch-closer, substantially as described. 4th. The combination with a suitable retaining frame adapted to be attached to a wall or post, and having supports for the fixed parts and bearings for the moving apparatus, of an oscillating controller in permanent electrical connection with a permanent source of electrical energy, switches alternately closed by the movement of said controller, a solenoid adapted to move said controller in one direction, suitable means for moving it in the opposite direction, an oscillating switch-closer adapted to close the primary and secondary circuits of a transformer and solenoid circuits through suitable switches, solenoids adapted to oscillate said switch-closer, switches to close said primary, secondary and solenoid circuits, and a permanent source of electrical energy with suitable electrical connections, whereby the controller is moved one way by the opening of the service circuit and in the other direction by its closing, the movement of said controller switching in one or other of the switch-closer solenoids and thereby cutting a transformer in or out, as specified. 5th. In a cut-out for electrical transformers, the combination with a suitable supporting frame, of a pair of solenoids oppositely inclined to each other, means substantially as described for alternately energizing them, a switch arm adapted to open and close switches in the primary and secondary circuits, with a curved armature attached to its free end and co-acting with said solenoids, a pair of solenoid switch-plates connected with the switch-arm and contacts bearing thereon, except near the limit of the arm's movement, substantially as and for the purpose set forth. 6th. In an automatic cut-out, the combination of a pair of solenoids with means for alternately energizing them, substantially as described, a switch-arm pivoted to oscillate between them and having a curved armature co-acting therewith, and friction springs adapted to engage with said arm at the limits of its stroke and prevent its rebound, substantially as described. 7th. In an automatic cut-out for electrical transformers, the combination with a three-wire system of distribution, of a controller having a plurality of solenoids in separate electrical connection with the positive and negative wires of said system respectively, and electrically connected

with a continuous source of electrical energy, a switch-closer adapted to open and close the primary and secondary circuits, a plurality of switches for said secondary circuit, solenoids adapted to oscillate said primary and secondary switch-closer, and a separate electrical connection of the controller solenoids with said secondary switches, substantially as and for the purpose set forth. 8th. The combination with a cut-out switch and its actuating solenoids, substantially as described, of a controller consisting essentially of an oscillating arm with a carbon contact at one end, one or more solenoids suitably connected to draw down said contact, a spring to draw it in the opposite direction, and carbon terminals upon which said contact abuts alternately, to switch one or the other of the aforesaid switch solenoids into circuit, substantially as and for the purpose set forth. 9th. The combination with a cut-out switch and its actuating solenoids, substantially as described, of a controller consisting of an oscillating arm with a carbon contact-piece secured at one end, a pair of adjustable carbon terminals with which it alternately engages to close different solenoid circuits, a suitable electro-magnet to draw said arm downward at the switch end thereof, a retractile spring, and an electro-magnet connected with the other portion of the arm to throw it in the opposite direction, as described. 10th. In an automatic cut-out, the combination with an oscillating switch-arm having a curved armature, and inclined solenoids co-acting therewith, of a pair of curved contact-plates, suitably insulated, mounted on said arm, and a pair of flexible and adjustable brushes or terminals adapted to bear on said plates except when at or near the limit of the arm's outward movement from said brushes, respectively.

No. 55,147. Vehicle Wheel. (*Roue de voiture.*)



William Chipman and Robert Lennox, both of Ottawa, Ontario, Canada, 4th March, 1897; 6 years. (Filed 21st August, 1896.)

Claim.—1st. In a vehicle wheel, the combination with the hub and spokes, of a band upon said hub having a flange fitting tight against the front of the spokes and a rear band having a serrated flange fitting tight against the rear of the spokes, each point or tooth registering with one of the spokes and extending beyond the height or diameter of the flange of the front band and the two flanges connected by bolts or rivets, substantially as set forth. 2nd. In a vehicle wheel, the combination with the hub and spokes, of a band upon said hub having a flange fitting flat and tight against the front of the spokes and a rear band having a flange of larger diameter than the front band fitting flat and tight against the rear of the spokes and rivets or bolts passing through said flanges and the joints of the spokes, substantially as set forth. 3rd. In a vehicle wheel, a hub band having a serrated flange adapted to fit flat and tight against the spokes, substantially as set forth. 4th. In a vehicle wheel, a support at the front and at the rear of each spoke, both of unequal length or height, fitting tight against the front and rear faces of said spokes respectively and rigidly supported on the hub by one or more bands, substantially as set forth.

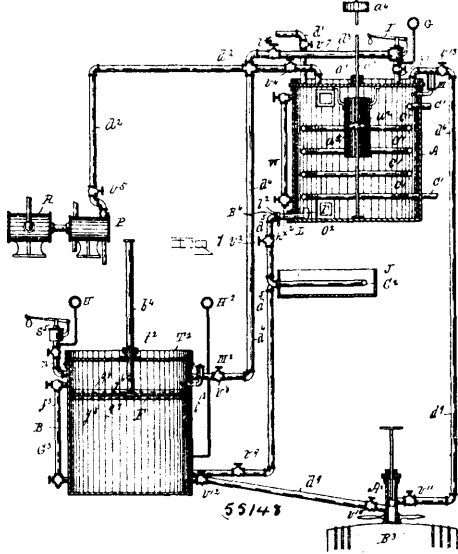
No. 55,148. Preparation of Malt Liquor.

(*Préparation de liqueur de malt.*)

Ferol Brothers & Conway, assignees of Alfred Emmanuel Ferol, all of Madelin, Tivoli, New York, U.S.A., 4th March, 1897; 6 years. (Filed 4th September, 1896.)

Claim.—1st. In the manufacture of ales and other fermented liquors, the herein described process of treating them previous to filtration, which consists in confining fermenting hopped beer wort in a tight vessel at that stage of fermentation when its subsequent fermentation in said tight vessel will sufficiently carbonate it for use, then facilitating sedimentation by applied pressure, then carbonating it by its own fermentation while under the applied pressure, ripening it by continued fermentation, and when sufficiently carbonated separating it from the yeast and sediment precipitated by the applied pressure, then cooling it to render the semi-soluble albuminoid matter in it insoluble so that it may be removed by fil-

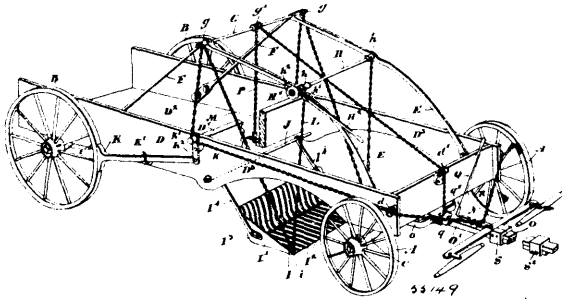
tration, substantially as set forth. 2nd. The herein described process of treating carbonated ales and other fermented liquors, which



consists in fully carbonating them for use, subjecting them to sedimentation under applied pressure, drawing them off from above the yeast sediment, cooling them to render the semi-soluble matters insoluble, then filtering them under a uniform circulating pressure equal to or in excess of the gas pressure in the carbonated liquors, substantially as set forth. 3rd. The herein described process of producing chilled and filtered ales and other fermented liquors, naturally carbonated for use, which consists in carbonating them by their own fermentation and drawing them off from the sediment precipitated during fermentation, then subjecting them to a cooling process to render the semi-soluble matters insoluble, then conducting them into a tight vessel and passing a filter downwardly through them, while under pressure and practically without agitation, thereby retaining all their gas and flavour and removing the insoluble matters from them, substantially as set forth. 4th. The herein described process of treating and preparing ales and other fermented liquors for use, which consists in confining the partly fermented liquor in a tight vessel at that stage of fermentation when nearly ready to rack into packages for use, or in casks for storage, subjecting it to sedimentation under applied pressure, and to carbonation by a continued fermentation, with its own gas, ripening it by continued fermentation, separating it from yeast and sediment precipitated during fermentation, cooling it to contract and more thoroughly retain the gas, as well as to render the semi-soluble matters insoluble, then filtering and racking it under a uniform circulating pressure, equal to or in excess of its own gas pressure. 5th. In an apparatus for treating malt liquors, the combination with a tank or cylinder provided with an inlet pipe for the entering liquor, and a pipe for its discharge, and an inlet pipe by which gas may be forced into said tank for pressure, of an observation window at the top and bottom of the tank formed in the cylinder sides, a coil arranged within said tank for the circulation therein of warm or cold water, a cylinder open at the top and bottom arranged within said tank, and a vertical shaft journaled in the top and bottom of said tank, and where passing through the interior cylinder, provided with a conveyer wheel whereby the liquor may be caused to circulate in said tank, substantially in the manner as and for the purpose set forth. 6th. The combination with the tank A, having the inlet pipes d^1 , d^2 , and at the pipe d^3 , provided with valves, and having the observation windows O^1 and O^2 , constructed and arranged substantially as described, of the interior cylinder a^2 , open at the top and bottom, and provided with the interior shaft a^3 , having thereon the conveyer or propeller wheel a^4 , said shaft being journaled in the top and bottom of the tank A, and the turn-down draw-off pipe L, connecting with said tank A, and the pipe d^3 , substantially as and for the purposes set forth. 7th. The combination with the tank A, provided with the supply pipe d^1 , and gas or air pipe d^2 , of the temperature regulating coil pipe C^1 , arranged within said tank A, the interior cylinder a^2 , open at the top and bottom, and arranged within said tank, the vertical shaft a^3 , centrally journaled in the top and bottom of said tank, the propeller a^4 , arranged upon said shaft where within the cylinder a^2 , and the draw-off cock or pipe L, constructed and arranged to operate substantially in the manner as and for the purposes set forth. 8th. The combination with a cylinder A, constructed and arranged to receive malt liquor from a tun or cask, and provided with an obstruction window at its side near its bottom, of the draw-off cock L, having an upturned end where within the tank and provided with a handle where extended through and beyond the tank, and a ball socket connected with a stationary conduit pipe, by which handle said upturned end of the pipe may be turned so as to draw liquor from the tank at different levels, substantially as shown and described.

9th. In an apparatus for treating malt liquors under pressure, other than that generated by the fermentation of the liquor, the combination with a cylinder provided with intake means for liquor and pressure, and a safety-valve, a draw-off cock, an interiorly arranged circulating coil, through which warm or cold water may be passed to regulate the temperature, and having an interiorly placed cylinder, open at top and bottom, and a vertical shaft provided with a conveyer-wheel whereby a circulation may be maintained in the tank above the sediment, substantially as described, of a filtering cylinder arranged below the before-named tank, said filtering cylinder being provided with a piston-form filter operated to move downwardly through the liquor, and pipes connecting the filtering cylinder and the upper cylinder, whereby the pressure in both is equalized, substantially as shown and described. 10th. In an apparatus for treating malt liquors under pressure other than that generated by the fermentation of the liquor, the combination with a tank or cylinder having an inlet pipe for the liquor and a pipe for the gas producing pressure, both of which pipes are constructed with suitable valves, and provided with a safety-valve, observation windows, a draw-off cock, and having an interior coil for regulating temperature, and provided with an interior cylinder containing a vertical shaft and propeller-wheel for agitating the liquor above its sediment, of a filtering cylinder having a closed top below the before-named tank, and provided with a pipe leading from the upper tank or cylinder, and having a piston-form filter arranged to be passed downwardly through the liquor in the filtering tank, and a pipe connecting the upper tank and filtering cylinder, whereby the pressure upon the latter and the upper tank are equalized, substantially in the manner as and for the purposes set forth. 11th. In an apparatus for treating malt liquors under pressure other than that generated by the fermentation of the liquor, the combination with a tank or cylinder provided with an inlet pipe for entering liquor, and a pipe for its discharge, and an inlet pipe by which gas or air may be forced into the tank, said pipes having suitable valves, and a safety-valve on said tank, of a coil arranged within said tank whereby the use of warm or cold water therein the temperature of the liquor may be regulated, and an interior cylinder open at the top and bottom within said tank, said cylinder having an interiorly arranged conveyer or propeller mounted on a shaft whereby circulation of the liquor above its sediment may be had, a cooler connected with the pipe leading from said tank, a filtering cylinder located below the before-named cylinder and provided with a piston-form filter operated to descend through the liquor contained therein, a pipe connecting said cooler with the filtering chamber, and a pipe connecting said filtering cylinder with the upper tank whereby an equalized pressure is had upon both, substantially as and for the purposes set forth. 12th. The combination with the tank B, provided with an inlet pipe d^1 , for supplying malt liquor, and the pipe d^2 for delivering gas or air to produce pressure upon said tank, said pipes having suitable valves, of a draw-off pipe or cock L, connected to the lower side of said tank A, the filtering cylinder B, arranged below the tank A, and provided with the pipe d^5 , connecting said filtering cylinder with the draw-off cock L, the piston-form filter F, operated to be moved down through the liquor in the tank B, the pipe d^4 , connecting the top of the filtering tank with the top of the tank A, the pipe d^6 connecting with the filtering cylinder above the filter F, when moved downwardly to rest on the tank bottom, and also connecting with a racking apparatus, and a pipe d^5 , connecting the latter with the top of tank A, substantially in the manner as and for the purposes set forth. 13th. The combination with the tank A, provided with an inlet pipe d^1 , whereby gas or air pressure may be applied to the interior of said tank, of the safety-valve I connected to said tank A, the filtering tank B, provided with a safety-valve S^5 , the draw-off pipe L, the pipe d^5 , connecting said draw-off pipe with the tank B, the pipe d^3 , connected with the safety-valve I, on tank A, and with the tank B, by which any over-pressure on the tank A, may be transferred to tank B, and any over-pressure on the latter be discharged by the safety-valve S^5 , substantially as set forth. 14th. In an apparatus for treating fermented liquor and for barreling it, under pressure, the combination with the tank A, for the treatment and sedimentation of the carbonated liquor, of the cooler J, connecting with said tank A, the filtering cylinder B, and a pipe connecting the latter with said cylinder A, and a pipe connecting the top of the latter with the top of the tank B, a pipe connecting said cylinder B, below its filter with a racking apparatus, and a pipe connecting the latter with the top of the tank A, said pipes being provided with valves whereby an equalized pressure may be maintained in said tanks and racking apparatus and barrel, substantially as shown and described. 15th. In an apparatus for clarifying and barreling malt liquors under pressure, the combination with a tank for containing the liquor during the completion of the sedimentation and fermentation, and provided with a pipe for supplying pressure thereto, and also provided with a heating and cooling coil, a cooler, a filtering apparatus, a pipe connecting said tank with the cooler and provided with a valve, a pipe connecting said cooler with the filtering apparatus, and provided with a valve, a pipe provided with a valve connecting said filtering apparatus with a racking apparatus, and a pipe provided with a valve connecting said racking apparatus with the top of said tank, whereby the air pressure displaced in the barrel by the entering liquor will be conveyed to said tank, and the pressure upon the liquor within the barrel be retained, to prevent any loss of gas, substantially as and for the purposes set forth.

No. 55,149. Machine for Removing Stone, Gravel, etc.
(*Machine pour enlever la pierre, le gravier, etc.*)



George Elijah Green and George Faulkner, both of Assinack, Manitoulin, Ontario, Canada, 4th March, 1897; 6 years. (Filed 27th January, 1897.)

Claim.—1st. In a machine of the class described, in combination, a stone-collecting device suspended from the front portion of the wagon, a dumping rear portion and means for throwing the stone-collecting portion back over the dumping portion, as and for the purpose specified. 2nd. In combination, a suitable truck, a stone-collecting box situated between the rear wheels, a dumping bottom, a tongue comprising a rigid portion and a movable portion designed to be adjusted longitudinally therewith, means for rigidly holding the portions together and for disconnecting them, and a chain connected to the movable portion of the tongue passing over a pulley suitably supported above the dumping bottom and connected to the forward end of such bottom, as and for the purpose specified. 3rd. In combination, a suitable truck, a stone-collecting box situated between the rear wheels, a dumping bottom, a tongue comprising a rigid portion and a movable portion designed to be adjustable longitudinally therewith, a hook on the moving portion and a lever pivoted in the stationary portion of the tongue, and lever pivoted in the tongue and having a hook at the lower end designed to be engaged with the hook on the end of the moving portion of the tongue, a chain, holding hook at the rear end of the tongue, and a chain connected therewith, a pulley suitably supported above the dumping box and forming a guide for the chain which is connected at the rear end to the front portion of the dumping bottom, as and for the purpose specified. 4th. In combination, the wagon frame supported on suitable trucks, a stoning fork, a shaft extending from side board to side board of the wagon and forming a journal for the rear end of the stoning fork, and means for raising the front end of the stoning fork to the required height, as and for the purpose specified. 5th. In combination, the wagon frame supported on suitable trucks, a stoning fork, a shaft extending from side board to side board of the wagon and forming a journal for the rear end of the stoning fork, a suitable frame supported above the stoning fork and attached to the wagon, an axle journaled in such frame, a chain extending upwardly from the front corners of the fork to such shaft, guiding pulleys on the shaft and the ratchet wheel, pawl and lifting lever, all arranged as and for the purpose specified. 6th. In combination, the wagon frame supported on suitable trucks, a stoning fork, a shaft extending from side board to side board of the wagon and forming a journal for the rear end of the stoning fork, and means for raising the stoning fork to a position above the dumping box, as and for the purpose specified. 7th. A truss frame, comprising the side boards, a shaft extending through and journaled in the apex of the same, guiding pulleys on the ends of the shaft, chains extending from the stoning fork over the guiding pulleys and supplemental pulleys to the tongue, a hook on the rear end of the longitudinally moving portion of the tongue, and disconnecting means for holding the movable portion to the immovable portion of the tongue, as and for the purpose specified. 8th. A truss frame, comprising the side boards, a shaft extending through and journaled in the apex of the same, guiding pulleys on the ends of the shaft, chains extending from the stoning fork over the guiding pulleys and supplemental pulleys to the tongue, a hook on the rear end of the longitudinally movable portion of the tongue, a hook on the rear portion of the tongue, and a lever provided with a hook designed to engage with a disconnecting hook, as and for the purpose specified. 9th. The combination with the tongue having a longitudinally movable portion, of a chain detachably connected to the rear end of the longitudinally movable portion, brake shoes and bars, a lever pivotally connected to the forward end of the bar and to the side boards, holes in the upper ends of the levers, a stoning fork suitably journaled beneath the wagon box to the front of the dumping portion, and a chain extending from the stoning fork over suitable guiding pulleys and around the pulleys at the upper end of the brake levers, and means for detachably connecting such chain to the rear end of the longitudinally movable tongue, as and for the purpose specified. 10th. The combination with the stationary portion of the tongue and longitudinally movable portion and metal straps forming guides for the movable portion and secured to the portions as specified, attached means connecting the stationary portion of the tongue to the movable portion, a stoning fork pivotally swung, and means connected with the movable portion of the

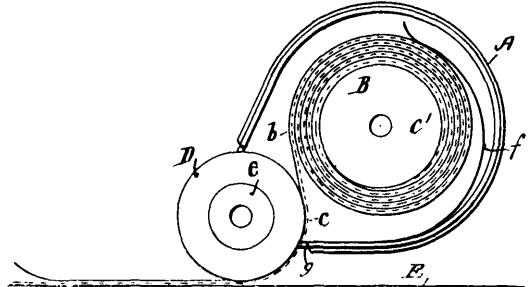
tongue whereby upon the forward movement of such portion the stoning fork is swung over the dumping box, as and for the purpose specified. 11th. In combination, the frame of the wagon and cross shaft, of the stoning fork comprising the longitudinal bars with curved rear end, side plates and arms secured to the side plates and journaled on the cross shaft, as and for the purpose specified.

No. 55,150. Storage Battery.
(*Accumulateur ou piles secondaires.*)

Moriez Eugl and Floris Wüste, assignee of Friedrich Wilhelm Ellermann, all of Vienna, Austria, 4th March, 1897; 6 years. (Filed 27th January, 1896.)

Claim.—1st. A composition for manufacturing accumulator-plates consisting of litharge and sulphate of magnesium mixed into a plastic mass with liquid ammonia, substantially as described. 2nd. The process of manufacturing accumulator-plates consisting in first preparing a plastic mass of litharge and sulphate of magnesium with liquid ammonia, then forming the plates out of this mass, then keeping the plates for several days in a hardening liquor whereby the plates acquire a cement-like hardness, substantially as and for the purposes described. 3rd. The process of manufacturing accumulator-plates consisting in forming the plates out of a mass of litharge, sulphate of magnesium and liquid ammonia, then treating plates in a hardening liquor and then effecting the formation of the same in a solution of sulphate of magnesium, substantially as described.

No. 55,151. Device for Applying Decorative Films.
(*Appareil pour l'application de pellicules décoratives.*)



Walter Hamilton Coc, Providence, Rhode Island, U.S.A., 4th March, 1897; 6 years. (Filed 8th January, 1896.)

Claim.—1st. The combination of the delivering roller, with the package roll arranged for revolution in fixed relation to the delivering roller, whereby the package roll must be caused to revolve by a direct pull upon the unwinding strip, and frictional means for preventing the free rotation of the package roll, substantially as described. 2nd. In a device for applying decorative films, the combination with the delivering roller, of the holding-case, formed with separable sides, and having inwardly projecting bearings which are adapted to hold the delivering roller and the package-roll for revolution, substantially as described.

No. 55,152. Manufacture of Zinc Oxides, Sulphates and Sulphides, etc. (*Fabrication d'oxyde de zinc, sulphate, sulfure, etc.*)

Atkinson Crossley, Talywain, Monmouth, England, 4th March, 1897; 6 years. (Filed 27th June, 1895.)

Claim.—1st. The process for the manufacture of zinc oxide, which consists in adding sulphuric acid to the metallic ores or compounds, heating the mixture and converting the lead present to an insoluble salt, and depositing any silver or gold present, then diluting with water and converting the other metals present to soluble salts, filtering off the clear liquor, then treating the clear acid liquor filtered off with an alkaline sulphide, precipitating the copper as copper sulphide, then filtering the liquor from the precipitate, treating with an alkali until neutral, passing chlorine into it until all manganese and iron present form manganic and ferric oxides, which are thrown down by a slight excess of alkali, adding an excess of alkali to bring the zinc oxide into solution, and then precipitating the zinc oxide, and filtering off the liquor therefrom, substantially as set forth. 2nd. The process for the manufacture of zinc oxide from the metallic ores or compounds, which consists in adding sulphuric acid to the said ores or compounds, heating the mixture, and converting the lead present into insoluble sulphate and leaving as a deposit any gold, silver, or like metals not attacked by the acid, then diluting the solution with water and converting the other metals present into soluble salts, filtering off the clear liquor, and then removing the copper from the solution, then treating the acid solution with an alkali, passing chlorine into it until all the manganese and iron present form manganic and ferric oxides, and continuing the addition of the alkali until these are precipitated, adding an excess of alkali to bring the zinc oxide into solution, and then precipitating the zinc oxide, and filtering off the liquor therefrom, substantially as described.

No. 55,153. Combined Grocers' Package, Grater, Slicer, Mouse and Fly Trap. (*Boîte d'épicerie, râpe, souricière et attrape-mouche.*)

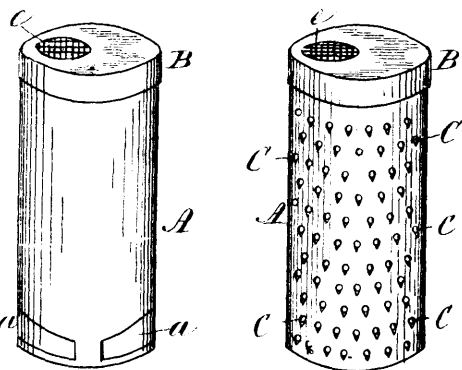


Fig. 1. 55153

Fig. 2.

Charles S. Cochrane and Henry E. Ralston, assignee of Robert Martin Gardiner, all of Hamilton, Ontario, Canada, 4th March, 1897; 6 years. (Filed 12th January, 1897.)

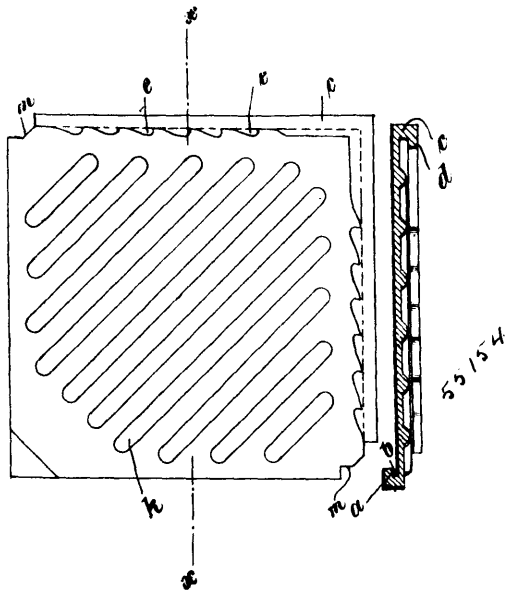
Claim.—1st. In a grocer's tin can or box, strips of flexible sheet metal secured at one end to the can, the same being capable of folding on the can and adapted to its cylindrical shape when not in use, and bent outwards to form legs to sustain the can in a horizontal position when used as a grater, slicer, etc., substantially as and for the purpose specified. 2nd. The combination in a grocer's tin can of the box A, cover B, the grater perforations C, and the strips *a a*, for legs, substantially as and for the purpose specified. 3rd. The combination in a grocer's tin can, of the box A, the cover B, the grater perforations C, the strips *a a* for the legs and the slicer slots D, with their cutting edges *b*, all constructed substantially as and for the purpose specified. 4th. The combination in a grocer's tin can or box, of the body A, having its cover B, constructed with an opening *c*, and a trap-door *f*, hinged over the opening on the inside of the cover, to close the opening from that side, substantially as and for the purpose specified. 5th. The combination in a grocer's tin can or box, of the body A, constructed with three legs attached to the sides of the open end of the can, the inverted cover B, and the diaphragm *j*, all constructed substantially as and for the purpose specified. 6th. In a grocer's tin can or box, the body A, constructed with flexible legs *aa*, grater openings C, slicer openings D, provided with their cutting edges *b*, opening *c*, in the cover B, with hinged trap-door *f*, behind it legs *b*, attached to the sides of the open end of the can, and the diaphragm *j*, all arranged and constructed substantially as and for the purpose specified.

No. 55,154. Roofing Tiles, and Machine for manufacturing same. (*Tuile pour toitures et appareil de fabrication.*)

Abraham Weil, Steinheim, Westphalia, Germany, 4th March, 1897; 6 years. (Filed 30th September, 1896.)

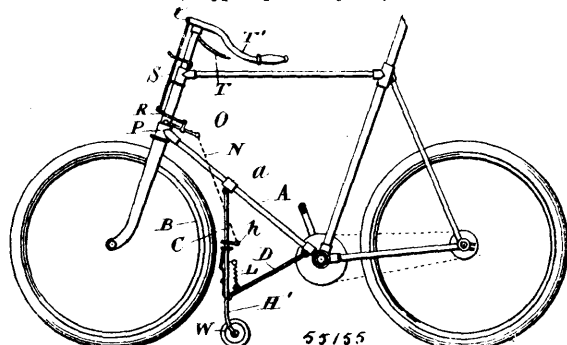
Claim.—1st. A roofing tile having angular corner joints and two connected overlapping fillets on the upper and under sides thereof, the lower overlapping fillets being provided with serrated tongues, and the upper overlapping fillets with notched grooves adapted to receive the said serrated tongues, substantially as described. 2nd. In a roofing tile, a projecting tongue at the corner where the two lower overlapping fillets are connected together, substantially as described. 3rd. In a machine for forming the overlapping fillets on roofing tiles, the plate 12 and the bell-crank lever 11 pivoted on the bridge 10, so combined and arranged that the said plate is moved diagonally downwards into the working position by the movement of the bell crank lever in one direction, and diagonally upward into the elevated position by the movement of the bell-crank lever in the opposite direction, substantially as described. 4th. In a machine for forming the overlapping fillets on roofing tiles, the two plates 37 and 38 connected together movably with reference to one another, by means of screws, the plate 38 being provided with a slotted belt which is movable vertically in a box or socket, 36 connected with the bridge 25, an eccentric 44 operated by a lever 42 pivoted to the box or socket 36, and a pin or projection 45 fixed to the eccentric 44, and taking into a slot 47 in the plate 37, combined, arranged and operating so as to produce firstly a movement of the lower plate 37 towards the right, and secondly an elevation of both plates together, substantially as described. 5th. In a machine for forming the overlapping fillets on roofing tiles, the rigid connection of the bridge 25 with the two slides 23 and the adjustable arrangement of the hopper 29, on the slides 23, in such a manner that the hopper can be moved by means of a link 35 and lever 34 to or from the bridge 25, substantially as described and for the purpose specified. 6th. In a machine for forming the overlapping fillets on roofing tiles the levers 27 con-

necting rods 28 and slides 23, so combined and arranged that the slides 23, the hopper 29 and the whole groove-forming apparatus for



the upper overlapping fillets can be moved by means of the said levers 27, substantially as described. 7th. A mould-plate for forming the underside of a roofing tile, having a hollow impress 2 formed on the underside thereof for the purpose of guiding a slide which is inserted through an opening in the vertical wall of the mould-plate for making the recess or groove on the lower overlapping fillets, whereby the base of the groove is brought even or flush with the lower surface of the roofing tile, substantially as described.

No. 55,155. Support for Bicycles. (*Support pour bicycles.*)

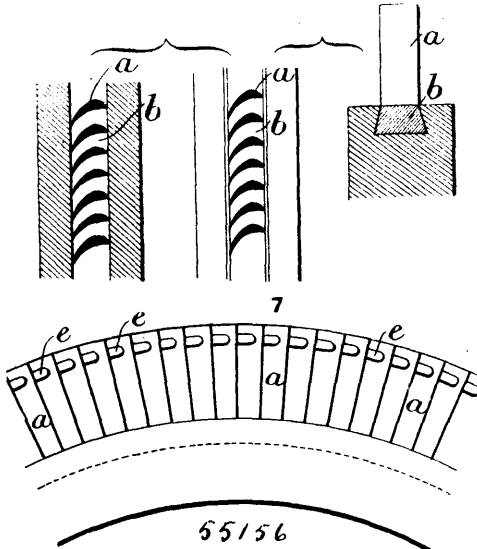


Henry Lewis Davis, Kilburn, London, N.W., England, 4th March, 1897; 6 years. (Filed 21st January, 1897.)

Claim.—1st. The appliance for raising, lowering and holding in position the side supports of a bicycle, substantially as described and illustrated. 2nd. In a support for bicycles, the combination of a plate or rod such as C, carrying a compound plate such as F, G, arranged to slide vertically thereon, and to which is connected a pair of adjustable rods such as H and H', with means for automatically placing and locking the said rods in a position for maintaining the perpendicularity of the machine, and means for placing and locking the same in a position of rest, substantially as herein described and shown by the accompanying drawings. 3rd. In a support for bicycles, the combination of a plate or rod such as C, with means such as *a*, and D, for connecting the same to any type of machine behind the front or steering wheel, and upon which is arranged to slide a compound plate F, G, having pivotally connected thereto, the upper ends of a pair of adjustable rods such as H and H', carrying at their lower ends, wheels or rollers such as W, and pivotally connected to the plate C, by the rods such as V, the said compound plate F, G, also carrying suitable levers such as J and K, moving therewith and operated by suitable springs such as L, and *m*, for automatically lowering these and the rods H, and H', and placing the wheels or rollers of the latter in contact with the ground, with means such as *k* and *l*, for automatically locking the said rods in this position, the whole connected, combined and operating, substantially as herein described and shown by the appended drawing. 4th. The support for bicycles, as set forth in the preceding claims, in combination with means for raising the compound plate F, G, and its connections, and placing the rods

H, H¹, in a position of rest, consisting of a crutch connected to or formed integrally with the lever J, and having a pair of arms *b, b*, connected by rods, chains, wires or cords, such as N, to long levers such as R, or to levers such as O, linked or otherwise connected to levers such as R, mounted upon the front fork tube P, the levers R, being in pivotal connection with an adjustable rod S, attached to a lever such as T, pivoted at *t*, to the handle bar T¹, with means such as *v*, for locking the lever T when raised, substantially as and for the purposes herein described and shown by the accompanying drawing.

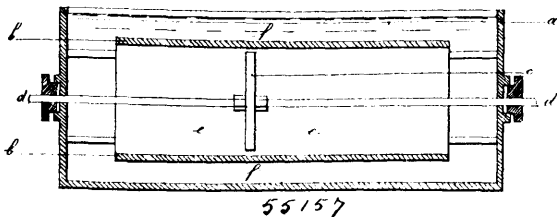
No. 55,156. Manufacture and Fastening of Steam Turbine Blades. (*Fabrication et appareil à assujétir les ailes des turbines à vapeur.*)



Charles Algernon Parsons, Heaton Works, Newcastle-on-Tyne, Northumberland, England, 4th March, 1897; 6 years. (Filed 27th January, 1897.)

Claim.—The manufacture and fastening of steam turbine blades and distance pieces substantially as hereinbefore described and illustrated.

No. 55,157. Hydraulic Pendulum for increasing Motive Power. (*Pendule hydraulique pour augmenter la force motrice.*)



Henri Bean, Paris, France, 4th March, 1897; 6 years. (Filed 25th January, 1897.)

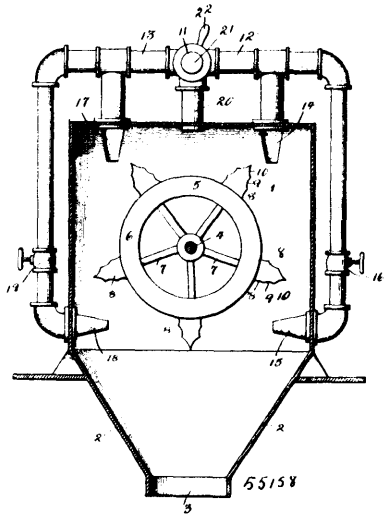
Claim.—An hydraulic pendulum for producing by reaction a motive power which is larger than the power which moves the pendulum, and said pendulum constructed with a vessel of liquid which contains a mass withdrawn from the action of gravity, a piston introduced into said mass, a motive power for moving the piston and thereby imparting the speed of the piston to the mass, and said piston being adapted to receive the power of the liquid mass when reacting, and a channel or channels adapted to permit the liquid to flow around from one to the other side of the piston, substantially as described.

No. 55,158. Water Motor. (*Moteur à eau.*)

James Hurley, Chicago, Illinois, U.S.A., 4th March, 1897; 6 years. (Filed 28th January, 1897.)

Claim.—1st. In a water motor, the combination of a casing having an opening in the lower end thereof, a water wheel mounted to rotate on the inside of said casing, a main supply pipe for water, branch pipes connected thereto, and leading outwardly therefrom, a pair of nozzles in each of said branch pipes entering the casing on opposite sides thereof, the members of each pair of nozzles being disposed at right angles one to the other, and means for regulating the direction of flow of the water in said branch pipes, substantially as and for the purpose described. 2nd. In a water motor, the combination of a casing having an opening in the lower end thereof, a

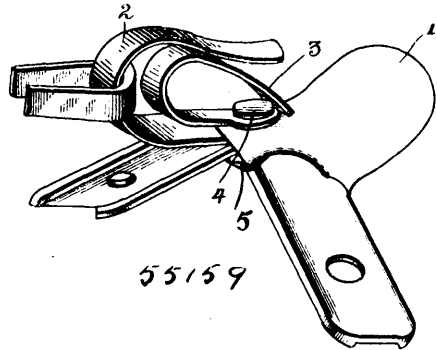
water wheel mounted to rotate on the inside of said casing, a main supply pipe for water, branch pipes leading outwardly therefrom, a



pair of nozzles in each of said branch pipes entering said casing on opposite sides, the members of each pair of said nozzles being disposed at right angles one to the other, a valve or cut-off in each of said branch pipes located between said nozzles, and means for regulating the direction of flow of the water through said branch pipes, substantially as and for the purpose described. 3rd. In a water motor, the combination of a casing having an opening in the lower end thereof, a water wheel mounted to rotate on the inside of said casing, a main supply pipe for water, branch pipes leading outwardly therefrom in opposite directions, an extension entering the upper end of said casing at a point directly above the axis of said water wheel, a nozzle in each of said branch pipes entering the casing on opposite sides thereof, and a three-way valve at the juncture of said main supply pipe, said extension, and said branch pipes, substantially as and for the purpose described.

No. 55,159. Harness Attachment.

(*Attache de harnais.*)



Albert Henry Southwell and Henry Herbert Humphrey, both of Clinton, New York, U.S.A., 4th March, 1897; 6 years. (Filed 25th January, 1897.)

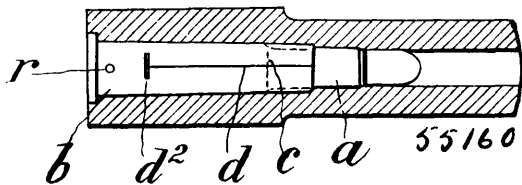
Claim.—1st. The combination with a check hook, of a guard therefor, comprising a spring arm having a rear portion adapted to prevent the check rein from becoming disengaged from the hook. 2nd. The combination with a saddle and a check hook, of a guard made from a single piece of spring metal which is curved forwardly into the check hook, and then rearwardly and downwardly, which latter portion lies adjacent to the bill of the hook, and a bolt passing through the lower portion of the guard, the saddle and the check hook, said bolt being provided with a clamping nut.

No. 55,160. Miniature Ammunition or Practice Cartridge. (*Cartouche.*)

Matthew Mullineux, 17 Maple Street, Cheetham, Manchester, Lancaster, England, 4th March, 1897; 6 years. (Filed 25th January, 1897.)

Claim.—1st. A breech piece or adaptor for adapting miniature or practice cartridges to small bore firearms chambered for a larger cartridge, consisting of a metal casing fitting the breech chamber of the firearm without any openings and adapted to receive the miniature cartridge case and surround it with metal when in the breech, substantially as described for the purpose set forth. 2nd. A breech

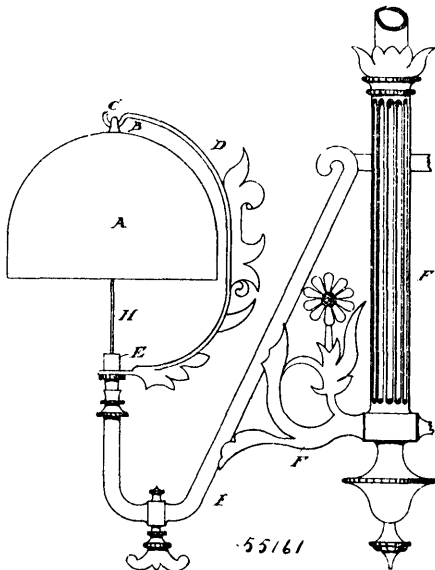
piece or adaptor for adapting miniature or practice cartridges to small bore firearms, chambered for a larger cartridge, consisting of



a metal casing fitting the breech chamber of the firearm and provided with slits extending rearwardly from its front to facilitate the insertion of the miniature cartridge, and of such size that when inserted in the breech the slits are completely closed, substantially as described for the purpose set forth.

No. 55,161. Arrangement for Gas Lights.

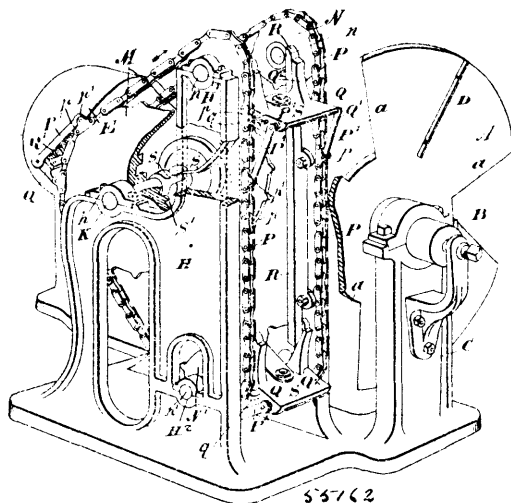
(Appareil pour l'éclairage au gaz.)



George Bray, Leicester Place, Leeds, York, England, 4th March, 1897; 6 years. (Filed 26th January, 1897.)

Claim.—The combination of gas bracket and canopy globe of the kind indicated and means for holding the globe in relation to the flame, in the position indicated, substantially as described.

No. 55,162. Machine for Manufacturing Excelsior Packing. (Machine pour la fabrication d'empaquetage excelsior.)

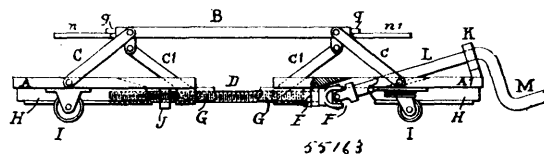


James Albert Manning, Toronto, Ontario, Canada, 4th March, 1897; 6 years. (Filed 29th January, 1897.)

Claim.—1st. In a machine for manufacturing excelsior packing, the combination with the block holder, of sets of scoring knives

W. H. suitably held and facing the block, an endless driving support to which the sets of knives are connected whereby the continuous scoring of the block is effected, as and for the purpose specified. 2nd. In a machine for manufacturing excelsior packing, the combination with the block holder, of sets of scoring knives suitably held and facing the block, an endless driving support to which the sets of knives are connected whereby the continuous scoring of the block is effected, and a rotatable disc or wheel provided with recesses through which the sets of knives are designed to project, and intermediate slicing knives designed to follow the scoring knives to separate the scored portions, as and for the purpose specified. 3rd. In combination, the block holder, the scoring knives and knife holder, an endless sprocket chain, means for driving the same and a suitable connection between the knife holder and the chain whereby such holder and knives are held rigidly in proper relative position as they pass downwardly over the face of the block, as and for the purpose specified. 4th. In combination the block holder, the scoring knives and knife holder, endless sprocket chains, sprocket wheels upon which the endless sprocket chains are supported and driven, and guide-bars for the holder parallel to the faces of the block, as and for the purpose specified. 5th. In combination the block holder, the scoring knives and knife holders having forwardly extending grooved supports, endless sprocket chains pivotally connected to the sides of the holders, sprocket wheels upon which the endless sprocket chains are supported and driven, and the guide-bars parallel to the faces of the block upon which the grooved guiding supports are designed to have longitudinal movement, as and for the purpose specified. 6th. In combination the block holder, the scoring knives and knife holders having forwardly extending grooved supports, rearwardly extending bracing supports, endless sprocket chains pivotally connected to the sides of the holder, sprocket wheels upon which the endless sprocket chains are supported and driven, and the guide-bars parallel to the faces of the block upon which the grooved guiding supports are designed to have longitudinal movement, as and for the purpose specified. 7th. In combination the block holder, the scoring knives and knife holders having forwardly extending grooved supports, forwardly extending braces pivotally connected to the holder and the links of the chain, endless sprocket chains pivotally connected to the sides of the holder, sprocket wheels upon which the endless sprocket chains are supported and driven, and the guide-bars parallel to the faces of the block upon which the grooved guiding supports are designed to have longitudinal movement, as and for the purpose specified. 8th. In combination the scoring knives and knife holder, the endless sprocket chains, sprocket wheels M N N' suitably journaled and upon which the endless sprocket chains are supported and driven, guide-bars for the holder parallel to the faces of the block and an inwardly extending flexible strap connected to the holder and to a collar on the shaft of the main driving sprocket wheel, as and for the purpose specified. 9th. In combination the scoring knives and knife holder, the endless sprocket chains, sprocket wheels M N N' upon suitably journaled and upon which the endless sprocket chains are supported and driven, guide-bars for the holder parallel to the faces of the block, the shaft K to which the sprocket wheels M are secured, the bevel pinion J, bevel wheel I, and main driving shaft B, all arranged as and for the purpose specified.

No. 55,163. Stove Truck. (Camion pour poêles.)

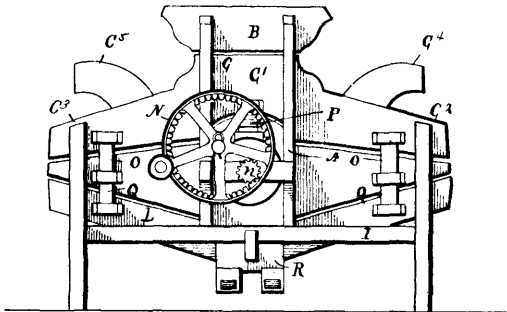


William H. Neeb, Detroit, Michigan, U.S.A., 5th March, 1897; 6 years. (Filed 6th February, 1897.)

Claim.—1st. In a stove-truck, the combinations of the platforms B, and A, A', the levers C, C', part of said levers inclining in one direction and part in the other direction, and means for drawing together and separating the ends of said levers, substantially as and for the purpose described. 2nd. In a stove-truck the combination of the platforms, B, and A, A', the levers C, C', connecting said platforms, part of said levers inclining in one direction and part in the other direction, the platform A, A', being divided into two parts A, and A', the levers inclining in one direction being pivoted upon one of said parts, and the levers inclining in the other direction being on the other of said parts, and means for adjusting the distance apart, of the parts of the platform A, A', substantially as shown and described. 3rd. In a stove-truck the combination of the platforms B, and A, A', the levers C, C', connecting said platforms, part of said levers inclining in one direction and part in the other direction, the platform A, A', being divided into two parts, A, and A', the levers inclining in one direction being pivoted upon one of said parts, and the levers inclining in the other direction being on the other of said parts, a leading-screw connecting the parts A, and A', of the platform A, A', and the upwardly inclining shaft L, connected with said leading screw by a gimbal joint, substantially as and for the purpose described. 4th. The combination with the platform B, of the cranks n, n', pivoted to the said platform and adapted to turn in an approximately vertical plane, the upward

motion of said cranks being limited to an approximately horizontal position, and the spring Q, adapted to turn said cranks upward, substantially as shown and described.

No. 55,164. Fanning Mill. (Turare cribleur.)

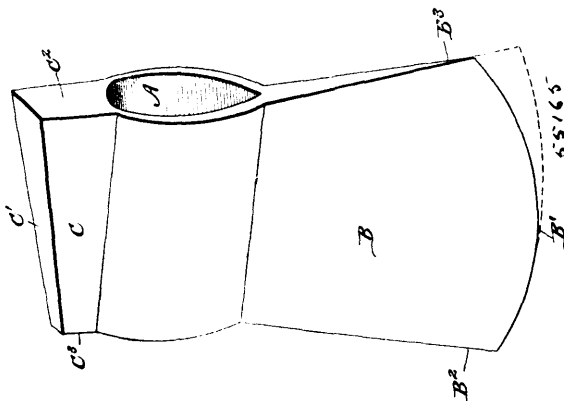


55164

Thomas J. Hatfield, Dublin, Indiana, U.S.A., 5th March, 1897; 6 years. (Filed 4th February, 1897.)

Claim.—1st. In a grain cleaner, the combination with the frame having a hopper supported centrally thereon, of an upper shoe C having a central portion underneath said hopper, and inclined end portions C², C³, a separating screen in each of said end portions, a separator D at the central portion of said shoe, the lower shoes having screens inclined toward the center, the central fan chamber and fan, and blast passages leading from opposite portions of said fan chamber into the upper shoe at the opposite end portions thereof, and the air chute arranged substantially as specified. 2nd. In a grain cleaner, the upper shoe C having the central portion C¹, and the downwardly inclined end portions C², C³, the separator D in the central portion C¹, the screen therein, the inclined end board H in the portion C³ of said shoe, the chaff board K¹, in the portion C², the screens H¹, K in said end portions, the lower shoe I inclined from both ends toward the center, the central fan chamber and fan, blast passages F, F¹, leading from opposite portions of said fan chamber and opening into the respective end portions of the shoe, and pivoted dampers controlling the discharges of said passages, and the air chutes arranged opposite the said passages, substantially as specified. 3rd. In a grain cleaner, the combination with the frame, the upper shoe having the oppositely extended inclined end portions, the lower shoes inclined toward the center, and the central portion of the frame having the fan chamber and fan, of the slotted arm P pivoted to the frame at one side and having an engagement with a crank pin of the fan shaft, an arm P² at the other side of the frame, said arm being pivoted to the upper shoe at one end, and to the frame at the lower end, and the arms Q pivoted centrally to the frame and at their ends to the respective shoes, substantially as specified. 4th. In a grain cleaner, the combination with a frame, the hopper supported centrally thereon, the upper shoe extending the length of the machine, a separate screen and discharge at each end portion of said shoe, a removable screen at the central portion of said shoe, on to which the said hopper discharges, a blast chamber underneath said screen, blast flues leading from opposite portions of said chamber to each end portion of said shoe, valves in said passages, and lower shoe one at each end of said frame in the lower portion thereof, and the air chutes arranged substantially as specified.

No. 55,165. Axe. (Hache.)



55165

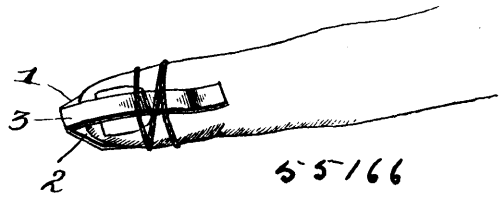
William Adams Grimes, Sparta, Georgia, U.S.A., 5th March, 1897; 18 years. (Filed 1st February, 1897.)

Claim.—1st. An axe head, having an eye extending through it at an angle to its back edge, substantially as shown and described. 2nd. An axe head having the general line of its cutting edge

pitched at an angle to the general line of its eye, substantially as shown and described. 3rd. An axe head having its eye extending through it at an angle to its back, and the general line of its cutting edge pitched at an angle to the general line of its eye, substantially as shown and described.

No. 55,166. Finger Cap or Protector.

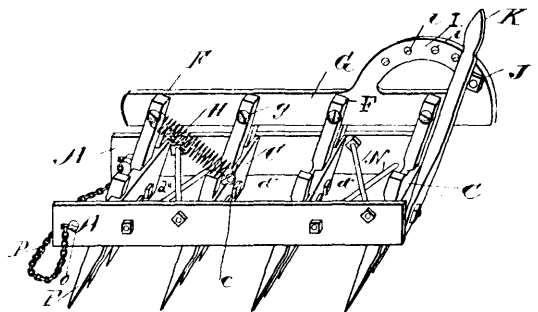
(Protecteur de doigts.)



Emma M. Sivils, Sacramento, California, U.S.A., 5th March, 1897; 6 years. (Filed February 1st, 1897.)

Claim.—1st. A device of the kind specified consisting of a body portion having a contour conforming to the end of a finger, an end fin, and means for securing said body portion to the finger. 2nd. A device of the kind specified, consisting of a body portion, having an inwardly bent finger, a fin, and a lacing device, substantially as described.

No. 55,167. Harrow. (Herse.)



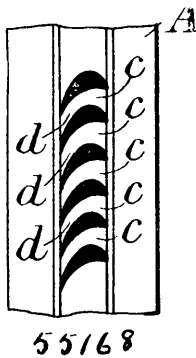
55167

William L. Marshall, Port Perry, Ontario, Canada, 5th March, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. A harrow section consisting of side bars, a plurality of sets of harrow teeth, independently and rotatively connected to the side bars, and a coupling-bar to cause the united movement of the said sets of harrow teeth, substantially as specified. 2nd. A harrow section comprised of side bars, a plurality of sets of harrow teeth, independently and rotatively connected to the side bars, a coupling bar to cause the united movement of each set, and a spring to hold the harrow teeth in their normal position when at work, and to automatically return them to their normal position after being actuated, substantially as specified. 3rd. A harrow section comprised of side bars, a plurality of sets of harrow teeth, independently and rotatively connected to the side bars, a coupling bar to cause the united movement of each set, a spring to hold the harrow teeth in their normal position, and to return them to their normal position after being actuated, a lever connected to one set of harrow teeth, and a stop connected to the coupling bar to arrest the movement of the lever, substantially as specified. 4th. A harrow section comprised of side bars, a plurality of sets of harrow teeth, independently and rotatively connected to the side bars, a coupling bar to cause the united movement of each set of teeth, a lever connected to one set of teeth, and a stop connected to the coupling bar to arrest the movement of the lever, substantially as specified. 5th. A harrow section comprised of two rigid side bars, rock-shafts journaled in the side bars, a clamping bar for each rock-shaft, harrow teeth interposed between the rock-shaft and clamping bar, and a coupling bar connected to each set of teeth to cause their united movement, substantially as specified. 6th. A harrow section comprised of two rigid side bars, rock-shafts journaled in the side bars, a clamping bar for each rock-shaft, harrow teeth interposed between the rock-shaft and clamping bar, a coupling bar connected to each set of teeth to cause their united movement, and a spring to actuate the coupling bar to return the teeth to their normal position after being actuated, substantially as specified. 7th. A harrow section comprised of rigid side bars, a plurality of rock-shafts journaled in the side bars, a flanged clamping bar adjacent to each rock-shaft, a plurality of teeth located between each rock-shaft and its adjacent clamping bar, a coupling bar connected to each set of teeth, a spring connected to the coupling bar and to one of the clamping bars, a lever connected to one set of teeth, and a stop connected to the coupling bar to arrest the movement of the lever, substantially as specified. 8th. In a harrow section, the combination of the side bars A A, the rock-shafts B B, journaled in the side bars, a clamping bar, C C, for each rock-shaft, having flanges, c c¹, the seats E formed in the flanges

cc' , the harrow teeth, $F F'$, located between the rock-shafts and clamping bars and in the seats E , a coupling bar G connected to the harrow teeth F' , a spring H connected to the coupling bar G , and to one of the clamping bars, a quadrant I connected to the coupling bar, a lever K connected to one of the clamping bars, an adjustable stop J connected to the quadrant to arrest the motion of the lever, a spring M connected to one of the rock-shafts and to the coupling bar, to compensate the action of the spring H , substantially as specified. 9th. In a harrow section the combination of the side bars $A A$, the rock-shafts $B B$, journaled in the side bars, a clamping bar $C C$ for each rock-shaft, having flanges $c c'$, the seats E formed in the flanges $c c'$, the harrow teeth $F F'$ located between the rock-shafts and clamping bars and in the seats E , a coupling bar G connected to the harrow teeth F' , a spring H connected to the coupling bar G , and to one of the clamping bars, a quadrant I connected to the coupling bar, a lever K connected to one of the clamping bars, an adjustable stop J connected to the quadrant to arrest the motion of the lever, a spring M connected to one of the rock-shafts and to the coupling bar, to compensate the action of the spring H , and a chain connected to the front of the side bars, and adapted to be attached to the double-tree, substantially as specified.

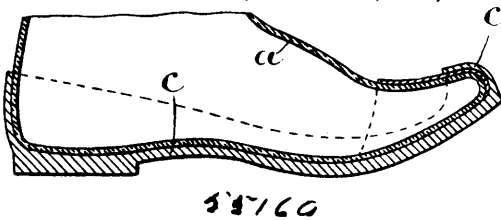
No. 55,168. Steam Turbine Blade.
(*Ailes de turbines à vapeur.*)



Charles Algernon Parsons, Heaton Works, Newcastle-on-Tyne, Northumberland, England, 5th March, 1897; 6 years. (Filed 27th January, 1897.)

Claim.—Thickening the convex sides of steam turbine blades as and for the purposes described and illustrated.

No. 55,169. Felt Boot. (*Chaussure en feutre.*)



Theodore Stafford Very, Boston, Massachusetts, U.S.A., 5th March, 1897; 6 years. (Filed 6th February, 1897.)

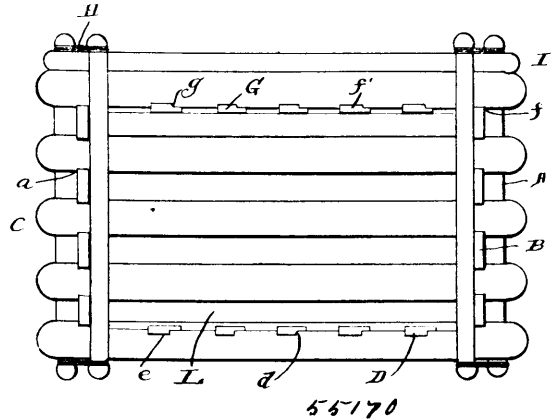
Claim.—As an improved article of manufacture, a seamless felt boot having a seamless inner surface formed to cover the entire foot of the wearer, wear-resisting and waterproof bottom and side reinforcements, and a top reinforcement or hinge of the material described cemented to the upper surface of the fore part and adapted to prevent disintegration of the felt by the flexure to which the said fore part is subjected.

No. 55,170. Crate. (*Caisse.*)

Andrew Stratton, Augusta, Wisconsin, U.S.A., 5th March, 1897; 6 years. (Filed 5th February, 1897.)

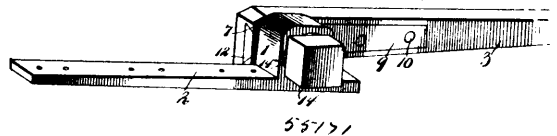
Claim.—1st. A crate composed of corner posts, end and side strips formed with interlocking notches, a bottom formed of strips engaging notches in the bottom side pieces, and a slatted top and fastening means, substantially as described. 2nd. A crate composed of angularly disposed corner posts, interlocking sides and end strips overlapping between the posts, a slatted bottom engaging notches in the lowermost side strips, upper side pieces having notches on their under sides, a slatted top and wedge strips for locking the parts in position, substantially as described. 3rd. A crate composed of angularly disposed corner posts, interlocking sides and end strips overlapping between the posts, a slatted bottom engaging notches in the lowermost side strips, upper side pieces having notches on their under sides, a slatted top and wedge strips for locking the parts in position, the corner posts being each composed of two parts, joined together at their upper and lower ends, substantially as described. 4th. A crate composed of angularly disposed corner

posts, interlocking sides and end strips overlapping between the posts, a slatted bottom engaging notches in the lowermost side



strips, upper side pieces having notches on their under sides, a slatted top and wedge strips for locking the parts in position, combined with a removable lining, substantially as described. 5th. A crate composed of angularly disposed corner posts, interlocking sides and end strips overlapping between the posts, a slatted bottom engaging notches in the lowermost side strips, under side pieces having notches on their under sides, a slatted top and wedge strips for locking the parts in position, combined with a removable lining, and foldable trays having locks, substantially as described.

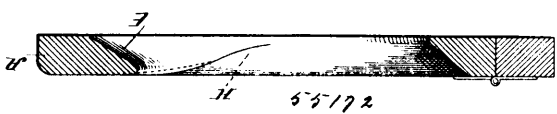
No. 55,171. Pitman. (*Tige de faucheuses.*)



Thomas Regan, Crawford, Nebraska, U.S.A., 5th March, 1897; 6 years. (Filed 5th February, 1897.)

Claim.—1st. A pitman having a longitudinal recess or seat tapered in width from an intermediate point toward its extremities and terminating at its inner end in an abrupt shoulder, a journal adapted to fit in a bearing-eye and provided with a securing-plate removably fitted in said recess or seat, said plate being constructed to correspond with and fit snugly in the recess or seat, and means for detachably securing the plate in place, substantially as specified. 2nd. A pitman provided in one side with a longitudinal tapered recess or seat terminating at its inner end in an abrupt shoulder and provided at its outer end with dove-tailed inwardly projecting or overhanging ears, a journal adapted to be fitted in a bearing-eye, a securing-plate carried by said journal and constructed to fit snugly in said recess or seat, the inner end of the securing-plate being abrupt to bear against said shoulder and the outer end thereof being dove-tailed to engage the under surface of the overhanging ears at the outer end of the recess or seat, and means for detachably securing said plate against lateral displacement at its inner end, the thrust of the plate in opposite directions being resisted, respectively, by the abrupt shoulder and the overhanging ears respectively at the inner and outer ends of one recess or seat, substantially as specified.

No. 55,172. Seat for Water Closets. (*Siège de latrines.*)



Edward Lowell Taft, Gardner, Massachusetts, U.S.A., 5th March, 1897; 6 years. (Filed 5th February, 1897.)

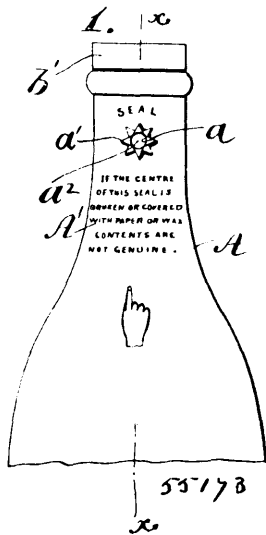
Claim.—The seat for water closets, having its surface provided with a bowl-shaped depression and having its forward portion raised, as at G , with the adjacent portion on either side of the raised portion hollowed or concave, as at L , said seat having a neck-shaped opening D , and a recess E , upon the under side of the seat.

No. 55,173. Bottle. (*Bouteille.*)

Edmund Towers, Yonkers, John Gibney and John Christian Spielman Weills, both of Ling, all of New York, U.S.A., 5th March 1897; 6 years. (Filed 4th February, 1897.)

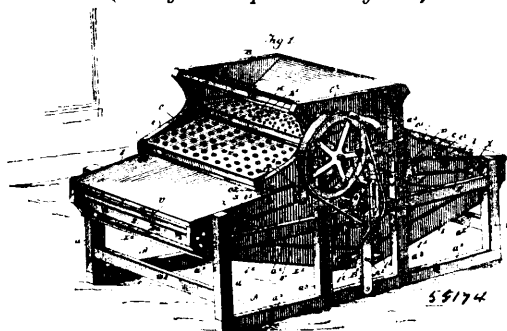
Claim.—1st. A bottle having a thin disc formed in the neck thereof adjacent to a recess which is adapted for engagement with the bottle stopper, said disc adapted to be broken away before the stopper can be removed, substantially as shown and described. 2nd. As a new article of manufacture, a bottle having a recess formed in the outer portion of the neck thereof and a thin disc closing said re-

cess, which disc communicates with a recess formed on the inner surface of the neck of the bottle, said recess adapted for engagement



with a projecting spring of a bottle stopper, whereby the bottle cannot be opened without breaking away the disc, substantially as shown and described. 3rd. In a bottle, the combination of a recess formed in the outer portion of the neck thereof and a thin disc closing said recess, said disc communicating with a recess within the inner surface of the bottle neck, with a stopper having a bow-spring connected thereto which engages with the recess of the inner wall of the neck of the bottle, substantially as shown and described. 4th. The combination of a bottle having a recess formed within the outer surface of the neck thereof and a recess formed within the inner surface of said neck, these said recesses being adapted by means of a thin disc forming an integral part of the neck of the bottle, said neck also having a groove therein, located opposite to the said recess, with a bottle stopper having a tongue thereon for engagement with the groove of a bottle neck, and a recess therein located opposite to said tongue for holding the bow-spring, the outwardly extending arm of said bow-spring engaging with the inner recess of the neck of the bottle, said stopper also having a recess within the head thereof for receiving a tool for opening the bottle, substantially as shown and described. 5th. The combination of a bottle having a recess in the outer portion of the neck thereof and a recess in the inner portion thereof, said recess being joined by means of a thin disc, and a stopper having a bow-spring therein engaging with the inner recess, said stopper also having a recess within the head thereof, with a tool comprising jaws adapted for movement toward each other, one jaw having a segmental projection thereon for engagement with the neck of the bottle and the other a stud for breaking away the disc of the bottle neck, said tool also having a lever connected thereto for moving the stopper, substantially as shown and described.

No. 55,174. Grain Cleaner and Separator.
(*Nettoyeur et séparateur de grain.*)

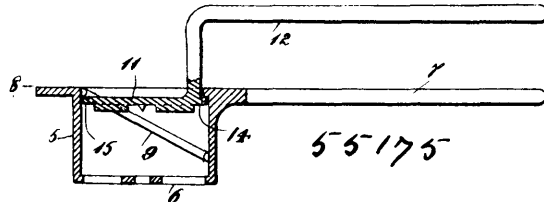


Richard L. Duvall, Chicago, Illinois, assignee of Thomas J. Hatfield, Dublin, Indiana, both in the U.S.A., 5th March, 1897; 6 years. (Filed 4th February, 1897.)

Claim.—1st. In a machine as described, the combination with the fan, the crank on the fan shaft, the hopper and separator shoe, of the vibrating levers B, one pivoted at each side at its lower end to the main frame, and at its upper end engaging the crank of the fan shaft, the rod A², and the shoe L, detachably hung at the lower end of the rod A², and having a swinging connection with the main frame at the upper end, all arranged substantially as shown and described. 2nd. In a machine as described, the combination with the

fan shaft having crank discs WW, having crank pins on the separator frame arranged substantially as described, of the arms B² pivoted at the lower end to the main frame, of the rod A² the shoe L, pivotally connected to the main frame at the upper end and having at its lower end mounted on said cross rod A², said arms B² being slotted as at b² to receive the pins w, the arms G pivotally connected to the main frame having crank portions d⁵ fitting the slotted ends of the arms B² and having their upper ends connected to the separator frame, substantially as shown and described.

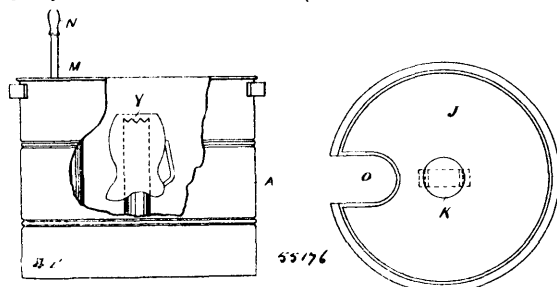
No. 55,175. Lemon Squeezer. (*Pressoir à citron.*)



Charles Bugby Carter, Bordentown, New Jersey, U.S.A., 5th March, 1897; 6 years. (Filed 4th February, 1897.)

Claim.—1st. The herein described lemon juice extractor, which comprises two parts, one of which consists of a cylindrical cup-shaped receptacle having a perforated bottom and a handle connected with one side thereof, said receptacle being provided in its opposite sides with spiral ribs as described, and the other parts, consisting of a circular disk or head, having an angular handle connected therewith, and being provided on its opposite sides with lugs or projections which are adapted to operate in connection with said ribs, substantially as shown and described. 2nd. The herein described lemon juice extractor, which comprises two parts, one of which consists of a cylindrical cup-shaped receptacle having a perforated bottom and a handle connected with one side thereof, said receptacle being provided in its inner side walls with two spiral ribs, one of which begins opposite the handle and extends downwardly and around one side of the receptacle and terminates below the handle, and the other of which begins adjacent to the handle and extends downwardly and around the opposite side and terminates opposite the handle, and the other part consisting of a circular disk or head provided with an angular handle, and with lugs or projections on the opposite sides thereof which are adapted to operate in connection with said ribs, substantially as shown and described. 3rd. The herein described lemon juice extractor, which comprises two parts, one of which consists of a cylindrical cup-shaped receptacle having a perforated bottom and a handle connected with one side thereof, said receptacle being provided in its inner side walls with two spiral ribs, one of which begins opposite the handle and extends downwardly and around one side of the receptacle and terminates below the handle, and the other of which begins adjacent to the handle and extends downwardly and around the opposite side and terminates opposite the handle, and the other part consisting of a circular disk or head provided with an angular handle, and with lugs or projection on the opposite sides thereof which are adapted to operate in connection with said ribs, said disk or head being also provided on its under side with radial ribs or projections, substantially as shown and described.

No. 55,176. Dish Washer. (*Machine à laver la vaisselle.*)

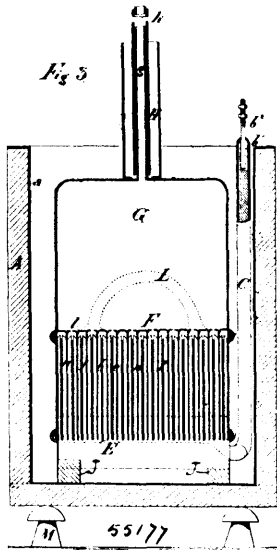


Daniel W. Hawkes, Deering, assignee of Fred. W. Harding, Baldwin, both in Maine, U.S.A., 5th March, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. In a dish washer, in combination, a tank, a pump having a vertical delivery spout mounted therein, and a cover to said tank having a pendant water spreader on its under side supported by a rod lying wholly between the cover and back of the spreader, and so located that when the cover is in position the face of said spreader will be directly over the open end of said spout, substantially as and for the purposes set forth. 2nd. In a dish washer, a suitable tank having its bottom in two parts at different elevations, the lower elevation including somewhat more than half the tank, a pump secured in said tank consisting of a barrel extending into the lower part of the tank, a delivery spout having a hori-

zonal part lying wholly within said lower part, and a vertical part substantially at the centre of and concentric with the tank, and a cover having attached thereto a spreader so located that when in position it is directly over the open delivery end of the spout, substantially as and for the purposes set forth. 3rd. In a dish washer, in combination, a suitable tank, a cover therefor provided with a re-entrant cut, downwardly extending flange and a water spreader, and a pump provided with a piston, a piston rod, delivery spout and a removable cap, said cap being provided with a sleeve to guide the piston rod and with a guard to engage said flange to prevent the escape of steam or water from the tank through the re-entrant cut in the cover, substantially as and for the purposes set forth.

No. 55,177. Apparatus for producing Oxygen and Hydrogen by Electrolysis. (*Appareil pour la production d'oxygène et hydrogène par l'électrolyse.*)



The Co. Pompeo Garuti and Ricardo Pompili, assignee of Pompeo Garuti, all of Naples, Italy, 8th March, 1897; 6 years (Filed 25th November, 1896.)

Claim.—1st. In an apparatus for separating gases by electrolysis, the combination with a metal case, and cathode and anode plates, of metal diaphragms in said case forming the walls of cells, each of said diaphragms being transversely perforated at its lower portion, substantially as specified. 2nd. In an apparatus for separating gases by electrolysis, the combination with a tank, of metallic diaphragms in the tank, each having a number of small and closely arranged perforations through its lower portion, alternating anode and cathode plate, insulating devices for separating said plates from the diaphragms, and the current conductors having connection with the plates, substantially as specified. 3rd. In an apparatus for separating gases by electrolysis, the combination of a tank for an electrolytic solution, a case arranged in said tank and supported above its bottom, the said case being open at its lower end, a number of diaphragms extended longitudinally in said case, each having a number of perforations through its lower portion, gas-receiving chambers on the top of the case and communicating with cells formed by the diaphragms, alternating anode and cathode plates in the cells, and means for connecting said plates with an electric current, substantially as specified.

No. 55,178. Manufacture of Carbon for Electric Lights. (*Fabrication de carbones pour lumières électriques.*)

James Whitcomb, Adolbert Lane, both of Dundee, Michigan, and James A. Bailey, Findlay, Ohio, all in the U.S.A., 8th March, 1897; 6 years. (Filed 26th December, 1896.)

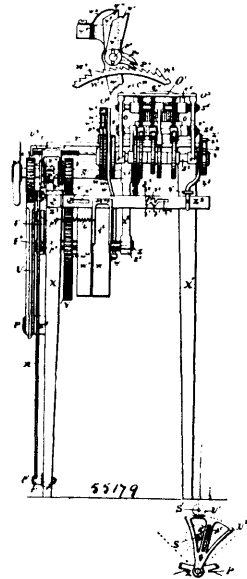
Claim.—The herein described composition for the manufacture of carbon for electric lights, consisting of oxide of aluminium, sulphate of copper, sulphuric acid, blue clay, plumbago, charcoal and salt-petre, in the proportions about as specified.

No. 55,179. Circular Knitting Machine.
(*Machine à tricoter circulaire.*)

Edwin Ruby Branson, Philadelphia, Pennsylvania, U.S.A., 8th March, 1897; 6 years. (Filed 16th January, 1897.)

Claim.—1st. In a knitting machine the combination with a cam cylinder and a needle cylinder relatively rotatable, of a shaft as S¹, operatively connected therewith, means adapted to drive said shaft

with a continuous rotary motion, means to drive said shaft with a reciprocatory rotary motion and means adapted to connect the shaft



S¹ alternately with either of the motion transmitting devices and also to hold it out of engagement with both, and a lock arranged to hold the shaft locked in a certain definite position when not held in connection with the motion transmitting devices; whereby the shaft S¹ and the needle actuating mechanism operated thereby may be given alternately a continuous rotary and reciprocatory rotary motion and when not so rotating may be held locked from rotation in a certain definite position. 2nd. In a knitting machine the combination of a needle and a cam cylinder relatively rotatable, a shaft S¹ operatively connected therewith, a main driving shaft S, means for transmitting continuous circular motion adapted to connect the two shafts, means for transmitting reciprocatory circular motion also adapted to connect the two shafts, a member driven from the main shaft and operating in conformity with the pattern of hosiery to be knit, means operated by said member and adapted to put the shaft S¹ in connection with the shaft S through one or the other of the motion transmitting devices and to hold it disconnected from said shaft S, and a lock preventing the rotation of the shaft S¹ during such time as it is held out of connection with the shaft S whereby the shaft S¹ together with the needle actuating cylinder actuated thereby, may be given successive, continuous and reciprocatory circular motions corresponding to those of the motion transmitting devices and held from movement when not connected to the driving shaft S, substantially for the purpose specified. 3rd. In a knitting machine the combination of a needle and a cam cylinder relatively rotatable, a shaft S¹ operatively connected therewith, a main driving shaft S, means for transmitting continuous circular motion adapted to connect the two shafts, means for transmitting reciprocatory circular motion and also adapted to connect the two shafts, a cam A of a contour to operate in conformity with the pattern of hosiery to be knit, mechanism operated from the main shaft S for turning said cam, means operated by said cam A and adapted to put the shaft S¹ in connection with the shaft S through one or the other of the motion transmitting devices and to hold it disconnected from said shaft S, and a lock preventing the rotation of said shaft S¹ during such time as it is held out of connection with the shaft S whereby the shaft S¹ together with the needle actuating cylinder actuated thereby may be given successive, continuous and reciprocatory circular motions corresponding to those of the motion transmitting devices and held from movement when not connected to the driving shaft S¹, substantially for the purpose specified. 4th. In a knitting machine the combination of a needle and a cam cylinder relatively rotatable, shaft S¹ operatively connected therewith, a main driving shaft S, means for transmitting continuous circular motion adapted to connect the two shafts, means for transmitting reciprocatory circular motion also adapted to connect the two shafts, a clutch member adapted to put the shaft S¹ in connection with the shaft S through one or the other of the motion transmitting devices and to hold it disconnected from said shaft S, a lock preventing the rotation of said shaft S¹ during such time as it is held out of connection with the shaft S, a shaft S² revolved from the driving shaft by suitable means, a cam A fast on the shaft S² of contour corresponding to the pattern of hosiery to be knit and operatively connected with the clutch device, all operating together in such a manner that the shaft S¹ together with the needle actuating-cylinder connected therewith is given alternately continuous and reciprocatory circular motion in accordance with the pattern of hosiery to be knit. 5th. In a knitting machine the combination of a needle and a cam cylinder relatively rotatable, a shaft S¹ operat-

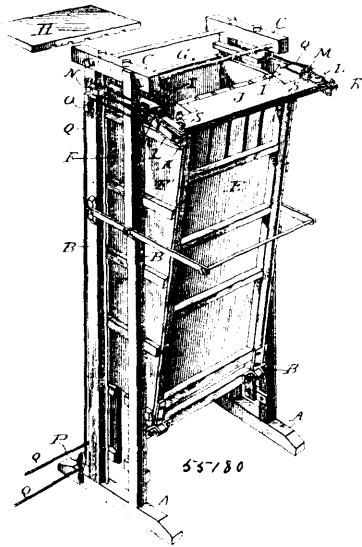
ively connected therewith, gear wheels as V^1 , U^1 , loosely mounted on said shaft S^1 , a driving shaft S , a gear V , and reciprocating rack operatively connected to the driving shaft S and adapted to transmit the one continuous and the other reciprocatory circular motion, a clutch member adapted to connect the shafts S and S^1 alternately through the two gears and to hold them disconnected, a lock adapted to lock the shaft S^1 from motion when it is not connected with the shaft S , a shaft S^2 operatively connected to the driving shaft S by suitable means, a pattern cam A fast on said shaft S^2 and operatively connected to the clutch member, all operating in such a manner that the shaft S^1 together with the needle actuating cylinder connected therewith will be given alternate continuous and reciprocatory circular motion in accordance with the pattern of hosiery to be knit. 6th. In a knitting machine, the combination of a needle and a cam cylinder relatively rotatable, a shaft S^1 operatively connected therewith, gear-wheels V^1 and U^1 journaled loosely on said shaft, a driving-shaft S , two gears on said shaft S meshing with gear-wheels V^1 and U^1 , and adapted to continuously revolve them during the operation of the machine, the one with continuous and the other with reciprocatory circular motion, a clutch member adapted to alternately connect the shaft S^1 to one or the other of said gear-wheels and to hold it disconnected from both, a lock operating to hold the shaft S^1 from rotation during such times as it is not connected to either of the gear-wheels, a shaft S^2 operatively connected to the driving-shaft S by suitable means, a pattern cam A fast on said shaft S^2 and operatively connected to the clutch member, all operating in such a manner that the shaft S^1 together with the needle actuating cylinder connected therewith will be given alternate continuous and reciprocating circular motion in accordance with the pattern of hosiery to be knit. 7th. In a knitting machine, the combination of a needle and a cam cylinder relatively rotatable, a shaft S^1 operatively connected therewith, gear-wheels V^1 , U^1 , loosely journaled on said shaft S^1 , a driving-shaft S , means as a gear-wheel V , and a reciprocating rack U continuously in gear with the wheels V^1 , U^1 , whereby these gear-wheels V^1 , U^1 , are adapted to be continuously revolved during the operation of the machine, one with a continuous and the other with a reciprocatory circular motion, a clutch member revolving with, but longitudinally movable along said shaft S^1 , and adapted to connect the said shaft and cause it to revolve with one or the other of said gear-wheels and also to disconnect the shaft from both gear-wheels, a lock arranged to hold the shaft S^1 from rotation when it is not connected with either gear-wheel, a shaft S^2 operatively connected to the driving-shaft by suitable means, a pattern cam A fast on said shaft S^2 and operatively connected to the clutch member, all operating in such a manner that the shaft S^1 together with the needle actuating cylinder connected therewith will be given alternate continuous and reciprocatory circular motion in accordance with the pattern of hosiery to be knit. 8th. The combination with a needle and a cam cylinder relatively rotatable, of a shaft S operatively connected therewith, gear-wheels V^1 , U^1 , loosely journaled on said shaft and provided with clutch grips, a driving-shaft S , means as a spur-wheel V , and a reciprocating rack U operatively connected with the driving-shaft and in gear with the gear-wheels V^1 , U^1 , and adapted to rotate said wheels concurrently the one with continuous and the other with reciprocating circular motion, a clutch member arranged to turn with but movable lengthwise of the shaft S^1 , said clutch member having clutches to take with the grips on the gear-wheels V^1 , U^1 , and also a flange as the disc V^2 , having a peripheral notch adapted to envelope when mutually registering, a fixed lock, as the inwardly projecting tip j of the finger J^1 , and said fixed lock, the whole co-operating so that the sliding clutch member can pass through the intermediate portion of its lengthwise slide between said wheels when said shaft is in a certain definite alignment, substantially as and for the purposes hereinbefore described. 9th. The combination with a needle and a cam cylinder relatively rotatable, of a shaft S^1 operatively connected therewith, gear-wheels V^1 , U^1 , loosely journaled on said shaft and provided with clutch grips, means for driving-gear V^1 with a continuous and gear U^1 with a reciprocating circular motion, a clutch member arranged to turn with but movable lengthwise of said shaft S^1 , having clutches adapted to take with the grips on the aforementioned wheels, and also a flange as the disc V^2 having a peripheral indentation adapted to envelope when mutually registering, a fixed lock as the inwardly projecting tip j of the aligning finger J^1 , said finger J^1 have the lock, a cam shaft S^2 rotated from the driving-shaft S by suitable means as a tappet lever w^1 , and a ratchet-wheel W^6 fast on the shaft S^2 , a cam-wheel A fast on and rotating with said shaft S^2 , a slider rod for moving the clutch member having springs Q^1 , Q^2 , Q^3 and operated from the cam-wheel A , all substantially as and for the purposes described. 10th. The combination in a knitting machine, of a needle and a cam cylinder relatively rotatable, a shaft S^1 operatively connected therewith, a main driving-shaft S , means operated from the main driving-shaft adapted to drive the shaft S^1 with a continuous rotary motion, and means, also operated from the main shaft, adapted to drive the shaft S^1 with a reciprocatory rotary motion, a clutch member operating to connect the two shafts by means of either one or the other of the motion transmitting devices, a cam shaft S^2 , fast and loose ratchet-wheels W^6 , W^7 secured thereon, pawls P^4 , P^5 reciprocated from the driving-shaft S , and operatively connected with the ratchet wheels W^6 , W^7 , respectively, means as relatively high teeth on the ratchet wheels

for throwing one or the other of the pawls out of operation, a cam wheel A fast on the shaft S^2 , and a lever operated by the cam wheel A adapted to operate the clutch member so that it will connect the shafts S and S^1 , by means of one or the other of the motion transmitting devices. 11th. The combination in a knitting machine, of a needle and a cam cylinder relatively rotatable, a shaft S^1 operatively connected therewith, a driving shaft S , gear wheels V^1 , U^1 , loosely journaled on the shaft S^1 , and provided with clutch grips and rotated from the main driving shaft S , the one with continuous and the other with reciprocating circular motion, a clutch member arranged to rotate with but free to slide lengthwise of said shaft S^1 , and adapted to alternately connect the shaft with one or the other of said gear wheels, so that the shaft will rotate with a motion corresponding to that of the gear wheel with which it is connected, means consisting of a slide rod S^4 , a block slidingly carried by rod S^4 , a spring Q , and stops v^6 and v^7 for holding said block in position on the rod S^4 , for moving said clutch and holding it in proper position, means for moving the rod, and a lock as the finger J^1 , having tip j , for holding the gear wheels V^1 , U^1 , in a fixed position when not rotating, all operating to connect and disconnect the gear wheels and shaft when the parts are in a definite alignment. 12th. In a knitting machine, the combination of a needle and a cam cylinder relatively rotatable, a shaft S^1 operatively connected therewith, gear wheels V^1 , U^1 , loosely journaled on said shaft and provided with clutch grips and rotated from the driving shaft S , the one with continuous and the other with reciprocating circular motion, a clutch member arranged to rotate with but free to slide lengthwise of said shaft S^1 , and adapted to connect the shaft alternately with one or the other of said gear wheels, and having a flange as the disc V^2 , with peripheral indentation J , adapted to envelope when mutually registering a fixed lock as the projecting tip j of an aligning finger J^1 , the said finger, means consisting of a slide rod S^4 , a block slidingly carried by the rod S^4 , a spring Q , and stops v^6 and v^7 for holding said block in position on the rod S^4 for moving said clutch, and holding it in proper position, a cam wheel A for moving said slide rod, having a contour corresponding to the style of hosiery to be knit, all operating to connect and disconnect the gear wheels and shaft S^1 and lock the shaft S^1 when not so connected, all movements being made when the parts are in a definite alignment. 13th. In a knitting machine, the combination of a needle and a cam cylinder relatively rotatable, a shaft S^1 operatively connected therewith, gear wheels V^1 , U^1 , journaled loosely thereon and provided with clutch grips and rotated from a driving shaft S , the one with continuous and the other with reciprocating circular motion, a clutch member rotating with but capable of sliding lengthwise of said shaft S^1 , adapted to connect the shaft alternately with either gear wheel, a shaft S^2 , a fast and idle ratchet wheel mounted thereon, said wheel being provided with relatively high teeth as described in conformity with the pattern, the main driving shaft, an oscillating lever w^1 operatively connected therewith and having a latch spring, pawls P^4 , P^5 , having detent bearing lugs pivotally connected to said lever and adapted on meeting said relatively high teeth to interchange periods of activity and of rest by alternately latching upon and disengaging each other from said latch spring and the cam wheel A fast on the shaft S^2 , and adapted to move the clutch member in accordance with the pattern of hosiery to be knit, all operating substantially as described. 14th. In a knitting machine, the combination of a needle and a cam cylinder relatively rotatable, a shaft S^1 operatively connected thereto, gear wheels V^1 , U^1 , loosely mounted on said shaft S^1 , a driving shaft S , a spur wheel V , and a reciprocating rack U , operated by the driving shaft S and in gear with the gear wheels V^1 , U^1 , H^1 , so as to rotate, one with a continuous and the other with a reciprocatory circular motion, a clutch member adapted to connect the shaft S^1 consecutively with one or the other of the gear wheels V^1 , U^1 , a shaft S^2 , means for rotating said shaft from the main driving shaft S , a cam wheel A mounted on the shaft S^2 , a lever A^1 operated thereby and adapted to actuate the clutch member, substantially as described. 15th. The combination in a knitting machine with relatively movable cam and needle mechanism, as set forth, of a suitable journaled shaft as S , means for rotating it, a lever w^1 , means as a tappet operatively connected so as to move with said shaft for oscillating lever w^1 , located so that one end thereof comes within the range of the means whereby said lever is oscillated, pawls pivotally connected at the other end, each provided with a wedge lug and detent, a spring latch arranged so as to alternately engage said detents, two ratchet wheels, each provided with occasional higher teeth forming pattern surfaces and operating to lift said pawls, and mounted, the one fast, and the other loosely on a shaft S^2 and said shaft, all operating substantially as set forth. 16th. The combination in a knitting machine with relatively rotatable cam and needle cylinders, of a driving shaft S , fast and loose pulleys w , w^1 mounted side by side thereon, a pattern surface formed in accordance with the style of hosiery to be knit and mounted on the shaft S^2 , means for rotating it from the driving shaft, a cam wheel Z rotating with said shaft S^2 , a link provided with a rider for reading said cam wheel and operative to raise and unlatch from a banking stud a shipper bar, said shipper bar having a zig-zig W -shaped slot as shown, a stud in said slot, and a spring tending to pull the shipper bar in a direction to shift an operative belt from the fast to the loose pulley, the whole operating to free said shipper bar and shift the belt from

the fast to the loose pulley only at the second full revolution of said shaft S, substantially as and for the purpose described. 17th. The combination with relatively movable cam and needle cylinders, of rotatable pinions U¹, V¹, a shaft S¹, a rod as S² adapted to slide endwise in suitable fixed eyes and provided with one longitudinally adjustable and three fixed abutments, one of said fixed abutments being located upon an extension of said rod outside of both of said fixed eyes and the remaining abutments located between them substantially as described: springs as Q¹, Q², helically coiled along said rod and operative to thrust the same endwise in the direction of said exterior fixed abutment, as P², a sliding piece as U² adapted to engage with a change of motion clutch and adapted to be guided by said sliding rod, a spring helically coiled along said sliding rod and adapted to thrust said sliding piece away from the central and towards the remaining internal fixed abutment r¹, a lever as A¹ a, provided with a forked disc bearing end and adapted to thrust against said adjustable abutment in a direction contrary to that in which the two first mentioned springs act upon said rod, a cam wheel as A adapted to rotate in rubbing contact with the other end of said lever, and a clutch member provided with an intermitted part as J, a fixed finger as J¹ adapted to register with the intermitted part of said clutch member, the whole operative in conjunction to slide said clutch member endwise, align, lock, and release the same radially, substantially as and for the purposes hereinbefore described. 18th. The combination in a knitting machine of a stationary cylinder as H having needle actuating cam paths located wholly within one half side of said cylinder, a series of knitting needles engaging therewith, a rotating needle cylinder as I, a needle rest as B² movably secured in the side of the cam cylinder opposite to that containing the cam paths and adapted to underlie the heels of all such active needles as are not at any time given within said semi-cylindrical area, levers pivoted outside of the said cylinders, a cam for actuating said levers, connections uniting said levers with said needle rest, and mechanism for automatically actuating said cam, the whole operative to occasionally reciprocate said needle rest and cause a group of needles to become non-active, substantially as and for the purposes hereinbefore described. 19th. The combination in a knitting machine of a cam cylinder as H having a needle actuating cam path located wholly within one half of said cylinder and adapted for the production of a tubular and gored web, a series of needles adapted to engage with said cam path, a needle cylinder as I arranged concentrically with the cam cylinder, the cylinders operating when one is rotated relatively to the other to reciprocate the needles in stitch waves, a vibrating needle depressor flap as e¹ located over the non-active area of the cam cylinder, a pivoted lever actuated by a cam and connected at one end to the flap e¹, a cam E adapted to actuate said lever to depress the flap, means for actuating said cam and means for retracting said flap after the cam has ceased to act, the whole operating to depress needles after "turning" heels and toes of hosiery substantially as and for the purpose specified. 20th. In a knitting machine the combination with a fixed cam cylinder and a rotatable needle cylinder designed on rotation of said needle cylinder to operate a series of knitting needles in stitch waves, of a driving shaft as S, a shaft S² located externally to said cylinders, means for driving said shaft S² from the driving shaft S, a series of cams on the shaft S² adapted to be rotated thereby, a series of pivoted levers adapted to read and be actuated by said cams and needle lifters and depressors in the cylinders connected with the pivoted levers and actuated thereby, all operating to raise and depress needles in the cylinders in accordance with the designed pattern. 21st. In combination with the rotatable needle cylinder I, an annular driving chuck seat U¹, and a spring latch adapted to lock said cylinder to, and unlock it from said seat, substantially as and for the purpose hereinbefore described. 22nd. The combination of the needle cylinder I, provided with radially projecting latches, a rotative driving chuck U¹ adapted to seat said cylinder and engage with said latches, and means for retracting said latches, the whole operating to alternately lock and release said cylinder and said driving chuck at will, substantially as and for the purpose hereinbefore described. 23rd. In a circular knitting machine, the combination of the cam cylinder, a flap F¹ pivoted to said cylinder, and adapted, when swung upward, to present its upper part within and above the top of said cylinder, a pendulous needle depressor finger F² pivoted to the upper part of said flap, and means for latching said finger with its needle engaging part in range of the non-active needles, a cam F and lever f, f² operative to swing said flap on its pivot, and bring said needle depressor finger into active position within said cam cylinder preparatory to widening, substantially as and for the purpose described. 24th. In a circular knitting machine, the combination of the cam cylinder, a flap F¹ pivoted to said cylinder, and adapted, when swung upward, to present its upper part within and above the top of said cylinder, pendulous depressor fingers F², F³ pivoted to said flap, and means for latching said fingers alternately with their needle-engaging parts in range of the non-active needles, a V-shaped central depressor cam N¹, located between said depressors and adapted to pass non-active needles received from said depressor fingers into the knitting cam paths, a cam as F, and a pivoted lever adapted to be actuated by said cam and connected to said flap and operative to swing said flap on its pivot and bring said needle depressor fingers into active position within said cam cylinder, the whole operating to return needles from either end of a non-active series to activity, substantially for the purpose described.

25th. In a knitting machine, the combination of the stationary cylinder H, provided below a non-active level with cams adapted to form a normal stitch wave cam path in either direction, a pivoted flap F¹ adapted, when swung upward, to present its upper part within and above the top of said cylinder, a cam as F, a lever actuated thereby and operative to vibrate said flap, automatic mechanism for intermittently operating said cam and lever in conformity with the pattern of hosiery to be knit, pendulous depressor fingers F², F³, pivoted to the upper part of said flap, and means for latching said fingers alternately with their needle-engaging parts in the path of non-active needles, the whole operative automatically to return needles alternately from either end of a non-active series to activity, substantially for the purpose described. 26th. The combination in a knitting machine of a rotatable needle cylinder and a fixed cam cylinder provided with a normal stitch wave cam path, of a shaft S¹ operatively connected with the needle cylinder, gear wheel V¹, U¹ journaled loosely on said shaft, a driving shaft, means operated thereby as a spur wheel V and a reciprocating rack U adapted to transmit, respectively, continuous and reciprocating circular motion to the shaft S¹, a clutch member operative to connect the shafts S¹ and S successively through each of the motion transmitting devices, a cam wheel A connecting with the clutch member and operating in accordance with the pattern of hosiery to be knit whereby the shaft S¹ and the needle cylinder operated thereby are given motions corresponding to those of the motion-transmitting devices, a shaft S² operated from the driving shaft in accordance with the pattern, a cam wheel C fixed to said shaft S², a fulcrummed lever having one end e⁵ adapted to read the periphery of the cam wheel C and having whiskers as e² extending through slots in the cam cylinder, and pivoted needle lifter tumblers n⁴, n⁵, each provided on its free swing extremity with notches adapted to engage with the knitting needle actuating parts, the whole moving automatically to move said tumblers notched extremities in or out of the cam path, substantially for the purpose specified. 27th. In a circular knitting machine, the combination of the cylinder driving shaft S¹, the change of motion wheels V¹, U¹ journaled loosely on said shaft, and a clutch member located medially between said wheels and arranged to turn with said driving shaft, but free to move longitudinally thereon, said clutch member being provided on either end, respectively, with outwardly projecting studs P², P³ arranged to engage with holes u¹⁰, v¹⁰ in the sides of wheels V¹, U¹, and intermediate thereto with a circumferential disc as V² having a gap J, said studs each substantially equal in length to the width of said gap bearing disc V², and a fixed finger J¹ provided with an inwardly projecting tip j, the converse of said gap, the hole being arranged substantially as and for the purpose specified. 28th. In a circular knitting machine the combination of the movable needle cylinder I, mechanism operative to drive the same with continuous and with reciprocating circular motion, the fixed cam cylinder H provided with a system of cams, said cam system adapted to produce the normal stitch wave when traversed in either direction and located wholly below a non-active level, a series of knitting needles mutually engaging with said cylinders and operative for continuous or reciprocating knitting, right and left by-path cams N², N³ outlying said system and adapted to pass needles delivered to them into said non-active level, right and left needle lifter tumblers pivoted beneath the cam path of said cam system within range respectively of aforesaid by-path cams and adapted to engage on the actuating part (heels) of said needles, outlying guard cams N⁵, N⁶ operative to replace accidentally displaced needles prior to entering the cam system proper, adjustable seats for said needle lifter tumblers, a pivoted lever connected to the needle lifter tumbler and a cam for actuating said lever and controlling the tumblers and pattern surfaces, actuated automatically from the driving mechanism, controlling the relative positions of said cam and lever in conformity with the progress of the knitting function, the whole operation to suffer said tumblers to lie passively below the cam system of said cam cylinder during continuous circular knitting of the leg or foot but operative between changes from continuous to reciprocating motion in said needle cylinder to lift said tumblers into active position for narrowing and finally on the completion of said operation to return them to their normal position, substantially as and for the purpose hereinbefore described. 29th. In a circular knitting machine, the fixed cam cylinder H provided with ancillary devices for turning and lifting and depressing groups of needles simultaneously and means for lifting and depressing single needles, the movable needle cylinder I, an endless pattern surface mechanism for actuating the same with an intermittent motion from the driving mechanism, said driving mechanism consisting of a drive shaft S adapted to drive the shaft S¹ with a continuous and reciprocating circular motion with intervals of rest between said motions by means of gears V¹, U¹, said gears, spur wheel V and reciprocating rack U substantially as specified, said shaft or its equivalent, the secondary rotatable cam system secured upon a common shaft as an axis, said shaft S² suitably journaled and located externally to said fixed cam cylinder, means for operating said shaft conformably to the movements of said pattern surface, a system of levers pivoted so as to read the cams of said secondary cam system and automatically actuate by the vibrations produced thereby, aforesaid ancillary devices for widening and narrowing in accordance with the reading of said secondary cam system when called into activity by said pattern surface, substantially as and for the purposes hereinbefore described.

No. 55,180. Baling-Press. (*Presse.*)



Arthur LeRoy Kahler, Geneva, New York, U.S.A., 8th March, 1897; 6 years. (Filed 8th February, 1897.)

Claim.—1st. In a press, the combination of an initial compressing mechanism, a secondary compressing mechanism designed to complete the article, a power device for operating said parts, and means for causing the transfer of the power from one to the other of said mechanisms without stopping the power device. 2nd. In a press, the combination of an initial compressing mechanism, a secondary compressing mechanism designed to complete the article, a power device for operating said parts, means for causing the transfer of the power from one to the other of said mechanisms without stopping the power device, and means for relieving the initial compressing mechanism while the transfer is being made. 3rd. In a press, the combination of the frame, a compression chamber provided with a movable side, power mechanism for operating the press, connections between said power mechanism and the movable side, means for automatically relieving the side from further action of the power mechanism when said side is brought to a closed position, and locking devices for the side. 4th. In a press, the combination of the frame, a compression chamber provided with a swinging side, links K pivoted to the upper free end of the side, links L pivoted to the links K, levers S also pivoted to the upper part of the gate and designed, as the side is closed, to abut against the frame and to throw the links out of line, and means for drawing the side to its closed position. 5th. In a press, the combination of the frame, a compression chamber provided with three fixed sides and a fourth side pivoted to the lower end of the press and designed to swing outwardly therefrom, wings or projections extending from the fixed sides of the press and designed, together with the swinging side, to form an enlarged chamber, links K connected to the outer upper end of the swinging side, links L pivoted to the outer end of links K, levers S also pivoted to the upper end of the swinging side and designed when the press closes to bear against the frame and force the links outwardly, and catches for holding the pivoted side when brought into its closed position. 6th. In a press, the combination of the frame, a compression chamber provided with three fixed sides and a fourth side pivoted to the lower end of the press and designed to swing outwardly therefrom, wings or projections extending from the fixed sides of the press and designed, together with the swinging side, to form an enlarged chamber, links K connected to the outer upper end of the swinging side, links L pivoted to the outer end of links K, levers S also pivoted to the upper end of the swinging side and designed when the press closes to bear against the frame and force the links outwardly, catches for holding the pivoted side when brought into its closed position, a plunger, a power mechanism, and connections between the links and the power mechanism, substantially as set forth. 7th. In a press, the combination of the pivoted side designed to give an initial compression to the material being worked upon, a plunger for obtaining the final compression, a windlass, connections between the pivoted side and the windlass, connections between the plunger and the windlass, and means carried by the windlass for disengaging the connections between the side and the windlass and bringing the plunger into action.

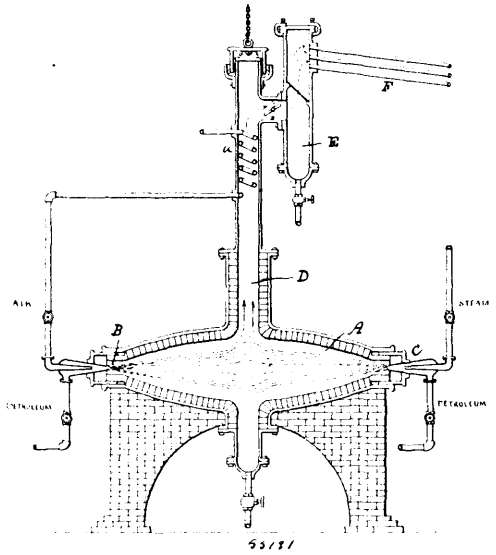
No. 55,181. Apparatus for the Manufacture of Gas.

(*Appareil pour la fabrication du gaz.*)

Edward Dwight Kendall, Seward, New Jersey, U.S.A., 8th March, 1897; 6 years. (Filed 12th November, 1897.)

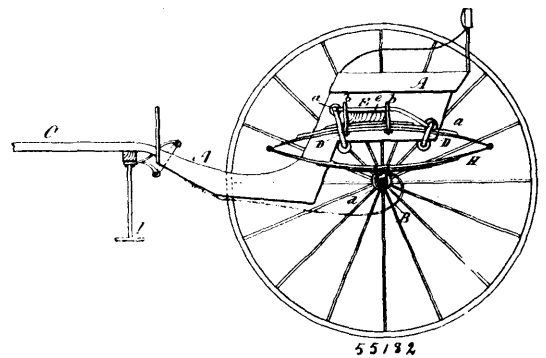
Claim.—1st. The herein described process for the manufacture of gas, consisting in directing immediately against each other a flame

in the form of a blast or jet, and a blast or jet of hydrocarbon vapour, and conveying off the resultant gases. 2nd. The herein



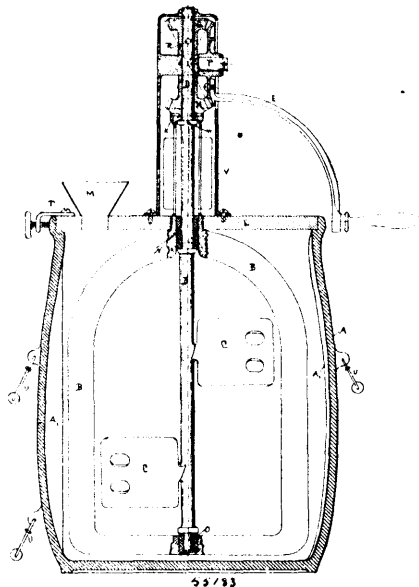
described process for the manufacture of gas, consisting in directing immediately against each other a hydrocarbon flame in the form of a blast or jet with which is mingled air, and a blast or jet of hydrocarbon and steam, and conveying off the resulting gases. 3rd. The combination of a chamber, opposing injecting devices delivering thereinto, one of which comprises hydrocarbon and air supply pipes and the other hydrocarbon and steam supply pipes, means for conducting off the gas, and a liquid receptacle below and communicating with said chamber and having liquid drawing off devices, as set forth.

No. 55,182. Road Cart. (*Désobligeante.*)



Andrew Green, Abingdon, Ontario, Canada, 8th March, 1897; 6 years. (Filed 19th December, 1896.)

Claim.—1st. In combination with a road cart, two flat springs having their rear ends secured to the axle, bent around it and made to pass under the body, and their front ends bolted to the forward part of the body of the cart, substantially as set forth. 2nd. In combination with a road cart, two loops formed crank shaped, their central horizontal portion affixed to the body of the cart, their outer ends journaled in spring bars, secured to elliptic springs fastened to the axle, substantially as and for the purpose specified. 3rd. In a road cart, the combination of two flat springs having their rear ends secured to the axle and their front ends to the forward part of the body, and two loops journaled to respective spring bars attached to elliptic springs fastened to the axle, substantially as and for the purpose specified. 4th. In combination with a road cart, two flat springs B, B, having their rear ends secured to the axle *d* bent around it, and their front ends secured to the forward part of the body A, substantially as specified. 5th. In combination with a road cart, two loops D, D, having their outer ends formed crank shaped, their central portion affixed to the body of the cart, their outer ends journaled in spring bars E, E, secured to elliptic springs H, H fastened to the axle *d*, substantially as set forth. 6th. In a road cart, the combination of the springs B, B, the loops D, D, body A, elliptic springs H, H, and axle *d*, all constructed and arranged substantially as and for the purpose set forth.

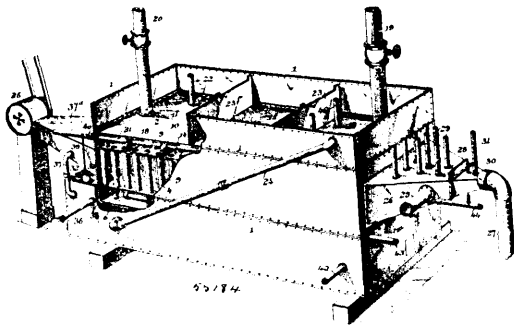
No. 55,183. Churn. (Baratte.)

James Ingalls and Myles Birkett, both of Brantford, Ontario, Canada, 8th March, 1897; 6 years. (Filed 12th January, 1897.)

Claim.—In a churn, a crock having on its outside projections to receive handles and on its inside surface ribs, a scarrup-shaped dasher and a perforated propeller within, all granite covered, mounted on the same axis but revolving in opposite directions by means of a train of bevel gears connected to a crank and having wooden step or collar bearing, substantially as set forth.

No. 55,184. Steam and Heat Conservator.

(*Conservateur de vapeur et chaleur.*)



Barden Walton Taylor, Charles W. Enos and Charles F. Gilling, all of Denver, Colorado, U.S.A., 8th March, 1897; 6 years. (Filed 15th January, 1897.)

Claim.—1st. In combination, a compartment subdivided to provide a series of communicating settling basins, a compartment immediately below the settling basins and in communication with the last settling basin of the series, means for circulating exhaust steam or other waste heat product through the lower compartment, and a coil of pipes located within the lower compartment and having communication with the first settling basin of the series, substantially as and for the purpose set forth. 2nd. In combination, upper and lower compartments, baffle plates subdividing the lower compartment into a series of chambers, means for passing exhaust steam or other waste heat product through each of the said chambers, and a coil of pipe located in the lower compartment and supported and held in place by passing through openings in the said baffle plates, and having one end in communication with a water supply, and having its opposite end opening into the upper compartment, substantially as set forth. 3rd. In combination, an upper compartment subdivided into a series of settling basins, a lower compartment in communication with the last settling basin, an upper and a lower coil of pipe confined between the upper and lower compartments, the upper coil of pipe extending into the first of the series of settling basins, and means for circulating or passing exhaust steam or other waste heat product through the inclosure formed between the upper and lower compartments, substantially as and for the purpose set forth. 4th. In combination, a compartment, a bank of flues or pipes located in the compartment, baffle plates subdividing the said compartment, independent means for passing air and exhaust steam through the said compartment, and

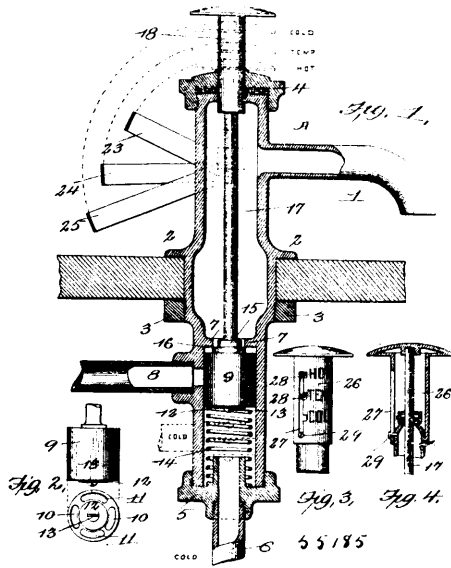
a separator in communication with the lowest point of the said compartment to receive the water of condensation and remove the oil therefrom, substantially as set forth. 5th. In combination, a compartment having its bottom inclined towards a given point, baffle plates subdividing the compartment into a series of chambers and having their lower edges arranged a short distance from the bottom of the compartment, a separator in the plane of the compartment, and a pipe communicating with the lowest point of the compartment, and having a trap located in the separator, substantially as and for the purpose set forth. 6th. In an apparatus for converting exhaust steam into motive power and utilizing other waste heat products of boiler furnaces and engines, the combination of a compartment subdivided into a series of settling basins, a second compartment disposed contiguous to the first mentioned compartment, a coil of pipes located in the second compartment and opening into the first compartment and means for circulating exhaust steam through the second compartment and around the coil of pipes therein, substantially as set forth for the purpose described. 7th. In combination, a water compartment, a separator contiguous to and having a communication at its lower end with the compartment, a second compartment placed above the first compartment and adapted to have the exhaust steam passed therethrough, a trap located in the separator and communicating with the second compartment and receiving the water of condensation therefrom, and means for supplying a blast of air to the separator to facilitate the separation of the oil and aerate the condensed water, substantially as and for the purpose set forth. 8th. In combination, a settling compartment, a water compartment located below the settling compartment and in communication therewith, an intermediate compartment subdivided by baffle plates, means for passing exhaust steam through the intermediate compartment, a coil of pipe in the intermediate compartment and communicating with the settling compartment, a separator in communication with the water compartment, and a float operated by the change of water level in the separator to open or close a controlling valve in the aforesaid coil of pipe, substantially as and for the purpose set forth. 9th. In combination, a settling compartment, a steam compartment to receive the exhaust steam, a water compartment, a separator in communication at its lower end with the water compartment and having connection with the settling and the steam compartments, a trap located in the separator and adapted to have the water of condensation passed therethrough, a coil of pipe extending through the steam compartment and opening into the settling compartment, and having a faucet in its length, and a float operating in the separator and adapted to control the faucet to regulate the supply of water to the settling compartment, substantially as set forth. 10th. The herein described apparatus for utilizing exhaust steam and similar waste products, the same embodying in its organization a middle compartment supplied with a vertical set of flues, a fan communicating with one end of the said compartment, a collector having connection with the opposite end of the said compartment and provided with a cut-off and branch pipes, a second compartment placed above the first compartment and subdivided into a series of steam chambers by vertically arranged baffle plates, a third compartment placed below the first compartment and subdivided by various baffle plates into a series of steam chambers, the baffle plates of the third compartment alternating in position with the baffle plates of the second compartment and having a space at their lower edges, a coil of pipe in the third compartment, a fourth compartment placed above the second compartment and subdivided into a series of communicating settling chambers, a coil of pipe located in the second compartment and leading into the fourth compartment, and having a faucet in its length, a separator having communication with the third compartment and with the fan, a trap in the separator receiving the water of condensation from the third compartment, a float to control the faucet, and a fifth or water compartment in communication with the lower portion of the separator, the parts being arranged to operate substantially in the manner and for the purpose set forth. 11th. In a heat conservator, the combination of a settling compartment, a steam compartment, a water compartment, and a super-heating coil located in the steam compartment and receiving its supply from the water compartment, substantially as described, whereby the water is delivered to the boiler fully up to the temperature and the elastic driving power of the exhaust steam, substantially as described. 12th. In combination, a settling compartment, a water compartment in communication with the settling compartment and arranged below it, an intermediate compartment, means for passing exhaust steam through the intermediate compartment, a separator in communication with the water and intermediate compartments and receiving the water of condensation from the intermediate compartment, and means for forcing a blast of air through the intermediate compartment and into the separator for condensing the exhaust steam, extracting the oil therefrom, and supplying the necessary air to the water of condensation, substantially in the manner set forth for the purpose described.

No. 55,185. Faucet. (Robinet.)

George Tyson Kenley, Lake Montebello, Baltimore, Maryland, U.S.A., 8th March, 1897; 6 years. (Filed 26th January, 1897.)

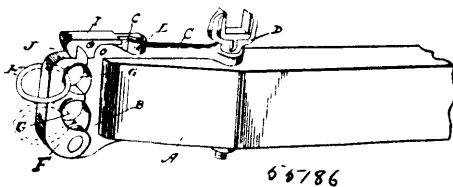
Claim.—1st. In a faucet divided into two chambers by an apertured partition, the combination of a depressible piston-valve mov-

able in the lower chamber, said valve being provided with a channel or channels extending therethrough, a hot water pipe leading into



said lower chamber, a cold water pipe extending up through the bottom of the chamber, washers connected to the upper and lower faces of the piston-valve, and means for raising and lowering said valve, substantially as described. 2nd. In a faucet, the combination with the casing or shell divided into two chambers by an apertured partition, of hot and cold water supply-pipes leading into the lower chamber, a spring-pressed piston-valve freely movable in said lower chamber, said valve being provided with a channel or channels extending therethrough, but normally seated to prevent the passage of water, a depressible plunger connected to the piston-valves, and a series of pivoted balls of different lengths adapted to engage with the plunger, substantially as specified. 3rd. In a faucet, the combination with the casing or shell divided into two chambers by an apertured partition, of a depressible piston-valve movable in the lower chamber, said valve being provided with a channel or channels extending therethrough, a plunger connected to the piston-valve, a hot water pipe leading into said lower chambers, a cold water pipe extending up through the bottom of the chamber, a coil spring encircling the projection portion of the cold water pipe and pressing against the bottom of the piston-valve washers connected to the upper and lower faces of said valve, and means for locking the plunger at different heights, substantially as specified. 4th. In a faucet, the combination with the casing or shell divided into two chambers by an apertured partition, of a depressible piston-valve movable in the lower chamber, said valve being provided with a channel or channels extending therethrough, a hot water pipe leading into said lower chamber, a cold water pipe extending up through the bottom of the chamber, a coil spring encircling the projecting portion of the cold water pipe and pressing against the piston-valve, and washers connected to the upper and lower faces of said piston-valve, substantially as specified.

No. 55,186. Clevis. (Croc.)



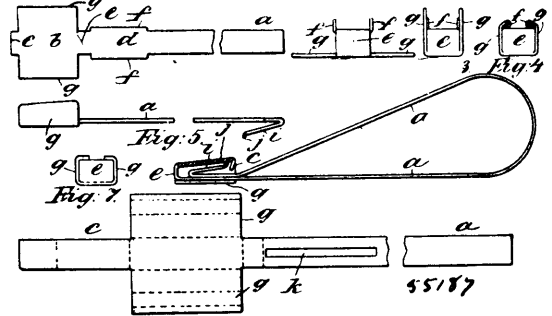
John Reel, French Camps, Mississippi, U.S.A., 8th March, 1897; 6 years. (Filed 8th February, 1897.)

Claim.—1st. A clevis having a forwardly-projecting portion B provided with cavities, a hinged portion F provided with registering cavities, the ligament between the cavities of the two members forming a supporting web for a ring or hook, and a means for holding the pivoted portion F in its closed position, whereby the ring is loosely held in either of the openings formed by the cavities and prevented from passing to the other cavity, substantially as shown and described. 2nd. In a clevis, the swinging bar F adapted to inclose the draft-attaching cavities, the catch pivotally supported between its ends and at its outer end adapted to engage the end of the latch supported within the same, the recessed lug, and the spring confined therein against which the opposite end of the catch is adapted to bear, for the purpose substantially as shown and described. 3rd. The combination of a clevis provided with the rear-

wardly-extending arms, means for securing the same at their extremities to the plough-beam, a pivoted clevis-latch, the backwardly-extending lug L carried by the clevis, and a latch for engaging the pivoted clevis-latch, substantially as shown and described.

No. 55,187. Seal for Car Doors, etc.

(Seau pour portes de chars, etc.)



Frank W. Wood, New York, State of New York, Alden M. Young, Waterbury, Connecticut, and Willard Blodgett Hosmer, Boston, Massachusetts, all in the U.S.A., 8th March, 1897; 6 years. (Filed 8th February, 1897.)

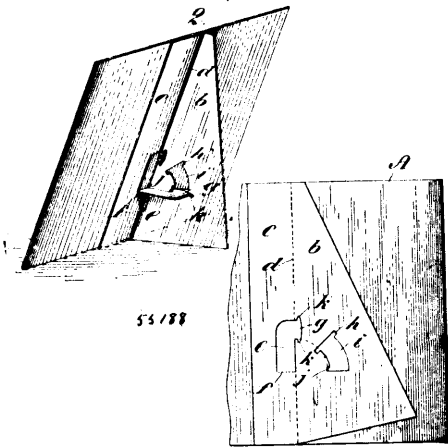
Claim.—1st. The improved seal, consisting of the metallic strip having the hook at one end and the hook-engaging box at the other end, said box formed of the wide section doubled back on the strip with its lips consisting of portions of its lateral extensions folded over both edges and lapped on the back of the portion of the strip on which the said wide section is folded, and said box having an opening in one end adapted to admit the hooked end of the strip and containing a hook for engaging said hooked end of the strip, substantially as described. 2nd. The improved seal, consisting of the metallic strip having the hook at one end, and the hook-engaging box at the other end, said box formed of the wide section produced by extension of both edges of the strip and doubled back on the strip with its lips folded over and lapped on each side of the back of the strip, and having an opening adapted to admit the hooked end of the strip, and the extension of the strip beyond said wide section forming the box hook to engage the inserted hooked end of the strip, substantially as described. 3rd. The improved seal, consisting of the metallic strip having the hook at one end and the hook-engaging box at the other end, said box formed of the wide section produced by extension of both edges of the strip and doubled back on the strip and secured thereon with other lips thereat and having an opening adapted to admit the hooked end of the strip, and the extension of the strip beyond the wide section forming the box hook to engage the hooked end of the strip, substantially as described. 4th. The improved seal, consisting of the metallic strip having the hook at one end and the hook-engaging box at the other end, said box formed of the laterally-extended parts of both edges of the strip near one end doubled back on the strip and folded over on the back of the strip, with the edges of these folded parts inserted through a slot of the strip and clinched inside of the box, said box being open at one end to receive the hook of the other end of the strip, and having a hook to engage it, substantially as described. 5th. The improved seal, consisting of the metallic strip having the hook at one end and the hook-engaging box at the other end, said box formed of the laterally-extended parts of both edges of the strip near one end doubled back on the strip and folded over on the back of the strip, with the edges of these folded parts inserted through a slot of the strip and clinched inside of the box, said box containing a hook for engaging the hook at the end of the strip, and having an opening in the end which joins the strip to admit the hooked end of the strip, and being in such relation to the part of the strip joined to the box that said part of the strip forms a guide way to facilitate inserting the hooked end of the strip, and the shank of the hook at the end of the strip having a practically solid reinforced section adapted to fill said opening, substantially as described. 6th. The improved seal, consisting of the metallic strip having the hook at one end and the hook-engaging box at the other end produced from the strip, said box being open at one end to receive the hook of the other end of the strip and having the box hook to engage said other hook, said box hook having the part looped back under the point for a spring to thrust up the point to engage the strip hook, the shank of the latter hook having a practically solid re-inforced section to fill the opening in the end of the hook box, and being incapable of reduction by stretching and of restoration by compression, substantially as described.

No. 55,188. Easel. (Chevalet.)

Gustaf L. R. Dahlberg, Somerset, New Jersey, U.S.A., 8th March, 1897; 6 years. (Filed 8th February, 1897.)

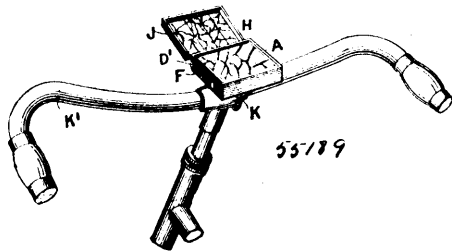
Claim.—1st. The combination with the face plate in an easel, of the wing brace comprising the marginal attaching portion and the folding portion jointed to said marginal portion, the vertically swinging stay hook jointed by the score line to the said marginal

portion and having the laterally projecting hook head, the oblique slot in the wing adapted for inserting the hook head through it



when the wing and the hook are partly set for use, and the branch slot for complete adjustment and interlocking of the parts, substantially as described. 2nd. The combination with the face plate in an easel, of the wing brace comprising the marginal attaching portion and the folding portion jointed to said marginal portion, the vertically swinging stay hook jointed by the score line to the marginal portion and having the laterally projecting hook head, the oblique slot in the wing adapted for inserting the hook head through it when the wing and hook are partly set for use, and the branch slot, said slot having the notch extension in the direction of the joint line *d* and adapted for complete adjustment and interlocking of the wing and stay hook, substantially as described.

No. 55,189. Map and Chart Carrying Box.
(Boîte pour plans.)

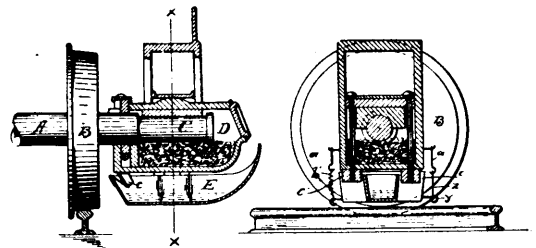


William Henry Sanders and Alfred John Hart, both of Eastbourne, Sussex, England, 8th March, 1897; 6 years. (Filed 29th January, 1897.)

Claim.—1st. In devices or appliances for displaying maps, charts and other documents, the combination with a box, a pair of parallel rollers fitted to be revolved therein, operating means on the exterior of the box for revolving the rollers, a map or map strip carried upon and between the rollers, bars or a table above the rollers, over which the map passes in its course from one roller to the other, and a transparent top to the said box, of a hinged lid, a key or smaller scale map mounted within the lid, such key map showing the whole of the district indicated upon the larger scale strip map, carried by the rollers, as set forth. 2nd. In devices or appliances for displaying maps, charts and other documents, the combination with a box, a detachable end thereto, a frame connected with such end and adapted to be slidden out therewith, a pair of parallel rollers carried by the frame and revolvable from outside such detachable end, a strip map carried between the rollers and passing over bars carried by the frame, and a transparent top to the box for viewing the exposed part of same, of a hinged lid, a key or smaller scale map fitted within the lid, the key map being divided into sections and marked or lettered to correspond with similarly marked parts upon the roller map, as set forth. 3rd. In devices or appliances for displaying maps, charts and other documents, the combination of an open box, slots therein to receive rollers, exterior knobs or milled heads for rotating same on the exterior of the box, a strip map carried between the rollers and passing over bars or a table located in the box, a detachable frame for the box to hold the rollers in the slots, and a transparent top carried by the said box frame, a lid thereto hinged to the frame of the transparent top, and a key or small scale map carried within the said lid, and divisions and letters on the key map to correspond with proportional divisions and letters on the roller map, as set forth. 4th. In devices or appliances for displaying maps, charts and other documents, the combination of a box composed of an open base part, open vertical slots in the sides of the base part, a pair of parallel rollers trunnioned in the open slots aforesaid, and capable of being removed and replaced

therein, an upper frame fitting on to the sides of the base part and securing the rollers in position, a transparent top carried by the upper frame, means for operating the rollers from the exterior of the box, a strip map carried between the rollers and extending below the transparent top, a lid hinged to the upper frame, and a key or scale map fitted within the said lid, as set forth. 6th. In displaying maps, charts and other documents, the combination with a box having a transparent top, a strip or roller map within the box capable of being traversed on rollers, divided or coloured sections on such roller map, and parts thereto marked by letters or figures, of a lid to the box, a key or smaller scale map carried within the lid, exposing to immediate view the district shown upon the whole of the strip map, such key being divided into like sections and similarly marked in corresponding parts to the strip or roller map, as set forth. 6th. In devices or appliances for displaying maps, charts and other documents, the combination with a box composed of an open base part, removable parallel rollers trunnioned in slots in the base part and means for revolving same from the exterior of the box, an upper frame fitting on to the sides of the base part, and a transparent top carried by the said upper frame, of a detachable metal stand having legs resting upon the bottom of the box and having a horizontal frame of upper part above the rollers, and a strip map carried between the rollers and over the horizontal frame of the stand, and whereby the map is displayed through the transparent top of the box, together with a lid hinged to the upper frame, a key or small scale map fitted within the said lid and a clip for attaching the box to the handle of a velocipede, as set forth.

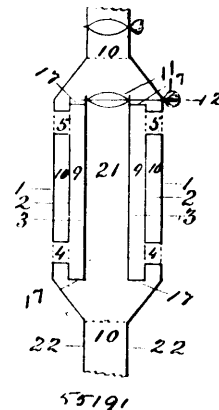
No. 55,190. Oil-pan. (Attrappe-huile.)



John H. Krimer, Golden Rod, Pennsylvania, U.S.A., 9th March, 1897; 6 years. (Filed 8th February, 1897.)

Claim.—1st. A journal-box for cars, combined with a drip-pan *E* supported under the box, supports for the pan, the plate *C*, and the wires *d* for supporting the plate under the rear end of the pan, so that the plate will steady the pan in position, all combined and arranged to operate, substantially as shown. 2nd. A journal-box for cars, bolts for securing the box in position, and the pan, suspended under the box for catching the waste oil, and having the recesses *b* in its sides to catch over the nuts, combined with the support for the pan, and a plate that is suspended upon the rear end of the pan for the purpose of steadying the pan in position, substantially as described.

No. 55,191. Heating Drum. (Poêle-sourd.)

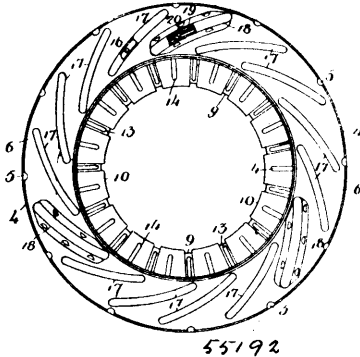


William Alexander Cowan, Middleton, Ontario, Canada, 9th March, 1897; 6 years. (Filed 25th September, 1896.)

Claim.—1st. In a radiator, or heating drum, the open-ended dome 3, with a damper 11 at its upper end, capable of opening and closing the said space 21, for the purpose described. 2nd. In a radiator, or heating drum, the open-ended dome 3, and unconnected with the stovepipe 22, and allowing or disallowing, at will, direct communication from the smoke space 10 below to the smoke space 10 above, up the space 21 through the open-ended dome, with the damper 11 at the upper end of the said dome, capable of opening and closing

the same, all as set forth. 3rd. In a radiator, or heating drum, the attaching of the dome 3 to the inside lining 2, with the rim 17, and the said hot air space 9, for the purpose as set forth. 4th. In a radiator, or heating drum, the attaching of the inside lining 2 to the outside cover 1, with the pipes 4, 4, and 5, 5, and the open-ended smoke space 10 between the lining and cover, allowing communication from the smoke space 10, below to the smoke space 10 above, all for the purpose hereinbefore set forth.

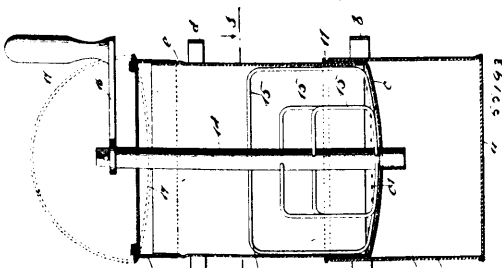
No. 55,192. Stovepipe Thimble. (*Dé de tuyau de poêle.*)



John J. Schaab, St. Louis, Missouri, U.S.A., 9th March, 1897; 6 years. (Filed 9th February, 1897.)

Claim.—1st. A stovepipe-thimble comprising an annular stationary plate, radiating guides formed thereon, an annular adjacently located rotatable plate, a series of interlocking segments interposed between the two plates, means carried by said segments and co-operating with the guides of the stationary plate, a series of curved grooves or guides being formed on said rotatable plate, the parts operating substantially as and for the purpose set forth. 2nd. A stovepipe thimble comprising a suitable annular stationary plate, radiating guides formed thereon, an outwardly extending flange forming a part of said plate, a rotatable plate mounted within said flange, a series of interlocking assembling segments interposed in the space formed between the two plates, and having ribs operating in the guides of the stationary plate, a finger carried by each of the outer series of assembling segments, a series of tangentially-disposed curved grooves or guideways being formed in the rotatable plate for receiving the fingers, substantially as set forth. 3rd. In a stovepipe thimble, a stationary plate having a series of radiating alternating slotted guideways and depressed grooves disposed about the same, a series of interlocking assembling segments having, respectively, each a rib co-operating with the grooved depressions, and a rib having a portion provided with oppositely-extending lips adapted to overlap the longitudinal edges of the slotted guideways for confining the series of segments to the stationary plate, and a rotatable plate carried by the stationary plate and controlling the simultaneous movement of the several segments, substantially as set forth. 4th. In a stovepipe thimble, a stationary plate, assembling segments carried by and guided by the same, a rotatable plate, fingers carried by the assembling segments, slotted guideways being formed on the rotating plate for receiving the fingers, a head carried by each finger, and a handle mounted on the rotatable plate directly over the slotted guideway, substantially as set forth.

No. 55,193. Culinary Utensil. (*Ustensile de cuisine.*)



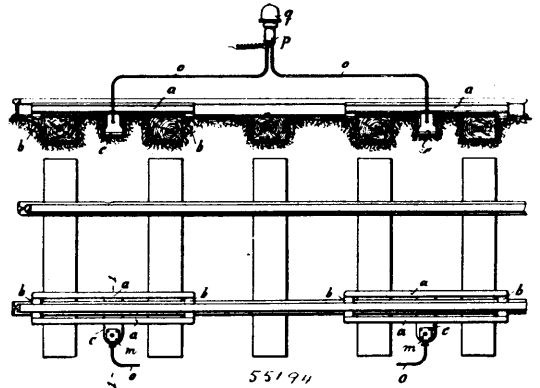
Jane Bowes Wallace, Eckard, South Dakota, U.S.A., 9th March, 1897; 6 years. (Filed 10th February, 1897.)

Claim.—1st. A culinary utensil comprising a receptacle, a colander thereon, a shell-like body erect in the colander and securable thereto, and a supported shaft having beater arms thereon and arranged for rotation in the body, substantially as described. 2nd. A culinary utensil comprising a receptacle, a colander detachably secured thereon, a shell-like body securable in the colander near the lower end of said body, an upright shaft, beater arms radial from said shaft, adapted to loosely contact with the side of the body and bottom of the colander, means to support the shaft

upright, and means to rotate said shaft, substantially as described. 3rd. A culinary utensil comprising a cylindrical receptacle, changeable colanders insertible in the upper end of the receptacle and having differently perforated bottom, a cylindrical body engaging the colander that is in place in the receptacle, a cover piece on the body detachable therefrom, handles on the cover piece and on the receptacle, an upright shaft having a crank handle and rotatable in the cover and bottom of a colander, and a plurality of beater arms of skeleton form and radial in pairs, each pair differing in height from an adjacent pair, substantially as described.

No. 55,194. Railway Signal Circuit.

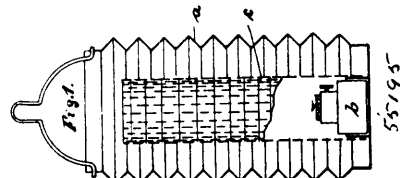
(*Circuit de signal de chemin de fer.*)



Fredrick Wilhelm Prokov, Hamburg, Germany, 9th March, 1897; 6 years. (Filed 8th February, 1897.)

Claim.—1st. A signalling apparatus for railways, consisting of two air pressure boxes or pumps placed below one of the rails a certain distance apart, each provided with a vertically sliding bolt *d*, one end of which abuts against the foot of the rail, and the other upon an unequally armed lever *f*, and operated by the sagging of the rail and in communication with contact devices or apparatus, in such manner that one apparatus on the passage of a train in one direction, causes the approach of the contact devices, whilst the other apparatus, on the passage of a train in the opposite direction, prevents the said contact devices from coming together, substantially as described. 2nd. In signalling apparatus for railways, the arrangement of two air pumps operated by the sagging of the rail, in combination with the diaphragms or other distensible bodies, which close the pressure pipes of both pumps, and operate upon a single signalling circuit, substantially as described. 3rd. In signalling apparatus for railways, a single air pump in combination with another pump, which has, upon its unequally armed lever, an engaging hook, which, when a train passes in the reverse direction, prevents the first apparatus acting upon a contact lever, substantially as described. 4th. In signalling apparatus on railways, the arrangement of a frame supporting the apparatus and lying parallel to the rails, the points of attachment being a sufficient distance apart to allow of the "sagging" of the rail being utilized to its utmost for operating the apparatus, substantially as described. 5th. A signalling apparatus for railways, having only one device operated by the sagging of the rail, the said device having unequally armed lever *f*, operated by the vertically moving bolt *d*, the longer arm of the lever acting upon a contact plate *z*, and being connected to a dash pot, for gradually returning the lever *f*, to its original position, substantially as set forth. 6th. In combination with the arrangements above described, a regulating device by which the escape of the air compressed by the air pump into the apparatus may be regulated, so that the duration of the closure of the circuit and consequently the duration of the operation of the current upon the signalling apparatus or, registering mechanism, moving disc and light-signals, acoustical signals and the like may be adjusted, as desired, substantially as described.

No. 55,195. Fire Kindler. (*Allumoir.*)

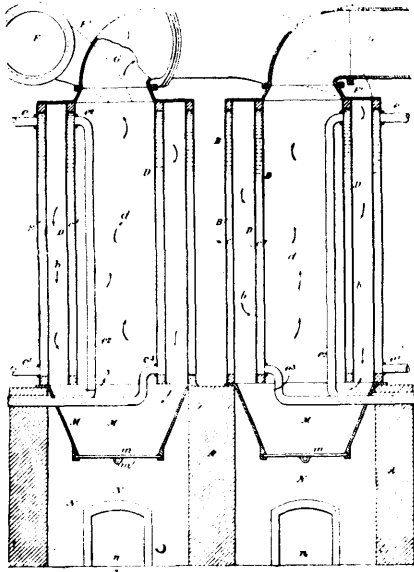


George Seeligmann, Berlin, Prussia, 9th March, 1897; 6 years. (Filed 11th May, 1896.)

Claim.—An apparatus for lighting, having a light inflammable frame or cover, distinguished by a protecting body *c* or *c'* formed of some transparent unflammable material placed between the frame

and the flame, substantially as described: a light of the nature of a candle, distinguished by a semi-solid combustible material such as a mixture of steam, paraffin, wax or the like, with a suitable liquid combustible such as oil, substantially as and for the purpose set forth.

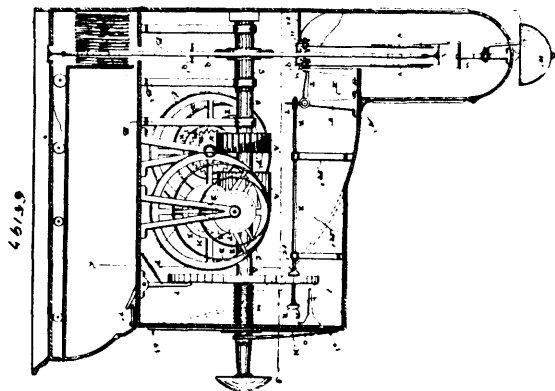
No. 55,196. Gas Condenser. (Condensateur à gaz.)



Arthur Kitson, Philadelphia, Pennsylvania, U.S.A., and Alexander Keith, Toronto, Ontario, Canada, assignees of Thomas Walker and John Forsyth Carter, both of Philadelphia, Pennsylvania, U.S.A., 9th March, 1897: 6 years. (Filed 11th March, 1895.)

Claim.—1st. The combination in a gas condenser, of the water jacketed drums, one contained within the other forming an annular passage between the drums, and a central passage, an inlet pipe communicating with the annular passage, and an outlet pipe communicating with the central passage, a collecting chamber below the condensing drum, the inlet pipe having a curved mouth so as to direct the gases in a spiral path, substantially as described. 2nd. The combination of the drums B and D vertically arranged on a suitable foundation, water jackets for said drums, water inlets and outlets therefor, a gas inlet pipe communicating with the chamber formed between the drums, an outlet pipe communicating with the central chamber, a hopper directly under the drums so that the gases pass down the outer chamber into the hopper and up the central chamber, a valve at the bottom of said hopper, a collecting chamber under the hopper having a door, substantially as described. 3rd. The combination of the inner and outer drums, the water jackets therefor, the collecting chamber under the drums, spiral guides in one or both of the chambers formed by the drums so that the gases will pass through the apparatus in a spiral course, substantially as described.

No. 55,197. Cash Register. (Registre à monnaie.)

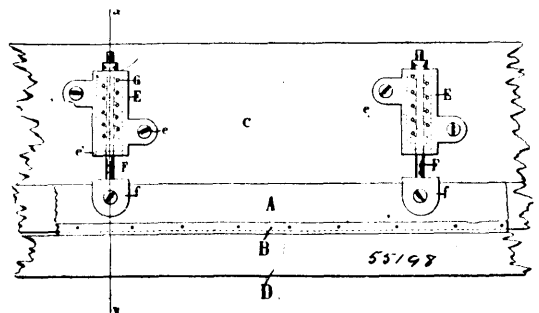


Daniel Wesley Harper, Birmingham, Alabama, Thomas Ripley, Farnsworth, and Robert Leedy Matthews, Memphis, Tennessee, all in the U.S.A., 9th March, 1897: 6 years. (Filed 28th January, 1897.)

Claim.—1st. A cash register having a shutter which is designed to obscure or disclose an indicating numeral by means of a rotary and reciprocating mechanism which indicates and records a purchase

amount, substantially as shown and described. 2nd. A cash register having a shutter which is designed to obscure or disclose an indicating numeral, the said shutter being opened by means of a lengthwise movement of a recording shaft, and closed by a rotary movement of the indicating dial, substantially as shown. 3rd. In combination with the shutter described, a dial having a series of peripheral projections, designed to contact with the upper end of the shutter, and a concentric series of projections above the axis of the dial adapted to strike against a projection near the lower end of the said shutter. 4th. In a cash register, the combination with a rotary indicating dial, and means for operating the same, of a shutter pivoted concentrically to said dial, of a series of cross pieces about the circumference of the dial, which are adapted to strike against a portion of the shutter and close the same as the dial is rotated in one direction, substantially as shown and described. 5th. A shutter for a cash register indicating dial, mounted on brackets to the casing of the register, means as described for closing the shutter, combined with an angle lever having one of its arms adapted to contact with a projection of the said shutter, its other arm connected to a sliding bar, whereby the shutter may be opened as a purchase is made, substantially as shown. 6th. A shutter for obscuring a numeral on an indicating dial of a cash register, consisting of two V-shaped plates pivoted within the casing of the register, means for tilting the said shutter, the upper ends of the said plates being connected together with brackets, which, as the shutter is tilted, are caused to trip a bell hammer located in the path of the shutter, substantially as shown. 7th. A shutter for obscuring a numeral on an indicating dial of a cash register, consisting of two plates V having bracket strips connecting their upper ends, the lower integral arms of the plate curved, and lugs U thereon, substantially as shown and described. 8th. In combination with a shutter as described, an angle lever adapted to tilt said shutter, and a sliding rod connected to one end of the said lever, and means for automatically operating said rod as a purchase is made and recorded, substantially as set forth. 9th. In a shutter operating mechanism for a cash register, the combination with the shutter, and angle lever, as described, of the rod R slidingly mounted in suitable bearings, the said rod connected at one end to said lever, the other end having projections R², of the disc wheel L, mounted on a horizontally movable shaft, the said disc adapted to strike against the projections, as the shaft is moved backward and forward, substantially as shown. 10th. A recording mechanism for a cash register, consisting of a shaft carrying a cog wheel having a series of broken teeth thereon, and means for recording a purchase as the said shaft carrying the cog wheel is moved backward and forward, substantially as shown and described. 11th. A recording mechanism for a cash register, consisting of a longitudinally movable shaft having keyed thereto a cog wheel, each cog having teeth at right angles to its length, the pinion wheel mounted at right angles to the axis of the said cog wheel and in the path of the teeth thereon, and means for holding the said shaft from rotating, as it is moved longitudinally, substantially as shown. 12th. In combination in a cash register, a shaft carrying an indicating dial, a revoluble telescoping shaft working said dial shaft, and having keyed thereto a cog wheel with broken teeth thereon, and a pinion wheel which is connected with recording mechanism, and mounted with the teeth in the path of the said cog wheel, substantially as shown. 13th. In combination, in a cash register, a shaft carrying an indicating dial, a revoluble telescoping shaft working said dial shaft, and having keyed thereto a cog wheel with broken teeth thereon, and a pinion wheel which is connected with recording mechanism, and mounted with the teeth in the path of the said cog wheel, and means for preventing the shafts from rotating when moved longitudinally, substantially as described. 14th. In a cash register, the combination with the horizontally and longitudinally movable shaft, a perforated disc mounted thereon, of a stationary member L² adapted to register with an aperture in said disc, of the means for automatically operating a shutter and a catch to a money drawer, as the shaft carrying the said disc is pulled forward, substantially as described.

No. 55,198. Weather Strip. (Bourrelet de porte.)

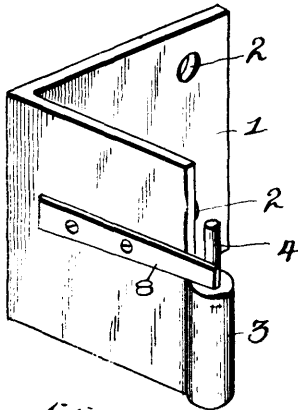


Joseph Elward, Smith's Falls, Ontario, Canada, 9th March, 1897: 6 years. (Filed 9th February, 1897.)

Claim.—1st. In a weather strip, the combination, with a bar provided with packing material on its lower side, of a stationary socket,

a rod slidable in the socket and secured to said bar, and a spring arranged in the socket and pressing the said rod downward, substantially as set forth. 2nd. In a weather strip, the combination, with a bar provided with packing material on its lower and its lower sides, of a slidable rod secured to the said bar, a stationary socket provided with a flange pressing the said rod and bar rearwardly and a spring arranged in the said socket and pressing the said rod and bar downwardly, substantially as set forth.

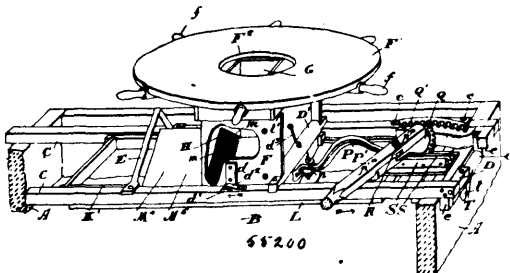
No. 55,190. Hinge. (Penture.)



George A. Grant, Merrimacport, Massachussets, U.S.A., 9th March, 1897; 6 years. (Filed 10th February, 1897.)

Claim.—1st. The combination with a hinge consisting of two members or leaves pivotally connected as described, of a spring secured to one member and bearing against the other member, substantially as described. 2nd. The combination with a hinge consisting of two members pivotally connected as described, one member being provided with one or more flat surfaces adjacent to its pivotal point, of a spring secured to the other member of the hinge and adapted to bear at its free end against said flattened surface or surfaces, substantially as described. 3rd. The combination with a hinge consisting of two members pivotally connected as described, one member being provided adjacent to its pivotal point with a plurality of flattened surfaces, of a leaf spring secured to the other member of the hinge, and adapted to co-operate with said flattened surfaces for maintaining the blind in open or closed position or at intermediate points, substantially as described. 4th. A hinge comprising an L shaped member having provision for its securement to a window frame or other support, and a flar leaf member pivotally connected thereto and provided adjacent to its pivot with flattened surfaces, in combination with a leaf spring secured to the L-shaped member and having its free end arranged to bear against the flattened surfaces of the other hinge member, substantially as and for the purpose described.

No. 55,200. Curd Cutting Mill. (Ménoles de fromagerie.)



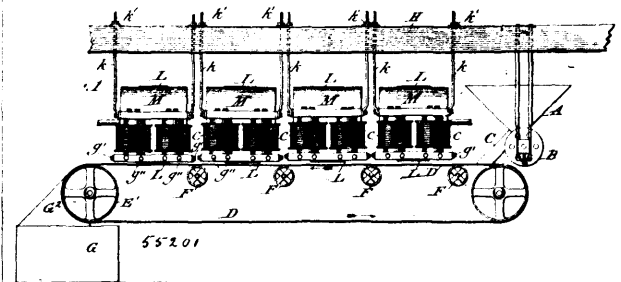
John Braithwaite, Winchester, Ontario, Canada, 9th March, 1897; 6 years. (Filed 13th February, 1897.)

Claim.—1st. In a curd cutting mill, in combination the hopper, the circular table rotatably supported on the top thereof and the parallel bars forming a support for the hopper as and for the purpose specified. 2nd. In a curd cutting mill, in combination the hopper, the circular table rotatably supported on the top thereof, parallel bars forming a support for the hopper, the cross bars of the frame, and the eccentric clamp at one end of the frame designed to clamp this end of the frame to the top edge of the vat as and for the purpose specified. 3rd. The combination with the hopper, of the cross bars D and D' and reverse V-shaped cross bar E, the retaining lugs d' secured to the cross bar and the bracket d secured to the hopper and hook connecting the hopper to the cross bar D' as and for the purpose specified. 4th. In a curd cutting mill, in combination the rectangular hopper, the circular flange secured to the top of the hopper provided with a suitable tongue, the circular table provided with a central opening, the ring secured to the bottom

of the table and provided with a groove into which the tongue of the flange extends and handles for rotating the table as and for the purpose specified. 5th. In combination the rectangular hopper, the reverse V-shaped projection at the opposite end, the knives at one end of the carrier the V-shaped floor of the carrier designed to form the bottom of the hopper at one end of the stroke, and the reverse V-shaped upper floor extending outwardly from the knives and designed to form the bottom of the hopper at the other end of the stroke and means for driving the knife carrier as and for the purpose specified. 6th. In combination the hopper, the knife carrier, guide-way therefor, the lever having a quadrant at its end, the quadrant on the frame with which the quadrantal end of the lever and the knife carrier, the parallel guiding bars suitably supported and the king bolt with flared head fitting into the dove-tailed groove formed between the guiding bars as and for the purpose specified.

No. 55,201. Magnetic Separator.

(Séparateur magnétique.)



John Price Wetherill, South Bethlehem, Pennsylvania, U.S.A., 9th March, 1897; 6 years. (Filed 24th February, 1896.)

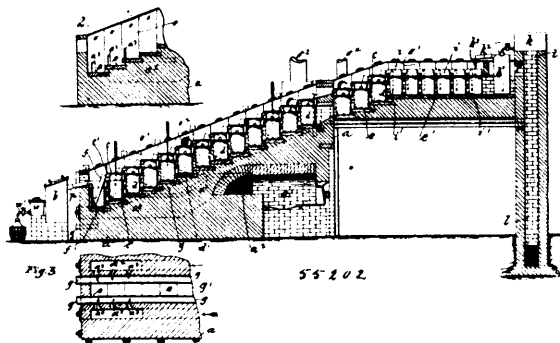
Claim.—1st. In a magnetic separator, an electro-magnet having a pole piece tapering toward its free end, said free end being of less sectional area than the magnet core so as to highly condense the lines of magnetic force, an ore conveyer below and in close proximity to said tapering end and conveying the ore through a portion of the highly concentrated field, the tapering end of the pole piece being arranged transversely to the direction of travel of the conveyer, and a second conveyer for withdrawing the attracted particles. 2nd The combination with an ore, conveyer, of electro-magnetic pole pieces located above and in near proximity to its conveying surface said pole pieces having tapering ends transverse to the direction of movement of the ore and adjustable toward and from each other, and having a substantially uniform field of force across the conveying surface, and a second conveyer for withdrawing the attracted particles from the magnetic field. 3rd. The combination with an ore conveyer, of an electro-magnet located above and in near proximity to its conveying surface, said magnet having tapering pole pieces transverse to the direction of movement of the ore, and an enclosing frame of non-magnetic material for the pole pieces, the pole pieces being adjustable within the frame. 4th. The combination with an ore conveyer, of an electro-magnet located above and in near proximity to its conveying surface, said magnet having tapering pole pieces transverse to the direction of movement of the ore and adjustable toward and from each other, an enclosing frame for the pole pieces and a spacing piece between the pole pieces. 5th. The combination with an ore conveyer, of an electro-magnet above and in near proximity to its conveying surface, said magnet having its pole pieces transverse to the direction of movement of the ore, said pole pieces decreasing in thickness from the cores outwardly toward each other, and a second conveyer for withdrawing the attracted material from the magnetic field.

No. 55,202. Apparatus for Concentrating and Cooling Sulphuric Acid. (Appareil de concentration et refroidissement d'acide sulfurique.)

Thomas George Webb, Manchester, Lancaster, Great Britain, 9th March, 1897; 6 years. (Filed 6th July, 1896.)

Claim.—1st. For concentrating sulphuric acid, a series of acid resisting vessels placed on steps in a heating chamber g¹, each of these vessels c being made with an overflow spout c¹ and having placed in it a taper tube f reaching down to its bottom from the spout of the next higher vessel, arranged and operating substantially as herein described. 2nd. In apparatus for concentrating sulphuric acid as specified in the preceding claim, a concentrating inner vessel c in combination with a metal outer vessel d which latter is adapted to protect the concentrating vessel c and catch its contents in case of breakage, all substantially as set forth. 3rd. In apparatus for concentrating sulphuric acid, the metal vessel d, specified in the preceding claim, having holes d¹ in combination with channels g formed in the brickwork of the furnace, the holes d¹ serving to conduct the liquid in case of breakage of the concentrating vessel c from the metal vessel d into the channels g and from the latter out of the apparatus, all substantially as set forth. 4th. In apparatus for concentrating sulphuric acid, as specified in claims 1 and 2, forming the upper end of the metal vessel d with a flange d² in combination with

cross plates *hh*¹, built into the brickwork and adapted to receive the flanged vessel *d*, all substantially as and for the purpose set forth.



5th. In an apparatus for concentrating sulphuric acid, as specified in claim 1, a cooling device consisting of a tank *q* formed internally at one side with three compartments *a*, *a*¹, *a*², at the bottom communicating with each other, in combination with a cylindrical vessel *s* inside the tank *q* which vessel receives the concentrated acid and has syphon pipes *s*¹, *s*², the upper ends *s*² of which communicates with the outer compartments *a* and *a*², and the middle compartment *a*¹ with an outlet pipe *r* for the delivery of the cooled concentrated acid whilst cold water is caused to circulate through the tank *w* at a level below the said compartments, all substantially as and for the purpose set forth.

No. 55,203. Process of treating Metal.

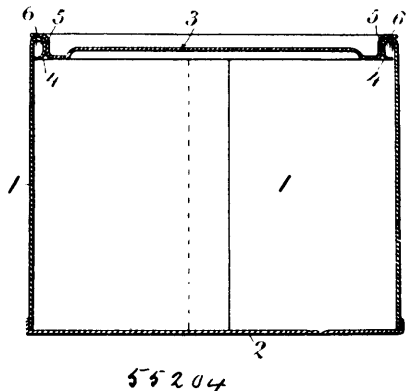
(Procédé pour le traitement de métaux.)

William J. Sager, Warren, Pennsylvania, U.S.A., 9th March, 1897; 6 years. (Filed 30th September, 1896.)

Claim.—1st. The herein described composition of matter consisting of prussiate of potash, saltpetre, blue vitriol, sal-ammoniac, concentrated lye, salt and borate of iron in substantially the proportions described. 2nd. The herein described method, consisting in alternately dipping or immersing the metal to be forged in a compound of prussiate of potash, saltpetre, sal-ammoniac, concentrated lye, salt and borate of iron and heating the same, then heating the forged piece to a cherry red, and finally subjecting it to a tempering bath, substantially as described.

No. 55,204. Self-sealing Can.

(Moyen de sceller automatiquement les boîtes métalliques.)



John Forster Ross, Toronto, Ontario, Canada, 9th March, 1897; 6 years. (Filed 8th October, 1896.)

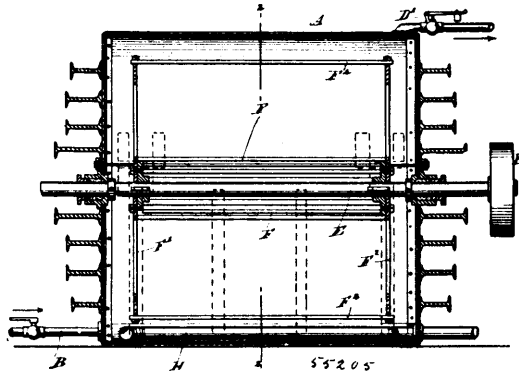
Claim. 1st. A can having an inwardly turned top roll-edge formed on and an integral part thereof, said roll-edge being burnished to form inner and top flat surfaces, substantially as shown and described. 2nd. In a can, the combination of the inwardly turned roll-edge formed on and an integral part of the hoop or circumference of the can, said roll-edge being internally burnished to form a flat surface, with a lid having a channel formed slightly within its periphery, said channel forming a seat to fit the inner burnished surface of said roll-edge, substantially as shown and described.

No. 55,205. Tanning. (Tannage.)

Charles O. Shaw, Cheboygan, Michigan, U.S.A., 9th March, 1897; 6 years. (Filed 10th June, 1896.)

Claim.—1st. A machine of the class described, comprising a casing connected with the liquor supply and having a liquor outlet, and a reel mounted to turn within the said casing and provided with a hub, spider heads, and fastening bars connecting the heads with each other and forming with the said hub a space for the reception of the connected hides, substantially as shown and described.

2nd. A machine of the class described, comprising a casing connected with the liquor supply and having a liquor outlet, and a reel



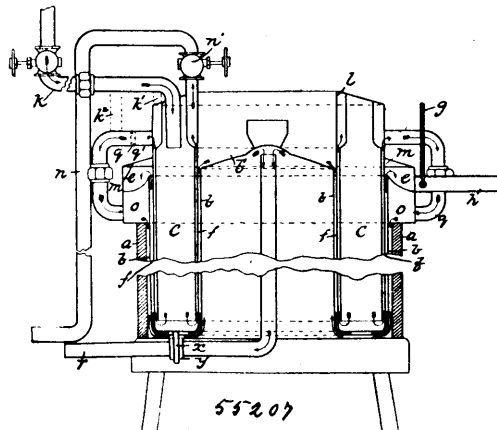
mounted to turn within the said casing and provided with a hub, spider heads, fastening bars connecting the heads with each other and forming with the said hub a space for the reception of the connected hides, and weighted valves in the said outlet to regulate the pressure of the liquor in the casing, substantially as shown and described. 3rd. A machine of the class described, comprising a casing connected with the liquor supply and having a liquor outlet, a coil of pipe connected with the steam supply for heating the liquor contained in the said casing, and a reel mounted to turn within the said casing and comprising a shaft, a slatted hub secured on the said shaft, spider heads attached to the shaft, and bars connecting the said heads with each other at their peripheries, substantially as shown and described. 4th. A machine of the class described, comprising a series of casings, each having a liquor supply and a liquor outlet, the casings being connected with each other at the said supply and at the outlet, a pump or like device connected with the said liquor supplies, and a reel mounted to turn in each of the said casings and adapted to support the hides to be tanned, substantially as shown and described.

No. 55,206. Compound for the Separation of Metals from Ores, etc. (Composé pour la séparation des métaux des minerais, etc.)

George Jones Atkins, Stamford Hill, Middlesex, England, 9th March, 1897; 6 years. (Filed 22nd June, 1896.)

Claim.—1st. The improved compound or product applicable as a solvent for metals, which consists of chlorine and cyanogen in combination with one or more bases, one at least of which is electro-positive to the metal to be dissolved, substantially as described. 2nd. The improved compound of chlorine and cyanogen with a metal, or with an alkaline earth or metal, such as potassium, or with a metalloid, or with any two or more of such bodies, substantially as described and for the purposes specified. 3rd. The improved compound or product produced by fusing together ferrocyanide of an alkaline metal or earth such as potassium for example, and sodium chloride, substantially as described and for the purposes specified.

No. 55,207. Apparatus for Sterilizing Milk, Cream, etc. (Appareil pour stériliser le lait, etc.)



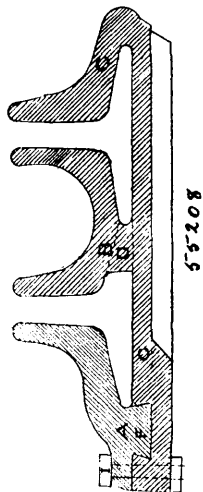
Alexander Theodor Pfeiff, Copenhagen, Denmark, Baron, 9th March, 1897; 6 years. (Filed 31st August, 1896.)

Claim.—1st. In apparatus for sterilizing milk or other liquids wherein several annular vessels are arranged inside one another, the combination of a close fitting lid on the innermost vessel and a U-shaped bell attached to the said lid, whereby the steam which is ad-

mitted under pressure into the apparatus through several pipes is caused to fill the apparatus and pass through the same in two streams in such a manner, that the liquid to be sterilized, throughout its passage through the apparatus, will receive heat on both sides, and will acquire the necessary temperature during its passage from the funnel to the bottom of the vessel, and will retain this temperature during the further passage of the liquid through the apparatus. 2nd. In apparatus of the kind described, the arrangement of an exhaust pipe the opening of which is close underneath the upwardly bulged portion of the lid covering the inner part of the apparatus and above which lid the liquid to be sterilized flows in a thin layer, substantially as and for the purpose hereinbefore described. 3rd. In apparatus of the kind described, the arrangement of pipes in the bottom of the vessels *f* and *a* for the purpose of running off the water formed when the steam first meets the cold liquid flowing into the apparatus, which water would otherwise prevent the steam from passing through the apparatus, substantially as described. 4th. In apparatus of the kind described, the arrangement whereby the vessel *a* and *f* are connected by means of one or more bent pipes *g*, so that the steam is led through these bent pipes from the vessel *f* into the vessel *a* which is connected to the vessel *b*, by means of a channel *o*.

No. 55,208. Means of Securing Guard Rails.

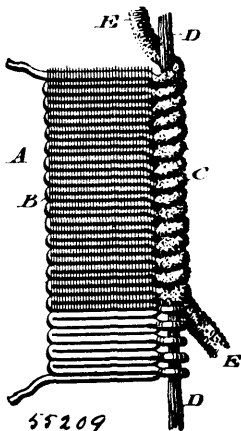
(*Moyen d'assujétir les garde-fous.*)



Henry Morris, Walkerville, Ontario, Canada, 9th March, 1897; 6 years. (Filed 23rd December, 1896.)

Claim.—1st. The form of clamp or casting B, D, C. 2nd. The combination of the clamp or casting B, D, C, with the main line rail and guard rail by means of the wedge F, A, secured by the bolt I, for the purposes hereinbefore mentioned.

No. 55,209. Garment Edging. (*Bordure de vêtement.*)

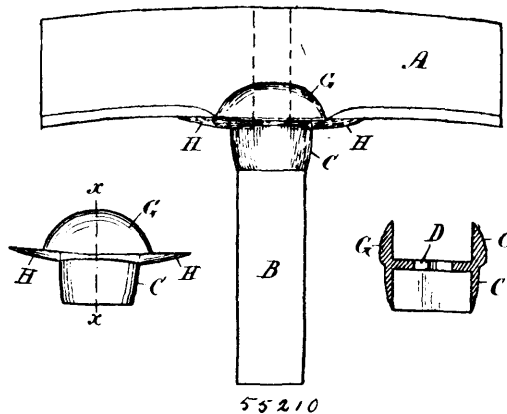


The Hensel Collady Company, assignee of Henry Haase, both of Philadelphia, Pennsylvania, U.S.A., 9th March, 1897; 6 years. (Filed 8th February, 1897.)

Claim.—1st. A garment edging, consisting of a body, and a spiral border thereon, the latter being woven with the former and united by weft threads common to both. 2nd. A body composed of warp and weft threads, and a border composed of a warp, a spiral cord thereon, and weft threads, the weft threads of the two members being common to both, the parts named being combined forming an improvement in garment edging. 3rd. A garment edging, formed of a body and a spiral border, the latter consisting of a

warp, a spiral cord thereon, and weft threads common to the body and border, the convolutions of the cord alternating with the portions of the weft threads on the border.

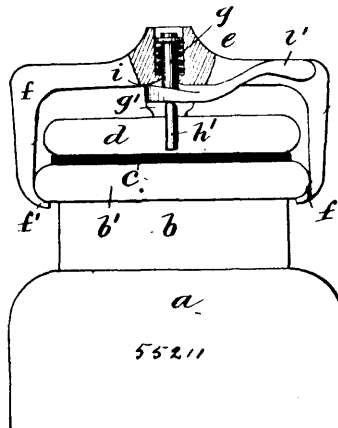
No. 55,210. Fastening of Spokes and Rims in Wheels of Vehicles. (*Attache de rouet et jantes de roues.*)



Allen Thomas Clapp, John Franklin Harder and Noah Coleman Williams, all of Gouverneur, New York, U.S.A., 10th March, 1897; 6 years. (Filed 20th November, 1896.)

Claim.—A spoke-socket of metal cast in one piece and comprising a socket A, perforated diaphragm or plate D, parallel lugs G, G', and flanges H, H, as set forth.

No. 55,211. Jar Fastener. (*Fermeture de jarres.*)



Jacob P. Barstow, Brooklyn, New York, assignee of Frederick Monier, New Britain, Connecticut, both in the U.S.A., 10th March, 1897; 6 years. (Filed 20th November, 1896.)

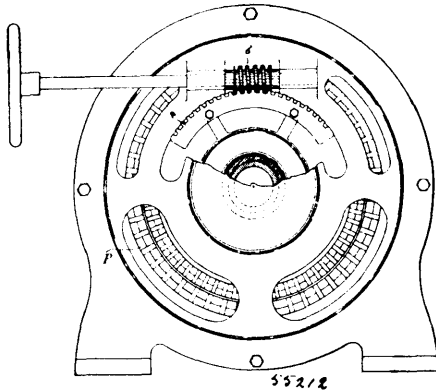
Claim.—In combination with a jar *a* having a neck *b* provided with an exterior shoulder *b'*, a cover *d* fitting the mouth of the jar and having a recessed upper surface, a rigid yoke *c* extending transversely across the cover with downturned arms *f* having intumed hooks *f'* adapted to engage the shoulder, a stud socket in the yoke, a non-rotary stud *g* mounted in the socket in the yoke and having a broadened head, a cam lever *i'* pivoted to the stud, a bearing piece *h* secured to the lower end of the stud and extending transversely of the yoke over and across the jar cover and having a downturned end *h'* adapted to engage the edge of the jar cover.

No. 55,212. Regulator for Alternating Current Circuits. (*Régulateur de courant alternatif de circuit.*)

The Canadian General Electric Co., Toronto, Ontario, Canada, assignees of Charles P. Steinmetz and Albert H. Armstrong, both of Schenectady, New York, U.S.A., 10th March, 1897; 6 years. (Filed 8th July, 1896.)

Claim.—1st. The combination in a regulator for alternating current circuits of a primary or inducing member having a winding coupled in shunt across the regulated circuit, an induced or secondary member having a corresponding winding in series with one of the circuit mains, and means for adjusting the two members so that the field and armature poles may stand at a desired angle to one another, as set forth. 2nd. The combination in a regulator for alternating circuits, of an inducing member having a face winding coupled in shunt across the circuit, with an armature mounted on a central shaft having a corresponding winding in series with one of the circuit mains, and means for rotating the armature so that its poles

may stand at any desired angle to the field poles, as set forth. 3rd. The combination in a regulator for alternating current circuits, of a



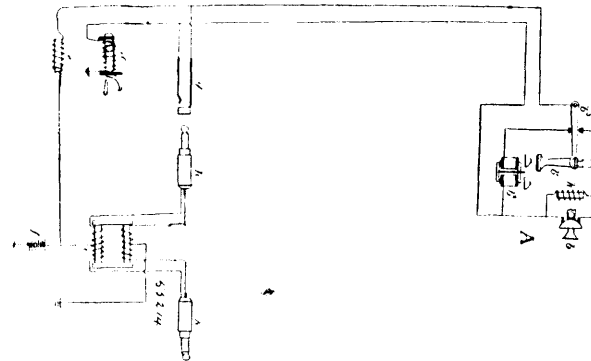
field winding coupled in shunt across the circuit, an armature winding in series with one of the mains, a short circuited winding upon the primary member for neutralizing the self induction in the armature, and means for adjusting the relative positions of the primary and secondary members as set forth.

No. 55,213. Lithographic Printing Plate.
(*Plaque lithographique.*)

Grace Mary Toobe, Cambridge, Massachusetts, U.S.A., assignee of Heinrich Louis Benno Toobe, Hornsea, Yorkshire, England, 10th March, 1897; 6 years. (Filed 7th July, 1896.)

Claim.—1st. In the manufacture of lithographic printing plates of any metal such as aluminium, zinc, or others, or plates being a composition of metals, such as aluminium and bronze, brass, zinc or other metal, washing such plates with a mixture of alum, water and nitric acid for the purpose set forth. 2nd. In the manufacture of lithographic printing plates of any metals, as above described, first dulling the surface of such plates and secondly washing same with a mixture of alum, water and nitric acid for the purpose set forth. 3rd. In the manufacture of lithographic printing plates of any metal, as above described, first dulling the surfaces of such plates, secondly washing same with a mixture of alum, water and nitric acid and thirdly applying a mixture, composed of a solution of alum (sulphate of alumina and potassa) acidum nitroso-nitricum, chloride of calcium, sulphate of alumina, substantially as described. 4th. In the manufacture of lithographic printing plates of any metal, as above described, by applying to them a mixture composed of a solution of alum (sulphate of alumina and potassa) acidum nitroso-nitricum, chloride of calcium sulphate of alumina, substantially as described. 5th. In the cleaning and reparation of lithographic printing plates of any metal, as above described, by removing the previous design by washing with a solution of sulphuric acid and hydrochloric acid and then treating in a mixture consisting of a solution of alum, sulphate of alumina, chloride of calcium and acidum nitroso-nitricum, substantially as described.

No. 55,214. Telephone Circuit. (*Circuit de téléphone.*)

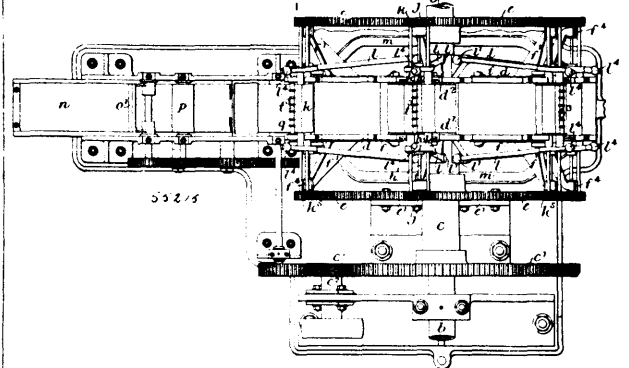


The Bell Telephone Company of Canada, assignee of Charles Ezra Scribner, Chicago, Illinois, U.S.A., 10th March, 1897; 6 years. (Filed 20th October, 1896.)

Claim.—1st. The combination in an electric circuit, of a source of current, a variable resistance transmitting telephone, an inductive resistance in shunt of the telephone, and an electro-magnetic responsive instrument requiring for its operation a current greater than the maximum resistance of the transmitter would permit, as described. 2nd. In combination in a telephone line, a source of current, an annunciator, a receiving-telephone, a variable resistance transmitting telephone, and a resistance coil in shunt of the transmitting

telephone adapted to permit said source of current to create in the circuit a current sufficient to operate the annunciator, substantially as described. 3rd. In combination in a telephone line, a source of current, an annunciator, a receiving-telephone, a variable resistance transmitting telephone, and an inductive resistance coil in shunt of the transmitting telephone, substantially as described.

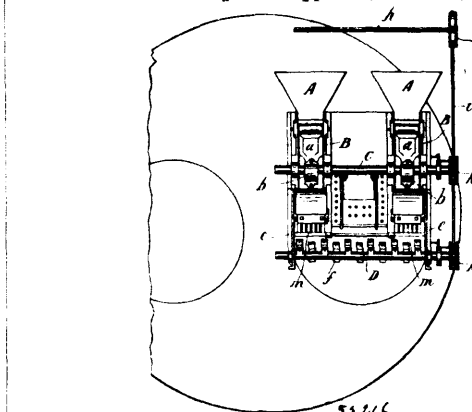
No. 55,215. Apparatus for making paper, etc.
(*Appareil pour faire le papier, etc.*)



The Publishing, Advertising and Trading Syndicate, assignee of Frederick Weaver Oliver, all of London, England, 10th March, 1897; 6 years. (Filed 28th October, 1896.)

Claim.—1st. In apparatus for making paper or other tubes, the combination of the drum and a mandrel or mandrels rolling on its curved surface, as set forth. 2nd. Apparatus for making paper or other tubes having the drum, a mandrel or mandrels rolling on its curved surface and pressing rolls bearing on the mandrels, as set forth. 3rd. In apparatus for making paper or other tubes, the combination of the drum and mandrels rolling on its curved surface, arms which move radially to and from the axis of the drum for carrying such mandrels, as set forth. 4th. In apparatus for making paper or other tubes, the combination of the revolving frame, the drum and the mandrels rolling on the curved surface of the latter, arms which move radially to and from the axis of the drum for carrying such mandrels, pressing rolls bearing on the mandrels, and links pivoted to said arms and to the frame for carrying the pressing rolls, as set forth. 5th. In apparatus for making paper or other tubes, the combination of the drum, the mandrels rolling on the curved surface thereof, pressing rolls bearing on the mandrels, stationary rings of teeth at the sides of the drum and pinions on the axes of the rolls gearing with such teeth, as set forth. 6th. Apparatus for making paper or other tubes, having tube-carrying mandrels divided transversely into two halves adapted to separate longitudinally to discharge the tubes with means for operating the separate parts, as set forth. 7th. Apparatus for making paper or other tubes, having tube-carrying mandrels and guides adapted to close in around same as soon as the feed to the mandrel has taken place, as set forth. 8th. Apparatus for making paper or other tubes, having tube-carrying mandrels and a pivoted guide with the means for operating it, as set forth.

No. 55,216. Stoker and Smoke Consumer.
(*Chaufeur et appareil fumivore.*)



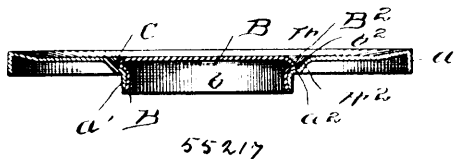
The Wood and Claydon Automatic Stoker and Coal-crusher, Self-feeder and Smoke-consumer Company, assignee of George Claydon all of Christ Church, New Zealand, 10th March, 1897; 6 years. (Filed 9th October, 1896.)

Claim. 1st. In automatic stoking, smoke-consuming and fuel economizing apparatus for steam boilers, in combination, the agitator

ing toothed or ribbed plate, such as a pivotally hung to the sides of each feeding trunk, and operated by means of an eccentric *e*, on shaft *C*, and the toothed or ribbed plate *d*, at back of each trunk, substantially as set forth. 2nd. In apparatus such as described, in combination, the sprocket shaft such as *D*, by which the front end of fire bars are caused to rise and fall, substantially as set forth. 3rd. In apparatus such as described, in combination, the adjustable bar *G*, by means of which the rise and fall of the fire bars may be regulated, substantially as set forth. 4th. In apparatus such as described, the herein described fire bars as shown in Figs. 5, 6, 7, 8, 9 and 10, on sheet 3 of accompanying drawings for use in apparatus such as described, substantially as set forth.

No. 55,217. Can top.

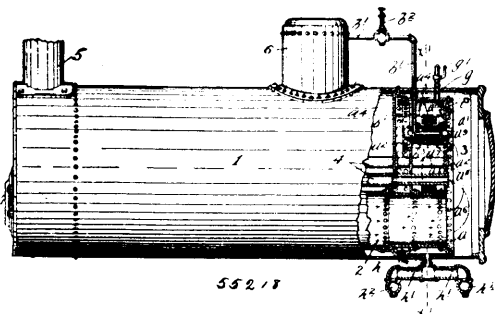
(*Fermeture automatique de boîtes métalliques.*)



Thomas Harris Coakley and Evan Madison Mitchell, both of Baltimore, Maryland, U.S.A., 10th March, 1897; 6 years. (Filed 3rd October, 1896.)

Claim.—1st. The combination with the top having a central opening with a continuous surrounding depending flange and inclined portion, of the cap having a continuous depending flange, the lower edge of which is normally turned outward, substantially as shown and described. 2nd. The combination with the top having an outer depending flange and a central opening with continuous inclined wall and depending flange, of the cap having a depending flange, the lower end of which is normally turned outwardly around its entire circumference and at the upper edge formed with an outwardly extending flange, the upper face of which is inclined, substantially as shown and described.

No. 55,218. Apparatus for Separating Alkali, etc., from Water. (*Appareil pour séparer l'alcali, etc., de l'eau.*)



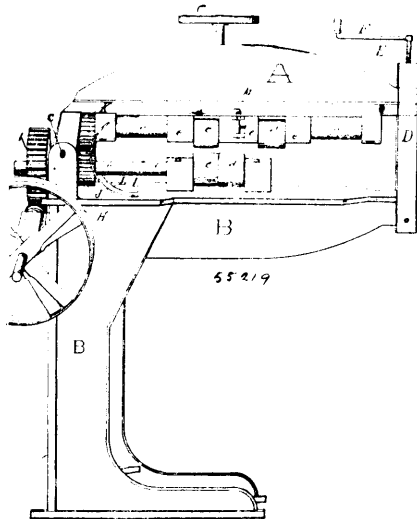
Frank E. Kennedy and Daniel N. Nester, both of St. Paul, Minnesota, U.S.A., 10th March, 1897; 6 years. (Filed 9th December, 1896.)

Claim.—1st. A water separator, comprising a pair of receptacles or compartments, at different levels, a steam cage constituting or forming a part of the passage connecting said compartments, and provided with a supply of steam discharging therethrough into the lower compartment, means for heating the said lower receptacle or compartment, or the water therein, supply connections to said lower compartment, and outflow or discharge connections from said upper compartment, substantially as described. 2nd. A water separator, comprising a receptacle divided by a cross partition, into lower and upper compartments and having a steam cage forming a part of said cross partition, a discharge section of steam supply pipe, located in said cage and discharging downward therethrough into the lower compartment, supply connections to said lower compartment, outflow connections from said upper compartment, and means for heating said lower compartment, substantially as described. 3rd. A water separator, comprising a receptacle divided by a cross partition, into a lower and an upper compartment, a steam cage in said partition, serving to connect said compartments, a discharge section of steam pipe in said cage discharging downward, therethrough into said lower compartment, a distributor in said lower compartment, receiving the unpurified water and discharging the same downward, means for heating said lower compartment, and outflow connections from said upper compartment, substantially as described. 4th. A water separator, comprising a receptacle divided by a cross partition, into lower and upper compartments, a steam cage in said partition, serving to connect said compartments, a discharge section of steam supply pipe, located in said cage, and discharging downward therethrough, into the lower compartment, means for heating said lower compartment, receiving the unpurified water and dis-

charging the same downward into said compartment, and a collector in said upper compartment, receiving from above downward and provided without flow or discharge connections, substantially as described. 5th. The combination with a steam boiler, having a front end extension, of a feed water heater and separator, located therein, and comprising a receptacle, divided by a cross partition into lower and upper compartments, the lower member of which is provided with flue sections matching and forming continuations of the boiler flues, a steam cage in said partition connecting said compartments, a discharge section of steam pipe in said cage discharging downward therethrough into the lower compartment, supply connections to said lower compartment, and outflow connections from said upper compartment to the boiler, substantially as described. 6th. The combination with a steam boiler, having a front end extension, of a combined feed water heater and separator located therein, comprising a receptacle divided by a cross partition into lower and upper compartments, the lower member of which is provided with flue sections matching and forming continuations of the boiler flues, a steam cage in said partition connecting said compartments, a steam pipe from the boiler having a discharge section thereof within said cage discharging downward therethrough into the lower compartment, a reduction valve in said steam pipe, supply connections to said lower compartment, and outflow connections from said upper compartment to the boiler, substantially as described. 7th. The combination with a steam boiler having a front end extension, of the combined feed water heater and separator located therein, comprising a receptacle, the lower member of which is provided with flues matching and co-operating with the boiler flues, a steam cage in said partition connecting said compartments, a steam supply pipe having its discharge section in said cage and discharging downward therethrough into the lower compartment, a reduction valve in said steam supply pipe, a distributor in said lower compartment with discharge openings in its bottom and having supply connections for the unpurified water, and a collector in said upper compartment provided with receiving openings in its top and having outlet connections leading to the boiler, all substantially as and for the purpose set forth. 8th. The combination with a boiler having a front end extension, of the drum-like receptacle, adapted to serve as a feed water heater and separator, composed of the flanged lower and upper segments *a a'* separably connected thereto at their joint flanges, and provided with thimbles engaged by nutted stay-bolts projecting from the front flue-sheet of the boiler, substantially as described.

No. 55,219. Saw Stretching Machine.

(*Appareil à allonger les scies.*)

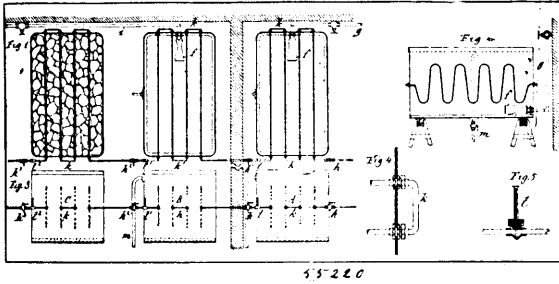


Stephen Joseph Carpenter, Midland, Ontario, Canada, 10th March, 1897; 6 years. (Filed 11th November, 1896.)

Claim.—1st. The combination in a saw stretching machine of flat faced rollers mounted upon two rotated shafts, one above the other, the rollers on the upper shaft being arranged in a sliding block adapted to be carried along the shaft from right to left and *vice versa*, by a manually operated rack and pinion, a bolt device holding said sliding block in the required position, the rollers on the lower shaft fixed between two bearings and having only the rotary motion imparted by the shaft. 2nd. The combination in a saw stretching machine of flat faced rollers mounted upon two rotated shafts attached to a hinged frame, a detachable head-piece attached by a pivot bolt to the lower frame and adapted to close over the end of the upper frame, a lever and screw in the head-piece acting on the upper frame to exert the required pressure on the rollers when operating upon an intervening saw.

No. 55,220. Apparatus for Pasteurizing Liquids.

(Appareil à stériliser les liquides par le système pasteur.)

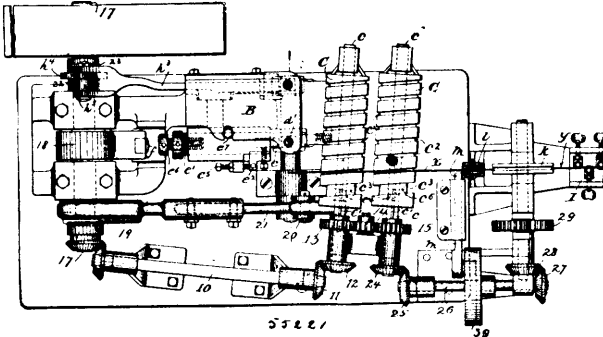


John Henry William Ortman, Hamburg, Germany, 10th March, 1897; 6 years. (Filed 5th November, 1896.)

Claim.—1st. An apparatus for pasteurizing beer and other liquids containing gases, consisting of a series of pipe coils or bends, in which the gas is first heated and subsequently cooled, the pipes being so arranged as to cause the gases liberated by the heat of the pasteurizing process to ascend and descend alternately and repeatedly through the liquid until it is recombined therewith, substantially as and for the purpose set forth. 2nd. An apparatus for pasteurizing beer and other liquids consisting of a system of heating pipes or conduits, a system of cooling pipes or conduits, and a system of refrigerating pipes or conduits, connected in series, and through which the liquid is successively passed, the pipes or conduits being so arranged in each system as to cause the liquids and gases to take a tortuous up and down passage for the purpose of causing the gases separated from the liquid by the pasteurizing process to recombine therewith, substantially as and for the purpose described.

No. 55,221. Machine for Making Metal Spokes.

(Machine pour faire des rais métalliques.)

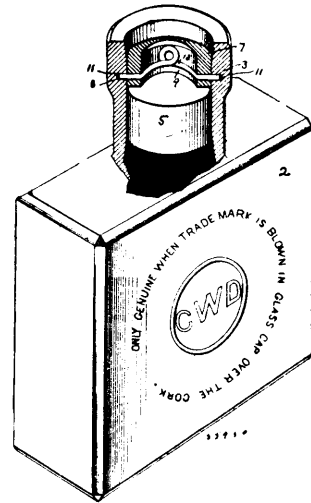


William G. Allen, Hartford, Connecticut, U.S.A., 10th March, 1897; 6 years. (Filed 23rd December, 1896.)

Claim.—1st. In a machine for making wire spokes, the combination of the heading mechanism, comprising a gripping device and an upsetting die, the bending mechanism, and feed mechanism for carrying the blanks to the heading mechanism, and thence to the bending mechanism, substantially as described. 2nd. In a machine for making wire spokes, the combination of devices for forming a head on one end of the spoke, devices for bending the headed end to form a shoulder, and feed mechanism for feeding the blanks to said devices in succession, the action of the heading devices and bending devices taking place simultaneously upon different blanks, substantially as described. 3rd. The combination of the heading devices, the bending devices, feed-mechanism for presenting the blanks successively to the heading devices and bending devices, and automatically operated gripping devices for holding the blanks during the heading and bending operations, and for releasing the same upon the completion thereof, substantially as described. 4th. The combination with heading and bending devices arranged to act successively upon each spoke, and simultaneously upon different spokes, of means for feeding the blanks to said devices in a direction transverse to the length of the blanks, by an intermittent movement, substantially as described. 5th. The combination with heading and bending devices arranged to act successively upon the spoke blanks, of rotary feed cylinders having spiral grooves thereon, in which the blanks are laid, means for moving the cylinders forward longitudinally, whereby the spoke-blanks are advanced by an intermittent movement, and means for gradually returning the cylinders by a movement commensurate with the pitch of said spiral grooves, substantially as described. 6th. The combination with devices for acting successively upon a wire blank, of feed mechanism for the blanks comprising horizontal rollers movable lengthwise of their supporting shafts and having spiral peripheral grooves, means for rotating said rollers, and means for imparting to them an intermittent forward motion and for returning them at a speed corresponding with the pitch of the spiral grooves, substantially as described.

No. 55,222. Bottle and Seal Therefor.

(Bouteille et bouchon.)

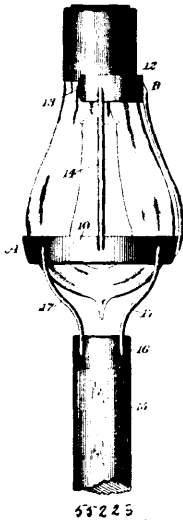


Charles Wright Davison, Minneapolis, Minnesota, U.S.A., 10th March, 1897; 6 years. (Filed 24th December, 1897.)

Claim.—1st. The combination, with a suitable bottle, of a cap for the neck thereof, said cap having a thin or panelled top adapted to be easily broken or shattered, and a lock for said cap within the cap and accessible and removable only when or after the said thin or panelled top of the cap is broken or removed, substantially as described. 2nd. The combination, with a suitable bottle, of a cap for the neck thereof, said cap having a thin or panelled top, means connecting the cap and the neck of the bottle to lock the cap, whereby the cork of the bottle is also locked, said lock or means connecting the cap and the neck of the bottle being accessible only when or after the top of said cap is broken or removed, substantially as described. 3rd. The combination, with a suitable bottle, of a cap for the neck thereof, said cap having a thin or panelled top, means for locking said cap to the neck of the bottle, said means being accessible and removable only from within the cap and only when or after said thin or panelled top is broken or removed, substantially as described. 4th. The combination, with a suitable bottle provided with a groove or recess in the inner surface of its neck, of a cap fitting into said neck and provided with a spring or dog arranged to enter said recess and lock the cap in the neck, said cap being provided with a thin or panelled top, whereby upon breaking said top access may be had to said spring or dog for the purpose of removing said cap from the neck of the bottle. 5th. The combination, with a suitable bottle provided with a groove or recess in the inner surface of its neck, of a cap fitting in said neck and provided with a thin or panelled top and with a spring or dog arranged to engage said recess and also the cap, access to said spring or dog being possible only when said top of the cap is broken or removed, substantially as described. 6th. The combination, with a suitable bottle having a groove or recess in the interior surface of its neck, of the cap 7 having a thin or fragile top, a spring arranged within said cap in position to engage the groove or recess in the neck of said bottle, whereby on breaking said cap access may be had to said spring for the purpose of removing the same and permitting the removal of said cap, substantially as described. 7th. The combination, with a bottle having the groove or recess in the interior surface of its neck, of a cork arranged in the neck of said bottle below said groove or recess, the cap having a thin or panelled top and provided with a spring engaging in said groove or recess, whereby access may be had to draw said cork only by breaking said thin or panelled top of the cap and thereafter withdrawing the said spring. 8th. The combination, with the bottle having a suitable recess in the interior surface of its neck, of the cap 7 having a thin or panelled top and having the hole 11, the spring 9 having the bend 13 and arranged with its end extending through said hole 11 and adapted to enter the recess in the neck of said bottle, for the purpose set forth. 9th. The combination, with the bottle having the recess in the interior surface of its neck, of the cap 7 having the opening 11 and the horizontal groove 13, the spring 9 arranged in said cap and having its end projecting through said opening 11, and a portion of said spring resting in said groove 13, whereby when the top of the cap is broken the end of the wire may be withdrawn from the recess in the neck of the bottle by turning said wire up into a substantially vertical position, for the purpose set forth. 10th. The combination, with the bottle having a suitable design or trade mark blown or marked thereon, of a cap for the neck of the bottle, said cap having a thin or panelled top provided with a similar design or trade mark, locking means for securing said cap in position, and said locking means being removable or accessible only when or after the thin or panelled top of the cap which is provided with said design or trade mark is broken or removed, substantially as described.

ed. 11th. The combination, with a suitable bottle, of a cap for the neck thereof, a locking device secured in said cap and adapted to engage the neck of the bottle, said locking device being accessible and removable only when or after the top of said cap is broken or removed, whereupon the locking device may be released and the cap removed, substantially as described. 12th. The combination, with a suitable bottle, of a cap to enter the neck thereof, said cap being hollow and provided with a thin or panelled top and also provided with projections or lugs extending inwardly from its sides, the neck of the bottle provided with a groove or recesses, and a spring or dog locked in said cap by the projections or lugs therein and having ends to enter said grooves or recesses in the neck of the bottle, as and for the purpose specified.

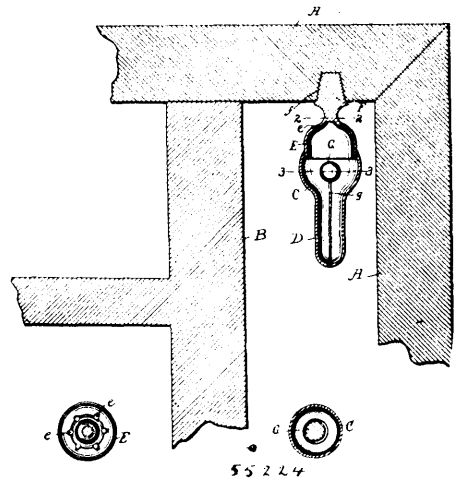
No. 55,223. Means for attaching and detaching Electric Light Globes. (*Moyen d'attacher et détacher les globes de lumières électriques.*)



Frederick William Mayer, Hartford, Connecticut, U.S.A., 10th March, 1897; 6 years. (Filed 8th January, 1897.)

Claim.—1st. A device for attaching and detaching electric light globes, comprising a semicircular band and a circular band, both of said bands being connected together and adapted to engage an incandescent lamp at relatively remote points in its length, and a pole or handle secured to said device. 2nd. A device for attaching and detaching electric light globes, comprising a pair of bands secured together and of substantially the same width, and adapted frictionally to engage an incandescent lamp-globe directly at different points in its length, and a pole or handle secured thereto. 3rd. A device of the class specified, comprising a lower circular band and a smaller, upper, semicircular band concentric therewith, both of said bands being adapted to engage an incandescent lamp-globe directly, a series of ribs connecting said bands together, and a pole or handle secured to the lower band. 4th. A device for attaching and detaching electric light globes, comprising a circular band and a substantially semicircular band, a series of ribs connecting said bands together, a pole or handle, a socket secured to one end of said pole or handle, and a series of ribs secured to the lower band and to said socket. 5th. A device of the class specified, comprising a relatively large band and a relatively small, substantially semicircular band concentric therewith, said bands being adapted to engage a lamp-globe directly at relatively remote points in its length, cushioning or frictionally engaging material on the interior of each of said bands, and a pole or handle secured to said device. 6th. A device of the class specified, comprising a relatively large, upwardly-flaring band and a relatively small, substantially semicircular band having outwardly-flaring ends, said bands being adapted to engage an incandescent lamp at relatively remote points in its length, and a pole or handle secured to said device. 7th. A device of the class specified, comprising a pair of bands adapted frictionally to engage a lamp-globe at different points in its length, and each of said bands being lined on its interior with rubber or other soft material, and a pole or handle secured to said device. 8th. An incandescent lamp attaching and detaching device comprising a relatively large circular flaring band having an inwardly-turned flange at its lower edge and a rubber lining on its inner face, a relatively small substantially semicircular band concentric with said larger band and having outwardly-flaring ends and also having a rubber lining on its inner face, a series of ribs connecting said bands together, a pole or handle, a socket engaging one end of said handle, and a series of ribs connecting the lower band with said socket and having their points of connection with the relatively large band intermediate of the points of connection of the first series of ribs with said band.

No. 55,224. Igniter. (*Allumoir.*)

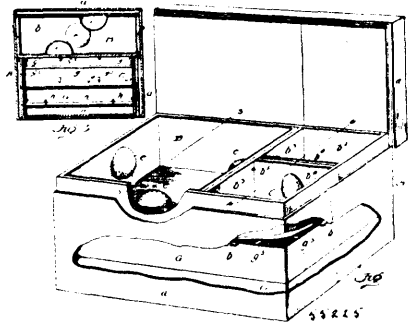


Levi S. Gardner, New Orleans, Louisiana, U.S.A., 10th March, 1897; 6 years. (Filed 25th January, 1897.)

Claim.—1st. The combination with the cylinder of an explosive compression engine, of a suspended body of material capable of being made incandescent by heat, and a chamber surrounding said body and out of contact therewith and communicating with the cylinder, said chamber adapted to hold the burnt gases whereby the latter form an insulator until compressed by the new charge, substantially as described. 2nd. The combination with the cylinder, of a ball of material capable of being made incandescent by heat, said ball suspended in said cylinder, and a chamber surrounding the ball and out of contact therewith and communicating with the cylinder and adapted to hold the burnt gases after each ignition, substantially as described. 3rd. As an article of manufacture, a casing provided with means for engaging it to the wall of a cylinder or the like, said casing made hollow and elongated, and a ball of material capable of being made incandescent suspended within the casing and free from the sides thereof, said casing provided with one or more openings, substantially as described. 4th. An igniter consisting of a casing adapted to engage the wall of the cylinder, a body of material suspended in said casing and free from the walls thereof, said casing provided with one or more openings adapted to admit fresh gas to the ball at a point different from the point of suspension, substantially as described.

No. 55,225. Trunk and Hat Box.

(*Coffre et boîte à chapeaux.*)

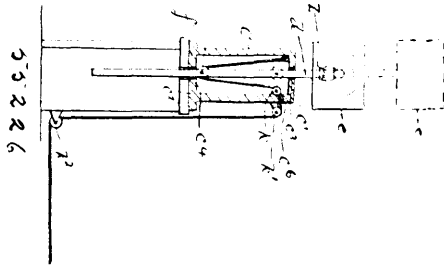


Mary Lyons, New York, State of New York, U.S.A., 11th March, 1897; 6 years. (Filed 15th December, 1896.)

Claim.—1st. A trunk having a tray divided centrally into two wells or compartments by removable hat-rests, as set forth. 2nd. A trunk having a tray divided centrally into two wells or compartments, and hat-rests located therein, as set forth. 3rd. A trunk having a tray, a hat rest therein, and a series of adjustable holders for engaging a hat, substantially as set forth. 4th. A tray having a well, a tapered hat-rest on the bottom thereof for hats of different sizes, and a series of adjustable holders designed to engage such hat, substantially as set forth. 5th. A tray having a well, a tapered hat-rest on the bottom thereof for hats of different sizes, and a series of holders adjustable vertically and horizontally and having curved plates for engaging such hat, substantially as set forth. 6th. A tray having a well, a hollow hat-rest on its bottom, a box designed to fit in said hat-rest, and a series of holders designed to engage a hat on said rest, substantially as set forth. 7th. A tray having transverse rods adjustably engaging the sides thereof, as set forth. 8th. A tray having a flat board designed to fit therein, and means for holding down said board, substantially as set forth. 9th.

A tray having a flat board designed to fit therein, and transverse rods adjustably engaging the sides of said tray and designed to hold down said board, substantially as set forth. 10th. A tray having a series of short tapes projecting from its walls, as set forth. 11th. A tray having a series of short tapes projecting from its walls, and clasps secured to some of said tapes, substantially as set forth. 12th. A box or trunk having a hat-rest in the form of a segment of a spheroid, as set forth. 13th. A box or trunk having a hat-rest composed of buckram, as set forth. 14th. A receptacle for hats having a plurality of hat-rests extending from the walls thereof, as set forth. 15th. A box or trunk having hat-rests extending inwardly from the walls thereof, and also from the bottom and lid, as set forth. 16th. A receptacle for hats having a series of hat-rests made of buckram and in the form of a segment of a spheroid, as set forth.

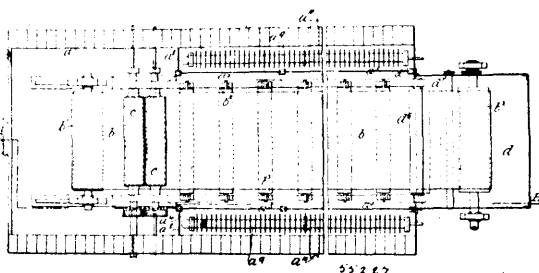
No. 55,226. Target. (Cible.)



John Currie, Montreal, Quebec, Canada, 11th March, 1897; 6 years. (Filed 19th December, 1896.)

Claim.—1st. A vertically adjustable sliding target adapted to be suitably supported at different elevations, for the purpose set forth. 2nd. A target for practicing long range shooting in a limited space comprising means for presenting a stationary aiming point, and an adjustable target proper, and means for adjusting said target proper. 3rd. A target for practicing long range shooting in a limited space comprising a supporting frame having the aiming point marked on the front thereof, a vertically adjustable target proper and means for adjusting said target proper, for the purpose set forth. 4th. A target for practicing long range shooting in a limited space, comprising means for presenting a stationary aiming point, an adjustable target proper, an enclosing casing or protector and means, located in said enclosing casing or protector and operatively connected with said target proper, for adjusting same, for the purpose set forth. 5th. A target support and target, the latter being removably supported upon the support and interchangeable with other targets, as and for the purpose set forth. 6th. A target for practicing long range shooting in a limited space comprising a supporting frame consisting of a base section having a slotted table portion, a box like section carried upon said base and having its top and bottom ends closed and slotted, a vertical bar located in the slots in said box-like section and base, said bar carrying the target proper at its upper end and a pulley near its lower end, an enclosing casing or protector provided with an opening or window in the side thereof adjacent to the target, a lever and a suitably mounted quadrant located inside said casing or protector and means for operatively connecting said lever and target proper, consisting of a series of pulleys and a length of chain disposed and arranged substantially as shown and described, for the purpose set forth.

No. 55,227. Apparatus for Drying White-lead, Colours, etc. (Appareil pour sécher le blanc de plomb, etc.)

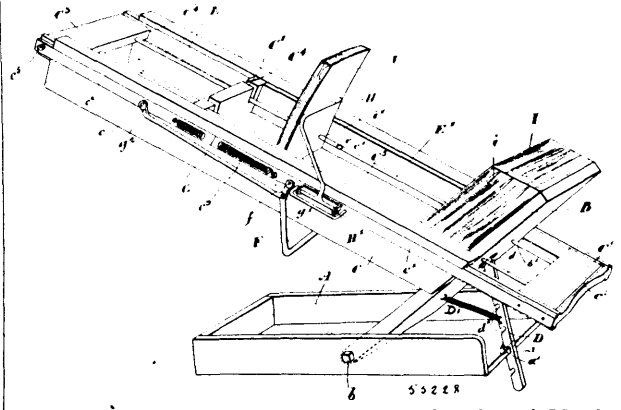


Thomas Crisp Sanderson, Upton Manor, London, England, 11th March, 1897; 6 years. (Filed 26th January, 1897.)

Claim.—1st. In apparatus for drying whitelead, colours and other powdery, granular or nodular substances, the combination of a central drying chamber a^2 , heated by a current of hot drying air, and through which the substance to be dried is slowly traversed in a reverse direction, and side re-heating chambers a^1 , independently heated by steam piping or other suitable means, and communicating with the drying chamber at the lower and upper parts thereof, and serving to re-heat the drying air as it becomes cooled by evaporating moisture from the substance under treatment

and descends to the lower part of the drying chamber and passes into the re-heating chambers, and to cause it to re-enter the drying chamber at its upper part in a re-heated condition, and so on, repeatedly, so as to cause a continuous circulation thereof, and to maintain the temperature and drying capacity of the drying air throughout its operative course through the drying chamber, as set forth.

No. 55,228. Account and Letter Files. (Serre-papier.)



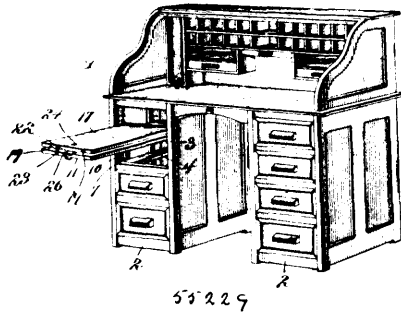
Jacob H. Hoover, Toronto Junction, Ontario, Canada, 11th March, 1897; 6 years. (Filed 29th January, 1897.)

Claim.—1st. The combination with the supporting receptacle, of the board pivoted at the bottom thereof and a case attached to the board and extending forwardly therefrom designed to receive the contents of the file, means for holding the contents securely in the case and means for holding the supporting board and case at any desired angle, as and for the purpose specified. 2nd. The combination with the supporting receptacle, of the board pivoted at the bottom thereof and a case attached to the board and extending forwardly therefrom designed to receive the contents of the file, means for holding the contents securely in the case, and a bar, provided with notches, spring-held to the board, and a pin in the base of the receptacle designed to come in contact with the notches, as and for the purpose specified. 3rd. In combination the file-receiving case, the board to which it is attached, pivotally supported as specified, the longitudinal filing rods extending through the receptacle, the pointed inner ends of one set of filing rods fitting into the recess of the opposing set, cross-bars for holding the outer ends of the rods together, and means for holding the inner ends in alignment and for separating such inner ends when desired, as and for the purpose specified. 4th. In combination the filing receiving case, the board to which it is attached, pivotally supported as specified, the longitudinal filing rods extending through the receptacle, the pointed inner ends of one set of filing rods fitting into the recess of the opposing set, cross-bars for holding the outer ends of the rods together, divided side bars c^1, c^2 , connected to the cross-bars and fitting in corresponding grooves in the sides of the case, spiral springs connecting the abutting ends of the side bars together and means for separating such ends against the tension of the spiral springs, as and for the purpose specified. 5th. In combination the file-receiving case, the board to which it is attached, pivotally supported as specified, the longitudinal filing rods extending through the receptacle, the pointed inner ends of one set of filing rods fitting into the recesses of the opposing set, cross-bars for holding the outer ends of the rods together, divided side bar c^1, c^2 , connected to the cross-bars and fitting in corresponding grooves in the sides of the case, spiral springs connecting the abutting ends of the guide bars together, a U-shaped arm connected to the lower guide-bars and connecting arms from such U-shaped arms to the upper guide-bars, as and for the purpose specified. 6th. In combination the filing case, the longitudinal rods divided intermediately and removably fitted together at such division so as to be capable of longitudinal adjustment, and an L-shaped bar pivotally secured to the frame and designed to be brought so that the upper end may be swung over the case, as shown and for the purpose specified. 7th. In combination the filing case, the longitudinal rods divided intermediately and removably fitted together at such division, so as to be capable of longitudinal adjustment, the cross-bars at the ends of the rods, the guide-bars secured to the cross-bars and fitting in corresponding grooves in the sides of the case, means for normally holding the inner ends of the guide-bars and rods together, and an arm substantially L-shaped pivotally secured on the lower side bar and designed to be swung over the case, as and for the purpose specified. 8th. In combination the board B having the holes b^1 , the base secured to the board, the rods E^1, E^1 , provided with an end cross-bar and extending through the holes b^1 , the rods E, E , abutting against the inner ends of the rods E^1, E^1 , and held in alignment therewith, the cross-bar c^1 with notches through which the rods E, E extend, and the cross-bar C^2 connecting the upper ends of the rods E, E together, as and for the purpose specified. 9th. The combination with the case provided with a front cross-bar C^1 , the notches

c^4 in the cross-bar, the rods E E fitting within notches and designed to abutt the ends of the rods E¹, E², the cross-bar C³, the guide-bars c^3 , and means for holding them in position, and thumb-screws extending through guide-bars into the cross-bars C³, as and for the purpose specified.

No. 55,229. Typewriter Attachment for Desks.

(*Attache de pupitre pour clavigraphes.*)

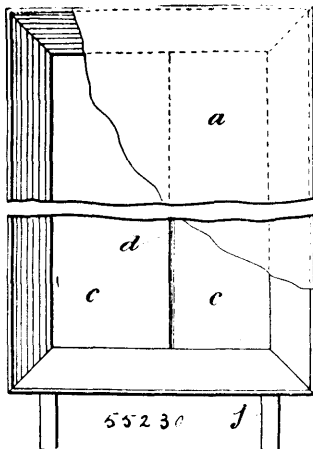


John Gramelspacher, Jasper, Indiana, U.S.A., 11th March, 1897; 6 years. (Filed 30th January, 1897.)

Claim.—1st. In a desk or cabinet, the combination with a movable bed or table, of a hinged leaf or flap connected to the front edge thereof and adapted to be folded upward to constitute a drop front for the space immediately above said bed or table, and to be folded downward into the plane of said bed or table to form a continuation or extension thereof, and a sliding shelf on said table adapted to recede inside of the plane of the flap when up and to slide outward on said flap when in its horizontal position, substantially as described. 2nd. In a desk or cabinet, the combination with a movable bed or table mounted on arms or links so as to swing upward and forward while remaining horizontal, of a hinged leaf or flap connected to the front edge of the bed or table and adapted to be folded upward, said flap or leaf constituting a drop front for the space immediately above the movable bed or table, substantially as described. 3rd. In a desk or cabinet, the combination with a movable bed or table mounted on arms or links and adapted to swing upward and forward, of a hinged leaf or flap attached to the front edge thereof, a sliding shelf arranged on said bed or table and adapted to be drawn forward upon the leaf or flap means for limiting the forward movement of the sliding shelf, and a catch for holding said shelf in its operative position, substantially as described. 4th. The combination with a movable supporting table, of a flap or leaf connected thereto, an arc-shaped stay connecting the inner edge of said flap or leaf to said table and adapted to permit the same to fold, and a sliding shelf arranged on said table and adapted to slide outward on said flap when the latter is extended, substantially as described. 5th. The combination with a movable supporting table, of a flap or leaf hinged thereto, a hinge having an arc-shaped stay the ends of which are movable through slots in the leaves of the hinge, and the sliding shelf arranged on said table and grooved in its underside to engage said stay which also constitutes a guide for the shelf, substantially as described.

No. 55,230. Safety Target for Rifle Practice.

(*Cib'e de sûreté pour exercices de tir.*)

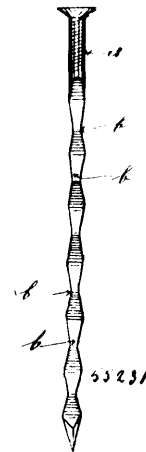


Matthew Mullineaux, Cheetham, Manchester, Lancaster, 11th March, 1897; 6 years. (Filed 2nd February, 1897.)

Claim.—1st. A target box consisting of an open fronted case, a series of deflecting plates in the case arranged to guide the bullets hitting same so as to exhaust their force or energy. 2nd. A target box consisting of a case having an open front, a safe receptacle

within the case and inclined and curved deflecting plates projecting to the front of the case and guiding the bullets fired at the open front to the safe receptacle. 3rd. A target consisting of a case having an open front, a perforable face covering the open front, a safe receptacle within the case and inclined and curved deflecting plates projecting to the front of the case and guiding the bullets fired at the open front to the safe receptacle. 4th. A target box consisting of an open fronted case, a perforable face covering the open front and a series of deflecting plates adapted to guide the bullets piercing the face so as to exhaust their force or energy.

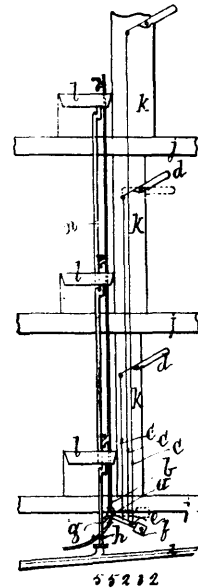
No. 55,231. Nail. (Clous.)



George John Craven, Portsmouth, Southampton, England, 11th March, 1897; 6 years. (Filed 21st February, 1897.)

Claim.—In nails rounded or curved indentations, moulded, cut or pressed in the nail, substantially as described and for the purpose set forth.

No. 55,232. Exhaust Cock. (Robinet d'épuisement.)



François Xavier Caron, Montréal, Québec, Canada, 11 mars 1897; 6 ans. (Déposé le 16 janvier 1897.)

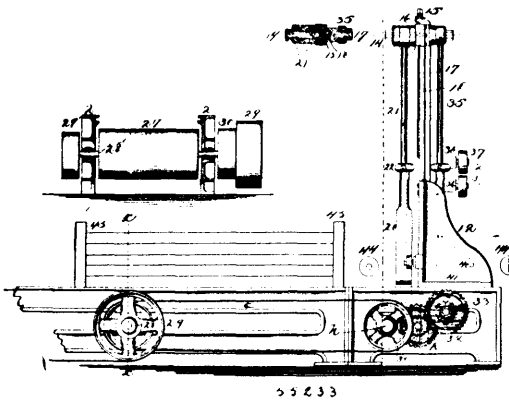
Résumé.—1^o Dans un robinet d'épuisement combiné, la combinaison du moyeu *a* avec l'essieu pourvu du bras ou levier *e*, du poids *f*, attaché au levier *e* et du tuyau de décharge *g*, le tout fonctionnant en rapport avec le tuyau de distribution *b*, tel que décrit et pour les fins indiquées. 2^o Dans un robinet d'épuisement combiné, la combinaison des cordes métalliques *c c c* avec le levier *d d d* à chaque étage d'une bâtisse, ces cordes *c c c* actionnant le levier *e* du robinet d'épuisement combiné, tel que ci-dessus décrit et pour les fins indiquées.

No. 55,233. Stave-Setting Machine.

(*Machine pour finir les douves.*)

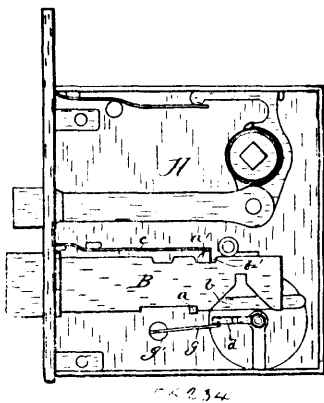
Thomson Kingsford, assigne of William Henry Bullock, both of Oswego, New York, U.S.A., 12th March, 1897; 6 years. (Filed 17th February, 1897.)

Claim.—1st. The combination with a traversing frame provided with laterally adjustable rectangular bars adapted to rock in the



bearings on said frame, of swinging legs carrying cutters upon their free ends and slides upon said legs engaging with said bars to follow their alignment as said frame is reciprocated. 2nd. The combination with a traversing frame, provided with rectangular guide-bars mounted to rock thereon and adjustable to vary their alignment, of cutters mounted upon diverging swinging legs pivoted upon the same centre, adjustable to vary their length, and slides upon said legs through which said guide-bars pass and whereby said cutters are swung laterally as said frame is reciprocated. 3rd. The combination with a table, a traversing frame thereon, slides upon the end rails thereof, rectangular rocking bars connected to said slides and means to adjust them by traversing said slides, of swinging legs and slides thereon traversing said bars to vary the degree of the divergence of said legs as the frame traverses, and cutters upon said legs. 4th. The combination with a table, a traversing frame thereon, slides upon the end rails thereof, bars connected to said slides and adapted to rock in the bearings thereon, and means to adjust said bars laterally and in equal degree by traversing said slides, of laterally swinging and diverging legs mounted upon a common centre and engaging with said bars to vary the degree of their divergence as the frame traverses, cutters upon said legs, and means to simultaneously adjust the length of said legs to the radius of the circle of the head of the tank. 5th. In a stove-machine, a frame mounted and adapted to traverse upon a suitable support and consisting of side and end rails, slides upon said end rails, longitudinal rectangular bars journaled to rock in said slides and screws for shifting said slides to vary the spaces between the ends of said bars, in combination with cutters mounted upon swinging legs actuated laterally by the traverse of said frame, and slides upon said legs through which said bars reciprocate and whereby the staves are tapered and beveled. 6th. In a stove-machine, a table, a standard erected thereon a slide upon said standard, beveling and tapering and crossing legs suspended therefrom and means to vary their length simultaneously and equally by shifting said slide, in combination with a traversing frame upon said table engaging with said cutter legs to guide and swing them, and cutters upon each of said legs whereby a stove upon said frame is tapered and beveled by the traverse of said frame, and crossed when the crossing cutter is swung across it.

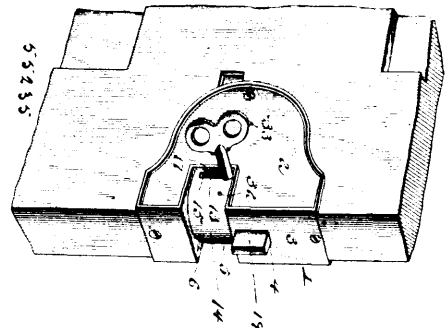
No. 55,234. Lock and Key. (Serrure et clef.)



David E. Beechley and Jacob H. Billman, assignees of Edward L. Wetz and Gary P. Combs, all of Dayton, Ohio, U.S.A., 12th March 1897; 6 years. (Filed 11th February, 1896.)

Claim.—A key having the pilot end reduced in size, and an annular groove formed at the inner terminal of said reduced portion, an oblong cap inclosing said reduced portion, and having its inner end pressed into said annular groove, whereby means are provided for preventing the key from being turned from without.

No. 55,235. Lock. (Serrure.)



Robert W. Hutchison, Marcellus, and Lucy Gear Bullard, Bertien Springs, assignee of Isaac Anderson, Saginaw, all in Michigan, U.S.A., 12th March, 1897; 6 years. (Filed 17th February, 1896.)

Claim.—1st. A lock having that portion in which the keyhole is formed movable, so that said keyhole may be presented at either side of a door, substantially as described. 2nd. A lock having a rotatable portion which is provided with a keyhole adapting the key to be inserted substantially at a right angle to the axis of rotation, substantially as described. 3rd. A lock having a movable part which is provided with a keyhole and made reversible, adapting the keyhole to be shifted from one side of a door to the other, substantially as described. 4th. A lock having a reversible key socket adapted to be swung on a vertical axis for bringing the keyhole to either side of the door, substantially as described. 5th. A lock having a cylindrical key socket, in combination with a sleeve surrounding the same loosely and adapted to be turned for covering and concealing the keyhole, substantially as described. 6th. A lock having a cylindrical key socket, in combination with a sleeve surrounding said key socket and adapted to be turned for concealing the keyhole, and a clutch for engaging said sleeve, substantially as and for the purpose described. 7th. In a lock, a reversible key socket, and a sleeve surrounding said socket and adapted to be moved for covering and concealing the keyhole, in combination with a movable clutch adapted to engage between said sleeve and a fixed part of the lock case, substantially as and for the purpose described. 8th. In a lock, the combination with the lock bolt and the tumbler, of a reversible key socket having provision whereby it is adapted to be engaged by the tumbler and held from moving, substantially as specified. 9th. In a lock the combination with the bolt of a reversible key socket, and a tumbler adapted to engage the bolt and also adapted to simultaneously engage the key socket for holding the latter against movement, substantially as and for the purpose specified. 10th. The combination with a lock case formed with a recess as described, of a cylindrical key socket mounted in said recess and adapted to turn therein for reversing the position of the keyhole, a bracket removably fitted in the case and having a portion which engages and forms a bearing for the key socket, the reciprocating bolt, and the pivoted tumbler fulcrumed on said bracket and co-operating with the bolt and key socket, substantially in the manner and for the purpose described. 11th. In a lock, the combination with the bolt, of a reversible key socket, a tumbler adapted to engage the bolt and also adapted to simultaneously engage the key socket for holding the latter against movement, and a spring bearing against said tumbler for holding the latter in engagement with the bolt and key socket, substantially as described. 12th. A lock having a rotatable cylindrical key socket, in combination with a sleeve surrounding the same and provided with a socket or opening adapted to receive a pointed instrument whereby the sleeve may be turned relatively to and upon the key socket for covering and concealing the keyhole, substantially as described. 13th. In a lock, the combination with the lock case, of a reciprocating bolt having notches in its upper and lower edges, a tumbler fulcrumed at one end upon a transverse pin crossing the plane of the bolt and extending through one of the notches therein, the said tumbler comprising parallel side plates adapted to embrace the bolt and connected at their swinging ends by a cross web which engages the bolt, and a spring interposed between the tumbler and a fixed point, substantially as specified.

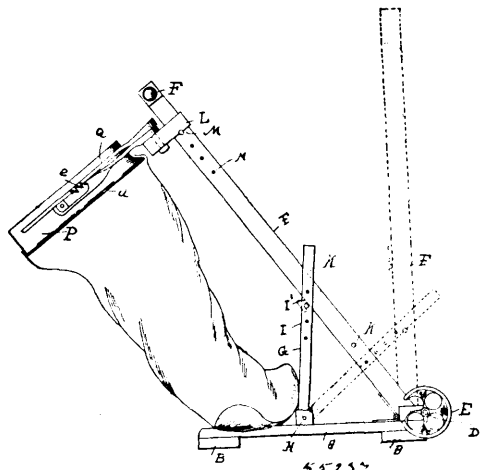
No. 55,236. Glove. (Gant.)



William H. Tyler, New York, State of New York, U.S.A., 12th March, 1897; 6 years. (Filed 17th February, 1897.)

Claim.—A glove consisting of a hand-portion, finger-pieces differing in material from the hand-portion, and an attaching portion integral with, and common to, each finger-piece, secured to the hand-portion above the thumb by a transverse seam, substantially as described.

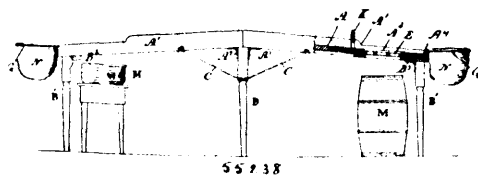
No. 55,237. Bag-Holder. (Accroche-sac.)



Cassie J. Cain, Stockbridge, Michigan, U.S.A., 12th March, 1897; 6 years. (Filed 19th February, 1897.)

Claim.—1st. In a bag-holder, the combination of a platform, a standard, an elongated U-shaped brace pivoted to the platform and embracing the standard, a cross-bar spanning this brace in front of the standard and adjustably secured thereto, a shoulder or pin on the standards adapted to engage on the cross-bar, notches in the brace near the ends and pins on the standard with which the notches are adapted to engage in the vertical position of the standard, substantially as described. 2nd. In a bag-holder, the combination with the platform, the post standard hinged to the platform near one end, and adapted to tilt over the platform, and elongated brace pivoted at its end to the platform and lying adjacent to the standard, and having a series of apertures, a detachable cross-bar adapted to engage in any one of the apertures, a headed stop or hook on the standard adapted to impinge upon the cross-bar, pins K on the sides of the standard with which notches in the brace are adapted to engage, the handle K' formed by an extension of the brace beyond the standard, and a bag-holder carried by the standard, substantially as described. 3rd. A bag-holder comprising a standard, a bracket thereon, an arm secured at or near its middle to said bracket, a bag distending jaw secured to one end thereof, a lever pivoted to the other end of the arm, the complementary jaw secured to said lever and means for holding the lever and arm in fixed relation to one another, substantially as described. 4th. In a bag-holder, the combination of a bracket, a curved arm secured thereto to project upon both sides of the bracket, the bag distending jaw secured to one end of the arm, a lever pivoted to the other end, a complementary jaw secured to the end of the lever, and a ratchet bar on the opposite end of the curved arm with which the end of the lever is adapted to engage. 5th. In a bag-holder, the combination with a supporting means, of an arm attached thereto, a bag distending jaw carried by one end of the arm, a lever pivoted to the arm at or near its other end and carrying a second jaw, and means for holding the lever and arm in fixed relation to one another.

No. 55,238. Fruit Grader. (Appareil à assortir les fruits.)

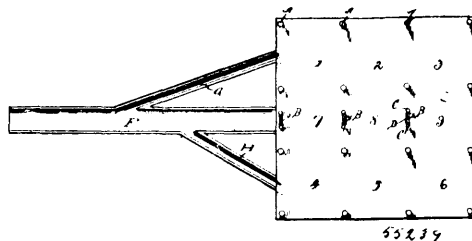


Edward H. Wartman, Kingston, Ontario, Canada, 12th March, 1897; 6 years. (Filed 3rd February, 1897.)

Claim.—1st. A fruit grader, composing oppositely-inclined platforms or floors A, hinged to supporting legs B, B', said platforms having an aperture near the lower end provided with a removable perforated grading plate E, as set forth. 2nd. A fruit grader, having an inclined platform or floor A, supported on legs B, B', and near the lower end an aperture A', provided with a removable perforated grading plate E, and adjustable feed slide K, as set forth. 3rd. In a fruit grader, an oppositely-inclined platform or floor A, hinged to supporting legs B, B', and having apertures near the lower ends provided with interchangeable or removable perforated grading plates E, a receptacle holder G, hinged to the lower ends and provided with feed slides K, and partition H, substantially as set forth.

No. 55,239. Game and Game Apparatus.

(Jeu et appareil de jeu.)

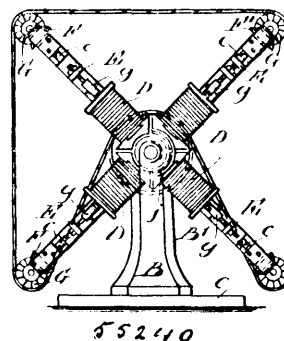


John E. Brooks, Calumet, Pennsylvania, U.S.A., 12th March, 1897; 6 years. (Filed 4th February, 1897.)

Claim.—A game apparatus consisting of a square board constituting a field, of pegs located at each corner of the field, two pegs upon each side of the field and dividing such side into three equal divisions, and four pegs located within the field in such manner as to divide the field, in conjunction with the other pegs, into nine squares, a main alley leading to the centre of one side of the field, and branch alleys springing from the main alley, and three wickets located in alignment with the alley and located upon the side of the squares of the middle tier nearest the alley, and pendants swinging from the wickets, substantially as specified. 2nd. The combination with a square board constituting a field, of pegs secured to the board and dividing the field into three rows of houses, wickets located in each of the houses of the middle row, a main alley leading to an end house of the middle row, and branch alleys extending from the main alley and leading to the end houses of each of the side row, substantially as specified.

No. 55,240. Dynamo Electric Machine.

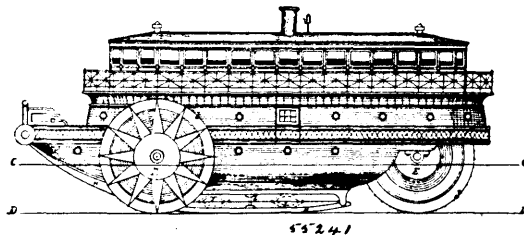
(Machine dynamo électrique.)



George Luman Campbell, Kinsman, Ohio, U.S.A., 12th March, 1897; 6 years. (Filed 11th February, 1897.)

Claim.—1st. The combination of the armature, field magnets mounted to move with said supports and pivoted thereto to swing in planes extending longitudinally of the armature, and means for holding the field magnets in position, substantially as described. 2nd. The combination of the armature, supports movable toward and from the armature, field magnets pivotally carried by said supports, and means for holding the field magnets in position, substantially as described.

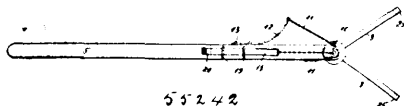
No. 55,241. Water and Ice Boat. (Bateau à glace et eau.)



Charles Arnold Barber, Rat Portage, Ontario, Canada, 12th March, 1897; 6 years. (Filed 10th February, 1897.)

Claim.—1st. The combination of buoyant propeller and steering wheels E, in size and numbers sufficient to materially decrease the friction in the water with carriers of this form, and also the special application of the buoyant wheels and steering apparatus G, as and for the purposes hereinbefore set forth. 2nd. The construction of the spring runners or skates H, chisel points J, shoes or treads K, and the screws L, substantially as and for the purposes hereinbefore set forth.

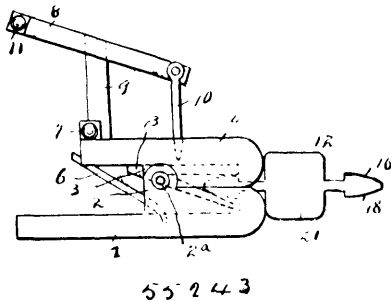
No. 55,242. Devices for Lifting and Turning Bake Pans. (*Appareil pour soulever et tourner les tourtières.*)



William Garbutt Blair, Beloit, Wisconsin, U.S.A., 12th March, 1897; 6 years. (Filed 11th February, 1897.)

Claim.—1st. The herein described bake pan lifter and turner, which comprises a handle, in the end of which is formed a transverse slot or groove, a tripod comprising a head provided with an upwardly directed tubular extension which passes through the ends of the handle, and through said slot or groove, said head being provided with radially and downwardly directed arms, one of which is provided with a longitudinal chamber, and a longitudinal slot in the lower side thereof, a spring mounted in said chamber and provided at its outer end with a hook which is adapted to slide in said slot, and means for turning said tripod and for operating said hook, substantially as shown and described. 2nd. The herein described bake pan lifter and turner, which comprises a handle, in the end of which is formed a transverse slot or groove, a tripod comprising a head provided with an upwardly directed tubular extension which passes through the ends of the handle and through said slot or groove, said head being provided with radially and downwardly directed arms, one of which is provided with a longitudinal chamber, and a longitudinal slot in the lower side thereof, a spring mounted in said chamber and provided at its outer end with a hook which is adapted to slide in said slot, and means for turning said tripod and for operating said hook consisting of a slide mounted on the handle and provided with a chain which passes through said tubular extension of the tripod, and is connected with said hook, and another slide mounted on the handle and provided with a chain or cord which passes around the end of the handle through said slot or groove and around the tubular extension of the tripod, and is connected with a spring secured to the handle, said last named chain or cord being also connected with the tubular extension of the tripod, substantially as shown and described. 3rd. The herein described bake pan lifter and turner, which comprises a handle on the end of which is mounted a revoluble tripod which is provided with radially and downwardly directed arms, one of which is provided with a spring operated hook, and means for operating said hook and for revolving said tripod, substantially as shown and described.

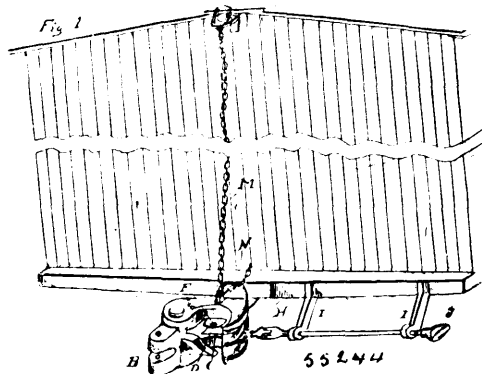
No. 55,243. Car-coupler. (*Attelage de chars.*)



William Usher Wilkes, Curtis, Alabama, U.S.A., 12th March, 1897; 6 years. (Filed 11th February, 1897.)

Claim.—1st. In a car-coupler of the character described, a draw-bar composed of top and bottom portions pivoted together with a portion of their faces in engagement, and the portions forward the pivots also in engagement, combined with a spring to hold one of the said portions in normal position, and the hand-levers connected together and standing at an angle to each other for operating the said latter portion from the sides of the car and the platform thereof, as set forth. 2nd. In a car-coupler, a draw-bar comprising top and bottom portions pivoted together, a spring secured to one portion with its free end engaging the other portion, a side-handle, and an inclined handle adapted to extend over the car-platform, as set forth. 3rd. The pivoted portions constituting a draw-bar, a spring controlling the movement of one of said portions, and means for operating the said portion from the car-platform and sides of the latter, comprising a cross-lever and a lever supported on an incline above the draw-bar and extending over the platform, combined with a tongue depending from the said portion, substantially as and for the purpose set forth. 4th. The combination in a car-coupler of the character described, the pivoted portion constituting a draw-bar, a spring controlling one of said portions, a projection integral with the spring-controlled portion, and a tongue depending downwardly and forwardly from the said projection, a cross-lever and an inclined lever supported from the cross-lever and connected to the draw-bar, as set forth.

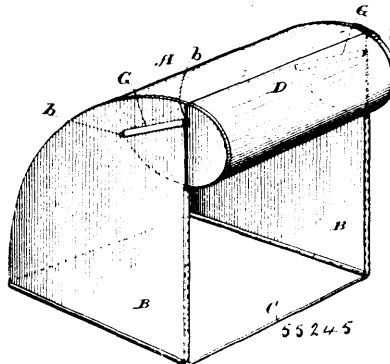
No. 55,244. Car Coupler. (*Attelage de chars.*)



John C. Taylor, Findlay, Ohio, U.S.A., 12th March, 1897; 6 years. (Filed 12th February, 1897.)

Claim.—1st. The combination of the draw-head formed with a depression, a head fitting in said depression and held to position by the depression-wall, the latch pivoted to swing vertically on said head, and the jaw adapted at its inner end when turned inward for locking to extend between the head and latch, and thus automatically move the latch from its path, but which is held positively thereby from outward movement, substantially as shown and described. 2nd. An improved car-coupling, comprising the draw-head, the removable head fitting within the draw-head cavity, the ears extended vertically from the said head, the latch arranged over the said removable head, the ear dropping from the latch, a pivotal rod securing the said latch and head together, the latch-operating mechanism and the swinging jaw, substantially as shown and described. 3rd. An improved car-coupling, comprising the draw-head, the swinging jaw therein, the head removable secured in the draw-head, the separated, perforated ears raised vertically from the rear side of the said removable head, the swinging jaw positioned over the said removable head adapted to be raised automatically by the swinging jaw, the ear upon the rear end of the said latch which extends between the ears of the removable head, the laterally-extending turnable rod or bar extended through the said ears and squared at its point of engagement with the ear of the latch, whereby when the rod or bar is turned the latch will be raised, substantially as shown and described. 4th. An improved car-coupling, comprising the draw-head, the swinging jaw therein, the latch for locking the jaw within the head, the chain extending from the latch to the top of the car for operating the said latch, and the short chain connecting the first-named chain with the base of the car, for the purpose substantially as herein shown and described.

No. 55,245. Hot-Air Deflector. (*Défecteur à air chaud.*)

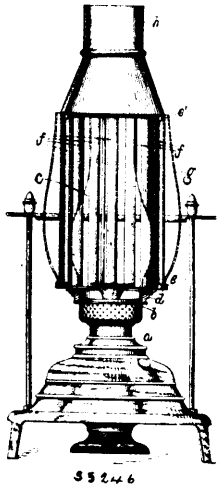


Theodore Frelinghuysen Thompson, Ravenna, Ohio, U.S.A., 12th March, 1897; 6 years. (Filed 16th February, 1897.)

Claim.—1st. A hot-air deflector comprising, in its construction, a plate or wall arranged to overhang a hot-air register or radiator, and a suitably-supported water-trough or pan arranged below and movable forwardly from the upper portion of said wall, substantially as set forth. 2nd. In a hot-air deflector, the combination with the plate or wall arranged to overhang a hot-air register or radiator, of the horizontally-arranged or approximately horizontally-arranged water-trough or pan suitably supported below and movable laterally and forwardly, substantially as set forth. 3rd. In a hot-air deflector, the combination with the deflecting-plate arranged to overhang the hot-air register or radiator, of a water-trough removably supported, and arranged below and longitudinally of the forward edge of the aforesaid plate, said pan or trough having its rear portion in open relation with the space below said plate, and having its forward portion enlarged upwardly to meet, or substantially meet, the for-

ward edge of said plate, substantially as set forth. 4th. In a hot-air deflector, the combination with the plate arranged to overhang a hot-air register or radiator, of a horizontally-arranged or approximately horizontally-arranged water-trough or pan arranged below and longitudinally of the forward edge of said plate and extending forwardly of said edge, said pan or trough having its rear portion in open relation with the space at the inner side of the aforesaid plate and having its forward portion enlarged upwardly to form the upwardly and rearwardly-sloping deflector *d*, substantially as shown for the purpose specified. 5th. In a hot-air deflector, the combination with the deflecting-plate arranged to overhang a hot-air register or radiator and the side-plates B, B, of a water-trough or pan extending between said side-plates below the upper and forward portion of the deflecting-plate and movable forwardly, and means for suitably supporting said pan or trough from two of the aforesaid plates, substantially as set forth. 6th. In a hot-air deflector, the combination with the deflecting-plate arranged to overhang a hot-air register or radiator and the side-plates B, B, of a water-trough or pan extending between said side-plates below the upper and forward portion of the deflecting-plate and removable forwardly, and means for removably supporting said pan or trough from the side-plates, substantially as set forth. 7th. In a hot-air deflector, the combination with the deflecting-plate arranged to overhang a hot-air register or radiator, and the two side-plates B B provided with lateral slots, of a water-trough or pan extending between said side-plates below the upper and forward portion of the deflecting-plate, and provided with means for hanging or suspending it from the lower walls of the aforesaid slots, substantially as set forth. 8th. In a hot-air deflector, the combination with the deflecting-plate arranged to overhang a hot-air register or radiator, and the two side-plates B B provided with lateral slots extending rearwardly from the side-plates forward edges and open at their forward ends, of a water-trough or pan extending between said side-plates below the upper and forward portion of the deflecting-plate, and provided, upon its ends, and exteriorly, with hooks arranged to hang and capable of sliding upon the lower walls of the aforesaid slots, substantially as and for the purpose set forth. 9th. In a hot-air deflector, the combination with the deflecting-plate arranged to overhang the hot-air register or radiator, and the two upright side-plates provided with lateral slots extending rearwardly from the side-plates forward edges and open at their forward ends, of a trough or pan extending between said side-plates below the upper and forward portion of the deflecting-plate and provided, upon its ends, and exteriorly, with sheet-metal strips bent to embrace or extend around the upper and lower walls of the aforesaid slots, substantially as shown and described.

No. 55,246. Combined Oil Heater and Illuminator.
(*Chauffeur à l'huile et illuminateur combinés.*)

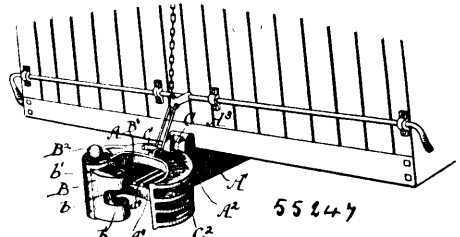


John D. Humphrey, New Britain, Connecticut, U.S.A., 12th March, 1897; 6 years. (Filed 15th February, 1897.)

Claim.—1st. In combination the chamber-casing *g*, the chimney *c* within such casing, the burner *b* within such chimney, the open-end pipes located between such chimney and such casing and starting at the foot from about the flame-level, and the flanges *c e'* extending substantially from chimney to casing, all substantially as described and for the purposes set forth. 2nd. In combination, the glass chamber-casing *g*, the glass chimney *c* within the casing, the burner *b* within the chimney, the open-end pipes *f* located between the chimney and the casing and starting at the foot from about the flame-level and pipe-flanges *e e'* extending substantially from chimney to casing, all substantially as described and for the purposes set forth. 3rd. In combination, the lamp *a*, burner *b*, chimney *c*, removable ring *d* supported on the lamp-body, the chamber-casing *g*, open-end pipes *f*, the flange *e'* and the flange *e* resting on said removable ring, all substantially as described and for the purposes set forth. 4th. In combination, lamp-body *a*, the burner *b*, chimney

c, chamber-casing *g*, open-end pipes *f*, flanges *c e'* and removable funnel *d* resting on flange *e'*, all substantially as described and for the purposes set forth.

No. 55,247. Car Coupler. (*Attelage de chars.*)



Martin Luther Mardis, Salem, Ohio, U.S.A. 12th March, 1897; 6 years. (Filed 15th February, 1897.)

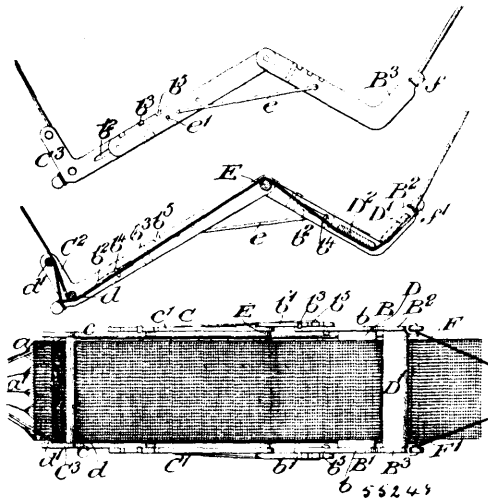
Claim.—1st. The combination with a draw-head and its swinging knuckle, of a latch or dog pivoted in the draw-head to lock the knuckle closed, and a sliding releaser connected to the latch and pushed forward thereby when said latch is raised against the tail of the knuckle to push the knuckle open, substantially as shown and described. 2nd. The combination with the draw-head and its swinging knuckle, and the vertically rocking latch-bar locking said knuckle closed, of the releaser sliding in the lower wall of the draw-head and pivoted to the latch by which it is reciprocated, substantially as shown and described. 3rd. In a car-coupling of the class described, the latch pivoted in the draw-head to lock the knuckle closed and provided with an extension opposite its locking end, and the knuckle releaser pivoted to said extension for reciprocation by the latch, substantially as shown and described. 4th. The combination with the draw-head and its knuckle, of a latch or dog mounted in the draw-head to lock the knuckle, an oblique upwardly-inclined guideway in the bottom of the draw-head and a sliding releaser connected to said latch or dog, working on said guideway and engaging the tail of the knuckle to push it open, substantially as shown. 5th. The combination with the draw-head and its knuckle, of a latch or dog mounted in the draw-head to lock the knuckle, an inclined guideway in the bottom of the draw-head, a sliding knuckle-releaser connected to the latch for reciprocation thereby and having a tongue-and-groove connection with the said guideway substantially as shown. 6th. The combination with the draw-head having a slot in its upper side, an inclined, oblique guideway in the bottom under said slot, and a knuckle pivoted in the draw-head with the end of its tail extending to the slot and over said guideway, of a pivoted vertically-swinging dog or latch working in said slot, engaging the end of the knuckle-tail and provided with a rearwardly-projecting extension, and a sliding releaser pivoted to said extension, working on said guideway and engaging the rear end of the knuckle-tail to force the knuckle open when the latch is raised, substantially as shown. 7th. The combination with the draw-head and its knuckle, of a latch pivoted near its middle in the draw-head and adapted to engage the tailpiece of the knuckle with one of its ends and lock the knuckle closed, and a releaser for the tailpiece and pivoted to the opposite end of said latch and reciprocated thereby, substantially as shown and described. 8th. The combination with the draw-head and its knuckle, of a vertically-swinging latch to lock this knuckle, means for operating the latch from the end, sides and top of a car and a sliding releaser connected to and reciprocated by the latch to engage the tail of the knuckle and swing the knuckle open, substantially as shown. 9th. The combination with the draw head and its swinging knuckle provided with a tailpiece, of the rocking latch mounted in the draw-head to lock the knuckle closed and the sliding releaser pivoted to the rear of said latch and moved forward when the latch is rocked and against the rear side of the tailpiece to throw the same out of the draw-head, substantially as shown and described. 10th. The coupling-knuckle having its tail or extension provided on its rear inclined or curved face with an overhanging flange, substantially as shown. 11th. In a car-coupler of the character described the pivoted latch for locking the knuckle, provided with a rearwardly-projecting extension opposite its locking end and the knuckle-releaser pivoted at its rear end to the said extension for reciprocation thereby, substantially as shown. 12th. The combination with the draw-head and its swinging knuckle, of a vertically-rocking latch to lock the knuckle, and a releaser pivoted to the latch and having a reciprocating motion imparted to it by the rocking motion of said latch, substantially as shown and described.

No. 55,248. Seat Attachment for Hammocks.
(*Siège pour hamacs.*)

Isaac Emerson Palmer, Middleton, Connecticut, U.S.A., 12th March, 1897; 6 years. (Filed 17th February, 1897.)

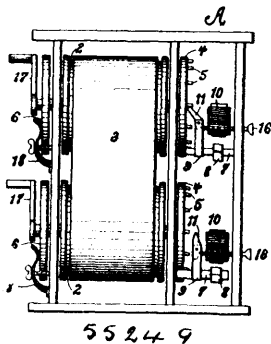
Claim.—1st. A hammock attachment comprising a frame independent of the body of the hammock and provided with bearings for the body of the hammock, the said bearings being so located with respect to one another that the hammock body when engaged therewith and suspended will have its natural curve interrupted to form a seat, substantially as set forth. 2nd. A hammock attachment

comprising a rigid frame provided with bearings for the body of the hammock, the said bearings being so located with respect to one



another that the hammock body when engaged therewith and suspended will have its natural curve interrupted to form a seat, substantially as set forth. 3rd. The combination with the body of a hammock, of a rigid frame provided with three or more bearing points for the body of the hammock, an intermediate bearing point being in a different plane from the bearing points upon opposite sides of it, whereby the natural curve of the hammock, when suspended is interrupted to form a seat, substantially as set forth. 4th. The combination with the body of a hammock, of a removable frame provided with three or more bearings for the body of the hammock, an intermediate bearing being out of the plane of adjacent bearings and suspending cords engaged with the framework for holding it in the desired adjustment along the body of the hammock, substantially as set forth. 5th. A hammock attachment, comprising a rigid frame consisting of side rails connected by cross bars or braces, the side rails each being angular in shape, the said cross braces being arranged to form bearings for the body of the hammock when the hammock is passed under certain of the braces and over and intermediate brace, substantially as set forth. 6th. The hammock attachment, comprising framework having side rails angular in shape and connected by cross braces and means for adjusting the length of the side rails, substantially as set forth. 7th. The combination with the body of the hammock of the hammock attachment, comprising side rails connected by cross braces, the said side rails being hinged intermediate of their ends and means for locking the hinged parts at different angles to one another, substantially as set forth.

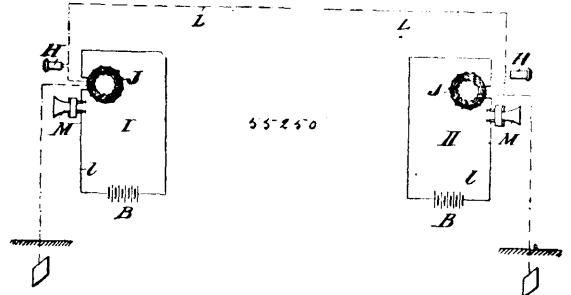
No. 55,249. Station Indicator. (Indicateur de station.)



James Steffen, Covington, Kentucky, U.S.A., 12th March, 1897; 6 years. (Filed 15th February, 1897.)

Claim.—In a station and street indicator for electrically-propelled railway cars, the combination with the herein described contact switch and electro-magnets of the winding spools or rollers, the belt attached at its extremities to the spools and having the names of the stations or streets printed or painted thereon in regular succession, the discs provided with studs as shown and attached to the outer ends of the spools, the vertically-swinging arms adapted to move in unison with the armatures of the magnets and having pawls at their free ends to engage the studs, all arranged substantially as and for the purpose herein specified.

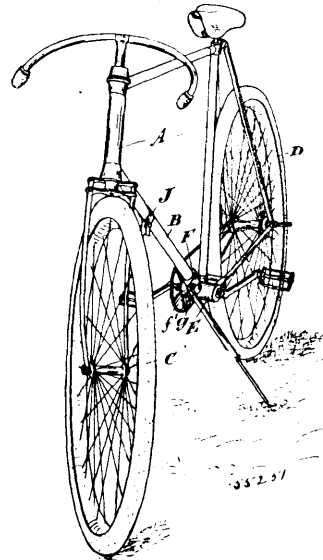
No. 55,250. Telephonic Installation. (Installation téléphonique.)



Anton Hamm and Gergely Blank, both of Budapest, Victor Brandt of Dees, and Gyula Kormendy, of Brad, Hansasylvania, all in Hungary, 13th March, 1897; 6 years. (Filed 16th August, 1895.)

Claim.—For strengthening the sounds from a telephone receiver without altering their quality, the arrangement of ring-shaped magnet inductors with primary and secondary coils connected, as herein described, to the transmitting and receiving instruments, batteries, line and earth.

No. 55,251. Bicycle Support. (Support de bicyclette.)



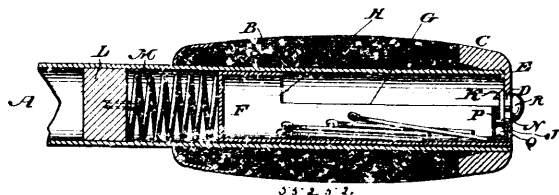
Frederick Sayers Henning, William Pigott, John William Shuman and Charles Deverall, all of Toronto, Ontario, Canada, 15th March, 1897; 6 years. (Filed 25th October, 1895.)

Claim.—1st. In a bicycle the combination with the lower reach, of a strut and means for bracing it so that it may extend obliquely and securely from the reach to the ground slightly to one side of the frame, as and for the purpose specified. 2nd. In a bicycle the combination with the lower reach, of a divided ring provided with lugs f and f' , a strut having the upper end pivoted between the lugs f and f' and means for bracing the strut, so as to securely hold it in position obliquely between the reach and the ground, as and for the purpose specified. 3rd. In a bicycle the combination with the lower reach, of a divided ring provided with lugs f and f' , a strut having the upper end pivoted between the lugs f and f' , a stop designed to abut the lugs f' , as and for the purpose specified. 4th. The combination with the strut hinged to the reach in proximity to the journal of the axle, of a spring ring J provided with spring jaws and a bolt for holding the jaws securely together, as and for the purpose specified. 5th. The combination with the reach, of a strut pivotally connected thereto and made in two parts, telescopically arranged, and means for holding the telescopic parts in any desired position in relation to each other, as and for the purpose specified. 6th. The combination with the reach, of a strut pivotally connected thereto and made in two parts, telescopically arranged, the part G being externally threaded to extend into a corresponding thread in the part G' and provided with a lock-nut, as and for the purpose specified.

No. 55,252. Match Boxes for Bicycles, etc. (Boîte à allumettes pour bicyclettes, etc.)

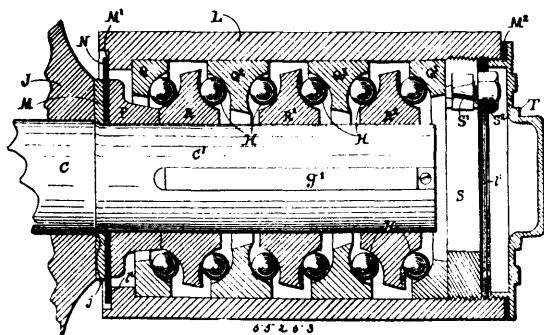
Ridley & Company, assignee of Harry James Humphrey, both of Philadelphia, Pennsylvania, U.S.A., 15th March, 1897; 6 years. (Filed 26th October, 1897.)

Claim.—1st. A box adapted to be fitted within a tubular part of a bicycle, and provided with means for locking the same to said



part, and a spring for automatically throwing out said box. 2nd. A bicycle handle having a cap thereon, in combination with a box which is freely fitted within said handle, a catch on the box adapted to engage with said cap, and a spring within said handle adapted to automatically throw out said box. 3rd. A handle with a grip and cap, in combination with a box which is removably fitted in said handle, means for retaining said box within said handle, and a shoulder on the box for limiting the outward motion thereof. 4th. A box in combination with a plug, and a spring interposed between said box and plug, said parts being adapted to be fitted within a handle or other tubular portion of a bicycle, the box being movable and the plug stationary, and the box being provided with means for locking it to said handle or portion. 5th. A box adapted to be fitted within the handle or other tubular portion of a bicycle, and provided at its outer end with a plate to which is fitted a catch and spring for causing the locking of the box with said handle or portion. 6th. A box for matches, etc., adapted to be received within the handle of a bicycle, the cap of said handle having an opening for the passage of the cap, and a wall within which a lock on the box engages, the end of the cap being comparatively closed by said wall, and the outer plate of said box.

No. 55,253 Ball Bearing. (Coussinet à boule.)



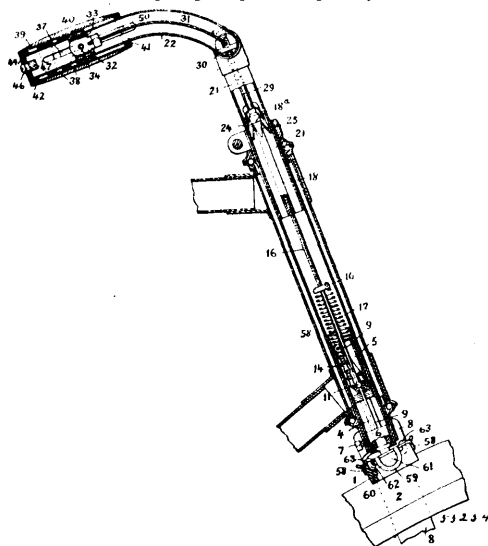
Preston Davies, Southfields, England, 15th March, 1897; 6 years. (Filed 23rd January, 1897.)

Claim.—1st. A ball bearing comprising one or more cups having bevelled or equivalent faces against which the balls run, such cups being keyed to the box or casing to prevent independent radial movement while allowing lateral sliding therein so that the balls may bear equally on their paths, and means at either or both of the ends of the bearing whereby both radial and lateral adjustment of the bearing may be effected by one mechanical operation substantially as set forth. 2nd. The combination, with a ball bearing having intermediate rows of balls and wherein such balls are capable of both radial and lateral adjustment, of collars such as b, b', adapted to contain balls c, and serving as a bearing for end thrust, substantially as set forth. 3rd. The combination, in a ball bearing having intermediate rows of balls, of one or more double cups and one or more double cones each with bevelled faces against which the balls bear, the one keyed to the casing and the other to the axle but both capable of lateral movement, a stationary abutment at one end of the bearing, and at the other end a cap, cone or plate, which serves as a means of both radial and lateral adjustment of the whole bearing, substantially as set forth. 4th. In a ball bearing having an intermediate row of balls, the combination, with a casing, of one or more internal flanges each serving as an abutment, a ball cup abutting against such flange, a double cone with bevelled faces keyed to the axle and a double cup with similar faces keyed to the casing, each capable of endwise movement for equalizing the load, and means for effecting both the radial and the lateral adjustment of the bearing by one mechanical operation, substantially as set forth. 5th. In a ball bearing having an intermediate row of balls, the combination, with an axle, of one or more cones with bevelled faces formed or fixed on such axle, a double cone with bevelled faces keyed to the axle and a cup with similar faces keyed to the casing each capable of endwise movement for equalizing the load, and end cups, cones or plates, serving respectively as a stationary abutment and a means of adjustment of the whole bearing substantially as set forth. 6th. In a ball bearing having an intermediate row of balls, the combination, with cups and cones having bevelled faces secured to prevent independent radial movement, but keyed to allow of lateral play of an adjustment

collar screwing into the bearing casing, a V-shaped split in such collar, a wedge-headed bolt inserted therein, and a screw nut engaging with said bolt and operating to expand and lock in position such collar, substantially as set forth.

No. 55,254. Plunger Brake for Bicycles.

Frein plongeur pour bicycles.)



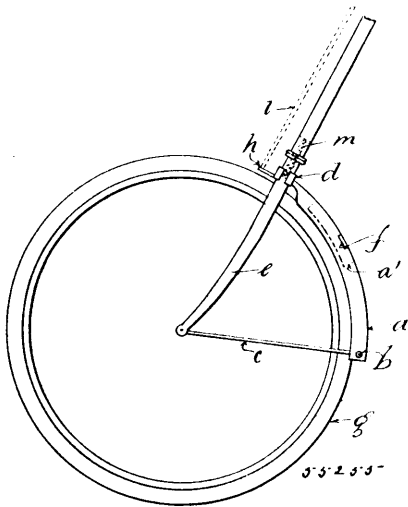
Edward Spencer Hall, New York, State of New York, U.S.A., 15th March, 1897; 6 years. (Filed 28th January, 1897.)

Claim.—1st. A vehicle brake comprising a plunger, a brake spoon held thereto, a fixed plug or part at the steering wheel fork crown, rods held to said plug, a pin fixed to the rods, a flexible draft reversing chain held at one end to the plunger and passing in a bight under the rod pin, a pulling connection at the other end of said chain, and means operating said pulling connection. 2nd. A vehicle brake comprising a plunger, a brake spoon held thereto, a fixed plug or part at the steering wheel fork crown, rods connected to said plug, a pin fixed to the rods, a flexible draft reversing chain held at one end to the plunger and passing in a bight under the rod pin, a pulling connection at the other end of said chain, means operating said pulling connection, and a retracting spring held at opposite ends to the rod and plunger. 3rd. A vehicle brake comprising a plunger, a brake spoon held thereto, a fixed plug or part at the steering wheel fork crown, rods connected to said plug, a pin fixed to the rods, a flexible draft reversing chain held at one end to the plunger and passing in a bight under the rod pin, a vertically adjustable handle bar, upper draft device at the handle bar, and an adjustable coupling in the handle bar sustained by said upper draft devices and having its lower part connected to the draft reversing chain at the plunger. 4th. A vehicle brake comprising a plunger, a brake spoon held thereto, a fixed plug or part at the steering wheel fork crown, rods connected to said plug, a pin fixed to the rods, a flexible draft reversing chain held at one end to the plunger and passing in a bight under the rod pin, a vertically adjustable handle bar, upper draft devices at the handle bar, a retracting spring held at opposite ends to the rod and plunger. 5th. The combination in one self-contained structure, of the plunger 4, 5, to which the brake spoon is adapted, the plug 6, rods 9, cap 10, pin 11, chain 14, coupling screw rod 15, 16, and spring 17, substantially as described. 6th. The combination with the handle bar, a brake operating device thereon, and the two-part intermediate coupling having a shoulder and permitting vertical adjustment of the handle bar, of a support 24, 25, on which the shoulder of the coupling rests, a laterally curved yoke pivoted to the support, and a flexible draft device connecting said yoke with the brake operating devices, substantially as described. 7th. The combination, with the handle bar and the screw coupling forming part of the intermediate draft connections of the brake, of a locking pin held to the head of the upper part of the coupling and entering a hole or slot in the handle bar. 8th. The combination with the handle bar, having a slot 37, an operating handle on said bar having an internal worm screw, and draft devices in said bar operating the brake, of a tubular slide 33 in the handle bar, a pin 34 having one reduced end 35 fitting one side of the slide, said pin projecting at the other end through the slot 37 and engaging the handle worm, a retainer 36 for the pin, and a plate 32 in the slide coupling, the pin with the draft devices of the brake, substantially as described. 9th. The combination, with the slotted handle bar and draft devices in said bar actuating the brake, of an operating handle surrounding the bar and having end rings bearing thereon, and also having an interior lining and a worm screw, both

having larger diameter than the handle bar, and a slide and pin within the handle bar connecting the worm with the draft devices of the brake. 10th. The combination, with the handle bar, of an operating handle turning thereon and having an interior lining 39 and an end ring bearing 42 provided with lugs 43 entering slots of the lining, an end plate 44 fitted within the lining and upon which the end parts of the lining are pressed down, and a headed screw 45 entering a stud 46 projecting from the handle-bar through an opening of plate 44, substantially as described. 11th. The handle-bar having an end plug or part 47 provided with a stud 46 and having at one end a pin 48 entering the bar, and at the other end a threaded hole, a fastening screw 49 in the bar fitting said hole, an operating handle turning on the bar, and a headed screw 45 passing from the outer end of the handle into the stud 46, substantially as described. 12th. The combination, with the handle-bar and the brake operating handle turning thereon, of a spring latch 50 held to and within the bar and having at its free end a boss 51 fitting an opening in the handle-bar and carrying a latch-stud 52 adapted to a recess of the operating handle, substantially as described. 13th. The brake spoon, comprising a cap-plate having T slots, and a renewable shoe carrying headed keys adapted to enter the slots and lock outside the plate. 14th. The brake spoon, comprising a cap-plate having T slots, and a renewable shoe carrying headed keys adapted to enter the slots and lock outside the plate, said plate having parts taking endwise thrust of the shoe and relieving its fastenings when the brake is applied. 15th. The brake spoon, comprising a cap-plate having T slots and a renewable shoe carrying headed keys adapted to enter the slots and lock outside the plate, said plate having side parts taking lateral thrust of the shoe. 16th. The brake spoon comprising a cap-plate and a renewable shoe having fastenings adapted to engage the plate and connected by a rounded and bent wire embedded in the shoe and preventing injury to a wheel tire should the shoe be over-worn or be torn from its wire connected fastenings. 17th. The brake spoon comprising a cap-plate having pendent parts taking endwise thrust of a brake shoe, and a shoe having fastenings engaging the plate and connected by a rounded and bent wire embedded in the shoe, said connected fastenings projecting toward the wheel tire beyond the pendent thrust receiving parts of the cap-plate and guarding the tire therefrom should the brake shoe be over-worn or be torn from its wire-connected fastenings. 18th. The brake spoon, comprising a cap-plate having T slots, a renewable shoe having headed keys adapted to enter the slots and lock outside the plate, and latches held to the cap-plate and locking the keys in the narrow parts of its slots. 19th. The brake spoon, comprising a cap-plate having two pairs of T slots, and a renewable shoe made in two side blocks or parts each having two headed keys adapted to enter the cap-plate slots and lock outside the plate, and latches held to the cap-plate and locking the keys in the narrow parts of its slots.

No. 55,255. Brake for Velocipedes, etc.

(Frein pour vélocipèdes, etc.)

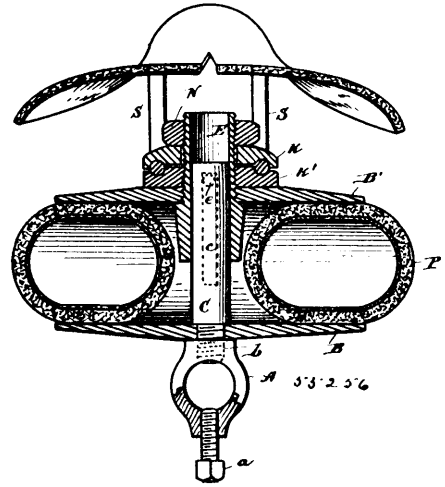


Frederick Edward Blackett, Beaumont, London, Middlesex, England, 15th March, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. A hinged or pivoted mud guard controlled by a spring. 2nd. A hinged or pivoted mud guard carrying a brake surface for use as a brake, which may be operated either by the foot or by the hand. 3rd. In brakes, a hinged or pivoted mud guard having a brake surface and being supported at one end by a sliding clip or socket piece, a controlling spring for maintaining said mud guard, projections or supports upon said mud guard for the purpose of enabling the same to be operated by the feet or hands of the

rider, all in combination in the manner described and shown. 4th. In combination with mud guards for the purpose described, a socket or guide piece, substantially as described and shown.

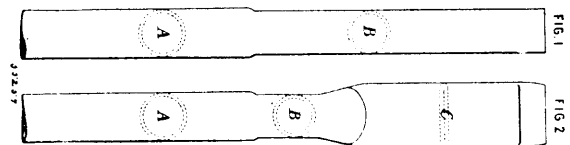
No. 55,256. Vehicle Seat. (Siège de voiture.)



John F. Wilmot, Detroit, Michigan, U.S.A., 15th March, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. In combination with a seat for vehicles, a bearing plate and means for securing said plate to the seat, a tube projecting centrally downward from said plate, a second bearing plate provided with a central post projecting upward and adapted to engage within said tube, means for engaging the lower bearing plate to a saddle arm, and a pneumatic cushion interposed between said plates, substantially as described. 2nd. The combination of the bearing plate B¹, provided with central tube E, clip pieces K, K¹, and nut N, a bearing plate B provided with means whereby it may be secured to a vehicle, and with a central post adapted to engage the tube E, and a pneumatic cushion interposed between said plate B, B¹, substantially as described. 3rd. In a vehicle seat, the combination with a circular pneumatic cushion, of a lower bearing plate adapted to engage the under side of said cushion, a central post arranged to project upward through the centre of the cushion, and having its lower end rigidly secured to said lower bearing plate, a tube adapted to telescope over said central post and provided with an external thread at its upper end, means adapted to engage with the central post whereby the telescoping movement of said post and tube is limited, an upper bearing plate adapted to engage the upper side of said cushion, provided with a central opening to fit over and firmly engage said tube at a point about midway between its two ends, a clip consisting of two parts, each of which is provided with an opening adapted to fit over the threaded portion of the tube, said two parts being formed to receive between them the seat frame, and a nut adapted to fit the upper end of said threaded tube, whereby said clip is firmly secured, substantially as described. 4th. As an article of manufacture, the combination of a cushion, bearing plates arranged to engage the upper and lower sides of said cushion, means for securing the lower plate to a vehicle frame, and means for engaging said bearing plates whereby they are allowed a limited vertical movement, with an externally threaded stem rigidly secured to and projecting above said upper bearing plate, a clip piece provided with a central opening to fit over and engage snugly said stem and upper bearing plate, a second clip piece provided with a central opening to fit loosely over said stem, and a nut upon the upper threaded portion of the stem, whereby a seat frame is firmly clamped between said clip pieces, substantially as described.

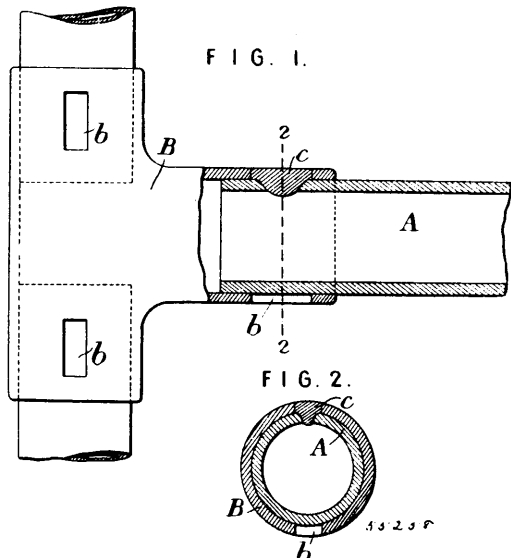
No. 55,257. Appliance for tightening Bicycle chains, etc. (Appareil pour raidir les chaînes de bicyclette, etc.)



William Pearson, Birmingham, Warwick, England, 15th March, 1897; 6 years. (Filed 2nd February, 1897.)

Claim.—An appliance for tightening a bicycle or other driving chain constructed by reducing part of the frame tube, flattening a portion of the reduced part, cutting a slot in the flattened part and swelling the part beyond the slot so as to admit the screwed stem of the eye holding the driving wheel axle, substantially as described.

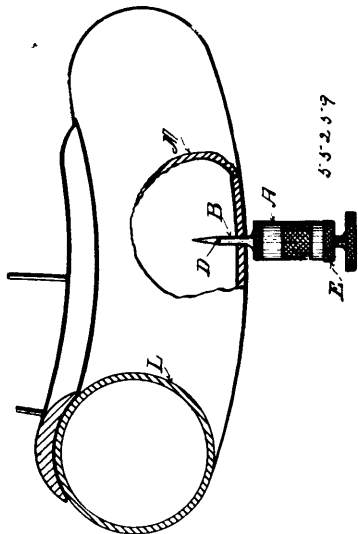
No. 55,258. Aluminium Tube and Socket Joint for Bicycles, etc. (*Tube et joint sphérique en aluminium*.)



William Pearson, Birmingham, Warwick, England, 15th March, 1897; 6 years. (Filed 2nd February, 1897.)

Claim.—An aluminium tube and socket joint formed by cutting a slot or slots through the wall of the socket, introducing the tube into the socket, inserting suitable solder into the slot or slots, and fusing it therein, substantially as described.

No. 55,259. Needles for Repairing Punctured Bicycle Tyres. (*Aiguille pour réparer les piqûres dans les bandages pneumatiques*.)

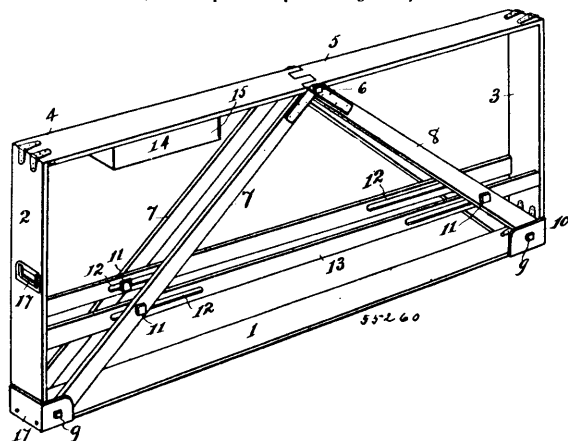


Charles F. White, Denver, Colorado, U.S.A., 15th March, 1897; 6 years. (Filed 2nd February, 1897.)

Claim.—1st. The combination in a needle for mending punctured tyres with liquid cement of an instrument having a solid integral, tapering point, an eye or opening in or transversely through said point adjacent to its end, a cement chamber in the needle communicating with said eye and adapted to hold the cement, a plunger having a piston fitted in said chamber, a cap detachably secured to said needle, a threaded hole through said cap, a threaded stem on said plunger adapted to the threaded cap, and a head or knurled disc on the stem of the plunger, as set forth. 2nd. The combination in a needle for mending punctured tyres with liquid cement of an instrument having a solid point, an eye in said point adjacent to its end, a chamber in the needle extending from its head to its eye, one or more steps of different diameters adjacent to said point and blending therefrom in increased diameter and in successive order adapted for various sizes of punctures, a plunger having a piston fitted to reciprocate in said chamber, a stem on said plunger, a head or knurled finger disc on said stem, a cap secured to the head of said needle against displacement and arranged to extend above it a

diametrical opening through the side of said cap above the needle adapted for a cement inlet to the chamber in the needle and a hole in said cap adapted to fit the stem of said plunger.

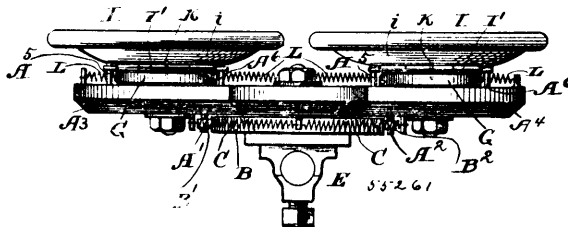
No. 55,260. Folding Bicycle Crate. (*Caisse pliante pour bicycles*.)



Miles Emerson Dunbar, Stockbridge, Massachusetts, U.S.A., 15th March, 1897; 6 years. (Filed 3rd February, 1897.)

Claim.—1st. A bicycle crate consisting of a base having folding end and top pieces hinged thereto, in combination with side pieces, foldable in the vertical plane of said side and connectable with said top, substantially as described. 2nd. A bicycle crate substantially as herein shown and described, consisting of a base, end pieces hinged to said base, top pieces hinged to said end pieces, means for connecting said top pieces, side pieces foldable in their vertical plane and connectable with said top. 3rd. A bicycle crate, consisting of a folding frame, comprising a base, end and top pieces in combination with side braces hinged to said base and connectable with the top, longitudinal bars pivotally connected to said braces and adapted to fold therewith upon the base aforesaid. 4th. A folding bicycle crate comprising a base, end pieces hinged thereto and provided with a folding top, connected together about midway of its length, braces hinged to the base and having their free ends adapted to register with the connection of the top pieces, means for locking said connecting top pieces and braces together. 5th. A folding bicycle crate, consisting of a frame comprising a base, end and top sections, sides connected to said frame, a single means whereby the free ends of said frame and side pieces are united at a single point. 6th. A folding bicycle crate, consisting of a frame comprising a base, end and top pieces, sides connected to said frame, a tool box attached to said frame, means whereby said box is locked simultaneously with the uniting of the free ends of the frame and side pieces.

No. 55,261. Saddle for Bicycles. (*Selle de bicyclette*.)



James Watson Upson and George Dwight Upson, both of Cleveland, Ohio, U.S.A., 15th March, 1897; 6 years. (Filed 3rd February, 1897.)

Claim.—A saddle for a bicycle or velocipede, comprising a table capable of oscillation and arranged horizontally, or approximately so, and having two arms projecting laterally in opposite directions, respectively, a plate or bearing affording support for said table, means for limiting the oscillation of the table, means acting to retain the table in its normal position, and two seats supported from the different arms respectively, substantially as set forth. 2nd. A saddle for a bicycle or velocipede, comprising a table capable of oscillation and arranged horizontally, or approximately so, and two seats arranged side by side and supported from said table, and said seats being capable of tilting forwardly independently of each other and having the centres of the tilting motions arranged forward of the seats' centres of gravity, substantially as set forth. 3rd. A saddle for a bicycle or velocipede, comprising a table capable of oscillation and arranged horizontally, or approximately so, and having two arms projecting laterally in opposite directions, respectively, a plate or bearing affording support for said table, means

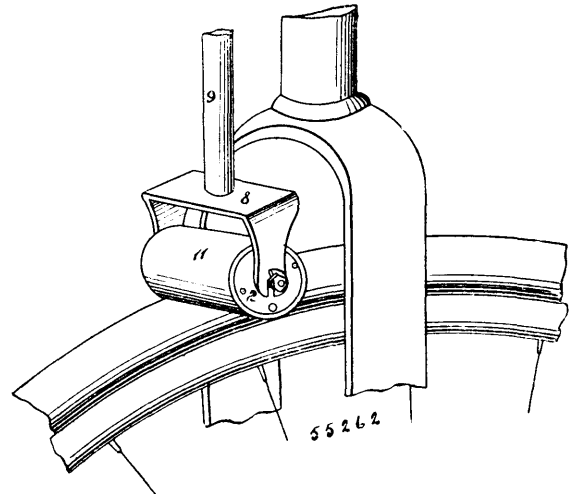
for limiting the oscillation of the table, means acting to retain the table in its normal position, two seats supported from the different arms respectively, and capable of tilting forwardly independently of each other and having the centers of the tilting motions forward of the seats' centers of gravity, substantially as set forth. 4th. A saddle for a bicycle or velocipede, comprising a table capable of oscillation and arranged horizontally, or approximately so, and two seats supported from said table and arranged side by side, and horizontally hinged or pivoted to their support, and means for limiting the forward tilting of the seats, substantially as set forth. 5th. A saddle for a bicycle or velocipede, comprising two seats arranged side by side and capable of tilting forwardly, and capable also of oscillation in a horizontal plane or in their inclined position, and means acting to retain them in their normal position, substantially as and for the purpose set forth. 6th. A saddle for a bicycle or velocipede, comprising two suitably supported tables arranged side by side and capable of oscillation, and two forwardly tilttable seats supported from the different tables, respectively, and movable independently of each other, substantially as and for the purpose set forth. 7th. A saddle for a bicycle or velocipede, comprising two suitably supported tables arranged side by side and capable of oscillation, means acting to retain said tables in their normal position; means for limiting the oscillation of the tables, and two seats horizontally hinged or pivoted to the different tables, respectively, forward of the seats' centers of gravity, substantially as and for the purpose set forth. 8th. A saddle for a bicycle or velocipede comprising an oscillating table A; a pair of oscillating tables G G arranged side by side and supported from the first-mentioned table, and the two forwardly and independently tilttable seats supported from the different tables G G, respectively, substantially as and for the purpose set forth. 9th. A saddle for a bicycle or velocipede, comprising two suitably supported tables arranged side by side, and capable of oscillation; means acting to retain said tables in their normal position; means for limiting the oscillation of the tables, and the two seat-forming cushioned saucer-shaped plates horizontally hinged or pivoted to the different tables, respectively, substantially as set forth. 10th. A saddle for a bicycle or velocipede, comprising an oscillating table A; a pair of oscillating tables G G arranged side by side and supported from the first-mentioned table, and the two forwardly and independently tilttable seat-forming cushioned saucer-shaped plates supported from the different tables G G, respectively, substantially as and for the purpose set forth. 11th. A seat for a bicycle or velocipede, comprising a plate B arranged horizontally, or approximately so, and provided, upon its under side, with a clip or device for attaching it to a member of the machine; a table supported from said plate, and capable of oscillation, and having two arms extending laterally in opposite directions, respectively; means for retaining said table in its normal position; means for limiting the oscillation of said table; two other tables supported from the different table-arms, respectively, and capable of oscillation independently of each other; means acting to retain said last-mentioned tables in their normal position; means for limiting the oscillation of said last-mentioned tables, and the two seats supported from the different last-mentioned tables, respectively, and capable of tilting forwardly independently of each other, substantially as and for the purpose set forth. 12th. A saddle for a bicycle or velocipede, comprising a circular plate B arranged horizontally, or approximately so, and provided, upon its edge, with the two outwardly projecting members B¹ B², the table A capable of oscillation and mounted upon said plate and provided with the arms A¹ A² extending laterally in opposite directions, respectively, and the depending members A¹ A², and the two seats supported from the different table-arms, respectively, and capable of tilting forwardly independently of each other, all arranged and operating substantially as shown, for the purpose specified. 13th. A saddle for a bicycle or velocipede, having two suitably supported tables at its opposite sides, respectively, and said tables being capable of oscillation independently of each other; means acting to retain said tables in their normal position; the two seats horizontally hinged or pivoted to the different tables, respectively, and the pintles or pins of the hinged or pivotal connection between the seats and tables extending beyond their bearings, and the members that support the tables, having upwardly projecting pins or members arranged to form, in connection with the ends of the aforesaid pintles or pins, stops for limiting the oscillation of the tables, substantially as set forth.

No. 55,262. Bicycle Brake. (*Frein de bicyclet*.)

William Laird Stewart, Wilmerding, Pennsylvania, U.S.A., 15th March, 1897; 6 years. (Filed 5th February, 1897.)

Claim.—1st. A brake for a bicycle or the like, comprising a brake cylinder, a bearing block or shoe extended longitudinally therein, a yoke engaging the trunnions extended from the ends of said block or shoe, and an operating rod attached to the yoke, substantially as specified. 2nd. A brake for bicycles or the like, comprising a brake cylinder, a bearing block extended longitudinally therein, friction rollers supported in said block and engaging the inner surface of the brake cylinder, a yoke engaging with trunnions extended from the ends of said block, and an operating rod extended upward from said yoke, substantially as specified. 3rd. A brake for bicycles or the like, comprising a cylinder, a bearing block or shoe arranged longitudinally therein and having semi-cylindrical seats formed in its

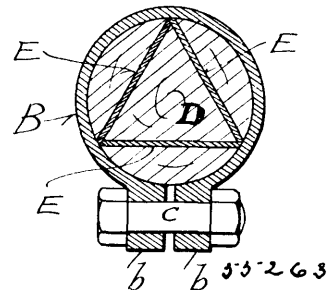
lower side, friction rollers in said seats, a spring attached to the upper side of said block or shoe and engaging its free end with the



interior of the brake cylinder, and a yoke having its downwardly-extended members engaged with trunnions extended from the said block or shoe through openings in the ends of the brake cylinder, substantially as specified. 4th. A brake for a bicycle or the like, comprising a cylinder, a bearing block arranged longitudinally therein and having transversely curved seats in its lower side, friction rollers engaging in said seats and engaging the interior of the brake cylinder, a spring for forcing said block and friction rollers yielding downward with relation to the brake cylinder, an operating rod having engagement with the trunnions extended from said bearing block through openings in the ends of the brake cylinder, and a cover of yielding material on the brake cylinder, substantially as specified. 5th. A bicycle brake, comprising a cylinder, a cover of yielding material on the cylinder, a bearing block or shoe extended longitudinally in said cylinder and having trunnions extended outward through openings in the ends of said cylinder, friction rollers loosely mounted in transversely curved seats formed in the under side of said bearing block or shoe, a yoke having its downwardly-extended members engaged with the trunnions, means for preventing a rotary motion of said block relatively to the yoke, and an operating rod extended upward from said yoke, substantially as specified.

No. 55,263. Wood and Metal Joint.

(*Joint en bois et métal.*)



Charles Seth Beebe, Racine, Wisconsin, U.S.A., 15th March, 1897; 6 years. (Filed 6th February, 1897.)

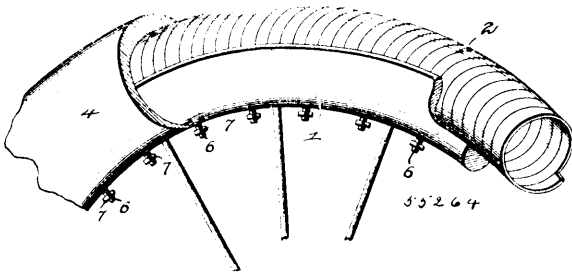
Claim.—1st. A joint comprising a metal socket, a length of other than tubular wood fast in the socket, and a series of separate metal plates embedded in the wood to form an angular figure, having the corners thereof exposed to the inner surface of said socket. 2nd. A joint comprising a metal socket, a length of other than tubular wood fast in the socket, and a series of separate metal plates embedded in the wood to form a triangle, having the corners thereof exposed to the inner surface of said socket.

No. 55,264. Bicycle Tire. (*Bandage de bicyclet.*)

Thomas Smith, Jacksonville, Florida, U.S.A., 15th March, 1897; 6 years. (Filed 8th February, 1897.)

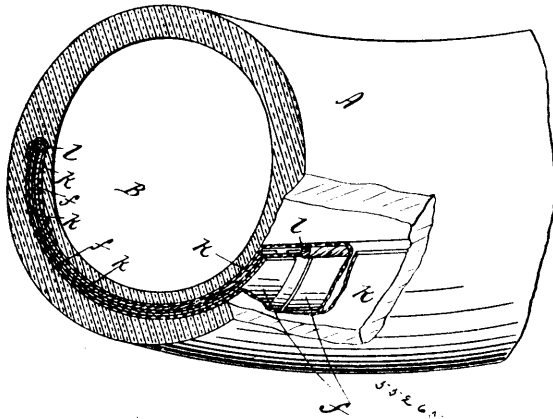
Claim.—In a tire, the combination with a rim provided at intervals along its inner surface and centrally thereof with inwardly extending threaded projections, of a continuous coiled flat ribbon spring having the edges of its contiguous coils in contact with each other, and seated directly in and bearing against the rim and extending longitudinally around the same, screws passing through the rim from the inside and engaging threaded openings at intervals in the coils of said spring, a resilient covering passing con-

tinuously around and enclosing both the rim and spring, and having its longitudinal edges overlapping each other upon the inner surface



of the rim and provided with registering perforations for engaging said projections, and nuts on said threaded projections for binding the edges of the covering against the rim, whereby the covering may be removed for giving access to the spring, substantially as described.

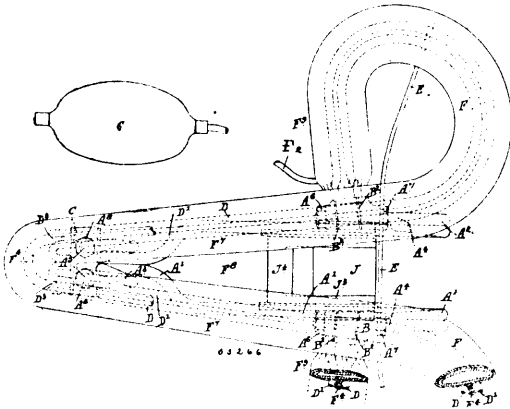
No. 55,265. Pneumatic Tire. (Bandage pneumatique.)



Langley Claxton, Paterson, New Jersey, U.S.A., 15th March, 1897; 6 years. (Filed 8th February, 1897.)

Claim.—In a pneumatic tire, the combination of a series of metallic strips interposed between the interior air-chamber and the thread of the tire, the said strips being arranged in layers transversely to the tire, the strips of one layer covering the joints of the next layer, and a silken or other soft cord arranged along the edges of said metallic strips but disconnected therefrom, whereby it forms a flexible fender or cushion between the metallic strips and the other parts of the tire, substantially as and for the purpose specified.

No. 55,266. Saddle. (Selle.)



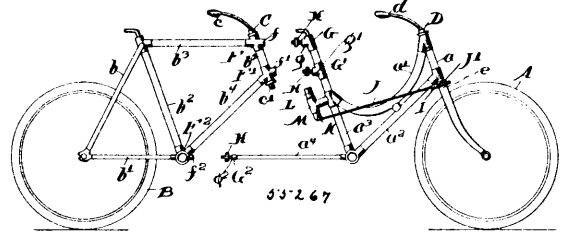
Harry Willoughby Grattan Plunkett, London, England, 16th March, 1897; 6 years. (Filed 8th February, 1897.)

Claim.—1st. A saddle frame comprising twin wires or flanges, substantially as described and for the purpose specified. 2nd. In a saddle, the combination with a frame comprising twin wires or flanges and a cushion provided with a bead or projection, substantially as described and for the purpose specified. 3rd. The combination with a saddle frame comprising twin wires or flanges and shaped with the forward parts nearly parallel and the back parts curled outwardly to form loops, of an inflatable cushion, substantially as specified. 4th. A saddle comprising tubular portions with the forward parts nearly parallel but diverging from each other from

a point at the forward end and curved outwardly at the rear end to form loops, the cushion lying approximately in one plane, substantially as specified. 5th. The combination of a saddle comprising a frame of twin wires shaped with the forward parts nearly parallel and the back parts curled outwardly to form loops, an inflatable tubular cushion similarly shaped and supported by said frame and means for inflating the said cushion, substantially as specified. 6th. A saddle support comprising a clip J, bolts K, and L, and pivoted plates M, with segmentally slotted arms M', substantially as described and specified. 7th. In a saddle, the combination with clip bolts K and L, and pivoted segmentally-slotted plates M, and wires A' of the saddle frame, substantially as described and specified. 8th. In a saddle frame, the combination with the wires A' and twin wires or flanges D, D', of a stiffening plate E, substantially as described and specified. 9th. The combination and arrangement of wires A', the retainer B, the plates C, C', the twin wires D, D' and stiffening plate E, constituting the complete saddle frame, substantially as described and specified. 10th. The combination with the horizontal member H, of the seat pillar, of the perforated clips J, slit at J', and with wings J'', transverse tube J''', bolts K and L, plates M, with segmentally slotted arm M', the heads K', washer K', and plates M, suitably channelled to grip the wires A', the central slot K'''' formed in the bolt K, and the block K''', substantially as described and for the purpose specified. 11th. The combination of the looped wire A', connected to the retainer B, provided with perforations B' and slots B'', the twin wires D, D', shaped as indicated and secured by the channelled plates C, C', the perforated stiffening plate E, the tubular cushion F, with inner inflatable air tube F', and provided with longitudinal bead F'', substantially as described and specified.

No. 55,267. Single and Tandem Bicycle.

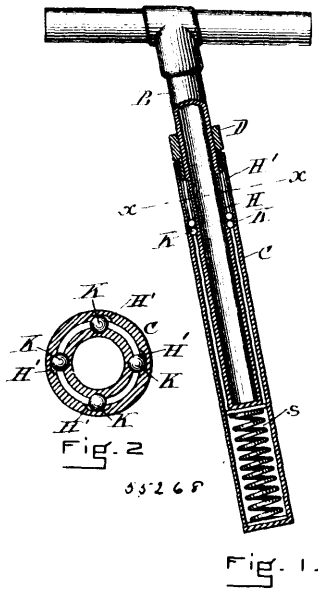
(Bicycle double et simple.)



Frank M. Frankland, Chicago, Illinois, U.S.A., 16th March, 1897; 6 years. (Filed 8th February, 1897.)

Claim.—1st. The combination with a bicycle frame having the forwardly extending lugs f, f', f'' upon the respective joints F, F', F'', of a forward or supplemental frame having a forward steering head, a seat-supporting portion, a sprocket shaft hanger, a connecting rod extending rearwardly from the said sprocket hanger and levers located respectively upon the seat-supporting post, and said rearwardly extending connecting rod adapted to couple with the lugs f, f', f'' to rigidly connect the two portions of the frame together, substantially as described. 2nd. The combination with an ordinary bicycle frame, of a steering head provided with a detachable fork, a supplemental or forward frame adapted to be coupled to the ordinary frame and to convert the same into a tandem frame, said supplemental frame being provided with a steering head adapted to receive and couple with said detachable fork, substantially as described. 3rd. In a convertible single and tandem bicycle, a front steering head having upon the lower bearing cone a steering sprocket adapted for use in the steering apparatus of the tandem, substantially as described. 4th. In a frame for a combined single and tandem bicycle, the combination with two detachable portions of the frame each provided with screw threaded connecting lugs, the threads running in opposite directions upon the two frames, of a right and left screw-threaded connecting devices having the threaded portions which screw upon the forward portion of the frame longer than those which screw upon the rear part, whereby the uncoupling of the same from the rear part does not entirely unscrew them from the forward part, substantially as described. 5th. In a combined single and tandem bicycle, the combination of a single frame having a steering head provided with a detachable fork and a forward or supplemental frame having a steering head adapted for connection with said detachable fork, a steering device upon said forward frame and adapted for connection with the rear steering head, and connecting devices between said steering device and the forward steering head, substantially as described. 6th. In a combined single and tandem bicycle, the combination with a single frame having a steering head provided with a detachable fork, a forward or supplemental frame adapted to be coupled to the single frame and to make up therefor a tandem frame, said forward frame having a steering head adapted for attachment to said detachable fork, a steering device adapted for attachment to the rear steering head and connected with the front steering head, said steering device consisting of the tubular shaft L provided with means of connection with the rear steering head and preventing rotation thereupon, the oppositely extending arms K, K' rigidly secured to the tubular shaft and the draw bolt M adapted to hold the tubular shaft tightly against the rear steering head, substantially as described.

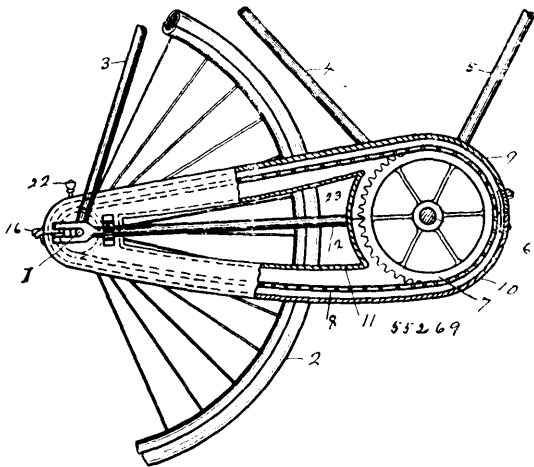
No. 55,268. Bicycle. (Bicycle.)



Birton Henry Fogg, Somerville, Mass., U.S.A., 16th March, 1897; 6 years. (Filed 9th February, 1897.)

Claim.—1st. In a bicycle saddle support the combination of a saddle-support having a grooved stem B, as described, and the supporting spring S; with the tubular part C adapted to fit in the seat supporting tube provided with interior grooves H H' adapted to receive, in connection with the grooves H H, friction balls, the said grooves H H' being made of a width to admit of a slight lateral movement of the said friction balls, substantially as and for the purpose set forth. 2nd. In a bicycle saddle support, a saddle stem resting upon a spring and adapted to work within a guiding tube, the said stem having two sets of grooves, one set near its upper end and the other set near its lower end, each set of grooves having anti-friction balls adapted to prevent contact between the said saddle stem and the said guiding tube, substantially as and for the purpose set forth.

No. 55,269. Gear Case for Bicycles. (Boîte pour engrenage de bicycles.)

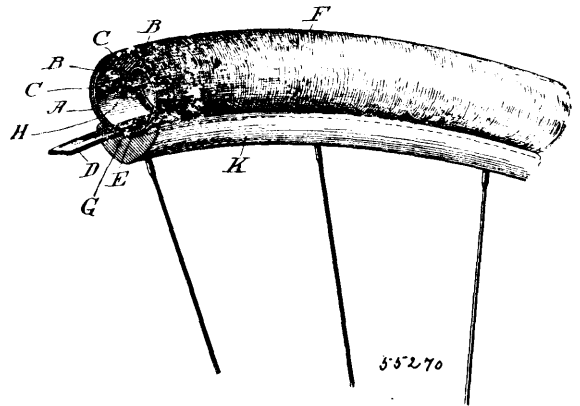


Harry J. Buell, Fort Wayne, Indiana, U.S.A., 16th March, 1897; 6 years. (Filed 9th February, 1897.)

Claim.—1st. In a gear-case for bicycles, the combination of two separable interlocking sections, each formed of a single piece of sheet metal; an interlocking closer formed of a single piece of metal folded upon itself, as described, and having its interlocking edges corrugated for the purpose specified; and means for detachably securing said case sections together and to the bicycle frame, all substantially as described. 2nd. A two-part gear case for bicycles, comprising two separable interlocking sections 9 and 10, each section being stamped from a single piece of sheet metal, having means for rigidly securing the ends of said sections, and a closer 11 folded and corrugated as described, and adapted to admit the brace rod 12 and to close the inner and open faces of the said case sections by an

interlocking engagement with the sides thereof, all substantially as described. 3rd. A gear-case for bicycles formed of front and rear telescoping parts by which the said case can be lengthened or shortened, each part being formed of two separable interlocking sections arranged as shown; a telescoping two-part closer adapted for an interlocking engagement with said sections; and means for securing said front and rear parts to the bicycle frame, all substantially as described. 4th. The combination in a two-part gear case for bicycles of two separable interlocking sections, constructed as described, provided with means for rigidly securing the ends of said sections together; a corrugated and interlocking closer I I adapted to admit the brace rod 12 and to close the inner and open faces of the said case sections by an interlocking engagement with the sides thereof as shown; means for securing said sections to the bicycle frame; and the adjustable plate 26 arranged as described in the rear end of said case for the purpose of providing for variations in distance between two revolvable wheels, all substantially as described.

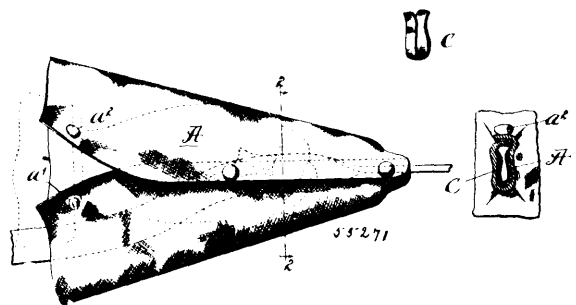
No. 55,270. Bicycle Tire. (Bandage de bicycle.)



Charles Albert Hussey, New York, State of New York, U.S.A., 16th March, 1897; 6 years. (Filed 11th February, 1897.)

Claim.—1st. In a hollow tire for bicycles or other vehicles, the combination of a series of spring formers or supporters constructed and arranged substantially as shown and described and connected to each other by an elastic band, and an envelope or cover having a wedge-shaped extension immediately inside and contiguous to the tread and arranged in connection with the spring former, substantially as and for the purposes set forth. 2nd. In a hollow tire for bicycles or other vehicles, a series of spring steel formers or supporters arranged a slight distance from the other and connected in a series by an elastic band as shown, said formers being divided at points opposite the central point of the tread and having inwardly-curved and wedge-shaped shoulders, with a rubber envelope or cover secured around the formers and having a complementary wedge-shaped portion, all arranged substantially as shown and described.

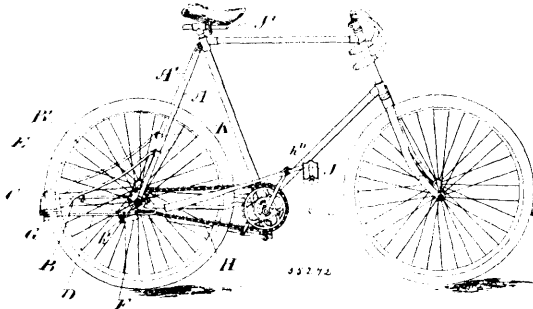
No. 55,271. Hand Protector. (Garde-main.)



Charles Henry Gleim, Denver, Colorado, U.S.A., 16th March, 1897; 6 years. (Filed 12th February, 1897.)

Claim.—1st. A hand protector of conical form which is open at one side and provided with fastening devices at its separated edges, said protector being adapted to fit at its forward or smaller end around the object to which it is attached. 2nd. A hand protector of conical form which is open at one side and provided with fastening devices at its separated edges and adapted to fit at its smaller end around the object to which it is attached, said smaller end being provided with an open spring clasp or ring adapted to engage the object to which the protector is attached. 3rd. A hand protector of conical form which is open at one side and is provided at its separated edges with ball and socket or like fasteners. 4th. A hand protector provided with an interior loop for the finger.

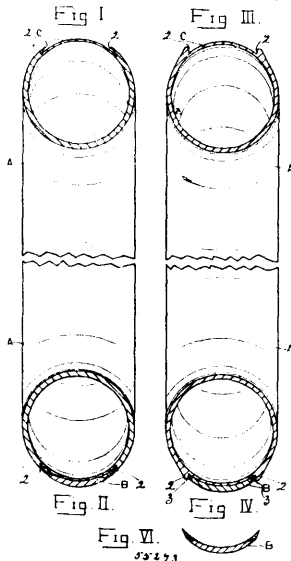
No. 55,272. Bicycle Driving Gear.
(*Roue de commande pour bicycles.*)



William Edward Milligan, Wallaceburg, Ontario, Canada, 16th March, 1897; 6 years. (Filed 13th February, 1897.)

Claim.—1st. In driving gear for cycles, the combination of a suitably supported guide rod, a traveller sleeved on the guide rod, a pitman pivotally connected at one end to the traveller, and at a point near the forward end to the pedal crank, and a pedal suitably journaled on the forward end of the pitman, substantially as described and specified. 2nd. In driving gear for cycles, means for holding guide rods in a substantially horizontal position on either side of the rear wheel, travellers sleeved on the guide rods, which rods are so shaped as to permit the travellers to pass in front of the rear axle to which the forward ends of the guide rods are attached, pitman pivotally connected at one end to the travellers and at points near the forward end thereof to the pedal cranks, and pedals suitably journaled on the forward ends of the pitman, substantially as described and specified. 3rd. In driving gear for cycles, the combination of a frame suitably connected to the rear forks and adapted to support a horizontal guide rod which is also attached at its forward end to the rear axle, a traveller sleeved on the guide rod, which is so shaped as to permit the traveller to pass in front of the rear axle at the forward throw of the device, a pitman pivotally connected at one end to the traveller, and at a point near its forward end to the pedal crank, a pedal suitably journaled on the on the forward end of the pitman, substantially as described and specified. 4th. In driving gear for cycles, the combination with the rear fork A, A', of frame B, B', with horizontal guide rods D, shaped as indicated, and suitably connected to the rear axle E, and provided with guard clips G, the travellers F, the pitman H, with pivotal connections at h and h', to the travellers and pedal cranks respectively, the pedal cranks I, the pedals J, and a seat longitudinally adjustable on the seat bar J', substantially as described and specified.

No. 55,273. Pneumatic tire for Bicycle Wheels.
(*Bandage pneumatique pour bicycles.*)

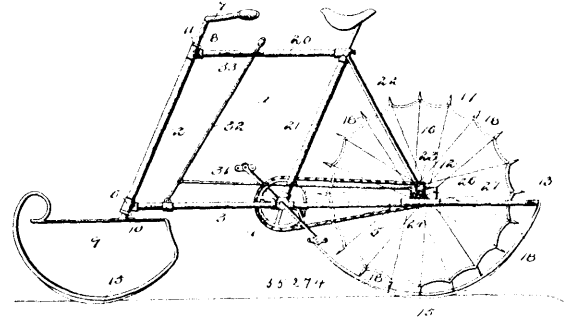


Charles Gentle, Hamilton, Ontario, Canada, 16th March, 1897; 6 years. (Filed 15th February, 1897.)

Claim.—1st. In a bicycle wheel, a pneumatic tire having an annular recess, or groove with continuous side walls, in combination with a protection band inserted and secured in said groove and continuous with the tire, substantially as described and set forth. 2nd. The combination in a bicycle wheel of a pneumatic tire having an annular groove around the face thereof for insertion of a tire pro-

tecting band of suitable material secured in and continuous with the tire, substantially as described and set forth. 3rd. The combination in a pneumatic tire having a wide face continuous recess, or groove, with a tire protecting band inserted and secured in said groove by means of wire rings inserted in continuous recesses formed in the edges of said bands and in proximity to the walls of the tire groove, substantially as described and set forth. 4th. A pneumatic tire for bicycle wheels formed with an annular or continuous wide faced groove in the face thereof, an inclined wall on each side of the groove and continuous therewith, a band constructed of a central piece having outer continuous edges secured thereto to conform to and fasten in said groove of tire, substantially as described and set forth. 5th. The herein described pneumatic tire constructed with a wide groove in or on the face and continuous therewith, side walls of said groove forming a part of the tire and continuous with the same, said groove capable of receiving a band previous to inflation of tire, and securing said band by means of inflation, substantially as described and set forth.

No. 55,274. Ice Bicycle. (*Bicycle pour la glace.*)



Charles E. Vose, Pittsfield, Vermont, U.S.A., 16th March, 1897; 6 years. (Filed 15th February, 1897.)

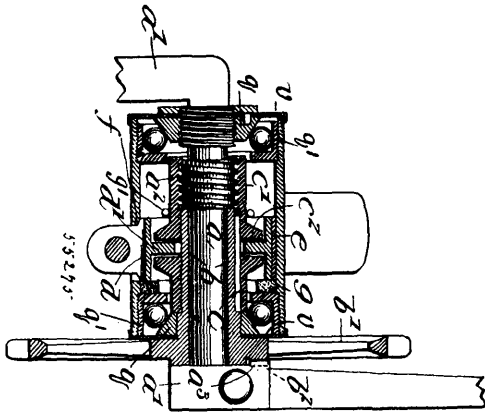
Claim.—1st. The combination with the machine frame, provided with runners as described, of a driving wheel having its rim scalloped to form clearance spaces, a pair of spaced and transversely aligned radial spurs located at each vertex of said rim, and means for actuating said wheel, substantially as described. 2nd. The combination with the machine frame, provided with runners, as described, of the vertically adjustable driving wheel, sliding wedges for raising and lowering the same with a positive movement, and means for actuating said wedges, substantially as described. 3rd. The combination with the machine frame, provided with the runners, of the driving wheel having its axle mounted in vertically sliding boxes, sliding wedges co-acting with said boxes both to raise and lower the wheel positively, and means for operating the wedges, substantially as described. 4th. The combination with the machine frame, provided with runners and having vertically slotted brackets, of the driving wheel having its axle mounted in boxes sliding within said bracket, sliding wedges operating directly against said boxes for positively raising and lowering the same, and means for operating said wedges, substantially as described. 5th. The combination with the machine frame, having the runners as described, of the driving wheel having its axle mounted in vertically adjustable boxes, the wedges having the inclined slots in which said boxes lie and slide, and means for sliding said wedges, substantially as described. 6th. The combination with a frame, having centrally-disposed and longitudinally-aligned runners as described, of a driving wheel having its rim located directly over and approximately equal in width with one of said runners, pairs of spaced transversely aligned spurs which straddle and operate respectively upon opposite sides of the plane of said runner, each pair being constructed of a single blank, of which the terminals form the spurs while the intermediate connecting portion provides means of attachment to the rim, and means for actuating said wheel, substantially as specified.

No. 55,275. Bicycle Brake. (*Frein de bicycle.*)

William Augustus Leggo, jr., Hartsdale, New York, U.S.A., 16th March, 1897; 6 years. (Filed 15th February, 1897.)

Claim.—1st. In a cycle, two rotating elements connected together by a screw thread whereby their relative movement will cause one of them to move laterally, in combination with two brake elements one of them being carried by one of said rotating elements, and a third brake element interposed between said two brake elements, whereby the relative lateral movement of said rotating elements will cause the said third brake to be clamped between the other two brake surfaces. 2nd. In a cycle brake, an axle and a pair of cranks both of which are rigidly secured thereto and through which the propelling power is transmitted, a sliding brake member normally rotating therewith, means whereby the axle and the brake member may be caused to rotate differentially, and a screw thread connection between the axle and sliding member whereby such differential motion will cause the sliding member to move longitudinally upon the axle. 3rd. In a bicycle, the combination of the crank axle and

cranks, a sprocket wheel loosely mounted on the axle, interlocking abutments whereby the cranks and wheel will rotate together or



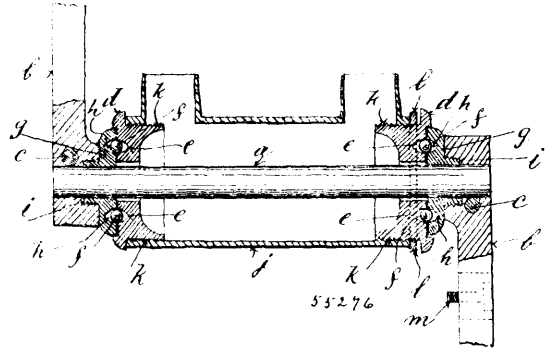
differentially at will, and a fixed screw thread on the axle, a brake member engaging with said thread and adapted to rotate with the sprocket wheel, but to move independently thereof to operate a brake, substantially as described. 4th. In a bicycle, the combination of a crank axle and cranks, a sprocket wheel loosely mounted on the axle, interlocking abutments whereby the cranks and wheel will rotate together or differentially at will, and a fixed screw thread on the axle, a brake member engaging with said thread and adapted to rotate with the sprocket wheel, but to move independently thereof to operate a brake, a drum and fixed strap surrounding the same for producing a constant friction, said brake member being arranged to engage with the drum to cause it to rotate with the sprocket wheel and against the friction of the strap thereon. 5th. In a cycle, the combination of an axle, a sleeve thereon carrying a sprocket wheel, a brake member feathered to the sleeve and provided with a screw thread, a corresponding thread on the axle and means for rotating the axle independently of the sleeve to a limited extent for the purpose of moving the brake member. 6th. In a cycle brake, the combination of an axle, a sleeve surrounding it and normally rotating therewith and a sliding brake member feathered to the sleeve, a corresponding brake member, means whereby the axle and the sleeve may be caused to rotate differentially to a limited extent, and a screw thread connection between the axle and the sliding brake member whereby such differential motion will cause the sliding member to move longitudinally upon the axle towards or away from its corresponding member, substantially as described. 7th. A brake for vehicles, consisting of a wheel hub to which the driving power is applied, an auxiliary hub to which the spokes of the wheel are attached, a frictional surface carried by each hub, corresponding frictional surfaces against which the former surfaces are adapted to bear, in combination with means for creating relative lateral movement of the two hubs whereby the said corresponding friction surfaces are caused to move towards or away from each other. 8th. A brake for vehicles, consisting of a wheel hub to which the driving power is applied, an auxiliary hub to which the spokes of the wheel are attached, a friction flange carried by each hub, an element located between said flange and adapted to be clamped thereby to create friction, in combination with means for creating relative lateral movement of the two hubs whereby the said flanges may be caused to clamp or release said intervening element, for the purpose set forth. 9th. A brake for vehicles, consisting of a wheel hub to which the driving power is applied, an auxiliary hub to which the spokes of the wheel are attached, a friction flange carried by each hub, a drum located between said friction flange and adapted to be clamped or released thereby, a friction strap upon the drum, the tension of which retards the rotation of the drum, in combination with means for creating relative lateral movement of the two hubs whereby the drum may be clamped or released by the flanges, substantially as described. 10th. In a cycle-brake, the combination of a hub carrying a sprocket or other gear wheel for transmitting propelling power thereto, an auxiliary hub surrounding the first hub to which the spokes of the wheel are attached, interlocking lugs between the main and auxiliary hubs, whereby one is driven by the other, a screw threaded connection between the two hubs whereby differential rotation of them will create relative lateral movement, a brake-drum surrounded by a brake strap, a flange or web carried by said drum, and a flange on each of said hubs between which that on the drum is clamped when the two drums move laterally with respect to each other.

No. 55,276. Ball Bearing. (*Coussinet à boule.*)

Amos Frank, Sudbury Tatnam, Ilkeston, Derbyshire, England, 16th March, 1897; 6 years. (Filed 16th February, 1897.)

Claim. - 1st. In ball bearing, a bearing part or parts having grooves or ball races upon its outer end or surface, a cap having corresponding grooves or ball races and a screw-wed boss which engages in a screw-thread in the crank lever, said crank lever being secured to the spindle passing through the bearing by means of key or such

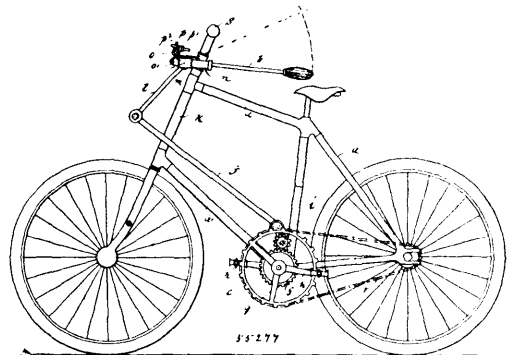
similar fastening, a lock nut for securing the bearing part or parts in position, substantially as described and illustrated herein. 2nd.



In ball bearings, grooves or ball races formed upon planes or surfaces at right angles to the spindle or rotating axis and in which balls are carried.

No. 55,277. Hand and Foot Motor for Bicycles, etc.

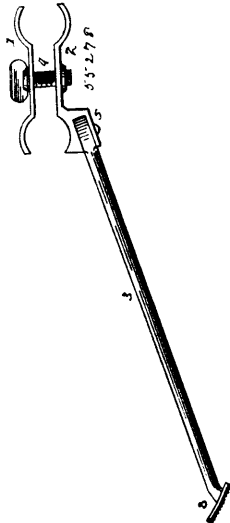
(*Moteur à mains et pieds pour bicyclettes, etc.*)



Robert Edgar, jr., Glasgow, Scotland, 16th March, 1897; 6 years. (Filed 17th February, 1897.)

Claim. - 1st. Motive mechanism for vehicles or machines having in combination alternately acting pedal or treadle mechanism and hand mechanism consisting of horizontal hand levers which are worked up and down simultaneously through a vertical or nearly vertical arc, the hand levers being arranged to have twice as many travels up and down as the pedals or treadles during the same time, substantially as set forth. 2nd. In combination, the frame of the machine, the pedal shaft, alternately acting pedals on the shaft, a gear-wheel *f* on the pedal shaft, a chain-wheel *g* on the pedal shaft, a crank shaft *i*, a pinion shaft *g* on the crank shaft meshing with the teeth of the gear-wheel *f*, a connecting rod *j*, an arm *l*, and a shaft *m* actuated by simultaneously acting hand levers, substantially as set forth. 3rd. In combination, the frame of the machine, the pedal shaft, alternately acting pedals on the shaft, a gear-wheel *f* on the pedal shaft, a chain-wheel *g* on the pedal shaft, a crank shaft *i*, a pinion *g* on the crank shaft meshing with the teeth of the gear-wheel *f*, a connecting rod *j*, an arm *l*, a shaft *m*, sleeves *n* secured to the shaft and hand levers *b* passed through the sleeves and capable of a longitudinal movement therein, substantially as set forth. 4th. In combination, the frame of the machine, the pedal shaft, alternately acting pedals on the shaft, a gear-wheel *f* on the pedal shaft, a chain-wheel *g* on the pedal shaft, a crank shaft *i*, a pinion *g* on the crank shaft meshing with the teeth of the gear-wheel *f*, a connecting rod *j*, an arm *l*, a shaft *m*, sleeves *n* secured to the shaft and hand levers *b* passed through the sleeves and capable of a longitudinal movement therein and also a rotary movement for steering the machine, substantially as set forth. 5th. In combination, the frame of the machine, the pedal shaft, alternately acting pedals on the shaft, a gear-wheel *f* on the pedal shaft, a chain-wheel *g* on the pedal shaft, a crank shaft *i*, a pinion *g* on the crank shaft meshing with the teeth of the gear-wheel *f*, a connecting rod *j*, an arm *l*, a shaft *m*, sleeves *n* secured to the shaft, hand levers *b* passed through the sleeves and provided with arms *o*¹ to which is connected a steering rod *p* capable of operating the steering fork of the machine, substantially as set forth. 6th. In combination, the frame of the machine, the pedal shaft, alternately acting pedals on the shaft, a gear-wheel *f* on the pedal shaft, a chain-wheel *g* on the pedal shaft, a crank shaft *i*, a pinion *g* on the crank shaft meshing with the teeth of the gear-wheel *f*, a connecting rod *j*, an arm *l*, a shaft *m*, sleeves *n* secured to the shaft, hand levers *b* passed through the sleeves and provided with arms *o*¹ to which is connected a steering rod *p*, a slot *p*¹ in the rod and a bent arm *p*² secured to the spindle of the steering fork, substantially as set forth.

No. 55,278. Bicycle Support. (*Support pour bicycles.*)

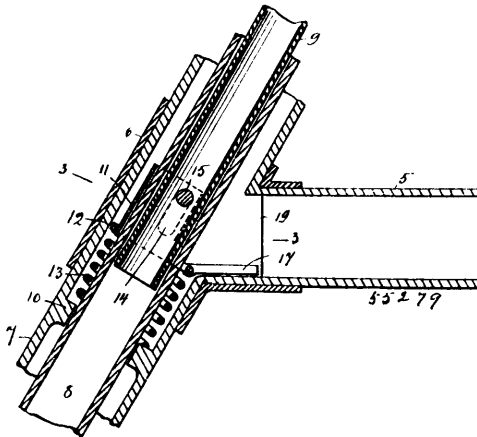


Henry Otto, Bloomington, Illinois, U.S.A., 16th March, 1897; 6 years. (Filed 19th February, 1897.)

Claim.—The combination of a top and bottom clamping plate, connecting-screw, the inclined jaw on the bottom plate, the concave rear wall in the jaw, and a leg with a concave ending foot the eccentric top end pivoted to the jaw, substantially as and for the purpose specified.

No. 55,279. Attachment for Bicycles.

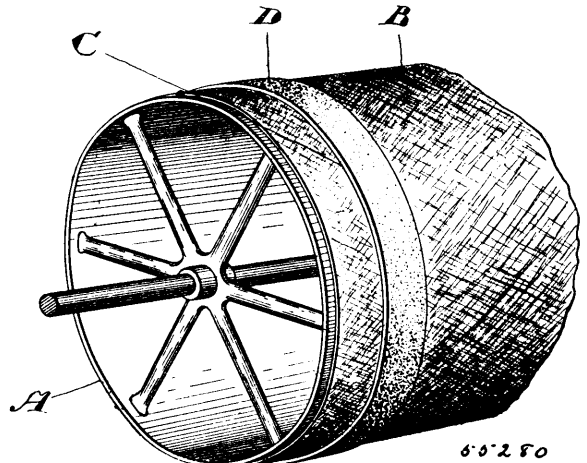
(*Attache de bicycles.*)



Joseph Hermann Meyer, Brooklyn, New York, U.S.A., 16th March, 1897; 6 years. (Filed 20th February, 1897.)

Claim.—1st. The combination with the tubular head of the forward part of the frame of a bicycle, through which the stem of the forward fork passes, of a spring operated sleeve mounted in said stem, and adapted to be forced upwardly, a rod which forms a support for the handle bar and which is pivotally connected with the upper end of said stem, said stem being also provided with slots at the opposite sides thereof, and a pin or bolt which passes through said slots, and through said rod and through the sliding sleeve, said sleeve and the frame of the vehicle being also provided with means for locking the parts together so as to prevent the fork in which the guide wheel is mounted from turning, substantially as shown and described. 2nd. The combination with the frame of a bicycle, provided with the usual tubular head through which the stem of the fork passes, of devices connected with said stem and adapted to be operated by the rod with which the handle bar is connected for preventing the forward fork, from turning, substantially as shown and described. 3rd. The combination with the frame of a bicycle provided with a tubular head as 7, through which the tubular stem 8, of the forward fork passes, of a spring operated sleeve mounted on said stem, a rod which forms a support for the handle bar, and which is longitudinally movable in said stem, a pin or bolt which passes through said rod, and through said sleeve, and through slots formed in the opposite side of said stem, and a locking device connected with said sleeve and adapted to operate in connection with the frame of the vehicle, substantially as shown and described.

No. 55,280. Process of Roughening the Tread of Bicycle Tires. (*Procedé pour rendre rude la surface des bandages de bicycles.*)

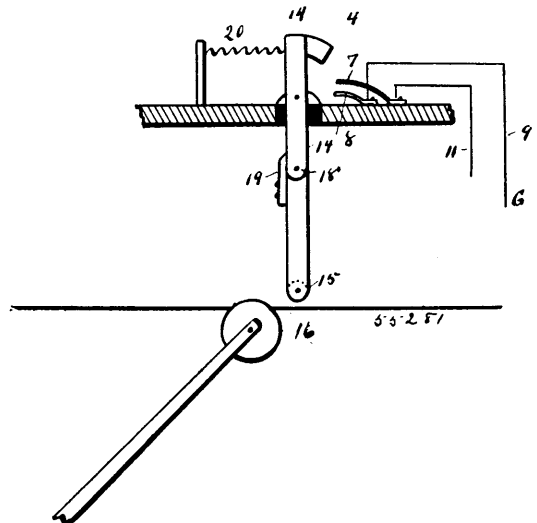


The Gould Bicycle Company, assignee of William Henry Shapley and Richard Gilbert Miller, all of Brantford, Ontario, Canada, 16th March, 1897; 6 years. (Filed 8th February, 1897.)

Claim.—The herein described process of roughening or pebbling the face of the outer rubber covering of pneumatic tires, which consists in suitably stretching the outer rubber covering while still in a plastic or unvulcanized state, face downwards, on a drum covered with a fabric adapted to make indentations in the rubber, vulcanizing the rubber covering while so engaged with the fabric, and then removing the rubber covering when vulcanized from the fabric-covered drum so as to leave the finished tire, substantially as described and specified.

No. 55,281. Electric Trolley Signals for Railways.

(*Signal électrique de trolley pour chemins de fer.*)

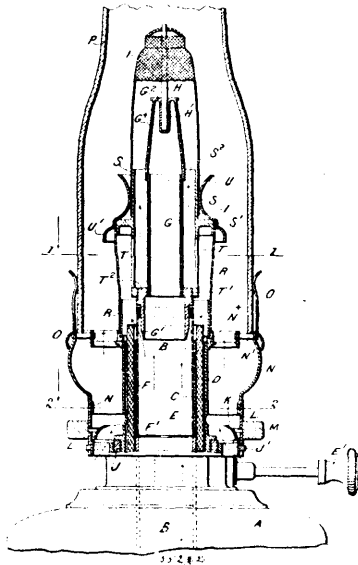


Homer Alton Parrish, Jackson, Michigan, U.S.A., 16th March, 1897; 6 years. (Filed 14th December, 1896.)

Claim.—1st. An electric trolley signalling apparatus, comprising suitable track circuit terminals each side of the crossing, a main signal wire forming connection therewith, a feed wire, a set of magnets with hooked armature and spring-actuated drop, a set of magnets with armature having a signal or signals, a circuit line running from feed wire to main signal wire, and a circuit line running from feed wire to ground, and including therein the latter named magnets and the circuit terminals at the crossing, substantially as set forth. 2nd. An electric railway signalling apparatus, comprising normally open circuit terminals at each side of the crossing, a pivoted lever having the insulated lateral projection for operating said circuit terminals, a spring attached to the upper end of the lever on one side opposite the projection in the track instruments each side of the crossing, a main signal wire forming connection with the circuit terminals, a feed wire, a set of magnets with hooked armature and pivoted spring actuated drop, a circuit terminal post for contacting with the drop, a set of magnets with armature having insulated end for contacting with and putting up the drop, a signal or signals, a circuit line running from feed wire to main signal

wire, and including therein the signal or signals, and the first named magnets, a circuit line running from the feed wire to ground, and including therein a signal or signals, and the circuit terminal posts and drop; and a circuit line running from the feed wire to ground, and including therein the latter named magnets, and the circuit terminals at the crossing, substantially as set forth. 3rd. The normally open elastic circuit terminals, in combination with the pivoted vertical lever, provided with the lateral insulated projection at the upper end and a spring attached to the side opposite to the projection, and above the point of pivoting to prevent rebound of the lever, substantially as set forth.

No. 55,282. Lamp Film. (Pellicule pour lampes.)



Walter Darby, Ion Darby and John Henry Pumphard, all of London, England, 16th March, 1897; 6 years. (Filed 18th November, 1896.)

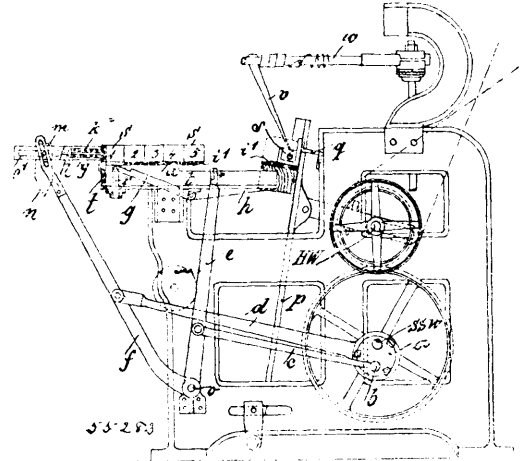
Claim.—1st. In oil lamps, a burner provided with a suitably supported wick, and means for admitting a relatively small portion of air to the flame of the same, in combination with a suitably supported mantle and a tube or tubes forming a passage way adapted to convey the vapors and products of combustion from the wick to the interior of the said mantle, air openings being provided to permit of a large supply of air mingling with the said vapors and products of combustion so as to produce perfect combustion of the same for the purpose of heating the said mantle to incandescence, substantially as and for the purpose specified. 2nd. In oil lamps, a burner, provided with a suitably supported wick, and means for admitting a relatively small proportion of air to the flame of the same, in combination with a suitably supported mantle, and concentric tubes forming between them a passage way from the wick to the interior of the mantle, openings for admission of air to the passage way being provided in one of the tubes, substantially as and for the purpose specified. 3rd. In oil lamps, a burner provided with a circular wick and means for admitting a relatively small proportion of air to the flame of the same, in combination with a mantle and concentric perforated cylinders forming a passageway from the wick to the interior of the mantle, substantially as and for the purpose specified. 4th. In oil lamps, a burner provided with a circular wick and a central air tube formed by the inner wick tube, in combination with a suitably supported mantle, the perforated cylinder F, located within the said wick tube, and adapted to admit a limited supply of air to the flame, the perforated cylinder G, substantially continuous with the above mentioned cylinder, and the outer perforated cylinder R, forming with the cylinder G, a passageway from the wick to the interior of the aforesaid mantle, substantially as and for the purpose specified. 5th. In oil lamps for rendering incandescent mantles or other incandescent media of similar nature, the combination of the wick E, with the inner wick tube C, and the exterior wick tube D, and of the three perforated cylinders F, G and R, for producing and regulating, first, the partial combustion of the oil at the wick, and secondly, the complete combustion within the mantle of the gases or vapour produced by such partial combustion, all combined and arranged as described and illustrated.

No. 55,283. Change-box Mechanism of Power Looms. (Boîte à mécanisme de variation.)

Knuthwerben, Claviez & Co., assignee of Emil Claviez, all of Leipzig, Saxony, Germany, 17th March, 1897; 6 years. (Filed 3rd March, 1896.)

Claim.—1st. A change box for mechanical looms of all kinds working any number of colours, such as in the manufacture of

chenille, characterized by the arrangement of a box *t*, provided with a pierced bottom *u*, a stamp or pin *l*, a spiral spring *g*, and a winged



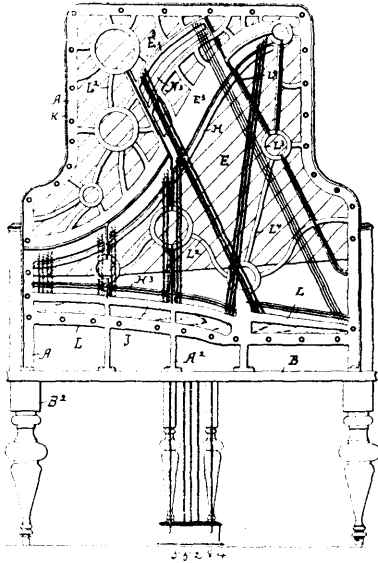
lever *f*, so that at each swing of the latter for each double blow of the shuttle the card cylinder *m* is caused to work on the pin *l* in such a manner that at a change of a shuttle the whole of the shuttle boxes are moved forward the size of one of them, by means of the first shuttle box *l*, the catches *f*² and *f*¹, and the noses *r*¹ and *r*², the shuttle box in the race is set free, and the pin *l* is brought automatically into the normal position. 2nd. In an arrangement of the kind specified in claim 1, the automatic change appliance for the shuttles characterized by the arrangement of a race B, shuttle box *g*, catches *f*² and *f*¹, and an angular piece *q* for the object of fixing the shuttle by means of the catches, during the working period and after the same releasing it on the pieces *q* of passing it from this on to the slide *g*, *h*, *g*, *h*, and of making the rows B ready for the subsequent shuttle box. 3rd. In a change appliance of the kind specified under claim 1, the arrangement of a swinging slide *g*, *h*, *g*, *h*, table *g*, picker *e* and spring catches *f*¹ for the object of advancing the shuttle, which has been set free from the race during the backward movement of the winged lever *f* into the box *t* and for holding it above the opening of the bottom *u*. 4th. In a change box such as specified under claim 2, with a change appliance, the arrangement of an automatic appliance for operating the turn hooks *d*¹, and in which the card is provided with notches *r*² and is led between a cylindrical roll *b*² and a corresponding disc *a*² in such a manner that the disc *a*² standing under spring pressure comes during revolution of the card into the notches *d*² of the same, engaging with the roll *b*² and closes the circuit in an electro-magnet A, whereby the catch *d*² forming an armature is attracted by the latter, and the turn hook *d*¹ is set free, for the object of causing the same to work on the card cylinder *m* to set it in a corresponding movement and through the noses *f*² of the cylinder *m* to again bring it into normal position. All substantially as described and shown on the drawings.

No. 55,284. Piano. (Piano.)

James F. Conover, Chicago, Illinois, U.S.A., 17th March, 1897; 6 years. (Filed 7th January, 1897.)

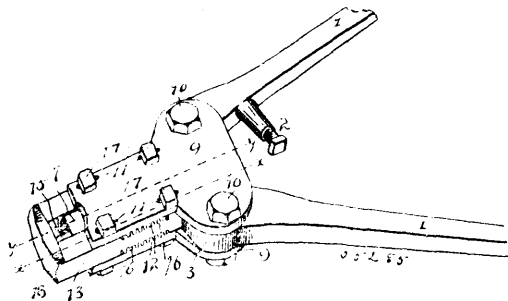
Claim.—1st. A piano string plate or frame having a broad marginal web or band perpendicular to the general plane of the frame, hitch bars and curved braces integrally connecting the web and hitch bars, substantially as and for the purpose set forth. 2nd. A one-piece, cast, piano string plate or frame, a broad marginal web or band perpendicular to the general plane of the frame and extending beyond each side or face thereof, hitch bars and curved braces extending laterally from each side of the latter to connect them integrally with the corresponding portions of the web or band. 3rd. A one-piece, cast, piano string plate or frame having a marginal web or band perpendicular to the general plane of the frame, hitch bars and braces connecting the latter to said web, each of said braces having a sinuous or curved portion adapted to yield slightly and thus relieve the great strain due to cooling contraction in casting. 4th. A one-piece piano string plate or frame having a marginal web or band perpendicular to the plane of the frame as a whole, hitch bars extending across the plate or frame, braces connecting the web and hitch bars and rings intersecting said braces whereby said rings are adapted to yield in the cooling of the casting to relieve artificial strain. 5th. The combination with a key bed, of a string plate or frame and a sounding board, both arranged above the bed, a manual key board, keys mounted above the bed and passing beneath said plate or frame and sounding board and an action with which the keys are directly connected. 6th. The combination with the key bed, of a string plate or frame and a sounding board, both arranged above the key bed, a manual key board, keys mounted

above the bed and passing beneath said plate or frame, and sounding board and hammers arranged to be operated by said keys and to



strike forwardly. 8th. The combination with the key bed, of a broad marginal web or band of inverted U-shape, which is perpendicular to the general plane of the frame, having its ends fixed upon the bed and projecting upwardly from said bed, hitch bars and suitable braces connecting the hitch bars to the web, the whole being cast in a single piece. 9th. The combination with the key bed, of a broad marginal web or band of inverted U-shape, which is perpendicular to the general plane of the frame, having its ends fixed upon the said key bed and extending vertically upward therefrom, hitch bars, braces extending from the hitch bars to the web or band cast integrally with both and a sounding board parallel to the plane of the frame and fixed to the marginal portion of said web or band. 10th. The combination with the key bed of a one-piece, cast, string plate or frame having a broad marginal U-shaped web or band perpendicular to the general plane of the frame and having its ends fixed to the bed, hitch bars and braces supporting the hitch bars from said web or band, said braces having curved portions adapted to relieve artificial strain of the plate or frame by changing their curvature in the cooling of the casting. 11th. A string plate or frame, consisting of a marginal web or band perpendicular to the plane of the plate or frame as a whole, wrest plank bars, hitch bars, and a network of braces connecting the hitch bars to the web and wrest plank bars and having curved portions between their points of attachment adapted to change their curvature, and thus relieve artificial strain due to contraction in the cooling of the casting.

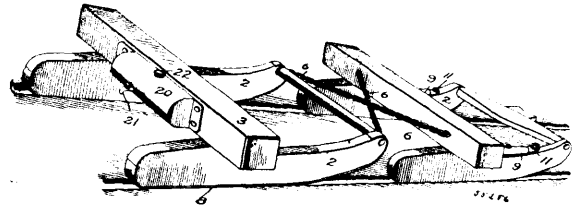
No. 55,285. Rod or Bolt Cutter. (Coupe boulon et tige.)



London Silcote, Mount Vernon, Ohio, U.S.A., 17th March, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—1st. A tool having the rack-plates secured to the tool handles, and the toothed cutter-guard adjustably secured to and between the said plates, as set forth. 2nd. A tool having the cutter-guard with a longitudinal opening and provided on its face with teeth upon opposite sides of the said opening, as set forth. 3rd. The handles having cam projections and a semicircular bearing for the cutter cams, and the pivot pins formed upon the face of the cam projections, combined with the cutter having cams engaged by the said pins, as set forth. 4th. The combination of the cutter having a portion of its thickness removed, and the handles having a portion of their heads similarly removed, with the cutter-guard having teeth and the rack plates secured to the handle heads and to the cutter guard, as set forth.

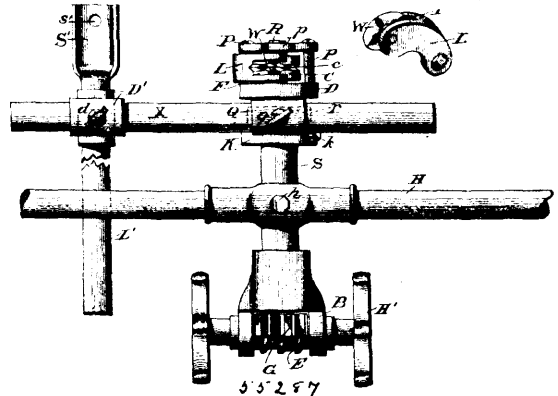
No. 55,286. Sled. (Traineau.)



Evariste Dore and Anthony Chouinard, both of Minneapolis, Minnesota, U.S.A., 17th March, 1897; 6 years. (Filed 24th December, 1896.)

Claim.—1st. The combination, with a sled runner, of an oil receptacle applied thereto, and means for delivering the oil from said receptacle onto the under surface of the forward end of the runner. 2nd. The combination, with a sled runner, having an upturned forward end, and an oil receptacle applied to said runner, and means for delivering the oil from said receptacle onto the under surface of the upturned forward end of the runner. 3rd. The combination with a sled runner, of an oil receptacle arranged thereon, means for guiding the oil from said receptacle onto the under surface of the forward end of the runner, and means for regulating the flow of oil from said receptacle. 4th. The combination, with a sled runner, provided with a shoe 8, of the cup 15 arranged above said shoe, a series of openings 16 extending from said cup to said shoe, an oil receptacle carried from said shoe, and means for delivering the oil from said receptacle into said cup, for the purpose specified. 5th. The combination with the sled runner, provided with the shoe 8 having the opening 16, the cup 15 arranged above said shoe, the reservoir 9 arranged upon said shoe, and communicating with said cup, and the regulating plug or valve 18. 6th. The combination, with the sled 2 provided with the cross bar 3, and the swinging rocker 5, of the oil reservoir 20 secured upon the rear of said cross bar, provided with the plug 22 and the faucet 21, the upper surface of said reservoir being beneath the upper surface of the cross bar 3, for the purpose specified.

No. 55,287. Inside Pipe Cutter. (Coupe-tuyau.)

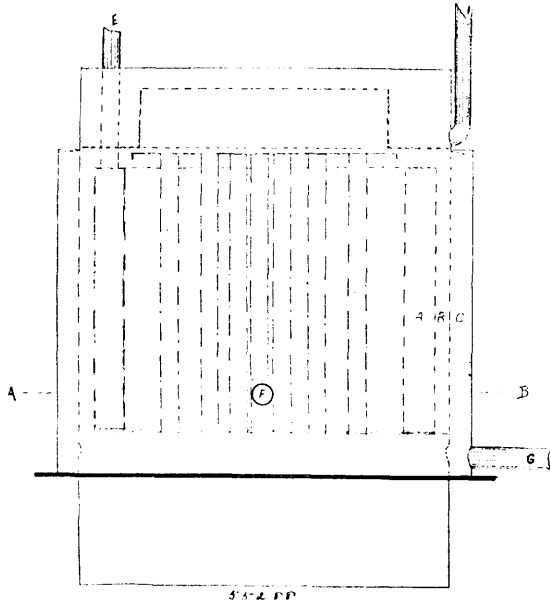


Rudolphe Herbers, Beardsley, Minnesota, U.S.A., 17th March, 1897; 6 years. (Filed 2nd January, 1896.)

Claim.—1st. In an inside pipe cutter, the combination with a hollow shaft having a disc at one end, pins projecting from said disc, levers pivoted at one end on said pins, and cutting wheels carried by the other ends of the levers, of a rod extending through said shaft, a cam mounted on the rod and having grooves for the admission of the cutting edges of said wheels, means for turning this rod, and independent means for rotating said shaft, as and for the purpose set forth. 2nd. In an inside pipe cutter, the combination with a hollow shaft having a disc at one end, pins projecting from said disc, levers pivoted at one end on said pins, and cutting wheels carried by the other ends of the levers, of a rod extending through said shaft, a cam mounted on the rod, a handle fast on the shaft for rotating it, a gear on the rear end of the rod, and endless screw engaging such gear, and means for turning the gear, as and for the purpose set forth. 3rd. In an inside pipe cutter, the combination with a rotatable hollow shaft having a disc at its outer end, radially movable levers pivoted to said disc, cutting wheels carried by said levers, and means, substantially as described, for throwing such levers outward, of a collar mounted on the shaft in rear of the disc, a set screw through the collar against the shaft, a ring mounted on the shaft between said disc and collar, and means for supporting such ring, as and for the purpose set forth. 4th. In an inside pipe cutter, the combination with a rotatable hollow shaft having a disc at its outer end, radially movable levers pivoted to said disc, cutting wheels carried by said levers, and means, substantially as described, for throwing such levers outward, of a collar mounted on the shaft in rear of the disc, a set screw through the collar against the shaft, a ring mounted on the shaft between said disc and collar

and having a sleeve with a set screw, a rod having a spoon for attachment to some other boiler flue, a double socket into one member of which this rod passes, and a lateral rod connecting the other member with said sleeve, as and for the purpose set forth.

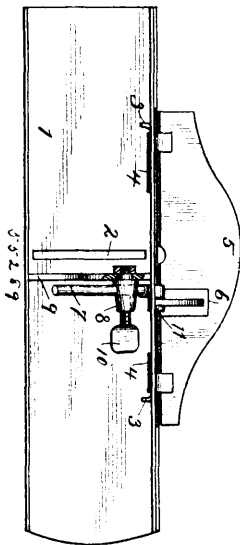
No. 55,288. Steam Boiler. (Bouilloire à vapeur.)



Jean Seguy, Québec, Qué., Canada, 17 mars 1897; 6 ans. (Déposé le 31 décembre 1896.)

Résumé. - La combinaison des deux compartiments A et C, avec les tuyaux E, F et G, tel que décrit ci-dessus et pour les fins indiquées.

No. 55,289. Plane Guide. (Guide pour robots.)



Erick Lindfos, Chicago, Illinois, U.S.A., 17th March, 1897; 6 years. (Filed 14th January, 1897.)

Claim. - In a plane, the combination with a stock having a slot in its side and a cavity in its interior, of a guide-wing hinged to the stock adjacent to the slot therein, the curved extension 7 pivotally secured at one of its ends on the guide-wing and entering the slot in the stock, the guide 8 swiveled on the interior of the stock, and having a transverse opening for the reception of the extension 7, and a set-screw to fixedly secure said extension, substantially as described.

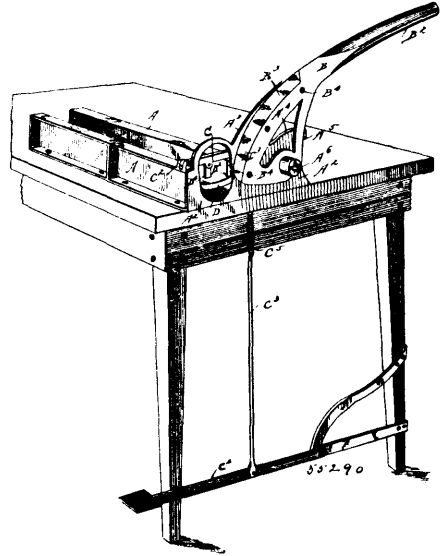
No. 55,290. Wall Paper Trimmer. (Coupe-papier de tenture.)

(*Coupe-papier de tenture.*)

John T. Montgomery, Battle Creek, Iowa, U.S.A., 17th March, 1897; 6 years. (Filed 11th January, 1897.)

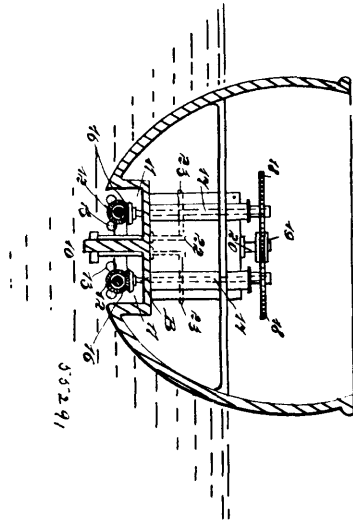
Claim. - 1st. In a roll-paper cutter, the combination of a suitable frame grooved to receive a roll of paper, and a follower mounted in

said frame above the groove in the frame to move in a vertical plane and having its lower surfaces projected downwardly further at its



central portion than at its edges, for the purposes stated. 2nd. A roll-paper cutter comprising a suitable frame, the curved knife pivoted thereto, the follower mounted therein, one or more downward projections at or near the central portion of its under face, and independent means for operating the follower, substantially as and for the purposes stated.

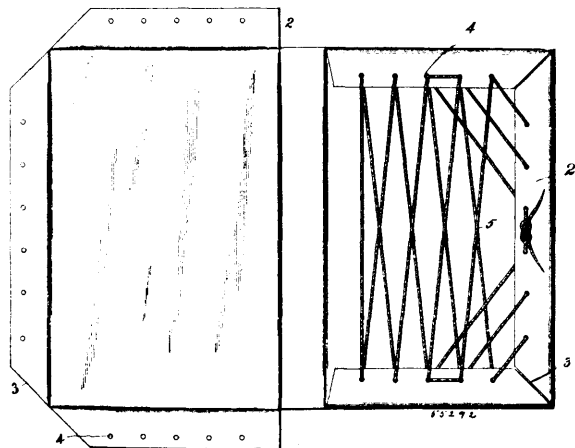
No. 55,291. Vessel. (Vaisseau.)



Conrad Odinet, New York, State of New York, U.S.A., 17th March, 1897; 6 years. (Filed 15th January, 1897.)

Claim. - 1st. In the construction of the hulls of vessels, a channel formed in the bottom of the same at each side of the keel, propeller shafts located in the said channels, and means for driving the said shafts, as and for the purpose specified. 2nd. In the construction of the hulls of vessels, a housing constructed longitudinally within the hull at the central portion of its bottom, the said housing being open to receive the water, a keel laid along the central portion of the under face of the said housing, forming two channels, a propeller shaft located in each channel, and a series of propellers secured upon each shaft, as and for the purpose specified. 3rd. In the construction of the hulls of vessels, a housing erected longitudinally in the central portion of the hull, forming a depression in the said bottom of substantially rectangular shape in cross section, a keel laid centrally along the under face of the said housing, and extending from bow to stern, dividing the depression into two longitudinal channels, said keel projecting below the horizontal line of the hull, gates located in each channel, operating from the interior of the hull, propeller shafts journaled in each channel, extending substantially the length of the same, propellers secured to the shafts, vertical shafts geared with the propeller shafts, and a power shaft geared with the said vertical shafts, as and for the purpose specified.

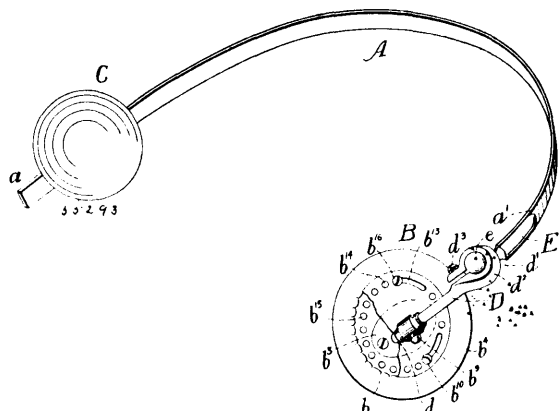
No. 55,292. Cover for Books. (*Couverture de livres.*)



Louisa A. Beers, Philadelphia, Pennsylvania, U.S.A., 17th March, 1897; 6 years. (Filed 15th January, 1897.)

Claim.—1st. A blank for a book cover consisting of a main body portion provided with openings near its ends, the top and bottom flaps 2 provided with openings near the edges thereof, and the inclined corners. 2nd. A book cover consisting of a body portion having a down-turned end portion, a top and bottom flap, and a lacing cord passing through openings in the edges of said end portions and said top and bottom flaps.

No. 55,293. Truss. (*Bandage herniaire.*)



John D. Rowley, Kansas, Missouri, U.S.A., 17th March, 1897; 6 years. (Filed 18th January, 1897.)

Claim.—1st. In a truss pad, the combination with the body portion having a concavity in the front side thereof and ventilating air ducts extending through said body portion near its periphery, an elastic cover to the front side of said body portion, a fixed oblong attachment plate embedded in the back and secured at both ends to said pad, a stud on the other side of said body portion to that having said concavity, and a perforate plate having a central opening adapted to receive said stud, covering said fixed plate, and having its perforations registering with the said ducts in the body of said pad, substantially as and for the purpose described. 2nd. In a truss, the combination with the truss band, of a plate rigidly attached to and extending beyond one end of said band, and a ball upon the outer end portion of said plate a pad-supporting adjustable swivel bar having one end of its body connected with said pad and the other end turned back nearly upon itself to form a clamp, the inner surface of said bent portion of said bar having an annular groove, adapted to receive said ball upon the plate of said truss band, and in frictional contact with the entire surface of said ball, said bent portion of said bar being extended beyond said ball in the direction of said pad, and a screw in the said extension of said bar extending within the body portion of said bar, whereby the pad may be reversed in position without removal of the pad-supporting bar from the truss band, as shown and described.

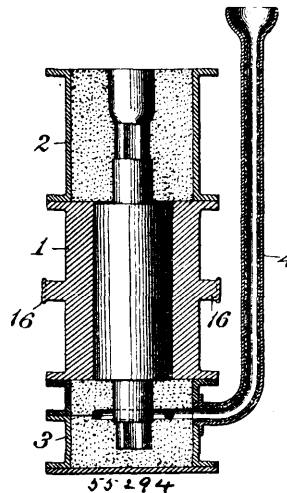
No. 55,294. Mould for Casting Rolls.

(*Moule à rouler.*)

John Lester Lewis, Pittsburg, Pennsylvania, U.S.A., 17th March, 1897; 18 years. (Filed 20th January, 1897.)

Claim.—1st. Means for producing plain-faced rolls with a practically uniform depth of chill, consisting of a chill-mould having a substantially smooth inner surface and supports for the casting con-

structed and arranged to bear on the surface of the casting during cooling, and which, while permitting the longitudinal movement of



the casting, will maintain the latter in a central position with reference to the mould, substantially as set forth. 2nd. Means for producing plain-faced rolls with a practically uniform depth of chill, consisting of a chill-mould having a substantially smooth inner surface, and supports constructed and arranged in such position as to be brought into contact with the surface of the casting by the movement of the latter due to its contraction during cooling and solidification and which while permitting the longitudinal movement of the casting will maintain the latter in a central position with reference to the mould, substantially as set forth. 3rd. Means for producing plain-faced rolls with a practically uniform depth of chill, consisting of a chill-mould provided on its inner wall with one or more downwardly-inclined or beveled shoulders located at or near the upper end of the chill-mould and constructed and arranged to maintain the casting in a central position with reference to the mould and support the same externally during cooling and solidification and permit longitudinal movement thereof, the remaining portions of the inner wall of the mould being substantially smooth. 4th. Means for producing plain-faced rolls with a practically uniform depth of chill, consisting of a chill-mould having a substantially smooth inner wall and provided with one or more annular shoulders having their edges downwardly inclined or beveled, one of said recesses being located at or near the upper end of the chill-mould, whereby the casting will be maintained in a central position with reference to the mould and supported externally during cooling and solidification, substantially as set forth. 5th. Means for producing plain-faced rolls with a practically uniform depth of chill, consisting of a chill-mould having a substantially smooth inner wall provided with one or more downwardly inclined or beveled shoulders constructed and arranged at or near the upper end of the chill-mould to maintain the casting in a central position with reference to the mould while permitting of a longitudinal movement thereof, and so proportioned as to height or outstanding from the surface of the wall of said chill with reference to the expected shrinkage of the casting during cooling, substantially as described, as to permit of the stripping of the mould from the casting after solidification, substantially as set forth. 6th. Means for producing plain-faced rolls with a practically uniform depth of chill, consisting of a chill-mould having a substantially smooth inner wall and provided with one or more outstanding downwardly-inclined or beveled shoulders constructed and arranged at or near the upper end of the chill-mould to maintain the casting in a central position with reference to the mould while permitting of a longitudinal movement thereof, and so proportioned as to height or outstanding from the surface of the wall of said chill with reference to the expected shrinkage of the casting during cooling, substantially as described, as to permit of the stripping of the mould from the casting after solidification, substantially as set forth. 7th. Means for producing plain-faced rolls with a practically uniform depth of chill, consisting of a chill-mould having a substantially smooth inner surface, and lateral supports constructed and arranged in such position as to be brought into contact with the surface of the casting by the movement of the latter due to its contraction during cooling and solidification and which while permitting the longitudinal movement of the casting will maintain the latter in a central position with reference to the mould, and will also brace or support the chilled shell of the casting during solidification as against internal pressure, substantially as set forth.

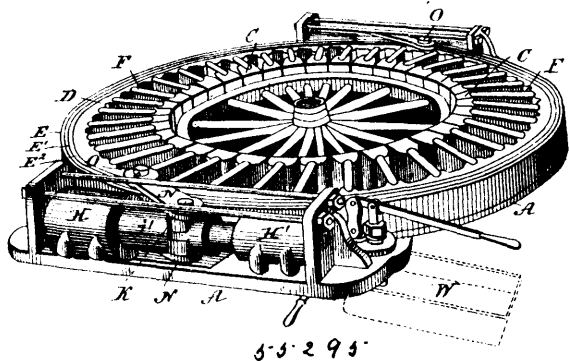
No. 55,295. Cold Setting Machine.

(*Machine à poser les bandages.*)

Edward N. Zeller, Portland, Oregon, U.S.A., 17th March, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. A machine for setting tires, comprising a supporting member, radially movable presser blocks, tangentially disposed

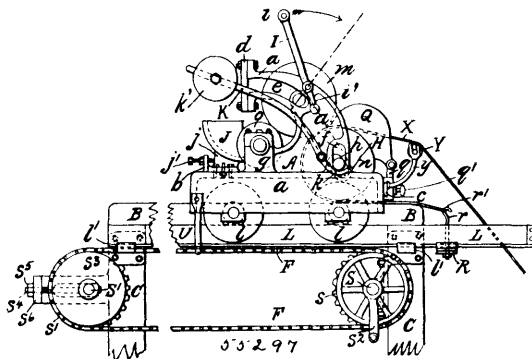
toggles held to press against the presser blocks, an exterior hand or rim, and a movable annular member connected to the outer ends of



the toggles, and means for moving the annular member to straighten the toggles, as and for the purposes described. 2nd. A cold tire setting machine having a bed plate, a series of radially movable presser blocks, and means for forcing the blocks inward and imparting a creeping action thereto, as specified. 3rd. A cold tire setter machine, comprising a bed plate, a series of radially movable presser blocks, an annular rim movable on the bed plate, a series of toggle arms connecting the rim and the presser members, and a fluid pressure mechanism for imparting a partial rotation to the rim, substantially as shown and for the purposes described. 4th. In a tire setting mechanism, the combination with the bed plate and the radially movable pressers, the toggle members connected thereto, a rotatable rim for moving the toggles simultaneously, and a fluid pressure, means for operating the rim, as set forth. 5th. The combination of the bed frame, having a central opening and radial guides, presser blocks movable in such guides, the rotatable rim, the re-enforce bands held thereon, the toggles pivotally connected with the rim and the pressure blocks, the fluid pressure operated pistons and the link members joining the pistons and rotatable rim, all arranged substantially as shown and for the purposes described. 6th. In a cold tire setting mechanism, the combination with the bed plate, the radially movable presser blocks, the toggles and the rotary rim connected therewith adapted when moved in one position to straighten the toggles, of the cylinders, the pistons, the fluid pressure devices for operating the pistons, and the link arms connecting the pistons, all arranged substantially as shown and for the purposes described. 7th. In a cold tire setting mechanism, the combination with the bed plate having radially-disposed guide grooves, the presser blocks movable therein, and the toggles, and movable rim of the cylinders H, H', the pistons formed of three sections, the link arms connecting the pistons and the toggle members and the fluid pressure mechanism, substantially as described. 8th. A cold tire setting machine, comprising a bed plate or supporting frame, radially movable pressure blocks, a rim having a limited rotation in a fixed manner on the frame, and having a series of cam members, one for each presser block, a series of arms held to bear with one end against the presser blocks and the other against the cams on the rim, said arms being normally held at a tangent to the rim, and means for moving the rim, substantially as and for the purposes described. 9th. The combination with the bed frame, the presser block, the toggles and the movable rim, of the cylinders H, H', the piston, said piston being flattened at the side adjacent the rim, and the fluid pressure mechanism for operating the rim, all substantially as shown and for the purposes described. 10th. In a machine as described, the combination with the radially movable pressers, and the means for forcing them simultaneously inward, of the cylinders, the pistons, the link arms connecting the pistons with the presser operating means and the double acting pump mechanism having reversing valve lever devices and suitable connections with the cylinders, substantially as shown and described.

ing and forming a raker gauge; and a screw journaled in the said bracket and engaging with the said lug, substantially as set forth. 2nd. The combination, with the frame provided on one side with the gauge points and screw, a notch for setting the teeth, and a hammer, and provided on the other side with a channel having an opening in one side; of an angular clamping bracket slidable in the said opening; and a screw for clamping the said bracket to the frame, substantially as set forth.

No. 55,297. Fabric Printing Apparatus.
(Appareil à imprimer sur tissus.)



Thos. Swallow, Leeds, York, England, 17th March, 1897; 6 years.
(Filed 13th October, 1896.)

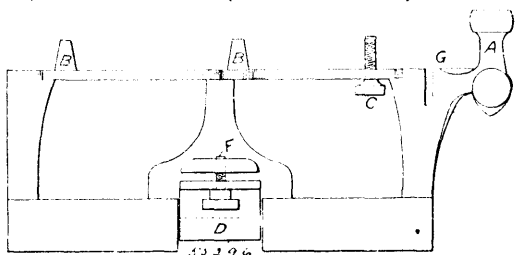
Claim. - 1st. An apparatus for printing or impressing on fabrics or materials, outlines or patterns for garments or for other purposes, characterized essentially by a fixed table for the fabric or material and by a carriage moving over the said table and carrying distributing and pressing cylinders and an inking roller, and an ink holder, the axes of the distributing and pressing cylinders passing through slots in the carriage and being connected together by slotted connecting rods in combination with means for moving the cylinders and for traversing the carriage over the table, substantially as and for the purpose hereinbefore described and illustrated in the accompanying drawings. 2nd. In an apparatus for the purpose described the arrangement of the carriage formed by frames, *a*, having slots, *e, f*, and plunger blocks or bearings, *g*, and carrying cylinders, *m, n*, whose axes pass through the said slots *e, f*, respectively, and are connected by a slotted connecting rod, *h*, and an inking roller, *o*, carried in the blocks, *g*, in combination with levers, *l*, for enabling the cylinders, *m, n*, to be separated from each other and the cylinder, *n*, to be raised from the table, *B*, substantially as hereinbefore described and illustrated in the accompanying drawings. 3rd. In the apparatus of the kind hereinbefore described and claimed, the application on each side of the carriage, of adjustable counter-weighted levers, *k*, operating on the axes of the cylinder, *n*, for adjusting the pressure on the fabric or material, substantially as hereinbefore described with reference to the accompanying drawings. 4th. In an apparatus of the kind hereinbefore described and claimed, the application to the carriage of a cross bar, *C*, in combination with sliding pieces, *q*, adjustable on the said cross bar, the said sliding pieces carrying guides, *Q*, for guiding the eche, *X*, the said eche being fixed at one end to a point or fixed points substantially as hereinbefore described with reference to the accompanying drawings. 5th. In an apparatus of the kind hereinbefore described and claimed, the arrangement for obtaining the movement of the carriage, consisting in spocket wheels connected by endless chains, the axis of the wheels being movable so as to regulate the tension of the endless chains in combination with an arm or ramp or the like fixed on each side of the carriage engaging with the endless chains, the said carriage being mounted on wheels running on rails fixed on each side of the table, substantially as hereinbefore described with reference to the accompanying drawings.

No. 55,298. Electric switch. (Aiguille électrique.)

Joseph Brodie Smith and Albert Lucien Clough, both of Manchester, New Hampshire, U.S.A., 17th March, 1897; 6 years.
(Filed 9th December, 1895.)

Claim. - 1st. I an automatic electric switch, the combination with a switch of springs tending to hold such switch in an open position, of an electro-magnetic mechanism consisting of two electro-magnets acting in mechanical opposition upon a pivoted armature and one or both of them having a movable pole piece capable of adjustment in such a manner as to vary the distance between the cores of said magnets and their armature, the said armature being adapted for engagement with the long arm of a pivoted angular lever, said lever carrying on its short arm a catch capable of engagement with a detent fastened to said switch and when so engaged acting to hold the switch closed, substantially as and for the purpose set forth. 2nd. In an automatic electric switch a pivoted armature adapted to be held in locked position relative to a releasing lever and the switch lever combined with electro-magnets having longitudinally adjustable pole pieces capable of adjustment to and from the pivoted

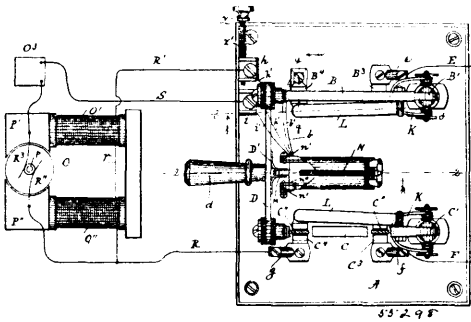
No. 55,296. Saw Set. (Outil à contourner.)



George Limerise, Sault Ste. Marie, Ontario, Canada, 17th March, 1897; 6 years. (Filed 15th August, 1896.)

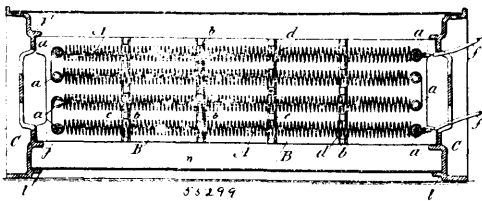
Claim. - 1st. The combination, with the frame provided with a channel, and a projecting lug, and an opening in one side of the channel; of the angular clamping bracket slidable in the said open-

armature, substantially as and for the purpose set forth. 3rd. In an automatic electric switch, a pivoted armature adapted to be held



in locked position relative to a pivoted releasing lever having a pawl at or near its pivoted end, combined with a slotted spring-pressed detent M pivoted on the switch bar and adapted for engagement with the pawl on the releasing lever substantially as and for the purpose set forth.

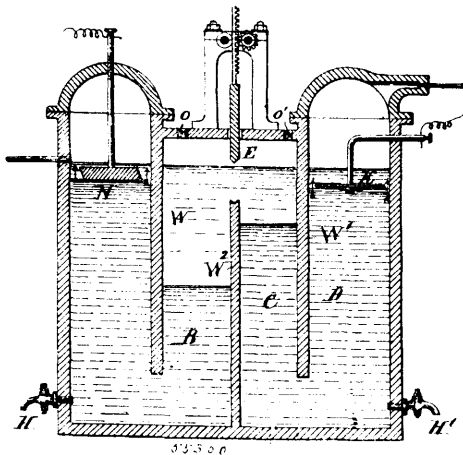
No. 55,299. Electric Heater. (Chauffeur électrique.)



Edward Ethel Gold, New York, State of New York, U.S.A., 17th March, 1897; 6 years. (Filed 28th May, 1896.)

Claim.—1st. The combination with horizontally-extended coils of resistant wire, of vertical insulating supporting plates, having end projections between which the coils are stretched and lateral projections embracing the coils at intervals on opposite sides, and constructed to leave air-spaces between the plates and free openings at top and bottom for the circulation of the air through the coils. 2nd. The combination with coils A A of plates B B of insulating material having end projections a a, between which to stretch the coils, and intermediate projections b b for supporting the coils between their ends, means for fastening the plates together, to constitute a group or block of plates, and a supporting frame for such group of plates. 3rd. The combination with coils A A of plates B B of insulating material having projections b b, and end projections a a, rods g g passing through the projections to unite the plates, whereby they are protected from contact with the coils, and end frames for supporting the plates. 4th. The combination with coils A A of plates B B of resistant material having projections b b, and end projections a a, rods g g passing through the plates to unite them, and frames C C having seats for the ends of said plates, fastening bolts k k, and an insulating sheet around said plates between the end frames.

No. 55,300. Process of Electrolyzing. (Procédé d'électrolyse.)

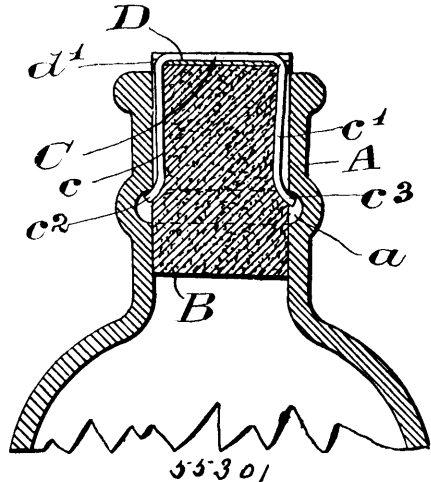


Willy Bein, Berlin, Germany, 18th March, 1897; 6 years. (Filed 15th January, 1896.)

Claim.—1st. A process for electrolyzing chemical combinations and for winning the products of decomposition formed by the

electrolysis, which consists in preserving a zone or layer of indecomposed electrolytic solution as a means of keeping the product of decomposition formed at the anode and cathode separated physically, substantially as described. 2nd. An electrolyzing process, which consists in arranging the electrodes sideward of each other in substantially horizontal plane and in retaining a neutral zone of indecomposed solution between the products of decomposition formed at the anode and cathode, substantially as described. 3rd. An electrolyzing process, which consists in arranging the electrodes sideward of each other, in substantially horizontal planes and in preserving a neutral zone of indecomposed solution between the products of decomposition formed at the electrodes, by adding fresh solution at the said zone in proportion to the decomposition of the same at the zones of contacts between it and the products of decomposition, substantially as described. 4th. An electrolyzing process which consists in arranging the electrodes sideward of each other in substantially horizontal plane and in preserving a neutral zone of indecomposed solution between the products of decomposition formed at the anode and cathode and in allowing the gases to escape from the electrolytic cell without crossing the path of the electric currents, substantially as described. 5th. An electrolytic process which consists in arranging the electrodes sideward of each other in substantially horizontal planes but at varying levels and in preserving a neutral zone of indecomposed solution between the products of decomposition formed at the anode and cathode, substantially as described. 6th. An electrolytic process, which consists in keeping the products of decomposition formed at the anode and cathode physically separated by a layer of indecomposed solution preserving said layer or zone by adding thereto fresh solution in proportion to the decomposition and removal of decomposed products during the process and finally interposing a mechanical partition when the process is to be stopped, substantially as described.

No. 55,301. Bottle Stopper. (Bouchon de bouteille.)



William Miles Fowler, Stamford, Connecticut, U.S.A., 18th March, 1897; 6 years. (Filed 31st July, 1896.)

Claim.—1st. The combination with a stopper, of a fastener engaged with the top of the stopper and provided with branches extending along down the sides of the stopper, the said branches being provided with outwardly extending projections at the sides of the stopper for engaging a recess in the inner wall of the receptacle in which the stopper is employed, substantially as set forth. 2nd. The combination with a stopper, of a cap plate on the outer end of the stopper, a fastening extending across the cap plate and provided with branches extending down the sides of the stopper, the said branches being provided with outwardly turned projections at the side of the stopper for engaging the inner wall of the receptacle in which the stopper is employed, substantially as set forth.

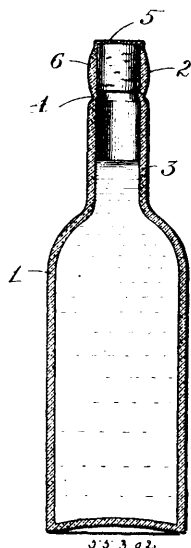
No. 55,302. Non-refillable Bottle.

(Appareil pour empêcher le remplissage des bouteilles.)

Frank Guillemont, Niagara Falls, New York, U.S.A., 18th March, 1897; 6 years. (Filed 29th September, 1896.)

Claim.—1st. A bottle provided with a neck divided into two portions by a surrounding depression, so that the top neck portion may be broken off and a sealing device at the top of the said top neck portion, the said bottle neck portions and sealing device being formed of one and the same piece of material. 2nd. A bottle provided with a neck divided into two parts by a surrounding groove which reduces the thickness of the material at the bottom of said groove, and a thin rim at the top of said neck adapted to be easily fused and turned over upon the bottle stopper, the whole being formed of one integral piece of material, substantially as described. 3rd. A bottle provided with a neck divided into two parts by a surrounding groove, the forming of the said groove contracting the inner circumference of the said neck at that point so as to form a stop for the lower portion

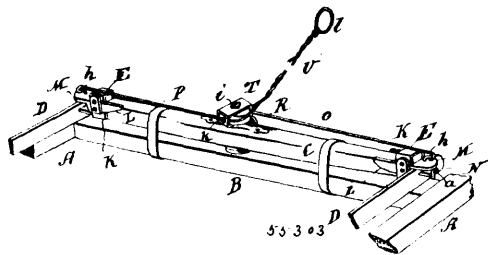
of the cork. 4th. A bottle having its neck divided into two parts by a surrounding groove which reduces the thickness of the material



at the bottom of said groove, and having at its top a thin rim adapted to be easily fused and turned over onto the stopper, for the purposes described. 5th. A bottle provided with a neck having an exterior surrounding groove or depression, and an interior ridge or flange formed therein at one operation while the glass is at white heat.

No. 55,303. Trace-detacher.

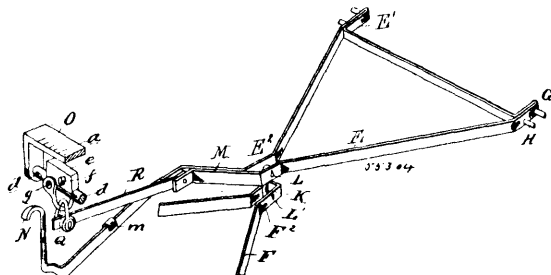
(Appareil à détacher les traits.)



Isadore Vanderbeck and Martile Eugene Vanderbeck, both of Huntsville, Missouri, U.S.A., 18th March, 1897; 6 years. (Filed 10th November, 1896.)

Claim.—A trace-detaching device, consisting of lever-arms having curved or cam edges, a coiled spring, a shaft connecting therewith and operating said spring, and means for coupling the ends of the shafts to the lever-arms, comprising coupling-plates having openings for the ends of the shaft, seats in the upper edges of the arms, and means for securing the plates to the arms, substantially as and for the purpose described.

No. 55,304. Weighing Truck. (Camion à bascule.)

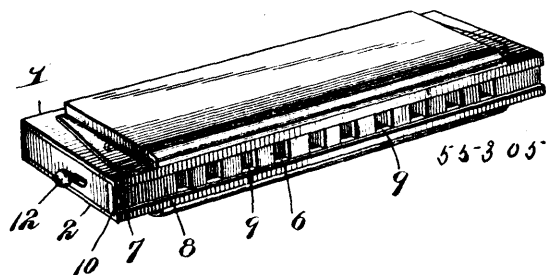


Orlando W. Parsell, Flushing, Michigan, U.S.A., 18th March, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. In a scale, the combination with the beam and the platform of the long lever having an extension to form a handle for raising or lowering the same, a link connected at opposite ends to this lever and to the beam, and means for connecting the lever to the link, for the purpose described. 2nd. In a scale, the combination with the beam and the platform of the long lever, a link connecting said lever with the beam, and a hook for supporting the ever on the link intermediate its ends. 3rd. In a scale, a double

beam comprising a graduated member or bar, brackets or extensions at the ends, a second bar engaged in apertures in the brackets, a fulcrum block attached to this second bar in which the beam rod and fulcrum pivots are secured, and counterbalance and weighing poises on this beam on opposite sides of the fulcrum block. 4th. In a scale, a spring loop for supporting a lever pivot, for the purpose described. 5th. In a scale, a platform pivot loop having a bearing portion formed of a spring arm. 6th. In a scale, a platform pivot loop formed by a single piece bent into loop shape, with unsecured overlapping ends at the bearing portion. 7th. In a scale, a beam fulcrumed intermediate its ends, a trig for locking down one end of the beam, and an elastic stop against which the other end is forced when the trip is thus engaged. 8th. The combination with the beam having extensions on opposite ends thereof, a pivoted locking plate or trig for one extension, means for actuating said plate, a pivoted locking plate for the other extension, cranks on said plates and a link connecting said cranks for operating the second plate, substantially as described. 9th. In a weighing truck, the combination with the beam having nose and butt extensions, brackets into which such projections project, oppositely arranged locking plates or trigs for such extensions, a handle for operating said plate and connected cranks, by means of which such plates are simultaneously actuated in opposite directions. 10th. In a weighing device, the combination with a frame and the beam of a platform, platform levers, a detachable supporting connection between one lever and the beam, supporting pivots for the levers on the frame, platform bearing pivots and bearings adapted to support the levers with the frame and platform pivots free from the bearings when the lever is detached from the beam. 11th. The combination with the platform, and the beam, of a platform lever having the cross-bar F³, the lever E having the arm M, a detachable supporting connection between said lever and beam, and the guide loop r formed in the said cross-bar for guiding and supporting the lever M in its dropped position, substantially as described. 12th. The combination with the platform and the beam, of the two platform levers, one having a guide and supporting loop r, an extension on said other lever working and guided in said guide, adapted to be supported thereby in its dropped position, and having a handle extending beyond the beam, and a detachable supporting connection between the extension and the beam, substantially as described. 13th. In a weighing truck, of a platform lever formed of a metal band bent into substantially triangular shape, the reinforced supporting sections E¹ at the corners formed by bending the metal upon itself, the ends of the band being secured together and the pivot supporting section E² at the inner end. 14th. The combination with the platform and scale beam, of the two triangular platform levers, an extension on one lever projecting beyond the second lever and having a detachable supporting connection with the beam, and a vertical guide bearing for said extension formed on the second lever and forming a support for the latter in its dropped position, substantially as described.

No. 55,305. Mouth Organ. (Harmonica.)



Hugh Paris, Rat Portage, Ontario, Canada, 18th March, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. The combination with a harmonica having chromatically-tuned half-spaced reeds arranged in half-spaced reed cells, of a movable mouthpiece having full-spaced openings adapted to register in either position of the mouthpiece with alternate reed cells, the intermediate parts of the mouthpiece covering the intermediate reed cells, substantially as specified. 2nd. The combination with a chromatically-tuned harmonica having half-spaced reed cells, in each of which is arranged a plurality of reeds, the contiguous degrees of the chromatic scale being arranged in contiguous or different reed cells, while the reeds arranged in the same cell are tuned to sound an interval greater than a semi-tone, of a mouthpiece mounted to slide longitudinally of the reed plates and having full-spaced openings adapted to simultaneously communicate with alternate reed cells, the intermediate reed cells being closed, substantially as specified.

No. 55,306. Art of tawing Hides and Skins.

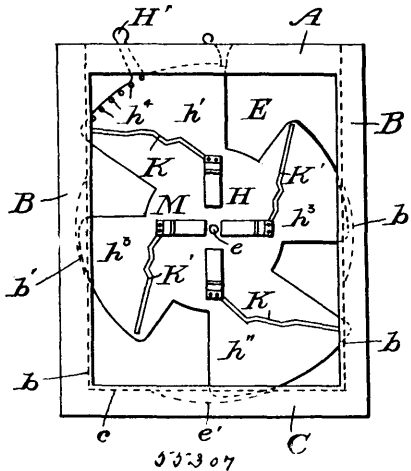
(Art de mégisser les peaux, etc.)

George W. Adler, Philadelphia, Pennsylvania, U.S.A., 18th March, 1897; 6 years. (Filed 22nd December, 1896.)

Claim.—1st. As an improvement in the art of tawing hides and skins, the subjection of the skin to the action of a bath containing

normal chloride of chromium, sulphate of sodium, and an organic acid compound such as a formate or an acetate, admixed, substantially as set forth. 2nd. As an improvement in the art of tawing hides and skins, the submission thereof to a solution derived from an admixture of sodium sulphate and chromic acid, said acid being then reduced in the solution by an organic reducing agent, then neutralized by adding the alkali, and the precipitated chromic compound decomposed and dissolved in the presence of hydrochloric acid then added to the solution containing same, substantially as set forth. 3rd. The process of compounding a tawing liquor, which consists in dissolving potassium or sodium bichromate in an excess of sulphuric acid diluted with two parts by volume of water to one of acid, reducing the solution by sugar or its alcoholic equivalent, then neutralizing and precipitating the same by the addition of carbonate of soda, and finally dissolving the contained precipitate by exhibiting hydrochloric acid thereto, substantially as set forth. 4th. The improved compound for use in the tawing of hides, and skins, prepared substantially as hereinbefore described.

No. 55,307. Plate Holder for Cameras.
(Porte-plaques pour cameras.)



William Henry Morgan, Ottawa, Ontario, Canada, 18th March, 1897; 6 years. (Filed 26th January, 1897.)

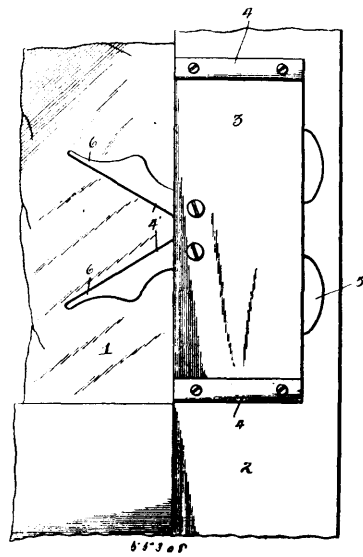
Claim.—1st. A plate holder for photographic cameras, consisting of a frame, having the usual slides, a sheet of metal secured in said frame having slots radiating from the centre and parallel to the sides thereof, grippers adapted to slide in the said slots, a cam pivoted to the centre of the said sheet, a series of zigzag slots in said cam, said slots engaging the said grippers so as to cause them to slide to or from the centre of the frame as the cam is partially revolved, substantially as set forth. 2nd. In a plate holder for photographic cameras, the combination with a sheet of metal secured in the frame, having slots radiating from the centre and parallel to the sides thereof, grippers to hold a sensitized plate adapted to slide in the said slots, of a cam pivoted to the centre of the said plate and adapted to be partially revolved, a series of zigzag cam-slots in said cam intersecting the slots in the before mentioned sheet, the said slots engaging the said grippers and causing them to slide to or from the centre and means for locking the said cam substantially as set forth. 3rd. In a plate holder for photographic cameras, the combination with a sheet of metal E, secured in the frame of the holder, having slots F, F, and G, G, radiating from the centre, a cam H, pivoted to the centre of the said sheet of metal E, and having zigzag cam-slots K, K', of the grippers M, the said grippers consisting of plates N, N', the plates N, having countersunk portions n, adapted to slide in the slots F, F, and G, G, and the plates N', having countersunk portions n', adapted to pass through and be operated by the slots K, K', the plates being secured together through the said countersunk portion n', clips O, secured on the ends of the plates N, N', which are bent over to receive them, substantially as set forth. 4th. In a plate holder for photographic cameras, the combination with the cam H, having a series of perforations in its upper edge, and a handle H', secured to the said upper edge of a catch I, carried by the spring plate 1, and the lever J, substantially as set forth.

No. 55,308. Sash Lock. (*Arrête-croisée.*)

Jacob T. Grubb, Reading, Pennsylvania, U.S.A., 18th March, 1897; 6 years. (Filed 1st February, 1897.)

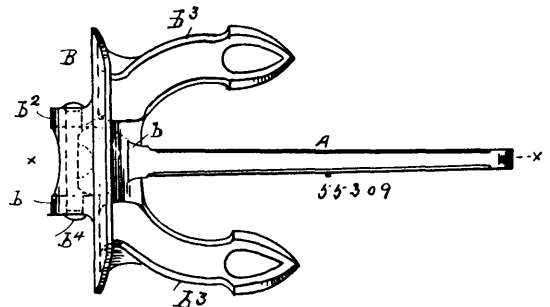
Claim.—1st. In a sash holder, the combination with a casing, of a pair of pivotally mounted spring-actuated clutches, substantially as and for the purpose described. 2nd. In a sash holder, the combination with a casing adapted to be attached to a window sash, of a pair of pivotally mounted spring-actuated clutches adapted to be forced against the window frame, substantially as described. 3rd. In a sash holder, the combination with a casing adapted to be

attached to a window sash, of a pair of angled pivotally mounted clutches provided with cam faces and adapted to bear against the



window frame, finger grips, and a spring normally urging said cam faces to approach each other, and a spring normally urging said cam faces to approach each other, substantially as described.

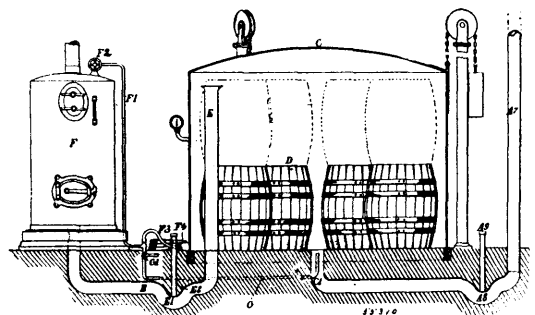
No. 55,309. Anchor. (*Ancre.*)



Frederick Baldt, Chester, Pennsylvania, U.S.A., 18th March, 1897; 6 years. (Filed 4th February, 1897.)

Claim.—In an anchor, a rectangular shank, a ball integral with and on one end of said shank, a groove having a curved bottom formed on the bottom of the said ball, a crown piece having integral flukes, a central longitudinal opening in the fluke side of the crown piece, and a cup-shaped opening on the rear side provided with openings, a pin adapted to pass through said openings and work in the groove in the bottom of the ball.

No. 55,310. Process for Sweetening Barrels, etc.
(Procédé pour adoucir les barils, etc.)

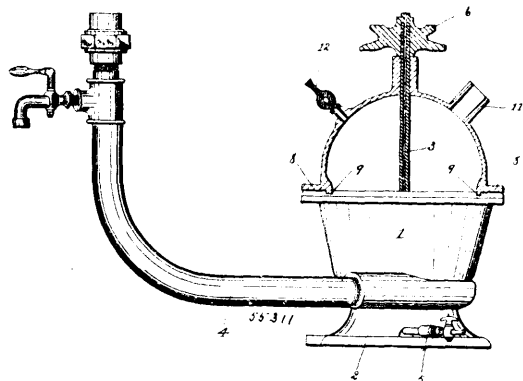


William John Engledec, Petersham Place, Byfleet, and Charles John Yarnold, 64 Upper Yulse Hill, Brighton, both in Surrey, England, 18th March, 1897; 6 years. (Filed 4th February, 1896.)

Claim.—1st. The method of purifying or sweetening barrels or casks by subjecting them to the action of ozone, substantially as specified. 2nd. In carrying out the invention described in claim 1st, the process of purifying or sweetening barrels or casks which have contained alcoholic or malt liquors characterized by first dAMPing the interior of the cask and then subjecting it to the action of

ozone and finally cleansing by steam or hot water, substantially as specified. 3rd. In the purification or sweetening of barrels by ozone, the combination with an air-drying and cleansing chamber A, of a blower G, ozonizer B, and chamber C, with pipe A⁷ communicating between the same, for the purpose set forth. 4th. In the purification or sweetening of barrels by ozone, the combination with an air-drying and cleaning chamber A, of a blower G, ozonizer B, and chamber C, with pipe A⁷ communicating between the same, and a furnace F, with pipe connected to the chamber C, for the purpose set forth. 5th. In the purification or sweetening of barrels by ozone, the combination with an air-drying and cleaning chamber A, of a blower G, ozonizer B, and chamber C, with pipe A⁷ provided with a water seal and communicating between the same, and pipe E, also provided with a water seal and communicating with the ash pit of the furnace F, substantially as specified.

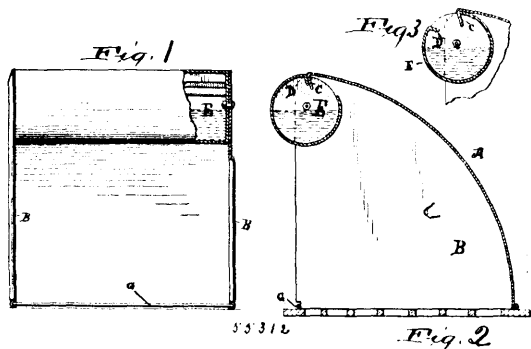
No. 55,311. Pump. (Pompe.)



François Théodore Savoie, Plessisville, Québec, Canada, 18 mars, 1897; 6 ans. (Déposé le 3 février 1897.)

Résumé.—Dans une pompe du type décrit, la combinaison, avec le récipient 1, montée sur sa base 2, pourvue d'une turbine à son intérieur montée sur l'arbre 3 et du tube 4, avec un convert de forme hémisphérique s'adaptant sur le récipient 1 et pourvu des tubes 11 et 12, le tout tel que décrit et pour les fins indiquées.

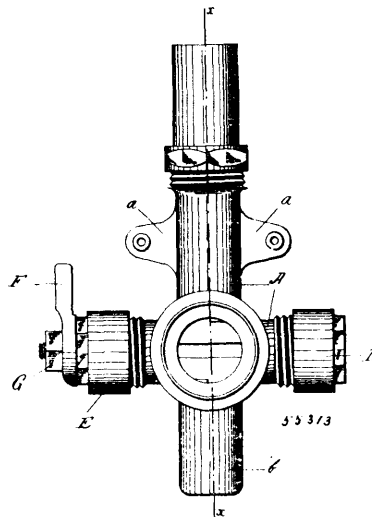
No. 55,312. Hot-Air Deflector. (Déflecteur à air chaud.)



James Rutherford, Joseph E. Rutherford, and Benjamin V. Guitz, all of Akron, Ohio, U.S.A., 18th March, 1897; 6 years. (Filed 5th February, 1897.)

Claim.—1st. In a register attachment, the combination of a shield adapted to receive hot-air from a register, a depending flange attached to the upper end of the shield, and a rotatable water reservoir attached to the shield beneath the flange and also adapted to receive the impurities carried by the air current. 2nd. The combination of the deflector provided with the dependant vertical flange secured at the front of the top thereof and extending within the rotating cylinder or water and dust reservoir, with the rotating cylinder attached beneath and operating, substantially as set forth and described. 3rd. In a hot-air deflector, the combination of the shield, a flange attached to and depending from the top thereof, a reservoir supported on the deflector beneath the flange, the flange attached to the reservoir, and the pivots for supporting the reservoir. 4th. The combination in a hot-air deflector having two side-plates and a curved top, of a double tank hinged to said side-plates and under said top, one of said tanks adapted to contain water when in use and the other tank to catch the dust and impurities, substantially as shown and described.

No. 55,313. Valve. (Soupape.)

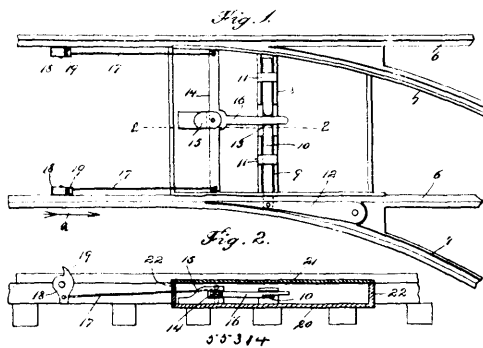


Joseph Roy et Simon Roy, tous deux de Montréal, Québec, Canada, 18 mars 1897; 6 ans. (Déposé le 1er décembre 1896.)

Résumé.— Dans une soupape, la combinaison d'une croix A formée de tuyaux joints à angle droit et pourvue d'ouvertures rectangulaires B¹ à B¹¹ pour le passage de l'eau avec une pièce C convenable pour fermer à volonté l'une ou l'autres des dites ouvertures, et disposée dans la pièce horizontale de la croix dont les extrémités sont fermées de manière à ne pas laisser passer d'eau.

No. 55,314. Switch Operating Device.

(Appareil à actionner les aiguilles de chemin de fer.)

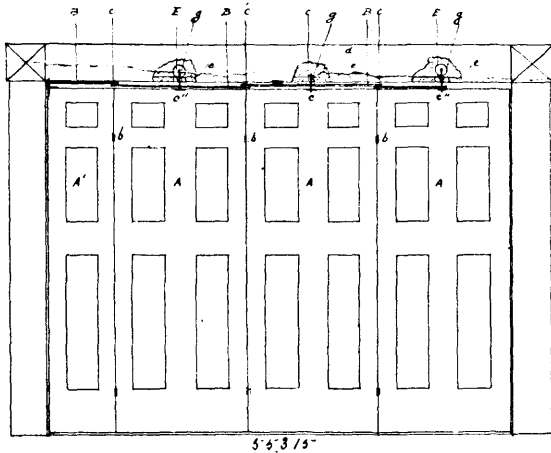


Robert Carleton Hart, New Haven, Connecticut, and Robert Selkirk Field, Brooklyn, New York, U.S.A., 18th March, 1897; 6 years. (Filed 11th February, 1897.)

Claim.—1st. The combination with the switch tongue of a railway switch, of a sliding bar mounted transversely of the track, and pivotally connected therewith, a lever pivotally supported adjacent thereto, and provided with an arm by which said bar is operated, and rods pivotally connected with the ends of said lever and extending along the rails of the track, and pivotally connected with dogs which are adapted to be operated from the platform of a car by devices connected therewith, substantially as shown and described. 2nd. The combination with the switch tongue of a railway switch, of a sliding bar mounted transversely of the track, and pivotally connected therewith, a lever pivotally supported adjacent thereto, and provided with an arm by which said bar is operated, and rods pivotally connected with the ends of said lever, and extending along the rails of the track, and pivotally connected with dogs which are adapted to be operated from the platform of a car by devices connected therewith, consisting of spring operated bolts mounted in the truck of the car at each side thereof, a lever pivoted in front of each of said bolts and adapted to bear thereon rods connected with said levers and extending towards the end of the car, and connected with a lever which is operated from the platform of a car, substantially as shown and described. 3rd. The combination with the switch tongue of a railway switch, of operating devices connected therewith, and adapted to be operated by dogs pivotally supported adjacent to each rail of the main track, and devices connected with a car for operating said dogs, substantially as shown and described. 4th. The combination with the switch tongue of a railway switch, of operating devices connected therewith, and adapted to be operated by dogs pivotally supported adjacent to each rail of the main track, and devices connected with a car for operating said dogs, consisting of spring-supported bolts mounted in each

side of the truck of the car, levers mounted adjacent thereto, and adapted to bear thereon, and rods connected with said levers and adapted to be operated from the platform of the car, substantially as shown and described.

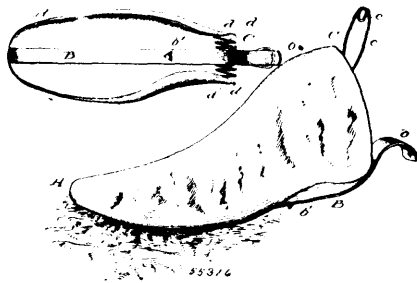
No. 55,315. Folding Door or Partition.
(*Porte pliante ou cloison.*)



Oliver Tiffany Springer, Burlington, Ontario, Canada, 18th March, 1897; 6 years. (Filed 12th February, 1897.)

Claim.—1st. In combination with folding, sliding doors, or movable partitions, of a series of levers jointed together at their ends and each lever pivotally connected to the top middle of each door or section, all constructed substantially as and for the purpose specified. 2nd. In combination with folding, sliding doors or movable partitions, a series of crossed levers or lazy tongs, pivoted to each door and to each other, substantially as and for the purpose specified. 3rd. In combination with folding, sliding doors or movable partitions, of a series of levers jointed together at their outer ends, and each lever pivotally connected to the bottom middle of each door or section.

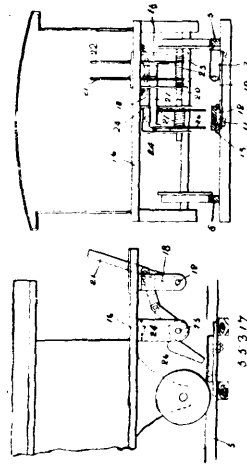
No. 55,316. Display Form for Boots and Shoes.
(*Forme pour chaussures.*)



De Witt C. Lee, Mechanicsville, New York, U.S.A., 19th March, 1897; 6 years. (Filed 6th February, 1897.)

Claim.—1st. As a new article of manufacture, a display form comprising a body, and the elastic spring arranged longitudinally under the body and having a holding tooth or spur at an intermediate point of its length, the front end of said spring attached to the toe portion of the body and the rear end thereof having a finger piece which extends beyond said body, for the purposes described, substantially as set forth. 2nd. A display form comprising a yieldable or expansible shell-like body open at its rear end and a distending or pressing spring situated within the open rear end of the body and attached to the sides or walls thereof, said spring having an upright shank, as and for the purpose described. 3rd. A display form comprising a yieldable or expansible body and a pressure or distending spring connected with said body and provided with a foldable shank, substantially as and for the purposes described. 4th. In a display form, the combination with a yieldable or expansible body, of a spring bent from a piece of wire to produce the duplex coils and the extended shank or arm, said coils being arranged within the open rear end of the body and the shank or arm extending above the body, as and for the purposes described. 5th. In a display form, the combination with a body, of a folding spring, and a distending spring which carries a foldable arm arranged to be reversed and bear or press against the holding spring, substantially as and for the purposes described.

No. 55,317. Railway Switch. (*Aiguille de chemin de fer.*)



George Morris Hibbert, jr., Mountain Top, Pennsylvania, U.S.A., 19th March, 1897; 6 years. (Filed 11th February, 1897.)

Claim.—1st. The combination with the main rails of a railway track, of a pivoted plate mounted longitudinally of the track between said rails, and being wider at one end than at the other, said plate being connected at its wider end with a rod which is pivotally connected with a switch tongue or bar, substantially as shown and described. 2nd. The combination with the main rails of a railway track, of a pivoted plate mounted longitudinally of the track between said rails, and being wider at one end than at the other, said plate being connected at its wider end with a rod which is pivotally connected with a switch tongue or bar, and means connected with the platform of a car for operating said plate, substantially as shown and described. 3rd. The combination with the main rails of a railway track, of a pivoted plate mounted longitudinally of the track, between said rails, and being wider at one end than at the other, said plate being connected at its wider end with a rod which is pivotally connected with the platform of a car for operating said plate, comprising two levers which are pivotally supported below the platform and which extend upwardly there-through, and said levers being pivotally connected with the crank levers which are adapted to operate said pivoted plate, substantially as shown and described.

No. 55,318. Flooring Material. (*Matériel pour planchers.*)

Otto Krauer, Ensisedel, Saxony, Germany, 19th March, 1897; 6 years. (Filed 13th February, 1897.)

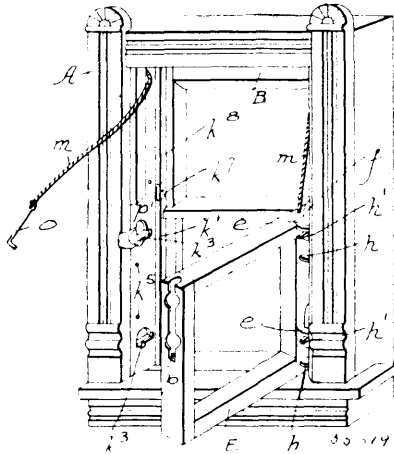
Claim.—1st. The process of producing a material for making floors, plastering, ceilings and the like, which consists in mixing a solution of chloride of magnesium with paper pulp residua, and then adding filling matter, substantially as set forth. 2nd. The process of producing a material for making floors, plastering, ceiling and the like, which consists in mixing a solution of chloride of magnesium with asbestos residua, and the adding filling matter, substantially as described. 3rd. The process of producing a material for making floors, plastering, ceilings and the like, which consists in mixing a solution of chloride of magnesium with paper pulp residua, then adding filling matter, then adding magnesia and then adding water, substantially as set forth. 4th. The process of producing a material for making floors, plastering, ceilings and the like which consists in mixing a solution of chloride of magnesium with asbestos residua, then adding filling matter, then adding carbonate of magnesia and then adding water, substantially as set forth. 5th. The process of producing a material for making floors, plastering ceilings and the like, which consists in mixing a solution of chloride of magnesium with paper pulp residua, then adding filling matter with asbestos residua, then adding filling matter, then adding magnesia and then adding water, substantially as described. 6th. The process of producing a material for making floors, plastering ceilings and the like, which consists in mixing a solution of chloride of magnesium with paper pulp residua, then adding filling matter, then adding carbonate of magnesia and then adding water, substantially as described. 7th. Floors, ceilings, walls, roof and the like made of a material produced by the process described.

No. 55,319. Device for Operating Windows for Cleaning. (*Appareil pour ouvrir les fenêtres.*)

Hiram Taylor, Salem, Ohio, U.S.A., 19th March, 1897; 6 years. (Filed 15th February, 1897.)

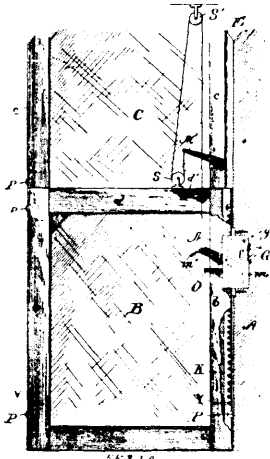
Claim.—1st. The combination of a window frame provided with window sashes, the plates *a*, secured to the window casing and provided with the pins *b*, the flanges *b*¹ and lugs *b*, and the removable window-bead *k*, substantially as and for the purpose specified. 2nd. The combination of a window frame having connected thereto

a bar, slides located upon said bar and hinges connected to the upper and lower sashes, the plates *g*, secured to the window casing and



provided with the pins *f*, the flanges *h'*, and lugs *h*, and the removable window-head *k*, substantially as and for the purpose specified.

No. 55,320. Automatically Locking Sash-holder.
(*Arrête-croisée fermant automatiquement.*)

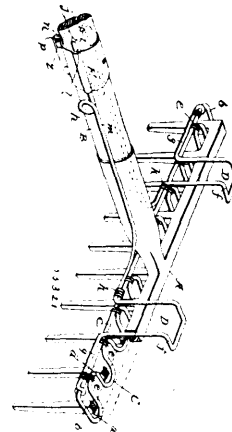


Robert K. Brown, Whitinsville, Mass., U.S.A., 19th March, 1897; 6 years. (Filed 6th February, 1897.)

Claim.—1st. In an automatically locking sash-holder, the combination with the sash with tooth engaging devices thereon, of a spring-actuated plate pivotally supported on the window frame, a tooth carried by and adjustable laterally on the plate and normally in engagement with the side of the sash, with means for pushing the plate inward, to release the tooth from the sash, substantially as described. 2nd. In an automatically locking sash-holder, the combination with the window sash having engaging teeth on its side, of a casing seated in the recess in the window frame, a plate pivotally supported in said casing, at one end and provided with a transverse slot at its free end, a screw-threaded bolt mounted in said slot, a tooth carried by said screw-threaded bolt, a spring normally pressing the free end of the plate outward and the tooth in engagement with the side of the sash, a lever pivoted on the casing having one arm in engagement with the face of the plate and the other arm projecting outwardly from the window frame, substantially as described. 3rd. In an automatically locking sash-holder, the combination with the sash having a locking rack-bar on its side, of a casing seated in a recess in the window-frame, a plate pivotally supported in said casing and carrying at its free end a tooth adjustably mounted thereon, a screw-threaded bolt passing through the face of the casing and the free end of the plate and having a nut on its inner end, with a spring confined between the nut and the end of the plate, and means for pushing the plate inward to disengage the tooth from the side of the window sash, substantially as described. 4th. In an automatically locking sash-holder, the combination with the window-sash, having a locking rack-bar mounted in the side thereof, of a casing having a guide-flange or lip extending from one side in alignment with the box-strip on the window frame and seated in a recess in the window frame, a spring-actuated plate pivotally supported at one end in said casing, a tooth mounted on the free end of the plate and normally in engagement with the rack-bar of the window-sash, a lever fulcrumed on the guide lip of

the casing having one arm engaging the plate and the other arm extending outwardly from the window frame, substantially as described. 5th. In a sash-holder, the combination with the window sash, of a rack-bar having plain end portions provided with segmental cylindrical recesses, and anti-friction rolls journaled in said recesses, with a sheet metal strip enclosing the sides of the end portions of the bar, substantially as described. 6th. In a sash-holder, the combination with the window-sash, of the locking rack-bar having plain end portions provided with segmental cylindrical recesses, anti-friction rolls mounted in said recesses, with a sheet metal casing enclosing the sides of the end portions of the bar, and a staple embracing the rack-bar and fastening the same to the window-sash, substantially as described. 7th. In an automatically locking sash-holder, the combination with the sash, of a plate pivotally supported in a recess in the window-frame, a tooth carried by said plate and normally held in engagement with the side of the sash and locking the same, a lever having one end in contact with said plate and the other end projecting outwardly from the window-frame, pulley or chord guide mounted on the meeting rail of the sash, and a second pulley or guide mounted on the window-frame, with a cord attached to the end of the lever and passing through the pulley or guide on the meeting rail of the sash and over the pulley down to the hand, substantially as described. 8th. As a new article of manufacture, an automatically locking sash-holder consisting of a casing having a flange projecting from one side thereof, and provided with a recess *u* and adapted to be seated within a recess in the window frame, a spring actuated plate pivotally supported between the side walls of said casing, a tooth carried by the free end of said plate and adapted to engage the side of the window-sash when in place, and a lever pivoted in the recess of the flange of the casing and having one arm engaging the plate and the other arm projecting outwardly beyond the flange, substantially as described.

No. 55,321. Rake Attachment. (*Attache de rateau.*)



Andrew C. Baynton, Boise, Idaho, U.S.A., 19th March, 1897; 6 years. (Filed 16th February, 1897.)

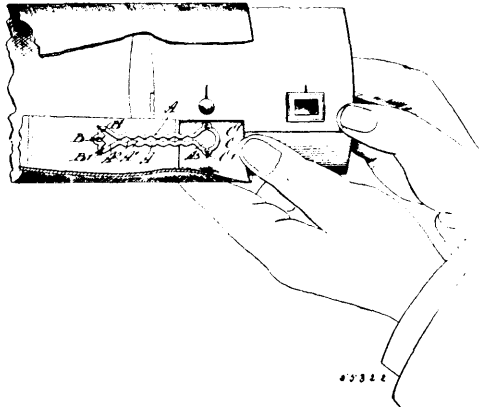
Claim.—1st. The combination of a rake having sockets *j*, in opposite sides of its handle, the band *E*, of sheet metal mounted and secured on the handle and having the opposite grooves *l*, at intermediate points of its length and also having a flange at one end provided with tongues designed to take through the slots of the other flange so as to secure the ends of the band together, a cleaner bar receiving the teeth of the rake, and the spring arms arranged on opposite sides of the rake handle and connected at one end to the cleaner bar and extending through the grooves *l*, of band *E*, and having angular branches at their opposite ends seated in the sockets *j*, of the handle, substantially as specified. 2nd. The rake attachment described, formed of wire and comprising the cleaner bar having the straight portion *e*, adapted to rest on one side of a series of rake teeth, the portion formed integral with the portion *e*, and bent to form the loops *a*, adapted to receive the teeth of a rake, and connections *c*, between the bent portion and the straight portion *e*, at points between the loops *a*, and the bumpers *D*, and spring attaching arms formed by connecting pieces of wire to the straight portion *e*, of the cleaner bar, then carrying said pieces of wire horizontally inward as indicated by *g*, then upwardly and laterally to form the branches *f*, of the bumpers *D*, then downwardly to the plane of the cleaner bar and connecting them again with the portion *e*, and finally carrying them rearwardly in parallel positions so as to enable them to receive a rake handle between them, all substantially as specified.

No. 55,322. Cuff Holder. (*Porte-poignet.*)

Louis Phillip Kleiderer, Henderson, Kentucky, U.S.A., 19th March, 1897; 6 years. (Filed 17th February, 1897.)

Claim. 1st. A cuff holder, having a double wavy shank with loops, eyelets or equivalent attaching devices located at each end of said shank on opposite sides of the longitudinal axis thereof, substantially as described. 2nd. A cuff holder, having a double wavy

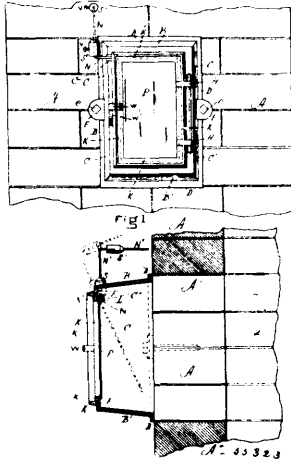
shank with loops, eyelets or equivalent attaching devices located at each end of said shank on opposite sides of the longitudinal axis



thereof, and additional loops or eyelets located upon said longitudinal axis, substantially as described. 3rd. A cuff holder, having a double wavy shank provided at one end with a plurality of loops presenting a leaf-like figure, and at the opposite end with a large central loop having eyes at the sides, substantially as described.

No. 55,323. Chimney and Flue Draft Regulator.

(Régulateur pour le tirage des cheminées.)



Walter Baker Fowler, Lawrence, Mass., U.S.A., 19th March, 1897; 6 years. (Filed 16th February, 1897.)

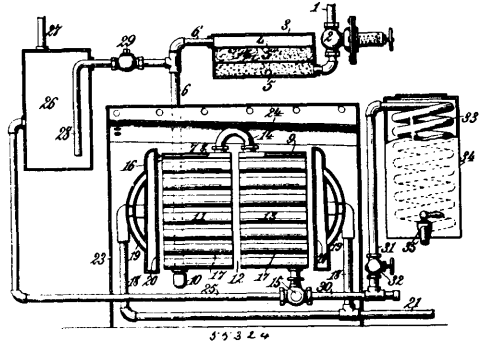
Claim.—In combination with a building chimney or flue provided with a suitable opening in its side leading from the outside thereof to the flue, a frame or case secured to the outside of said chimney coincident with said opening and consisting of top, bottom, and sides with an open front, a plate or valve P hung vertically within the opening in said frame, the horizontal rod N rigidly secured to the upper portion of said plate or valve and extending outward therefrom, said rod being thence bent up into the vertical portion N¹ and thence rearward into the horizontal portion N¹¹, the weight S adjustably secured to said vertical portion N¹, and the weight S¹ adjustably secured to said horizontal portion N¹¹, whereby the external pressure of air may swing said plate or valve inward against the power of the weights and allow the admission of air directly into the chimney, substantially as described.

No. 55,324. Water Heater. (Appareil à chauffer l'eau.)

John Edward Prunty, Baltimore, Maryland, U.S.A., 19th March, 1897; 6 years. (Filed 15th February, 1897.)

Claim.—1st. In a water heater, the combination of an ascending series of shallow and circuitous water circulating and heating passages, receiving water at the bottom, a descending series of shallow and circuitous water circulating and heating passages communicating with the top of the said ascending series to receive water therefrom, the said descending series being provided with an outlet at the bottom, the said two series of water circulating and heating passages being spaced apart to provide a central vertical flue and series of horizontal flues, the Bunsen gas burners arranged in vertical planes opposite each other and at the outer ends of the horizontal flues, and an outer casing, substantially as described. 2nd. In a water heater, the combination of the ascending and descending series of broad and shallow circuitous water heating and circulating passages, the central vertical flue and connected hori-

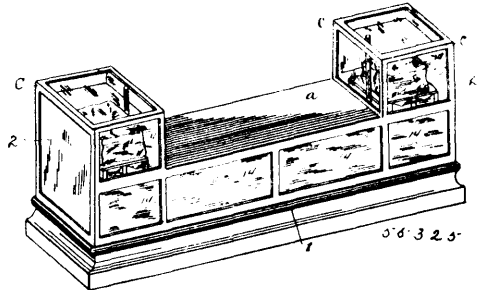
zontal flues, and the Bunsen gas burners located in vertical planes opposite each other at the outer ends of the horizontal flues and



each of said burners connected with its gas supply pipe by a number of branches for distribution of the gas throughout the gas passages of the burner, substantially as described. 3rd. In a water heating and purifying apparatus, the combination of a heater comprising vertical series of shallow and circuitous water heating passages, a filter from which to supply water to said heater, a three-way valve through which water may be drawn off from the heater, and a distributing tank and a water cooling device connecting with said valve, substantially as described. 4th. In a water heating and purifying apparatus, the combination of a heater comprising vertical series of shallow and circuitous water heating passages, a filter from which the heater is supplied with water, a distributing tank supplied with hot water from the heater, and a valved pipe through which said tank may be supplied with water direct from the filter, substantially as described.

No. 55,325. Counter Refrigerator and Show Case.

(Refrigérateur de comptoir et montre à marchandises.)



Hezekiah P. McIntosh, Denver, Colorado, U.S.A., 19th March, 1897; 6 years. (Filed 19th February, 1897.)

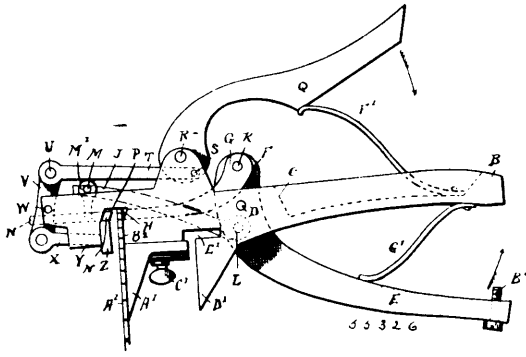
Claim.—1st. A combination counter and refrigerator, embracing a storage chamber, and ice-chambers extending above the same at either end thereof and communicating therewith by suitable air-passages, and a ventilating-tube extending from the upper part of the storage-chamber midway between said air-passages to the open air, substantially as described. 2nd. The combination the storage-chamber of a counter, having double walls and an intermediate air-space and ice-chambers at either end of the counter connecting with the storage chamber of the ventilating-tube extending through the dead-air space at the top of the counter and having a downwardly-extending branch entering the centre of the storage chamber and vertical branches extending through the dead-air spaces of the refrigerating-chambers, substantially as described. 3rd. A combination counter, refrigerator, and show-case, consisting of a counter provided with a cold-storage chamber having non-heat-conducting walls, an ice-chamber having cold air-passages communicating with the bottom of the storage chamber at either end thereof, and a warm-air passage midway between the outlets of said cold-air passages extending from the top of the storage-chamber to the open air, substantially as described.

No. 55,326. Saw Set. (Tourne-à-gauche.)

Harry U. Kistner, Selius Grove, Pennsylvania, U.S.A., 19th March, 1897; 6 years. (Filed 19th February, 1897.)

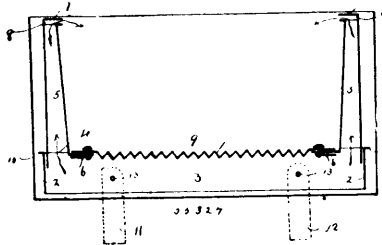
Claim.—1st. In a saw-set, a suitable body portion, levers pivotally mounted thereon, punches suitably guided, connections from above and below the fulcrum of one of said levers to said punches, a jaw against which a saw-blade is adapted to be placed, a plate for holding said blade in position and connections from said plate to the other of said levers, substantially as described. 2nd. In a saw-set, a body portion, having a face against which a saw-blade is adapted to be held, levers pivotally mounted thereon, punches suitably guided and supported, connections from one of said levers to said punches, whereby the latter are caused to move in opposite directions, a plate for holding a saw-blade in position against said face

of said body portion, and connections from said plate to the other of said lever, substantially as described. 3rd. In a saw-set, a body



portion B, the levers Q and E pivoted thereto, the arms G and J having the bevelled ends P and H attached thereto, the plate Z, and means for moving the same toward or away from the body B, in combination with the jaw A', substantially as described. 4th. In a saw-set, a body portion, having the slot E' therein, and a stationary jaw, adjacent thereto, in combination with a reversible jaw, and means for attaching the same to the body of said set, substantially as described. 5th. In a saw-set, a body portion having the slot E' therein, and a stationary jaw adjacent thereto, in combination with a reversible jaw, which latter is adapted to be set either in alignment with a face of said body portion or turned into juxtaposition with said stationary jaw, substantially as described. 6th. In a saw-set, the body portion B, the levers Q and E mounted thereon, springs for holding said levers normally in position, punches suitably guided and supported, connections from one of said levers to said punches, whereby the latter are caused to move in opposite directions, a plate Z for holding a saw-blade in position, a lever V pivotally mounted, connections from said plate to said lever and a link intermediate the latter and said lever Q, substantially as described.

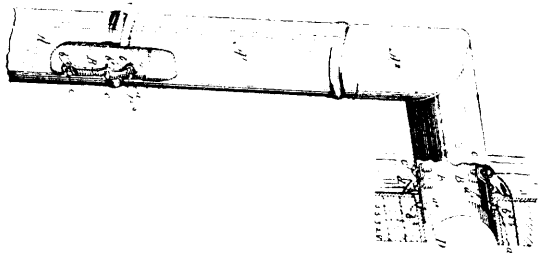
No. 55,327. Washing Machine. (Machine à laver.)



Arthur Hypolite Durand, Montréal, Québec, Canada, 19 mars 1897; 6 ans. (Déposé 12 février 1897.)

Résumé. — Dans une machine à laver, la combinaison d'une lavieuse 1, se plaçant au fond d'une bouilloire, et à laquelle s'adaptent deux tours d'eau 5, dont l'ouverture supérieure laisse échapper une nappe d'eau d'épaisseur variable, tel que décrit précédemment.

No. 55,328. Stovepipe Coupling. (Joint de tuyau de poêle.)

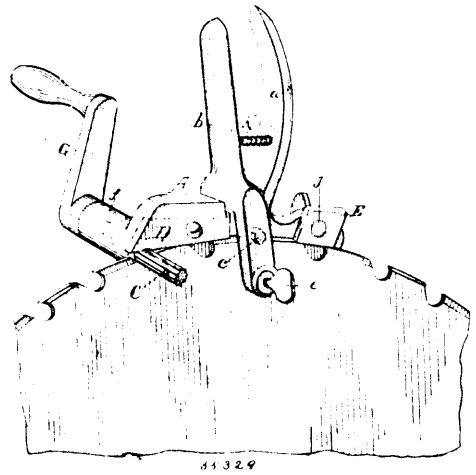


Thomas Holland, Spokane, Washington, U.S.A., 19th March, 1897; 6 years. (Filed 20th February, 1897.)

Claim.—1st. The combination with a pipe section having an aperture in one end, of a coupling plate having a pin near one end registering with said aperture and an off-set opposite end, a screw working through coincident apertures in the adjoined pipe section and said off-set, and a second screw arranged to enter coincident apertures in said latter section and said coupling plate intermediate of its ends, substantially as set forth. 2nd. In a pipe coupling, the coupling plate or bar having an outwardly projecting locking pin at or near its upper end arranged to enter an aperture in the pipe section, and off-set oppositely at its lower end, and adjusting means connected

thereto at said off-set end and a point intermediate of its ends, substantially as set forth. 3rd. In a pipe coupling, the coupling plate provided with outwardly projecting transversely aligned locking pins at its upper end and with an off-set lower end, a screw-threaded aperture being formed in the off-set and in the coupling there beyond, and the adjusting screws entering said apertures, substantially as set forth.

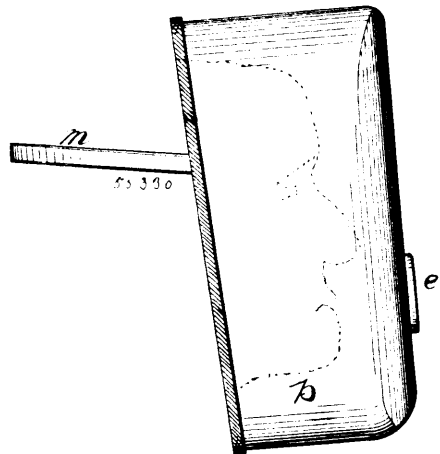
No. 55,329. Saw Sharpener. (Machine à affûter les scies.)



Charles Henry Douglas, Chicago, Illinois, U.S.A., 19th March, 1897; 6 years. (Filed 22nd February, 1897.)

Claim.—1st. In a machine for sharpening the teeth of saws, the combination with the main frame, of the plate D attached thereto and arranged to rest upon the back of a tooth, the cutter C constructed to fit the circularly grooved face or front of the tooth and arranged to act in conjunction with said plate D in removing the metal from the point of the tooth, thus giving the required angle to the point of the tooth, and avoiding the formation of a bur on the cutting-point, and means for keeping the cutting-tool up to its work while in operation, substantially as described. 2nd. In a machine for sharpening saws, the combination with a main frame, of plate D, the cutter C co-operating with said plate, and movable handle b pivoted to the main frame and provided with the forked end, one fork having the projection d and the other the thumb-screw c, substantially as specified and described. 3rd. In a machine for sharpening saws, the combination with the main frame, of plate D, cutter C, movable handle b provided with the clamping device, and the adjustable plate E mounted eccentrically upon the main frame, substantially as described.

No. 55,330. Smoke Protector. (Protecteur pour la fumée.)

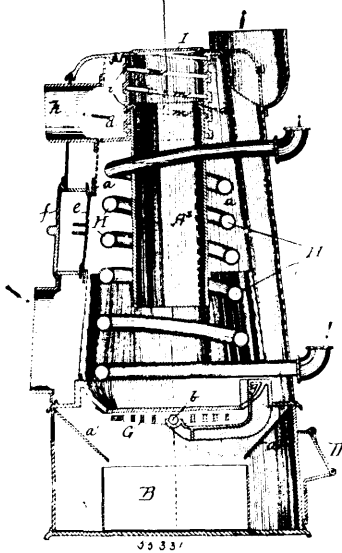


Catherine Anna Augusta Miller, Syracuse, New York, U.S.A., 19th March, 1897; 6 years. (Filed 22nd February, 1897.)

Claim.—1st. In a smoke protector, the frame a, the body b, inclosing the frame and made of some material not affected by heat, combined with a backing h made of a different material, having its inner edges shirred or gathered and provided with an elastic cord or gathering string around its edges, substantially as shown. 2nd. In a smoke protector, the frame a, composed of radiating strips, combined with an inclosing body b made of some material not affected by heat, the window c and the backing h made of a different material from the body and having its edges gathered, substantially

as shown. 3rd. In a smoke protector, the perforated cup or holder *c*, and the supporting frame *a* formed of a series of strips which radiate from the cup and form a support for the inclosing frame *b*, made of some material that is not affected by heat, combined with the frame *b* having the backing *h*, which is gathered around its inner edge, and means for securing the protector to the head, substantially as set forth.

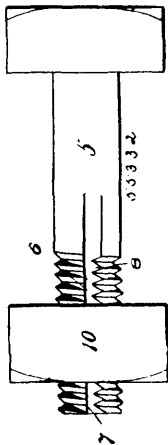
No. 55,331. Furnace for Heating with Hot Water or Steam. (*Fournaise pour chauffer à l'eau chaude et à la vapeur*)



John D. McEachren, Galt, Ontario, Canada, 19th March, 1897; 6 years. (Filed 22nd February, 1897.)

Claim.—1st. The combination with a hot water or steam heater of the adjustable magazine, substantially as set forth. 2nd. The combination with a hot water or steam boiler, of the magazine described, composed of two or more cylindrical or conical tubes, one of which is secured to the top of the boiler, while the other is made to move up and down within or outside of the same and arrange so as to remain adjusted to the required height by means of screw or other suitable device, substantially as and for the purpose set forth.

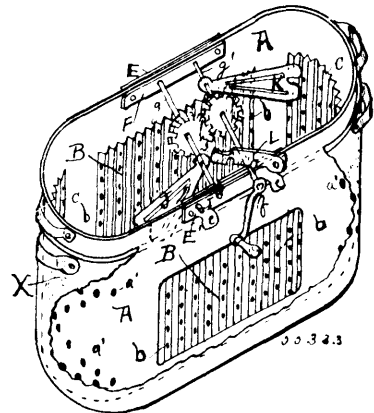
No. 55,332. Nut Lock. (*Arrête-écrou.*)



John B. Guilbeault, Hurdman's Bridge, Ontario, Canada, 19th March, 1897; 6 years. (Filed 22nd February, 1897.)

Claim.—1st. In a nut lock, the combination with a bolt having one or more square-shouldered grooves cut through the threads thereof into the body of the bolt, the said grooves being parallel to the axis of the said bolt, of a nut having a groove formed on the face thereof and tangential to the bolt, the inner end of the said groove being splayed, a spring plate or detent secured in the said groove and adapted to engage the said grooves in the bolt, substantially as set forth and for the purposes described. 2nd. In a nut lock, the combination with the nut 10, having a groove 11 cut in its outer face, of a spring plate or detent 10 secured in the said groove, the pin 13, and tit 15 securing the said detent in the said groove, substantially as set forth and described.

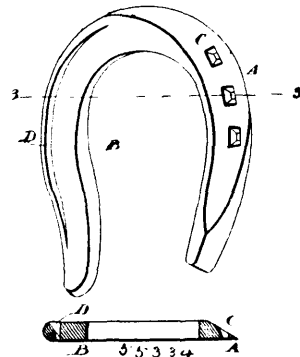
No. 55,333. Washing Machine. (*Machine à laver.*)



David Moore, Chatham, Ontario, Canada, 20th March, 1897; 6 years. (Filed 22nd February, 1897.)

Claim.—1st. In combination with any ordinary wash boiler, the shell *A*, having the perforations and corrugations, substantially as specified. 2nd. In combination with an ordinary wash boiler and shell *A*, having perforation and corrugation, the axles *g* and *g'*, having the pinions *h*, *h'*, the oscillating arms *J* and *K* rigidly secured to said axles, substantially as specified and set forth.

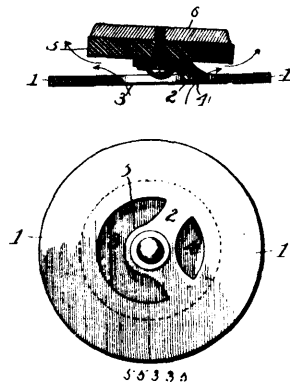
No. 55,334. Horseshoe. (*Fer à cheval.*)



Thomas Chaney Weekes, Hempstead, New York, U.S.A., 20th March, 1897; 6 years. (Filed 22nd February, 1897.)

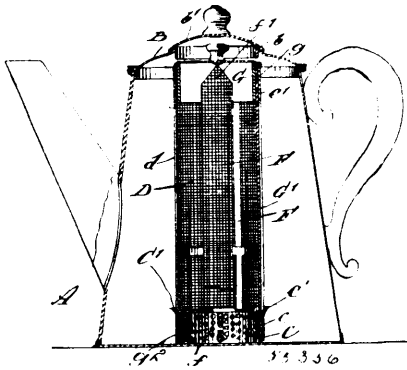
Claim.—As an improved article of manufacture, the herein described horseshoe having its outer limb heavier than its inner limb, and otherwise of usual construction, and having its lighter inner limb beveled between the toe and heel, such bevel running out to nothing on the perimeter, substantially as set forth

No. 55,335. Pump Valve. (*Soupape de pompe.*)



Lester M. Rich, Cedar Rapids, Iowa, U.S.A., 20th March, 1897; 6 years. (Filed 22nd February, 1897.)

Claim.—A pump valve consisting of a disc having a central water passage and two integral radial hinge parts extending into said water passage and dividing the same into the main opening and supplemental opening, the latter being between the hinge parts and the two hinge parts being connected together at the centre of the opening, and a valve secured to the connected parts and normally covering the entire water passage, substantially as described.

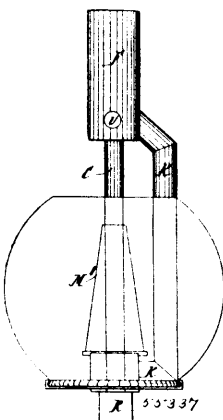
No. 55,336. Coffee Pot. (Cafetière.)

Herbert Nicholson, Sun River, Montana, U.S.A., 20th March, 1897; 6 years. (Filed 22nd February, 1897.)

Claim.—1st. A coffee or tea pot, having a perforated receiving portion, or support in the bottom thereof, a tubular holder formed of wire gauze and detachably held in the said support, and an internal strainer tube located in the said holder, said strainer having its lower end connected to a perforated base portion, the said holder being open at its upper end, and a cap for closing said opening, all arranged substantially as shown and described. 2nd. An improved coffee pot, having a strainer supporting portion in the bottom thereof, strainer device formed of a tubular screen body and adapted to be held in the said support, an outer cage for supporting the said screen body, the lower end of said cage terminating in a perforated rim which fits into the said support, and an inner strainer tube located within the said holder and securely connected at its lower end to a base portion, said base having its sides perforated and fitted into the lower end of said screen body, whereby to hold the screen in an upright position, all arranged substantially as shown and described. 3rd. An improved coffee or tea pot, having a supporting portion, and a straining device detachably held in such support, comprising a screen like holder having a removable cap, and a strainer or fluid disseminating tube held detachably within the holder, substantially as shown and described. 4th. As an improvement in coffee or tea pots, the combination with the pot having a socket at the lower end, and an open framework tube *G*¹ held therein, of a tubular member formed of a screen like body detachably held in the said tube *G*¹ and a straining tube, having a base portion of a diameter to snugly fit the holder all arranged, substantially as shown and for the purpose described. 5th. As an improvement in coffee pots, the combination with the pot having a socket in the bottom and a vertical support detachably held therein, of the screen like tubular holder having a removable cap piece and the strainer tube held in the holder having a base of a diameter to snugly fit the holder, all arranged substantially as shown and described.

No. 55,337. Petroleum Incandescence Burner.

(Brûleur de pétrole.)



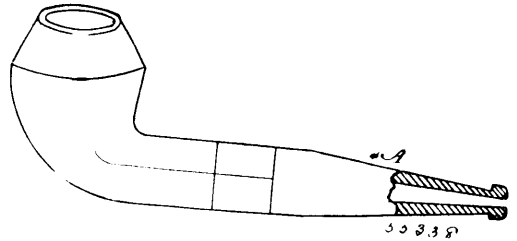
J. Wesley Allison, New York, State of New York, U.S.A., assignee of George Washington, Brussels, Belgium, 20th March, 1897; 6 years. (Filed 31st December, 1896.)

Claim.—1st. A vaporizer, consisting of a straight cylindrical tube of relatively large diameter provided at one end with a detachable nozzle mantle provided with the orifice of escape for the petroleum vapours. 2nd. The combination with a vaporizer, consisting of a straight cylindrical tube having at one end a detachable nozzle, of a regulating arrangement for the escape of the vapours produced therein consisting of a pin movable in the vaporizer and means for

operating the same therein, the parts of the pin submitted to friction being placed in the cold part of the vaporizer. 3rd. In combination with a vaporizer, consisting of a cylindrical tube having a nozzle at one end of a regulating arrangement for the admission of petroleum thereto consisting of a valve, a spring adapted to hold the same open, a diaphragm adapted to restrain the opening of said valve and an exterior lever with eccentric adapted to control said diaphragm, substantially as set forth. 4th. In combination with a vaporizer, of a mixture chamber formed by a metallic receiver closed at one end provided with an interior pipe with lateral branch pipes for the entrance of the air and with an outlet for the mixture, substantially as set forth.

No. 55,338. Attachment to Tobacco Pipes.

(Attache pour pipes à tabac.)



Egerton Hamilton Farley and Frank R. Newberry, both of Hamilton, Ontario, Canada, 20th March, 1897; 6 years. (Filed 22nd January, 1897.)

Claim.—1st. An attachment to tobacco pipes inserted in the mouth piece to diffuse the smoke in the mouth of a smoker in the act of smoking, substantially as described. 2nd. In combination with a tobacco pipe, a smoke diffuser consisting of a head, prongs secured to the head and capable of being inserted in the mouth piece of a pipe in such a manner as to allow the smoke to be withdrawn from the pipe all around the head to prevent burning of the tongue at one point, substantially as described. 3rd. In combination with a tobacco pipe, a smoke diffuser consisting of the head *B*, the prongs *c, c, c*, (more or less) and the absorbent material *d*, all constructed substantially as and for the purpose specified.

No. 55,339. Combined Lighting and Water Conductor.

(Conducteur pour l'eau et paratonnerre combinés.)



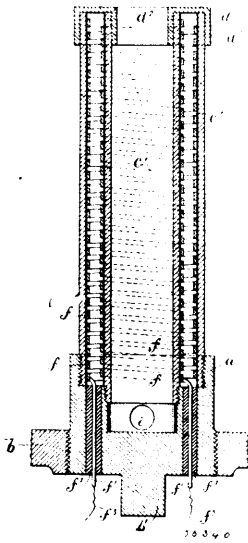
Lawson Adams and Anton Keith, both of Buffalo, New York, U.S.A., 20th March, 1897; 6 years. (Filed 28th December, 1896.)

Claim.—1st. A joint for uniting two sections of the connected adjacent pipes, both open on one side and forming a combined lightning and water conductor, such joint consisting of twin apertured plates having registering surfaces and provided with side apertured lugs for securing the plates together at the registering surfaces, the sides of the plates opposite the registering surfaces being provided with hollow, tapering extensions adapted for union with the ends of the combined lightning and water conductor sections. 2nd. A joint for uniting two sections of the connected adjacent pipes, both open on one side and forming a combined

lightning and water conductor, such joint consisting of twin-apertured plates, having registering surfaces, each provided with a hollow projection extending into a similarly shaped recess in the opposite registering surface and side apertured lugs upon the plates for securing them together at the registering surface, being provided with hollow tapering extensions adapted for union with the ends of the combined lightning and water conductor sections. 3rd. The reservoir for use in connection with the combined lightning and water conductor shown and described, consisting of a cylinder having central openings in its top and bottom, the opening in the bottom being screw-threaded, a tube longer than the reservoir and screw-threaded at its lower end, adapted for insertion through the opening in the top of the cylinder and for screw-threaded engagement with the opening in the bottom of the cylinder, the tube being plugged near its upper end and having outlet orifices above the plug and within the cylinder, and a series of outlet orifices in the side wall of the cylinder adjacent to the orifices in the tube, the projecting ends of which are adapted for union with the combined lightning and water conductor. 4th. The reservoir for use in connection with the combined lightning and water conductor shown and described, consisting of a cylinder having central openings in its top and bottom, the opening in the bottom being screw-threaded, a tube longer than the reservoir and screw-threaded at its lower end, adapted for insertion through the opening in the top of the cylinder and for screw-threaded engagement with the opening in the bottom of the cylinder, the tube being plugged near its upper end and having outlet orifices above the plug and within the cylinder, a series of outlet orifices in the side wall of the cylinder adjacent to the orifices in the tube, the projecting ends of which are adapted for union with the combined lightning and water conductor, and an auxiliary tube with open lower end and removable cap or hood upon its upper end, such tube extending from a point above the surface of the ground and vertically through the reservoir to or adjacent to the bottom thereof, for gauging the depth of water therein or artificially filling the same.

No. 55,340. Electric Heating Apparatus.

(Appareil de chauffage électrique.)

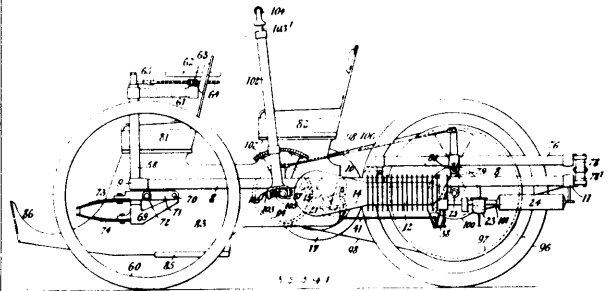


William Rosco Smith, Manchester, New Hampshire, assignee of Arthur Edward Appleyard, Natick, Mass., both in the U.S.A., 20th March, 1897; 6 years. (Filed 15th June, 1896.)

Claim.—1st. An electric heating apparatus comprising a holder or base formed as a plug and provided with means whereby it may be detachably inserted in an orifice in a casing or support, two concentric tubes secured to the inner portion of said holder and separated from each other by an annular space, the outer tube having a diameter less than that of the plug, an electrical resistance in said space, liquid passages at both ends of the inner tube to the space outside of the outer tube and insulated conductors connected with the resistance and extending through the holder, the said tubes, resistance, and conductors being supported entirely by the holder, which detachably secures said parts to the casing or support. 2nd. An electric heating apparatus comprising a screw threaded holder or base formed as a screw threaded plug adapted to be inserted in an orifice in a water receptacle, two concentric tubes detachably secured to the inner portion of the holder and separated by an annular space, the inner tube being open at the end away from the holder and a port or passage through the walls of the device connecting the space in the inner tube with the space outside of the outer tube, whereby water in the boiler is permitted to circulate through the inner tube, an electrical resistance located in said space and insulated conductors connected with said resistance and extending through the holder.

No. 55,341. Self-Propelled Vehicle.

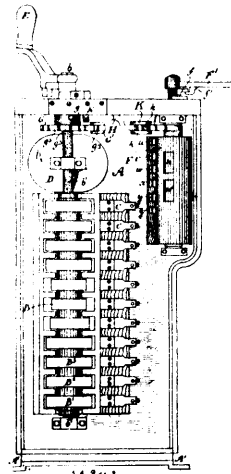
(Voiture à propulsion automatique.)



The British Motor Syndicate, London, England, assignee of Léon Bollée, Le Mans, France, 20th March, 1897; 6 years. (Filed 23rd July, 1896.)

Claim.—1st. A self-propelled vehicle, having the framing of the carriage formed by the longitudinal members, of the framing of the explosion engine, and having the chief arrangements and valve gear, substantially as described and illustrated in the accompanying drawings. 2nd. A self-propelled vehicle fitted with springs and hinged hangers, substantially as described and illustrated in the accompanying drawings. 3rd. In a self-propelled vehicle, the arrangement of a steering hand-wheel supported by the sleeve of the pivot of one of the wheels, to which pivot it is directly connected by a gear or chain, substantially as described and illustrated in the accompanying drawings. 4th. In a self-propelled vehicle, the arrangement of intermediate transmission gears movable laterally in combination with a pulley rotatable with said gears but not movable laterally, substantially as described and illustrated in the accompanying drawings. 5th. In a self-propelled vehicle and particularly in the case of such a vehicle with one or more direct driven wheels, the use of a belt for transmission of power, this belt acting on a large pulley fixed to one or more of these driving wheels, substantially as described and illustrated in the accompanying drawings. 6th. In a self-propelled vehicle, an engaging and disengaging mechanism, the engagement or disengagement being produced by stretching or slackening of a belt by the advance or backward movement of one of the two parallel shafts, and especially of the axle of the driving wheel or wheels, substantially as described and illustrated in the accompanying drawings. 7th. In a self-propelled vehicle, a brake-gear, comprising the movement of the driving wheel or wheels relatively to the rest of the vehicle in combination with brake-parts, a fixed shoe and hand brake, substantially as described and illustrated in the accompanying drawings. 8th. In a self-propelled vehicle, the arrangement of a single lever with an interior axle, the said lever and axle being actuated by means of one handle, in order to produce all the movements of throwing in and out of gear, changing the speed and applying the brake, substantially as described and illustrated in the accompanying drawings. 9th. The combination and arrangement of parts constituting the complete self-propelled vehicle, substantially as described and illustrated in the accompanying drawings.

No. 55,342. Electric Brake. (Frein électrique.)



The Canadian General Electric Co., Toronto, Ontario, Canada, assignee of Frank E. Case, Schenectady, New York, U.S.A., 20th March, 1897; 6 years. (Filed 21st October, 1896.)

Claim.—1st. The means for controlling the current flow in the circuit of an electric braking apparatus supplied from a series motor or motors operated as a generating source by the momentum of a

moving vehicle or load, consisting of means for controlling the excitation of the motor or motors, and thus regulating the amount of current supplied to the circuit. 2nd. The means for controlling the current flow in the circuit of an electric braking apparatus supplied from a motor or motors operated as a generating source by the momentum of a moving vehicle or load, consisting of a shunt around the field magnets of the source of current, and contacts for opening and closing the shunt. 3rd. The means for controlling the current flow in the circuit of an electric braking apparatus supplied from a motor or motors operated as a generating source by the momentum of a moving vehicle or load, consisting of a shunt around the field magnets of the source of current, contacts for opening and closing the shunt, and a resistance included in the circuit. 4th. The means for controlling the current flow in the circuit of an electric braking apparatus supplied from a motor or motors operated as a generating source by the momentum of a moving vehicle or load, consisting of a shunt around the field magnets of the source of current, contacts for opening and closing the shunt, a resistance in the circuit, and means for varying the amount of resistance. 5th. In an electric brake and in combination, a line circuit, motors operating an electrically propelled apparatus, mechanism adapted to open the line circuit, to shunt the field magnets of the motors, to reverse the motors and to include them in a local circuit, substantially as described. 6th. In an electric brake and in combination, a line circuit, motors actuating an electrically driven apparatus, a resistance, mechanism adapted to open the line circuit, to reverse the motors, to include them in a local circuit and to shunt the field magnets of the motors through the resistance. 7th. In an electric brake and in combination, a line circuit, an adjustable resistance, motors operating an electrically driven apparatus, and mechanism adapted to open the line circuit, to reverse the motors, to include them in a local circuit, to shunt the field magnets of the motors through the resistance, and to vary the resistance in the shunt. 8th. In an electric brake and in combination, a line circuit, motors actuating an electrically driven apparatus, a local circuit including a brake magnet, mechanism adapted to open the line circuit, to shunt the field magnets of the motors, and to reverse the motors through the local circuit. 9th. In an electric brake and in combination, a line circuit, motors operating an electrically driven apparatus, a local circuit including a brake magnet, a resistance, and mechanism adapted to open the line circuit, to shunt the field magnets of the motors through the resistance, and reverse the motors through the local circuit. 10th. In an electric brake and in combination, a line circuit, motors operating an electrically driven apparatus, the local circuit including a brake magnet, an adjustable resistance, a mechanism adapted to open the line circuit, to shunt the field magnets of the motor through the adjustable resistance, to reverse the motors in the local circuit, and to vary the resistance in the shunt. 11th. In an electric brake, a motor or motors driving an apparatus, a controller for such motor or motors adapted to break the external circuit, to reverse the current in the motor to regulate its speed, a switch adapted to disconnect the motor from the external source of current and to put it in an open local circuit including the controller and a resistance operated thereby, and a brake magnet in the local circuit, whereby the switch effects the changes in the relation of the motors, the external circuit, and the brake magnet, while the circuit is open, and the controller closes the circuit to reverse the motors and regulate the braking action after the switch is operated, substantially as described. 12th. In an electric brake, a motor or motors driving an apparatus, a controller for the motor or motors including a cutout, a resistance, and a reversing switch, a second switch adapted to break the external circuit and put the motor or motors on local circuit with a brake magnet, and interlocking mechanism between the controller and the switch, whereby either the switch or controller may be operated only when the other is in proper position, substantially as described. 13th. In an electric brake, motors driving an electric car or apparatus, a controller for such motors comprising a resistance and a switch adapted to cut in or out successive sections of resistance to reverse the motors, and to cut off the current, a second switch adapted to disconnect the external circuit and put the motors in a local circuit including the motor-controller, a brake magnet in such circuit, and interlocking mechanism between the switch and the controller, consisting of a stop upon the controller and a lever upon the switch, such mechanism adapted to prevent the motion of the controller while the switch is being thrown, and to prevent the motion of the switch while the current is on.

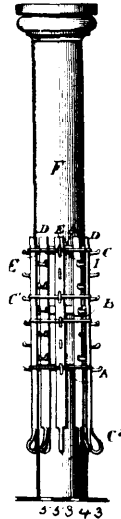
No. 55,343. Display-Rack or Frame.

(*Râtelier-montre ou cadre.*)

William Henderson, assignee of Orson A Morse, both of New York, State of New York, U.S.A., 22nd March, 1897; 6 years. (Filed 16th January, 1897.)

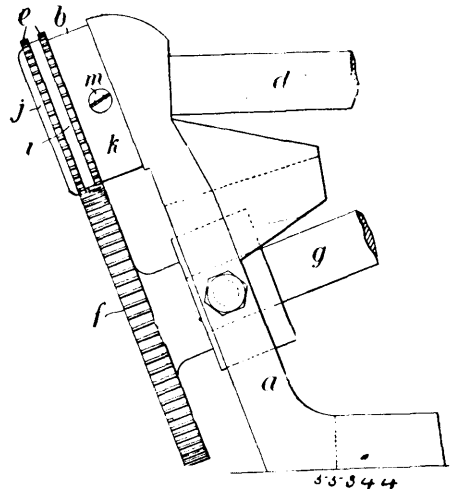
Claim.—1st. The combination in a display-rack or frame, of a plurality of clasp-bands having elastic contractile force sufficient to clamp a post and thereby sustain the frame and its load, attached together by a series of connections presenting projections adapted to engage the articles to be exhibited, substantially as herein specified. 2nd. In a display-rack or frame, the combination of one or more clasp-bands having a series of connecting-wires extending up and down, and intermittently bent horizontally to form projections adapted to engage the articles to be exhibited, substantially as

herein specified. 3rd. In a display-rack or frame, the combination of a plurality of clasp-bands connected together by a series of



rigid and slotted facing-sections, and wires attached to the bands and bent horizontally through the slots to present projections adapted to engage the articles to be displayed, substantially as herein specified. 4th. The combination in a display rack or frame having projections adapted to engage the articles to be exhibited, of a plurality of spring clasp-bands A, A, B, connected together, the bands A, A, having curved bearing-heads, substantially as herein specified. 5th. The combination in a display-rack or frame having projections adapted to engage the articles to be exhibited, of a plurality of spring clasp-bands A, A, including a band B, provided with a connection such as a hook and eye, for holding said band contracted, substantially as herein specified. 6th. The combination in a display-rack or frame having projections adapted to engage the articles to be exhibited, of a plurality of clasp-bands connected together by facing sections D, having liberal intervening spaces and an inner fabric exposed through said spaces, substantially as herein specified.

No. 55,344. Sewing Machine. (*Machine à coudre.*)



The Cattan Patent Sew-Round Machine Syndicate, assignee of Paul Tracy, both of London, England, 22nd March, 1897; 6 years. (Filed 5th November, 1896.)

Claim.—1st. In a sewing machine of the kind described having an inclined work support, a feed movement consisting of a ring or rings having teeth for engaging with the work, the said ring or rings being intermittently rotated, substantially as described. 2nd. In a sewing machine of the kind described, the combination of a hollow inclined work support, a hook or looper working in the said hollow work support and toothed feed ring or rings mounted on the exterior of the said support and driven by means of a gear-wheel, substantially as described. 3rd. In a sewing machine of the kind described having an inclined work support, a feed movement consisting of an oscillating toothed segment projecting through slots in the said inclined work support and receiving vertical and oscillatory movements from suitable cams, substantially as described.

No. 55,345. Life Boat or Float.

(*Bateau de sauvetage ou radeau.*)

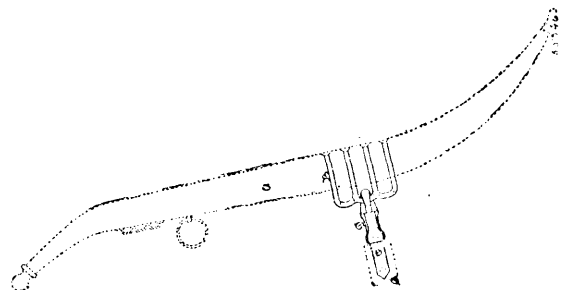


Robert Dimond Mayo, Frankfort, and Donald A. McLeod, Manistee, both in Michigan, U.S.A., 22nd March, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—1st. In a life boat, air supply tubes in communication with the living compartment and in communication with the exterior of the boat, a water reservoir connected with each tube, and valves controlling outlets for air located near the said reservoirs, as and for the purpose specified. 2nd. In a life boat, air-supply pipes or tubes each provided with an inlet near one end in communication with the outside atmosphere, and an outlet near the opposite end in communication with the living compartment of the vessel, and gravity valves located at the outlets of the said supply tubes, substantially as and for the purpose set forth. 3rd. In a life boat having openings in its hull between its air compartments and inner bulkheads, air-supply tubes in communication at one end with the said apertured compartments, the opposite ends of the tubes being in communication with the living compartment of the vessel and provided with a reservoir for water, an outlet for air adjacent to the reservoir, and valves located at the said outlets and adapted to form a partial cover for the reservoir near which they are located, the said valves being further adapted for automatic action, as and for the purpose specified. 4th. A life boat having openings in its hull between its air compartments and inner bulkheads, air-supply tubes in communication at one end with the said air compartments, the opposite ends of the tubes being in communication with the living compartment of the vessel and provided with a reservoir for water, an outlet for air adjacent to the reservoir, valves located at the said outlets and adapted to form a partial cover for the reservoir near which they are located, the said valves being further adapted for automatic action, valves located in the open compartment between the air compartments and inner bulkheads and adapted to close the inlets of the air-supply tubes, and means, substantially as described, for operating the said valves from the living room of the vessel, as and for the purpose specified. 5th. In the construction of life boats, a hull having a keel surrounding the same and provided at each end with an air-tight compartment, inner bulkheads between which the living compartment is located, and valve-controlled air ducts communicating with the living compartment and the space between the air compartment and the inner bulkheads, which space is in communication with the outside atmosphere, as and for the purpose specified. 6th. In the construction of life boats, a hull having a keel surrounding the same and provided at each end with an air-tight compartment, inner bulkheads between which the living compartment is located, valve-controlled air ducts communicating with the living compartment and the space between the air compartment and inner bulkheads, which space is in communication with the outside atmosphere, a water-ballast compartment located in the hull, and a valve controlling the opening in the said hull, the said valve being adapted for the supply of air to the said ballast compartment, as and for the purpose specified. 7th. A life boat provided with a tube extending from its living compartment through the exterior of its hull, adapted to receive a drogue line, as and for the purpose set forth. 8th. In a life boat or float, an interiorly located cage or car having pendulum support, as and for the purpose specified. 9th. In a life boat or float, a car or cage, and bearings supporting the same journalled in supports within the said boat or float, whereby the said car or cage will remain in substantially perpendicular position below its axis, no matter in what direction the hull may roll, as and for the purpose set forth. 10th. In a life boat or float, air inlets or supplies, and

float valves controlling the same, as and for the purpose set forth. 11th. In a life boat or float, a hull provided with a living compartment, air compartments at its ends, and an air supply compartment between the living and air compartments, communicating with the outside atmosphere, and air inlet tubes located in the air-receiving compartments and leading into the living compartment, the hull being adapted to revolve around the said tubes, as and for the purpose specified. 12th. In a life boat or float, a hull provided with a living compartment, air compartments at its ends, and an air-supply compartment between the living and air compartments, communicating with the exterior atmosphere, air-inlet tubes located in the air receiving compartments and leading into the living compartment, the hull being adapted to revolve around said tubes, and a car or cage having a pendulum suspension from the inner ends of the said air inlet tubes, as and for the purpose specified. 13th. In a life boat or float, the combination, with a hull provided with a living compartment, sealed air compartments at its ends, and an air receiving compartment between each sealed compartment and living compartment, the air-receiving compartments being provided with openings extending out through the hull and practically around the same air-supply tubes located in the air-receiving compartments, being passed through the bulkheads thereof into the living compartment, the hull being capable of revolving around the inner portions of the said tubes, and valves operated by the action of the water, located in the said air-receiving compartments and adapted to close or to open the air-supply pipes, as and for the purpose set forth. 14th. In a life boat or float, the combination, with a hull provided with a living compartment, sealed air compartments at its ends, and an air-receiving compartment between each sealed compartment and living compartment, the air-receiving compartments being provided with openings extending out through the hull and practically around the same, air supply tubes located in the air receiving compartments, being passed through the bulkheads thereof into the living compartment, the hull being capable of revolving around the inner portions of said tubes, valves operated by the action of the water, located in the said air-receiving compartments and adapted to close or to open the air supply pipes, a cage or car pendent from and pivotally connected with the inner walls of the said living compartment substantially as and for the purpose set forth. 15th. In a life boat or float, the combination, with a hull provided with a living compartment, sealed air compartments at its ends, and an air-receiving compartment between each sealed compartment and living compartment, the air-receiving compartments being provided with openings extending out through the hull and practically around the same, air supply tubes located in the air receiving compartments, being passed through the bulkheads thereof into the living compartment, the hull being capable of revolving around the inner portions of said tubes, valves operated by the action of the water, located in the said air-receiving compartments and adapted to close or to open the air supply pipes, a cage or car pendent from and pivotally connected with the inner walls of the said living compartment, guides attached to the car or cage, and ball bearings located at the junction of the support of the car or cage with the supports provided for them in the interior of the hull, as and for the purpose specified. 16th. A cat adapted as a life boat, or for submarine purposes, and of substantially cylindrical shape in cross section, having conical ends and a keel extending around the boat from top to bottom in a longitudinal direction, and side keels likewise extending around the hull, connecting with the fore-and-aft keels, as and for the purpose set forth. 17th. A boat comprising an outer body of substantially circular cross section, an inner body freely rotatable therein, and a device for locking the inner body relatively to the outer body, substantially as described. 18th. A boat comprising an outer body, substantially circular in cross section, an inner body freely rotatable therein, air-receiving apertures in the outer body, and a device for so locking the inner body to the outer body that the air receiving openings will be held in an operative position, substantially as described.

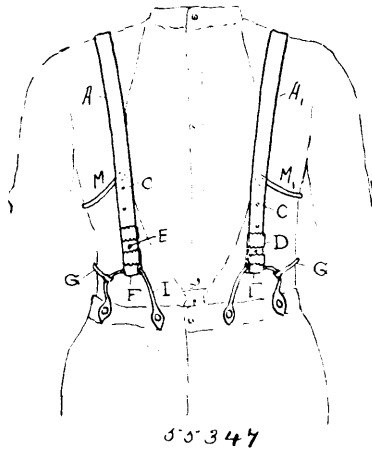
No. 55,346. Tug Snap. (*Mancelle à ressort.*)



James Ingells and Myles Birkett, both of Brantford, Ontario, Canada, 22nd March, 1897; 6 years. (Filed 12th January, 1897.)

Claim.—As an article of manufacture, the combination of a trace or tug with a snap of the construction described, substantially as and for the purpose hereinbefore set forth.

No. 55,347. Shoulder Brace. (Bretelles.)

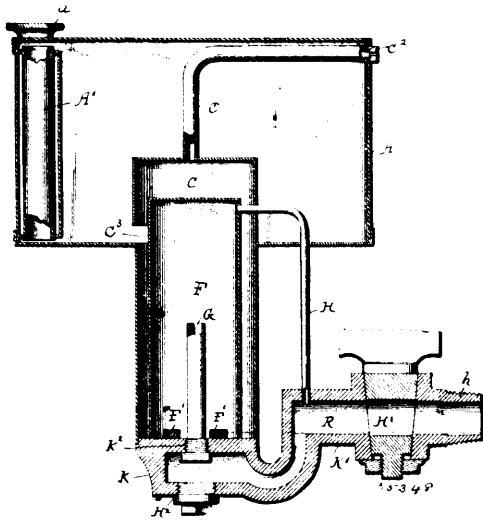


James Ingells and Myles Birkett, both of Brantford, Ontario, Canada, 22nd March, 1897; 6 years. (Filed 30th January, 1897.)

Claim.—As an article of manufacture a shoulder brace comprising, shoulder straps A having eyelet holes C, and passing through buckles D, forming loops F, the ends turned back upon themselves and riveted to buckles D, cross-straps G and M made as described and the elastic lace L all formed arranged and combined, substantially as and for the purpose hereinbefore set forth.

No. 55,348. Injector for Gas Service.

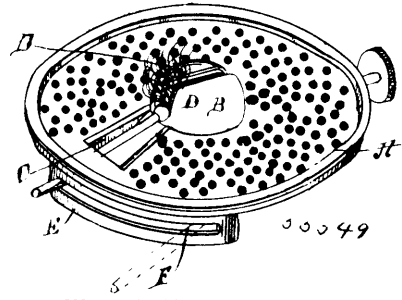
(*Injecteur pour tuyaux à gaz.*)



The Hitchcock Lamp Company, assignee of John W. Bragger, Watertown, New York, U.S.A., 22nd March, 1897; 6 years. (Filed 8th February, 1897.)

Claim.—1st. An injector for gas service pipes, having in combination with the chambers of the injector, a trap having communication with the service pipe and the chambers, substantially as shown and described. 2nd. In an injector for gas service pipes, the combination with the chambers A, C and F as described, of the laterally extending trap on which the chambers are supported, the discharge pipe G, and a pressure pipe H, communicating between the passageway and the upper end of the chamber F, substantially as shown and described. 3rd. In an injector for gas service pipes, the combination with the chambers A, C and F, the base on which the said chambers are supported forming a trap, of a removable discharge pipe G leading into the inner chamber F, and the pressure pipe H leading from the trap to the upper end of the chamber F, substantially as shown and described. 4th. In an injector for gas service pipes, the combination with the chambers A, C and F, communicating through the apertures C¹ and F¹, of the base portion having formed therein a trap, the horizontally extended portion of said base portion carrying a stop-cock, the bottom of the inside of which extension is in a plane below the upper margin of the apertures F¹ at the bottom of chamber F, substantially as shown and for the purpose set forth.

No. 55,349. Lantern Lighter. (Allumoir pour lanternes.)

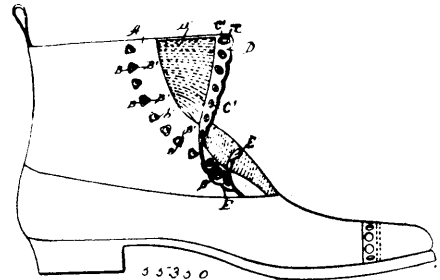


Charles E. Case and Walter F. Shuyter, both of Teuton, Michigan, U.S.A., 22nd March, 1897; 6 years. (Filed 4th February, 1897.)

Claim.—1st. The combination of a burner having an opening leading toward the wick, and an elongated horizontally disposed casing communicating with and extended laterally from the burner opening, said case having an elongated horizontally disposed strike surface, substantially as described. 2nd. The combination of the chimney supporting base provided with a vertical opening, an elongated casing on the under side of the base communicating with said opening, and provided with a longitudinal slot in its front side and the strike surface upon the rear side of the casing, substantially as shown and described. 3rd. The combination of the burner, the chimney supporting base, said base being provided with an opening which communicates with the burner, the casing secured to the under side of the base and communicating with said opening in the base, said casing having the elongated horizontal slot in its front side, and the serrated or roughened surface at the rear of the casing and leading to the opening in the base, substantially as shown and described. 4th. The combination of a burner having an opening leading to a point adjacent the wick, the elongated casing secured to the under side of the burner and at one end communicating with the burner opening and extended laterally therefrom, the front of said case formed with the elongated slot through which the match is adapted to move, and the scratcher formed by roughening the inner rear wall of the case, substantially as shown and described.

No. 55,350. Fastener for Boots and Shoes.

(*Attache pour chaussures.*)

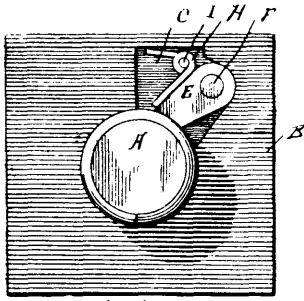


Walter V. Thompson, Albert E. Robinson and Joseph C. Robinson, all of Seattle, Washington, U.S.A., 22nd March, 1897; 6 years. (Filed 19th February, 1897.)

Claim.—1st. The combination set forth of the upper member provided with the metallic eyelet, the independent stiffening-loop arranged encircling the eyelet and extending outward close to the edge of the upper member and thence extending along approximately parallel with such edge, and the covering fastened upon the upper member and arranged to cover the stiffening members and the eyelet. 2nd. The combination set forth of the base member having the stud fixed thereto, the upper member provided with the opening larger than the barrel of the eyelet, the eyelet having the side wall of its barrel provided with the opening therein and arranged in the opening in the upper member, the spring, chambered within the opening in the upper member and arranged to project through the opening in the barrel and to engage the stud when the stud is inserted in the barrel, said eyelet being provided with prongs adapted to enter the upper member and to hold the eyelet rigidly in position with relation to the upper member. 3rd. The combination set forth of the base member having the stud attached thereto, the upper member provided with the opening larger than the barrel of the eyelet, the eyelet, comprising a base having prongs adapted to be clenched upon the upper member, a barrel having slotted sides, and the upper member or cap of the eyelet adapted to fit upon the upper end of the barrel and to be secured thereto, and the spring arranged within the chamber in the upper member and having its side members projecting through the slots in the barrel and adapted to engage the stud when the stud is inserted into the barrel. 4th. In combination, the stud, the eyelet having its side wall provided with the opening, and its front wall provided with a shoulder arranged to engage and support the stud when the stud is in place in the barrel, and the spring arranged projecting through the opening in the barrel

and to engage the stud. 5th. In combination, the base or under member provided with the studs, the upper or overlapping member provided with the clasp-cyclets arranged to chamber the studs, the independent stiffeners, each arranged surrounding an cyclet, and each having its outer end bent downward to hold the edge of the upper member firmly and smoothly down upon the base member, and the projecting strip secured upon the upper member to cover and hold the stiffeners in position. 6th. The combination set forth of the base member provided with the stud, the upper member, the cyclet secured to the upper member, having the side walls of its barrel slotted and its front wall provided with the shoulder arranged to engage the stud when the stud is in place in the barrel, the spring arranged to project through the slots in the barrel and to engage the stud, and the elastic inserted in the upper member and arranged to draw the shoulder of the cyclet into engagement with the stud.

No. 55,351. Nut Lock. (*Arrête-écrou.*)

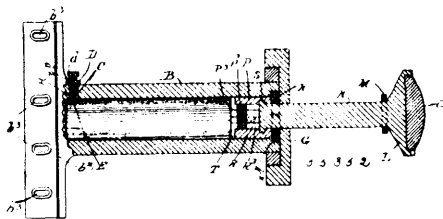


James M. Thompson and Frank W. Austin, both of Burnett, Oklahoma, U.S.A., 22nd March, 1897; 6 years. (Filed 19th February, 1897.)

Claim.—In a nut lock, the combination with a screw-threaded bolt, of a nut thereon, said nut being provided with a recess in one face which leads out from the bolt-opening in the nut, a dog pivoted to the nut and lying in the recess, said dog having its face adjacent to the nut inclined from the pivotal point of the dog to the free end thereof, and said dog being provided with a notch at its end which is adapted to receive one of the screw-threads of the bolt, a pin connected to the nut, and a spring coiled around said pin and having one end abutting on the wall of the recess in the nut, and its other end free end pressing against the dog so as to hold it normally in engagement with the bolt.

No. 55,352. Buffer for Vessels.

(*Tampon de choc pour vaisseaux.*)



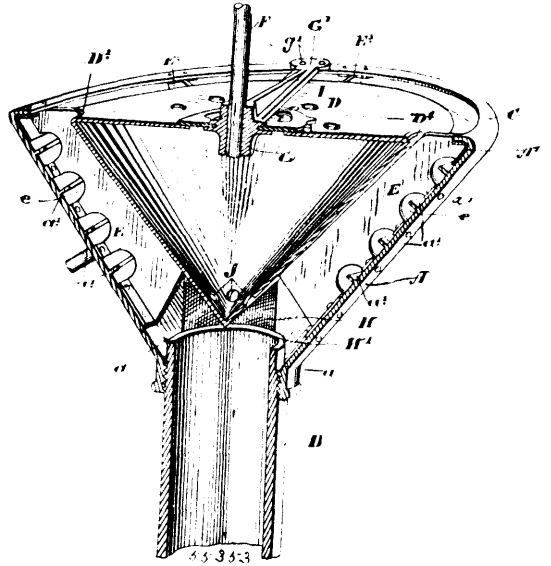
Johan Ciocki, New York, State of New York, U.S.A., 22nd March, 1897; 6 years. (Filed 30th March, 1896.)

Claim.—1st. A vessel provided with a buffer connected with the bow thereof, and which is adapted to receive the force of a blow occasioned by a collision, said buffer being composed of a tube which is connected with the bow of the vessel at one end, and which is closed by a cap at the other, through which passes a shaft the inner end of which is provided with two packing rings, one of which is inclosed within the other, and each of which is composed of separate sections, said packing rings being adapted to be forced inwardly by said shaft and to expand so as to closely pack the tube or cylinder in which they are located, substantially as shown and described. 2nd. A vessel provided with a buffer connected with the bow thereof, and which is adapted to receive the force of a blow occasioned by a collision, said buffer being composed of a tube which is connected with the bow of the vessel at one end, and which is closed by a cap at the other, through which passes a shaft, the inner end of which is provided with two packing rings, one of which is inclosed within the other, and each of which is composed of separate sections, said packing rings being adapted to be forced inwardly by said shaft and to expand so as to closely pack the tube or cylinder in which they are located, and said shaft being provided at its outer end with a head, and a buffer head mounted thereon, which is composed of soft copper, and with a washer or bushing ring is mounted thereon between said buffer head and the head of the cylinder, substantially as shown and described. 3rd. A vessel provided with a buffer connected with the bow thereof, and which is adapted to receive the force of a blow occasioned by a collision,

said buffer being composed of a tube which is connected with the bow of the vessel at one end, and which is closed by a cap at the other, through which passes a shaft, the inner end of which is provided with two packing rings, one of which is inclosed within the other, and each of which is composed of separate sections, said packing rings being adapted to be forced inwardly by said shaft and to expand so as to closely pack the tube or cylinder in which they are located, and said shaft being provided at its outer end with a head, and a buffer head mounted thereon, which is composed of soft copper, and with a washer or bushing ring which is mounted thereon between said buffer head and the head of the cylinder, and said shaft being also provided within the cylinder with a divided packing ring which is also composed of soft copper and which is supported in an annular groove formed in the end of the tube or cylinder, substantially as shown and described.

No. 55,353. Gold Separating Machine.

(*Machine à séparer l'or.*)

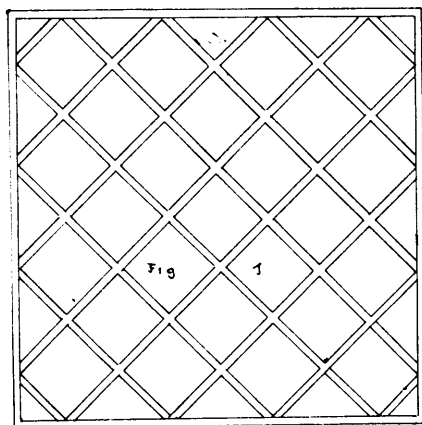


Archibald Francis Perks, Port Hope, Ontario, Canada, and Warren Sullivan, Alma, Michigan, U.S.A., 22nd March, 1897; 6 years. (Filed 9th February, 1897.)

Claim.—1st. A gold separating machine comprising an upper casing, cylindrical intake pipe at the bottom thereof, a plurality of wings within the casing extending inwardly, a supplemental casing located and supported within the outer casing and forming an inner bounding end for the wings and an annular outlet at the top of the casing, and a shaft in the centre of the casing and deriving a rotary movement from any suitable source of power, as and for the purpose specified. 2nd. A gold separating machine comprising an upper casing cylindrical intake pipe at the bottom thereof, a plurality of wings within the casing extending inwardly, a supplemental casing located and supporting within the outer casing and forming an inner bounding end for the wings, an annular outlet at the top of the casing and means for rotating the casing, as and for the purpose specified. 3rd. In a gold separating machine, in combination the funnel-shaped casing and intake pipe extending upwardly below the bottom thereof, the receptacle formed in the casing around the top of the intake pipe, the riffles extending around the interior of the funnel-shaped casing, the wings, the centre hollow cone, the annular outlet between the cone and the outer casing and means for securing the cone to the outer casing and means for rotating the casing, as and for the purpose specified. 4th. In a gold separating machine, in combination a funnel-shaped casing and intake pipe extending from the bottom thereof, the riffles extending around the interior of the funnel-shaped casing, the wings, the central hollow cone, the annular outlet between the cone and the outer casing, the inwardly extending flange at the top of the funnel shaped casing and means for rotating the casing, as and for the purpose specified. 5th. In a gold separating machine, in combination a funnel-shaped casing and intake pipe extending from the bottom thereof, the riffles extending around the interior of the funnel-shaped casing, the wings, the centre hollow cone, the annular outlet between the cone and the outer casing, the grooved passageway extending from the apex to the base of the cone, the inwardly extending flange at the top of the funnel-shaped casing and means for securing the cone to the outer casing and means for rotating the casing, as and for the purpose specified. 6th. In a gold separating machine, in combination a funnel-shaped casing and intake pipe extending from the bottom thereof, the riffles extending around the interior of the funnel-shaped casing, the wings, the centre hollow cone, the annular outlet between the cone and the outer casing, the grooved passageways extending from the apex to the base of the cone, the inwardly extending flange at the bottom of

the funnel-shaped casing, the guiding screens at the top of the intake pipe, and means for securing the cone to the outer casing and means for rotating the casing, as and for the purpose specified. 7th. In a gold separating machine, in combination a funnel-shaped casing and intake pipe extending from the bottom thereof, the riffles extending around the interior of the funnel-shaped casing, the wings, the centre hollow cone, the annular outlet between the cone and the outer casing, the inwardly extending flange at the top of the funnel-shaped casing, the copper ring extending around the top of the casing underneath the flange and means for securing the cone to the outer casing and means for rotating the casing, as and for the purpose specified. 8th. In combination the outer casing, the intake pipe, the riffles extending around the interior of the casing, the wings, the openings at the outer edges of the wings, the conical central portion of the casing, the annular outlet formed at the top of the casing and means for securing the cone to the outer casing and means for rotating the casing, as and for the purpose specified. 9th. In combination the outer casing, the intake pipe, the riffles extending around the interior of the casing, the wings, the conical central portion of the casing, the annular outlet formed at the top of the casing, the shaft secured in a suitable sleeve, the arms extending outwardly therefrom and secured to the outer top edge of the casing and means for rotating such shaft, as and for the purpose specified. 10th. In combination the outer casing, the intake pipe, the riffles extending around the interior of the casing, the wings, the conical central portion of the casing, the annular outlet formed at the top of the casing, means for connecting the central portion of the casing to the outer portion and openings in the apex and base of the central cone, as and for the purpose specified.

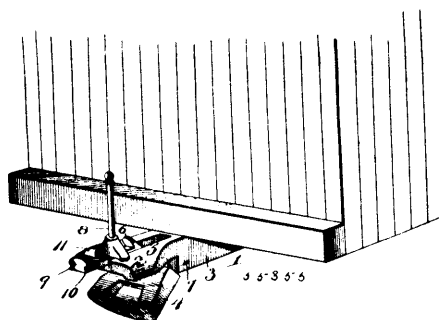
No. 55,354. Tufting Machine. (*Machine à touffes.*)



Alfred Spoffard, Toronto, Ontario, Canada, 22nd March, 1897; 6 years. (Filed 23rd February, 1897.)

Claim.—1st. The use of moulds, either singly or in combination with others, whether similar in size and shape or not, or as may be desired, for the purpose of imparting a corresponding pattern, uniform or otherwise, to the fabric. 2nd. The combination of the cells and the blocks fitting in and secured to the fabric at the edges of the cells and the pressing in of the stuffing or filling by means of the blocks, substantially as set forth herein.

No. 55,355. Car Coupler. (*Attelage de chars.*)

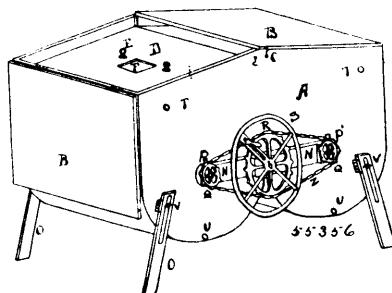


James Paul Johnson and Benjamin F. Whittington, both of Valdosta, Georgia, U.S.A., 22nd March, 1897; 6 years. (Filed 23rd February, 1897.)

Claim.—1st. In a car coupling, the combination of a draw-head, comprising a shank or draw-bar, an upper section rigid with the same, a hinged lower section adapted to swing downward to an inclined position for guiding a link into the draw-head, and a movable pin support engaging the rear position of the hinged section and adapted to swing the same upward to its closed position, said pin

support being arranged to project beyond, the draw-head, when the parts are set for automatic coupling and adapted to be engaged and moved inward by another draw-head whereby the pin is caused to fall and the lower hinged section of the draw-head is returned to its closed position, substantially as described. 2nd. In a car coupling, the combination of a draw-head comprising a shank or draw-bar, a rigid upper section, a hinged lower section provided with an upwardly extending arm, and a slide mounted on the upper section of the draw-head, arranged to engage the arm of the lower section and adapted when drawn outward to form a support for a coupling pin, whereby when it is moved inward, the pin will be caused to fall and the lower section will be returned to its closed position, substantially as described. 3rd. In a car coupling, the combination of a draw-head comprising a shank or draw-bar, a rigid upper section having a longitudinal opening and provided with longitudinal ways a hinged lower section having an upwardly extending arm arranged in said opening, a slide mounted in the said ways, engaging the said arm and provided with a perforation adapted to register with the coupling-pin perforation of the draw-head, and a guide, mounted on the draw-head and adapted to receive a coupling pin, substantially as and for the purpose described.

No. 55,356. Churn. (*Baratte.*)

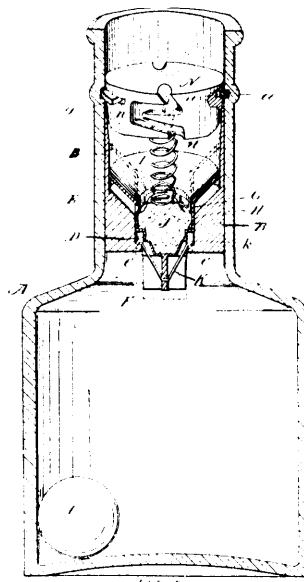


Frank Alexander Stewart, Stratford, Ontario, Canada, 22nd March, 1897; 6 years. (Filed 23rd February, 1897.)

Claim.—1st. The combination of the dashes K, K, K, in the double V-shaped box A and the movable partition G, substantially as and for the purpose hereinbefore set forth. 2nd. The combination with the dashes K, K, K of the chain and sprocket gear composed of the frame N, the sprocket wheels R and Q, Q the fly wheel and crank S, the chain Z, the shafts L, L and the pins P, P, substantially as and for the purpose hereinbefore set forth.

No. 55,357. Non-Refillable Bottle.

(*Appareil pour empêcher le remplissage des bouteilles.*)

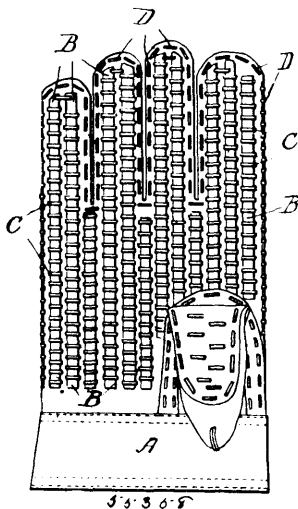


Joseph Joachim Reifgraber, St. Louis, Missouri, U.S.A., 22nd March, 1897; 6 years. (Filed 24th February, 1897.)

Claim.—1st. In a bottle-locking device, a floatable valve, substantially as described. 2nd. In a bottle-locking device, a floatable valve, a catch adapted to support and lock said valve, and a valve seat, substantially as described. 3rd. A non-refillable bottle provided with a valve seat in the neck, having a shoulder, and a socket above said shoulder, a valve having a head normally mounted in said socket, a spring catch secured to said valve and normally sup-

porting the valve midway in said socket and locking said valve by engagement below said shoulder under pressure from without, a ball weight in the bottle to open the valve when reversed, a spring tending to maintain the valve in its normal position, and a perforated plug above the valve, substantially as described. 4th. A non-refillable bottle comprising a bottle neck provided with a valve-seat socket, a stem opening and an enlargement above the socket, a valve having a stem, a head and a guard flange, a spring catch for said valve normally supporting the head of the valve midway in said socket by engagement above the shoulder, and adapted to lock said valve by engagement below said shoulder, a spring for said valve tending to maintain it in normal position, a guard plug having irregular openings and locked in said neck, and an operative weight to open said valve from its normal position when the bottle is reversed. 5th. A non-refillable bottle comprising a bottle neck provided with a sleeve or bushing inserted therein, having a valve seat forming a shoulder and a cylindrical socket above said shoulder, a hollow valve having a head slidable in said socket, a spring catch for said valve engaging above said shoulder in normal position, and adapted to engage below said shoulder in locking position, a cork filling for said valve, a spring tending to maintain the valve in normal position, means to open the valve from normal position, and a guard device to prevent tampering with said valve. 6th. The combination with a non-refillable bottle provided with a valve seat having a shoulder, a socket above the shoulder, and an enlargement above the socket, and a floatable hollow valve having a head normally fitting midway in said socket, provided with openings for the outflow of liquid, a guard flange above said head and a stem below said head, a spring tending to maintain the valve in normal position, an operative weight to open said valve from normal position, means to lock it automatically in fully closed position, and a perforated guard to prevent tampering with said valve. 7th. In a non-refillable bottle, a floatable valve and adjunctive devices operating therewith, substantially as herein shown and described.

No. 55,358. Glove. (Gant.)



Ferdinand Berthieu and Andres G. Hoegren, both of Chicago, Illinois, U.S.A., 22nd March, 1897; 6 years. (Filed 24th February, 1897.)

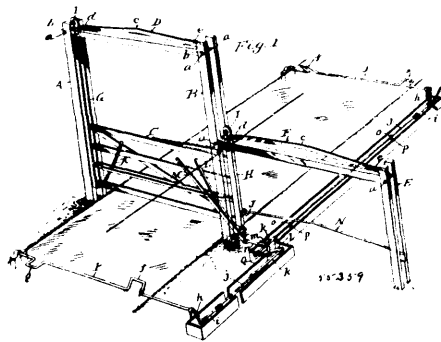
Claim.—1st. A glove having a series of rows of staples secured to the palm and grasping portions of the fingers, strips of rawhide or similar material secured to the gloves by means of said staples, the inner ends of the said staples being passed through and returned on the inside of the glove, substantially as set forth. 2nd. As a new article of manufacture, a glove having its seams secured by wire or other metal staples, substantially as set forth.

No. 55,359. Gate. (Barrière.)

Arthur W. McCurdy, Washington, Columbia, U.S.A., 22nd March, 1897; 6 years. (Filed 25th February, 1897.)

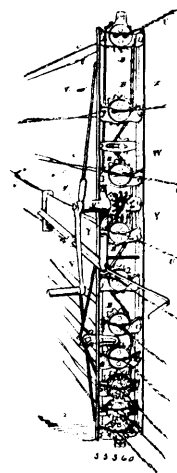
Claim.—1st. In an automatic gate, the combination of suitable posts or uprights, tracks or rails extending between said posts or uprights and inclining downward from a medial point to a point some distance from each end, and thence inclining downward more sharply to the end of the track, and a gate provided with rollers to traverse said tracks. 2nd. In combination with supporting tracks or rails D, F, each inclining downward gradually from a point c to points d and e on opposite sides of point c, and from said points d and e inclining downward more sharply, a gate provided with rollers to traverse said rails, mechanism for moving said gate along its track or rails, and means substantially such as described for actuating said mechanism from a point distant from the gate. 3rd. In combination with tracks or rails D, F, having gradual inclines from their midlength to points some distance from their ends, and

sharper inclines from said points to the ends of the tracks, a gate arranged to traverse said tracks, curved bearing bars carried by said



gate, and a throwing lever arranged to bear against one or another of said bearing bars and thus to move the gate. 4th. In combination with tracks or rails, a gate arranged to traverse said tracks and provided with curved bearing bars, and a throwing lever located between said bearing bars and arranged to bear upon one or the other when the gate is at either extreme of its travel, at a point near the fulcrum of the lever, and to bear upon said bars at progressively higher points as the gate moves from its extreme position in opening or closing, finally parting contact with the bearing bar. 5th. In combination with a longitudinally movable gate provided with bearing bars K and L, an intermediate throwing lever M, arranged substantially as described and shown to bear upon said bars alternately. 6th. In combination with a longitudinally movable gate, bearing bars K and L secured to said gate but separated from each other a considerable distance, and a throwing lever M located between and arranged to act upon said bars alternately, whereby the gate is made free to move a limited distance while the lever remains at rest. 7th. In combination with gate C having rollers I, I, tracks or rails D and F, guide rail N, and a guide block or bar perforated or slotted to permit the passage through it of the guide rail N, whereby the rollers I, I, are kept upon the track rails, and play of the gate is prevented. 8th. A gate rail or track highest at its midlength inclining gradually downward from said highest point to points at some distance from its ends, and thence inclining downward more sharply toward its extremities.

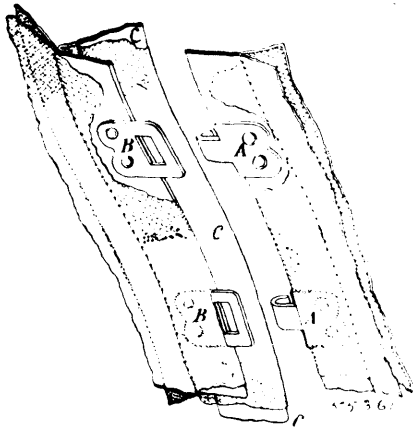
No. 55,360. Spreaders and Twisters for Fence Machines. (Etendeur et tordeur pour machines à clôtures.)



John Lane and Cornelius Lane, both of Holly, Michigan, U.S.A., 22nd March, 1897; 6 years. (Filed 24th February, 1897.)

Claim.—1st. In a spreader and twister for fence machines, the combination of the rotative twisting-wheel, perforated as described, and a pair of grooved friction-wheels seated within the twisting-wheel and provided with conical end bearings. 2nd. In a spreader and twister for fence machines, the combination of the frame, a rotative twisting-wheel provided with a central elongated perforation, and friction-wheels seated to rotate in contact, substantially as described. 3rd. In a spreader and twister for fence machines, a twisting-wheel provided with a central recess adapted to receive the spreading rolls, and the spreading friction rolls provided with conical end bearings, seated in said cavity and adapted to rotate in contact, substantially as described.

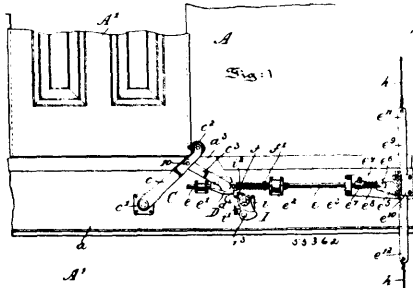
No. 55,361. Means of Lacing Corsets.
(*Système d'agrafage des corsets.*)



Philéas Couët, Québec, Qué., Canada, 22 mars 1897; 6 ans. (Déposé le 22 janvier 1897.)

Résumé.—1^o Dans un corset le système d'agrafage composé d'une porte B et d'une agrafe A. 2^o Dans un corset muni d'un système d'agrafage composé d'une porte B et d'une agrafe A, la combinaison de la sous-patte ou dépassant C, tel que ci-dessus décrit et pour les fins indiquées.

No. 55,362. Safety Locking Devices for Elevators and Elevator Doors. (*Serrure de sûreté pour élévateurs et portes d'élévateurs.*)

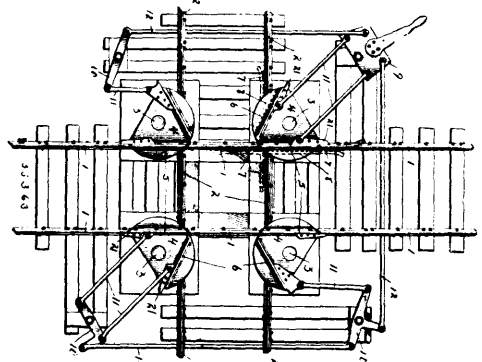


The Conner Elevator Safety Appliance Co., assignee of John D. Conner, both of Philadelphia, Pennsylvania, U.S.A., 23rd March 1897; 6 years. (Filed 25th February, 1897.)

Claim.—1st. In an elevator, the combination with the controlling connection, of a device adapted to engage said controlling connection, a saddle, mechanism controlled by said saddle for operating said device, an elevator shaft door, a lever acted upon by said door, a link pivoted to said lever and resting upon said saddle and adapted to operate said saddle on the opening of the door, substantially as and for the purposes described. 2nd. In an elevator, the combination with the controlling connection, of a device adapted to engage said controlling connection, a spring, a saddle, mechanism controlled by said saddle for operating said device against the resistance of said spring, an elevator shaft door, a lever acted upon by said door, a link pivoted to said lever and resting upon said saddle and adapted to operate said saddle in the opening of the door, substantially as and for the purposes described. 3rd. In an elevator, the combination with the controlling connection, of a device adapted to engage said controlling connection, a rod connected with said device, a spring on said rod adapted to move said device out of engagement with the controlling connection, an elevator shaft door, a lever acted upon by said door and a link connecting said lever and rod, substantially as and for the purposes described. 4th. In an elevator, the combination with the controlling connection, of a device adapted to engage said controlling connection, a rod connected with said device, a spring on said rod adapted to move said device out of engagement with the controlling connection, a saddle secured on said rod, an elevator shaft door, a lever acted upon by said door and a link connecting said lever and saddle, substantially as and for the purposes described. 5th. In an elevator, the combination with the controlling connection, of a rack carried by said controlling connection, a rod, a locking jaw carried by said rod and adapted to engage said rack, a spring on said rod adapted to move the locking jaw out of engagement with the rack, a saddle secured on said rod, an elevator shaft door, a lever acted upon by said door and a link connecting said lever and saddle, substantially as and for the purposes described. 6th. In an elevator, the combination with the controlling connection, of a device adapted to engage said controlling connection, a saddle adapted to operate said device, an elevator shaft door, a lever acted upon by said door and adapted to operate said saddle, a pawl adapted

to lock the saddle to thereby through said lever prevent the movement of the door, a car, and means carried by said car to release the pawl when the car reaches the door, substantially as and for the purposes described. 7th. In an elevator, the combination with the controlling connection, of a device adapted to engage said controlling connection, a saddle adapted to operate said device, an offset formed on said saddle, an elevator shaft door, a lever acted upon by said door and adapted to operate said saddle, a pawl adapted to engage the offset to lock the saddle from movement and to thereby through said lever prevent the movement of the door, a car, an incline or cam carried thereby and a projection formed on said pawl and adapted to ride on said incline or cam to thereby retract the pawl from said offset, substantially as and for the purposes described.

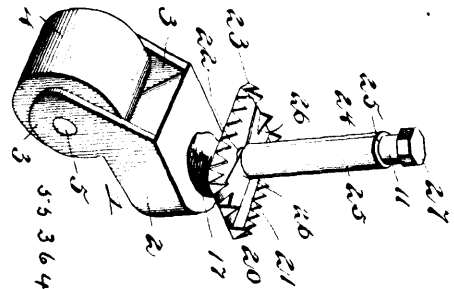
No. 55,363. Railroad Crossing. (*Passage de chemin de fer.*)



William H. Johnson, Veedersburg, and Stephen Fry, Attica, both in Indiana, U.S.A., 23rd March, 1897; 6 years. (Filed 25th February, 1897.)

Claim.—1st. In a railway crossing, the combination of turntables mounted at the intersections of the main-rails of the crossing tracks and each provided with two rail-sections, and means for turning said tables so as to bring the rail-sections into line with the main-rails of their respective tracks. 2nd. In a railroad crossing, the combination of the turn-table mounted at the intersections of the main-rails of the crossing tracks and each provided with two rail-sections, the pivot of said tables being located between the rail-sections and eccentrically with relation to the main-rails of the track, and means for turning said tables so as to bring the rail-sections into line with the main-rails of their respective tracks. 3rd. In a railroad crossing, the combination of turn-tables mounted at the intersections of the main-rails of the crossing tracks and each provided with two rail-sections, and means for simultaneously turning said tables so as to bring the rail-sections into line with the main-rails of their respective tracks. 4th. In a railroad crossing, the combination with the main and guard rails thereof, of turntables mounted at the intersections of the main and guard-rails and each provided with two pairs of rail-sections and guard-rail-sections, and means for turning said tables so as to bring the rail-sections and guard-rail-sections into line with the main and guard-rails of their respective tracks. 5th. In a railroad crossing, the combination with the main-rails, of movable sections mounted at the intersections thereof and provided with a pair of rail-sections, and means for moving said movable sections so as to bring the rail-sections into line with the main-rails of their respective tracks. 6th. In a railroad crossing, the combination with the main-rails, of turntables mounted at the intersections thereof and provided with a pair of rail-sections, means for turning said tables so as to bring the rail-sections into line with the main-rails of their respective tracks, an arm carried by said table, and a cam adapted to engage said arm and lift said table from its bed as it passes from one position to the other.

No. 55,364. Caster. (*Roulette de meuble.*)

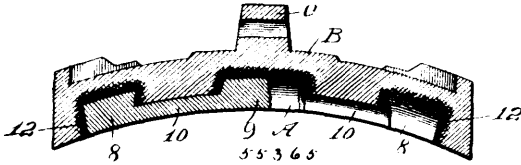


George B. McC. Blue, Traverse, Michigan, U.S.A., 23rd March, 1897; 6 years. (Filed 25th February, 1897.)

Claim.—In a caster, the frame having a wheel journaled therein, said frame being provided with a vertical passage having its upper

and lower ends terminating in bearing-cavities, friction-balls disposed in said bearing-cavities, a vertical pintle disposed in and fitting closely said passage and having its lower end formed with a head surrounding the lower cavity and shaped to fit the balls, and a removable collar secured to said pintle over the upper cavity and also shaped to accommodate and fit the balls, said head and collar being adapted to close said bearing-cavities and retain the friction balls therein, substantially as set forth.

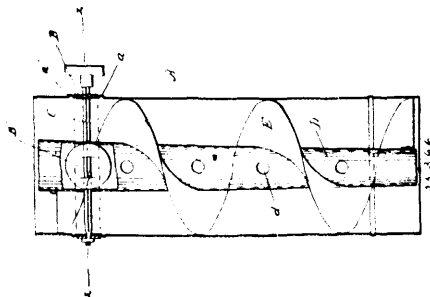
No. 55,365. Brake Shoe. (*Sabot de frein.*)



Martin Olcott, assignee of Eugene Walter, both of Applegate, Corning, New York, U.S.A., 23rd March, 1897; 6 years. (Filed 25th February, 1897.)

Claim.—1st. A composite brake shoe having a single core with a continuous exposed working face having laterally thickened portions and a body cast thereon and inclosing the sides and back of the core, substantially as described. 2nd. A composite brake shoe having a core approximating the length of the face of the shoe and having thickened portions at its middle and ends connected by thinner webs, and a casing or body cast thereon, whereby said casing or body is chilled adjacent to said thickened portions, substantially as described. 3rd. A composite brake shoe comprising a cast metal casing or body and an embedded core provided with thickened central and end portions, rounded upon their embedded portions, and a casing or body cast thereon, substantially as described. 4th. A composite brake shoe having a core formed with a continuous working face of varying width, and a body cast thereon whereby is provided the maximum frictional surfaces and requisite strength and durability, substantially as described. 5th. A composite brake shoe having a body cast upon a core and inclosing said core except the face thereof, and said core having portions thereof thickened both laterally and transversely to the wearing face and said thickened portions being connected by webs or necks of less lateral thickness verse thickness, substantially as described. 6th. A composite brake shoe having a body or casing and a core upon which said body or casing is cast, said core being increased in transverse dimensions adjacent to strong parts of the shoe, whereby increased chilling of the body may be effected at and around such points to provide durability, while in such parts of the shoe as are by its construction weak, said core is restricted in transverse dimensions, so that such portions of the shoe remain unchilled and supply a maximum friction surface and supply the necessary strength in the shoe, substantially as described. 7th. A composite brake shoe consisting of a cast metal body portion and a supplemental block or core having tapered sides and held therein against displacement by drafts, projections or the like, independently of said tapered sides, substantially as described. 8th. A composite brake shoe composed of a main body and a core having tapered sides, and about which said body is cast and to which it is held by projecting parts, such as projections on the core forming anchors in the main body in addition to said tapered sides, the main body having chilled sections along the sides and at the ends of the said core, substantially as and for the purpose set forth. 9th. A composite brake shoe formed of a core of metal having inclined sides, and projections independent of and in addition to the inclined sides, and the body portion of metal of different degrees of hardness, cast about said core and upon said projections in such manner as to practically unite such projections with the body portion, substantially as herein described and for the purposes set forth.

No. 55,366. Damper for Stovepipes.
(*Clé de tuyau de poêle.*)

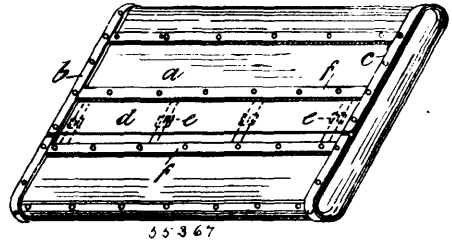


Oliver Stanton Ferguson, Cobourg, Ontario, Canada, 23rd March, 1897; 6 years. (Filed 25th February, 1897.)

Claim.—1st. The combination with a stovepipe provided with circumferential slots, of a band encircling the said pipe and provid-

ed with air holes, a damper spindle passing through the said slots and band and affording a means for turning the band, a central draft pipe, a damper secured on the said spindle and controlling the passage through the said central pipe, and a spiral plate secured around the said central draft pipe, substantially as set forth. 2nd. The combination with a stovepipe provided with circumferential slots, of a perforated and slidable band controlling the said pipe, a damper spindle passing through the said slots and band, a central draft pipe suspended from the said spindle and provided with holes, a damper secured on the said spindle inside the central pipe, and a spiral plate secured to the periphery of the said central pipe, substantially as set forth.

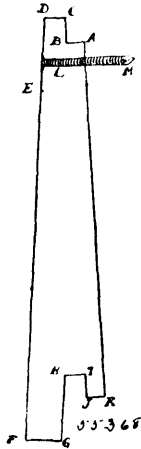
No. 55,367. Feeder for Reapers.
(*Alimentateur pour moissonneuses.*)



Charles Davis Lightband, Christchurch, Canterbury, New Zealand, 23rd March, 1897; 6 years. (Filed 25th February, 1897.)

Claim.—1st. A feeder apron for reapers and binders and the like having a leather band or strap connected to and extending along each of its sides, substantially as and for the purposes herein described and illustrated. 2nd. In a feeder apron, the employment of leather in the construction of the slats which are thereby rendered flexible and unbreakable, substantially as specified and illustrated.

No. 55,368. Manufacture of Boards.
(*Fabrication de planches.*)



Wendell P. Jones, Woodstock, New Brunswick, Canada, 23rd March, 1897; 6 years. (Filed 25th February, 1897.)

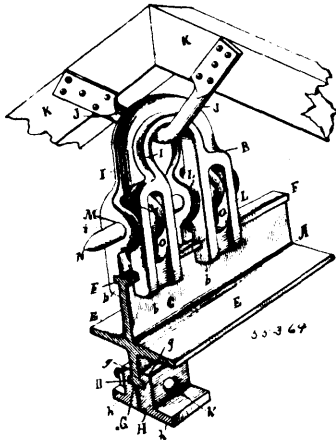
Claim.—The manufacture of boards of all kinds and patterns to be used for the purpose of laying horizontally on the outside of wooden buildings as a finish, which are tongued and rabbeted in such a way, one side of the rabbet G, H (Fig. I) being longer than the other side I, J (Fig. I), that when nailed on the building the nails are not visible, substantially as and for the purposes hereinbefore set forth.

No. 55,369. Hay Carrier Track.
(*Rails pour transport à foin.*)

William Loudon, Fairfield, Iowa, U.S.A., 23rd March, 1897; 6 years. (Filed 25th February, 1897.)

Claim.—1st. A track rail for hay carriers having an upper vertical web adapted for connection with suspending means, a lower vertical web adapted for connection with stop block or knocker, and intermediate horizontal wheel supporting flanges, substantially as described. 2nd. A track rail having an upper vertical web, a lower vertical web and intermediate horizontal wheel supporting flanges, in combination with a track hanger adapted to engage the upper web of the rail, and a stop block or knocker adapted to be secured to the lower web of the rail and to be adjusted thereon independently of the hanger end of the carrier, substantially as set forth. 3rd. A metallic track for a hay carrier, consisting of an upper T head for connecting suspending means, a lower T head for connecting a stop block or knocker, a deep vertical strengthening web and interned-

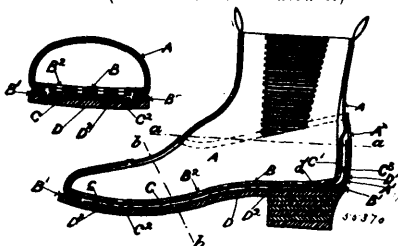
iate horizontal wheel supporting flanges, for the wheels of a hay carrier to run upon substantially as described. 4th. A rail having a



vertical web, an upper head, lower head and intermediate horizontal projecting flanges for a carrier, in combination with a hanger adapted to engage the upper head of the rail, and a stop secured to the lower head of the rail, and adapted to be adjusted thereon independently of the hanger and of the carrier, substantially as set forth. 5th. A track rail having a vertical web, an upper head, a lower head, and intermediate flanges for the carrier wheels to run upon, in combination with suspending means adapted to engage the upper head and a stop block or knocker having upwardly and inwardly projecting flanges adapted to engage the lower head and to be adjustable thereon, substantially as described. 6th. A track hanger comprising two inverted U-shaped members arranged face to face, and adapted to embrace the web of a track rail between their lower ends and means for holding the members in engagement with the web of the rail, substantially as described. 7th. The combination with a track rail and a rafter bracket, of a track hanger comprising two inverted U-shaped members arranged face to face on said rafter bracket, the lower ends of said members embracing the rail between them, and means for securing the members together, substantially as set forth. 8th. A track hanger composed of two separable members located in approximately parallel planes, and constructed at their lower ends to engage the opposite sides of a track rail, one of the members being provided with a lateral projection and the other formed with an opening for said projection and a key for holding the members in engagement with the rail, substantially as described. 9th. A track hanger comprising two separable members, the lower ends of which are adapted to embrace the edge of a track rail, said lower ends being approximately in the same vertical plane with the upper portion of the hanger, the adjacent surfaces of said members being approximately parallel with each other, and adapted to engage each other throughout a portion of their length, and one of the said members being provided with a projection and the other with an opening for said projection and key to enter the projection to secure the members together, substantially as described. 10th. A track hanger comprising two separable members arranged face to face, and adapted to embrace the edge of a track rail between their lower ends, each member being provided with lugs or projections having holes or openings in alignment, and a pin or key adapted to pass through said holes or openings, whereby the two members may be held together and in engagement with the track rail, substantially as set forth.

No. 55,370. Boot and Shoe Ventilation.

(*Ventilation de chaussures.*)



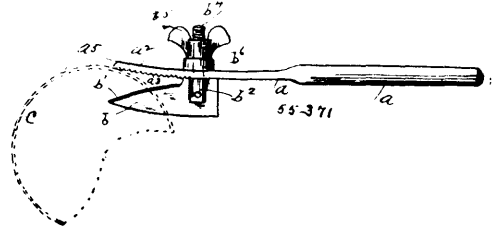
William Owen, Constitution Road, Petersham, New South Wales, 23rd March, 1897; 6 years. (Filed 25th February, 1897.)

Claim.—1st. The improvement in boots and shoes for the purpose of ventilation consisting in the placing between a perforated insole and the outer sole of the two intermediate soles of thin semi-elastic material adapted to be kept at a slight distance apart and to have communication from between them to the outer air, substantially as herein described and explained. 2nd. The intermediate soles for boots and shoes consisting of two thin semi-elastic material sheets or films adapted to be kept slightly apart and having extensions

therefrom curved and bent so as to form passages or ways from between said soles to some distance upwardly, substantially as herein described and explained. 3rd. The particular construction of boots and shoes having ventilating intermediate soles and passages or ways therefrom as herein described and explained and as illustrated in the drawing.

No. 55,371. Can-Opener.

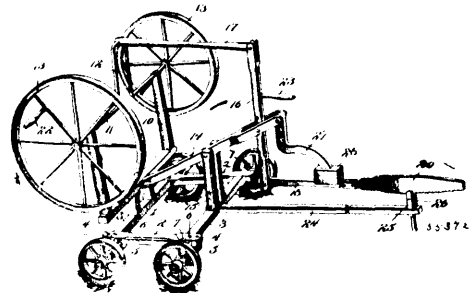
(*Machine pour ouvrir les boites metalliques.*)



Oliver A. Burner, Minneapolis, Minnesota, U.S.A., 23rd March, 1897; 6 years. (Filed 26th February, 1897.)

Claim.—1st. A can-opener, comprising a lever having its fulcrum end curved or bent to one side, and a cutter adapted to be secured to either side of said curved end, for co-operation therewith in the cutting action, substantially as and for the purpose set forth. 2nd. A can-opener, comprising the lever *a* with curved fulcrum end *a*² formed at its extreme end with the sharp biting or fulcrum edge *a*³, and the knife *b* securable to either side of said lever, for co-operation with either the convex surface of said fulcrum end *a*², or with said biting edge *a*³, substantially as and for the purposes set forth. 3rd. A can-opener, comprising the lever *a* with curved fulcrum end *a*² formed at its extreme end with the sharp biting or fulcrum edge *a*³ and guide-lug *a*⁵, and the knife *b* securable to either side of said lever *a* for co-operation either with the convex surface of said fulcrum end or with said biting edge *a*³, substantially as and for the purposes set forth. 4th. In a can opener, the combination with the lever *a*, *a*¹, provided at its intermediate portion with the shank-seat *a*⁶, and at its end with the curved and serrated fulcrum end *a*², *a*³, formed at its extreme end with the biting edge *a*³ and guide-lug *a*⁵, of the knife *b*, the clamp-stud *b*² secured to said knife *b*, and having the shank portion *b*³ working through said shank-seat *a*⁶, and the thumb-nut *b*⁵ working on the screw-threaded end of said stud *b*², substantially as and for the purposes set forth.

No. 55,372. Drag-Saw. (Scie.)



Lewis Johnson, Ruston, Louisiana, U.S.A., [23rd March, 1897; 6 years. (Filed 25th February, 1897.)

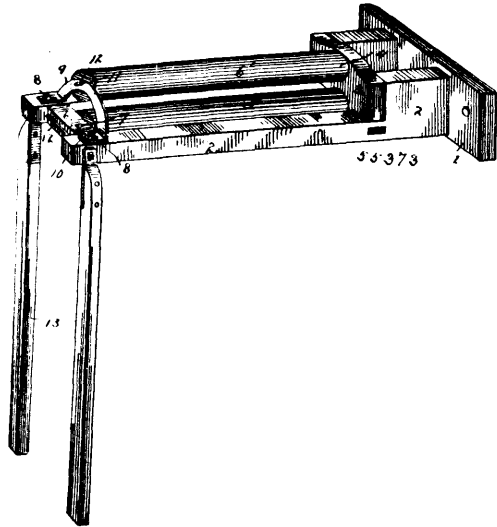
Claim.—1st. In a portable drag-saw, the combination with a truck-frame carrying the saw mechanism, of the carrying-wheels mounted on reversible stub-axes capable of being adjusted longitudinally or transversely of the truck-frame, and a detachable tongue for supporting the saw when not in use, said tongue being provided at its outer end with a supporting-roller and having its inner end removably fitted in the truck-frame whereby it may be removed while the saw is in operation, substantially as described. 2nd. In a portable drag saw, a rectangular truck-frame comprising parallel longitudinal and transverse bars intersecting and crossing each other at the corners of the frame and projecting beyond such corners, each bar having vertical openings in said projecting portions, in combination with stub-axes extending horizontally under the projecting ends of said bars and fulcrumed on vertical axes at the intersection of said bars, carrying-wheels on said axes, and stay-pins removably inserted through said vertical openings in the projecting ends of the bars, said pins also interchangeably engaging the stub-axes for holding the same either longitudinally or transversely of the truck-frame, substantially as described.

No. 55,373. Belt Guide. (Guide de courroie.)

Noah W. Johnson and Henry L. Hunt, both of Padua, Illinois, U. S.A., 23rd March, 1897; 6 years. (Filed 26th February, 1897.)

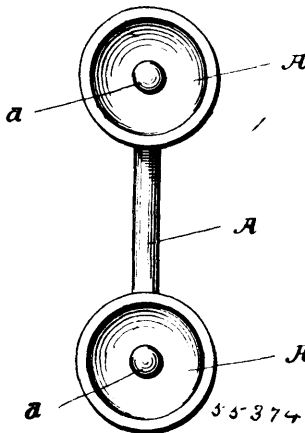
Claim.—1st. In a belt guide, the combination with the plate, the brackets secured thereto, and the struts, of the lower roller jour-

nalled to said struts, the bearing-plate formed with elongated slots, the screw-bolts passing through said slots, the nuts and the upper



roller journalled to one of said struts and to said plate, substantially as described. 2nd. In a belt guide, the combination with the plate, the brackets, the struts and the rollers, of the props pivoted to the outer ends of the brackets, substantially as described. 3rd. In a belt guide, the combination with the plate, the brackets secured thereto, the struts secured to said brackets and the pivoted props for supporting the outer ends of the brackets, of the movable bearing-plate formed with elongated slots, the screw-bolts passing through said brackets and slots, the nuts engaging with said bolts, the lower roller journalled to said struts and the upper roller journalled to said bearing-plate and to one of said struts, substantially as described.

No. 55,374. Button. (Bouton.)



Edward Foster, Montego Bay, Jamaica, West Indies, 23rd March, 1897; 6 years. (Filed 27th February, 1897.)

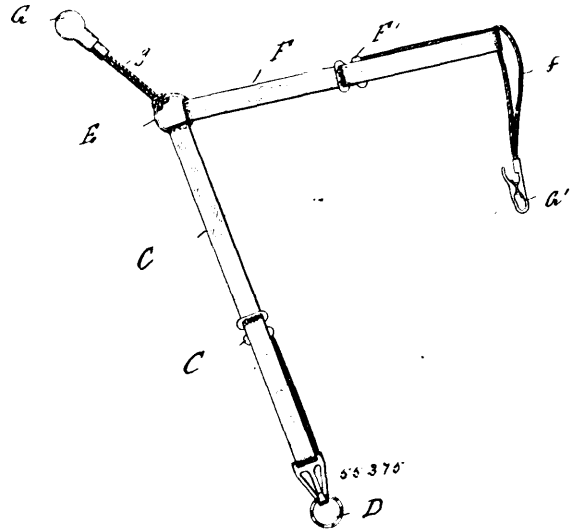
Claim.—1st. A trousers hitch or button, comprising a shackle and a button secured to each end thereof, substantially as described. 2nd. The combination with the shackle adapted for attachment to a suspender brace, of a button secured to each end of said shackle, substantially as described. 3rd. A trousers hitch or button, comprising a shackle and a button secured to each end thereof, and a button-hole protector adapted for use with said button, substantially as described. 4th. The combination with the shackle adapted for attachment to a suspender brace, of a button secured to each end of said shackle, and a button-hole protector consisting of a piece of wire bent between its ends to form a loop and adapted to be sewn to the button-hole between the cloth, substantially as described.

No. 55,375. Skirt Adjuster. (Ajusteur de jupes.)

Nelen Bathia Rennie, Stratford, Ontario, Canada, 23rd March, 1897; 6 years. (Filed 25th February, 1897.)

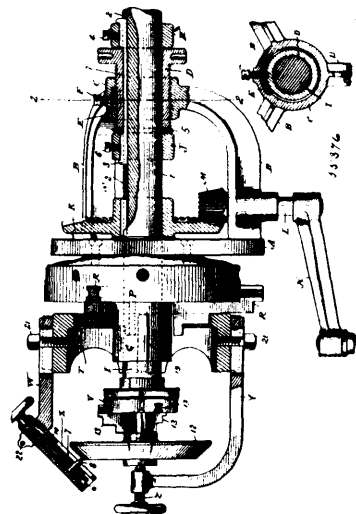
Claim.—1st. In a device of the class specified, the combination of an elastic band provided at one end with means of attachment to a cyclist's boot, and at the other to a front seam of the skirt, an upper elastic band connected to the first-named band near the attaching device for the front seam and provided with means of attachment to a rear seam of the skirt, substantially as described and

specified. 2nd. In a device of the class specified, the combination of an elastic band adjustable as to length and provided at its lower



end, when in operative position, with means of attachment to a cyclist's boot, and at its upper end to the front seam of a skirt, an upper elastic band adjustable as to length and connected to the first-named band near its upper end aforesaid, and provided with means of attachment to a rear seam of the skirt so as to be substantially horizontal when in operative position, substantially as specified. 3rd. A skirt adjuster, comprising the following elements:—the elastic band C, the ring D, the connecting ring E, the upper elastic band F, the spring metal grip G suitably connected to the connecting ring E, and the spring metal grip G' suitably connected to the upper elastic band F, substantially as described and for the purpose specified. 4th. In a device of the class specified, the combination, of the elastic band C adjustable as to length by the buckle C', the ring D at the lower end of the band C, when in operative position, for attachment to the cyclist's boot, the connecting ring E, the spring-metal grip G connected to the connecting ring E by the cord g, for attachment to a front seam of the skirt, the upper elastic band F adjustable as to length by the buckle F', and the spring-metal grip G' connected to the end of the upper elastic band F by the cord f, for attachment to a rear seam of the skirt, substantially as described and for the purpose specified.

No. 55,376. Machine for Repairing Valves and Valve-Seats. (Machine pour réparer les soupapes et siège de soupapes.)



Frank Edward Dexter and the Leavite Machine Co., both of Orange, Massachusetts, U.S.A., 23rd March, 1897; 6 years. (Filed 26th February, 1897.)

Claim.—1st. In a machine for repairing valves and valve-seats, a table having converging arms secured to and extending from one side thereof, an internally screw-threaded hub fixed between the extremities of said arms, and a centrally located sleeve extending from one side of said table in a direction opposite to that of said arms, combined with a longitudinally adjustable sleeve D, screwing

into said hub, a tool and work-carrying shaft having a spline-groove therein extending through said sleeve, a collar adjustably secured on said shaft at each end of said sleeve D, a spline engaging said spline-groove and said adjustable collars, and means for rotating said shaft, substantially as described. 2nd. In a machine for repairing valves and valve-seats, a table having converging arms extending from one side thereof, an internally screw-threaded hub fixed between the extremities of said arms, and a centrally located sleeve extending from one side of said table in a direction opposite to that of said arms, combined with a longitudinally adjustable sleeve D, screwing into said hub, a tool-carrying shaft extending through said two sleeves having a spline-groove therein, a collar adjustably secured on said shaft at each end of said sleeve D, a spline engaging said spline-groove and said adjustable collars, a device-supporting ring connected to said table, a turning tool secured to said ring, and means for imparting a rotary motion to said shaft, and for moving said tool against its work, substantially as set forth. 3rd. In a machine for repairing valves and valve-seats, a table having converging arms extending from one side thereof, an internally screw-threaded hub fixed between the extremities of said arms, combined with a longitudinally adjustable sleeve D, screwing into said hub, a friction shoe in the inner wall of said hub, and means for forcing said shoe against said sleeve, a tool-carrying shaft having a spline-groove therein extending through said sleeve, a collar adjustably secured on said shaft at each end of said sleeve D, a spline engaging said spline-groove and said adjustable collars, and means for rotating said shaft substantially as described. 4th. In a machine for repairing valves and valve-seats, a table having converging arms extending from one side thereof, an internally screw-threaded hub fixed between the extremities of said arms, and a centrally located sleeve extending from one side of said table in a direction opposite to that of said arms, combined with a chuck having radially moving jaws secured under said table, a longitudinally adjustable sleeve D, screwing into said hub, a tool-carrying shaft having a spline-groove therein extending through said two sleeves, a collar adjustably secured on said shaft at each end of said sleeve D, a spline engaging said spline-groove and said adjustable collars, a device-supporting ring T engaged by the jaws of said chuck, the centre-supporting bracket Y attached to said ring having thereon the centre-screw Z, a chuck having radially moving jaws attached to the extremity of said shaft in proximity to said ring, a turning tool secured to said ring, and means for imparting a rotary motion to said shaft, substantially as set forth. 5th. In a machine for repairing valves and valve-seats, a table having converging arms extending from the sides thereof, an internally screw-threaded hub fixed between the extremities of said arms, and the sleeve G fixed to and extending at right angles to the side thereof, combined with a longitudinally adjustable sleeve D, screwing into said hub, a friction shoe in the inner wall of said hub, and means for forcing said shoe against said sleeve, a tool-carrying shaft having a spline-groove therein extending through said sleeves, a collar adjustably secured on said shaft at each end of said sleeve D, a spline engaging said spline-groove and said adjustable collars, means for rotating said shaft and a tool-holder 14, carried thereby, having cutting tools secured thereon, substantially as described. 6th. In a machine for repairing valves and valve seats, a table A having converging arms B and a centrally located sleeve G thereon, combined with a rotatable shaft I, having its bearings between the converging ends of said arms and within said sleeve, a chuck P secured to said table, a device-supporting ring T engaged by said chuck, a support W adjustably attached to said ring T, a tool-case X adjustably attached to said support W, a tool-carrier within said case X, and a tool carried thereby, and means for adjusting said tool-carrier in its support W, and moving said tool independently of said carrier, and for rotating said shaft I, substantially as set forth. 7th. The ring T, the tool-support W attached thereto, the tool-case X held by and longitudinally adjustable in said support, the tool 8, a movable carrier in said case to which said tool is secured, and means for moving said carrier within its case, combined with the shaft I supported to rotate within said ring, a work-holding chuck V carried on said shaft, and means for rotating said shaft, substantially as set forth.

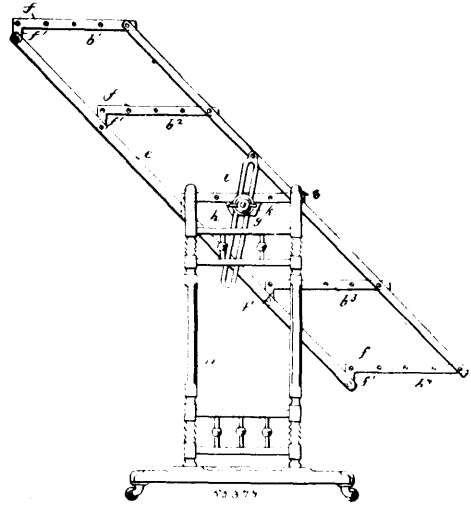
No. 55,377. Convertible Shelf and Table.

(Tablette et table.)

Frank Yesbera, assignee of Anthony J. Jameson, and Joseph Jameson, all of Bryan, Ohio, U.S.A., 23rd March, 1897; 6 years. (Filed 26th February, 1897.)

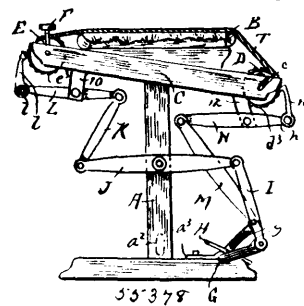
Claim. 1st. A convertible shelf and table comprising a pair of uprights, a shelf rigidly secured between and near the top of said uprights, a pair of bars pivotally secured to each end of said shelf, a series of shelves or leaves pivotally secured to and mounted between said two pairs of bars, a rod loosely mounted beneath and running the length of said fixed shelf, a clamping mechanism at each end of and controlled by said rod, and pivotal connections between said pivoted bars and said clamping mechanisms, substantially as and for the purpose specified. 2nd. In a convertible shelf and table a suitable support, a shelf fixed at the top of said support, a pair of bars pivotally supported at each end of said fixed shelf, a series of shelves pivotally mounted between said two pairs of pivoted bars, a rod loosely mounted beneath and running the length of said fixed shelf, a head upon one end of said rod, a thumb-screw upon the other end

of said rod, a link pivotally secured to one of said pivoted bars and engaged by the head of said rod and a pivoted link secured to an-



other of said pivoted bars and engaged by said thumb-screw, whereby both of said pivoted links are simultaneously clamped by a single operation, substantially as and for the purpose specified.

No. 55,378. Ironing Table. (Table à repasser.)

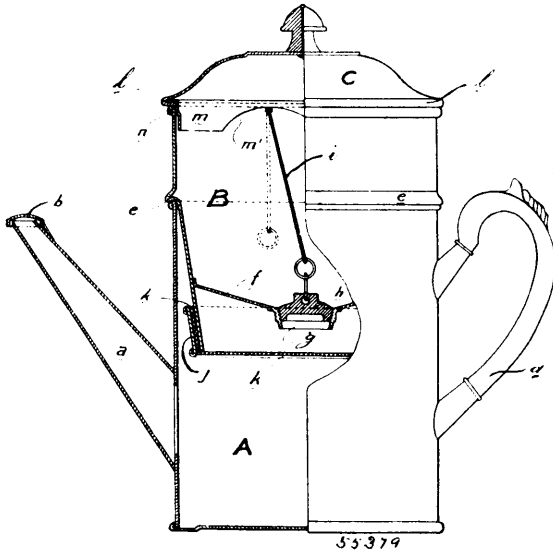


Charles L. Hofwolt, Santa Rosa, California, U.S.A., 23rd March, 1897; 6 years. (Filed 26th February, 1897.)

Claim.—1st. An ironing table consisting of a frame, having a suitable ironing board at its top, a readily removable and transferable roller at one side of the frame on which the article to be ironed is initially wound and from which it is paid out as the work proceeds, a readily removable and transferable roller on the opposite side on which said article is wound as the ironing progresses, and pawls, ratchet wheels and a power device for operating the rollers. 2nd. An ironing table consisting of a frame having a suitable ironing board at its top, a roller on each side of said table adapted to pay out and wind up the article being ironed, over the intervening board, and means for operating said rollers consisting of a rock shaft with a treadle and suitable connections between said shaft and the rollers. 3rd. An ironing table consisting of a frame having a suitable ironing board at its top, a roller on each side of said table adapted to pay out and to wind up the article being ironed, over the intervening board, and means for operating said rollers consisting of a rock shaft with a treadle, and cranks, levers, links, and pawls and ratchet wheels by which the movement of the shaft is transmitted to the rollers. 4th. In an ironing table and in combination with the board thereof, a roller at one side having a ratchet wheel upon its end, a rock shaft with a treadle and a crank, a pivoted lever, a link connecting the crank of the rock shaft with said lever, a second lever, a link connecting the two levers, and a pawl carried by said second lever and engaging the ratchet wheel of the roller. 5th. In an ironing table and in combination with the board thereof, a roller at one side having a ratchet wheel upon its end, a rock shaft with a treadle and a crank, a pivoted lever, a link connecting the crank of the rock shaft with said lever, a second lever, a link connecting the two levers, a pawl carried by said second lever and engaging the ratchet wheel of the roller, and means for holding said pawl out of engagement. 6th. In an ironing table and in combination with its board, a roller at one side thereof having a ratchet wheel upon its end, a rock shaft with a treadle and a crank, a swinging lever having a pawl engaging the ratchet wheel of the roller, and a link connecting the crank with said lever. 7th. An ironing table consisting of a frame having a suitable ironing board, rollers removably mounted in said frame, one on each side of the board, said rollers having means for clamping the end of the article to be ironed, a rock shaft below having a treadle and cranks, swinging levers having connections with said cranks, pawls carried by the levers and ratchet

wheels on the rollers with which said pawls engage whereby the rollers are operated from the rock shaft. 8th. In an ironing table, the combination of a frame, a table top to which the frame ends are hinged whereby they may fold, detachable braces to hold the frame extended, removable rollers for holding the article to be ironed, and separable power transmitting connections to operate the rollers, the whole being arranged and adapted to permit the folding of the device into small compass.

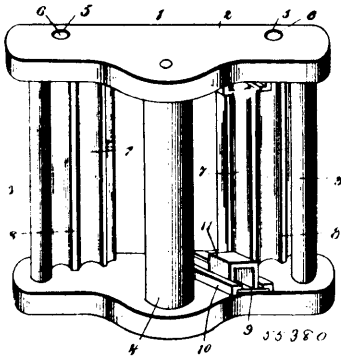
No. 55,379. Coffee-Pot. (Cafetière.)



Edmond Narcisse Cusson, Montreal, Quebec, Canada, 23rd March, 1897; 6 years. (Filed 21st November, 1896.)

Claim.—A coffee-pot composed of a compartment A, surmounted by a receptacle B, having a double inclined bottom *f*, with a means of closing same *g, h, i*, or its equivalent, and a strainer *j*, *k* at its lower end, the whole provided with a lid C, substantially as described and for the purposes set forth.

No. 55,380. Clothes Washer. (Machine à laver.)

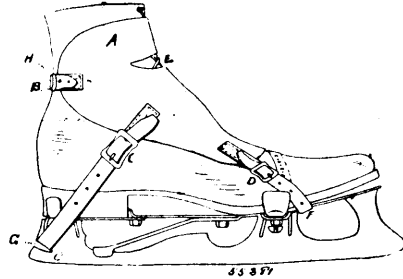


Joseph Smith, Sag Harbor, New York, U.S.A., 24th March, 1897; 6 years. (Filed 27th February, 1897.)

Claim.—1st. A rubbing device for use in connection with wash-boards, consisting of a frame, a handle for moving said frame, and one or more fluted rollers journaled in said frame, substantially as described. 2nd. A rubbing device for use in connection with fluted wash-boards, the same comprising a frame, a handle connected thereto for adapting said frame to be moved across the surface of the wash-board by hand, and one or more fluted rollers journaled in said frame and adapted to mesh with the ribs of the wash-board, substantially as described. 3rd. A rubbing device for use in connection with fluted wash-boards, the same comprising twin side bars spaced apart and rigidly connected by cross-bars, a handle interposed between said side bars and adapting the device to be moved by hand over the surface of the wash-board, and a pair of fluted rollers spaced apart and journaled in said side bars, the said rollers having longitudinal corrugations or ribs for intermeshing with the ribs of the wash-board, substantially as described. 4th. A rubbing device for use in connection with fluted wash-boards the same comprising twin side bars of substantially triangular form having substantially straight bottom edges, cross-bars rigidly connecting said side bars, a handle interposed between said side bars for adapting the device to be moved by hand over the surface of the wash-board, and longitudinal fluted rollers spaced apart and journaled between

said side bars near opposite ends thereof, said handle being arranged intermediate the rollers and in a higher plane, substantially as described. 5th. A rubbing device for use in connection with wash-boards, consisting of side bars spaced apart and connected as described, a handle attached to said device for operating it, one or more fluted rollers journaled in said side bars, and a soap holder slidably mounted between said side bars, substantially as described. 6th. A rubbing device for use in connection with wash-boards, comprising twin side bars, fluted rollers journaled in said bars, and a soap holder or carrier mounted slidably between said bars and having its end portions movably fitted in inclined ways, substantially as described.

No. 55,381. Skate Strap. (Courroie pour patins.)



William Crichton, assignee of Alexander W. Galbraith, both of Toronto, Ontario, Canada, 27th February, 1897; 6 years. (Filed 27th February, 1897.)

Claim.—1st. In a device of the class specified, an instep-covering shaped substantially as indicated for fitting on the foot, and provided with means for securing it round the ankle, as well as to the heel, and to the forward part of the skate, substantially as specified. 2nd. A device of the class specified, comprising the following elements: the instep covering A, shaped substantially as indicated and having an opening E, formed therein, the ankle buckle strap B, the ankle strap H, with suitable holes to engage the tongue of the buckle, the heel strap C, the heel strap G, with suitable holes to engage the tongue of the buckle, the front buckle strap D, and the front strap F, with suitable holes to engage the tongue of the buckle, the said straps being secured to the said covering in the locations and in the directions indicated, substantially as specified. 3rd. The combination with the instep covering A, shaped substantially as indicated, of the ankle buckle strap B, and ankle strap H, adapted to engage with the ankle buckle strap: the heel buckle-strap C, and the heel strap G, adapted to engage with the heel of the skate and the heel of the buckle strap, the front buckle strap D, and the front strap F, adapted to engage with the forward portion of the skate, and the front buckle strap, substantially as specified. 4th. The combination with the instep covering A, shaped substantially as indicated, and provided with opening E, of the ankle buckle strap B, and the ankle strap H, to engage adjustably with its buckle strap, the heel buckle strap C, and the heel strap G, to engage adjustably with the heel of the skate and its buckle strap, and designed, when tightened in place on the foot, to pull in a direction substantially opposite to the pull of the straps F, and D, respectively, the front buckle strap D, and the front strap F, to engage adjustably with the forward portion of the skate and its buckle strap, substantially as specified.

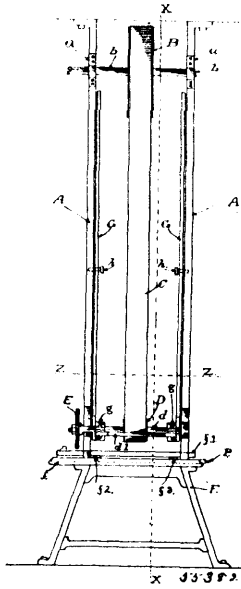
No. 55,382. Planing and Crozing Machine.

(Machine à raboter.)

James Clark Scott, Toronto, Ontario, Canada, 24th March, 1897; 6 years. (Filed 1st March, 1897.)

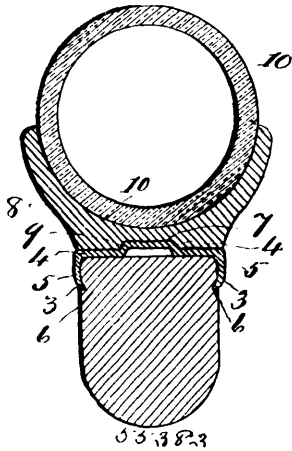
Claim.—1st. In a planing machine, a revolving driven shaft provided with suitable planes, said shaft being pivotally swung from a centre outside of said shaft and outside of the driving shaft, substantially as described. 2nd. For a planing machine, a revolving driven shaft provided with suitable planes, said shaft being swung pivotally and adjustable at various distances, from a centre outside of said shaft and outside of the driving shaft, substantially as described. 3rd. For a planing machine, a revolving driven shaft provided with suitable planes, said shaft turning in suitable bearings formed in or attached to the ends of the arms, the opposite ends of which are pivotally fixed each at a point outside of the driving shaft, substantially as described. 4th. In a crozing machine, a revolving shaft provided with a suitable cutting head, said shaft being pivotally swung from a centre outside of said shaft, substantially as described. 5th. For a crozing machine, a revolving shaft provided with a suitable cutting head, said shaft turning in suitable bearings formed in or attached to the ends of arms, the opposite ends of which are pivotally fixed, substantially as described. 6th. For a crozing machine, a revolving driven shaft provided with a suitable cutting head, said shaft being pivotally swung from a centre outside of said shaft, said centre being also outside of the driving shaft, substantially as described. 7th. For a crozing machine, a revolving driven shaft provided with a suitable cutting head, said shaft being swung pivotally and adjustable at various distances from a

centre outside thereof, which is also outside of the driving shaft, substantially as described. 8th. For a crozing machine, a revolving



haft provided with a suitable cutting head, said shaft turning in suitable bearings attached to or formed in arms which are pivotally fixed each at a point outside of the driving shaft, adapted to be so pivoted at different points in said arms, substantially as described. 9th. For a crozing machine, a stationary revolving shaft provided with a driving band-pulley B, a driving belt C, a driven band-pulley D turning the shaft *d*, to which a cutting head E is fixed, the shaft *d* turning in bearings formed on or attached to the ends of two arms G G capable of being pivotally swung from different points to alter the radius, substantially as described.

No. 55,383. Wheel. (Roue.)



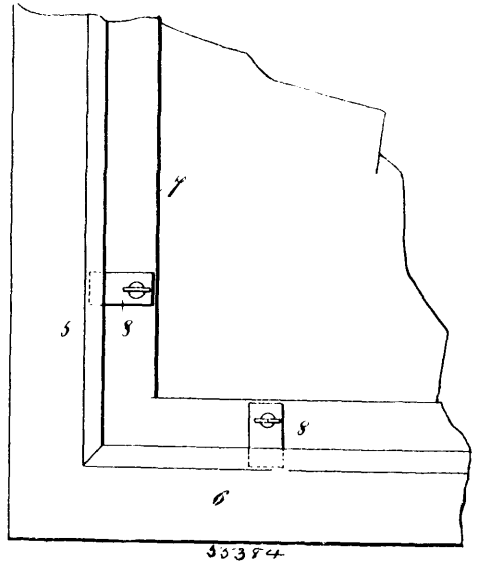
Romanus A. Hoffnagle, Williamsport, assignee of George Yeakel, Rogers' Ford, both in Pennsylvania, U.S.A., 24th March, 1897; 6 years. (Filed 1st March, 1897.)

Claim.—1st. In a wheel, the combination with the fellys rabbeted at opposite sides, of the bent plate provided with prongs driven into the fellys and provided with the rectangular projection and the rim or tire having a groove with which said depression engages, substantially as described. 2nd. In a wheel, the combination with the fellys rabbeted at opposite sides, of the bent plate provided with prongs driven into the fellys and formed with a rectangular projection, the approximately semi-cylindrical rim having a groove with which said depression engages and the cushion or pneumatic tire secured to said rim, substantially as described. 3rd. In a wheel, the combination with the fellys rabbeted at opposite sides and formed with a peripheral groove, of the bent plate provided with prongs driven into the fellys and formed with a rectangular projection, the rim having straight outwardly-extending sides, and the cushion or pneumatic tire, substantially as described.

No. 55,384. Anti-sash Rattler. (Tuteur de croisée.)

Leon Theodore Walter, Hoboken, New Jersey, U.S.A., 24th March, 1897; 6 years. (Filed 1st March, 1897.)

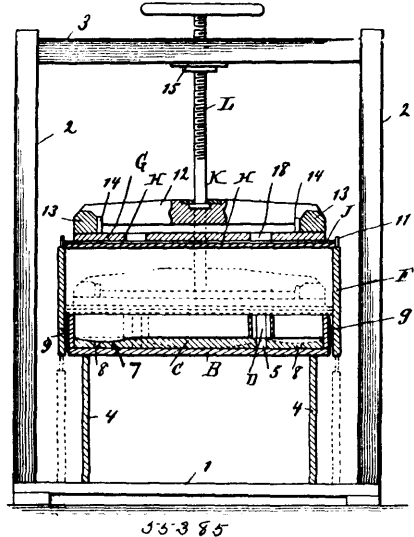
Claim.—1st. An anti-sash rattler, consisting of a wedge composed of a sheet of spring metal bent centrally thereof, and one side



thereof being provided with a screw or bolt which is passed through, and which bears on the opposite side, substantially as shown and described. 2nd. An anti-sash rattler, consisting of a wedge composed of a sheet of spring metal bent centrally thereof, and one side thereof being provided with a screw or bolt which is passed through, and which bears on the opposite side, and the side through which the screw or bolt is passed being thicker than the other, substantially as shown and described.

No. 55,385. Upholstering Device.

(Appareil pour tapisseries.)



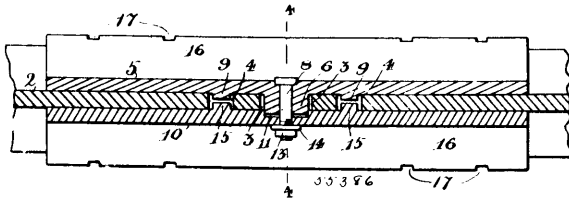
Alfred Freschl, Milwaukee, Wisconsin, assignee of Henry Bascom Pitner, Olean, New York, both in the U.S.A., 24th March, 1897; 6 years. (Filed 1st March, 1897.)

Claim.—1st. In a machine for making pleated work in upholstering, the combination of the frame A provided with base 1, standards 2, beam 3 and nut 15, the bench B seated centrally on the base of said frame, mould board C seated on said bench and provided with tuft hole guards D having fluted sides 6, pleaters E adapted to be pressed downward on said flutes 6 and to project upwardly from the guards D, guide box F adapted to inclose mould C and to project upwardly therefrom, and adapted to receive and retain during pressure the necessary filling, straw board H placed over said filling and follow board G imposed upon said straw board, and the thread screw bolt L seated in nut 15 and adapted to exert downward pressure immediately or mediately upon said follow board and thereby force said filling within said mould, substantially as shown and for the purpose specified. 2nd. In a machine for making pleating in upholstering, a suitably supported mould C provided with upward projecting tuft hole guards D having fluted sides 6, pleaters E adapted to force the fabric down over guards D and form radial

pleats in right lines therefrom, guide box F adapted to inclose mould C and extend upwardly therefrom to receive the necessary filling, straw board H placed over such filling and means, substantially as shown, for compressing the latter within the mould C, and suitable means for seating and clinching or otherwise fastening the tuft buttons within the guards G, for the purpose specified. 3rd. The combination with the mould provided with upwardly projecting hollow tucking devices, of a follower provided with openings clearing said tucking devices, and a pin board provided with pins adapted to be inserted from the bottom of the mould into said tucking devices and support the tuft buttons, substantially as set forth. 4th. The combination with the mould provided with fluted hole guards projecting upwardly from the base of said mould, of pleaters provided with downwardly projecting points adapted to be pressed down the fluted sides of said guards and to form the fabric into pleats, substantially as set forth. 5th. In an upholstering device, the combination of a base provided with upwardly projecting tucking devices, of detachable recessed pleaters which are adapted to straddle said tucking devices, substantially as set forth. 6th. In an upholstering device, the combination of a base provided with upwardly projecting tucking devices, of detachable pleaters provided at their lower ends with downwardly projecting points which straddle said tucking devices, substantially as set forth. 7th. In an upholstering device, the combination of a mould provided with perforated tucking devices, a surrounding casing, pleaters which straddle said tucking devices and force the material forming the outside of the article being formed over said tucking devices, a top, and means for forcing the parts together and holding them while the upholstering operation is being completed, substantially as set forth. 8th. In an upholstering device, the combination with the mould provided with upwardly projecting hollow tucking devices, of a follower provided with openings registering with said tucking devices, detachable pleaters for forcing the material forming the outside of the article being formed down over said tucking devices, and a pin board provided with pins adapted to be inserted from the bottom of the mould into said tucking devices and support the tuft buttons, substantially as set forth.

No. 55,386. Railway Rail Joint.

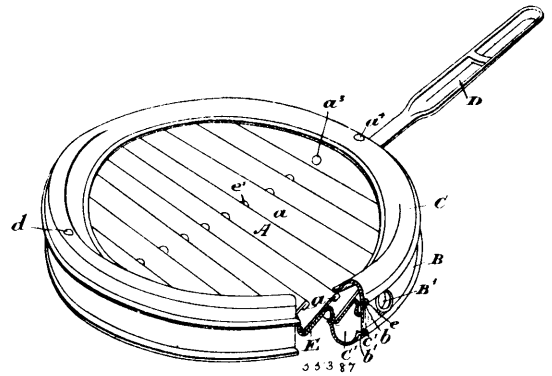
(Joint de rail de chemin de fer.)



William J. Morrison, Pittsburg, John Osborne, Homestead, James Foster, Pittsburg, all in Pennsylvania, U.S.A., 24th March, 1897; 6 years. (Filed 1st March, 1897.)

Claim.—1st. The herein described improved rail coupling consisting of a fish-plate having on its inner face a substantially rectangular coupling-lug to enter and project through conjoined rectangular notches in the adjacent ends of the two rails, and lugs to enter about midway into perforations of the rail webs, a fish-plate to be placed on the opposite side of the rails and having in its inner face a depression or recess to receive the projecting portion of the said rectangular coupling-lug on the other fish-plate, and also having lugs to enter about midway into the said perforations of the rail webs, a bolt to pass through registering bolt holes in said coupling-lug of one bar and corresponding recess of the other bar, and a nut and washer for said bolt, substantially as set forth. 2nd. In fastenings for railway rails, the combination with two rails having perforations through their webs and provided in their ends with rectangular notches, of the two fish-plates located on opposite sides of the rail-joint and each provided with lugs to enter about midway into the perforations of the rail webs, one of the said fish-plates being provided with a substantially rectangular coupling-lug to enter and project through the slot or opening formed by the conjoined rectangular notches in the ends of the rails, and the other fish-plate having a recess or depression to receive the projecting portion of said coupling-lug, a bolt passed through the said coupling-lug and fish-plates, and a nut for said bolt, the openings for reception of the said lugs and coupling being enlarged longitudinally to provide for expansion and contraction of the rails without disturbing the fastening substantially as specified. 3rd. In rail joint fastening, the combination with the rails of a rectangular notch in the web of adjacent rail ends registering to form one rectangular notch when the ends are conjoined, a perforation in the web of each rail a little distance from said end notch, a pair of fish-plates, a rectangular lug on one of said fish-plates adapted to enter pass and project through the rectangular notch in the ends of the adjacent rails, a recess or depression in the other adapted to receive the projecting end of said rectangular lug, a lug on each side of and a little distance from said rectangular central lug on each fish-plate adapted to engage the perforations in the webs of the rails and nearly meeting in said perforation and a bolt passing through said central lug of one fish-plate and corresponding depression in the other and a nut to secure bolt, substantially as set forth.

No. 55,387. Broiler. (Gril.)



Archibald Fairgrieve and John W. Cambell, both of Toronto, Ontario, Canada, 24th March, 1897; 6 years. (Filed 27th February, 1897.)

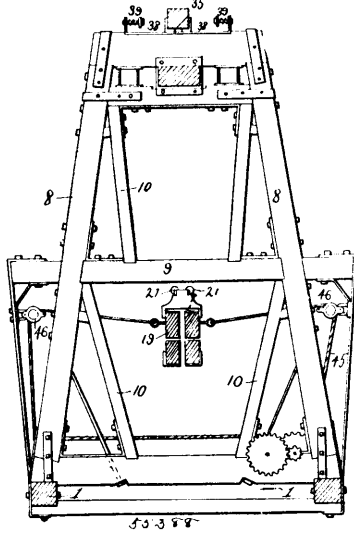
Claim.—1st. A grid broiler comprising a series of inclined bars having the top edges over-hanging the bottom edges, troughs formed at the bottom edges and a suitable frame for supporting the bars, as and for the purpose specified. 2nd. A grid broiler comprising a series of inclined bars having the top edges over-hanging the bottom edges, troughs formed at the bottom edges and a frame having a trough extending beneath the ends of the troughs of the grid bars, as and for the purpose specified. 3rd. A grid broiler comprising a series of inclined bars having the top edges over-hanging the bottom edges, troughs formed at the bottom edges, a frame having a trough extending beneath the ends of the troughs of the grid bars and an upper trough connected by a band to the lower trough and forming a counter part of same, as and for the purpose specified. 4th. A grid broiler comprising a series of inclined bars having the top edges over-hanging the bottom edges, troughs formed at the bottom edges, a perforated plate under-lying the bars and a suitable frame for supporting the bars and plate, as and for the purpose specified. 5th. A grid broiler comprising a series of inclined bars having the top edges over-hanging the bottom edges, troughs formed at the bottom edges and a perforated plate arranged zig zag underneath the bars, secured to same and so arranged that portion of the zig-zag arranged plate extends across the opening between the bars, and a suitable frame for supporting the bars and plate, as and for the purpose specified. 6th. A grid broiler comprising a series of inclined bars having the top edges over-hanging the bottom edges, troughs formed at the bottom edges, an annular trough extending beneath the end of the bars formed with an upper exterior groove, a ring with end flanges fitting into same and a retaining upper reverse trough-shaped ring with a groove to receive the upper flange of the centre ring, as and for the purpose specified. 7th. A grid broiler comprising a series of inclined bars having top edges over-hanging the bottom edges, troughs formed at the bottom edges, an annular trough extending beneath the end of the bars formed with an upper exterior groove, a ring with end flanges fitting into same, a retaining upper reverse trough-shaped ring with a groove to receive the upper flange of the centre ring and a suitable funnel-shaped opening, arranged as and for the purpose specified. 8th. In combination a series of inclined bars having the top edges over-hanging the bottom edges, troughs formed at the bottom edges, a suitable frame and plates connecting the end bars to such frame, as and for the purpose specified.

No. 55,388. Log-loader. (Charge billot.)

William Andrew Fletcher, Beaumont, Texas, U.S.A., 24th March, 1897; 6 years. (Filed 1st March, 1897.)

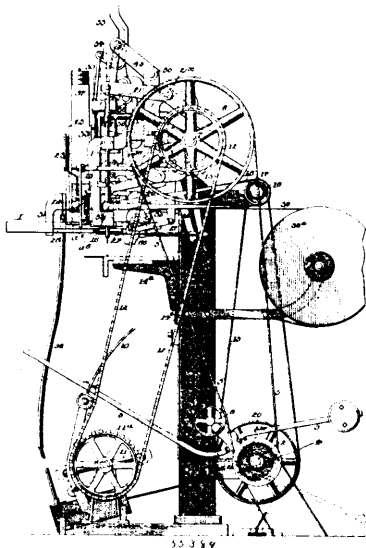
Claim.—1st. In a log-hauling and loading apparatus of the character described, the combination with the swinging or oscillating crane, of a pivoted upper hauling crane, substantially as described. 2nd. In a log-hauling and loading apparatus of the character described, the combination with the swinging or oscillating crane, of a pivoted upper crane having its end provided with a guy-rope or ropes adapted to be connected with a stump or other object, substantially as described. 3rd. In a log-hauling and loading apparatus of the character described, the combination with the swinging or oscillating crane, provided with sheaves and hoisting chains or cables, of the oppositely extending cranes located above said swinging-crane, the sheaves and hauling chains or cables and the guy-ropes connected with the outer ends of said stationary cranes, substantially as described. 4th. In a log-hauling and loading apparatus of the character described, the combination with the platform, the frame mounted thereon, the swinging or oscillating crane, the sheaves and the hoisting chains or cables, of the crane located above said swinging crane pivoted at one end to said frame, and provided with sheaves and hauling chains or cables, and the guy-ropes secured to the outer end thereof, substantially as described. 5th. In a log-hauling and hoisting apparatus of the character described, the combination with the platform, the frame mounted thereon, the swinging or oscillating crane, and its sheaves and hoisting chains or cables, of the crane located above said swing-

ing crane pivoted at one end to said frame, the oppositely extending crane pivoted thereto, the sheaves and hauling chains or cables,



and the guy-ropes, substantially as described. 6th. In a log-hauling and loading apparatus of the character described, the combination with the platform, the frame mounted thereon, the swinging or oscillating crane, and the sheaves and hoisting chains or cables, of the crane pivoted at one end to said frame, the oppositely extending crane pivoted thereto, the strap or yoke embracing said pivoted cranes, the sheaves and hauling chains or cables and the guy-ropes, substantially as described. 7th. In a log-hauling and hoisting apparatus of the character described, the combination with the platform, the frame mounted thereon, the swinging or oscillating crane, the sheaves and hoisting ropes, of the crane located above said swinging crane, pivoted at one end to said frame, the oppositely extending crane pivoted thereto, the yoke or strap, the wear plates having their ends bent upwardly at right angles and the coiled spring, substantially as described. 8th. In a log-hauling and loading apparatus, the combination with the vertically movable platform, the legs pivoted thereto, the shoes at the lower ends thereof, the connecting bar and chain, the frame mounted on said platform, the swinging or oscillating crane, and the sheaves and hoisting ropes, of the upper oppositely extending cranes located above said swinging cranes, the guy-ropes, the sheaves, the hauling chains or cables, and means for operating said hauling and hoisting chains or cables, substantially as described.

No. 55,389. Brush Making Machine. (Machine à brosse.)



McClintock Young, Frederick, Maryland, and John Kelly Robinson, Chicago, Illinois, both in the U.S.A., 24th March, 1897; 6 years. (Filed 1st March, 1897.)

Claim.—1st. In a brush machine, the fibre box in combination with the notched slide thereunder to separate a quantity of fibres to form a tuft, means for moving the slide under the box, the vertically

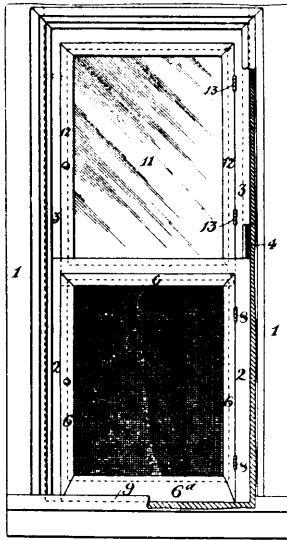
movable slotted slide, 32, to straddle the tuft, means for moving the said slide vertically, the slotted sliding guide 34, the driving blade 37, means for moving said parts, a movable clamp adapted to grasp the wire to form a staple and present it beneath the guiding slide, means for feeding the wire to the clamp and means for moving the latter, substantially as shown and described. 2nd. In a brush machine the combination of a fibre separating and carrying blade, provided with a notch or to gather a wisp of fibre and with a vertical opening adjacent to the notch to permit the downward passage of the fibre therethrough and tuft inserting mechanism adapted to carry the tuft downward through the blade. 3rd. In a brush machine the combination with a wire feeding mechanism of a movable clamp to receive a section of the wire, a movable slide adapted to bend a section of wire to form the staple and to retain the same temporarily, mechanism for moving the clamp with a section of the wire beneath the slide and means for driving the staple in the brush block. 4th. In a brush machine the combination with a fibre box of a reciprocating slide provided with a notch to separate a wisp of fibre to form a tuft, means for reciprocating said slide, a slotted slide 32 to straddle the separated tuft, a tuft guide 66, means for reciprocating the same, wire feeding, cutting and carrying devices, a vertically movable guiding blade, a vertically reciprocating driving blade and means for operating said parts. 5th. In a brush machine the combination with the horizontally movable notched slide adapted to separate a quantity of fibres to form a single tuft, of means for actuating the same, a vertically movable fibre stop plate having a depending finger adapted to be moved in the path of the separated tuft and formed with a slot to straddle the same and means for securing said tuft in the brush block. 6th. In a brush machine the combination of the driving blade 37, of means for reciprocating the same, the lever 57 operatively connected to said blade to move bodily with the same, the guiding slide 34 jointed to the lever, and the fixed slotted frame engaged by the lever. 7th. In a brush machine the combination with the tuft separating and driving devices, of the wire clamp movable bodily beneath the tuft driving mechanism, means for feeding the wire to the clamp, means for cutting the wire and means for opening and closing said clamp to release and grasp the wire. 8th. In a brush machine the combination with the boring and tuft inserting mechanisms and means for driving them simultaneously, of individual holders for the brush blocks and a device connecting and maintaining said holders fixedly with relation to each other at a distance apart corresponding to the distance between the boring and tuft inserting mechanism, whereby the brush blocks may be presented with certainty to the boring and inserting mechanism. 9th. In a brush machine the combination with the boring and tuft inserting mechanisms and with means for driving said mechanisms simultaneously, of the support provided with studs, holders for the brush blocks, formed in their under sides with openings to receive the studs and a device connecting and maintaining said holders fixedly with relation to each other, a distance apart corresponding to the distance between the boring and tuft inserting mechanisms. 10th. In a brush machine and in combination with the main frame, a belt-driven driving pulley, 6, sustained there by a crank shaft provided with pedals, a sprocket wheel connected to said shaft a second sprocket wheel connected to the driving pulley and a chain connecting said sprocket wheels. 11th. In a brush machine and in combination with a tuft driving device, means for operating it, a tuft guide or casing 66, movable in a direction transversely of the movement of the tuft driver, and means for reciprocating the casing. 12th. In a brush machine and in combination with a tuft driving device, a tuft guiding casing provided with an opening for the downward passage of the tuft and with a slot for the lateral passage of the same. 13th. In a brush machine and in combination with a tuft driving device, reciprocating tuft guide or casing formed with a vertical opening for the downward passage of the tuft and a slot at the front and side of the casing for the lateral passage of the tuft when the casing is withdrawn. 14th. The combination with a boring mechanism of a tuft inserting mechanism, means for operating said mechanism simultaneously, a single supporting table for the brush blocks arranged beneath said mechanisms, two gauge pins or stops fixed to the upper side of said table adjacent respectively to the said mechanisms and two holders for the brush blocks formed in their under sides to co-operate respectively with said gauge pins or stops.

No. 55,390. Window. (Fenêtre.)

Ferdinand Gottlieb Uhlich, St. Louis, U.S.A., 24th March, 1897; 6 years. (Filed 2nd March, 1897.)

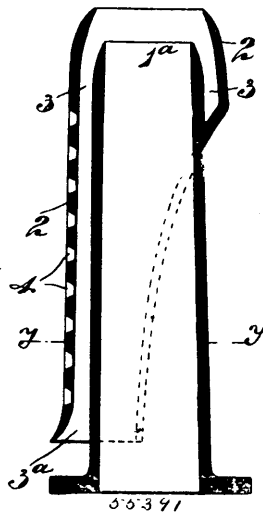
Claim.—1st. The combination of a sash formed with a bottom cross-strip of less thickness than the sash, and the swinging frame fitted into the sash, hinged to one side of the sash, and formed with a bottom cross-strip having an inverted L-shaped recess occupied by the bottom cross-strip of the sash and extending to the bottom of the sash, so as to prevent the opening of the swinging frame until the sash is shifted from normal position, substantially as described. 2nd. The combination of a window-frame having a facing-strip extending upwardly so as to overlap the sill, the sash formed with a bottom cross-strip of less thickness than the sash, and the swinging frame fitted into the sash, hinged to one side of the sash, and formed with a bottom cross-strip having an inverted L-shaped recess occupied by the bottom cross-strip of the sash, and extending to the bottom of the sash so as to occupy a position between the lower end of the sash and the adjacent strip, and thus

prevent the opening of the swinging frame until the sash is shifted from normal position, substantially as described. 3rd. The combi-



nation of a window-frame formed with a recess in the top strip and having a facing-strip extending upwardly so as to overlap the sill, the lower sash adapted to move into said recess, and the upper sash formed with a bottom cross-strip of less thickness than the sash, and the swinging frame fitted into the sash, hinged to one side of the sash, and formed with a bottom cross-strip having an inverted L-shaped recess occupied by the bottom cross-strip of the sash and extending to the bottom of the sash, so as to prevent the opening of the swinging frame until the sash, to which it is secured, is shifted from normal position, substantially as described.

No. 55,391. Blast Pipe. (Porte-vent.)



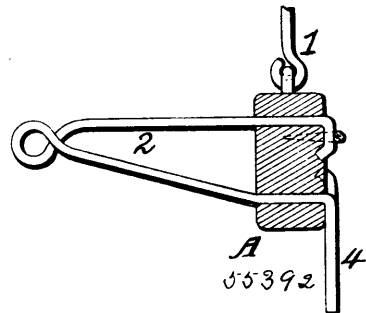
John Jones, Merthyr Tydfil, Glamorgan, Wales, 24th March, 1897; 6 years. (Filed 2nd March, 1897.)

Claim.—1st. A draft-inducing apparatus comprising an inner blast pipe and an outer perforated air-pipe, both open at the top, and the outer one open at the bottom and extending above the inner pipe and entirely around it for a portion of its length forming a chamber, whereby the induced current is softened in its exit by the enlargement of the said chamber, substantially as described. 2nd. A draft-inducing apparatus for the boiler of a locomotive or like engine, comprising a blast-pipe having a jacket extending partly around the pipe for the greater portion of its length and entirely around the pipe at its upper part, the wall of said jacket at the deeper side being formed with a number of holes, substantially as herein described for the purpose specified. 3rd. A draft-inducing apparatus for a locomotive and like engine, comprising a blast-pipe surrounded at its upper part by a wall that forms therewith a surrounding space and is provided with a perforated downward extension that passes partly around said steam-pipe and forms therewith a space that is in communication with the space surrounding the top of the steam-pipe, substantially as herein described for the purpose specified. 4th. A draft-inducing apparatus for a locomotive

and like engine, comprising a blast-pipe having its bore of slightly-diminishing diameter from bottom to top, and a jacket the wall of which extends entirely around and partly above the upper end of said blast-pipe, and partly around the lower part of said blast-pipe where it is perforated, substantially as herein described for the purpose specified. 5th. A draft-inducing apparatus for a locomotive or like engine, comprising a blast-pipe 1 having integral therewith the outer wall 2 of a jacket, the upper part of said wall being arranged to surround and extend above the upper part of said blast-pipe with which it forms an annular space 3, and the lower part of said wall being provided with holes 4, and arranged to extend partly around the lower part of said blast-pipe with which it forms a part annular space that is in free communication with the annular space 3 at the top, substantially as described for the purpose specified.

No. 55,392. Life-Guard for Cars.

(*Garde-corps pour chars.*)



Charles Dunn Shrader, Perry, Oklahoma, U.S.A., 24th March, 1897; 6 years. (Filed 2nd March, 1897.)

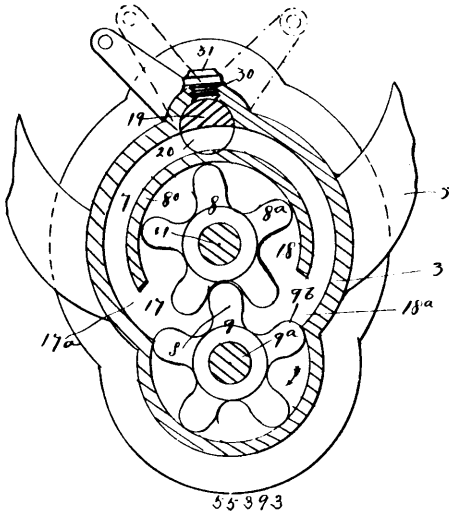
Claim.—1st. A safety attachment for cars, comprising a series of outwardly-projecting arms rigidly connected together at one end and having a laterally-swinging connection with the car to which it is attached, the length of these arms being less than the distance intervening between the ends of adjacent cars, whereby clearance is formed between the ends of the arms and the adjacent car, substantially as set forth. 2nd. A safety attachment for cars, comprising a set of horizontally-disposed outwardly-projecting arms rigidly connected together at one end and free at the other end, and having a hinged connection with the end of the car to which they are attached, substantially as set forth. 3rd. A safety attachment for cars, comprising a cross-bar loosely suspended by its upper edge from the end of a car at a point on the car somewhat above said upper edge, and arms projecting outwardly from said cross bar, substantially as set forth. 4th. A safety attachment for cars, comprising a set of arms, and links for supporting said arms, said links connected with the car to which the attachment is connected at points above the arms, substantially as set forth. 5th. A safety attachment for cars, comprising a beam, arms projecting therefrom, and links for supporting the beam loosely upon the end of the car, whereby it is capable of swinging laterally with the motion of the car or rocking so that the arms may move in a vertical plane upon receiving the weight of a falling body thereon, substantially as set forth. 6th. In a safety attachment for cars, the combination with a cross beam, and arms projecting outwardly therefrom, of arms projecting downwardly from the beam and adapted to lessen the tendency of the attachment to rock, and links connecting the attachment loosely with a part of the car, substantially as set forth.

No. 55,393. Brake. (Frein.)

Ovid Miner Gould, Montreal, Quebec, Canada, 24th March, 1897; 6 years. (Filed 2nd March, 1897.)

Claim.—1st. A car-brake comprising a stationary carrier for a liquid body, a shaft, one end of which extends within such carrier, a second shaft within such carrier and intermeshing gear-wheels upon said shafts within the carrier, said first named shaft being operated by the moving or driven part, upon which the brake is caused to act, for normally moving the liquid body freely and unimpeded from one part of the carrier to another, and means for controlling such movement of the liquid body, for the purpose set forth. 2nd. In a car-brake, the combination with the car-axle, of a gear-wheel rigidly mounted thereon, a stationary carrier for a liquid body, such liquid body, a shaft one end of which extends within such carrier, a second shaft within such carrier, a pair of intermeshing gear-wheels within said carrier, and serving to divide same into two compartments, and to normally move the liquid body freely and unimpeded from one compartment to another, a communicating channel between the compartments allowing movement of the liquid body therethrough, and means for controlling the passage of the liquid body through such channel, for the purpose set forth. 3rd. In a car-brake, the combination with the car-axle, of a shaft, an operative connection between said axle and shaft, a stationary inclosing casing or carrier adapted to contain a liquid body, such liquid body, a pair of gear-toothed pinions within said casing, one mounted rigidly upon said shaft and the

other mounted in close proximity thereto and intermeshing with said first mentioned pinion and both adapted to move such liquid



body, and means for controlling and arresting the movement of said liquid body, for the purpose set forth. 4th. A car-brake comprising a stationary inclosing casing or carrier adapted to contain a liquid body, such liquid body a channel through which the liquid body may be normally driven, a pair of gear-toothed pinions operated from the car-axle to impel the liquid body through said channel and a valve with actuating parts for controlling its passage therethrough, for the purpose set forth.

No. 55,304. Station Indicator. (Indicateur de Station.)

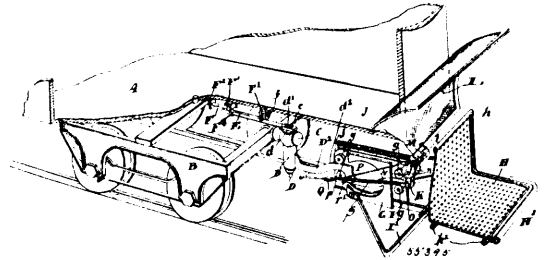


Edmund Dillahuntz Wilson, Columbia, Tennessee, U.S.A., 24th March, 1897; 6 years. (Filed 4th March, 1897.)

Claim.—1st. In a station indicator, the combination with a pair of drums and an indicator belt wound upon the same, of a driving wheel and mechanism intermediate the driving wheel and said drums, substantially as specified. 2nd. In a station indicator, the combination with a casing and a pair of drums, of an indicator belt wound oppositely upon the drums, a driving wheel having a pair of peripheral grooves, pulleys carried by the drums and belts intermediate said pulleys and a driving wheel whereby the rotation of the latter will actuate the drums in the same direction, substantially as specified. 3rd. In a station indicator, the combination with a casing, of a pair of vertical drums and a belt wound thereon, pulleys carried by said drums, a driving wheel provided with a pair of peripheral grooves, belts intermediate said pulleys and the driving wheel, and a regular wheel connected with the driving wheel and provided with a pair of depending lugs, substantially as specified. 4th. In a station indicator, the combination with a casing provided with a dummy clock and having an open front, of an inner bottom and end pieces, within said casing, defining drum chambers and a bottom chamber, drums within said drum chambers, an indicator belt wound oppositely upon said drums, a pair of pulleys carried by the drums below the inner bottom, a driving wheel mounted within the lower chamber and provided with a pair of peripheral grooves, belts intermediate said pulleys and the grooves of the driving wheel, and a regulating wheel below the casing operatively connected with the driving wheel and provided with a pair of depending lugs substantially as specified. 5th. In an indicator hook designed for use

connection with a station indicator, the combination with an elongated handle and a cross piece at one extremity thereof, substantially as specified.

No. 55,395. Steel Car Fender. (Défense de chars.)

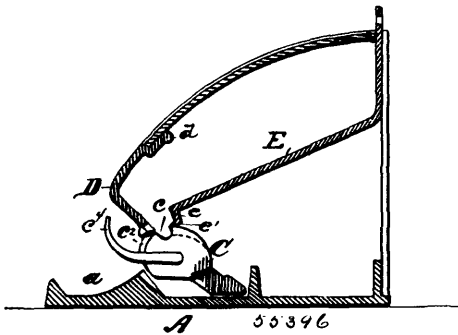


James Ernest Alexander Walker, Walkerton, Ontario, Canada, 24th March, 1897; 6 years. (Filed 4th March, 1897.)

Claim.—1st. In a car fender, in combination, the fender, the truck, the supporting bar attached to the truck and having inclined ways, the double vertical frame secured to the fender and provided with friction rollers to run on the ways and a suitable spring for holding the double frame and fender, so that the friction rollers rest on the highest points of the ways, as and for the purpose specified. 2nd. In a car fender, in combination, the fender, the truck, the supporting bar having inclined ways, the central stud on the truck, the vertical pin extending through the stud and connected to the rear end of the supporting bar, means connecting the pin to the bottom of the car for swinging the supporting bar, the double vertical frame secured to the fender and provided with friction rollers to run on the ways and a suitable spring for holding the double frame and fender, so that the friction rollers rest on the highest points of the ways, as and for the purpose specified. 3rd. In a car fender, in combination, the fender, the truck, the supporting bar having inclined ways, the central stud on the truck, the vertical pin extending through the stud and connected to the rear end of the supporting bar, a rod extending rearwardly from the top of the vertical pin extending through the stud, the screw spindle held from longitudinal movement and the bracket on such spindle having a flat end abutting the bottom of the car, a notch at the bottom of the bracket into which the rod attached to the vertical pin extends, the double vertical frame secured to the fender and provided with friction rollers to run on the ways and a suitable spring for holding the double frame and fenders, so that the friction rollers rest on the highest points of the ways, as and for the purpose specified. 4th. In combination, the fender, the truck, the supporting bar provided with inclined ways, double vertical frame connected to the fenders and provided with friction rollers, the spring for holding such frame, so that the friction rollers are normally situated at the front highest points of the ways and the arms attached to the front end bars, and provided with flanged wheels designed to ride on the track behind the fender, as and for the purpose specified. 5th. In combination, the fender, the supporting bar and double frame connected to the fenders provided with a central opening, the spring connected to the double frame and to one end of the bar, and the stop pin on the bar designed to come in contact with one end of the opening of the double frame, as and for the purpose specified. 6th. In combination, the fender and supporting bar, the double vertical frame, the curved supplemental fender, the arm at the forward end of the supporting bar, the shaft extending through the upper end of the arm, the arms on the end of the shaft connected to the lower end of the arc-shaped fender, and means whereby upon the backward depression of the fender, the arc-shaped fender is thrown downwardly into proximity with the front edge of the lower fender, as and for the purpose specified. 7th. In combination, the fender and supporting bar, the double vertical frame, the curved supplemental fender, the arm at the forward end of the supporting bar, the shaft extending through the upper end of the arm, the arms on the end of the shaft connected to the lower end of the arc-shaped fender, pinions on the shaft, a counter-shaft journaled on the arm, spur-wheels secured to the counter shaft meshing with the pinions of the upper shaft, levers on the end of the shaft, connecting rods attached to the upper ends of such levers, guiding rods supported and designed to move longitudinally in suitable sleeves, collar on the guiding rods and set screws for fastening the rear ends of the connecting rods to such collar, and a cross-bar at the rear end of the connecting rods designed to be thrown rearwardly by the double vertical frame, as and for the purpose specified. 8th. In combination, the fender and supporting bar, the double vertical frame, the curve supplemental fender, the arm at the forward end of the supporting bar, the shaft extending through the upper end of the arm, the arms on the end of the shaft connected to the lower end of the arc-shaped fender, pinions on the shaft, a counter-shaft journaled on the arm, wheels secured to the counter shaft meshing with the pinions on the upper shaft, connecting rods attached to the upper ends of such levers, guiding rods supported and designed to move longitudinally in suitable sleeves, collar on the guiding rods, and set screws for fastening the rear end of the connecting rod to such collar, a cross-bar at the rear end of the connecting rods designed to be thrown rearwardly by the double

vertical frame, and a spring connected to the lower end of one of the levers on the counter shaft and to the supporting bar, as and for the purpose specified.

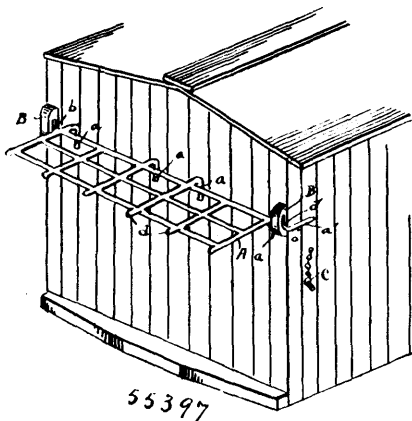
No. 55,396. Match Safe. (*Boîte à allumettes.*)



James Gamble and John M. Brewer, assignees of Amos Barnes, all of Detroit, Michigan, U.S.A., 24th March, 1897; 6 years. (Filed 5th March, 1897.)

Claim.—1st. In a match safe, the combination of a frame, a receptacle for matches within the frame, a roll for delivering the matches from the receptacle, means for operating the roll to deliver a match, and a cigar cutter mounted on one end of the roll and adapted to operate when the roll is operated for the delivery of a match, substantially as described. 2nd. In a match safe, a delivery roll provided with a longitudinal groove, the rear wall of which is of the maximum height at the centre and receding towards the ends, substantially as described. 3rd. In a match safe, the combination of the frame, a roll mounted in the frame provided with a longitudinal groove, and inclined bottom, and a depending wall directly over the groove at the end of the bottom, substantially as described. 4th. In a match safe, the combination of the frame, the roll provided with a longitudinal groove mounted in the frame, the inclined bottom and depending wall at the end of the bottom over the roll provided with the right-angled edge *c'*, substantially as described. 5th. In a match safe, the combination of the frame, a delivery roll provided with a longitudinal groove, said roll made thicker in front of the groove and provided with a series of annular ribs on the thickened portion, and a movable front to act as a drag over the roll, substantially as described. 6th. In a match safe, the combination of the frame, a delivery roll provided with a longitudinal groove mounted in the frame, an inclined bottom forming a stop for the matches back of the roll, a false bottom pivoted in the frame and extending beyond the true bottom over the roll, substantially as described.

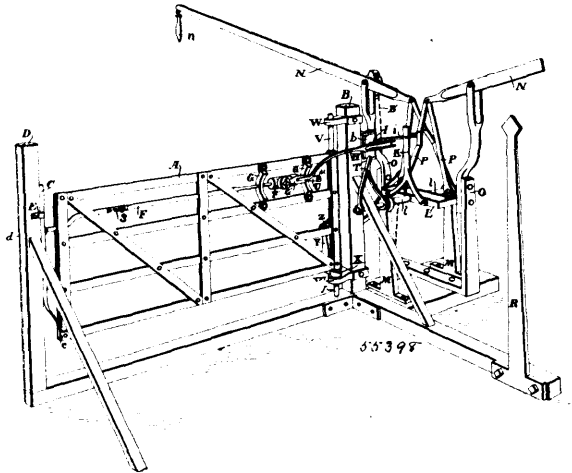
No. 55,397. Life-Guard for Freight Trains. (*Garde-corps pour trains de marchandises.*)



John W. Broker, Dalton, Georgia, U.S.A., 24th March, 1897; 6 years. (Filed 5th March, 1897.)

Claim.—1st. The combination of a car, a horizontal platform extending across the end of the car and pivoted thereto, the projecting edge of the platform being tapered, so that adjacent platforms may overlap each other when the cars come together, substantially as described. 2nd. The combination of a car, and a platform extending across the end of the car and projecting horizontally therefrom and being vertically movable bodily with respect to the car, substantially as described.

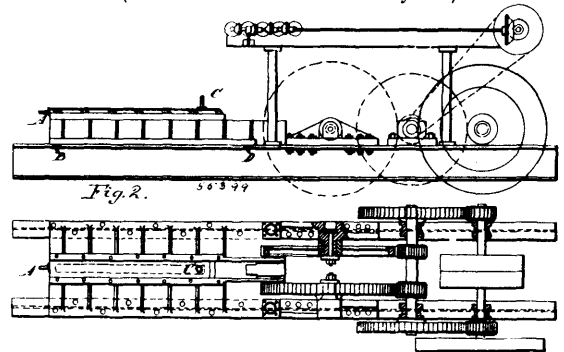
No. 55,398. Farm Gate. (*Barrière.*)



Louis Paul Cota and Isaac Lewis Edwards, both of Aurora, U.S.A., 25th March, 1897; 6 years. (Filed 5th March, 1897.)

Claim.—1st. The combination of the gate, the pivoted frame or part, connections between it and the gate, an operating lever, and a connection between the latter and the frame on each side of the pivot thereof, adapted to allow movement of the frame, independent of the lever, after being started by the latter, whereby said lever, by alternate action on said connections, may open and close the gate, substantially as and for the purpose specified. 2nd. The combination of the gate, the swinging frame or part connected therewith, the operating lever, and the two bars having slotted connections with said part on opposite sides of its centre, substantially as and for the purpose set forth. 3rd. The combination of the swinging gate, the lever connected therewith having a slotted arm, the swinging frame or part having an arm engaging said slotted arm, the two operating levers, and the two bars extending between each lever and the swinging part, having slotted connections with the latter upon opposite sides of its pivot, substantially as and for the purpose shown.

No. 55,399. Manufacture of Artificial Fuel. (*Fabrication de combustible artificiel.*)



Sally Katz, Hamburg, assignee of Rudolf Arnold, Magdeburg, Nowstadt, both in Germany, 25th March, 1897; 6 years. (Filed 2nd March, 1897.)

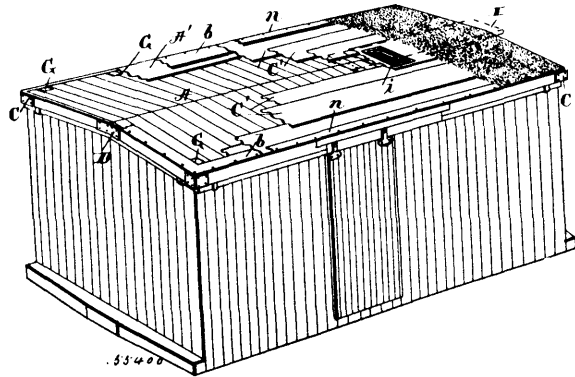
Claim.—1st. The process of manufacturing artificial fuel from saw-dust, saw-mill refuse and the like, consisting of heating the said material and subjecting it to a high pressure whereby the resinous and similar substances therein contained, are made to separate and unite the whole in a solid mass, without the use of any other binding material, substantially as set forth. 2nd. A press for forming Brickets of artificial fuel, the box or mould of which is formed with a hollow floor and cover, provided with inlets and outlets, by means of which the contents of the box or mould can be heated or cooled, substantially as described and for the purposes set forth.

No. 55,400. Freight-car Roof. (*Couverture pour toitures de chars à marchandises.*)

Samuel W. Hempsted, Columbus, Ohio, U.S.A., 25th March, 1897; 6 years. (Filed 4th March, 1897.)

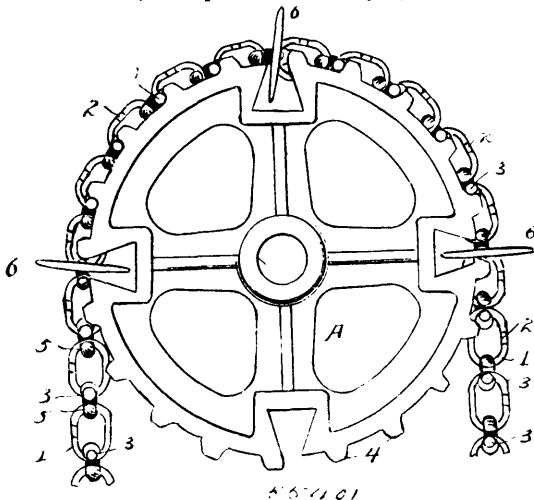
Claim.—1st. A covering for a freight-car roof, comprising a frame surrounding the eaves and end of the car roof and supported thereby, a series of strips of felt overlapping and cemented to each other, the outer and lower strips being attached to the frame only and resting loosely upon the car roof, and a coating of tar, felt or equivalent material, substantially as described. 2nd. A covering

for freight-car roofs, consisting of a frame surrounding and adapted to be supported by the eaves of the car roof, combined felting and



metallic strips secured to the upper edges and ends of said frame, the felt strips overlapping each other, and a series of felt strips overlapping and secured to each other, substantially as shown and described. 3rd. A covering for car roofs, comprising a frame surrounding the eaves thereof, upper and lower hooks engaging the side pieces and end pieces at the eaves of the roof for supporting and holding it in line, a felt strip placed around the top edge of the frame, a metallic strip placed over said felt strip, and means for securing said metallic strip and felt strips to the frame, and a series of overlapping felt strips cemented together and to the first-named felt strip forming the complete roof, substantially as described. 4th. A covering for freight-car roofs, consisting of a frame surrounding and supported at the eaves and ends of the car roof, a felt or similar covering attached to said frame only, a coating of tar, asphaltum or concrete or similar material, and a strip secured around the upper edge of the frame at the sides and ends on the top of the felt covering, to strengthen the frame bind the felt, metallic strip or sheet and frame securely together, and to form a dam for preventing the applied tar, asphaltum or similar material from running over the edges of the car, substantially as described. 5th. A covering for freight-car roofs, comprising a frame surrounding the roof and supported by the eaves and ends thereof, a felt or similar covering secured to said frame and resting loosely upon the sheathing boards of the car roof, and piers built upon the said felt at the ridge or apex thereof, for the purpose described.

No. 55,401. Detachable Links for Drive Chains.
(Maille pour chaînes sans fin.)



Adam Rilscher, Taylor, Illinois, U.S.A., 25th March, 1897; 6 years.
(Filed 5th March, 1897.)

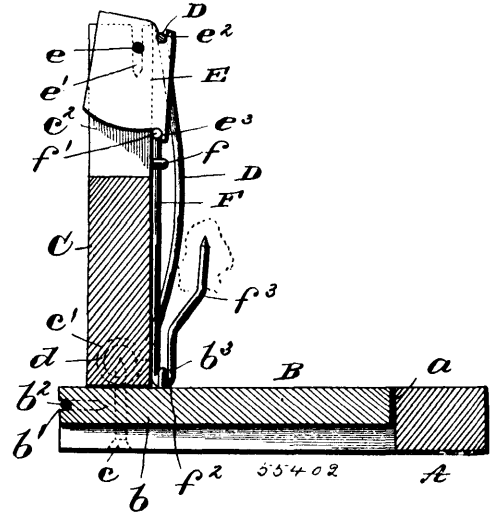
Claim.—A detachable link for driving chains, formed in one piece with an elliptical loop 1 having reduced portions 2 located at one side thereof, with lugs 3 located at the side and at one end of the loop, with a hook 5 located in the same plane as the lugs, and with an oblong conveyer-flight located between the loop and the hook in line with the lugs, substantially as described.

No. 55,402. Animal Trap. (Piège.)

Eugene Clinton Waldurff, Buffalo, New York, U.S.A., 25th March, 1897; 6 years. (Filed 19th January, 1897.)

Claim.—1st. In a trap the combination with the base block and a vertical standard, of the spring jaw secured to one of said parts,

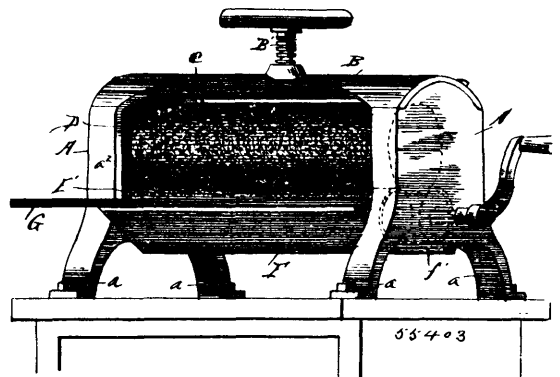
the spoon pivoted in rear of the spring jaw, the locking plate pivoted in the upper part of said standard, and having a locking recess sub-



stantially in the horizontal plane of its pivot, and a locking projection below said plane, and a trip-rod secured to said spoon forward of its point of pivoting and having a part for engaging said locking projection, substantially as described. 2nd. In a trap the combination with the base block and the vertical standard, of the spring jaw secured to one of said parts adjacent to its point of intersection with the other, the spoon pivoted in rear of said spring and standard, and having its upper face in the plane of the upper face of said base block when the trap is set, the locking plate pivoted in the upper part of the standard having a locking recess in a substantially horizontal line with its point of pivoting, and having a locking projection below said recess, and the trip rod secured to the spoon in front of its point of pivoting, having a sliding engagement with the standard and having a part for engaging said locking projection, said trip rod having a bait support secured thereto, substantially as described. 3rd. In a trap the combination with the base block provided with a pivoted spoon having its upper face in the plane of the upper face of the said block, a vertical standard provided with a slit in its upper end and a locking plate pivotally mounted in said slit and having a locking recess substantially in line with its point of pivoting and a locking projection, of a spring actuated bail adapted to engage said locking recess, and a trip-rod secured to said spoon and having a portion lying across said slit and adapted to engage the locking projection of said locking plate, substantially as described.

No. 55,403. Roller Copying Press.

(Presse à copier à rouleau.)



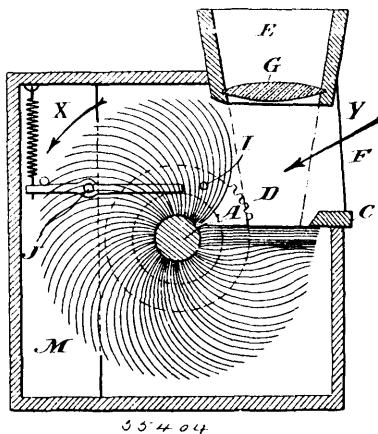
George C. Houser, Hagerstown, Indiana, U.S.A., 25th March, 1897; 6 years. (Filed 21st January, 1897.)

Claim.—1st. In a roller copying-press, the combination with a frame consisting of side pieces A A connected at their upper ends by a cross-piece B having centrally a threaded aperture, the side pieces having inwardly-projecting side flanges a² and a transverse flange a¹, the latter being provided with recesses forming bearings, of a pan connected to the lower part of the side pieces, a movable cross-bar C having depending bearings c at its ends, and a screw B¹ engaging the threaded aperture in the cross-piece so as to bear upon the cross-bar, together with a roller D journaled at its ends in the bearing c of the cross-bar rollers E E¹, journaled in the recesses in the transverse flange a¹, and an endless belt passing over

the rollers E E', said belt entering the pan F and engaging the roller D between the rollers E E', substantially as shown and for the purpose set forth.

No. 55,404. Photographic Apparatus.

(Appareil photographique.)



55404

Augusta Lumière and Louis Lumière, both of Lyons, France., 25th March, 1897; 6 years. (Filed 25th January, 1897.)

Claim.—1st. In an apparatus for the exhibition of pictures a series of radically disposed curved cards, means for revolving the same, and a catch for arresting the cards in passing and holding them as a plane surface while exposed to observation, substantially as described.

No. 55,405. Process of Treating Ores or Metallurgical Products. (Procédé pour le traitement des minerais ou produits métallurgique.)

Will J. Brown, Riddle, Oregon, U.S.A., 25th March, 1897; 6 years. (Filed 10th March, 1896.)

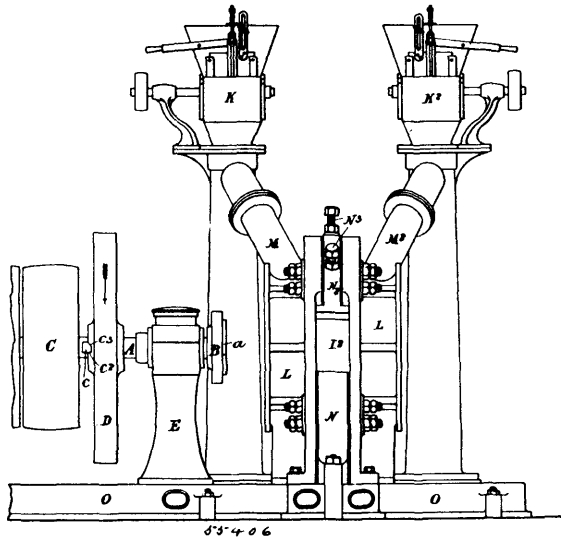
Claim.—1st. The process of treating ores or metallurgical products containing nickel or cobalt, which consists in heating them with a reducing agent to reduce to a magnetic state without fusion the metal or metals existing as chemical compounds or mechanical mixtures in the ores or metallurgical product, and then concentrating the resultant material, substantially as described. 2nd. The process of treating ores or metallurgical products, containing nickel or cobalt, which consists in reducing them to a sufficiently finely divided condition, and intimately mixing them with a granular or pulverulent reducing agent, then charging the mixture into a suitable furnace or retort to reduce to a magnetic state without fusion the metal or metals existing as chemical compounds or mechanical mixture in the ores or metallurgical product, and then concentrating the resultant material, substantially as described. 3rd. The process of treating ores or metallurgical products containing nickel or cobalt, which consists in reducing with a reducing agent to a magnetic state without fusion, the metal or metals existing as chemical compounds or mechanical mixtures therein, and then concentrating the resultant material by means of a magnetic separator, substantially as described. 4th. The process of treating ores or metallurgical products containing nickel or cobalt, which consists in reducing them to a sufficiently finely divided condition, intimately mixing them with saw-dust, then charging the mixture into a suitable furnace or retort to reduce to a magnetic state without fusion the metal or metals existing as chemical compounds in the ores or metallurgical products, and then concentrating the resultant material, substantially as described. 5th. The process of treating ores of nickel or cobalt which consists in reducing the ores to a sufficiently finely divided condition, then intimately mixing them with saw-dust, then charging the mixture into a suitable furnace or retort to reduce the nickel or cobalt to a magnetic state without fusion, and then concentrating the product by means of a magnetic separator, substantially as described.

No. 55,406. Grinding Mill. (Moulin à moudre.)

John Union Askham, Sheffield, York, England, 25th March, 1897; 6 years. (Filed 19th September, 1896.)

Claim.—1st. In apparatus of the kind hereinbefore described for grinding, pulverizing or disintegrating substances, duplex feeding devices for feeding the material to be operated on, at either end of the apparatus, as required, substantially as hereinbefore described. 2nd. In apparatus of the kind hereinbefore described, a driving shaft composed of two parts and a coupling device for connecting them together, one part of which shaft carries the rotating, operating parts of the apparatus, and is capable of being readily removed from and replaced in position in the apparatus, substantially as hereinbefore described. 3rd. In apparatus of the kind hereinbefore described, the combination with a driving-shaft and a fly-wheel loosely mounted thereon, of a projection on the shaft, and a notch

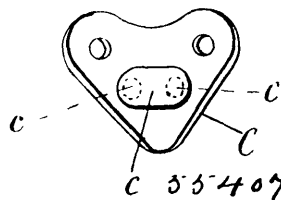
in the boss of the wheel, both projection and notch adapted to interlock and having correspondingly inclined surfaces, for the purpose



55406

set forth. 4th. In apparatus for grinding, crushing, pulverizing or disintegrating substances, the combination of the inclosing casing, driving shaft made in parts coupled together, operating arms with crushing rollers on said shaft and crushing ring with operating gear and feeding devices, all constructed and operating substantially as shown and described. 5th. In apparatus for grinding, crushing, pulverizing or disintegrating substances, the combination of the inclosing casing, the driving-shaft made in parts coupled together, a central set of propeller arms on said shaft and sets of driving arms, with crushing rollers and stirring arms on said shaft at either side of said central set of propeller arms and rings, crushing surfaces, with operating gear and feeding device, all constructed and operated substantially as shown and described. 6th. In apparatus of the kind hereinbefore described, the driving arms H, provided with key-ways *d, d'*, the bosses of the agitator arms having key-ways *e, e'*, the driving shaft having key-ways and the short keys *f* and the long keys *f'*, as shown and for the purpose set forth.

No. 55,407. Skate. (Patin.)

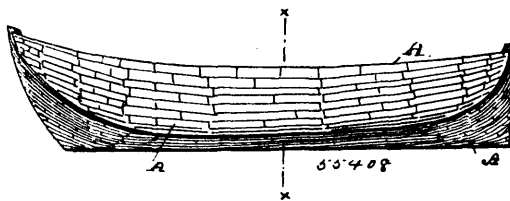


55407

Herman Walter Dorken, Montreal, Quebec, Canada, 25th March, 1897; 6 years. (Filed 4th December, 1896.)

Claim.—1st. An angle plate provided with a concavo-convex projection in front at its angle, substantially as set forth. 2nd. An angle plate provided with two indentations in the middle portion of its back close adjacent to its angle, and a concavo-convex projection in front of its angle and between the said indentations, substantially as set forth.

No. 55,408. Toy Boat. (Bateau jouet.)

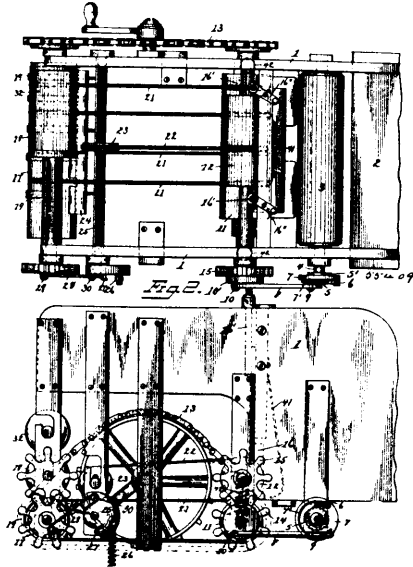


55408

Otto Sprecher, 73 Danzigerstrasse, and Emil Praetzel, 13 Mühlenweg, Friedrichshagen, both in Berlin, Prussia, 25th March, 1897; 6 years. (Filed 19th January, 1897.)

Claim.—The manufacture of toy boat shells characterized by the use of a pattern or mould which is covered with strips of flexible material, bound together by an adhesive substance, and coated or not with water-tight material or paint, constructed and arranged, substantially as hereinbefore described.

No. 55,409. Machine for Marking Letters, etc.
(*Machine à marquer les lettres, etc.*)



James Geary, Bradford, Pennsylvania, U.S.A., 25th March, 1897; 6 years. (Filed 20th January, 1897.)

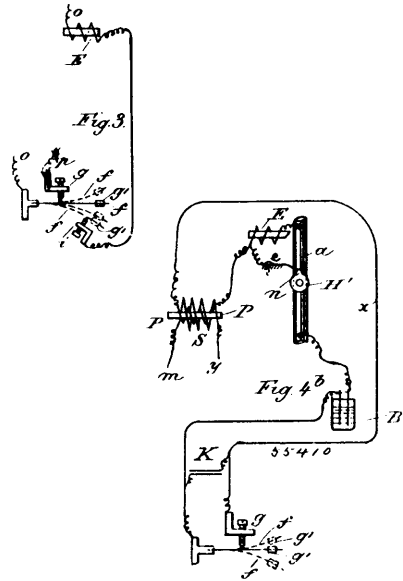
Claim.—1st. In a machine for marking letters and the like, the combination of the feeding table, the feeding roller situated in and below the upper surface of the table, devices for intermittently moving the roller to feed a letter, means for moving the letter beyond the feeding roller, the fixed separating plate 41, and adjustable fingers having free ends contiguous to the table and held below the lower edge of the side plate and in a different vertical plane, said ends being composed of elastic friction material, substantially as described. 2nd. In a machine for marking letters and the like, the combination of the feeding table, the feeding roller situated in and below the upper surface of the table, devices for intermittently moving the roller to feed a letter, the gripping feeding roller 11 and 12, the impression roller being circumferentially grooved and the cords or belts situated in said grooves and adapted to convey a letter between and from the feeding rollers to and between the impression and type rollers, substantially as described. 3rd. In a machine for marking letters and the like, the combination of the feeding table, the feeding roller situated in and below the upper surface of the table, devices for intermittently moving the roller to feed a letter, the gripping feeding rollers 11 and 12, the impression roller, the type roller, said feeding and impression rollers being circumferentially grooved and the cords or belts 22 and 21, situated in said grooves and adapted to convey a letter between and from the said feeding rollers to and between the impression and type rollers, a cord 22 and a cord 21 having contiguous parts to hold a letter between them while being moved thereby, substantially as described. 4th. In a machine for marking letters and the like, the combination of the feeding table, the feeding roller situated in and below the upper surface of the table, devices for intermittently moving the roller to feed a letter, the impression roller, a type roller, devices comprising endless bands of the like for moving a letter to and between said rollers, a stop plate provided with notches to receive said bands, mechanism to momentarily move the said plate into the path of a letter until its forward edge is in continuous contact therewith, and devices adapted to subsequently move the plate out of said path, substantially as described. 5th. In a machine for marking letters and the like, the combination of the feeding table, the feeding roller situated in and below the upper surface of the table, devices for intermittently moving the roller to feed a letter, the impression roller, a type roller, devices for moving a letter or the like to and between said rollers, a stop plate, a shaft to which the plate is fixed, a spring to move the plate into the path of a letter, and a rod pivoted to an arm on said shaft and to the impression roller to suitably move the plate and put the spring under tension, substantially as described. 6th. In a machine for marking letters and the like, the type roller having a recess to receive removable type and a spring having one end fixed to the roller and the other passing freely through an opening in the end of the roller to bear on the side of type and hold the same in the recess, substantially as described.

No. 55,410. Device for Ignition of Gas Jets by Means of Electricity. (*Appareil pour allumer le gaz par l'électricité.*)

Oscar Von Morstein, Hochstestrass, Berlin, Germany, 25th March, 1897; 6 years. (Filed 22nd January, 1897.)

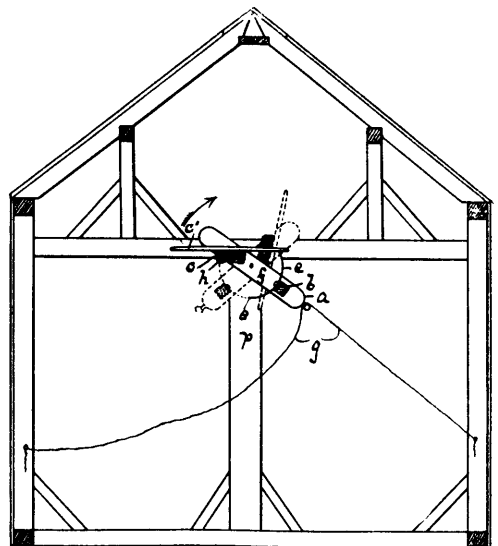
Claim.—1st. An arrangement for the ignition of gas jets from a distant point by means of secondary induction currents, consisting

of a contact device with intermittent make-and-break of the current, which device is cut in in the conductor between the source of



current and the primary coil, the wires leading to the burners being wound around the primary coil and serving in this state as secondary coils, substantially for the purpose as shown and described. 2nd. An arrangement for the ignition of gas jets from a distant point by means of secondary induction currents, consisting of a contact device with intermittent make-and-break of the current, which device is provided with a lever for opening the gas-cock and cut in in the conductor between the source of current and the primary coil, the wires leading to the burners being wound around the primary coil and serving in this state as secondary coils, substantially for the purpose as shown and described. 3rd. An arrangement for the ignition of gas jets from a distant point by means of secondary induction currents, consisting of a contact device with intermittent make-and-break of the current, which device is cut in in the conductor between the source of current and the primary coil, the wires leading to the burners being wound around the primary coil and serving in this state as secondary coils, the device being furthermore connected with an electro-magnet E for automatically opening the gas-cock, this electro-magnet being cut in in the same conductor as the inductor and arranged so as to disconnect itself as soon as the gas-cock is opened, substantially for the purpose as shown and described.

No. 55,411. Mowing Machine. (*Faucheuse.*)

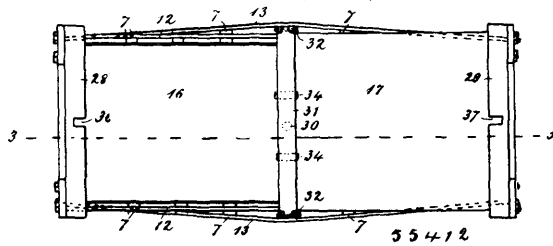


Thomas J. Morey, Nelson, New York, U.S.A., 26th March, 1897; 6 years. (Filed 26th February, 1897.)

Claim.—1st. A mowing apparatus, consisting of a frame pivoted on a horizontal axis, a rack pivoted to said frame parallel and eccentric in relation to the axis of the frame, braces on said frame

for sustaining the rack in horizontal position, and means for tilting the frame and rack as set forth. 2nd. A mowing apparatus, consisting of a frame composed of two parallel arms pivoted at the centre of their lengths on a horizontal shaft and a bar parallel with said shaft uniting arms, a rack pivoted at opposite ends to the aforesaid arms at corresponding end portions thereof, braces attached to the aforesaid bar and sustaining the rack in a horizontal position for receiving the hay, and means for tilting the frame and rack as set forth. 3rd. A mowing apparatus, composed of the arms *a* pivoted at the centres of their lengths on a horizontal axis, the bar *b* uniting said arms at corresponding ends, the rack-beam *c* pivoted at opposite ends to the free ends of the aforesaid arms, and having the slats *c*¹ projecting from opposite sides of the beam, the spring-plate *d* attached at the centre of its length to the aforesaid beam, the braces *e* attached to the bar *b* and in position to bear with one end at a time on one of the end-portions of the spring-plate, and means for tilting the aforesaid arms as set forth. 4th. A mowing apparatus, pivoted to and supported on a horizontal shaft and adjustable in length to accommodate the said rack to the width of the space it is to occupy, means for supporting the rack in a horizontal position, and means for tilting said rack to cast the hay, &c., to the mow, as set forth. 5th. A mowing apparatus, composed of the horizontal shaft *f*, secured at opposite ends to the fixed elevated supports, the arms *a* pivoted midway their lengths on said shaft, the bar *b* uniting said arms at one side of the shaft, the rack-beam *c* pivoted to said arms at the opposite side of the shaft, the slats *c*¹ secured at their central portions to said beam, the spring-plate attached to the rack-beam and extending from opposite sides thereof, the braces *e* attached to the bar *b* and the ropes *g* attached to one end of one of the aforesaid arms, as set forth and shown. 6th. The rack-beam *c* composed of end sections and overlapping central portions *c*², the slats *c*¹ fastened to the said portions of the beam and tying the same together, the cross-block *h* on the under side of the centre of the said beam, and the truss cham or rod *i* secured to the end portions of the rack-beam and bearing on the under side of the aforesaid block, all constructed and combined as described and shown.

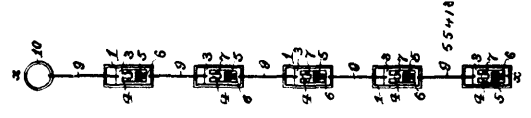
No. 55,412. Railway Car. (Chars.)



William G. Richards, Hillsboro, Ohio, U.S.A., 26th March, 1897; 6 years. (Filed 6th March, 1897.)

Claim.—1st. The combination with the car-bed, of a roof or cover consisting of two sections, one of said sections covering one end of the car and the other section covering the other end of the car, and a bolt passing through the inner ends of said sections, thus securing said sections together, substantially as set forth. 2nd. The combination with the car-bed, and two sets of bars secured therein, of a roof or cover consisting of two sections, one of said sections covering one end of the car and the other section covering the other end of the car, wheels secured to said sections, the wheel of one section resting upon one set of bars, and the wheels of the other section resting upon the other set of bars, and a bolt passing through the inner ends of said sections, thus securing said sections together, substantially as set forth. 3rd. The combination with the car-bed, of a roof or cover consisting of two sections, clips secured to one of said sections, and a cross-piece fitting in said clips, and thus holding said section in position, substantially as set forth. 4th. The combination with the car-bed, of a roof or cover consisting of two sections, a bolt passing through the inner ends of said sections, clips secured to one of said sections, a cross-piece fitting in said clips and covering said bolt, and means for securing said cross-piece in position, substantially as set forth. 5th. The combination with the car-bed, having its ends higher than the sides, the end cross-pieces 28 and 29, and the centre cross-piece 31, of a roof or cover consisting of two sections, said sections having their outer ends under said end cross-pieces respectively, and having their inner ends under said centre cross-piece, and means for securing said sections in position, substantially as set forth. 6th. The combination with a car having the usual side-walls 5, of bars extending longitudinally along the inner sides of the walls, bars extending along the outer sides of the walls, a cover for one end of the car sliding upon and supported by the inner bars, and a cover for the other end of the car adapted to slide over the first cover and supported by the outer bars. 7th. The combination with a car having the side-walls, of the longitudinally-extending bars at the inner sides of said walls, a cover for one end of the car provided with rollers adapted to travel on said bars, longitudinally-extending bars at the outer sides of the walls, and a cover for the other end of the car provided with rollers adapted to travel on the last-named bars, said cover arranged to be shifted to overlie that first-named, whereby, by telescoping the covers, the ends of the car may be exposed and access permitted to its interior.

No. 55,413. Corset Clasp. (Agrafe de corset.)

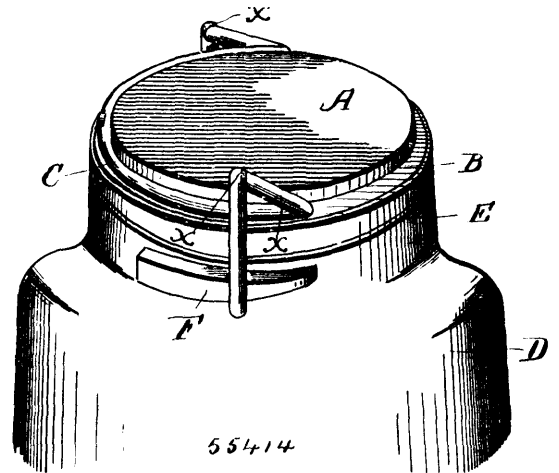


Oliver Mansfield Chesney, Topeka, Kansas, U.S.A., 29th March 1897; 6 years. (Filed 9th March, 1897.)

Claim.—In combination a casing having end apertures and central openings in the sides of the same, a slide guided by the inner walls of the casing, and having a cut-away centre producing a tongue, said tongue having a bevelled end, a staple 8, having a cut-away portion to receive the tongue, connections for operating the slide, and springs connected with the connections whereby the slide and connections are held in a locked position, as and for the purpose described.

No. 55,414. Lid Fastener for Fruit Jars, etc.

(Attache de couvercle de jarres à fruits, etc.)

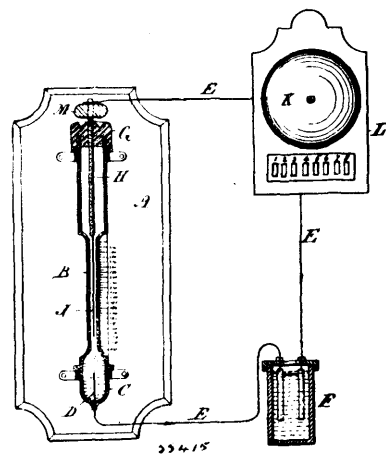


Jacob Bonshire, Yorktown, Indiana, U.S.A., 26th March, 1897; 6 years. (Filed 9th March, 1897.)

Claim.—In a fastener for jars, the combination with a jar, of inclined lugs on the jar, a lid having a circular grooved recess in its upper surface, a curved wire fastener resting in said grooved recess and extending nearly around the lid, the ends of the fastener being bent rearwardly, outwardly and upwardly forming a spring portion, then downwardly, and then inwardly forming points adapted to engage the inclined lugs on the jar, substantially as described.

No. 55,415. Electrical Thermostat.

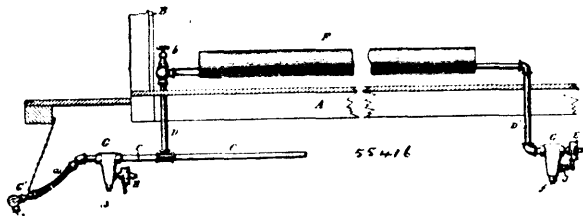
(Thermostat électrique.)



Frederick Green, Hull, Quebec, Canada, 25th March, 1897; 6 years. (Filed 26th February, 1897.)

Claim.—In an electric thermostat, the thermometer tube B, having an open end closed by a rubber nut or cap G, a screw H, screwing through said nut or cap and carrying a platinum wire J, and a platinum bulb D, entering the closed bulb C, of the tube, as and for the purpose set forth.

No. 55,416. Separator for Steam-pipes of Railway Cars. (*Séparateur pour vapeur à vapeur.*)



E. E. Gold, New York, State of New York, U.S.A., 26th March, 1897; 6 years. (Filed 5th March, 1897.)

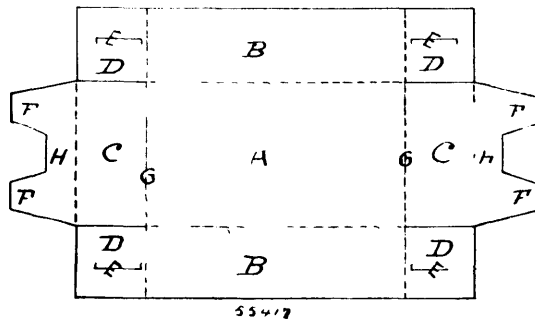
Claim.—1st. A separator consisting of a chamber having openings for the steam-pipe at opposite sides, extended downwardly beneath said openings to form a pocket, having an intercepting partition between its upper openings adapted to deflect a stream of fluid flowing between said openings, with an opening or passage around said partition and above the highest water level in the pocket, whereby the flow of steam is not obstructed by the filling of the pocket with water, ice or sediment, formed with a bottom opening for the discharge of sediment, and formed at its side with an outlet opening above said bottom opening so as to leave a space for sediment beneath it, and an automatic drainage trap applied to said side opening for draining accumulated water from the pocket. 2nd. The combination with the steam heating pipes of a railway car, of a separator consisting of a chamber having openings for the steam-pipe at opposite sides, extended downwardly beneath said openings to form a pocket for receiving condensed water or sediment, and having an intercepting partition between its upper openings adapted to deflect the stream of fluid flowing between said openings, and with an opening or passage around said partition out of line with the steam-pipe openings, and above the highest water level in the pocket, and a thermostatic drainage trap in connection with said chamber, constructed to open and drain off the condensed water when the latter cools to a predetermined extent. 3rd. The combination with the main steam-supply pipe of a railway car, of a separator introduced in said pipe consisting of a single chamber having openings for the steam-pipe at opposite sides, extended downwardly beneath said openings to form a pocket for receiving condensed water or sediment, and having an intercepting partition between its upper openings adapted to deflect the steam flowing between said openings, and with an opening or passage around said partition, out of line with the steam-pipe openings above the highest water level in the pocket, and a drainage opening at the lower portion of the pocket through which to discharge the accumulated water therefrom. 4th. The combination with the main steam-supply pipe and branch heating-pipe of a railway car, and a thermostatic drainage trap at the end of said branch pipe, of a separator introduced into said branch pipe at the lowest part thereof between the heating portion thereof within the car and said trap, said separator consisting of a chamber having openings for the steam-pipe at opposite sides, extended downwardly beneath said openings to form a pocket for receiving condensed water or sediment, having an intercepting partition between its upper openings adapted to deflect the stream of fluid flowing between said openings, and formed with a drainage opening through which to discharge the accumulated water from said pocket, and a dynamic relief trap applied to said opening, constructed to open automatically when relieved of pressure and to be closed by a pressure within the branch pipe. 5th. The combination with a terminal thermostatic drainage trap, of a separator connected to its inlet to protect it from sediment, said separator consisting of a chamber having upper openings for inflow of steam or water of condensation and for outflow thereof to said trap, extended thence downward to form a pocket for condensation water and sediment, having a partition at its upper part between the inflow and outflow openings, adapted to deflect the current of steam and prevent the blowing through of sediment into the trap, and provided with a second trap applied to said pocket at a lower level for discharging the water accumulated therein to prevent freezing when out of service. 6th. The separator G having upper inlet and outlet openings *c c*, a deflecting partition *d* between them with side openings *e e* to permit a flow around it, a bottom opening for discharging sediment, and a side opening at an intermediate level, combined with a trap applied to said latter opening.

No. 55,417. Lock. (*Serrure.*)

Thomas Grayson Bell, Ottawa, Ontario, Canada, 26th March, 1897; 6 years. (Filed 6th March, 1897.)

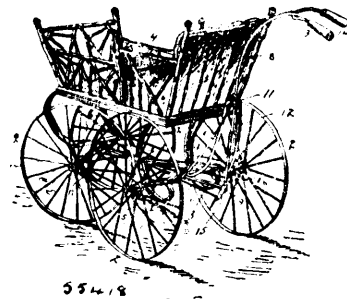
Claim.—1st. The herein described improvement in folding boxes, consisting of a single blank formed with bottom, sides and ends, as set forth, corner sections that are infolded and overlapped, and locking flaps formed as extensions of the end sections of the box, said flaps having tongues F-F adapted to interlock with said overlapping corners, sections D-D in slots E-E, all substantially as specified. 2nd. The herein described box, formed of a single piece, consisting

of the bottom A, sides B-B, ends C-C, corner sections D-D, adapted to fold in upon and overlapping sections C-C, as set forth, and end



flaps H-H, the latter turned down and tongue F-F being pushed in to slot E-E, all substantially as specified.

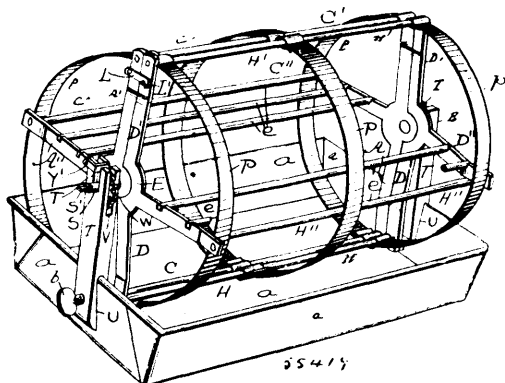
No. 55,418. Baby Carriage. (*Voiture d'enfants.*)



George Lanten Rothamel, Northumberland, Pennsylvania, U.S.A., 26th March, 1897; 6 years. (Filed 8th March, 1897.)

Claim.—1st. In a vehicle of the class described, the reach-bar extended in rear of the rear axle and provided with an eye-bearing, in combination with a rearwardly and upwardly curving brace connected to the reach-bar and provided with an eye-bearing above the bearing in said reach-bar, oblique braces extending from the aforesaid brace to the rear axle, a guiding-rod journalled in said eye-bearings and having a handle-bar with grips at its upper end, a cross-piece rigidly attached to the lower end of said guiding-rod, connections extending from the ends of said cross-piece to the front axle, and rollers supported by the reach-bar, intermediate the axles, over which the connections work, all combined and arranged substantially as described. 2nd. In a vehicle of the class described, the reach-bar extended back of the rear axle and provided at its rear end with an eye-bearing, in combination with a steering-rod therein journalled, and provided at its upper end with a handle-bar and grips, a cross-piece rigidly secured to the lower end of said guiding-rod, connections between the opposite ends of said cross-piece and the front axle, and a bracket on the reach-bar intermediate the axles, said bracket having spaced rollers between which said connections run, whereby said connections are held inward in proximity to the reach-bar, substantially as and for the purpose described.

No. 55,419. Baking Pan. (*Casserole.*)

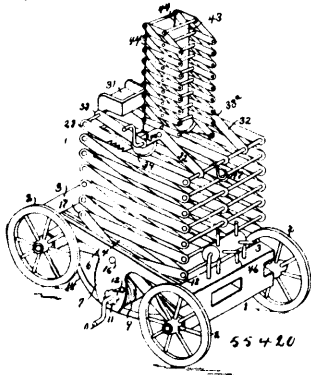


Joseph Lacroix, Fall River, Mass., U.S.A., 26th March, 1897; 6 years. (Filed 6th March, 1897.)

Claim.—1st. The herein-described improved attachment for baking-pans, consisting of a frame comprising the two sets of radial spokes or bars A, A' A'' and hub B thereof, the longitudinal rods C, C' C'' connecting said sets of spokes, the two sets of radial spokes D, D'

D¹¹, D¹² and hub E thereof, and longitudinal bars H, H¹, H¹¹ connecting said spokes, the bands P extending from the bars H, C over the bars H¹¹, C¹¹ to the bars H¹, C¹, said bars H, C being hinged together, and the opposite portions of the frame being adapted to be secured together by a latch or equivalent contrivance, spindles S extending horizontally outward from the hubs B, and supporting-standards adapted to receive said spindles and to be secured to the sides or ends of a baking-pan, substantially as described. 2nd. The herein-described improved attachment for baking-pans, consisting of a frame comprising the two sets of radial spokes or bars A, A¹, A¹¹ and hub B thereof, the longitudinal rods C, C¹, C¹¹ connecting said sets of spokes, the two sets of radial spokes D, D¹, D¹¹ and hub E thereof, and longitudinal bars H, H¹, H¹¹ connecting said spokes, the bands P extending from the bars H, C over the bars H¹¹, C¹¹ to the bars H¹, C¹, said bars H, C being hinged together, and the opposite portion of the frame being adapted to be secured together by a latch or equivalent contrivance, spindles S extending horizontally outward from the hubs B, the supporting-standards T bifurcated at their lower ends in order to embrace the sides or ends of a baking-pan, said standards being provided at their upper ends with the bifurcations T¹ whereby the spindles S are supported and one of said standards being further provided with the cross-bifurcation V, the notched wheel W fast on one of the spindles and extending into said bifurcation V, and a latch or locking-bar pivoted to the standard and adapted to extend normally into one of the notches in said wheel, substantially as set forth. 3rd. The herein-described improved attachment for baking-pans, consisting of a frame comprising the two sets of radial spokes or bars A, A¹, A¹¹ and hub B thereof, the longitudinal rods C, C¹, C¹¹ connecting said sets of spokes, the two sets of radial spokes D, D¹, D¹¹ the hub E thereof, and longitudinal bars H, H¹, H¹¹ connecting said spokes, the bands P extending from the bars H, C over the bars H¹¹, C¹¹ to the bars H¹, C¹ said bars H, C being hinged together, and the opposite portion of the frame being adapted to be secured together by a latch or equivalent contrivance, spindles S extending horizontally outward from the hubs B, the longitudinal partition-rods c extending from one to the other of the radial bars D¹¹ and from one to the other of the radial bars A¹¹, and supporting-standards adapted to receive the spindles and to be secured to the ends and sides of a baking-pan substantially as described.

No. 55,420. Fire-Escape. (*Sauveteur d'incendie.*)



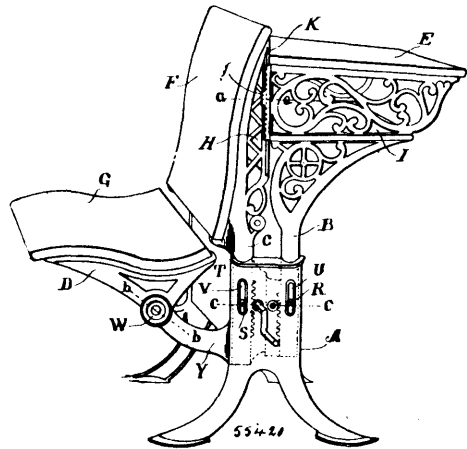
Ignatz Knapke, Walla, Washington, U.S.A., 26th March, 1897; 6 years. (Filed 8th March, 1897.)

Claim.—1st. In a device of the character set forth, the combination with a truck mounted on suitable wheels and made up of a pair of cross-beams and longitudinal beams separated one from the other, and a series of metallic plates secured to the cross-beams of said truck frame, the outer of said metallic beams having extensions at their centre, of a drum mounted transversely of the frame in said extensions, having crank arms upon its outer ends, ratchet wheels and pawls for preventing backward movement of said drum, a series of semi-circular guide-rods secured to the front and rear cross-beams of said truck frame, a series of pairs of intersecting rods fulcrumed to the truck frame at their central points, having bifurcated lower ends acting in engagement with said semi-circular guide-rods, cords connected to the lower ends of said rods and to said drum, and a series of similar intersecting rods pivoted to the upper ends of the rods fulcrumed in said truck frame, and ladders arranged alternately on opposite sides of said series of rods, substantially as and for the purpose described. 2nd. In a device of the character set forth, the combination with a truck mounted upon suitable wheels and made up of a pair of cross-beams and longitudinal beams separated one from the other, and a series of metallic plates secured to the cross-beams of said truck frame, the outer of said metallic beams having extensions at their centre, of a drum mounted transversely of the frame in said extensions, having crank arms upon its outer ends, ratchet-wheels and pawls for preventing backward movement of said drum, a series of semi-circular guide-rods secured to the front and rear cross-beams of said truck frame, a series of pairs of intersecting rods fulcrumed to the truck frame at their central points, having bifurcated lower ends acting in engagement with said semi-

circular guide-rods, cords connected to the lower ends of said rods and to said drum, and a series of similar intersecting rods pivoted to the upper ends of the rods fulcrumed in said truck frame, ladders arranged alternately on opposite sides of said series of rods, and notched locking bars pivoted to the upper end of said series of angularly-arranged rods and adapted to be attached to the opposite end thereof, substantially as and for the purpose described. 3rd. In a device of the character set forth, the combination with a truck mounted upon suitable wheels and made up of a pair of cross-beams and longitudinal beams separated one from the other, and a series of metallic plates secured to the cross-beams of said truck-frame, the outer of said metallic beams having extensions at their centre, of a drum mounted transversely of the frame in said extensions, having crank arms upon its outer ends, ratchet-wheels and pawls for preventing backward movement of said drum, a series of semi-circular guide-rods secured to the front and rear cross-beams of said truck frame, a series of pairs of intersecting rods fulcrumed to the truck frame at their central points, having bifurcated lower ends acting in engagement with said semi-circular guide-rods, cords connected to the lower ends of said rods and to said drum, and a series of similar intersecting rods pivoted to the upper ends of the rods fulcrumed to said truck frame, ladders arranged alternately on opposite sides of said series of rods, a pair of rods having rearward extensions at their upper ends, pivoted to the transverse rod connecting the upper end of said series of intersecting rods, a drum having crank arms upon its outer end, fulcrumed in said extensions, and a suspension-bridge pivoted to the upper ends of said rearwardly extending rod, made up of a series of intersecting rods, the ends of the inner rods being connected through cords to said drum, each pair of rods fulcrumed at their centre by transverse shafts, and an extensible floor pivoted to said transverse shafts, substantially as and for the purpose described.

No. 55,421. School Seat and Desk.

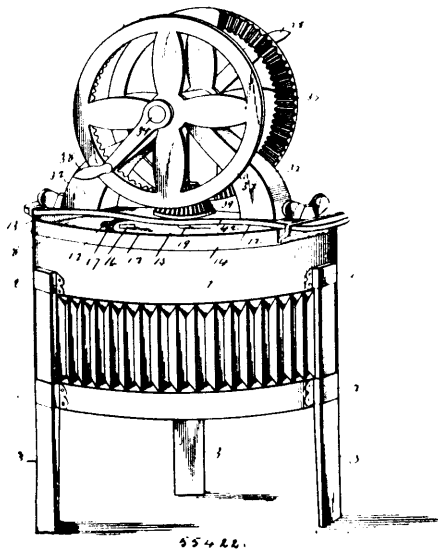
(*Pupitre-siège d'école*)



Eugene H. Mosher, Holland, Michigan, U.S.A., 26th March, 1897; 6 years. (Filed 8th March, 1897.)

Claim.—1st. In a combined seat and desk, the combination with a base, of a standard supporting the desk and a standard supporting the seat, each standard to be adjusted separately in the base, substantially as described. 2nd. In a seat and desk combined, the combination with a base provided with slots, desk standards provided with racks, pinions adapted to engage with said racks, pins or bolts rigidly connected with the standards having a free end moving in the slots, and means for moving or operating the pinions for the purpose of raising or lowering the desk standard and desk, substantially as described. 3rd. In combination with a base provided with slots, a seat standard supporting the seat and seat back, pins or bolts secured to the seat standards engaging with the slots in the base, racks, one at either side, rigidly connected to the seat standards, and pinions adapted to engage with such racks for the purpose of adjusting vertically the seat standards and seats, substantially as described. 4th. In a combined seat and desk, the combination of a shelf, a perpendicular board or backing extending from said shelf upward so as to cover the portion of the seat back extending above the desk, substantially as described. 5th. The combination of a desk standard and frame with a seat standard and frame, provided with an adjustable attachment allowing the said seat standard and frame to be adjusted separately from the adjustment of the desk standard and frame without breaking the attachment between the two, substantially as described. 6th. In combination with the metallic framework, a wooden seat and back provided with grooves substantially as described, lugs upon the framework having enlarged heads engaging with said grooves securing the wood to the frame, substantially as and for the purposes described. 7th. In combination with the wooden portion of a seat, a groove as L adapted to engage with lugs as M, said lugs being securely attached to the metal framework of the seat or desk, substantially as described.

No. 55,422. Washing Machine. (*Machine à laver.*)

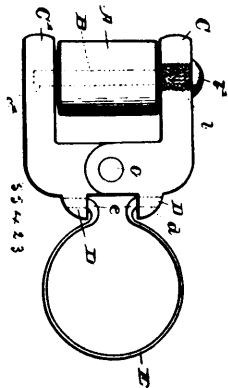


Samuel Martin Windmiller and Lee Holford, both of Nebs, Illinois, U.S.A., 26th March, 1897; 6 years. (Filed 9th March, 1897.)

Claim.—1st. A washing machine comprising the vertical shaft 19 provided with the bevel pinion 39, and the horizontal shaft 34 having circumferential groove 36 and mutilated gear wheels 37, 37', provided with handles 38, substantially as and for the purpose set forth. 2nd. A washing machine comprising the circular tub 1, provided with the concave bottom 2, having depressed recess 5 and orifice 6, the top 8 having orifice 9, radial recesses 10, and lugs 12, the circular flange 14, the removable cover 15 having radial recesses 17 and integral tongues 18, the shaft 19 having square portion 21, cross-pin 20 and set-screw 24, the spiral spring 25, and the frame 23, having central square orifice 22, integral cross-bars 27, and the spindles 28 mounted so as to rotate freely in said frame, substantially as and for the purpose set forth.

No. 55,423. Combined Rein-holder and Guide.

(*Acroche-rênes et guides combinés.*)



David Gardner Webster, Capron, Illinois, U.S.A., 26th March, 1897; 6 years. (Filed 9th March, 1897.)

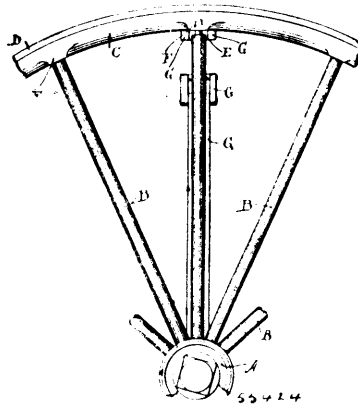
Claim.—1st. A combined rein-holder and guide, comprising the jaws C, C', the spring E connecting said jaws, the screw-shaft B, and the roller A mounted on said shaft, substantially as and for the purpose set forth. 2nd. A rein-holder comprising the spring-jaws, a shaft secured between said jaws, a cylindrical roller mounted on said shaft, and means substantially as described for securing the same to the harness, as and for the purpose set forth. 3rd. A rein-holder comprising a spring-frame, a shaft removably secured in said frame, a roller mounted on said shaft to form a guide for the rein, and means substantially as described for securing the same to the harness, as and for the purpose set forth.

No. 55,424. Tire Tightening Device. (*Lien de jante.*)

James Pollock, Milburn, Illinois, U.S.A., 26th March, 1897; 6 years. (Filed 8th March, 1897.)

Claim.—As a new article of manufacture, a tire-tightening washer comprising a flat substantially horse-shoe shaped piece of rigid metal having its ends separated by a distance equal to its inner diameter when the ends are closed, having also a series of

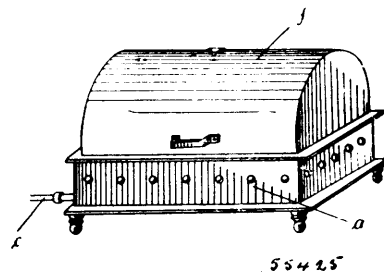
inner notches so that the ends can be closed without breaking the metal, and shaped so that when closed it forms a ring with an inner



circle and a substantially uniform outer elliptical circumference, substantially as and for the purpose specified.

No. 55,425. Apparatus for Roasting Meat.

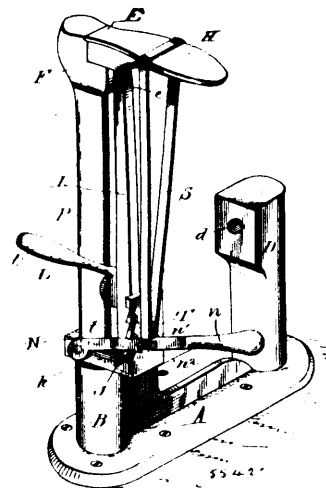
(*Appareil pour rôtir la viande.*)



Adolph Emil Bantz, Breslau, Prussia, Germany, 26th March, 1897; 6 years. (Filed 9th March, 1897.)

Claim.—A gas oven for roasting meat, characterized by a closed water tank *b* within the oven *a*, over which is placed the grill *m* for the meat in the described manner and for the purposes mentioned.

No. 55,426. Boot and Shoe Jack. (*Cric pour chaussures.*)

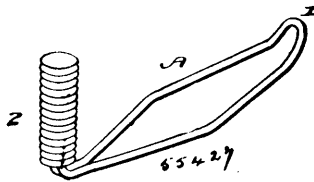


William Bayhouse, Boise, Idaho, U.S.A., 26th March, 1897; 6 years. (Filed 9th March, 1897.)

Claim.—1st. A repairing jack of the class described, consisting of the base A, having a rigid socket B and a pivoted standard D, having a horizontal socket *d*, the jack E having the shank C, and the heel F having rectangular recess and the upright lever I, in combination with the last H, integral tongue *h*, recess *i*, and the lever L provided with a cam face M and an operating handle *l*, substantially as and for the purpose set forth. 2nd. A repairing jack, consisting of the upright P integral heel F, having a rectangular recess, the upright lever I, and the cam faced lever L M, in combination with the removable last H, having an integral tongue *h* and recess *i*, substantially as and for the purpose set forth. 3rd. A repairing jack, consisting of the base A, having rigid vertical

socket B and pivoted standard D, having horizontal socket *d*, in combination with upright P, shank C, heel F, having a recess, the last H, having tongue *b*, and recess *i*, and upright lever I, fulcrumed on the pivot J, and having a semicircular bearing end *c*, and the square upper end *e* and the cam faced hand lever L, M, substantially as and for the purpose set forth.

No. 55,427. Buttoner. (*Crochet pour boutons de chaussures.*)

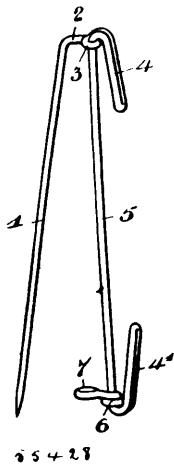


Charles Elmer Easterly, Lawrence, Kansas, U.S.A., 26th March, 1897; 6 years. (Filed 9th March, 1897.)

Claim.—1st. The improved buttoner herein described, consisting of a wire loop widened at the middle and having the free end turned upward, and a handle of any suitable material secured to the other end, and arranged substantially at right angles to the plane of the loop. 2nd. The improved buttoner, constructed of a single piece of wire, formed into a loop A, having the looped-end turned upward in a direction at an angle to the plane of the loop, the strands at the other end of the loop turned upward parallel to each other, one strand being bent back upon itself and the other twisted or coiled about the vertical portions to form a roughened finger grip, with all the coils contacting, and secured at the base of the strands, the upper coil of the strand being upset or flattened and soldered or brazed to the adjacent coil, substantially as and for the purpose set forth.

No. 55,428. Ladies' Belt-pin.

(*Epingie pour ceintures de dames.*)



Stonewall Jackson Thomas, Lovettsville, Virginia, U.S.A., 26th March, 1897; 6 years. (Filed 9th March, 1897.)

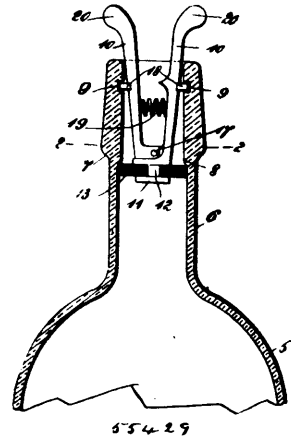
Claim.—A belt-pin comprising the pointed tongue 1, the arm 2, eye 3, double arms 4, 4¹, coil 6, and open loop 7, substantially as shown and described.

No. 55,429. Bottle stopper. (*Bouchon.*)

Montague Mosley Bear, Chicago, Illinois, U.S.A., 26th March, 1897; 6 years. (Filed 9th March, 1897.)

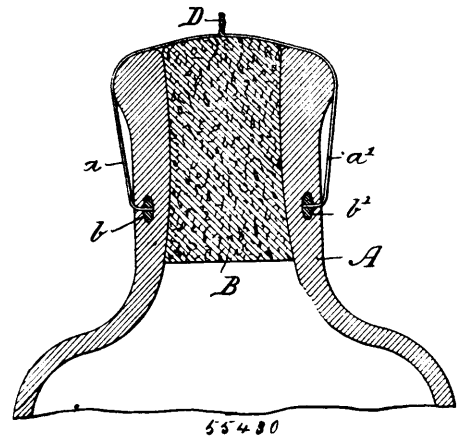
Claim.—1st. A stopper for bottles and other vessels, comprising two separate jaws or levers which are pivotally connected at their lower ends, and one of which is provided with a circular head in which is formed an annular groove in which is mounted an annular elastic disc or valve, said jaws or levers being also provided near their upper ends with outwardly directed projections which are adapted to enter corresponding openings formed in the inner walls of the neck, and said jaws or levers being also provided between said projections and the pivotal connection with a spiral spring by which they are forced outwardly, substantially as shown and described. 2nd. A stopper for bottles and other vessels, comprising two separate jaws or levers which are pivotally connected at their lower ends, and one of which is provided with a circular head in which is formed an annular groove in which is mounted an annular elastic disc or valve, said jaws or levers being also provided near the upper ends with outwardly directed projections which are adapted to enter corresponding openings formed in the inner walls

of the neck and said jaws or levers being also provided between said projections and the pivotal connection with a spiral spring by which



they are forced outwardly, and said jaws or levers being also provided at their upper ends with handles or knobs, substantially as shown and described.

No. 55,430. Protective Bottle. (*Cachetage des bouteilles.*)



Alice Maria Gillam, Flushing, New York, U.S.A., 26th March, 1897; 6 years. (Filed 10th March, 1897.)

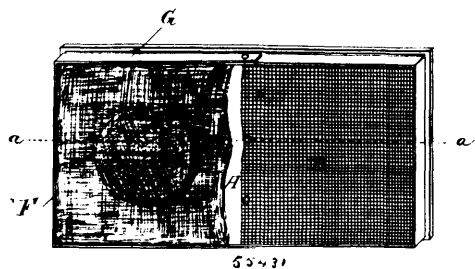
Claim.—1st. In a protective bottle, the combination with the bottle neck and a cork or stopper, of wires each having a bead imbedded in the wall of said neck and said wires adapted to be drawn over and down upon said cork or stopper and to be inseparably united to each other, substantially as and for the purposes described. 2nd. In a protective bottle, the combination with the bottle neck and a cork or stopper therefor, of two wires each having an enlarged head of a colour conspicuously distinguishable from the colour of both wire and bottle neck adapted to be imbedded in the neck, said wires adapted to be drawn over and down upon the stopper and to be inseparably united to each other, substantially as and for the purposes described. 3rd. In a protective bottle, the combination with the bottle neck and a cork or stopper therefor, of two wires each of which is provided with an enlarged coloured glass head, said heads adapted to be imbedded in and securely united to the bottle neck, and said wires adapted to be drawn over and down upon the stopper and to be inseparably united to each other by welding, substantially as and for the purposes described. 4th. In a protective bottle, the combination with the bottle neck, a cork or stopper therefor and a metallic cap for said stopper, of two wires each of which is provided with an enlarged coloured glass head adapted to be imbedded in and securely united to the bottle neck, and said wires adapted to be drawn over and down upon the stopper and to be inseparably united to each other and to the metallic cap of the stopper by welding, substantially as and for the purposes described.

No. 55,431. Method of Cleaning and Waxing Board for Sad-Irons. (*Planche à nettoyer et cirer pour fer à repasser.*)

Frances Lavinia Pickering, Brantford, Ontario, Canada, 26th March, 1897; 6 years. (Filed 10th March, 1897.)

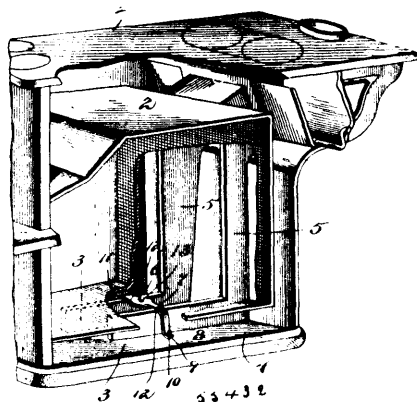
Claim. 1st. A cleaning and waxing board consisting of a cleaning surface, capable of removing from the polishing surface of the sad-iron all foreign matter, and a polishing surface for imparting to the polishing surface of the sad-iron a thin coating of polishing composition, substantially as specified. 2nd. A cleaning and waxing

board consisting of a base, a metallic gauze covering one end of the base, non-combustible material interposed between the base and the



gauze, a recess in the opposite end of the base to receive the polishing composition, and a textile fabric covering for the said opposite end of the base and composition, substantially as specified. 3rd. A cleaning and waxing board consisting of a base, a metallic gauze covering one end of the base, non-combustible material interposed between the base and the gauze, a recess in the opposite end of the base to receive the polishing composition, a textile fabric covering for the said opposite end of the base and composition, and a bail to bind the textile fabric covering to the base, substantially as specified.

No. 55,432. Stove. (Poêle.)



John J. McGuff, Lexington, Kentucky, U.S.A., 26th March, 1897; 6 years. (Filed 11th March, 1897.)

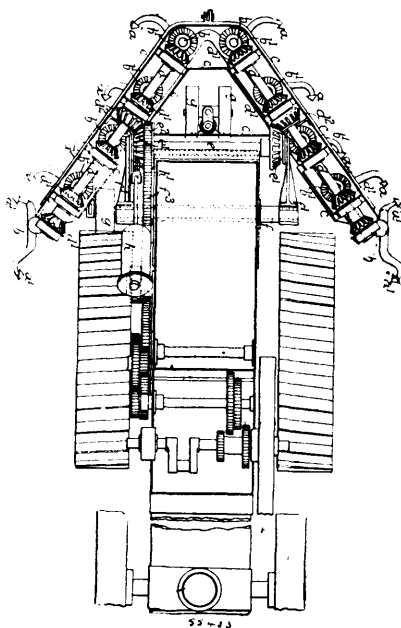
Claim.—1st. In a stove attachment, the combination with the stove body, the oven therein, and the flue strip or strips between the oven and the stove body, said strip or strips being notched in their edges next to the oven, of a combined flue strip lock and oven brace comprising a single arched bar straddling the strip or strips and registering in the notch or notches thereof, said arched bar being bolted to the oven and to the adjacent portion of the stove body and having its end portions resting flat against the strip or strips to prevent lateral displacement thereof, substantially as set forth. 2nd. In a stove attachment, the combination with the stove body, the sheet metal oven therein, and the flue strips between the oven and the stove body, the bottom flue strips being provided in their upper edges with notches, of a combined flue strip lock and oven brace comprising an arched bar straddling the bottom flue strips and provided with a straight brace portion registering in the notches of said strips under the bottom plate of the oven and short end legs bent from the ends of the straight brace portion at the outer sides of the bottom flue strips and provided at their terminal ends with attaching feet or flanges bolted to the bottom of the stove, said brace portion being further provided with a central bolt hole, and adjacent to said short end legs with short retaining lugs engaging at the inner upper edges of the bottom flue strips, substantially as set forth.

No. 55,433. Cultivator. (Cultivateur.)

Thomas Albert Darby and Sidney Charles Darby, both of Pleshey, Essex, England, 26th March, 1897; 6 years. (Filed 10th March, 1897.)

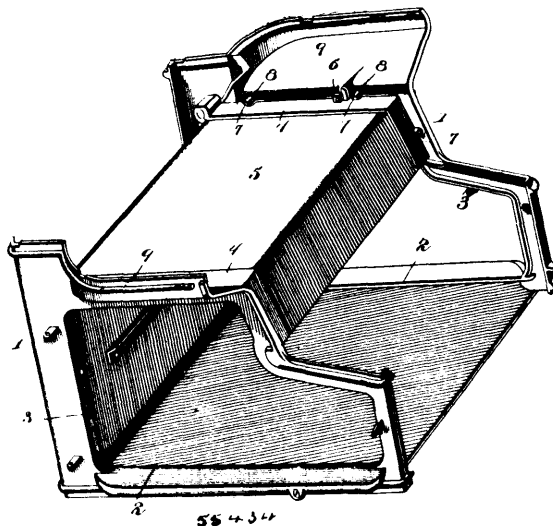
Claim.—1st. In implements for digging or cultivating land, the peculiar arrangements and combinations of parts, substantially as herein shown and described. 2nd. In implements for digging or cultivating land, the combination with a suitable supporting frame and driving means, of tools carried by shafts slightly inclined from the vertical, substantially as herein shown and described and for the purpose stated. 3rd. In implements for digging or cultivating land, the arrangement of tools mounted and operating as herein described on a triangular frame, substantially as herein shown and

described and for the purpose stated. 4th. An implement for cultivating land, in which the tools are arranged in V-form and are set



at such an angle as, whilst acting to cultivate the land, they also assist in propelling the implement forward, substantially as herein set forth.

No. 55,434. Cooking Stove and Range.
(Poêle de cuisine.)



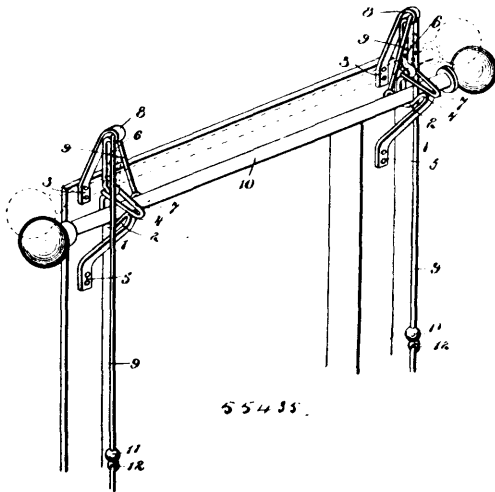
John J. McGuff, Lexington, Kentucky, U.S.A., 27th March, 1897; 6 years. (Filed 11th March, 1897.)

Claim.—1st. In a stove, the side or end frame pieces thereof provided with inwardly extending flanges corresponding approximately to the configuration of the oven, in combination with an oven sheet or plate disposed around said flanges, and separable binding frames surrounding said oven, said frames being arranged in proximal relation to the edges of said oven sheet or plate and secured to the stove frame, substantially in the manner and for the purpose described. 2nd. In a stove, the end frame piece thereof provided with integral inwardly projecting flanges corresponding to the configuration of the oven, in combination with an oven plate or sheet extending around said flanges, and separable binding frames extending around said oven and removably secured to the stove frame, said binding frames being formed with tapering notches which cooperate with bevelled or inclined inwardly projecting spurs on the stove frame, substantially in the manner and for the purpose specified. 3rd. In a stove, the frame pieces thereof provided adjacent to their tops with expanded or laterally extended portions for affording an increased flue space immediately above the oven, substantially as and for the purpose set forth. 4th. The combination with a cooking stove having its side plates provided with bolts adjacent to the oven space, of a sheet metal oven composed of a

single sheet of metal corresponding to the contour of the oven space, and binding frames extending continuously about the exterior of the oven on each edge thereof, said binding frames being formed with lugs to take over the bolts of the side plates, substantially as set forth.

No. 55,435. Curtain Pole Bracket.

(*Console pour bâtons de rideaux.*)



William Samuel Powell, Johnstown, Pennsylvania, U.S.A., 27th March, 1897; 6 years. (Filed 11th March, 1897.)

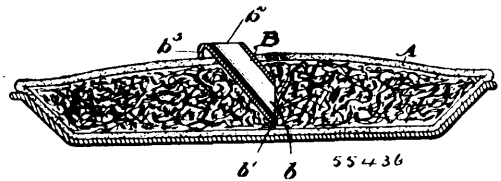
Claim.—1st. Brackets for curtain poles formed with pole-receiving depressions, swinging bails adapted to close said pole receiving depressions, and a pole adapted to be positioned in the pole-receiving depressions and by its upward movement to swing upward the said bails, substantially as and for the purpose shown and described. 2nd. The combination with brackets provided with pole-receiving depressions, of swinging bails pivoted in the said brackets and adapted to close the pole-receiving depressions to prevent the passage of the pole therein when the same is being lowered, substantially as shown and described. 3rd. The curtain pole brackets formed with pole-receiving depressions, a pole adapted to rest in said depressions, swinging bails pivoted in the brackets above the depressions and adapted to normally close the same, and a means for raising the pole and lifting the swinging bails, the said bails adapted, when disengaged from the pole, to close the depressions and prevent the pole from passing therein when being lowered, substantially as shown and described. 4th. Curtain pole brackets formed with pole receiving depressions, the lower portions of the brackets being curved or inclined downward from the said depressions, swinging bails pivoted above the depressions and adapted to normally close the same, a pole adapted to be positioned in the depressions and, when lifted, to raise the swinging bails, the bails when disengaged from the poles adapted to drop downward by gravity and the close depressions to prevent the passage therein of the pole when being lowered, and a means for raising and lowering the pole, substantially as shown and described. 5th. Curtain pole brackets formed with pole-receiving depressions, swinging bails pivoted in the brackets and adapted to normally swing downward and close the depressions, the ends of the bails projecting beyond the wall of the depressions, a pole adapted to be positioned in the depressions, the said pole adapted to be lifted and raise the projected ends of the bails for gaining access to the pole-receiving depressions when it is desired to position the pole therein, and a means for raising and lowering the pole substantially as shown and described. 6th. Curtain pole brackets formed of single pieces of metal bent rearward and downward at their upper ends to form securing portions for attachment to the frame of the window, lateral bends formed in the said brackets to constitute pole-receiving depressions, the opposite ends of the bracket inclined rearward and downward to form securing portions for attachment to the window frame, pivoted bails adapted to close the pole-receiving depressions and project beyond the walls of the lateral bends, a pole adapted to rest in the pole-receiving depressions, eyes formed in the upper end of the brackets, and ropes attached at one end to the pole and passing through the eyes downward within convenient reach, substantially as shown and described.

No. 55,436. Pie Pan. (*Casserole pour pâtés.*)

Josephine Huckins, Bellows Falls, Vermont, U.S.A., 27th March, 1897; 6 years. (Filed 11th March, 1897.)

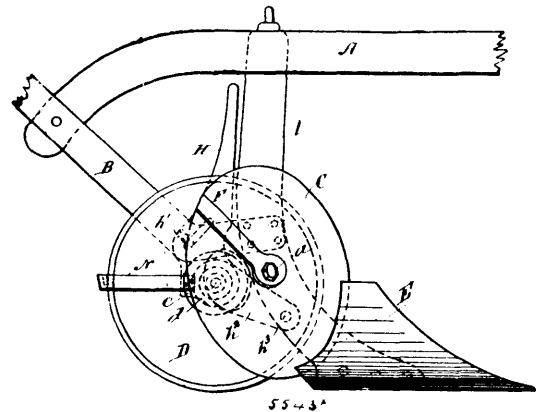
Claim.—1st. An attachment for pie pans, comprising a tube having a lower pointed end and adapted to be inserted into a pie to permit the steam therein to escape, substantially as described. 2nd. In a pie pan attachment, the combination with a tube having a lower pointed end and an upper supporting lip, and adapted to be inserted

into a pie so that the supporting lip rests upon the upper surface of the pie crust substantially as described. 3rd. A pie pan attachment,



comprising a tube having an inclined lower open end, provided with a penetrating point and an upper inclined open end provided with a supporting lip, substantially as described.

No. 55,437. Plough. (*Charrue.*)



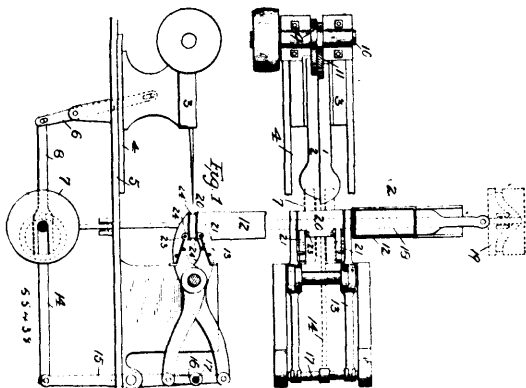
Samuel G. Sevier, Oenaville, Texas, U.S.A., 27th March, 1897; 6 years. (Filed 11th March, 1897.)

Claim.—1st. In a plough, the combination with a driving wheel mounted on an axle secured to an adjusting lever, of a bevel gear wheel secured to said driving wheel and driven thereby, a bevel gear wheel revoluble on said axle and meshing with said first gear wheel, said latter gear wheel having an extended hub at the end of which is a flange provided with bolt holes, a revolving circular moldboard secured to said flange, a shouldered screw-bolt having a squared body under its head and seated in a suitable threaded hole in the end of said axle, and a cleaning scraper for said moldboard secured by said bolt, the end of said scraper being a washer to retain said moldboard and gear-wheel in their position on the axle, substantially as and for the purpose shown and described. 2nd. In a plough, the combination with a driving wheel, of an adjusting lever having an axle secured thereto on which is revolubly mounted said driving wheel, said lever being pivoted at its lower end to the standard or lower end of the plough beam, the movable end of the lever being provided with means for adjustably securing it with relation to the plough handles, a scraper for said driving wheel secured to said lever, a bevel gear wheel driven by said driving wheel, a bevel gear wheel mounted on the opposite end of said axle and engaging said first gear wheel, and having secured to it a circular revolving moldboard set by means of a bend in said axle at an angle to the axis of said driving wheel, a plough share having a portion of a fixed moldboard adapted at its rear to the circular form of said revolving moldboard and means for retaining said revolving moldboard and bevel gear wheel, substantially as and for the purposes shown and described. 3rd. The combination with the beam and handles, of the standard attached at the top to the beam, the plough share attached to the lower end of the standard, the lever pivoted at its end to the standard, the binding bolt securing said lever adjustably to said handles, the bent angular axle secured to said lever, the driving wheel having the bevel gear wheel revoluble on said axle, the bevel gear wheel provided with the flange having bolt holes therein revoluble on the angular end of said axle, the disc secured to said flange, and suitable means whereby said bevel gear wheel and disc may be retained revolubly, substantially as and for the purposes shown and described. 4th. In a plough, the combination with a beam and a fixed moldboard and plough share connected thereto, of the standard I connected to said beam, the plough share E attached to the foot P of said standard, the lever H having the slot h and lower arm h', the latter pivoted at h² to said standard, the handles B secured at their lower ends to said standard, the binding screw-bolt passing through said slot and through suitable holes in said handles, the scraper N attached to said lever, the axle G having the end d rigidly secured to said lever, the driving wheel D revoluble on said axle, the bevel gear wheel c attached to said driving wheel, the bevel gear wheel f revoluble on the end d' of said axle and meshing with the wheel c, the flange i integral with said wheel f, the disc C secured to said flange, the bolt a seated in the end of said axle d', the scraper F secured by means of said bolt, said scraper having the

plate and retaining said disc on said axle, all arranged and operating substantially as and for the purposes shown and described. 5th. In a plough of the character described, the combination with the beam and standard, of a pair of handles converging at their lower ends and attached to said standard, a lever of bell-crank form having two arms and a suitable hole to receive an axle through or near the intersection of said arm, a jaw at the end of the lower arm pivoted to said standard, and a curved slot in the upper arm, a bent axle having a journal at each end thereof, one of said ends being secured to said lever in the hole therein, the driving wheel having the bevel gear wheel mounted on said journal adjacent to said lever, the bevel gear wheel having the flange on the hub thereof, the revoluble moldboard secured to said flange, and the scraper secured to said axle by means of the bolt seated in the end of said axle, substantially as and for the purposes shown and described. 6th. In a plough of the character described, the combination with the fixed plough share adapted to a revolving moldboard, of the disc revolubly mounted on an axle, said axle being bent forward at an angle to the axis of the driving wheel, the driving wheel having the bevel gear wheel mounted on said axle, said axle being secured adjacent thereto to an adjusting lever suitably pivoted to said plough, the bevel gear wheel mounted on said axle interposed between and carrying said disc and meshing with said gear wheel first mentioned, and suitable means whereby said disc may be retained on said axle, substantially as and for the purposes shown and described.

No. 55,438. Leather Slitting Machine.

(Machine à fendre le cuir.)



Ellis Spear and Frank Leander Middleton, both of Washington, Columbia, assignee of Alonzo Louis Sweet, Chicago, Illinois, all in the U.S.A., 27th March, 1897; 6 years. (Filed 5th August, 1895.)

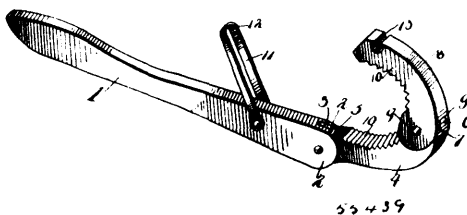
Claim.—1st. In combination in a slitting machine for leather, a slitting knife, means for holding the leather by its edges, and means intermediate of the holding means located on opposite sides of the leather to be slit and engaging said opposite sides to hold the intermediate part of the leather blank, substantially as described. 2nd. In combination the slitting knife, the holding means for the edges of the leather, and yielding means intermediate of the edge-holding means to engage the leather, substantially as described. 3rd. In combination the slitting knife, means for clamping the leather at its edges, and the spring plates intermediate of the clamping means, substantially as described. 4th. In combination the slitting knife, the clamping levers pivotally supported, means for opening and closing the levers, said levers being arranged to clamp the edges of the leather, substantially as described. 5th. In combination a slitting knife, clamping means with operating mechanism to open and close the same, a receiver or box intermediate of the clamping means, and feeding mechanism for feeding the blanks thereto said said box having yielding walls and open at the front sides and rear edges for receiving the loop blank and the slitting knife, substantially as described. 6th. In combination, means for holding the leather and a slitting knife composed of sections and means for reciprocating the sections in relation to each other in the direction of the cut to thrust the point of the sections alternately in advance, substantially as described. 7th. In combination, the clamping means comprising the two pair of levers with means for opening and closing the same, the spring plates extending across between the pairs of levers, a slitting knife and feeding mechanism for the leather, substantially as described.

No. 55,439. Wrench. (*Clé à équerre*.)

Henry C. Barlow and Harry G. Flinn both of Converse, Indiana, U.S.A., 27th March, 1897; 6 years. (Filed 21st January, 1897.)

Claim.—1st. A wrench comprising a handle, a pair of links pivoted together at their outer ends, provided at their inner engaging faces with teeth and adapted to swing transversely of the end of the handle to vary the distance between them, one of the links being pivoted to the outer end of the handle, a loop detachably engaging the inner end of the other link and extending from one side of the

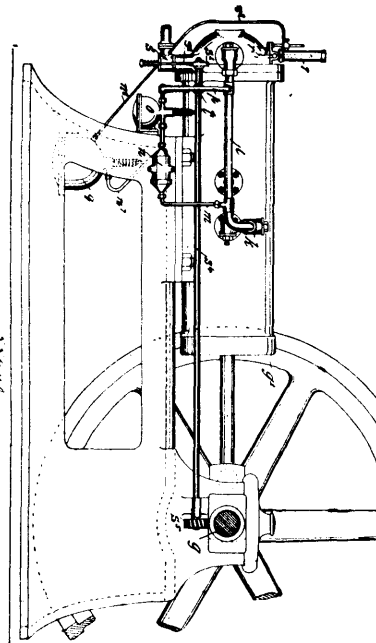
handle and pivoted to the same at a point intermediate of the ends thereof, and at a sufficient distance from the outer end of the handle



to cause the jaws to open and close when swung transversely thereof, substantially as described. 2nd. A pipe-wrench, comprising a jaw formed of a series of sections pivoted together and provided at their opposing faces with serrations adapted to engage the sides of a pipe, an operating handle pivoted to one of said sections, shoulders formed on said section to which the operating handle is pivoted and adapted to travel around the end of said handle and contact with the sides thereof to limit the movement of said section, one of said sections being also provided in its outer face with a locking notch located near the outer end thereof and disposed at an angle to said end, said notch being tapered and having its inner end of greater size than its outer one, and a fastening loop carried by the operating handle, said loop being adapted to engage the locking notch and by the shape and arrangement of the latter be retained therein, and also to be operated by the handle to lock and unlock the wrench, substantially as set forth.

No. 55,440. Hydro-Carbon Motor.

(Moteur à hydro-carbures.)



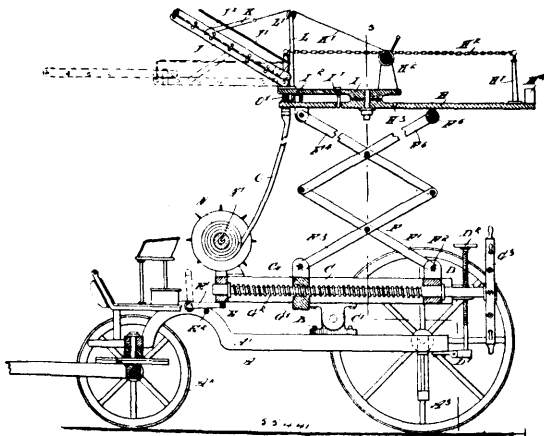
The Motive Power and Light Company, assignee of John Edward Friend, all of Christchurch, Canterbury, New Zealand, 27th March, 1897; 6 years. (Filed 1st October, 1895.)

Claim.—1st. A hydro-carbon motor, having two cylinders and corresponding pistons, one cylinder and its piston being employed to charge the other cylinder with an explosive mixture of gas and air upon one inward stroke, and to force air through it upon the second inward stroke, substantially as and for the purposes herein described. 2nd. A hydro-carbon motor, having two cylinders of different diameter, their pistons being connected or integral, the smaller cylinder in which the explosive charge is employed being provided with a jacket through which air is drawn by the large piston upon an outward stroke, such air, with sufficient gas to form an explosive mixture, being forced into a combustion chamber of the smaller cylinder upon the return stroke of the pistons, a second charge of air being drawn through the jacket by the larger piston upon a second outward stroke and forced through the smaller cylinder upon a second return stroke, substantially as and for the purposes specified. 3rd. The combination with the jacket c, of a hydro-carbon motor cylinder b, of ribs upon the inside of the outer casing whereby narrow circular passages are provided between the ribs and the motor cylinder through which air is drawn by the piston of a charging cylinder, substantially as and for the purposes specified. 4th. The vaporizer for volatilizing oil, consisting of a metallic cylinder containing sponge, provided with an inlet for oil and air at one end,

and an outlet for air and oil vapour at the other, a perforated metal cone being provided at the conical inlet end of the cylinder for the purpose of diffusing the air and oil as it enters the cylinder, substantially as herein specified. 5th. The combination with the ignition tube of a hydro-carbon motor, of a vapourizer for volatilizing oil to produce gas for employment in the motor consisting of a vessel, through which oil or oil and air is passed, surrounded by a jacket receiving the fumes from the flame heating the ignition tube, substantially as herein described. 6th. The combination with the ignition tube of a hydro-carbon motor, of a valve for opening and closing communication between the ignition tube and the explosion chamber, such valve having an operating lever projecting into the explosion chamber, actuated by a tappet carried by the motor piston, substantially as described herein. 7th. In a hydro-carbon motor, a regulating governor for shutting off the supply of gas when pressure in the motor cylinder exceeds a predetermined amount, consisting of a vessel having a flexible cover, to which is connected a spindle operating a piston valve, the valve opening and closing ports through which gas passes on its way to the motor cylinder, the flexible cover being distended when the pressure of gas within the vessel overcomes the resistance of a spring operating in the opposite direction, substantially as herein specified. 8th. The combination with the ignition tube of a hydro-carbon motor of a vapourizer supplying gas for producing the flame for heating such ignition tube, substantially as specified. 9th. In combination, a vapourizer producing gas for heating the ignition tube of a hydro-carbon motor and a regulator *g* for regulating the pressure of the gas supplied to the ignition tube burner, substantially as herein specified. 10th. In combination, a hydro-carbon motor, having two cylinders of different diameters arranged one behind the other, their respective pistons being connected or integral, a vapourizer *a* producing gas from oil for employment in the motor, and a governor *o* for regulating the supply of such gas to the explosive chamber, substantially as and for the purposes herein described. 11th. In combination with the motor cylinder *b*, a hollow cover forming an air chamber, holes in the cover admitting air from the chamber to a jacket surrounding the motor cylinder, substantially as specified. 12th. A hydro-carbon motor having two cylinders of different diameters, the smaller cylinder having two pistons, one of which is integral with the piston of the larger cylinder, forming a double piston, the explosive gases being employed between the smaller pistons forcing them apart; connecting rods from the pistons giving motion to a crank shaft which causes them to reciprocate in opposite directions, substantially as and for the purposes herein specified.

No. 55,441. Fire Escape and Water Tower.

(*Echelle de sauvetage et tour à eau.*)



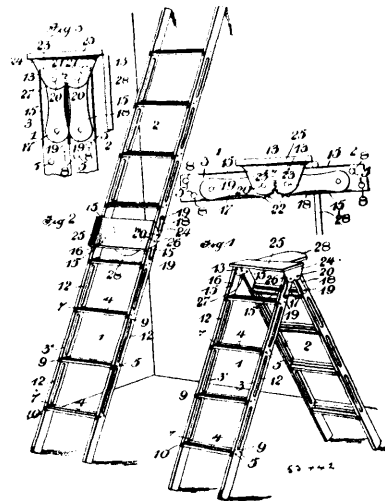
Michael William Hennessey and William Joseph Hennessey, Brooklyn, New York, U.S.A., 27th March, 1897; 6 years. (Filed 6th March, 1897.)

Claim—1st. A fire escape, provided with a platform adapted to be raised and lowered, a turntable mounted on the said platform, a ladder pivoted on the said turntable, a yoke connected with the said ladder, a rope connected with the said yoke, and a windlass held on the said turntable and on which winds the said rope, substantially as shown and described. 2nd. A fire escape, provided with a platform adapted to be raised and lowered, a turntable mounted on the said platform, a ladder pivoted on the said turntable, a yoke connected with the said ladder, a rope connected with the said yoke, a windlass held on the said turntable and on which winds the said rope, and a post carrying a pulley over which passes the said rope, the said post being held on the said turntable, substantially as shown and described. 3rd. A fire escape, provided with a truck, a platform frame pivoted on the said truck, and a cross bar adapted to support the free end of the said platform frame, the said cross bar being held on arms pivoted to the truck frame, substantially as shown and described. 4th. A fire escape, having a wheeled frame, a platform frame located over the wheeled frame and pivotally connected thereto on a transverse axis, a transverse cross piece movable

longitudinally with reference to the platform frame, a longitudinally extending screw revolvably mounted in the platform frame and passing through the cross piece whereby the cross piece is moved, lazy tongs one member of which is pivoted to the cross piece and a second member of which is pivoted to the platform frame, a platform supported on the lazy tongs, and means connecting the wheeled and platform frames whereby the platform frame may be adjusted on its pivot, substantially as described.

No. 55,442. Extension Step Ladder.

(*Echelle à rallong.*)



Lyman Ferguson, Ithaca, New York, and Robert H. Pollock, Baltimore, Maryland, all of the U.S.A., 27th March, 1897; 6 years. (Filed 9th March, 1897.)

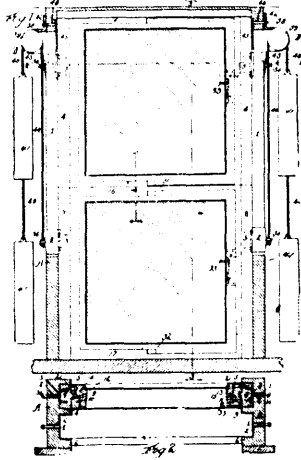
Claim.—1st. An extension step-ladder, comprising two counter-part sections and intermeshing tooth plates 17, 18, having abutting bearings, substantially as and for the purpose set forth. 2nd. An extension step-ladder, comprising the sections 1 and 2, brackets 24, the platform 25 secured to the top of said brackets, the plates 17, 18, secured to the upper ends of said sections and formed with intermeshing teeth and abutting bearings, as and for the purpose set forth. 3rd. An extension step-ladder, comprising two sections, the side rails of which are provided with toothed plates, and a bracket in which said side rails are hinged, and which secure the contiguous teeth on the plates in mesh, substantially as shown and described. 4th. An extension step-ladder, comprising the sections 1 and 2, having their upper ends hinged in the bracket 24, the plates 18 and 18 secured to the upper ends of each section, and provided with a series of interlocking teeth, substantially as shown and described. 5th. An extension step-ladder, comprising the sections 1 and 2, provided with the intermediate toothed plates 17 and 18, and the platform 25, provided with the brackets 24, having depending arms 25, in which the upper ends of said sections are hinged, substantially as shown and described. 6th. An extension step-ladder, comprising the sections 1 and 2, brackets 24, the platform 25, secured to the top of said brackets, the plates 17, 18, secured to the upper ends of said sections, and formed with intermeshing teeth and abutting bearings, substantially as shown and described. 7th. In a ladder of the class described, the combination with the side rails, of the rectangular rungs having cylindrical outer ends, the strap 7 having angular ears 9, and the screw 10 passing through said ears, side rail and rung, substantially as shown and described.

No. 55,443. Window. (*Fenêtre.*)

Oliver K. Hugo and Virginie Hugo, both of Chicago, Illinois, U.S.A., 27th March, 1897; 6 years. (Filed 2nd March, 1897.)

Claim.—1st. In combination with a window frame having a cut out inclined exterior surface at the upper portion of the frame, of the sash cord bracket or casing, comprising a hollow casing formed with an inclined back plate adapted to be seated on said exterior surface, a cord sheave journaled in the casing, a plate secured to the inner upper surface of the window frame, and means for securing the plate and the bracket or casing to the window frame, substantially as described. 2nd. The sash cord bracket or casing, comprising a hollow casing having a back plate formed with its rear surface inclined outward, and cord sheaves journaled in the casing, in combination with the stiles having an opening therein, a covering plate for said opening, and fastening means projected through the covering plate and the back plate of the casing, substantially as shown and described. 3rd. The combination with the window stile formed with a seat having an inclined face, a sash cord casing having a back plate adapted to rest in the seat of the stile, a covering plate set against the face of the stile opposite to the back plate of the cord casing, and fastening devices to hold the covering plate and the sash cord casing to the stile, substantially as described. 4th. In combina-

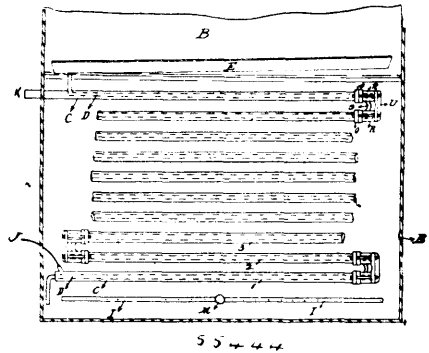
tion with a window stile formed with a vertical slot terminating with an enlarged opening through the stile, said opening being cov-



ered by a metallic plate, a sash cord casing arranged at the upper portion of the stile, and a covering plate fastened on the stile and formed with an open end slot at its lower end to border the upper portion of the slot in the stile, and fastening screws to hold the covering plate and the sash cord casing to the stile, substantially as described. 5th. The combination of the window stiles formed with vertical slots terminating with enlarged openings through the stiles, said openings being covered with a metallic plate, and sash grooves or ways in their faces, sash frames arranged in the ways of the stiles, cord brackets composed of a fastening plate adapted to be secured to the edge of the sash frame, a web or plate set at right angles to the fastening plate and extending the length thereof and adapted to travel in the slots of the stile and terminating in an eye, a cord and weight to balance the sash, and a covering plate for said opening, substantially as described. 6th. The combination with a window frame having vertically slotted stiles and a sash frame working therein, of guide strips secured to the side rails of the sash frame, the cord holders having webs to engage the slots in the stiles, the sash cords attached thereto, and the weights, all arranged substantially as shown and described. 7th. The combination with a window frame, the stiles of which are formed with vertical slots and a sliding frame working in ways therein, of a sash frame pivotally mounted in the sliding frame, guide strips detachably secured to the side rails of the sliding frame, the cord holders attached to the guide strips and having webs adapted to pass through the slots in the stiles, the cords attached to the holders and carrying weights, substantially as shown and described. 8th. The window sash herein described, comprising guide strips formed with tongues on their inner faces, a sliding frame formed with grooves in its side rails to receive the tongues of the guide strips, oppositely arranged rabbets in the inner faces of its side rails, and diagonally arranged rabbets in the inner faces of its top and bottom rails, and a sash frame having rabbets on the outer faces of its side rails and also on its top and bottom rails to fit the rabbets of the outer sash frame, substantially as described. 9th. The combination of the sliding frame formed with rabbets in the inner faces of its side rails and diagonally arranged rabbets in the inner faces of its top and bottom rails, a sash frame journaled in the top and bottom rails of the sliding frame, and formed with rabbets in the outer side faces of its frame, to joint into the respective rabbets in the said sliding frame, substantially as shown and described. 10th. The combined sliding and turning sash, comprising outer guide strips formed with tongues on their inner faces, the sliding frame formed with grooves in the outer faces of its side rails to receive the tongues of the guide strips, and diagonally arranged rabbets in the inner faces of the top and bottom rails, the sash frame formed with rabbets on the outer faces of the side rails and diagonally arranged rabbets on the outer faces of the top and bottom rails to make joint with the rabbets of the sliding frame, and bearings on the top and bottom rails of the sash frame resting in the sliding frame, whereby the sash frame is adapted to turn and open and close within the sliding frame, substantially as shown and described. 11th. In a window frame, the stiles of which are provided with vertically extending slots, the combination of the upper sash provided with an inwardly directed flange extending the length of the lower or meeting rail thereof, and the lower sash formed with an outwardly directed flange on the top or meeting rail and adapted to lap over and rest on the flange on the meeting rail of the upper sash, the cord holders attached to the frames and provided with webs adapted to slide in the slots, the sash cords and weights, all arranged substantially as shown and described. 12th. In a window frame, the stiles of which are provided with vertically extending slots, the combination of the upper sash formed with a flange on its lower or meeting rail and extending the length thereof, and provided with a socket in the face of the said rail, the lower sash formed with a flange on its top rail to lap over the flange of the

upper sash, and a fastening device projected through the top rail of the lower sash and engaged in the socket of the upper sash, the cord holders having webs projecting through the slots in the stiles, the sash cords and weights, all arranged substantially as described. 13th. The window, comprising guide pieces adapted to slide in the window frame, an outer sliding frame and means for detachably securing the sliding frame to said guide pieces, and an inner sash frame pivoted to and adapted to swing within the said outer sliding frame, said securing means being normally concealed by the said inner sash frame, substantially as shown and described.

No. 55,444. Refrigerator. (Réfrigérateur.)

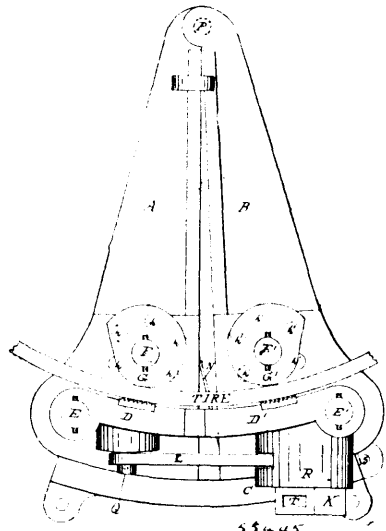


Roch Brien et Albert Maynard, tous deux de Montréal, Québec, Canada, 27 mars 1897; 6 ans. (Déposé le 26 mars 1897.)

Resumé.—1° La combinaison de la cuve B avec les serpentins C et D l'un dans l'autre pourvus du vaisseau E et des tuyaux d'air M et T, tel que décrit et pour les fins sus-mentionnées. 2° La combinaison de la cuve F avec les serpentins G et H l'un dans l'autre, tel que décrit et pour les fins indiquées. 3° L'assemblage du double serpentín composé des écrous O, O, des rondelles P, P et T, T, des pièces R, R remises par la pièce S, de la pièce U et des boulons V, V, le tout tel que décrit et pour les fins indiquées.

No. 55,445. Tire-Upsetting Machine.

(Machine à refouler les bandages.)



A. B. Jardine & Co., assignee of Peter Jardine, all of Hespeler, Ontario, Canada, 27th March, 1897; 6 years. (Filed 9th March, 1897.)

Claim.—1st. The cams G, G¹, in combination with the pins H, H¹, and the holes h, h¹, as set forth. 2nd. The jaws D, D¹ in combination with the pins E, E¹, the pins Q, the pin O and the strap L, as and for the purpose set forth. 3rd. The spring N, as set forth. 4th. The stop S, as set forth. 5th. The cylindrical block K in combination with the jaws D, D¹, the pins E, E¹, the strap L, the pins Q, O, as and for the purpose set forth.

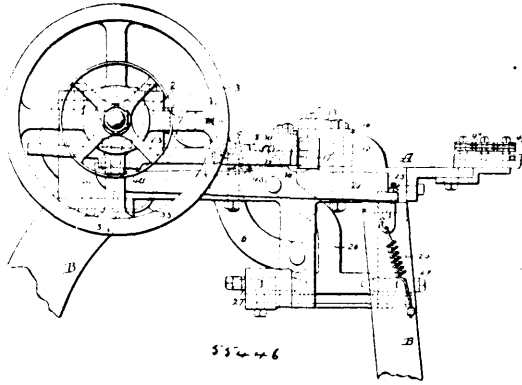
No. 55,446. Wire Nail Making Machine.

(Machine à faire le clous de fil de fer.)

Charles Clotworthy Kosty, Northumberland, Pennsylvania, U.S.A., 27th March, 1897; 6 years. (Filed 18th January, 1897.)

Claim.—1st. In a nail making machine, the combination with the gripping dies, of a hammer or heading tool, a rocking lever carrying this hammer or heading tool and constructed and adapted to swing

in the arc of a circle, and means for driving this lever positively back and forth whereby to upset the protruding end of the wire to



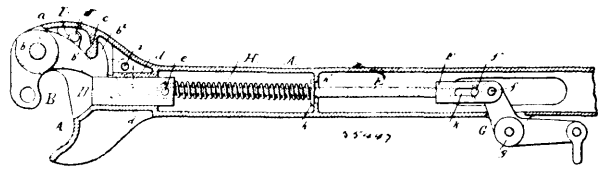
form the head of the nail, substantially as set forth. 2nd. In a nail making machine, the combination with gripping dies, and a hammer or heading tool which swings in the arc of a circle, of a crank shaft connected with the hammer in such a manner that it gives it a positive movement in the arc of a circle, substantially as set forth. 3rd. In a nail making machine, the combination with gripping dies, of a rocking lever carrying a hammer or heading tool which swings in the arc of a circle, means for adjusting the hammer or heading tool, and means for giving the rocking lever a positive swing towards and away from the gripping dies, substantially as set forth. 4th. In a nail making machine, the combination with gripping dies, a rocking heading lever pivoted at one end to the machine and carrying an adjustable hammer or heading tool connected therewith, of a crank-shaft, and a pitman extending from the crank-shaft to the free end of the rocking lever for operating the latter, substantially as set forth. 5th. In a nail making machine, the combination with gripping jaws and a hammer or heading tool, of a spring clearer adapted to throw hanging nails out of the machine, a rocking lever which carries the hammer, said clearer adapted to be operated by a roller, also carried by the lever, substantially as set forth. 6th. In a nail making machine, the combination with the frame of a machine, of a pair of gripping dies one of which slides, springs seated in the faces of the dies for throwing said movable die outward, a lever for throwing it inward, and cam mechanism for swinging the lever, substantially as set forth. 7th. In a nail making machine, the combination with a header block having an undercut flanged recess, and a clamp plate secured to the top of header block having an undercut edge, of a pair of gripping dies, one stationary and the other capable of sliding horizontally between the undercut flanges, springs interposed between the dies and seated in them, a lever for forcing the movable die inward, and cam for controlling the movement of the lever in one direction, substantially as set forth. 8th. In a nail making machine, the combination with gripping dies, one stationary and the other movable, of a lever rocking pin having a species of adjustable ball and socket connection with the sliding die and the lever, means for forcing the sliding die in one direction, and cam for operating the lever, substantially as set forth. 9th. In a nail making machine, the combination with rocking point holding and operating levers, of operating levers, cams located outside the bearings of shaft for moving the operating levers, rocking pins having a species of ball and socket connection between the rocking point holding levers and the cam operated levers, and spring for holding the operating levers yieldingly together or towards each other, and spring between the legs of point holding rocking levers to open and hold them yieldingly apart, substantially as set forth. 10th. In a nail making machine, the combination with gripping dies, one of which is movable, and point holding and operating levers, of operating levers and cams located outside the bearing of shaft, one cam being a double or duplex cam for operating two of the levers, substantially as set forth. 11th. The combination of a crank-shaft having a wheel mounted on one end, said wheel having a slot across the face in which is mounted an adjustable stud, which is connected by a ball bearing with a feed lever, to operate the feed of wire to the machine. 12th. The combination of a crank-shaft, the connecting pitman and a vertical rocking heading lever, with the adjustable heading tool or hammer, said tool being secured adjustably into a boss or rocking heading lever, substantially as set forth.

No. 55,447. Car Coupler. (Attelage de chars.)

The Gould Coupler Company, New York, and Willard Fillmore Richards, Buffalo, both in New York, U.S.A., 27th March, 1897; 6 years. (Filed 12th March, 1897.)

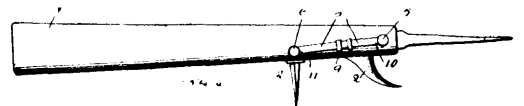
Claim.—1st. The combination with the drawhead, the drawbar and the knuckle or coupling jaw, of a lock engaging with the knuckle, a kicking lever operating against the knuckle, an actuating lever pivoted to the drawbar in rear of the kicking lever and connected with the lock, and a connection extending from the kicking lever to said actuating lever, substantially as set forth. 2nd. The

combination with the drawhead, the drawbar and the knuckle or coupling jaw, of a lock engaging with the knuckle, an actuating



lever pivoted to the drawbar and connected with the lock, a kicking lever operating against the knuckle, and a connection between the kicking lever and said actuating lever, which permits the kicking lever to remain at rest during the initial movement of the actuating lever but transmits the subsequent movement of said lever to the kicking lever, substantially as set forth. 3rd. The combination with the drawhead and the knuckle or coupling jaw, of a lock engaging with the knuckle, an actuating lever connected with the lock, a slotted head connected with the actuating lever, and a connection extending rearwardly from the kicking lever and engaging with the slotted head, substantially as set forth. 4th. The combination with the drawhead and the knuckle or coupling jaw, of a lock engaging with the knuckle, an actuating lever connected with the lock, a kicking lever operating against the knuckle, a connection between the actuating lever and the kicking lever which permits the actuating lever to operate during its initial movement independently of the kicking lever, and a spring whereby the kicking lever is returned to its normal position, substantially as set forth. 5th. The combination with the drawhead, the drawbar and the knuckle or coupling jaw, of a lock engaging with the knuckle, an actuating lever pivoted to the drawbar, a rod connecting the lock with said lever and having a longitudinal slot, a return spring applied to said connecting rod, a kicking lever operating against the knuckle, and a connecting rod extending rearwardly from the kicking lever and having a pin or projection engaging in the slot of the connecting rod, substantially as set forth. 6th. The combination with the drawhead, the drawbar and the knuckle or coupling jaw, of a sliding lock engaging with the knuckle, a horizontally swinging actuating lever mounted on the drawbar, a rod pivoted at its front end to the lock and having at its rear end a slotted head pivoted to said actuating lever, a kicking lever operating against the knuckle, and a rod connecting at its front end to the kicking lever and engaging at its rear end with said slotted head, substantially as set forth.

No. 55,448. Combination Tool. (Outil à combinaison.)



Andrew Altman, Elizabeth, New Jersey, U.S.A., 27th March, 1897; 6 years. (Filed 21st January, 1897.)

Claim.—1st. In a combination tool, the combination with a holder provided with a pocket, of a tool having a shank located in said pocket, a locking pin passing through the shank and the holder, and means for securing the locking pin in position. 2nd. In a combination tool, the combination with a holder having a pocket, of a tool having a shank received in said pocket, a locking pin passing through the holder and the shank of the tool, and a spring catch engaging with said pin and serving to keep the same in position. 3rd. In a combination tool, the combination with a holder having a pocket, of a tool having a shank received in said pocket, a locking pin having a notch, which locking pin passes through the holder and the shank of the tool, and a piece of spring metal secured at one end and having its other end free and in engagement with the notch of the pin, substantially as described. 4th. In a combination tool, the combination with a holder having a pocket made in its end and another pocket made in its side, of tools located in said pockets, locking pins provided with grooves passing through the holder and the respective tools, and a single piece of spring metal connected to the holder at a point intermediate its ends and having said ends in engagement with the respective pins, whereby the same are held in position.

No. 55,449. Watch Case-Pendant.

(Pendant de boîtier de montre.)



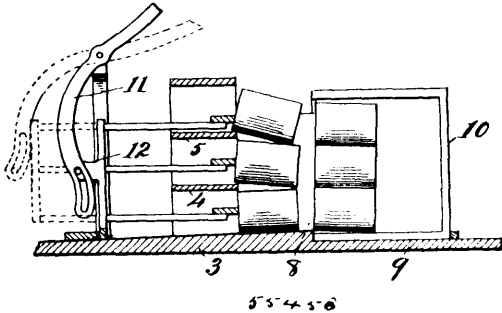
Frank Moorfield, Newark, New Jersey, U.S.A., 27th March, 1897; 6 years. (Filed 21st January, 1897.)

Claim.—1st. A watch case-pendant, consisting of two parts that are formed separately, one of which has an integral enlargement provided with an opening, within which is fitted and secured one end of the other part, the joint being thus within and concealed by the

enlargement, substantially as and for the purpose specified. 2nd. A watch case-pendant, consisting of two separately formed parts, one of which comprises in a single piece a foot and a bow-engaging enlarged portion having an opening on its upper side, and the other part consisting of a tube and having its lower end fitted and soldered within said opening, the joint being thus within and concealed by the enlarged bow-engaging portion, substantially as and for the purpose shown.

No. 55,450. Can Packing Machine.

(Machine pour empaqueter les boîtes en fer-blanc.)

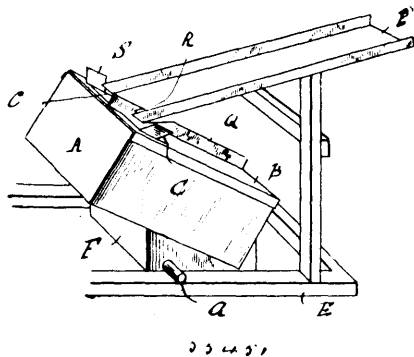


Guillermo Antonio Farini, London, England, 27th March, 1897; 6 years. (Filed 17th March, 1896.)

Claim.—1st. In a box filling machine for cans, an inclined holder having an open front and a feed opening, and a feed chute to feed the cans therein. 2nd. In a box filling machine for cans, a holder into which the cans are piled in shape to conform to the box, adapted to carry the cans into the box and to be withdrawn without withdrawing the cans. 3rd. In a machine for filling cans into boxes, the combination of a carrier into which the cans are fed, and means for moving the filled carrier into the box. 4th. In a machine for filling cans into boxes, the combination of a carrier into which the cans are fed, means for forcing the filled carrier into the box, the carrier being adapted to be withdrawn without withdrawing the cans. 5th. In a machine for filling cans into boxes, the combination of a carrier into which the cans are fed and piled, means for moving the carrier to permit the piling of the cans in adjoining rows and for moving the carrier into the box. 6th. In a machine for filling boxes, a holder adapted to hold a group of cans in the relation in which they are held by the box, and means for moving the cans into the box.

No. 55,451. Can and Bottle Boxing Machine.

(Machine pour mettre en boîte les bouteilles et les boîtes en fer-blanc.)



Guillermo Antonio Farini, London, England, 27th March, 1897; 6 years. (Filed 17th March, 1896.)

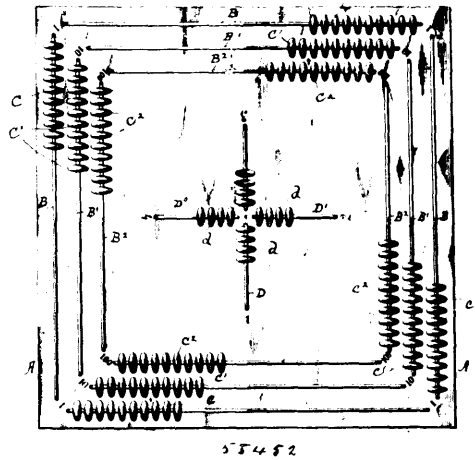
Claim.—1st. A device for packing cans into boxes, a false side or plate apertured to admit the cans, and a dividing wall attached thereto and acting to prevent displacement of the cans in the box. 2nd. A device for packing cans into boxes, comprising a false side or plate apertured at one end to admit the cans, a depending middle dividing wall, and a chute adapted to deliver the cans into the aperture of the cover. 3rd. A device for packing cans into boxes, comprising a rocking support for the box, an apertured false cover, a dividing wall depending therefrom into the box, and a chute for delivering the cans in the aperture of the cover. 4th. A device for packing cans into boxes, comprising a rocking frame adapted to hold the boxes, a false apertured cover having a dividing wall depending therefrom into the box, and a charger for delivering the can into the aperture of the cover.

No. 55,452. Game Indicator. (Indicateur de jeu.)

Joseph Solatinow, Paterson, New Jersey, U.S.A., 27th March, 1897; 6 years. (Filed 22nd January, 1897.)

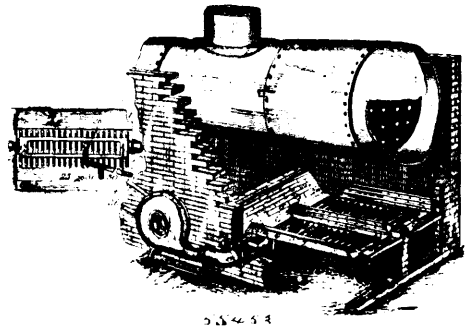
Claim.—A game-indicator, consisting of a base-board, several sets of stringing-wires arranged around the outer edge of the board

at right angles to each other, and upon the upper side of the base-board, said sets of wires being of greater length than height, and



each wire having downwardly projecting ends or feet inserted into the base-board, and being of flat, inverted V-shape between the ends or feet, and sliding buttons on said wires, substantially as set forth.

No. 55,453. Furnace Grate. (Grille de fournaise.)

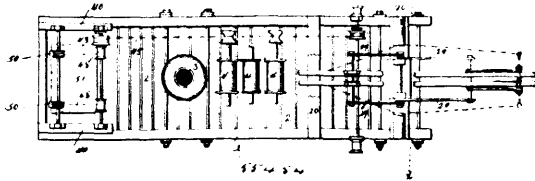


Elonzo J. Gordon, Greenville, Michigan, U.S.A., 27th March, 1897; 6 years. (Filed 15th February, 1897.)

Claim.—1st. In a furnace grate the combination with the stationary solid bars, of a central auxiliary hollow blast-bar, having a long partition and inclined graduated faces, each vertical wall of said graduations having a series of blast apertures, each series being disposed at an angle which will cause the entire blast to re-unite substantially at a central part of the furnace, as and for the purpose set forth. 2nd. In a furnace grate, the combination with the open grate surface of the closed horizontal bars, on each side thereof, having an outer vertical wall and an inwardly inclined face provided with a series of graduations which rise above the plane of the open grate surface and having a series of blast apertures passing through the vertical wall of said graduations at an angle to the vertical plane to re-unite the blast from each side over the grate surface, substantially as described and for the purpose named. 3rd. In a furnace having blast bars provided with apertures and solid bars interposed between said blast bars, the combination of the blast supply pipe having a partition wall therein, and means for effecting a connection between each of said blast bars and its respective compartment in the blast supply pipe substantially as described and for the purpose named. 4th. In a furnace provided with hollow blast bars, the combination of an air supply pipe, valves for controlling connection between said air supply pipe and the solid and hollow blast bars, and means for supplying air under pressure to said pipe, substantially as described and for the purpose named. 5th. In a furnace having hollow blast bars provided with apertures for directing the blast to a central part of the furnace, the combination therewith of a series of solid bars secured together by transverse holders, said holders terminating in trunnions provided with bearings, an operating lever so attached to said holders that said bars may be tilted simultaneously, and air supply pipe having a partition wall therein and air controlling valves, as and for the purpose named. 6th. In a furnace grate, the combination with the solid grate bars of hollow blast bars having inclined graduated faces provided with a plurality of apertures arranged by series in the vertical walls of said graduated faces, each series of apertures pointing in a direction which will cause the entire blast to re-unite at a given point along the median line of the fire box, substantially as described and for the purpose set forth.

No. 55,454. Log Hauling and Loading Machine.

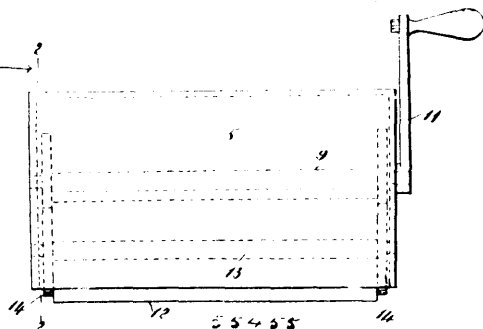
(Machine pour traîner et charger les billots.)



William Andrew Fletcher, Beaumont, Texas, U.S.A., 29th March, 1897; 6 years. (Filed 1st March, 1897.)

Claim.—1st. In a machine for hauling and loading logs on cars, the combination with the platform, the crane and the hoisting mechanism, of the pivoted legs and means for actuating them to elevate and lower the platform, substantially as described. 2nd. In a machine for hauling and loading logs on cars, the combination with the platform, the crane and the hoisting mechanism, of the pivoted legs, the pivoted shoes at the lower end thereof, the horizontal connecting bars, and means for raising the same, substantially as described. 3rd. In a machine for hauling and loading logs on cars, the combination with the platform, the crane and the hoisting mechanism, of the stationary bars secured to said platform, the outwardly extending lugs, the pivoted legs, the shoes pivoted to the lower end of said legs, the horizontal connecting bars, and means for elevating the same, substantially as described. 4th. In a machine for hauling and loading logs on cars, the combination with the platform, the crane and the hoisting mechanism, of the platform, the stationary vertical bars secured thereto having tapering upper ends, the angle plates secured to the lower ends thereof, the outwardly extending lugs, the pivoted legs having their upper ends tapering, the shoes pivoted to the lower ends of said legs, the horizontal connecting bars, and the links for locking said bars and legs together, substantially as described. 5th. In a machine for hauling and loading logs upon cars, the combination with the platform, the crane and the hoisting mechanism, of the stationary vertical bars having their upper ends tapered and their lower ends provided with angle plates, the outwardly extending lugs, the pivoted legs having their upper ends tapered, the shoes at the lower ends thereof, the horizontal connecting bars, the chains connected therewith, the spools to which said chains are secured, the links for locking said bars and legs together, and the protecting bar secured to the inner sides of said angle-plates, substantially as described. 6th. In a machine for hauling and loading logs on cars, the combination with the platform and the pivoted legs, of the hoisting drums, the crane provided with drums and the hoisting ropes, the construction being such that said platform can be raised by operating the drums, and pulling upon the hoisting ropes, substantially as described. 7th. In a machine for hauling and loading logs on cars, the combination with the platform and the pivoted legs for supporting the same in an elevated position, of the hoisting mechanism, the crane frame, the turntable, the inclined arms secured thereto, the crane extending inwardly beyond the pivoted point with its inner end resting under the inner crossbar of said frame, substantially as described. 8th. In a machine for hauling and loading logs upon cars, the combination with the platform and the pivoted legs and connections to the hoisting mechanism, of the pivoted crane and the guy ropes secured to said crane for holding it in place, substantially as described.

No. 55,455. Sharpening Device. (Appareil à aiguiser.)

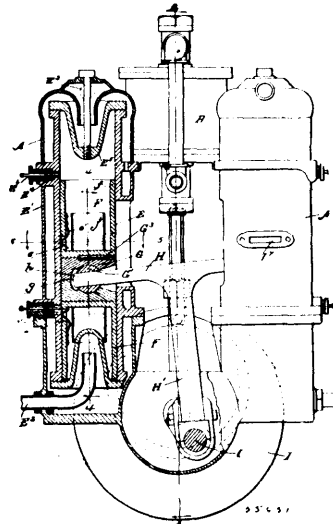


Charles Harry Molyneux, Halifax, Nova Scotia, Canada, 29th March, 1897; 6 years. (Filed 23rd January, 1897.)

Claim.—1st. The herein described device for sharpening the calks of horses and other articles, the same consisting of a suitable casing, a shaft mounted therein, and passing through each end thereof, and provided with a gear wheel at each end, said shaft being also provided with a crank, and two rollers composed of carborandum or similar material which are also mounted in the said casing, and the shafts of which project through the ends thereof, and are provided

with gear wheels, the gear wheels on the shafts of the rollers being adapted to be operated by the gear wheels on the shaft with which the crank is connected, substantially as shown and described. 2nd. In a sharpening device for the purpose herein described, the combination with a suitable oblong casing which is open at the side, a shaft mounted in said casing and projecting through the ends thereof, and provided with a gear wheel at each end, one end of said shaft being also provided with a crank, and two rollers composed of carborandum or similar material, said rollers being mounted adjacent at the open side of the casing and projecting therefrom, and the shafts of said rollers being projected through each end of the casing, and being also provided at each end with gear wheels which are adapted to be operated by the gear wheels on the shaft provided with a crank, substantially as shown and described. 3rd. The herein described device for sharpening the calks of horse shoes, or other articles, the same consisting of a suitable casing which is open at one side and in which is mounted two rollers composed of carborandum or similar material, said casing being also provided with a shaft which is provided at one end with a crank, and on which are mounted gear wheels which operate in connection with gear wheels at the ends of the rollers, substantially as shown and described.

No. 55,456. Vapour Motor. (Moteur à vapeur.)



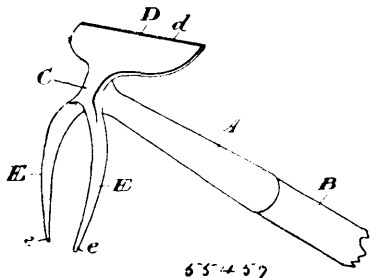
Levi S. Gardner, New Orleans, Louisiana, U.S.A., 29th March, 1897; 6 years. (Filed 25th January, 1897.)

Claim.—1st. In a gas or vapour motor, the combination of two cylinders arranged adjacent to each other, and pistons working therein of a common pitman connected to and carried by both pistons, said pitman connected with the crank shaft, and having no connection or bearing except with the crank shaft and pistons, substantially as described. 2nd. In a gas or vapour motor, the combination with two vertical cylinders arranged adjacent to each other, pistons in each, and each provided with an opening in its side, of a cross-head connecting the pistons, and a single pitman carried by the cross-head, the latter having no bearing or connection except with the pistons and pitman, substantially as described. 3rd. In a gas or vapour motor, the combination of two vertical cylinders arranged adjacent to each other and each having an opening in its side, a piston in each cylinder, a single cross-head, one end of which is pivotally connected with one piston, while the other is pivotally connected with the other piston, and a pitman integral with or rigidly connected to the cross-head, said cross-head having no connection or bearing except with the pistons, substantially as described. 4th. In a gas or vapour motor, the combination of two vertical cylinders, each having an elongated opening in the side, piston head in each cylinder, an opening in the side of each piston head and a connection extending from each piston through the opening to a single shaft, said connection working in the vertical slot in each cylinder and piston, substantially as described. 5th. In a gas or vapour motor, the combination of two vertical cylinders, a piston in each cylinder and connections from each piston to a common crank and crank shaft, a gas inlet and a gas outlet for each cylinder and means for igniting the gas in each cylinder, said ports so arranged that the gas in one cylinder will explode slightly in advance of the explosion in the other cylinder, substantially as described. 6th. In a gas or vapour motor, the combination with two vertical cylinders, each having a piston head, a gas inlet and a burnt gas outlet for each cylinder, connections from each piston head to a common crank and crank shaft and means for igniting the gas in each end of each cylinder, said parts so arranged that the gas in one end in one cylinder will explode slightly in advance of the explosion in the corresponding end of the other cylinder, substantially as described. 7th. In a gas or vapour motor, the combination with two cylinders, each having a piston head, a gas inlet and a burnt gas outlet for each cylinder, a

single piston connected with each piston, and means for igniting the gas in each end of each cylinder, said parts arranged so that the gas in one end of one cylinder will explode slightly in advance of the explosion in the corresponding end of the other cylinder, substantially as described. 8th. In a gas or vapour motor, the combination with the cylinder having inlet and outlet ports for the fresh and burnt gases respectively, of the piston, having a deflector or diaphragm against which the fresh gases strike, said deflector having its side edges extended in a plane parallel with the longitudinal plane of the inlet and outlet, and said edges terminating closely adjacent to the outlet, substantially as described. 9th. In a gas or vapour motor, the combination with the cylinder having inlet and outlet ports, of the piston, having a flanged end, inlet and outlet ports in said flange, and a deflector opposite the inlet, said deflector having its edges extended in a plane parallel with the longitudinal plane of the inlet and outlet, and said edges terminating closely adjacent to the outlet substantially as described. 10th. In a gas or vapour motor, the combination of a cylinder having inlet and outlet ports and an elongated slot in the side thereof, a piston in said cylinder having its end flanged to cover said elongated slot in the cylinder, a shaft connection extending from said piston through the cylinder slot, inlet and outlet ports in the flange on the piston head and a deflector opposite the inlet, substantially as described. 11th. In a gas or vapour motor, the combination of a cylinder having inlet and outlet ports, and an elongated slot in the side thereof, a piston in said cylinder having its end flanged to cover said elongated slot in the cylinder, a shaft connection extending from said piston through the cylinder slot, inlet and outlet ports in the flange on the piston head, and a deflector opposite the inlet, the end of the cylinder shaped to project inward and fill the space in said flanged end of the piston, substantially as described. 12th. In a gas or vapour motor, the combination of two vertical cylinders each having inlet and outlet ports, and an elongated slot in the side of each, a piston in each cylinder, each piston having at least one end flanged to cover said elongated slot in the cylinder, a shaft connection extending from each piston through the cylinder, a common crank shaft, inlet and outlet ports on the flange on the piston head, and a deflector in each piston head opposite the inlet, the end of each cylinder corresponding with the flanged end of the piston head projecting toward the interior of the cylinder to substantially fill the space within the flanged end of the cylinder, substantially as described. 13th. In a gas or vapour motor, the combination of two vertical cylinders each having an inlet and an outlet port, and an elongated slot in the side of each, a piston in each cylinder, each piston having each end flanged to cover said elongated slot in the cylinder, a shaft connection extending from the piston through the cylinder slot, a common crank shaft, inlet and outlet ports in each flange at each end of the piston head, a deflector on each end of each piston head opposite the inlet, each end of each cylinder projecting towards the interior of the cylinder to substantially fill the space within the flanged end of the piston head, substantially as described. 14th. In a gas or vapour motor, the combination with the cylinder having an inlet and an outlet opening, the latter being opposite to and somewhat larger than the former, of a piston having a cupped or flanged end, corresponding inlet and outlet ports in the piston flange, and a diaphragm opposite the inlet, substantially as described. 15th. In a gas or vapour motor, the combination with the cylinder, of the piston having a flanged end, and inlet and outlet ports there-through, an electric contact, insulated from the cylinder, projecting to a point adjacent to the path of the piston, another opening in the piston flange, and a contact spring extending through the latter opening, substantially as described. 16th. In a gas or vapour motor, the combination with the fly-wheel having an eccentric groove, of a rod, one end engaging the eccentric groove, a rod to which the eccentric rod is engaged, said rod operating the gas pump piston at one end and the water pump piston at the other, substantially as described.

No. 55,457. Vegetable Harvester.

(Moissonneuse pour légumes.)

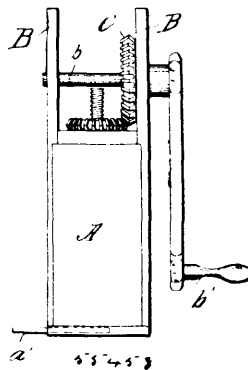


Henry Tyson Scholey, Centreville, New Brunswick, Canada, 29th March, 1897; 6 years. (Filed 13th March, 1897.)

Claim.—1st. As an harvester for vegetables, a socket provided with a head from one side of which extends a hoe-shaped blade, and from the opposite side, two prongs, as and for the purpose specified. 2nd. An implement of the class described comprising a socket, a head at the lower end of such socket, a hoe-shaped blade provided

with a sharpened edge, formed on one side of the head, two prongs with their lower ends curved towards each other so as to grasp round vegetables, at the opposite side, as shown and for the purpose specified. 3rd. In an implement of the class described, in combination, a socket head at the lower end of such socket, sharpened hoe-shaped blade formed on one side of the head, two prongs formed on the opposite side and shaped so as to grasp different shaped vegetables, as and for the purpose specified.

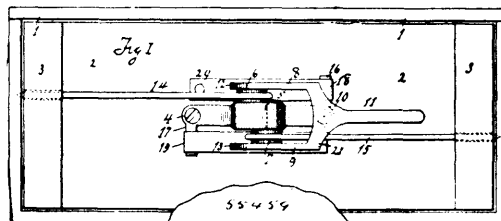
No. 55,458. Soap Press. (Presse à savon.)



Charles Field, Apple River, Nova Scotia, Canada, 29th March, 1897; 6 years. (Filed 15th March, 1897.)

Claim.—1st. In a soap press, the combination, with a press chamber provided with a slidable bottom, of a piston slidable in the press chamber, and means for sliding the said piston in the press chamber substantially as set forth. 2nd. In a soap press, the combination, with a press chamber, of a piston provided with a screw-threaded piston rod passing through the top of the said chamber, a shaft journaled in extension of the sides of the said chamber and provided with a crank handle, a bevelled toothed wheel secured on the said shaft, and a bevelled toothed wheel screwed on the said piston rod and gearing into the aforesaid bevelled wheel, substantially as set forth.

No. 55,459. Box Fastener. (Fermeture de boîte.)

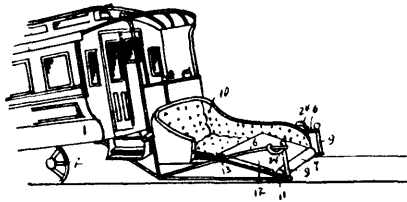


Ephraim H. Fenton, Kansas, Missouri, U.S.A., 29th March, 1897 6 years. (Filed 2nd March, 1897.)

Claim.—1st. A box fastener for adjustable box covers consisting of a shaft hanger adapted to be secured to the box cover, a rock shaft having its bearing in said hanger, a forked lever connected with said shaft, and bolt rods connected with said lever eccentrically with reference to the axis of said shaft, whereby as said lever is turned said bolt rods will be operated in opposite directions, substantially as set forth. 2nd. A box fastener for adjustable box covers consisting of a shaft hanger adapted to be secured to the box cover, a rock shaft having its bearing in said hanger, a forked lever connected with said shaft, bolt rods connected with said lever eccentrically with reference to the axis of said shaft and operating in opposite directions, a spring having its seat on the base of said hanger and a cam connected with said shaft adapted to contact with said spring, substantially as and for the purposes set forth. 3rd. A box fastener for adjustable box covers consisting of the combination with an adjustable box cover provided with cleats along the opposite sides thereof, of a shaft hanger adapted to be secured to said cover, a rock shaft having its bearing in said hanger, a forked lever connected with said shaft, bolt rods connected with said lever eccentrically with reference to the axis of said shaft, operating in opposite directions and passing through suitable openings in said cleats, a spring having its seat on the base of said hanger, and a cam connected with said shaft arranged to contact with said spring, substantially as and for the purpose set forth. 4th. A box fastener for the adjustable cover to egg boxes consisting of the combination with said cover of a shaft hanger, a rock shaft, circular plates connected eccentrically with said rock shaft and having the eccentric portions extending in opposite directions, an operating lever having forked ends connected with said rock shaft, oppositely movable bolt rods in suitable guides on said cover having an engaging point at their outer end, and a loop adapted to yield on the inner end of said rods extending over said eccentric plates, as and for the purpose described. 5th. A box fastener for the adjustable cover to egg boxes consisting

of the combination with said cover of a shaft hanger, a rock shaft, circular plates connected eccentrically with said shaft and having the eccentric portions extending in opposite directions, oppositely movable bolt rods in suitable guides on said cover having loops adapted to yield upon their inner ends extending over said eccentric plates, a spring on said hanger supported at each end and an operating lever having a forked portion connected with said rock shaft and an extension of said forked portion having a cam bearing upon the said spring whereby the upward movement of the free end of the lever is retarded, substantially as and for the purpose described.

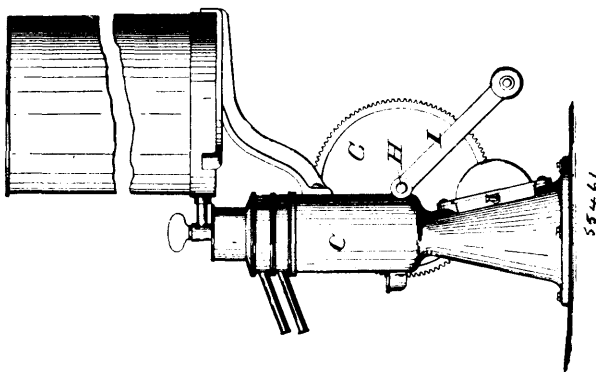
No. 55,460. Car Fender. (Défense de chars.)



John James Holloway and James William Starkweather, both of Los Alamos, California, U.S.A., 29th March, 1897; 6 years. (Filed 15th March, 1897.)

Claim.—1st. The combination with a car mounted upon suitable wheels, of a fender therefor secured to the underside of the car by suitable brace rods constituting a fender supporting frame, a cylinder located in the forward end of said frame, a pair of drums or rollers located in the rear of said cylinder, an apron or carrier belt surrounding said drums and means, actuated by the forward movement of the car, for rotating said cylinder and drums in a reverse direction to that of the car wheels, substantially as and for the purpose described. 2nd. The combination with a car mounted upon suitable wheels, of a fender therefor secured to the underside of the car by suitable brace rods constituting a fender supporting frame, a cylinder located in the forward end of said frame having a sprocket wheel upon its outer end, a pair of drums or rollers located just in the rear of said cylinder, one of said drums having a sprocket wheel upon its outer end, an apron or carrier belt surrounding said drums, a counter shaft mounted in said frame having a sprocket wheel upon its outer end, a chain surrounding the sprocket wheels on said counter shaft, on said drum and on said cylinder, a pinion on said counter shaft, a gear wheel meshing with said pinion and secured to a second counter shaft, a sprocket wheel thereon, and a sprocket chain connecting said sprocket wheel and a similar sprocket wheel on the shaft upon which said wheel is mounted, substantially as and for the purpose described.

No. 55,461. Centrifugal Creamer. (Crémeuse centrifuge.)

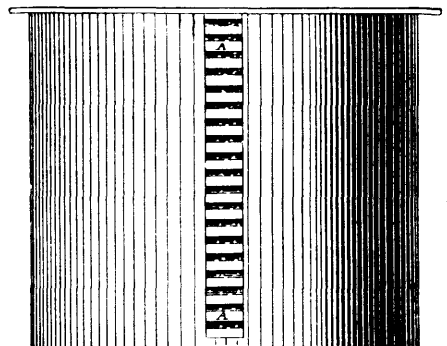


Olof Ohlson, Newark, New Jersey, U.S.A., 29th March, 1897; 6 years. (Filed 30th March, 1895.)

Claim.—1st. The combination of a shaft mounted in bearings and provided with an eccentric, a wheel provided on one side with an extended hub loosely mounted on the shaft, a friction clutch plate or member mounted loosely upon the shaft on the side of the wheel opposite to the hub and so as to be capable of circumferential movement back and forth on said shaft, a fixed stop limiting this movement in one direction, the clutch plate or member being arranged to be actuated by the eccentric so as to engage the wheel, and means for driving the shaft, substantially as set forth. 2nd. The combination of a shaft mounted in bearings and provided with an eccentric, a wheel provided on one side with an extended hub loosely mounted on the shaft by a pin and slot connection, a friction clutch plate or member mounted loosely upon the shaft on the side of the wheel opposite to the hub and so as to be capable of circumferential movement back and forth on said shaft, the clutch plate or

member being arranged to be actuated by the eccentric so as to engage the wheel, and means for driving the shaft, substantially as set forth. 3rd. In a centrifugal machine, comprising a device to be rotated upon a shaft provided with a worm, an intermediate shaft mounted in suitable bearings and provided with an eccentric, a worm wheel provided on one side with an extended hub loosely mounted on the intermediate shaft and engaging the worm shaft, a friction clutch plate or member loosely mounted on the intermediate shaft on the side of the worm wheel opposite to the hub and so as to be capable of circumferential movement back and forth on said shaft, a fixed stop limiting this movement in one direction, the clutch plate or member being arranged to be actuated by the eccentric so as to engage the wheel, and means for driving the shaft on which the worm wheel is mounted, substantially as set forth. 4th. A journal bearing comprising a collar adapted to receive a rotatable shaft or journal, a ring encircling the collar, and a cushion interposed between the ring and collar in combination with a support for the bearing encircling the ring, said support bearing horizontally against the ring, in which the ring may rotate, whereby in case the shaft or journal should adhere to the collar the bearing may rotate in the support, substantially as set forth. 5th. In a centrifugal machine, comprising a device to be rotated, a vertical driving shaft rigidly connected therewith and provided with a worm, a lower bearing comprising three or more balls between which the end of the shaft rests, an upper bearing provided with a cushion and arranged to maintain the shaft upright, and a worm wheel meshing with the shaft for rotating the shaft, whereby the axis of rotation may be maintained in a straight line through the centre of the device to be rotated, and whereby the shaft will be held down in its bearings during rotation, substantially as set forth. 6th. In a centrifugal creaming machine, the combination with a bowl and means for rotating the same, of a single frame or series of guide plates arranged in the outer part (radially) of the liquid space of the bowl and encircling the bowl centre and cutting obliquely the lines of the centrifugal force and arranged to act as couples, and each couple having common openings at the points nearest to the centre and supplementary outer guide plates cutting obliquely the lines of centrifugal force and arranged as described whereby the liquid space of the bowl is divided into an inner compartment and outer compartments, blue milk outlet conduits for the outer compartments, separate blue milk outlet conduits for the inner compartment and suitable inlet conduits, whereby currents of partly separated cream particles are formed and guided into successive collisions and progressive coalescence of the cream particles is attained, substantially as shown and described. 7th. In a centrifugal machine, the combination with a bowl and means for rotating the same and suitable inlet and outlet conduits, of a single frame or series of guide plates arranged in the outer part (radially) of the liquid space of the bowl and encircling the bowl centre and cutting obliquely the lines of centrifugal force and arranged in couples, each couple having common openings at the points nearest to the centre end openings at the points furthest from the centre, supplementary outer guide plates cutting obliquely the lines of centrifugal force and arranged as described, and a milk distributing base plate having openings for full milk arranged on both sides of each guide plate and of each supplementary guide plate, substantially as shown and described. 8th. In a centrifugal creamer, the combination with the rotary bowl, of a connecting frame comprising the perforated horizontal plate *p*, the vertical guide plates, arranged in couples and the couples arranged in chords of the rotary bowl, and the plates *m*¹, *m*² etc., disposed at angles to said vertical guide plates, the said guide plates and plates *p* and *m*¹, *m*² etc., being rigidly secured together from said bowl, and a feeding tube adapted to load the milk below said perforated horizontal plate, substantially as set forth.

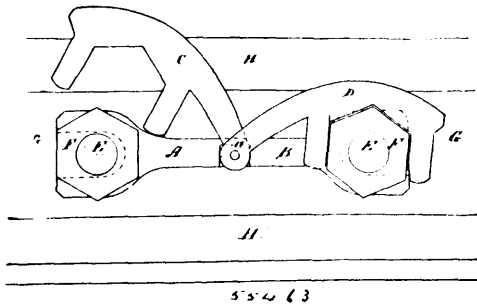
No. 55,462. Partition and Ceiling Extension Thimble. (Dé à extension pour cloisons et plafonds)



Joseph Taylor Henderson, Niagara Falls, Ontario, Canada, 27th March, 1897; 6 years. (Filed 26th March, 1896.)

Claim.—1st. The fastening consisting of corrugations or indentations as shown on the accompanying drawings. 2nd. The use of corrugations or indentations as a fastening upon extension thimbles.

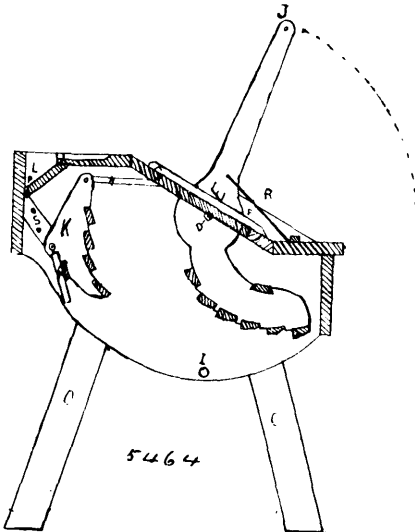
No. 55,463. Nut Lock. (Arrête-écrou.)



George Charest, (Gleichen, Alberta, N.W.T., Canada, 29th March, 1897; 6 years. (Filed 9th February, 1897.)

Claim.—1st. The appliance as a whole substantially as and for the purpose set forth. 2nd. The combination of the various parts A, B and C, D, substantially as and for the purpose hereinbefore set forth. 3rd. The right to use the appliance and its various parts as set forth, not only in connection with joints or connections made by means of bolts and screw-nuts in railroad rails, but also in connection with joints or connections made by means of bolts and screw-nuts in anything made of metal, wood, or any combination of wood, metal, or other materials, substantially as and for the purpose set forth. 4th. I also claim the right to use the adjustable hinged washer A, B, which may be made of any size required, and in iron, or any other metal, or material as may be required or desirable, and of which the two parts A and B are connected by a pin or rivet at a', not only in combination with the locks C, D as hereinbefore set forth, but also by itself in connection with joints or connections made by means of bolts and screw-nuts in railroad rails, or anything made of metal, wood, or any combination of wood, metal, or other materials, substantially as and for the purpose set forth.

No. 55,464. Washing Machine. (Machine à laver.)



Edward Rowland George Watson, Goderich, Ontario, Canada, 29th March, 1897; 6 years. (Filed 4th March, 1897.)

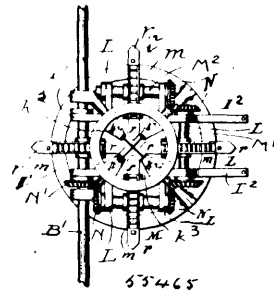
Claim.—1st. The combination with the lever paddle E¹¹, and the squeezing paddle K¹¹, and connected by bars H¹¹, H¹¹, substantially as and for the purpose hereinbefore set forth. 2nd. The combination with the lever paddle E¹¹, and the squeezing paddle K¹¹, and connected by bars H¹¹, H¹¹, and the bottom B¹¹, being a segment of a circle one end of which is elevated above the other, substantially as and for the purpose hereinbefore set forth.

No. 55,465. Potato Planter. (lan t eur à patates.)

Frederick Ayer, Chicago Heights, Illinois, U.S.A., 29th March, 1897; 6 years. (Filed 8th March, 1897.)

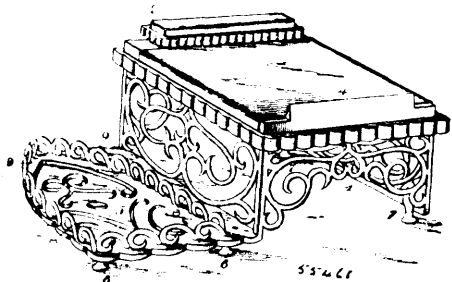
Claim.—1st. A feed mechanism for a potato-planter, or the like, comprising a hopper, an exit-passage for the escape of seed therefrom, a cutter arranged to divide said exit-passage and a rotary feeding device adapted to force the seed from the hopper and against the cutter. 2nd. A feed mechanism for potato-planters, or the like, comprising an upright hopper adapted for the passage of seed downward therethrough, a cutter arranged to divide the exit-passage of the hopper into a plurality of passages, a rotary feeding device adjacent to the cutter, seed-engaging devices carried by said

rotary feeder and means for driving the latter. 3rd. A feed mechanism for potato-planters, or the like, comprising a stationary



upright hopper adapted for the passage of seed downward therethrough, a cutter forming the seed-retaining bottom of the hopper, a rotary feeding device arranged adjacent to the cutter, projections thereon adapted to engage and carry the seed against the cutter and from the hopper and means for driving the rotary feeder. 4th. A feed mechanism for potato-planters, or the like, comprising a hopper, a cutter arranged in the exit-passage of the hopper, an endless belt arranged to travel through the hopper and adapted to force the seed therefrom and against the cutter, and means for driving said belt. 5th. A feed mechanism for potato-planters, and the like, comprising a hopper, a cutter arranged in the exit-passage of the hopper, a plurality of endless belts arranged to travel through the hopper adjacent to the cutter, seed-engaging devices carried by each of said belts adapted to co-act to force the seed upon the cutter and means for driving the belts. 6th. A feed mechanism for a wheeled potato-planter, comprising an upright hollow frame, a fixed cutter secured in the upper part of said frame, a guide-hopper arranged above the cutter and adapted to direct the potatoes upon the cutter and means for feeding the potatoes to the cutter comprising horizontal shafts arranged adjacent to the upright frame, intermeshing mitre-gears on said shafts, driving connections from the main axle of the machine, a driving sprocket-wheel on each of said shafts and a guide-sprocket mounted on a bearing supported on the hopper above the driving-sprocket and a sprocket-belt, provided with presser-fingers, trained about each driving and guide-sprocket substantially as set forth.

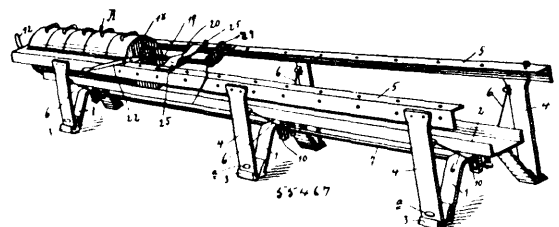
No. 55,466. Sad Iron Stand. (Support pour fers à repasser.)



Maurice Llewellyn Newell, Denver, Colorado, U.S.A., 29th March, 1897; 6 years. (Filed 9th March, 1897.)

Claim.—1st. The herein-described ironing stand, comprising the rectangular support 1, provided with the integral ribs 2 and 4, the detachable rectangular clamp frames, and the integral shelf 5, substantially as shown and described.

No. 55,467. Cheese Press. (Presse à fromage.)

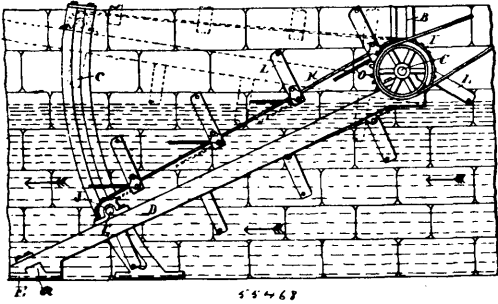


Daniel A. Sprague, Poland, New York, U.S.A., 29th March, 1897; 6 years. (Filed 27th February, 1897.)

Claim.—1st. In a gang press a pair of relatively adjustable hoop clamping bars and mechanism for moving them relatively in effecting the clamping of the hoops, substantially as set forth. 2nd. In a gang press a laterally movable hoop clamping bar, mechanism for moving it laterally and an opposing bar, substantially as set forth. 3rd. In a gang press a movable follower, a fixed head, laterally

movable side-bars and means for operating the side-bars, substantially as set forth. 4th. In a gang press a movable follower, a fixed head, laterally movable side-bars, movably attached to the fixed head, and means for moving the side-bars laterally, substantially as set forth. 5th. In a gang press a movable follower and cross-head, laterally movable side-bars therefor, and means for moving the side-bars, substantially as set forth. 6th. The combination in a gang press of a frame, a trough hoop support, a movable follower, a fixed head, laterally movable side-bars and mechanism for moving the side-bars, substantially as set forth. 7th. The combination in a gang press of the trough hoop support, laterally movable side-bars, mechanism for moving the side-bars laterally, and a movable follower and support slidably mounted on the trough, substantially as set forth. 8th. In a gang press a hoop support, a pair of relatively adjustable hoop clamping bars and mechanism for moving them relatively in effecting the clamping of the hoops, substantially as set forth.

No. 55,468. Current Water Motor. (Moteur hydraulique.)



Joseph G. McCaffrey, Detroit, Michigan, U.S.A., 29th March, 1897; 6 years. (Filed 10th March, 1897.)

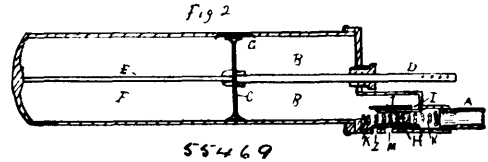
Claim.—1st. In a water motor, the combination with a waterway, the inclined frame therein, the shafts journalled at the opposite ends of said frame, the sprocket wheels on said shaft, the endless chain passing around said sprocket wheels, the series of buckets mounted on said chain distant from each other and standing in independent horizontal planes. 2nd. In a water motor, the combination with a waterway, the inclined frame therein, the shafts journalled at the opposite ends of said frame, the opposed sets of sprocket wheels on said shafts, the opposed sprocket chains passing around said wheels, the series of buckets mounted between said chains and attached at their opposite ends thereto, said buckets arranged distant apart and standing in separate horizontal planes, substantially as set forth. 3rd. In a water motor, the combination with a waterway, the inclined frame therein, the shafts journalled at opposite ends in said frame, the opposed sets of sprocket wheels carried by said shafts, the opposed sprocket chains passing around said wheels, the series of buckets mounted between said chains and secured at their opposite ends thereto, said buckets having each a movable blade or paddle hinged thereto, substantially as set forth. 4th. In a water motor, the combination with a race way, two opposed shafts crossing said race way and journalled in suitable supports on opposite sides thereof, said shafts being distant apart horizontally and located one above the other, the series of sprocket wheels mounted on said shafts, the opposed chains passing around said sprocket wheels, the series of buckets mounted between said chains and secured at their opposite ends thereto, said buckets having a movable blade or paddle hinged thereto, substantially as set forth. 5th. In a water motor, the combination with the waterway, of the supporting frame mounted therein, the opposed shafts, the sprocket wheels thereon, the chains passing around said sprocket wheels, the buckets mounted on said chains, said buckets consisting of a trilateral frame, a tie rod connecting the opposite ends of said frame, and a movable blade or paddle hinged to the rear side of the bucket and adapted to swing outward against said tie rod. 6th. In a water motor, the combination with the waterway, the inclined frame therein pivotally mounted at its upper end, the shafts journalled in said frame, the sprocket wheels thereon, the sprocket chains passing around said wheels, the series of buckets carried by said chains, the curved ways in the walls of the raceway adjacent to the lower end of said frame, the ends of the lower shaft projecting into said ways, which stand concentric with the pivotal point of said frame.

No. 55,469. Air Brake. (Frein atmosphérique.)

Jonathan J. Teetzal, St. Thomas, Ontario, Canada, 29th March, 1897; 6 years. (Filed 1st March, 1897.)

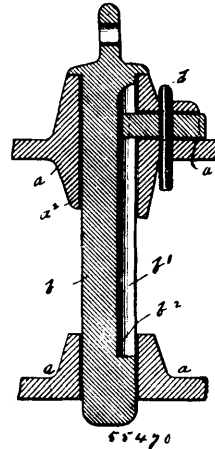
Claim.—In an air brake for railway cars, etc., the combination with the train pipe and brake cylinder, of a device for effecting the evacuation of air from the brake cylinder to the atmosphere at each car, said device comprising a casing having a valve chamber at one end opening into the train pipe A and at the other into the brake cylinder B, said valve chamber containing valve H, thus closing up direct communication through said chamber, comprising also a cylindrical opening leading from the brake cylinder two-thirds the length

of valve chamber and parallel with it and connected with valve chamber by a port through which the air is forced to release brakes,



also two springs K one at either end of valve H holding it in a certain regular position covering all ports when not in use, also having two ports opening to the atmosphere, the port L is brought into use every time the brake is set and the port M only when an emergency action is made.

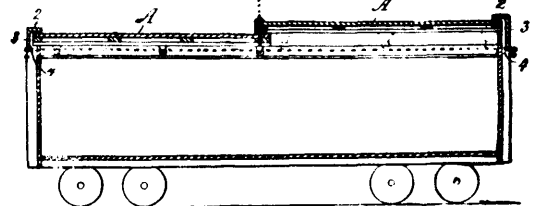
No. 55,470. Car Coupler. (Attelage de chars.)



Gardner Meeker, Newark, New Jersey, U.S.A., 29th March, 1897; 6 years. (Filed 12th March, 1897.)

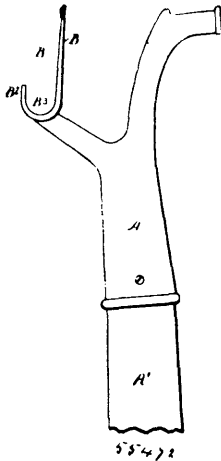
Claim.—1st. In a car coupler, the combination with the coupling hook or knuckle, of a vertically movable locking-pin for engaging with said knuckle provided with a projection thereon, and a stop device for limiting the vertical movement of said pin consisting of a bar having like ends and removably supported in a seat or pocket in the draw-head so as to be capable of being reversed in position and having one end thereof extended into a position to engage with said projection on the locking-pin, substantially as described and for the purpose set forth. 2nd. In a car coupler, the combination with the coupling hook or knuckle, of a vertically moving locking-pin for engaging with said knuckle provided with a projection thereon, and a stop device for limiting the vertical movement of said pin consisting of a bar having like ends removably supported within an enclosed seat or pocket in the draw-head by means of a retaining pin passing through a centrally located opening therein, the said bar having one end thereof extending into a position to engage with said projection on the locking-pin, substantially as described and for the purpose set forth.

No. 55,471. Railway Car. (Char de chemin de fer.)



William G. Richards, Hillsboro, Ohio, U.S.A., 29th March, 1897; 6 years. (Filed 12th March, 1897.)

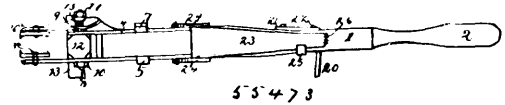
Claim.—1st. The combination with a railway car, of a roof consisting of two movable sections the outer ends of which are adapted to project beyond the end walls of the car, the overlapping strips covering the projecting ends of the sections, and the depending cleats or aprons attached to the outer and under edge of said overlapping strips, substantially as and for the purposes herein specified. 2nd. The combination with a railway car, of a roof consisting of two sections, the cross-bar overlying the junction of said sections, the bolt connecting the cross-bar and the lapped inner ends of the sections, the hasp covering the head of said bolt and the seal-lock adapted to secure the hasp, substantially as and for the purpose specified.

No. 55,472. Picture Hook Hanger.*(Crochet pour images.)*

George W. Willard, Detroit, Michigan, U.S.A., 29th March, 1897; 6 years. (Filed 15th March, 1897.)

Claim.—1st. A picture and picture hook hanger embodying a supporting stem and supporting arms B¹ and B² rising above the upper end of the stem, and both made integral with the stem, and forming a seat B³ for the hook between said arms, substantially as described. 2nd. A picture and picture hook hanger embodying a stem and a picture hook support formed with supporting arms B¹ and B², both made integral with the stem, the arm B² made shorter than the arm B¹, and tapered on its lateral edges at the upper end thereof, substantially as and for the purpose described. 3rd. A picture and picture hook hanger having in combination a picture hook support B, provided with a stem, and supporting arms B¹ and B² made integral therewith, and a window hook F, also made integral with the stem and picture hook support, substantially as described. 4th. A picture and picture hook hanger comprising a handle or pole, a stem, a shank extending at an angle from the stem and lying in a different plane therefrom, a support for a picture hook at the end of the shank, said support consisting of two arms of unequal lengths forming a curved seat between them, and an upwardly and outwardly curved hook extending from the stem opposite the picture hanger, substantially as described. 5th. A picture and picture hook hanger

embodying a stem, and arms B¹ and B² supported upon said stem and forming a seat B³ therebetween, one of said arms formed with a recess, substantially as described.

No. 55,473. Flooring and Ceiling Tool.*(Outil pour planchers et plafonds.)*

James A. Elder, Galena, Kansas, U.S.A., 29th March, 1897; 6 years. (Filed 21st January, 1897.)

Claim.—1st. A flooring and ceiling tool, comprising a body portion having a pair of side plates projecting below the lower end thereof, one of said plates projecting beyond the end of the other and having a spider-clamp projecting to its inner side, a head-block pivotally mounted between the projecting ends of said plates, and a lever pivotally carried upon the front side of the body portion, and having its lower end also provided on its inner side with a spider-clamp to engage the side of the joist, substantially as described. 2nd. A flooring and ceiling tool, comprising a body portion having a handle at its upper end, a pair of plates projecting from opposite sides and beyond the lower end of the body portion, one of said plates projecting beyond the lower end of the other, a spider-clamp secured to the inner end of the longer plate, a bolt passing transversely through said plates, a head-block pivotally mounted upon the bolt and between said plates, having a groove in its forward end and a head at its rear end, and a lever pivotally carried at the front side of the body portion, and having its lower end provided with a spider-clamp, and also with an opening engaging the projecting end of the transversely-arranged bolt, substantially as described. 3rd. A flooring and ceiling tool, comprising a body portion having side plates projecting beyond the lower end of the said body portion, one of said plates projecting beyond the lower end of the other and provided with a spider-clamp on its inner side, a bolt passing transversely through said side plates and beyond the lower end of the body portion, and provided with a shoulder bearing against the shorter arm, a head-block pivotally mounted upon the bolt between said plates, a bracket extending transversely of the body portion so as to form a slot between the same and the body portion, a lever mounted in said slot, and having a perpendicular extension at its lower end having an opening engaging the bolt, a spider-clamp at its inner side, having at its upper end a handle, and nuts engaging the projecting ends of the transversely-arranged bolt, and a rack-bar carried by the body portion and engaged by the lever, substantially as described.

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

4650. CARL ZEIDLER, 2nd term of No. 38,382, from the 3rd March, 1897. Method of Applying Celluloid to Keyboards. March 2nd, 1897.
4651. CARL ZEIDLER, 2nd term of No. 38,383, from the 3rd March, 1897. Veneering Press. March 2nd, 1897.
4652. CARL ZEIDLER, 2nd term of No. 38,397, from the 3rd March, 1897. Method of Making Keyboards, March 2nd, 1897.
4653. CARL KELLNER, 2nd term of No. 38,384, from the 3rd March, 1897. Method of Lining Boilers for Making Paper Pulp. March 2nd, 1897.
4654. HENRY THOMAS DAWSON, 2nd term of No. 38,416, from the 7th March, 1897. Gas Engine. March 2nd, 1897.
4655. EBENEZER NORTH, 2nd term of No. 38,412, from the 7th March, 1897. Artificial Stone Gully. March 2nd, 1897.
4656. ALFRED S. TOMKINS, 2nd term of No. 26,190, from the 10th March, 1897. Combined Tent and Waggon. March 2nd, 1897.
4657. KENNET W. BLACKWELL AND GEORGE D. SMITH, 2nd term of No. 38,387, from the 3rd March, 1897. Cattle Guard. March 4th, 1897.
4658. HECTOR McQUARRY, 2nd term of No. 38,577, from the 26th March, 1897. Axle Gage. March 4th, 1897.
4659. THE METALLIC ROOFING COMPANY (assignee), 2nd term of No. 26,183, from the 9th March, 1897. Metal Shingle. March 4th, 1897.
4660. HERBERT W. FLEURY, 2nd term of No. 38,440, from the 8th March, 1897. Grinding Mill. March 4th, 1897.
4661. JAMES C. RICHARDSON, 2nd term of No. 38,478, from the 15th March, 1897. Electrolytic Production of Caustic Soda, Caustic Potash, etc. March 4th, 1897.
4662. JAMES CHARLES RICHARDSON, 2nd term of No. 38,484, from the 15th March, 1897. Electrical Decomposition of Solutions of Chloride of Sodium and Potassium. March 4th, 1897.
4663. A. CRAIG, 3rd term of No. 29,215, from the 28th May, 1897. Washing Machine. March 6th, 1897.
4664. THE CANADIAN RUBBER COMPANY (assignee), 2nd term of No. 38,423, from the 7th March, 1897. Machine for Cutting Soles and Other Forms. March 6th, 1897.
4665. SALVADORE LA GRASSA, 3rd term of No. 26,270, from the 17th March, 1897. Key Bottom for Pianos, etc. March 8th, 1897.
4666. DILLON S. BROWN, 2nd term of No. 38,483, from the 15th March, 1897. Thill Coupling. March 10th, 1897.
4667. THOMAS A. BISSELL, 2nd term of No. 38,481, from the 15th March, 1897. Vestibule Hood for Cars. March 10th, 1897.
4668. NEIL McKINNON, 3rd term of No. 26,798, from the 1st June, 1897. Wrench, March 11th, 1897.
4669. IDA GLASS, 2nd term of No. 38,574, from the 26th March, 1897. System of Cutting Clothing. March 26th, 1897.
4670. FRANK BENJAMIN HARRISSON, 2nd term of No. 38,530, from the 18th March, 1897. Dust Guard for Car Axle Journals. March 15th, 1897.
4671. THE WATERLOO MANUFACTURING COMPANY (assignee), 3rd term of No. 26,944, from the 14th June, 1897. Traction Engine. March 15th, 1897.
4672. WALLACE CORODON ANDREWS, 2nd term of No. 38,719, from the 11th April, 1897. Method of Transportation. March 16th, 1897.
4673. THE CANADIAN GENERAL ELECTRIC COMPANY (assignee), 2nd term of No. 38,555, from the 21st March, 1897. Electrical Motor. March 17th, 1897.
4674. THE CANADIAN GENERAL ELECTRIC COMPANY (assignee), 2nd term of No. 38,556, from the 21st March, 1897. Electrical Motor. March 17th, 1897.
4675. THE CANADIAN GENERAL ELECTRIC COMPANY (assignee), 2nd term of No. 38,557, from the 21st March, 1897. Electric Engine. March 17th, 1897.
4676. THE CANADIAN GENERAL ELECTRIC COMPANY (assignee), 2nd term of No. 38,558, from the 21st March, 1897. Electric Railway. March 17th, 1897.
4677. THE CANADIAN GENERAL ELECTRIC COMPANY (assignee), 2nd term of No. 38,559, from the 21st March, 1897. Electric Railway. March 17th, 1897.
4678. THE CANADIAN GENERAL ELECTRIC COMPANY (assignee), 2nd term of No. 38,560, from the 21st March, 1897. Electric Motor. March 17th, 1897.
4679. FRANÇOIS-XAVIER THÉRIEN, 2nd term of No. 38,544, from the 19th March, 1897. Washing Machine. March 17th, 1897.
4680. CHARLES F. BAKER AND JOHN H. RANDALL, 2nd term of No. 38,723, from the 12th April, 1897. Composition Material. March 19th, 1897.
4681. FRANZ FUNKE, 2nd term of No. 38,763, from the 20th April, 1897. Steam Trap. March 22nd, 1897.
4682. JOSEPH HENRY OSGOOD, 2nd term of No. 38,647, from the 5th April, 1897. Medicinal Plaster. March 26th, 1897.
4683. JAMES D'ARCEY, 3rd term of No. 26,411, from the 6th April, 1897. Railway Flag Signal. March 21st, 1897.

TRADE - MARKS

Registered during the month of March, 1897, at the Department of Agriculture--
Copyright and Trade-Mark Branch.

5914. THE MAYPOLE SOAP SYNDICATE, LIMITED, 98 High Holborn, London, England. General Trade Mark, 1st March, 1897.
5915. TRIUMPH CYCLE COMPANY, LIMITED, Coventry, Warwickshire, England. Carriages, including Cycles, Autocars, etc., 4th March, 1897.
5916. JOHN CARRICK, New York, N.Y., U.S.A. Pharmaceutical Preparation, 4th March, 1897.
5917. }
5918. } WILLIAM WATSON OGILVIE, Montreal, Que. Flour, 6th March, 1897.
5919. }
5920. }
5921. HERMANN H. WOLFF AND COMPANY, Montreal, Que. Skirt Protector, 8th March, 1897.
5922. PARKER BROTHERS, Salem, Massachusetts, U.S.A. Games, particularly Parlor Games, 8th March, 1897.
5923. ELIE PICHETTE, Nancy, Qué. Remède pour les rhumatismes, engelures, névralgies, entorses, maux de gorge, coupures, brûlures, etc., 10 mars 1897.
5924. CHARLES E. HUGGINS. Halifax, N.S. Menthol Liniment, 10th March, 1897.
5925. JAMES SCOTT, Montreal, Que. Mucilage, 10th March, 1897.
5926. W. WOODFIELD AND SONS, Redditch, Worcestershire, England. Needles, 10th March, 1897.
5927. GEORGE A. SIMARD AND ARTHUR MIGNAULT, North Adams, Massachusetts, U.S.A. Remedies for Constipation, 10th March, 1897.
5928. GEORGE A. SIMARD AND ARTHUR MIGNAULT, North Adams, Massachusetts, U.S.A. Medicinal Plasters, 10th March, 1897.
5929. GEORGE A. SIMARD AND ARTHUR MIGNAULT, North Adams, Massachusetts, U.S.A. Remedies for worms and similar diseases, 10th March, 1897.
5930. B. BELL AND SON, St. George, Brant County, Ont. Farm Implements, Machinery and Hardware Specialties, 11th March, 1897.
5931. SMITH, FISCHER AND COMPANY, St. Jerome, Terrebonne County, Que. Cigars, 12th March, 1897.
5932. W. FRANK HATHAWAY, St. John, N.B. Tea, 12th March, 1897.
5933. ROBERT HARTKOPF, Solingen, Prussia, Germany. Cutlery, 12th March, 1897.
5934. DODGE WOOD SPLIT PULLEY COMPANY, Toronto, Ont. Pulleys, 13th March, 1897.
5935. CANADA PAPER COMPANY, LIMITED, Montreal, Que. Paper, 13th March, 1897.
5936. AÉRATORS LIMITED, London, England. Cylinders containing carbonic acid gas for aerating liquids, soda water, etc., 13th March, 1897.
5937. THE WESTINGHOUSE MANUFACTURING COMPANY, LIMITED, Hamilton, Ont. General Trade Mark, 13th March, 1897.
5938. ROBERT FULTON CREAM, Quebec, Que. Flour, 15th March, 1897.
5939. EDWARD ALPHONSE RANSON, Lachine, Que. Medicinal Preparations, 15th March, 1897.
5940. HARRY GRANGER, Hamilton, Ont. Medicine, Ointment, Liniment, 15th March, 1897.

5941. THE MOONLIGHT PATENT LAMP COMPANY, LIMITED, Liverpool, England. General Trade Mark, 15th March, 1897.
5942. CHEMISCHE FABRIK VON HEYDEN, GESELLSCHAFT MIT BESCHRANKTER HAFTUNG, Radebeul, near Dresden, Saxony, German Empire. General Trade Mark, 15th March, 1897.
5943. PACIFIC BORAX AND REDWOODS CHEMICAL WORKS, LIMITED, Dock House, Billiter Street, London, England. Antiseptics, including Food Preservative Preparations, 15th March, 1897.
5944. ETNA CHEMICAL COMPANY, New York, N.Y., U.S.A. A Chemical Compound (or Medicine), 17th March, 1897.
5945. MACONOCHIE BROTHERS, 131 Leadenhall Street, London and Lowestoft, Suffolk, England. Preserved Provisions and other similar goods, 17th March, 1897.
5946. ALEXANDER BREMNER, Montreal, Que. Cement, 18th March, 1897.
5947. MONARCH CYCLE MANUFACTURING COMPANY, Chicago, Illinois, U.S.A. Velocipedes and Bicycles, 19th March, 1896.
5948. THE AMERICAN TOBACCO COMPANY, Newark, New Jersey, U.S.A. Manufactured tobacco, including tobacco in plugs, 22nd March, 1897.
5949. THE AMERICAN TOBACCO COMPANY, Newark, New Jersey, U.S.A. Manufactured tobacco, including cigars, cigarettes and cheroots, 22nd March, 1897.
5950. THE AMERICAN TOBACCO COMPANY, Newark, New Jersey, U.S.A. Manufactured tobacco, 22nd March, 1897.
5951. THE AMERICAN TOBACCO COMPANY, Newark, New Jersey, U.S.A. Manufactured tobacco, including cigars, cigarettes and cheroots, 22nd March, 1897.
5952. THE AMERICAN TOBACCO COMPANY, Newark, New Jersey, U.S.A. Manufactured tobacco, 22nd March, 1897.
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5954. THE AMERICAN TOBACCO COMPANY, Newark, New Jersey, U.S.A. Manufactured tobacco, 22nd March, 1897.
5955. THE AMERICAN TOBACCO COMPANY, Newark, New Jersey, U.S.A. Manufactured tobacco, including tobacco in plugs and twists, 22nd March, 1897.
5956. THE AMERICAN TOBACCO COMPANY, Newark, New Jersey, U.S.A. Manufactured tobacco, including cigars, cigarettes and cheroots, 22nd March, 1897.
5957. THE AMERICAN TOBACCO COMPANY, Newark, New Jersey, U.S.A. Manufactured tobacco, including cigars, cigarettes and snuff, 22nd March, 1897.
5958. THE AMERICAN TOBACCO COMPANY, Newark, New Jersey, U.S.A. Manufactured tobacco, including tobacco in plugs, 22nd March, 1897.
5959. THE AMERICAN TOBACCO COMPANY, Newark, New Jersey, U.S.A. Manufactured tobacco, including cigars, cigarettes and snuff, 22nd March, 1897.
5960. CANESDA MINERAL WATER COMPANY, Toronto, Ont. Mineral Water, 22nd March, 1897.
5961. DANIEL BRAND MARSH, Black Heath, Ont. Apparatus for examining the condition of the Heart, Lungs, etc., 22nd March, 1897.
5962. MAURICE BARSALOU, Montréal, Qué. Globes de lampes, 22 mars 1897.
5963. CHARLES CAMELL AND COMPANY, LIMITED, Cyclops Works, Sheffield, England. Iron and Steel, separately or combined, and Articles manufactured therefrom, such as Springs, Buffers, Tyres, Axles, Wheels, Switches, Railway Points, Files, Rasps, Hammers, Cannon Shot, and Shell, Arms and the like, 22nd March, 1897.
5964. EUGENE O'KEEFE, Toronto, Ont. O'Keefe Liquid Extract of Malt, 23rd March, 1897.
5965. MAHEU ET DUFRESNE, Victoriaville, Que. Cigares, 23 mars 1897.

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5966. RICE AND HUTCHINS, INCORPORATED, Boston, Mass., U.S.A.
Boots and Shoes, 25th March, 1897.
5967. CHARLES R. COUSINS, St. Johns, Que. Flour, 25th March, 1897.
5968. ARTHUR C. LEONARD, Windsor, Ont. A Toilet Preparation for the
Skin, 25th March, 1897.
5969. } FRANÇOIS MARIE BENOIT MATHYS, Montréal, Qué. Bobines de fil
5970. } de coton à coudre, 27 mars 1897.
5971. THE MAYPOLE COMPANY, LIMITED, 98 and 99 High Holborn,
London, England. Soaps, 29th March, 1897.
5972. VILLENEUVE ET COMPAGNIE, Montréal, Qué. Cigares, 31 mars 1897.

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Copyright and Trade-Mark Branch.

9044. **THE PHILOSOPHER IN THE CLEARING.** By J. J. Proctor, Quebec, Que., 1st March, 1897.
9045. **THERE'LL COME A TIME.** Words and Music by Chas. K. Harris. Whaley, Royce & Co., Toronto, Ont., 2nd March, 1897.
9046. **WON'T YOU PLAY HOUSE WITH ME.** (Waltz Song and Refrain.) Words and Music by H. C. Verner. Whaley, Royce & Co., Toronto, Ont., 2nd March, 1897.
9047. **THE FORGE IN THE FOREST.** An Acadian Romance. By Charles G. D. Roberts, Fredericton, N.B., 2nd March, 1897.
9048. **A TREATISE ON THE LAW OF EVIDENCE AS ADMINISTERED IN ENGLAND AND IRELAND.** By His Honour the late Judge Pitt Taylor. Ninth Edition. Sweet & Maxwell (Ltd.), London, England, 2nd March, 1897.
9049. **REVIEW OF HISTORICAL PUBLICATIONS RELATING TO CANADA.** (Volume I.) Edited by George M. Wrong, M.A., Toronto, Ont., 4th March, 1897.
9050. **HUMAN HEARTS.** (Waltz Song.) Words and Music by J. Frank Gibbons. Whaley, Royce & Co., Toronto, Ont., 4th March, 1897.
9051. **THOSE WEDDING BELLS SHALL NOT RING OUT.** Words and Music by Monroe H. Rosenfeld. Whaley, Royce & Co., Toronto, Ont., 4th March, 1897.
9052. **THE CANADIAN LAW TIMES.** (Volume XVI.) Edited by E. Douglas Armour, Q.C. The Carswell Co. (Ltd.), Toronto, Ont., 4th March, 1897.
9053. **A FINAL RECKONING.** (A Tale of Bush Life in Australia.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 4th March, 1897.
9054. **BY SHEER PLUCK.** (A Tale of the Ashanti War.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 4th March, 1897.
9055. **MAORI AND SETTLER.** (A Tale of the New Zealand War.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 4th March, 1897.
9056. **ONE OF THE 28TH.** (A Tale of Waterloo.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 4th March, 1897.
9057. **ORANGE AND GREEN.** (A Tale of the Boyne and of Limerick.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 4th March, 1897.
9058. **THE CANADIAN PARLIAMENTARY COMPANION, 1897.** Edited by J. A. Gemmill, Ottawa, Ont., 4th March, 1897.
9059. **THE WESTMINSTER.** A Paper for the Home. Vol. II. No. 3. March, 1897. The Westminster Co., Toronto, Ont., 5th March, 1897.
9060. **CYCLING FOR OLD AND YOUNG.** By Adelpha. Isabel Howard O'Keeffe, Montreal, Que., 5th March, 1897.
9061. **THE INVENTOR'S MANUAL.** J. A. Marion, Montreal, Que., 5th March, 1897.
9062. **HARD NUTS TO CRACK.** (Fifty Famous Puzzles.) The Specialty Company of Canada, Toronto, Ont., 6th March, 1897.
9063. **FACING DEATH; OR, THE HERO OF THE VAUGHAN PIT.** (A Tale of the Coal Mines.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 6th March, 1897.
9064. **THROUGH THE FRAY.** (A Tale of the Luddite Riots.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 6th March, 1897.
9065. **THE LION OF ST. MARK.** (A Tale of Venice in the Fourteenth Century.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 6th March, 1897.
9066. **OVER THE WAVES.** Waltzes by Juventino Rosas. Friedrich Hofmeister, Leipzig, Germany, 6th March, 1897.

9067. MAP OF THE SURVEYED MINERAL CLAIMS OF THE TRAIL CREEK MINING DISTRICT, WEST KOOTENAY, B.C. Compiled by M. Bakker. Commerell Markham Cowper-Coles and Charles E. Wynn-Johnson, Rossland, B.C., 6th March, 1897.
9068. MODERN BUILDING FRONTS. (Catalogue.) The Pedlar Metal Roofing Company, Oshawa, Ont., 6th March, 1897.
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