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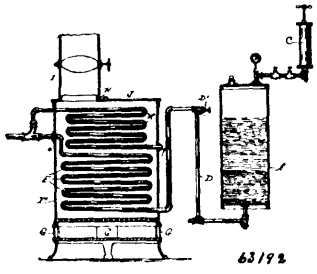
No. 63,192. Gas Making Apparatus.
(*Appareil pour la fabrication du gaz.*)



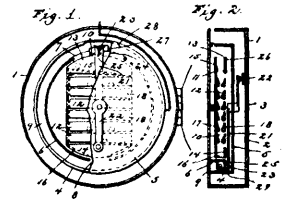
Francis L. Martenette, Chico, California, U.S.A., 5th June, 1899; 6 years. (Filed 6th February, 1899.)

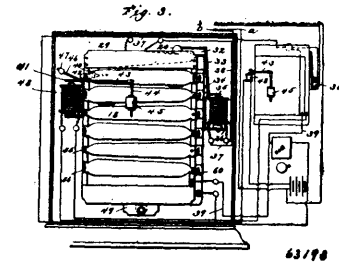
Claim.—An improved apparatus for making gas from oil, consisting of a furnace, a heating coil contained wholly therein, a chamber adapted to receive liquid to be vapourized, an air forcing mechanism connecting with said chamber so as to exert a pressure therein to force the liquid from the chamber and through the coil, a pipe connecting the chamber with the coil, a delivery pipe connected with the outlet end of the coil and a jet nozzle connected with said pipe, a second coil within the furnace directly above the first named coil, having an air inlet at one end and having the opposite end connected with a pipe which joins the discharge pipe of the first named coil proximate to the jet nozzle.

No. 63,193. Electric Alarm. (*Avertisseur électrique.*)

Albert Ovenden, Akron, Ohio, U.S.A., 5th June, 1899; 6 years. (Filed 31st August, 1898.)

Claim.—1st. In an electric circuit closer, an inclined way composed of a plurality of oppositely extending superimposed separate members, one side of each of which is composed of conducting material throughout, while the other side is composed of non-conducting material having a portion of the engaging face formed of conducting material, and a roller circuit closer. 2nd. In an electric circuit closer, an inclined way consisting of a plurality of independent superimposed members, each comprising a conducting rail and a non-conducting rail having a portion of its face composed of conducting material, and roller circuit closer. 3rd In an electric circuit closer, an inclined way consisting of a plurality of independent superimposed members, each comprising a conducting rail and a non-conducting rail, and having a plurality of conducting portions

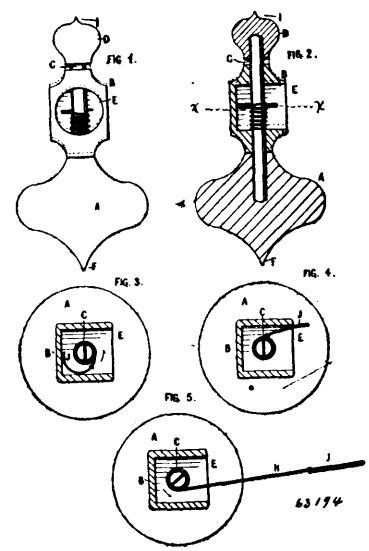




flush with the face thereof, and a roller circuit closer. 4th. In a circuit closer for an electric alarm, a plurality of inclined ways independent of each other and extending in opposite directions, each of said inclined ways having one side composed of conducting material and the other side composed of non-conducting material, having conducting portions, a roller circuit closer, and means for guiding said roller circuit closer from the lower termination of one inclined way to the upper beginning end of the next. 5th. In a circuit closer for an electric alarm, a plurality of inclined ways independent of each other, and extending in opposite directions, and having conducting and non-conducting portions, a roller circuit closer, an inclined guide extending from the lower end of one way to the upper end of the next. 6th. A circuit closer for an electric alarm, comprising a frame composed of inclined ways, superimposed and independent of each other, said ways extending in opposite directions, and having conducting and non-conducting portions, a roller circuit closer, and a movable elevator adapted to receive said roller circuit closer from the lower way and to deliver it to the upper way. 7th. A circuit closer for an electric alarm, comprising a plurality of inclined ways, superimposed and independent of each other, the said ways extending in opposite directions, and having conducting and non-conducting portions, a roller circuit closer, hoppers at the upper and lower end of said inclined ways, and a movable elevator to receive said roller circuit closer from the lower hopper and to deliver it to the upper hopper. 8th. A circuit closer for an electric alarm, comprising a plurality of inclined ways having conducting and non-conducting portions, a roller circuit closer, an elevator comprising a pivoted arm having a cup at one end thereof that normally stands below the lower inclined way to receive said roller circuit closer, and adapted to swing above the upper inclined way to deliver said circuit closer. 9th. A circuit closer for an electric alarm, comprising a plurality of inclined ways having conducting and non-conducting portions, a roller circuit closer, an annular passage surrounding said inclined ways having

openings above and below the same, a pivoted arm having a cup at one end that is situated within said annular passage, and which normally stands with the cup below the lower opening therein. 10th. A circuit closer for an electric alarm, comprising a plurality of inclined ways having conducting and non-conducting portions, a roller circuit closer, an annular passage surrounding said inclined ways, having openings above and below the same, guide faces at the upper side of said annular passage and opposite the upper opening therein and situated at opposite sides of the centre thereof, a swinging arm having a swinging cup at one end that is situated within said annular passage, a projection upon said swinging cup, a projection in said annular passage situated at the upper side of the same and in the path of the projection upon said cup, and guide fingers upon said cup situated to engage the stop faces of said passage. 11th. A circuit closer for an electric alarm, comprising a swivelled frame carrying a plurality of inclined ways independent of each other and extending in reverse directions and having conducting and non-conducting portions, a roller circuit closer, and an elevator for delivering said circuit closer from the lower to the upper end of said inclined ways. 12th. In an electric circuit closer, a frame provided with a plurality of inclined ways, superimposed and independent of each other, the said ways extending in reverse directions, each of which is composed of two rails, one of conducting material and the other of non-conducting material having conducting portions, said conducting rails and conducting portions of the non-conducting rails being connected in an electric circuit, and a roller circuit closer. 13th. In an electric circuit closer, a frame having a plurality of inclined ways independent of each other and extending in opposite directions, the lowermost end of one being located adjacent to the highest end of the one next succeeding, and provided with conducting and non-conducting portions, said inclined ways being adjustably secured to said frame, and a roller circuit closer. 14th. In an electric circuit closer, a frame having uprights, a plurality of inclined ways having conducting and non-conducting portions and slotted ends, fastening devices passing through the slotted end portion of the inclined ways for adjustably securing the same to said uprights, and a roller circuit closer. 15th. In an electric circuit closer, an inclined way consisting of a plurality of independent superimposed members, each comprising a conducting rail and a non-conducting rail having a removable conducting strip inlaid therein. 16th. In an electric circuit closer, an inclined way comprising a conducting rail having a laterally extending plate, a non-conducting rail secured to said plate and having conducting portions. 17th. In an electric alarm, a circuit in which are situated the alarm mechanism and a circuit closer, said circuit closer comprising inclined ways, superimposed and independent of each other, said ways extending in reverse directions, and having conducting and non-conducting portions, a valve above the upper inclined way adapted to retain the roller circuit closer which forms a part of the circuit, and an electro-magnet for controlling said valve situated in the circuit formed by said roller circuit closer. 18th. In an electric alarm, a circuit in which are situated the alarm mechanism and a circuit closer, said circuit closer comprising a plurality of inclined ways having conducting and non-conducting portions, circuit terminals situated above the upper inclined way, a movable valve at the ends of said terminals, a circuit closer resting upon said terminals and held thereon by said valve, and an electro-magnet controlling said valves and situated in the circuit formed by said roller circuit closer. 19th. In an electric alarm system, a circuit having a plurality of branch circuits, an alarm mechanism in said circuit, a plurality of circuit closers in said circuit and from which the branch circuits lead, said circuit closers comprising inclined ways and a roller circuit closer controlled by the branch circuits, and a valve for each of said circuit closers controlling the passage of the roller circuit closer to the inclined ways, said valve being controlled by an electro magnet situated within the circuit in which said inclined ways are placed. 20th. In an electric alarm system, a circuit having a plurality of branch circuits, an alarm mechanism in said circuit, a plurality of circuit closers in said circuit and from which the branch circuits lead, said circuit closers comprising inclined ways and a roller circuit closer controlled by the branch circuits, and a valve for each of the said circuit closers controlling the passage of the roller circuit closer to the inclined ways, said valve being controlled by an electro magnet situated within the circuit in which said inclined ways are placed, and devices to permit said valve to close quickly but which retard the opening of the same. 21st. In an electric alarm system, a circuit having a plurality of branch circuits, an alarm mechaism in said circuit, a plurality of circuit closers in said circuit and from which the branch circuits lead, said circuit closers comprising inclined ways and a roller circuit closer controlled by the branch circuits, and a valve for each of the circuit closers controlling the passage of the roller circuit closer to the inclined ways, said valves being controlled by an electro magnet situated within the circuit in which said inclined ways are placed, and devices to permit said valve to close quickly but which retard the opening of the same, the connections between said valves and said device being arranged to cause the valves to open at different periods. 22nd. In an electric alarm system, a plurality of circuit closers composed of inclined ways having conducting and non-conducting portions, a roller circuit closer, a valve comprising a plate situated at the upper end of the upper inclined way of each of said circuit closers, an armature, connected with the valve, an electro magnet in the circuit controlled by said inclined ways and roller circuit closers, and an arm upon the pivot of the valve and connected with the dash pot. 23rd. In an electric alarm system, a plurality of circuit closers composed of inclined ways having conducting and non-conducting portions, a roller circuit closer, a valve comprising a plate situated at the upper end of the upper inclined way of each of said circuit closers, an armature connected with the valve, an electro magnet in the circuit controlled by said inclined ways and roller circuit closers, and an arm upon the pivot of the valve and connected with the dash pot, said arms in the different circuit closers varying in length. 24th. In an electric alarm system, a plurality of circuit closers, composed of inclined ways having conducting and non-conducting portions, a roller circuit closer, a valve comprising a plate situated at the upper end of the upper inclined way of each of said circuit closers, an armature connected with the valve, an electro magnet in the circuit controlled by said inclined ways and roller circuit closers, an arm upon the pivot of the valve and connected with the dash pot, and a counter balance weight. 25th. In an electric alarm system, a plurality of circuit closers composed of inclined ways having conducting and non-conducting portions, a roller circuit closer, a valve comprising a plate situated at the upper end of the upper inclined way of each of said circuit closers, an armature connected with the valve, an electro magnet in the circuit controlled by said inclined ways and roller circuit closers, an arm upon the pivot of the valve and connected with the dash pot, and an adjustable counter balance weight.

No. 63,194. Spinning Top. (*Toupie.*)



George Frederick Aishton, Rochester, New York, U.S.A., 5th June, 1899; 6 years. (Filed 13th April, 1899.)

Claim.—1st. In a spinning top, the combination with the body and stem, of the perforated handpiece loosely fitted to the stem and having a recess open at one side, adapted to receive the cord attached to the stem, as and for the purposes set forth. 2nd. In a spinning top, the combination with the body, stem and cap, of the perforated handpiece loosely fitted to the stem and movable lengthways thereon and having a recess open at one side, adapted to receive the cord attached to the stem, as and for the purposes set forth. 3rd. In a spinning top, the combination with the body and stem, of the perforated and recessed handpiece loosely fitted to the stem, the cord attached to the stem inside the recess, and having a stiffner outer end, as and for the purposes set forth. 4th. In a spinning top, the combination with the body and stem, of the perforated recessed handpiece loosely fitted to the stem, the cord attached to the stem inside the recess, and having its outer end doubled and secured to form a loop, as and for the purposes set forth.

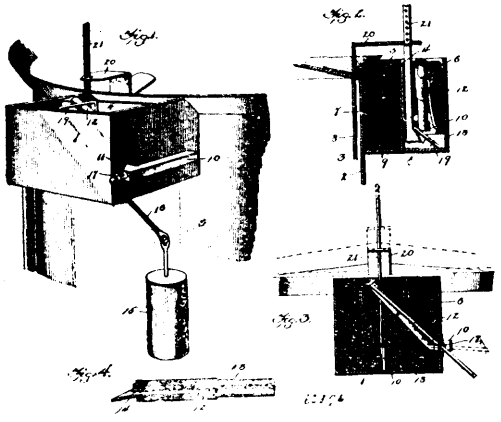
No. 63,195. Production of Alkali Compounds of Albuminous Substances. (*Production de composé d'alcali de substances albumineuses.*)

Otto Sielbold, Liepzig, Saxony, German Empire, 5th June, 1899; 6 years. (Filed 6th February, 1899.)

Claim.—1st. An improved process for the production of soluble neutral albumen salts from albuminous bodies reacting as acids, in which process the precipitated and still moist albuminous matter is treated with a bicarbonate or acid carbonate until a glassy swollen tough consistiency of the liquid results, the so-obtained product being subsequently dried, substantially as described. 2nd. An improved process for the production of soluble neutral albumen salts from albuminous bodies reacting as acids, in which process the precipitated and still moist albumen is treated with bicarbonate, or acid carbonates, said treatment being accelerated by heat until a

glassy swollen or tough consistency of the liquid results, the so-obtained product being subquently dried, substantially as described. 3rd. An improved process for the production of soluble neutral albumen salts from albuminous bodies reacting as acids, in which process any of the described operations or steps may be carried out in an atmosphere containing carbonic acid, substantially as described.

No. 63,196. Water Supply Device for Acetylene Gas Apparatus. (*Appareil d'alimentation d'eau pour appareil à gaz acétylène.*)



John Herbert Cliff, George Henry Cliff and Thomas Davidson Wardlaw, all of Dundas, Ontario, Canada, 5th June, 1899; 6 years. (Filed 3rd February, 1899.)

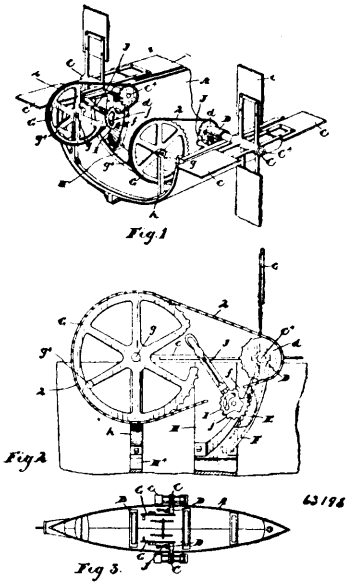
Claim.—1st. In an acetylene gas generating apparatus, the combination with a gas holder, of a reservoir connected to said gas holder and receiving its supply of water therefrom, and means, substantially as described, operated by the movement of the telescoping section of said gas holder for automatically passing the water from said gas holder to the supply pipe for the generator, substantially as described. 2nd. A water reservoir for acetylene gas generators, comprising a casing having a plurality of chambers, a water inlet for said reservoir communicating with one of said chambers, means substantially as described for passing the water intermittently from said water receiving chamber to the remaining chamber, and an outlet to the generator from said remaining chamber, substantially as described. 3rd. A water reservoir for acetylene gas generators, comprising a casing having a plurality of chambers, an inlet for said reservoir communicating with one of said chambers, a flexible pipe connection between said water receiving chamber and the remaining chamber, said connection having a segmental movement, whereby the water will be passed intermittently from the water receiving chamber to the remaining chamber, and an outlet formed in said remaining chamber for the passage of the water to the generator, substantially as described. 4th. A water reservoir for acetylene gas generators, comprising a casing having a plurality of chambers, a water inlet for said reservoir communicating with one of said chambers, a flexible pipe connection between said water receiving chamber and the remaining chamber, said connection having a segmental movement, and being normally held in an inoperative position, means substantially as described for moving said connection into an operative position, and an outlet formed in said remaining chamber leading to the generator, whereby water will be passed intermittently from said water receiving chamber to the generator, substantially as described. 5th. A water reservoir for acetylene gas generators, comprising a casing having a plurality of chambers, a water inlet for said reservoir communicating with one of said chambers, a flexible pipe connection between said water receiving chamber and the remaining chamber, said connection having a segmental movement and being normally held in its inoperative position, means substantially as described for moving said connection into an operative position, means substantially as described, for automatically returning said connection to its inoperative position, and an outlet formed in said remaining chamber leading to the generator, whereby water will be passed intermittently from said water receiving chamber to the generator, substantially as described. 6th. A water reservoir for acetylene gas generators, comprising a casing having a plurality of chambers, a water inlet for said reservoir communicating with one of said chambers, a flexible pipe connection between said water receiving chamber and the remaining chamber, said connection having a segmental movement and being normally held in its inoperative position, means, substantially as described. for moving said connection to an operative position, an outlet formed in said remaining chamber leading to the generator, whereby water will be passed intermittently from said water receiving chamber to the generator, and means, substantially as described, for preventing the accidental discharge of water from said water receiving chamber to the remaining chamber contiguous to said outlet, substantially as described.

No. 63,197. Means of Using Calcium Carbide for the Generation of Acetylene. (*Moyen d'utiliser le carbure de calcium pour la génération de l'acétylène.*)

Gustaf Dillberg, Sydney, New South Wales, Australia, 5th June, 1899; 6 years. (Filed 23rd December, 1898.)

Claim.—1st. In combination with calcium carbide, an envelope of some porous material, in which the said calcium carbide is to be enclosed, and the whole immersed in water, when it is desired to generate acetylene gas, substantially as herein described and for the purpose set forth. 2nd. In combination with calcium carbide, a porous receptacle, or division placed below the surface of water in a containing vessel, through which porous receptacle or division the acetylene gas must pass before reaching the surface of the water, substantially as and for the purpose herein set forth.

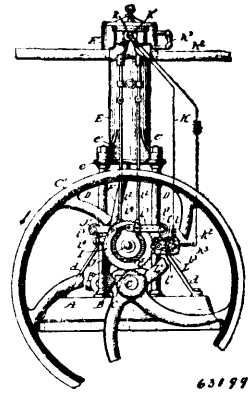
No. 63,198. Propulsion of Boats. (*Propulsion de vaisseaux.*)



Paul Emil Dolge, Toronto, Ontario, Canada, 5th June, 1899; 6 years. (Filed 29th April, 1899.)

Claim.—In combination the independent paddle wheels located one on each side of the boat, the axles for same extending inwardly as shown, the racks provided with suitable journal bearings at the top thereof for the axles of the paddle wheels, the socket standards, the sprocket-wheels on the ends of the axles, means for driving the sprocket-wheels independently as specified, the quadrant forming part of the standard, the lever pivoted on the said quadrant and having a spring plunger adapted to engage with the notches thereof, and a quadrant formed on the inner end of the lever and meshing with the racks in the concentric socket standards as and for the purpose specified.

No. 63,199. Explosive Engine. (*Machine explosive.*)

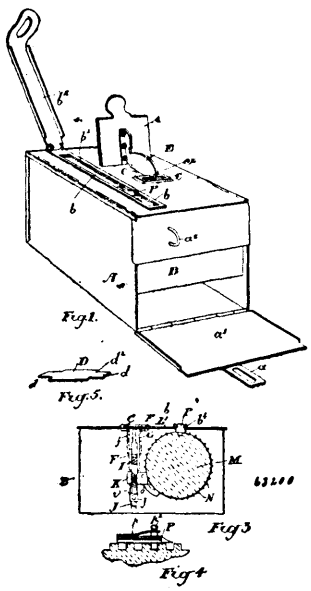


John Alstine Secor, New York City, New York, U.S.A., 5th June, 1899; 6 years. (Filed 15th April, 1899.)

Claim.—In an explosive engine, the combination with a cylinder, piston, crank shaft and connections, of an electric igniter having a

normally open circuit, a switch to close said circuit and a finger pivoted upon said switch and movable to a limited extent with respect thereto, said finger projecting into the path of the moving part of the engine.

No. 63,200. Ballot Box. (*Boîte à scrutin.*)



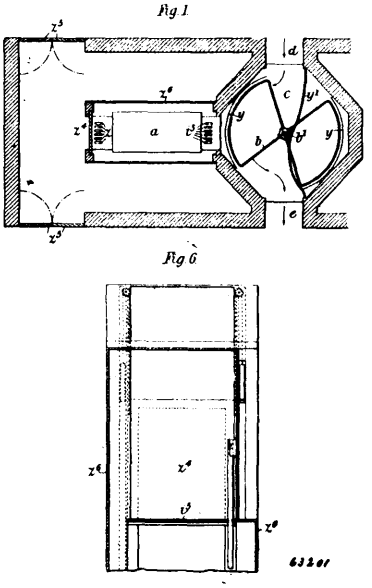
Francis Alfred Tetu and Edmund Burke Nagle, both of Ottawa, Ontario, Canada, 5th June, 1899; 6 years. (Filed 7th January, 1899.)

Claim.—1st. A ballot box, comprising a casing, a T-shaped slot therein, a chute beneath the slot, a lever suitably pivoted and projecting across the chute beneath the said slot, a registering mechanism connected thereto, a cam shaped lever having a projection thereon, and designed to operate upon said projecting lever through the intervention of a metal blank, as and for the purpose specified. 2nd. A ballot box, comprising a casing, a T-shaped slot therein, a chute beneath said slot, a lever suitably pivoted and projecting across the chute beneath said slot, a registering mechanism connected thereto and operated by forcing the blank down past the projecting lever, a cam shaped lever having a projection thereon and designed to operate upon said lever through the intervention of a blank, a bell hammer connected to said projecting lever and bell attached to said casing, all arranged as and for the purpose specified. 3rd. A ballot box, comprising a casing, a T-shaped slot therein, brackets forming a chute located beneath the slot, bevelled projections located at the base of the brackets and guide ribs for holding blank in place, a cam lever, a projection thereon, a curved lever pivoted between said brackets and having a lateral notched projection and a registering mechanism connected thereto, as and for the purpose specified. 4th. The combination with the casing having the T-shaped slot, the brackets forming the chute, a lever pivoted in said brackets, of a drum supported in the casing and spiral groove therein, numbers inscribed in rotation on the periphery of the drum, a slot in the casing located above the face of the drum, a pointer capable of longitudinal movement in said slot and having a projection extending into the spiral groove in the drum and means for rotating said drum a given space upon forcing a ballot into the box, as and for the purpose specified. 5th. The combination with the casing having the T-shaped slot therein, the cam lever having a projection at the base thereof, the lever pivoted in said brackets having a notched end, of a spindle supported in the casing, a spring held pawl bearing block, the drum journalled in the casing and having spiral grooves thereon, a ratchet wheel at the end of the drum designed to co-act with said pawl, numbers inscribed on the spiral face of the drum following the groove, a pointer automatically moved from zero to the maximum number, as and for the purpose specified.

No. 63,201. Vote Recording Apparatus.
(*Appareil à enregistrer les votes.*)

Walter Henry Howe, London, England, 5th June, 1899; 6 years. (Filed 25th April, 1899.)

Claim.—1st. In apparatus for recording votes, the combination of a series of sliding pushers, number printing apparatus attached to the said pushers and adapted to be operated by the reciprocation of the latter, a turnstile operated by the voters, means for transmitting the motion of the turnstile to an oscillating or reciprocating device, catches or the like for connecting the said pushers with the said reciprocating device and a series of bars or the like designed to be moved by the voter, and means in connection with the said bars for causing the catches to engage with the reciprocat



ing device, means for interlocking the bars or the like so that only a predetermined number of them can be operated at one time and a scrutiny number printing apparatus connected with the oscillating or reciprocating device and moving therewith, substantially as described. 2nd. In apparatus for recording votes, the combination of a series of sliding bars, means for interlocking the said bars so that only a certain number of them can be moved at one time, a series of sets of number printing apparatus, a turnstile, means for transmitting the motion of the turnstile to a bar or slide and causing it to oscillate or reciprocate, catches for enabling the sets of number printing apparatus to be connected with the oscillating or reciprocating bar or slide, inclines upon the sliding bars for operating the said catches to cause any predetermined number of them to engage with the oscillating or reciprocating bar or slide, a bolt for stopping the rotation of the turnstile after it has been moved through a certain distance, and other inclines upon the sliding bars for withdrawing the said bolt when the sliding bars are moved to record a vote, substantially as described. 3rd. In apparatus for recording votes, the combination of a turnstile operated by the voters entering and leaving the voting chamber, a shaft operated by the said turnstile, a cam upon the said shaft, a bar or device adapted to be oscillated or reciprocated, and levers and rods for transmitting the motion of the cam to the said bar or device, a series of number printing apparatuses adapted to be connected with the said bar or slide, sliding rods operated by the voter for controlling the connection between the said bar and the number printing apparatuses, an independent set of number printing apparatus permanently connected with the said bar and printing each time that the bar is oscillated or reciprocated, inking apparatus also operated from the cam through the medium of which the printing apparatuses are operated, an impression roller against which the printing apparatuses are designed to print, which impression roller receives a step by step movement from a suitable part of the machine, and paper carrying rollers adapted to carry a paper web for receiving the impressions, substantially as described 4th. In apparatus for recording votes, the combination with a number of sets of number printing apparatus, of a turnstile for operating the said sets of printing apparatus, of sliding bars for controlling the operation of the said number printing apparatuses, and of a series of auxilliary handles *z* connected with the said bars for enabling votes to be recorded without the voter himself operating the turnstile, substantially as described. 5th. In apparatus for recording votes, wherein a series of sliding bars having handles and serving to control the operation of several sets of number printing apparatus is employed, the combination with the said bars of shutters for concealing the said handles and so arranged that when one shutter is open the other is closed and *vice versâ*, substantially as described.

No. 63,202. Process of Making Photographic Films.
(*Procédé pour la fabrication de pellicules photographiques.*)

Oswald Moh, Augustastrasse, Görlitz, Prussia, 5th June, 1899; 6 years. (Filed 6th December, 1898.)

Claim.—1st. A process for producing negative plates for photographic purposes, which consists in coating a sheet of paper with a film of caoutchouc, covering the same with a film of collodium, and finally covering this collodium film with a film of gelatine for carrying the silver salt, the combined films being removed from the

paper after the exposure, development, fixing, rinsing and drying to be used for copying after being retouched, if necessary, constructed and arranged substantially as hereinbefore described. 2nd. A process for strengthening the negative films constructed as described, consisting in pressing the exposed, developed, fixed and rinsed negative paper on a second sheet of the same composition moistened with water, the gelatine film of which however does not contain any silver or salt, so that the gelatine films are stuck securely together, the paper covering both sides of the strengthened negative being then removed, constructed and arranged substantially as hereinbefore described. 3rd. In a process for strengthening the negatives, the choice of a paper carrying the films with a certain grain which is transferred to the film of caoutchouc for the purpose of dispersing the light in copying, and thus to entirely or partially replace the retouching of the negative, constructed and arranged substantially as hereinbefore described.

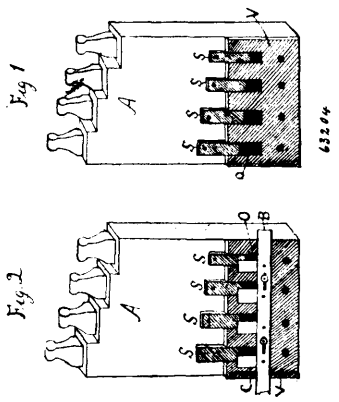
No. 63,203. Pharmaceutical Compounds.

(*Composé pharmaceutique.*)

Farbenfaken of Elberfeld Co., Elberfeld, Germany, 5th June, 1899; 6 years. (Filed 5th December, 1898.)

Claim.—1st. The process for producing new soluble protein silver substances from the insoluble silver compounds obtainable by the action of natural protein substances, or artificial derivatives therefrom, on silver salts or silver oxide, which process consists in treating the said insoluble protein silver compounds with solutions of albumoses, or of those soluble compounds which are obtained by the action of formic aldehyde on the solutions of natural protein substances, substantially as hereinbefore described. 2nd. As new articles of manufacture, the new soluble protein silver substances hereinbefore defined.

No. 63,204. Organ. (*Orgue.*



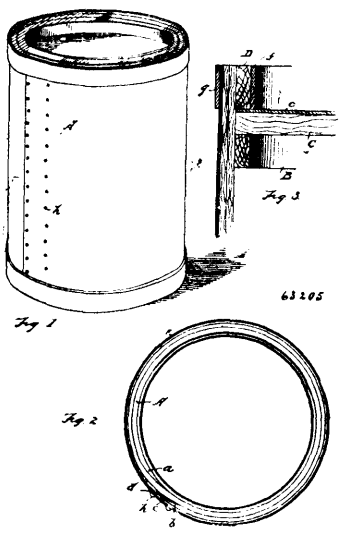
George W. Scribner, Fanny L. Scribner, and Annie Scribner, all of London, Ontario, Canada, 5th June, 1899; 6 years. (Filed 17th January, 1899.)

Claim.—1st. The combination in an organ with the reed cell H, provided with a reed and two openings, for the emission of tone, and their controlling mutes M and N and reed pipe R. of the flue pipe A, provided with veneer V, section S, bar B and covers C, substantially as herein described and shown. 2nd. The combination in an organ of the flue pipe A, sliding bar B, covers C, veneer V, and adjustable sections S, substantially as herein set forth and shown. 3rd. The combination on the wall of the connected flue pipes A, opposite to their speaking mouths of the pitch regulating bar and covers, with the veneer and sections, substantially as shown and described. 4th. The combination in an organ with the reed cell and reed H, opening and mute M and reed pipe R of the opening and mute N, substantially as described and shown. 5th. A series of flue pipes A, provided with the bar B, and covers C, substantially as hercin described and shown. 6th. A flue pipe provided with the veneer V and sections S, substantially as shown.

No. 63,205. Package for Liquid. (*Vaisseau pour liquides.*)

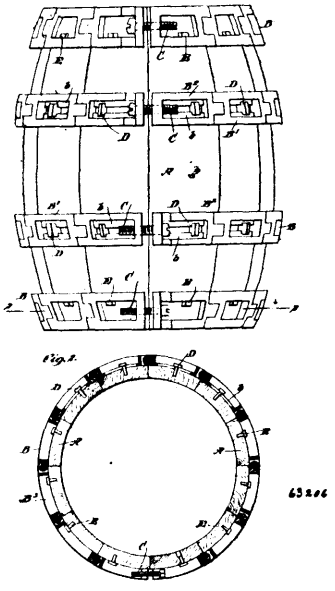
The international Cooperage Co., assignee of James Tomlinsom, all of Detroit, Michigan, U.S.A., 5th June, 1899; 6 years. (Filed 22nd March, 1899.)

Claim.—In a package for liquids, in combination with a wooden foundation of veneer wound in coils, a metal jacket wound in a coil



around said foundation, having the inner end engaged under the overlapping end of the wooden coil and the outer end overlapping the wooden overlap, substantially as described.

No. 63,206. Knock Down Barrel. (*Baril brisé.*)



Philis Mayotte and Odilon Dechamplain, both of Escanaba, Michigan, U.S.A., 5th June, 1899; 6 years. (Filed 12th May, 1899.)

Claim.—A knock down barrel having hoops each formed as a chain, the end links of the chain being adapted to receive a tightening bolt, certain links having lougitudinal flanges at their inner edges, and pins secured to the staves and entering the slot between the flanges, the pins having heads extending over the flanges, substantially as described

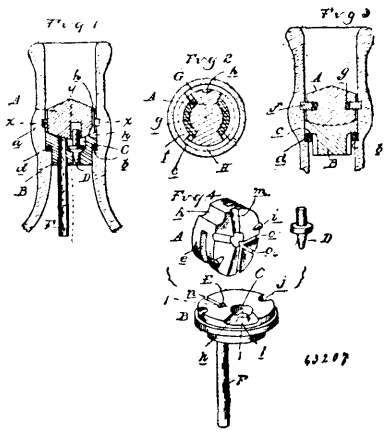
No. 63,207. Non-Refillable Bottle.

(*Bouteille non récmplissable.*)

James A. Roberts, Victor C. Duby and John J. Mundt, all of Detroit, Michigan, U.S.A., 5th June, 1899; 6 years. (Filed 20th February, 1899.)

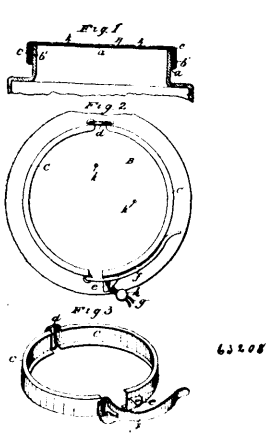
Claim.—1st. The combination with the neck of a bottle having a shoulder formed therein near its base and an annular recess above the same, of a stopper comprising a lower part having a valve controlled passage formed through it and a shoulder co-operating with the shoulder in the neck of the bottle adapted to seat said lower part therein, and an upper separate part of smaller diameter than

the neck and provided upon opposite sides with expanding locking keys co-operating with the recess in the neck of the bottle to lock



said upper part therein concentrically therewith and thereby form open spaces on opposite sides between said keys and channels in one or both of the meeting faces of the lower and upper part connecting one of said open spaces with the valve controlled passage in the lower part. 2nd. The combination with the neck of a bottle having a shoulder formed therein near its base and an annular recess above the same, of a stopper comprising a lower part having a shoulder adapted to seat said lower part on the shoulder in the neck and an upper part fitting loosely within the neck and provided upon opposite sides with expanding keys adapted to lock into the recess of the neck and with a groove in its outer face between the keys, a valve controlled passage through the lower part communicating with the lower end of the groove in the upper part, and a vent passage through the lower part communicating through a channel in the top of said part, with the side of the neck opposite to that in which the groove in the upper part is located. 3rd. The combination with a bottle, of a stopper therefor, comprising a lower part provided with disconnected vent and discharge passages, a valve seated in the discharge passage, a separate upper complementary stopper part having a discharge channel therein communicating with the discharge passage in the lower part by means of a groove formed between the meeting faces of the stopper parts, said parts also having formed between them a vent passage communicating with the vent passage in the lower stopper part, and means for retaining the upper stopper part in the bottle neck. 4th. The combination with a bottle, of a stopper comprising a lower part provided with a separate disconnected vent and discharge passages therethrough, and with radial grooves in the upper face connecting with the discharge and vent passages, a valve seated in said discharge passage, a separate upper complementary stopper part of smaller diameter than the interior of the bottle neck, and provided with a discharge channel, and a vent groove in the lower face thereof adapted to communicate with the vent passage in the lower stopper part and extending to the side of the upper stopper part, and means for locking the upper stopper part in the bottle neck.

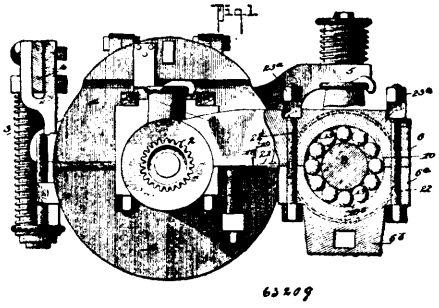
No. 63,208. Jar Closure. (*Fermeture de jarres.*)



The Phœnix Car Co., assignees of Alfred L. Weissenthanner, all of New York City, New York, U.S.A., 5th June, 1899; 6 years. (Filed 27th February, 1899.)

Claim.—1st. A closure for preserving vessels comprising in combination a thin metal lid, a cover having a depending flange around its edge lined with a compressible material, a removable clamping device surrounding the flange and engaging a shoulder on the neck of the receptacle for holding the cover firmly in place, substantially as described. 2nd. A closure for preserving vessels comprising in combination a thin metal lid, a flanged cover having the flange lined with compressible material, said cover being provided with one or more air-holes, and a removable clamping device surrounding the flange of the cover and holding the latter firmly to the neck of the bottle, substantially as described. 3rd. The combination with a preseving vessel having a tapering neck, of a closure comprising a thin metal lid, a flange cover having the flange lined with compressible material adapted to engage against said tapering neck, and the clamping ring, substantially as described. 4th. The combination with the preserving vessel, of the flanged cover having a lining of compressible material, a clamping strap having on one of its meeting ends a lug, and on the other a slotted lever or handle, adapted to engage said lug to tighten the strap and draw the cover down tightly against the vessel, and a seal or locking device attached by means of a perforation in said lug, substantially as described.

No. 63,209. Electric Motor. (*Moteur électrique.*)



The Safety Third Rail Electric Co., New York City, New York, assignee of John McLeod Murphy, Torrington, Connecticut, U.S.A., 5th June, 1899; 6 years. (Filed 13th August, 1898.)

Claim.—1st. As an improvement in axle bearings for electric motors, the combination with the axle and the fixed hanger devices for supporting the motor at one end of the motor, frame having divided axle receiving sections and having semi-circular seats forming the axle passage, the outer ends of the said sections being formed with annular concaved seats forming ball races, the balls held therein, and ball holding caps longitudinally adjustable on the axle but held from engagement with the motor frame, all being arranged substantially as shown and described. 2nd. The combination with the axle, of the motor frame having its front end formed of upper and lower sections, said sections having semi-circular seats to embrace the axle and having annular ball race grooves in the ends and internally threaded enlarged annular recesses, the cap plates having ball race portions on their inner faces, externally threaded hubs to engage the threaded recesses in the ends of the motor sections, said threaded hubs being of a less diameter than the said threaded recesses, and the bearing balls, all being arranged substantially as shown and described. 4th. The combination with the axle and the motor frame having its front end formed of upper and lower sections, said semi-circular seats forming the axle apertures, and having their ends provided with annular ball race portions and internally threaded annular recesses, and the bearing balls seating in the said motor ball race portions, of the retaining caps having internal ball grooves, an annular threaded hub adapted to engage with the internally threaded recesses of the motor ends, but of slightly less diameter than such recesses whereby the threads will be held out of frictional engagement whose the caps are properly adjusted, said caps having toothed discs, and the adjustable lock detents, devise for holding the caps from turning in the axle, all being arranged substantially as shown and described.

No. 63,210. Bicycle Lamp. (*Lampe électrique.*)

The electro Lamp Company, assignee of Eugéne Moreau, all of New York City, New York, U.S.A., 6th June, 1899; 18 years. (Filed 13th January, 1899.)

Claim.—1st. In a lamp the combination of a casing, containing calcium carbide, a water reservoir surmounting the same, a valve seat interposed between the two, said valve seat having a passage extending through it for the passage of water, a projection on said seat for conducting the water directly to the carbide, and a valve for controlling the passage in said seat, substantially as shown and described. 2nd. In a lamp, the combination of a casing, containing calcium carbide, a water reservoir surmounting the same, a valve seat interposed between the two, said seat having a water passage extending through it, a projection and nozzle on said seat, located

to one side of said water passage, and provided with a passage forming a continuation of said water passage, and a valve for con-

Fig. 1.

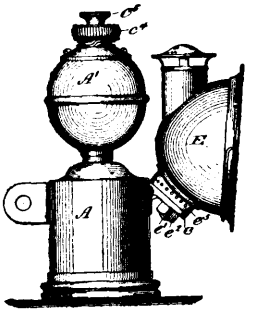
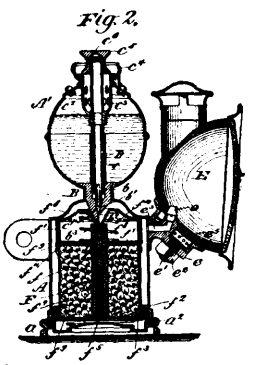


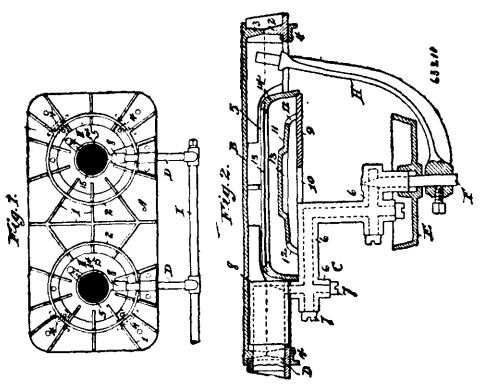
Fig. 2.



63210

trolling said water passage, substantially as described. 3rd. In a lamp, the combination of a casing for containing calcium carbide, a water reservoir surmounting the same, a closure interposed between them, and having a passage for water formed therein, a valve for controlling said passage, a perforated tube surrounding said valve and a filtering medium surrounding said tube, substantially as described. 4th. In a lamp, the combination of a casing for containing calcium carbide, a water reservoir surmounting the same, a closure interposed between them and having a passage for water formed therein, a valve for controlling said passage, a perforated tube enclosing said valve, a filtering medium surrounding said tube and a perforated funnel carried by said tube, substantially as described. 5th. In a lamp, the combination of a casing for containing carbide, a water reservoir surmounting the same, a valve seat having a water passage formed in and interposed between said casing and reservoir, a drip extension on said seat, a valve for closing said passage, and a filtering medium surrounding said valve, substantially as described. 6th. A container for carbide, comprising a body, a removable top and bottom for said body, a perforated tube carried by said bottom and extending within the body, and a disc within said body yieldingly supported from said top, substantially as described. 7th. A container for carbide, comprising a body, a removable top and bottom for said body, a perforated tube carried by said bottom and extending within the body, a disc within said body yieldingly supported from the top, and absorbent discs adapted to be located at the top and bottom of the carbide within the container, substantially as described. 8th. A container for carbide, comprising a body, a removable top and bottom for said body, a perforated tube carried by said bottom and extending within said body, and a funnel portion carried by said top that projects within said perforated tube, substantially as described. 9th. In a lamp, the combination of a casing for containing water and calcium carbide, a projection carried by said casing and having a gas passage passing through it which communicates at one end with the casing and carries a tip at its other end, and a reflector carried by said projection, substantially as described. 10th. In a lamp, the combination of a casing containing calcium carbide, a water reservoir surmounting the same, a closure interposed between the two and having a passage for water formed therein, a valve for controlling said passage, and a filter interposed between the water and said passage, substantially as described.

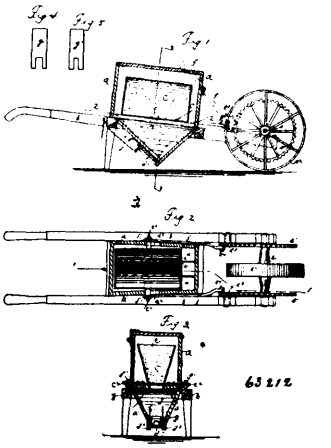
No. 63,211. Vapour Burner. (*Bruleur pour poêles.*)



George Marshall Verrall and David J. Johnston, both of Toronto, Ontario, Canada, assignees of Emory Israel Nichols, San Francisco, California, U.S.A., 20th January, 1899; 6 years. (Filed 20th January, 1899.)

Claim.—1st. A vapour burner attachment for stoves, consisting of a main plate formed with raised ribs on its upper surface, and one or more openings for burner nozzles, a main supply pipe, a branch pipe or pipes, a burner proper, comprising a burner cap having an apertures base plate, a top plate supported above the same and an outer cap with a wire gauze top portion, a valve, and a regulating lever adapted to be secured to the lower end of the valve stem and having its upper end extending up into the burner opening in the main plate, substantially as described. 2nd. In a vapour burner, a burner cap comprising a base plate having a central opening, a top plate having a raised central portion to form a mixing chamber and supported above the base plate at its margin, and an outer cap comprising an annular body supported on the margin of the base plate and a top portion of wire gauze or the like, substantially as described.

No. 63,212. Court Marker. (*Marquer pour jeux de paumes.*)

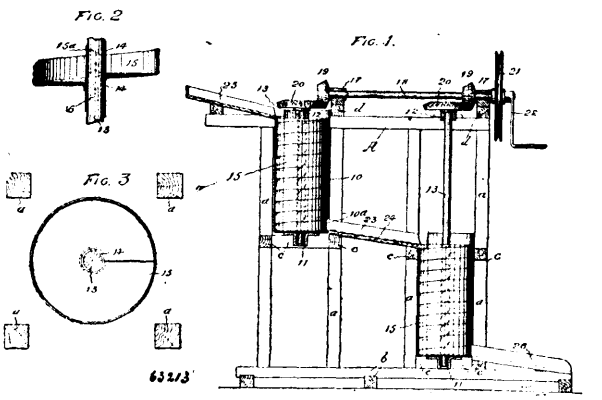


63212

Gerard G. Beekman, Hempstead, New York, U.S.A., 6th June 1899; 6 years. (Filed 17th October, 1898.)

Claim.—A suitable frame, provided with handles at one end, and supported at the other by a traction wheel, the traction wheel secured to the axle, journalled in the forward end of the frame, toothed wheels secured to the shaft upon which the traction wheel is secured, and the pinions mounted upon short shafts upon opposite sides of the frame and gearing with the toothed wheels, combined with the connecting rods which extend through slots in the sides of the inclosing casing, the casing placed upon the top of the frame and inclosing the sieve, a reciprocating sieve, operated by the connecting rods, and provided with pins to which the rear ends of the rods are fastened, and which pins project through slots in the lower edge of the inclosing frame, a discharge hopper, placed below the sieve, a gate for closing the opening in the bottom of the hopper, and a series of interchangeable slides having slot of different widths, and adapted to be received within the pocket of the hopper, substantially as specified.

No. 63,213. Amalgamator. (*Amalgamateur.*)



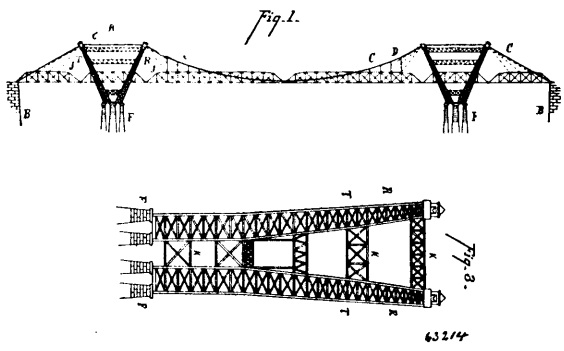
63213

Charles Garrett Garrison, James Alexander Fitzsimmons and William Shrubsole Copland, all of Vancouver, British Columbia, Canada, 6th June, 1899; 6 years. (Filed 1st February, 1899.)

Claim.—1st. In an amalgamator having a vertical chamber 10 mounted in a suitable frame and a shaft arranged to turn in such chamber, a spirally arranged amalgamating chute secured to the

said shaft and arranged to be revolved in the opposite direction to the declivity therein, as and for the purposes specified. 2nd. An amalgamator having a suitable frame and vertical chamber arranged therein, a spirally arranged chute arranged to turn within the said chamber, and means for passing water and auriferous gravel therethrough in an opposite direction to the movement of the said chute. 3rd. In a machine of the class described, having a suitable frame in combination with a spirally arranged chute removably mounted thereon, means for passing water and auriferous matters through the said chute and for rotating the same in the opposite direction to the flow of water and other matters, whereby the same will be rolled over and over on its way through the chute, substantially as and for the purposes specified.

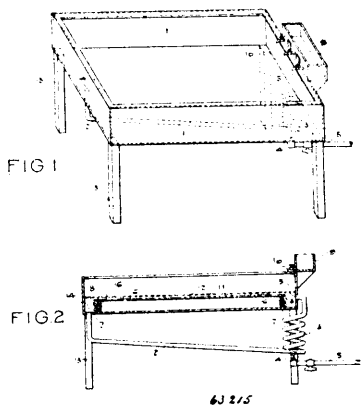
No. 63,214. Suspension Bridge. (*Pont suspendu.*)



William Adams Gunn, Lexington, and William Edward Gunn, Covington, both in Kentucky, U.S.A., 6th June, 1899; 6 years. (Filed 1st February, 1899.)

Claim.—1st. The combination in a bridge, of double towers diverging in the direction of the length of the bridge with cables, suspenders, trusses, anchorages and stays, substantially as described. 2nd. The combination in a bridge, of a tower provided with diverging arms, with a balance span, securing a wider base for the balance span to rest on, by the divergence of the towers below the level of the bottom of the truss, the tension of the supported cables holding this base of the centilever system rigid, substantially as described. 3rd. In combination with a bridge, a support consisting of tower members diverging from a base, substantially as described. 4th. In combination with a bridge, a support consisting of tower members diverging from a base towards the top and suitably braced together, substantially as described. 5th. In combination with a bridge, two or more towers each consisting of diverging tower members supported upon a suitable base and adapted to suspend the weight of the bridge from the diverged tops, substantially as described. 6th. In a bridge, the combination of two or more supports suitably anchored, each consisting of diverging tower members braced together and adapted to support the weight of the bridge, whereby the spans are least at the tops, substantially as specified. 7th. In a bridge, the combination of two or more towers each comprising tower members diverging from a common base, whereby the several spans are reduced proportionally to the said divergence, substantially as specified.

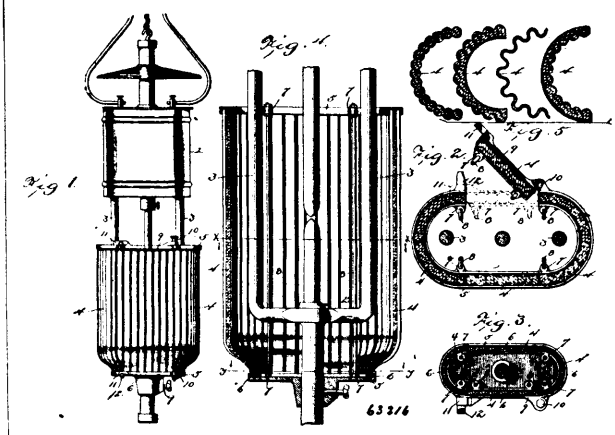
No. 63,215. Method of and Apparatus for Painting.
(*Méthode et appareil pour peinturer.*)



John H. Davis, Lorenzo L. Merriman, Albert E. Jessurim and William B. Rummeer, all of Chicago, Illinois, U.S.A., 6th June, 1899; 6 years. (Filed 6th February, 1899.)

Claim.—1st. The herein described method of applying paint and similar coatings, which consists in first forming a layer of the coating material upon a supporting liquid of greater specific gravity by feeding same upon the surface of the supporting liquid, and at the same time inducing a current of the supporting liquid in a direction away from the place of said feeding without puncturing said layer, whereby said layer is continually renewed in said direction of said feeding, and then bringing the surface to be coated with said layer. 2nd. A device for applying paint and similar coatings, comprising a tank for containing the supporting liquid, means at one end of the tank for feeding a layer of coating material upon such liquid, and means adapted to induce a current in said liquid towards the other end of the tank without puncturing said layer, substantially as described. 3rd. A device for applying paint and similar coatings, comprising a tank for containing the supporting liquid, means for feeding the coating material upon such liquid, at one end of the tank, means for inducing a current in said liquid towards the other end of the tank, and a vertically adjustable platform in said tank adapted to be adjusted below and substantially parallel with the upper surface of the supporting liquid, substantially as described. 4th. A device for applying paint and similar coatings, comprising a tank for containing the supporting liquid, means for feeding the coating material upon such liquid at one end of the tank, an inlet at said end of the tank, an outlet at the opposite end, a pipe or other fluid-tight compartment connecting said inlet and outlet independent of the main compartment of the tank, and means for heating such pipe or other compartment toward the inlet end, substantially as described. 5th. A device for applying paint and similar coatings, comprising a tank for containing the supporting liquid, means for feeding the coating material upon such liquid, at one end of the tank, an inlet at said end of the tank, an outlet at the opposite end, a pipe or other fluid-tight compartment connecting said inlet and outlet independent of the main compartment of the tank, said pipe or other compartment extending through a plane below said outlet and inlet, and means for heating such pipe or other compartment toward the inlet end, substantially as described. 6th. A device for applying paint and similar coatings, comprising a tank for containing the supporting liquid, means for feeding the coating material upon such liquid at one end of the tank, an inlet at said end of the tank, an outlet at the opposite end, said outlet being in a lower plane than the inlet, a pipe or other fluid-tight compartment connecting said inlet and outlet independently of the main compartment of the tank, and means for heating such pipe or other compartment toward the inlet end, substantially as described. 7th. A device for applying paint and similar coatings, comprising a tank for containing the supporting liquid, means for feeding the coating material upon such liquid, at one end of the tank, an inlet at the said end of the tank, an outlet at the opposite end, the pipe 2 and coil 3 connecting said inlet and outlet, and a heater for said coil, substantially as described. 8th. A device for applying paint and similar coatings, comprising a tank for containing the supporting liquid, means at one end of the tank for feeding the coating material upon such liquid, a fluid-tight compartment communicating with the tank at said end, and at a place remote from said end, and means for inducing a flow of the supporting liquid through said fluid-tight compartment so as to produce a surface current in the tank in a direction away from said place of feeding, substantially as described.

No. 63,216. Electric Light Radiator.
(*Rayon de lumière électrique.*)

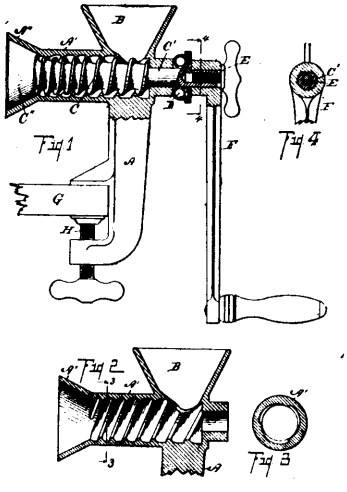


Henry Stenz, Chicago, Illinois, and Joseph J. Weyer, Fairbault, Minnesota, U.S.A., 6th June, 1899; 6 years. (Filed 4th April, 1899.)

Claim.—1st. In a globe for electric arc lamps, the combination of upper and lower frames comprising corresponding hinged sections which are provided at their free ends with extensions, offstanding projections at the ends of the frames against which the free ends o

the hinged sections close recessed in their top sides and adapted to receive the said extensions of the hinged sections, and fluted, ribbed or corrugated translucent sections secured between corresponding parts of the upper and lower frame, substantially as and for the purpose set forth. 2nd. A globe for electric arc lamps comprising upper and lower frames of different size, and integral globe sections crimped or corrugated and secured between said frames and having the end portion adjacent to the smaller frame contracted, substantially as set forth. 3rd. A globe for electric arc lamps consisting of upper and lower frames of different size having corresponding hinged sections, globe sections corrugated or crimped and fitted between said frames and having an end portion contracted, and tie rods for securing the said frames together and holding the integral crimped globe sections between them, substantially as described.

No. 63,217. Nut Butter Mill. (*Moulin à beurre de noix.*)



63217

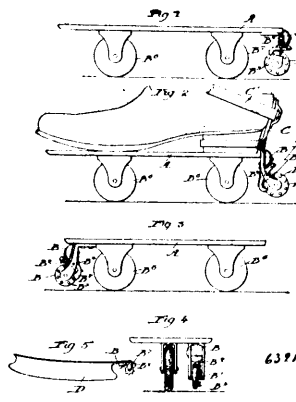
Joseph Lambert, Battle Creek, Michigan, assignee of Charles Hook, Chicago, Illinois, U.S.A., 6th June, 1899; 6 years. (Filed 1st May, 1899.)

Claim.—1st. In a mill for grinding nuts or for similar purposes, the combination of a casing with a hopper at its rear end with internal grooves within the same leading toward the forward end and with a flaring forward end *p* provided on its interior with a smooth rubbing surface, a grinder fitting within said casing provided with a coarse screw thread extending across the grooves of said casing and with its forward end enlarged in conical form and provided with a smooth rubbing surface corresponding to the rubbing surface of said casing, and means of rotating the grinder within said casing co-acting for the purpose specified. 2nd. In a mill for grinding nuts or similar purposes, the combination of a casing with a hopper at its rear end with the internal grooves within the same leading toward the forward end and the forward end provided on its interior with a smooth rubbing surface, a grinder fitting within said casing provided with a coarse screw thread extending across the grooves of said casing with its forward end provided with a smooth rubbing surface corresponding to the rubbing surface of said casing, the means rotating the grinder within said casing co-acting far the purpose specified.

No. 63,218. Alarm for Skates. (*Avertisseur pour patins.*)

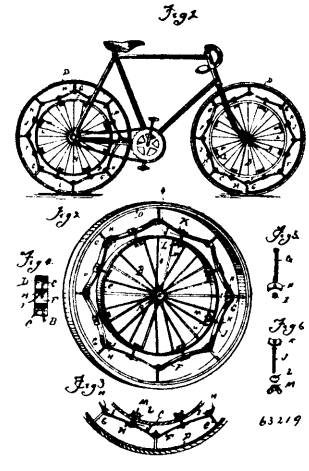
Julius A. Fougereau, Chicago, Illinois, U.S.A., 6th June, 1899; 6 years. (Filed 9th January, 1899.)

Claim.—1st. A skate alarm device, comprising an alarm proper, an alarm actuator associated with the skate so as to be slightly elevated under normal conditions, and a connection between the actuator and the alarm proper so that the alarm is given when the actuator is depressed. 2nd. The combination of a skate with an alarm device, attached thereto, an alarm actuator also attached thereto and so as to be slightly elevated when the skate is in a normal position, and a connection between the two so that when the actuator is pressed down the alarm device is operated. 3rd. The combination of a skate with an alarm device attached thereto, an alarm actuator attached thereto, substantially in line with that portion of the skate which rests upon the surface, the actuator supported so as to be slightly elevated, and connections between the actuator and the alarm so that when the actuator is pressed down the alarm device is operated. 4th. The combination of a skate with an alarm device attached thereto, an alarm actuator attached thereto in line with that part of the skate which rests upon the surface and in the rear thereof and slightly elevated when the skate is in a normal position, and connections between the alarm and the actuator whereby when the actuator is depressed so as to touch the surface the alarm device is operated. 5th. The combination of a



skate with an alarm device containing a bell attached thereto and an alarm actuator containing a small wheel normally elevated and connection from the wheel to the bell so that when the wheel is depressed and rotating the bell is operated to give the alarm. 6th. An alarm device far skates, consisting of an alarm device proper, an alarm actuator, connections between the two whereby when the actuator is operated the alarm is also operated, and attachments whereby the device is attached to the foot in connection with the skate so that the alarm actuator is slightly elevated when the skate is in a normal position. 7th. The combination with a skate, of an alarm device, an actuator therefor normally inoperative during the ordinary use of the skate, said actuator adapted to be brought into operative contact with the surface over which the skate passes by varying the position of said skate. 8th. The combinationn with a skate, of an alarm device, an actuator fixed in position with relation to said skate and provided with a part opposed to the surface over which the skate passes, but normally out of engagement therewith, said part adapted to be brought into engagement with said surface by varying the position of said skate.

No. 63,219. Bicycle Wheel. (*Roue de bicycles.*)

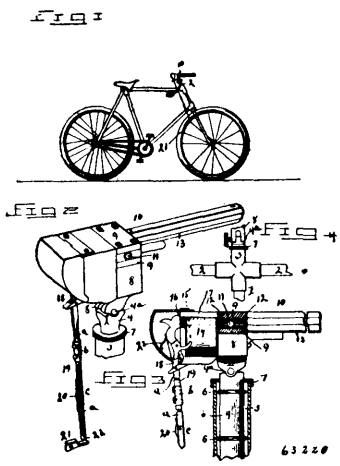


Moseman C. Oviatt, Traverse City, Michigan, U.S.A., 6th June, 1899; 6 years. (Filed 27th April, 1899.)

Claim.—1st. A vehicle-wheel, comprising inner and outer rims, a flexible band interposed between the two rims but not touching them, and adapted to move toward and from the rims, devices connecting the band with both the rims, and means for adjusting the tension of the band by moving it radially at different points throughout its length toward or from the centre of the wheel. 2nd. A vehicle wheel, comprising inner and outer rims, a flexible band interposed between the two rims but not touching them and free to move radially toward and from the rims, radial bolts or rods for holding the band in place, and means applied to the bolts for moving the band at different points throughout its length radially to adjust the tension thereof. 3rd. A vehicle wheel, provided with inner and outer rims, a flexible band interposed between the two rims, bolts passing inward from the outer rim to connect it with the band, curved washers on said bolts inside the band, and nuts on the bolts bearing on said washers, substantially as described. 4th. A vehicle wheel, comprising inner and outer rims, a flexible band

interposed between the two rims, bolts connecting the band with the outer rim, curved washers on the ends of the bolts, nuts secured to the bolts and holding the washers against the band, bolts connecting the flexible band with the inner rim, curved washers against which the heads of the bolts bear, nuts on the screw threaded ends of said last-mentioned bolts, and elastic washers interposed between the nuts and the inner rim.

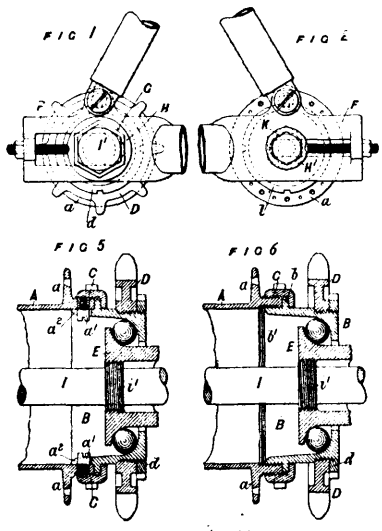
No. 63,220. Firearm. (*Arme à feu.*)



James Horner, Natrona, Pennsylvania, U.S.A., 6th June, 1899; 6 years. (Filed 25th March, 1899.)

Claim.—1st. The combination of a bicycle, a firearm carried thereby, a tripping rod connected with the hammer of the firearm, and a projection from the side of the wheel of the bicycle for actuating the tripping rod, substantially as described. 2nd. In a firearm of the class described, the combination with a vehicle, of a socket carried thereby, a support having a depending stem arranged within said socket, said support being provided with vertically-disposed upwardly-projecting parallel spaced arms arranged in pairs, a firearm disposed between said pairs of arms and provided with trunnions, horizontally-disposed, parallel spaced bars arranged in the upper ends of said arms and receiving said trunnions, springs arranged at the front and rear sides of said trunnions to break the recoil, a depending jointed tripping rod carried by the hammer of the firearm, and an inclined tripping block carried by the wheel of the vehicle and provided with a depression, said tripping block being adapted to actuate said tripping-rod, substantially as shown and for the purpose described.

No. 63,221. Bicycle Drive Wheel.
(*Roue de commande pour bicycles.*)



William Henry Chapman, 5 Christie Road, South Hackney, London E., England, 6th June, 1899; 6 years. (Filed 14th November, 1898.)

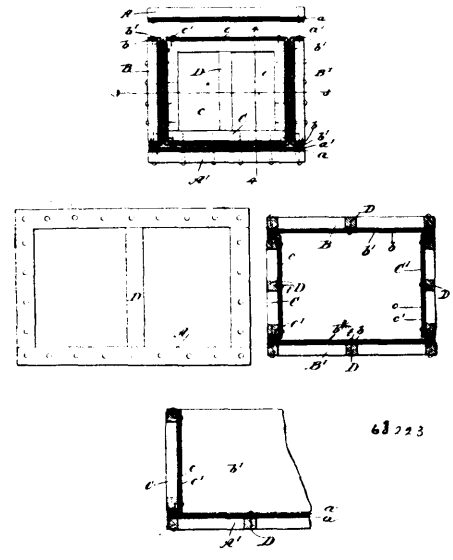
Claim.—1st. The driving wheel of a bicycle having its hub constructed of two parts divisibly coupled in driving connection, the one part carrying the driving chain sprocket wheel and containing the one ball bearing and the other part carrying the remainder of the wheel so as so admit of the latter being removed from the machine without dismounting tne driving gear, substantially as specified. 2nd. The driving wheel of a bicycle having its hub constructed of two parts divisibly coupled in driving connection by interlocking means of the two parts of the hub and a screw union nut or collar engaging a flange on the one part, and a screw thread on the other part, the one part carrying the driving chain sprocket wheel and containing the one ball bearing and the other part carrying the remainder of the wheel, so as to admit of the latter being removed from the machine without dismounting the driving gear, substantially as specified. 3rd. In a bicycle driving wheel whereof the hub is constructed of two parts divisibly coupled in driving connection, the combination with the portion of the hub upon which the chain driving wheel is mounted, of a ball bearing cone fixed directly to and in the slot of the back fork end independently of the central spindle substantially as specified, so as to support the part of the hub carrying the chain wheel in position when the spindle is withdrawn and the wheel dismounted. 4th. In a bicycle driving wheel whereof the hub is constructed of two parts divisibly coupled in driving connection, the combination with the portion of the hub upon which the chain driving wheel is mounted, of a ball bearing cone fixed directly to and in the slot of the back fork end and of a central spindle passing through and supporting the said cone under the load at the plane of the ball bearing, substantially as described. 5th. In a bicycle driving wheel whereof the hub is constructed of two parts divisibly coupled in driving connection, the combination with the main portion of the hub to which the spokes are attached, of a ball bearing cone removably mounted on the spindle and clamped directly to the back fork end by a nut on the spindle, substantially as specified.

No. 63,222. Insecticide. (*Insecticide.*)

Fred L. Lavanburg, assignee of Charles E. Hore, both of New York City, New York, U.S.A., 6th June, 1899; 6 years. (Filed 18th January, 1899.)

Claim.—1st. The process of producing a composition of matter for use as an insecticide, which consists in adding arsenious acid to a mixture of water and lime, in stirring the resulting product, forming arsenite of calcium, in adding thereto an excess of sulfate of copper, and thereby forming sulfate and arsenite of lime, and hydrated oxid of copper in combination with arsenite of copper, and finally adding thereto acetic acid forming the final product, which is a double salt of acetate and arsenite of copper and arsenite and sulfate of calcium, all substantially in the manner and proportions specified. 2nd. The composition of matter for use as an insecticide, produced as described, and consisting of a double homogeneous salt of acetate of copper and arsenite of copper and arsenite and sulfate of calcium, devoid of free arsenic, and of a soft, floculent, pulverulent, character and bluish-green colour.

No. 63,223. Packing Box. (*Boîte d'empaquetage.*)

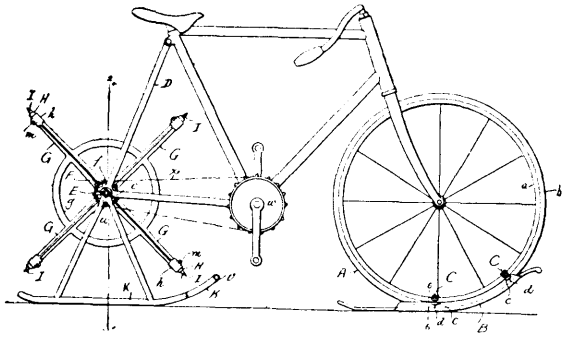


Frank Lewis Montague, assignee of Charles Ayres Robbins, all of New York City, New York, U.S.A., 10th June, 1899; 6 years. (Filed 22nd May, 1899.)

Claim.—1st. A packing-box, the same consisting of open frames forming the top, bottom, sides and ends of the box, and linings

secured upon the inner faces of the said frames, and having portions exposed through the openings of the frames, sundry of said linings having their edges bent around members of said frames so as to be clamped between two frames, substantially as described. 2nd. A packing-box, comprising open frames forming the top, bottom, sides and ends of the box, and linings secured to the inner surfaces of the said frames, and having portions exposed through the openings of the frames, the linings of the top and bottom frames extending flush with the outer edge of the said frames, while the linings of the sides extend flush with the vertical members of the said side frames and are bent over and under the top and bottom members of the said frames, the linings of the ends being extended and bent over the top, bottom and side members of the end frames, whereby two linings will be in contact with each other at each joint, substantially as described. 3rd. A packing-box, comprising open frames forming the top, bottom, sides and ends of the box, and linings secured to the inner surfaces of the said frames, and having portions exposed through the openings of the frames, the linings of the top and bottom frames extending flush with the outer edges of the said frames, while the linings of the sides extend flush with the vertical members of the said side frames and are bent over and under the top and bottom members of the said frames, the linings of the ends being extended and bent over the top, bottom and side members of the end frames, whereby two linings will be in contact with each other at each joint, each of said linings consisting of a plurality of layers placed together loosely so as to form an air space between them, substantially as and for the purpose set forth.

No. 63,224. Ice Bicycle. (*Bicycle pour la glace.*)



63224

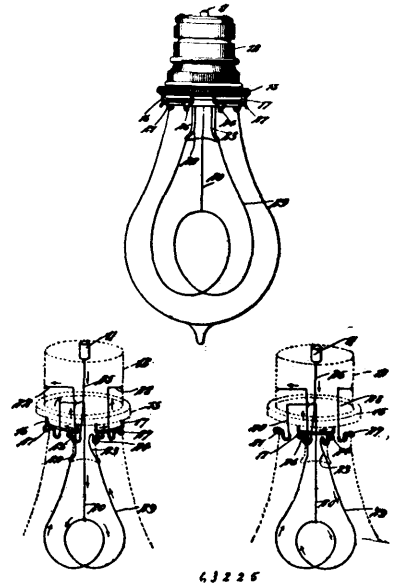
Edgar F. Mertz and Emma A. Lewis, both of Milwaukee, assignees of Henry Grinshaw, Elroy, Wisconsin, all of the U.S.A., 10th June, 1899; 6 years. (Filed 19th December, 1898.)

Claim.—1st. In a vehicle adapted for travel upon ice or snow roads, the combination with a suitable frame and runners connected thereto of a revoluble rear propelling device provided with a series adjustably secured longitudinally yielding ice-dogs adapted to strike the surface travelled over, at intervals, on a line intermediate between the rear runners. 2nd. In a vehicle adapted for travel upon ice or snow roads, the combination with a suitable frame and runners connected thereto, of a rear propelling device having a series of spokes projecting radially from a common hub, and terminating in socketed ends, sleeves adjustably secured within said sockets, and spring controlled movable ice-dogs secured within said sleeves, substantially as set forth. 3rd. In a propelling device for ice vehicles, the combination with a series of spokes radiating from a common hub, and terminating in open ended slotted sockets, having parallel lateral flanges adjacent to the slots therein, of adjustable sleeves fitting within said sockets, and having caps on their inner ends, and square openings in their outer ends, clamp bolts for securing said sleeves within said sockets, ice-dogs having chisel-shaped outer ends, square heads for movable engagement with the walls of the said square openings in the outer sleeve ends, and inner projecting shanks, retaining pins for preventing the accidental separation of the dogs and sleeves, and cushion springs surrounding the shanks of said ice-dogs within said sleeves, substantially as set forth.

No. 63,225. Incandescent Lamp. (*Lampe incandescente.*)

Andrew Hartman Miller and Frank B. Lord, both of Denver, Colorado, U.S.A., 10th June, 1899; 6 years. (Filed 1st March, 1899.)

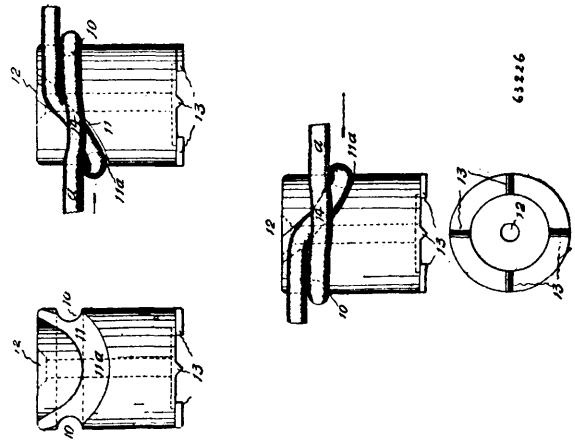
Claim.—1st. An incandescent lamp having a base with a positive contact point, a filament, a leader passing from the positive contact point, a contact finger with which said leader is connected, a second contact finger, a leader passing from the second contact finger and connected with the filament at a point intermediate the length thereof, a leader passing from one end of the filament to the base sheathing, a third contact finger, a leader between the third contact finger and the remaining end of the filament, a fourth contact finger, a leader between the fourth contact finger and the base sheathing, a ring turning on the base and contact wires held on and moving with the ring and co-acting with the several contact fingers. 2nd. An incandescent lamp having a filament, a leader connected to the filament at a point intermediate the length thereof, a contact on the base of the lamp with which said leader is connected, a feed leader,



63225

a second contact on the base of the lamp and in connection with the feed leader, a third contact in connection with one end of the filament, the other end of the filament being in connection with the base sheathing, a fourth contact finger also in connection with the base sheathing, a ring turning on the base, and contacts on the ring and co-acting with the several contact fingers. 3rd. An incandescent lamp having a base, a feed or positive leader running in the same, a stationary contact on the base with which said feed leader is connected, a filament, a second stationary contact on the base and connected with the filament at a point intermediate the length thereof, a third stationary contact on the base and in connection with one end of the filament, a leader passing from the other end of the filament to the sheathing of the base, a fourth stationary contact on the base and in connection with the sheathing of the base, a member adjustable on the base, and two contacts carried thereby and co-acting with the four stationary contacts to throw the filament, in whole or in part, into circuit. 4th. An incandescent lamp having a filament in two sections, the sections being in connection with a common leader, a contact finger on the base of the lamp with which said common leader is connected, a feed leader, a second contact finger on the base of the lamp and connected with the feed leader, a third contact finger in connection with one section of the filament, a leader passing from the other section of the filament and connected with the sheathing of the base, a fourth contact finger in connection with the sheathing of the base, a ring turning on the base, and two contact wires held on the ring and co-acting with the four contact fingers to throw the sections, in whole or in part, into circuit.

No. 63,226. Insulator for Fastening Electric Wires.
(*Isoloir pour fils électrique.*)

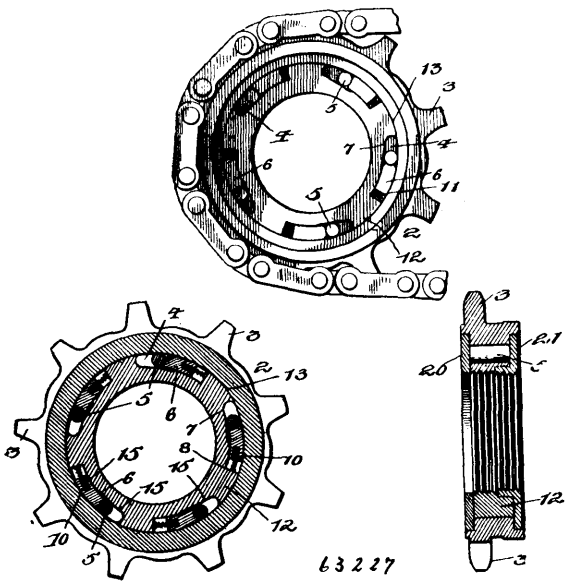


63226

Harry John Painter and Christopher J. Turton, assignees of John Treleaven, all of Vancouver, British Columbia, Canada, 10th June, 1899; 6 years. (Filed 17th December, 1898.)

Claim.—In an article of manufacture an insulator consisting of a cylindrical body having a groove 10 passing approximately half way round near its top, a groove 11 passing round its opposite side curved downwards and intersecting the opposite ends of the groove 10, and teeth 13 designed to grip the bearing surface on which it rests to prevent its turning when fastened, as specified.

No. 63,227. Clutch Mechanism. (*Mécanisme d'embrayage.*)



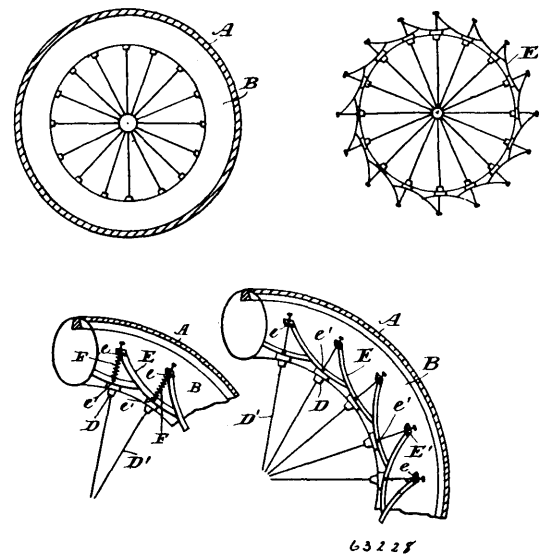
Alexander Patterson Morrow and Harmon Healy Fulton, both of Elmira, New York, U.S.A., 10th June, 1899; 6 years. (Filed 27th September, 1898.)

Claim.—1st. A friction clutch comprising concentric rings arranged one within the other, one of said rings having peripheral recesses, in combination with rollers arranged within said recesses, and spring-pressed guide blocks, arranged one in rear of each roller, said blocks bearing against the rollers throughout their length. 2nd. A friction clutch comprising a hub formed with peripheral recesses, and a ring encircling said hub, in combination with transverse rollers loosely supported in said recesses, a series of guide blocks also located in said recesses, in rear of the rollers, and extending throughout the length of the rollers and springs located in rear of said blocks, and adapted to project the blocks against the rollers, while the hub and ring are revolving together, but to be compressed by frictional contact of the blocks and ring when the revolution of the latter is arrested. 3rd. A friction clutch comprising a hub formed on its periphery with a series of equidistant recesses, each of which is rounded and bevelled at its bottom, and a ring encirling said hub, in combination with rollers located within the recesses and having movement on the bevelled surfaces thereof, and a series of spring pressed guide blocks, one for each roller, located in said recesses in rear of the rollers and adapted to slide on the rounded surfaces of the recesses. 4th. In a friction clutch, the combination with a hub formed with a series of equidistant recesses separated by radial lugs, of a sprocket rim encircling the rim, a roller within each of said recesses, a bearing block in each recess in rear of its roller, bearing against the latter, throughout its length, and formed at its rear side with a pin opening, a pin supported loosely in said opening, and a coil spring surrounding the pin. 5th. In a fraction clutch, the combination with a hub formed on its periphery with a series of equidistant recesses, a sprocket rim encircling said hub, a roller within each of said recesses, and a spring-pressed guide block located in each of said recesses in rear of the roller, said blocks being rounded or hollowed out on their surfaces, and bearing against the rollers throughout the length of the latter.

No. 63,228. Wheel for Vehicles. (*Roue de voiture.*)

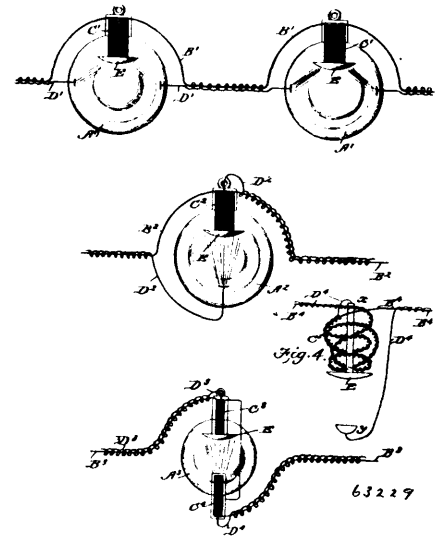
George Harris Lewis, Joseph Augustus Labatt, John Goggan, Leon Blum, and Henry J. Labatt, all of Galveston, Texas, U.S.A., 10th June, 1899; 6 years. (Filed 12th July, 1898.)

Claim.—1st. In combination, the tubular rim, the spokes loosely passing into the same, and the series of independent springs carried within the tube, each spring having one end connected to one of the spokes, an opening approximately centrally thereof through which the next spoke passes and having its opposite end bearing against the under face of the next adjoining spring, substantially as described. 2nd. In combination, the tubular metallic rim, the spokes passing loosely into the same, the series of springs located within the rim, each spring having one end connected to the extremity of one spoke, having an opening approximately centrally thereof through which the next spoke passes, and having its opposite end bearing against the under side of the adjoining spring, and an auxiliary tire or tread portion for said tubular rim, substantially as



described. 3rd. In a wheel for vehicles, the combination of a rim with spiral springs F interposed between springs E at the outer extremity of spokes D^1, each of said springs E bearing with a point intermediate its two ends on the rim, one extremity of each spring E being held in position by means of the nut E^1, and the other extremity resting on the preceding spring E, substantially as described. 4th. An improved wheel for vehicles, constructed with a rim of aluminum or other suitable metal, an auxilliary tire attached to the rim having movable spokes passing loosely through the rim to the end of springs forming a continuous controlled spring tread, substantially as shown and described.

No. 63,229. Electric Lighting Apparatus.
(*Appareil de lumière électrique.*)



Andrew Plecher, Savannah, Georgia, U.S.A., 10th June, 1899; 18 years. (Filed 1st May, 1899.)

Claim.—1st. An electric lamp comprising a vacuum bulb, an electro magnet having one pole within said bulb and provided with a light emitting surface as described and its helix arranged in a primary circuit wire, an insulated secondary wire wound around the primary wire throughout its length between lamps and extending the full length of said primary wire between lamps and provided within the bulb with cathode terminals, substantially as and for the purpose described. 2nd. An electric lamp comprising a vacuum bulb, one or more electro magnets each having one pole within said bulb and provided with light emitting surface as described, and its helix arranged in a primary circuit wire, an insulated secondary wire wound around

the ordinary wire, and extending the full length of said primary wire between lamps, and provided within the bulb with cathode terminals one or both of which is coincident with the pole or poles of the electro magnets, substantially as and for the purpose described. 3rd. An electric X-Ray lamp comprising a vacum bulb with two cathode terminals, and one or more electro magnets wrapped to form induction coils having each one pole within the bulb and provided with a light emitting surface as described, said induction coil having a central core, a helix connecting with a primary wire, another helix connecting with the secondary wire, the end of said secondary helix being connected to the core of the induction coil and forming the cathode terminal, substantially as and for the purpose described. 4th. An electric X-Ray lamp comprising a vacuum bulb with two cathode terminals, one or more electro magnets wrapped to form in duction coils having each one pole within the bulb and provided with a light emitting surface as described, said induction coil having a central core, a helix connecting with a primary wire extending between lamps, another helix connecting with a secondary wire wound around the primary wire and extending with it between lamps, the end of said secondary helix being connected to the core of the induction coil and forming the cathode terminal, substantially as and for the purpose described.

No. 63,230. Wave Power Pump.

(*Pompe actionée par les vagues.*)

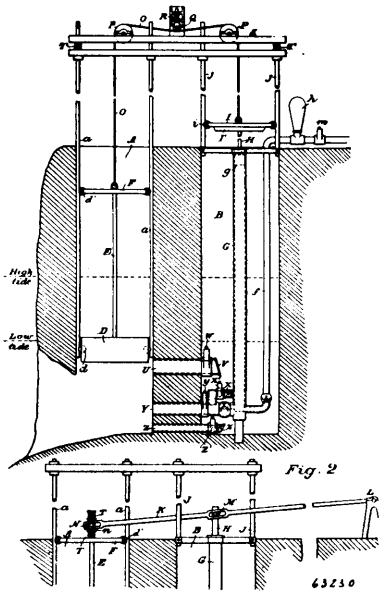


Fig. 2

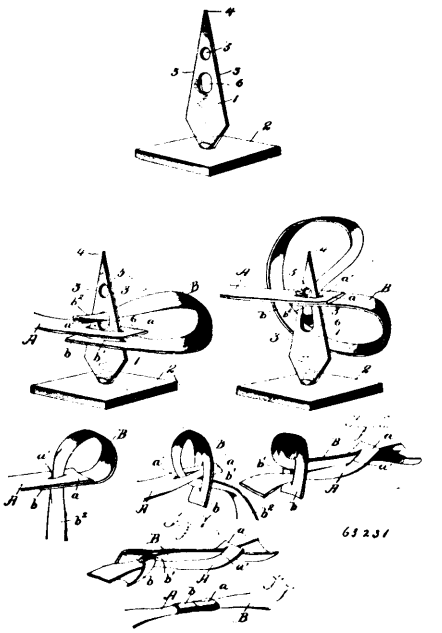
63230

John Edward Armstrong and William Armstrong, both of Santa Cruz, California, U.S.A., 10th June, 1899; 6 years. (Filed 30th September, 1898.)

Claim.—1st. In a wave power pumping apparatus of the character described, independent vertical wells, one of which has a passage connecting it with the sea front, a guided float adapted to rise and fall in said well by the movement of the waves, a pump mechanism fixed in the second well and connections between the float and the pump plunger whereby the two are actuated in unison. 2nd. In a wave power pumping apparatus of the character described, independent vertical wells, one of which has an open connection with the sea front and a guided float adapted to rise and fall therein, a pump fixed in the second well, connections between the float and pump plunger whereby the movements of the float are communicated to the plunger, and passages connecting the float and pump well whereby water is admitted to the latter to supply the pump. 3rd. In a wave power pumping apparatus of the character described, independent vertical wells, one of which has direct connection with the sea and a guided float adapted to rise and fall therein by the movement of the waves, a pump fixed in the other well, connections between the float and the pump plunger, a supply pipe or passage connecting the two chambers at a point above the bottom having a valve opening inwardly into the pump chamber whereby water supplied by the rise in the outer chamber is prevented from returning. 4th. In a wave power pumping apparatus of the character described, independent wells, one of which has an open communication with the sea, and a guided float adapted to rise and fall therein by the action of the waves, a pump fixed in the other wall, connections between the float and the pump plunger, an inlet pipe connecting the two chambers above the bottom, a valve whereby water is admitted from the float to the pump chamber and prevented from returning therethrough, a second pipe at the bottom of the pump chamber having an outwardly opening valve, and controlling gates whereby the water may be retained in the well and discharged to flush and clean the latter. 5th. In a wave power pumping apparatus of the character described, independent wells, one of which has an open connection with the sea and a guided float adapted to rise and fall within the well by the movement of the waves, a pumping mechanism fixed in the other well, gate-controlled passages between the two for the admission of water to the pump well and the discharge therefrom, a gated inlet pipe connecting the pump with its own well, and a second pipe connecting the pump directly with the outer well and having a controlling gate. 6th. In a wave power pumping apparatus of the character described, independent wells, one of which has an open communication with the sea, a guided float adapted to rise and fall therein by the movement of the waves, a pump fixed in the second well, a connection between the pump plunger and the float whereby the two act in unison and passages admitting water into the pump chamber, a discharge pipe leading upwardly from the pump and having an air chamber approximately equal to the capacity of the pump whereby pressure caused by sudden movements of the pump is relieved. 7th. In a wave power pumping apparatus of the character described, independent vertical wells, one having an open connection with the sea and a guided float adapted to rise and fall by the movement of the waves, a pump fixed in the other chamber, connections between the float and the pump plunger whereby the two act in unison and elastic interposed springs whereby sudden movements of the float are taken up and the action upon the connections is compensated.

No. 63,231. Rag Sewing Needle.

(*Aiguille à coudre les guenilles.*)

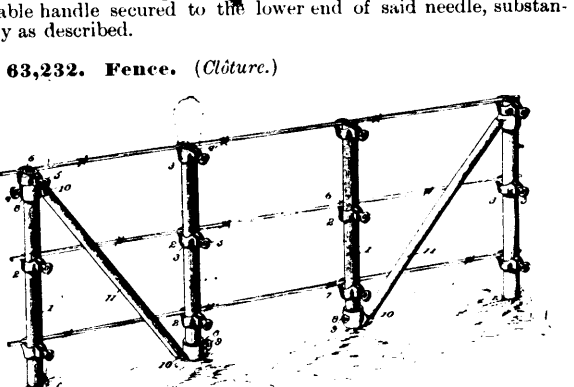


63231

Walter R. Caldwell, Amherstburg, Ontario, Canada, 10th June, 1899; 6 years. (Filed 30th January, 1899.)

Claim.—1st. A rag sewing needle comprising a blade, having its sides tapered to a point, and a plurality of openings of different sizes formed therein in vertical alignment, said openings being adapted to receive rag strips of varying sizes and texture, and a suitable handle secured to the lower end of said needle, substantially as described.

No. 63,232. Fence. (*Clôture.*)

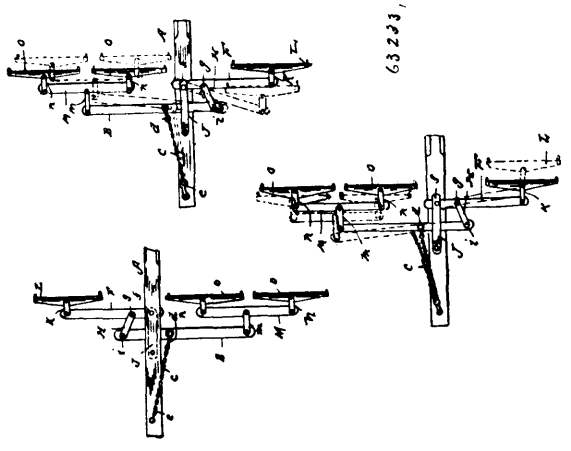


63232

Edwin Carlos Emerton and William Lucius Godfrey, both of Post Mills, Vermont, U.S.A., 10th June, 1899; 6 years. (Filed 16th March, 1899.)

Claim.—1st In a fence, the combination with posts and runners, of a series of adjustable runner clamps mounted on said posts and each consisting of a sleeve having at one side a thick extension with a screw threaded opening extending therethrough and communicating with the opening through the sleeve, the said sleeve directly opposite the extension at the upper edge also formed with an upwardly projecting lip having an inner concave runner groove and thinner at the base than at the upper termination, other sleeves mounted at varying elevations on adjacent ports, one of the latter sleeves having a downwardly extending tapered arm and the other an upwardly projecting similar arm, and a diagonally disposed tubular brace having its ends engaged by and jammed upon the thickened part of said arms.

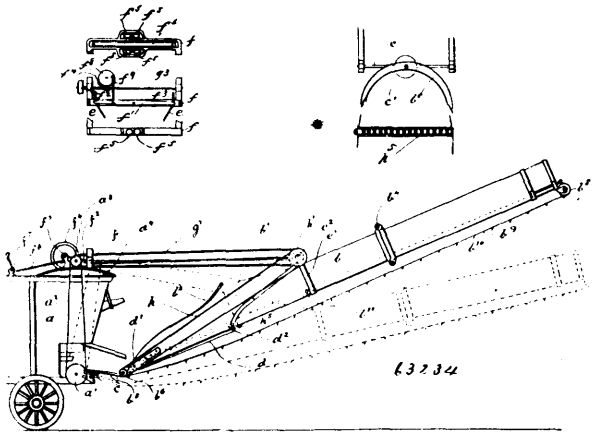
No. 63,233. Draft Equalizer. (*Régulateur du tirage.*)



Charles A. Lee, Esbon, Kansas, U.S.A., 10th June, 1899; 6 years. (Filed 16th March, 1899.)

Claim.—1st. In a draft equalizer, the combination with a draft pole or tongue, of a long lever arranged mainly at one side thereof and having its inner end projecting to the opposite side, said lever being supported from the pole and adapted to have a limited compensating movement transversely thereof, a short lever pivoted at its inner end to the tongue, and a compensating link normally arranged at an angle to and pivotally connecting the inner ends of said levers, substantially as described. 2nd. In a three-gorse draft equalizer, the combination of a pole or tongue, a long lever arranged mainly at one side but having its inner end projecting to the opposite side thereof, said lever being adapted to have a slight transverse compensating movement, a chain secured at its rear end to the tongue and at its front end to said lever, a short lever on the opposite side of the tongue and pivoted at its inner end thereto, and a compensating link pivotally connecting the inner ends of said levers, and said link being normally arranged at an angle thereto, substantially as described.

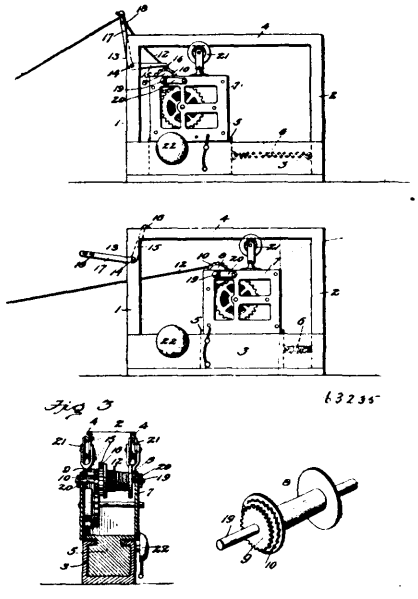
No. 63,234. Straw Carrier. (*Monte-paille.*)



Magnus Johnson, South Cypress, Manitoba, Canada, 10th June, 1899; 6 years. (Filed 14th April, 1899.)

Claim.—1st. A straw carrier which automatically stacks the straw and separates the chaff therefrom, having an adjustable tube attachable to an ordinary separator provided with pulleys, cords and rollers which convey the straw to the mouth of the said tube and separate the chaff therefrom, depositing it upon the ground, substantially as specified. 2nd. A straw carrier having the pulley a^1 attached to an ordinary separator, band a^2, pulley a^3 secured to shaft g^3, which is journalled on the frame or carriage f resting on the arc shaped tracks a^4, a^4, the tube b, with cone shaped enlargement b^1, oblique opening b^2, with lips b^3, b^3, hinge b^4, semi-circular tongue b^5, pulley b^6, shaft b^7, revolving drum b^8, spur chains b^9, b^9, b^9, spurs b^{10}, roller b^{11}, pulleys b^{12}, b^{12}, b^{12}, c shaft secured to separator with pivot c^1, endless barrel a, rollers a^1 and a^2, strips a^3, diagonal rolls c, e, frame c^1, shaft c^2, frame or carriage f, pivoted lever f^1, adjusting cords f^2, f^2, shaft f^3, hand wheel f^4, elevating cords f^6, f^6, horizontal pulleys f^6, f^6, ratchet lever f^7, pulley g, transmitting cord g^1, pulley g^2, shaft g^3, band or belt h, pulleys h^1 and h^2, belt h^3, pulley h^4 and slotted slide h^5, all formed, arranged and combined, as set forth.

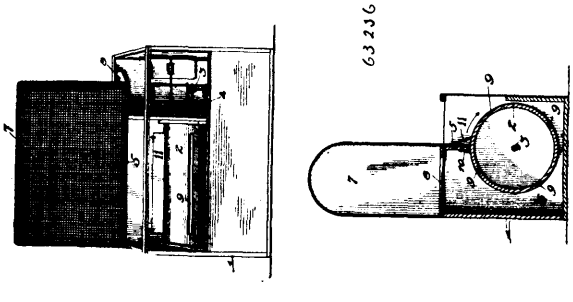
No. 63,235. Fishing Device. (*Appareil de pêche.*)



George Cook, Louisville, Kentucky, U.S.A., 10th June, 1899; 6 years. (Filed 24th April, 1899.)

Claim.—1st. In combination, the frame, the spring actuated carriage traversing said frame, the reel box carried by said carriage, the spring actuated reel journalled in said box, and a bell crank lever fulcrumed in said frame and in operative connection therewith, and in the path of said reel box, substantially as and for the purpose set forth. 2nd. In combination the frame, the spring actuated carriage travelling in said frame, the reel box mounted on said carriage, and a spring actuated alarm gong fixed on the frame and having its trip lever projecting into the path of said reel box and operated by the movement thereof, substantially as and for the purpose set forth.

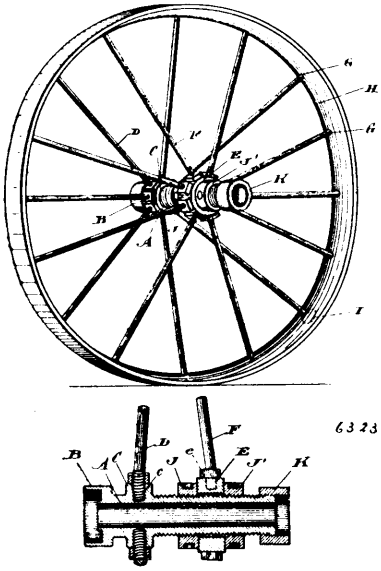
No. 63,236. Fly Trap. (*Attrapes-mouches.*)



Matthias Sly, Featherstone, Goshen Junction, California, U.S.A., 10th June, 1899; 6 years. (Filed 24th April, 1899.)

Claim.—In combination, the casing formed with the chamber 6, the continuously rotating drum formed with the bait recesses and extending part way into said chamber, the partition 5, the apron 11 hinged to said partition and having its free edge resting on the drum, and the removable cage 7, communicating with said chamber, substantially as set forth.

No. 63,237. Vehicle Wheel. (*Roue de voitures.*)

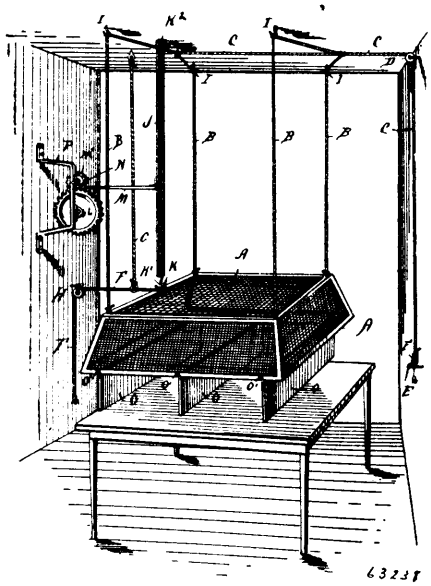


William James Ward, Palmerston, Ontario, Canada, 10th June, 1899; 6 years. (Filed 20th April, 1899.)

Claim.—1st. A vehicle wheel embracing in its construction a sleeve having its outer surface screw threaded, a cap or cup rigidly connected to one end of the sleeve, a stationary hub section mounted on the sleeve contiguous to the cap or cup, a movable hub section mounted on the sleeve opposed to the stationary hub section, and capable of being adjusted towards and away from the same, two lock nuts or collars located one on either side of the movable hub section to hold it in its adjusted position, in combination with the rim and spokes connected to the rim and to the hub sections, substantially as specified. 2nd. A vehicle wheel embracing in its construction a sleeve having its outer surface screw threaded, a cap or cup rigidly connected to one end of the sleeve, a stationary hub section mounted on the sleeve contiguous to the cap or cup, a movable hub section mounted on the sleeve opposed to the stationary hub section, and capable of being adjusted towards and away from the same, two lock nuts or collars located one on either side of the movable hub section to hold it in its adjusted position, in combination with the rim and spokes connected to the rim and to the hub sections, and a cup or band connected to the outer end of the sleeve, substantially as specified.

No. 63,238. Table Screen and Fly-Fan.

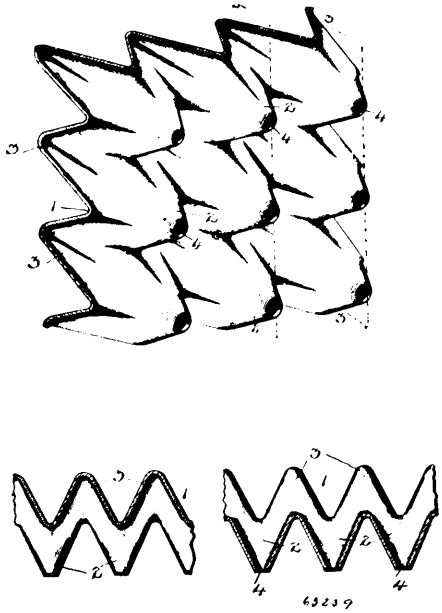
(*Ecran pour tables et evantail pour mouches.*)



John H. Beddingfeld, Bethlehem, Georgia, U.S.A., 10th June, 1899; 6 years. (Filed 3rd May, 1899.)

Claim.—1st. The combination of an inclosing screen, and a fan detachably hinged thereto, of flexible suspensory devices, means applied thereto for raising and lowering the screen and fan, and operating devices for the latter, substantially as described. 2nd. A combined screen and fan, comprising the frame, the fans detachably secured to said frame, flexible suspensory devices for the frame and fan, raising and lowering means, and operating mechanism to cause an oscillatory motion of the frame and fan, substantially as described. 3rd. In a combined screen and fan, the screen frame, the frame detachably secured below the same, flexible suspensory devices therefor, a lever pivoted to a fixed point, means for detachably connecting said lever with the frame, gearing adapted to be operated from a suitable source of power, and connections between said lever and said gearing, whereby power is transmitted to the frame and fan at suitable times, substantially as and for the purpose set forth.

No. 63,239. Fly Escape. (*Echappe mouche.*)

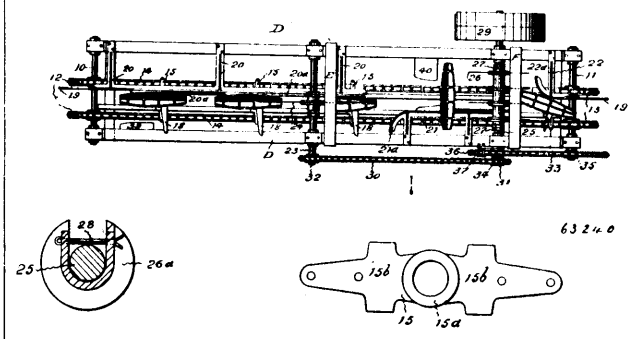


Annie Sarah Miles, Oromocto, New Brunswick, Canada, 10th June, 1899; 6 years. (Filed 16th May, 1899.)

Claim.—1st. A fly escepe having a series of integral projections extending outwardly, each of said projections being provided with an opening at its apex, and also having a series of imperforate integral projections extending inwardly, said inwardly extending projections being arranged alternately with said outwardly extending projections, substantially as described. 2nd. A fly escape having integral projections, extending outwardly, said projections being arranged in series vertically and horizontally, and also having integral imperforate projections extending inwardly arranged in series, said series of inwardly extending projections being arranged alternately with said series of outwardly extending projections, substantially as described.

No. 63,240. Fish Cutting Machine.

(*Machine à couper le poisson.*)

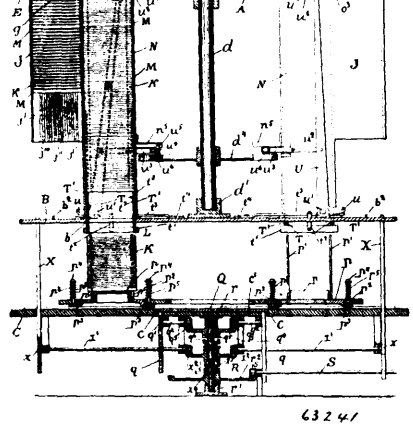


James Moore, K. Letson, and Frank Watts Burpee, both of Vancouver, British Columbia, Canada, 10th June, 1899; 6 years. (Filed 30th January, 1899.)

Claim.—1st. In a machine for splitting and cutting fish having a suitable bed with rotating cutting discs arranged thereover, in combination with an endless belt or belts, taking over the bed, fish carrying receptacles arranged on such belt or belts, passages in such

receptacles for receiving the cutting discs and means for holding the receptacles in an endwise position while the fish are being split and for turning the receptacles at right angles while they are being cut in uniform dimensions by the rearwardly placed discs as specified. 2nd. In a machine for first splitting the fish and then for cutting them into the desired lengths, having a suitable bed arranged at an incline, pulleys or wheels mounted at each end thereof, with their upper peripheries arranged tangent to the upper plane of the bed, belts taking round said wheels, yokes connecting the belt together at intervals, and fish carrying receptacles arranged on said yokes, and means for passing each of the said receptacles along in an endwise position beneath a rotating disc 24 and for turning the receptacle at right angles and holding it in such position while being passed beneath a plurality of rotating discs 26, whereby the fish will be cut up, as specified. 3rd. In a machine of the class described, consisting of a bed arranged on a sloping plane, belt wheels mounted on each end thereof, chain belts taking thereround, receptacles or fish carrying devices 16 secured at intervals on said belts, in combination with a rotating disc 24 suitably mounted on a frame E above the bed, of a plurality of rotating discs 26 suitably mounted in a frame F above the rear part of the machine, and means for holding the fish carrying receptacles in an endwise position and receive the disc 24 in a slot therein, and for turning the said receptacles at right angles while being passed beneath the discs 26, as set forth. 4th. In a fish cutting machine, having a suitable bed and fish cutting discs arranged thereover, chain belts arranged parallel and taking round wheels at opposite ends of the bed, yokes 15 secured to said chains at intervals, bearers 45 for supporting the chains or belts on a plane just below the upper side of the bed, a fence 19 passing beneath the bed, a frame 20 connecting with the said fence and supported by arms connecting with the rear side of the bed frame D, and a groove 20^a in the outer upper side of the frame 20, in combination with fish carrying receptacles 16 pivoted on the yokes 15, right angle pieces 18 integral with the said receptacles, having their outer edges depending, one downwardly depending angle of which is received in the said slot 20^a in the frame 20, and the downwardly depending edge of the other side of the angle is received in a groove 21^b in a frame 21 on the opposite side of the bed at a point to the rear of the frame 20, whereby the said receptacles are first passed for a distance over the bed lengthwise and then are turned at right angles thereto and passed along in that position, for the purposes specified. 5th. In a machine of the class described, having endless belts passing over a bed with rotary cutter discs arranged thereover, yokes 15 arranged at intervals along the said belts, receptacles 16 pivotally fixed in said yokes, slots in said receptacles endwise and crosswise for the passage of said cutter discs, and means for passing the receptacles for a distance along the bed in an endwise position and for turning the receptacles to a right angled position and passing them along so for a distance along the bed, as and for the purposes specified. 6th. In a machine for splitting and cutting fish, having a bed with endless chain belts 14 taking thereover, and a frame E supporting a shaft 23 with a rotary cutter disc 24 mounted thereod, and a frame F with a shaft 25 carrying a plurality of rotary cutter discs 26 thereon, fish carrying receptacles 16 arranged at intervals along the belts 14, and means for passing the said receptacles for a distance over the bed in an endwise position beneath the cutting disc 24 and for turning the same at right angles and holding them so while being passed beneath the cutting discs 26 and then for reversing them to an endwise position, substantially as and for the purposes set forth. 7th. In a fish cutting machine, having a bed with belts taking thereover and cutting discs arranged in frames E and F a suitable distance above the bed, yokes 15 secured to the belts and connecting them together at intervals, bosses in said yokes, fish holding receptacles pivoted or movably secured in apertures in said yokes, turning devices, 18 integral with the said receptacles, which consist of right angles having their edges projected downwards, as 18_a, and fixed frames 20 and 21 arranged on opposite sides of the track of the fish holding receptacles, and grooves 20^a and 21^a in said frame for receiving the downwardly projected edges of the right angles 18, as specified. 8th. A fish holding receptacle 16 for the purposes set forth, having a lengthwise slot 16^a and transverse slots 16^b, and means for passing the same lengthwise for a distance over a suitable bed beneath a rotating cutting disc, and for a distance over the bed in a transverse position beneath a plurality of rotating cutter discs, as specified. 9th. In a machine of the class described, having a bed, wheels mounted at each end thereof, and a belt or belts 14 taking thereround, a cutting disc 24 arranged over the bed and a plurality of like cutting discs 26 arranged over near the rear end of the bed and at approximately the same plane as the disc 24 with respect to the bed, and means for imparting a high speed to the discs 24 and 26 and a slower speed to the belts 14, in combination with fish holding receptacles 16 secured in a pivotal manner to yokes connecting the said chains together and right angle pieces 18 secured beneath and integral with the said receptacles, of a fence 19 passing beneath the bed for engaging one of the sides of each of the angles 18, and controlling the fish holding receptacles in lengthwise position, and a frame 20 having a groove 20 connecting with the fence 19 and extending beneath the cutting disc 24, and of a frame 21 on the opposite side of the bed, having a cam 21^a for engaging the other side of each of the right angle pieces, and for turning the fish holding receptacles, and a groove 21^a in said frame for holding them so while being passed beneath the cutting discs 26, and of a cam 22^a on a frame supporting the rear end of the fence for engaging said angle pieces, as and for the purposes set forth. 10th. A machine of the class described, having a bed with wheels mounted at each end thereof, and belts taking thereround, bearers 45 for supporting the upper side of the belts at an even plane while passing over the bed, and frames 20 and 21 arranged diagonally from each other on each side of the bed and extending over the said belts, the undersides of these frames being on an even plane, and grooves 20^a and 21^b on the upper sides of the same, yokes 15 connecting the belts together at intervals, fish holding receptacles arranged in bosses on the yokes, which receptacles have members which engage in the grooves 20^a and 21^b alternately, and widened or flattened portions 15^b on the opposite sides of the bosses on the upper surfaces of the yokes, which engage the undersides of the plane surface of the frames 20 and 21 alternately and respectively. 11th. In a machine of the class described, in combination with a rotary cutting disc 24 secured on a shaft 23 suitably mounted in a frame, a biforked arm 41 lying on opposite sides of the said cutting disc, the said forks having horizontal portions which act as cleaners for the disc, and a depending, movable arm 43 pivoted to a forwardly projecting arm 42 integral with the biforked arm 41, said arm 43 being tapered and divided by a slot 43^a, substantially as and for the purposes set forth. 12th. In a machine for splitting and cutting fish and means of adjusting a plurality of cutting discs 26 at various distances apart upon a shaft without removing same, consisting of distance sleeves 26^a having openings on their sides for receiving the said shaft and pins 28 for holding them on said shaft on each side of the cutting discs, substantially as and for the purposes set forth. 13th. In a machine for splitting fish, having a suitable bed, wheels mounted at each end thereof, a belt taking round said wheels, fish carrying receptacles 16 arranged on said belt and made to move in a lengthwise position, and a slot 16^a placed lengthwise of said receptacles, and a cutting disc 24 arranged in a suitable frame over the bed, said disc made to pass through the said slot in each receptacle 16 as it is passed along, and means for imparting movement to the belt carrying the receptacles, and to the cutting disc, as and for the purpose set forth. 14th. Fish-holding receptacles 16 of fish-like form having the upper part of the ends open, and having a longitudinal slot 16^a and transverse slots or openings 16^b dividing the walls of said receptacle, for the passage of cutting or cleaning devices

No. 63,241. Machine for Making and Framing Match Splints. (*Machine pour faire et encadrer les éclisses d'allumettes.*)



63241

Marcus Solomon Levé, Fruitvale, California, U.S.A., 10th June, 1899; 6 years. (Filed 16th July, 1898.)

Claim.—1st. In a machine of the character described, a splint material carrying chute set upon a wheel with its bottom opening on a radial line, in combination with a table located in a plane parallel with said wheel, a row of scoring knives arranged also on a radiating line on said table, and a slicing knife back of said scoring knives, the said slicing knife being set so as to coincide with the back end of said chute as it passes said slicing knife, whereby the severing of all the splints in a row is completed simultaneously along the whole line, substantially as set forth. 2nd. In a machine of the character described, the combination of a stationary cutting apparatus, a suitably apertured table upon which the same is mounted, mechanism for carrying the wooden blocks in succession against the cutting apparatus over the table, an automatic framing

mechanism beneath the table and in operative relation to the cutting apparatus and passage for the splints, and means for supplying slats to said framing mechanism, the whole being constructed and arranged so that the splints may be cut in successive rows and caused to push one another over the slats in the framing mechanism alternately with the slats, substantially as set forth. 3rd. In a machine of the character described, the combination of a table, a slat box and a framing mechanism located entirely under said table, means for transferring slats from said box to said framing mechanism, and a fixed cutter on the table discharging splints into the framing mechanism alternately with the slats, substantially as set forth. 4th. In a machine of the character described, the combination of a cutting apparatus, means for carrying splint material thereto, framing mechanism adapted to receive the cut material from said cutting apparatus, a slat holder, and means for taking loose slats from said holder and feeding the same over the cut material in the framing mechanism, substantially as set forth. 5th. In a machine of the character described, the combination of a table, a series of framing devices and a series of adjoining slat boxes, both located entirely under said table, splint cutters arranged upon the table and adapted to discharge through the same into said framing devices alternately with said boxes, and mechanism for bringing splint material successively to said cutters, substantially as set forth. 6th. In a machine of the character described, the combination of a slat box provided with guides forming suitable divisions therein, a framing chamber also provided with guides forming ways corresponding with said divisions, and mechanism for guiding and driving slats from the divisions of said box into the corresponding ways of said chamber, substantially as set forth. 7th. In a machine of the character described, the combination of a cutting apparatus, a wheel carrying the splint material to said apparatus, a framing device adapted to receive the cut material therefrom, a slat box, mechanism operated from said wheel whereby slats are passed through said box, and means for transferring said slats to said framing device alternately with the cut material lodged therein, substantially as set forth. 8th. In a machine of the character described, the combination of a series of slat boxes, a series of framing devices communicating therewith, a series of splint-cutters, a wheel carrying the splint material successively to said cutters and driving the material cut thereby into said framing devices, a shaft rotated by said wheel, and intermediate mechanism whereby the slats are ejected from said boxes into said framing devices in time to receive the cut material from the cutters, substantially as set forth. 9th. In a machine of the character described, the combination of a slat box, a carriage adapted to receive slats in piles and hold the same in position, a hoisting mechanism whereby said carriage may be elevated and the pile of slats thereon raised bodily into said box, and means for automatically receiving the slats from the carriage, substantially as set forth. 10th. In a machine of the character described, the combination of a series of slat boxes arranged upon a suitable base and seated over openings therein, a carriage adapted to be driven into said base under said boxes, means for holding slats piled upon said carriage in position to enter said boxes, and hoisting mechanism, substantially as set forth. 11th. In a machine of the character described, the combination of a slat box, a carriage thereunder provided with a yieldingly supported plate adapted to raise a pile of slats into said box, and means for hoisting said carriage, substantially as set forth. 12th. In a machine of the character described, the combination of a slat box, a carriage having a suitable opening, a centrally raised spring supported plate fitted within said opening and adapted to be raised to said box with said carriage, and hoisting mechanism, substantially as set forth. 13th. In a machine of the character described, the combination of a carriage, means for holding slats in piles thereon, a slat box, and means for automatically taking the slats from said carriage into said box while the machine is running, substantially as set forth. In a machine of the character described, the combination of a carriage, rods adapted to hold slats in piles thereon, a slat box, means for raising the slats on said carriage into said box, and mechanism for taking the slats off said rods, substantially as set forth. 15th. In a machine of the character described, the combination of a slat box with co-acting bars notched throughout their length and adapted to take up slats by degrees therein, substantially as set forth. 16th. In a machine of the character described, the combination of a slat box adapted to receive slats having slotted ends, and compressible notched bars passing through and alternately engaging the slotted ends of the slats placed therein, substantially as set forth. 17th. In a machine of the character described, the combination with a slat-box adapted to receive and guide slats piled therein and passing therethrough, of movable and stationary bars extending partly up said box, said bars being notched throughout their length and working together to take up said slats as the same are brought in, substantially as set forth. 18th. In a machine of the character described, the combination of a slat box having guides forming suitable divisions therein, oppositely placed notched bars engaging the slats placed in said divisions, and means for working said notched bars collectively, substantially as set forth. 19th. In a machine of the character desrcibed, the combination of a slat box, stationary bars fastened to the inner walls thereof, movable bars placed by the side of said stationary bars, both said stationary and movable bars being notched throughout their length, a collar adapted to hold said movable bars, and means for reciprocating said collar, substantially as set forth.

20th. In a machine of the character described, the combination of a slat box, co-acting movable and stationary bars adapted to take up slats placed therein, a spring supported device holding up and controlling the said movable bars, and means for reciprocating said device, substantially as set forth. 21st. In a machine of the character described, the combination of a slat box, movable and stationary bars co-acting to take up the slats placed therein, a collar connecting the said movable bars with each other, a spring holding said collar, and a lever adapted to alternately release and depress said spring, substantially as set forth. 22nd. In a machine of the character described, the combination of a slat box, stationary and movable bars co-acting to take up the slats therein, a collar connecting the movable bars with each other, a forked spring linked to said collar, the branches of said spring extending by the the sides of said box and provided with pins arranged to bear upon the said spring branches, a rotary shaft, a cam carried by said shaft, and intermediate connections whereby said lever may be oscillated from said shaft by said cam, substantially as set forth. 23rd. In a machine of the character described, the combination of a slat box, slitted bars co-acting to take up slats through said box, and cushions inserted into the slits of said bars, substantially as set forth. 24th. In a machine of the character described, the combination of a slat box adapted to receive slats having slotted ends, and compressible co-acting bars passing through and alternately engaging the slotted ends of the slats therein, the said bars being notched to form a series of oppositely laid steps, substantially as set forth. 25th. In a machine of the character described, the combination of a framing mechanism, a slat box adjacent thereto, a table extending entirely over both said framing mechanism and box and leaving a passage between the same, mechanism for taking up slats through said box, and mechanism for expelling said slats successively and automatically from the slat box into the framing mechanism, through said passage, substantially as set forth. 26th. In a machine of the character described, the combination of a framing device, a slat box adjoining the same, a table extending over said slat box and said framing device and forming a passage therebetween, and springs partly obstructing said passage, substantially as set forth. 27th. In a machine of the character described, the combination of a framing device, a slat box formed with a suitable passage leading into said device, means for bringing a pile of slats up to said passage, and springs partly obstructing said passage whereby square cornered slats in the pile will be arrested and allowed to slide only one at a time through the passage, substantially as set forth. 28th. In a machine of the character described, the combination of a framing device, a slat box formed with a suitable passage leading into said device, means for bringing a pile of slats up to said passage, and springs partly obstructing said passage, the said springs being fitted in flaring recesses and adapted to be pushed aside by a wedge shaped channeled slat covering another slat of lesser width and to thus allow the two slats to slide together through said passage, substantially as set forth. 29th. In a machine of the character described, the combination of a framing device, a slat box discharging into said device, means for passing slats in piles through said box, the top slat of one pile fitting within the bottom slat of another pile, and a reciprocating bar adapted to drive the said top and bottom slats together into the framing device, substantially as set forth. 30th. In a machine of the character described, the combination of framing mechanism, mechanism for driving splints in rows thereto, a slat holder, means for taking up by degrees the slats in the holder, and a reciprocating bar working alternately with the splint driving mechanism and operating to discharge the slats from the holder unto the splints in the framing mechanism, substantially as set forth. 31st. In a machine of the character described, the combination of a framing mechanism, a box open at both top and bottom and arranged to discharge thereinto, bars adapted to automatically receive slats through the bottom end of said box and take them up by degrees to the upper end thereof, a spring working said bars, a reciprocating bar arranged to drive the slats successively from said box to said framing mechanism, a lever actuating both said spring and said reciprocating bar, and means for operating said lever, substantially as set forth. 32nd. In a machine of the character described, the combination of a framing device, means for holding slats within the same, a table entirely covering said device and provided with a suitable channel leading thereinto, splint-cutters, and mechanism to carry the wooden blocks against said cutters and at the same time drive the splints through the channel in the table unto the slats in the framing device, substantially as set forth. 33rd. In a machine of the character described, the combination of a framing device, means for holding slats in layers therein, a suitably apertured table extending over said device, splint cutters, and mechanism for carrying the wooden blocks in groups against said cutters and driving the splints in successive rows unto the layers of slats in said framing device, substantially as set forth. 34th. In a machine of the character described, the combination of friction slides composed of spring bars formed into branches with interposed cushions imparting to the same a uniform tension, and means for forcing splint bearing slats down said slides, substantially as set forth. 35th. In a machine of the character described, the combination of a framing chamber, friction slides for holding up splint bearing slats yieldingly therein, and a depressor, substantially as set forth. 36th. In a machine of the character described, the combination of a framing device, a slat box, means for feeding the slats from said device, and a depressor adapted to guide said slats as they

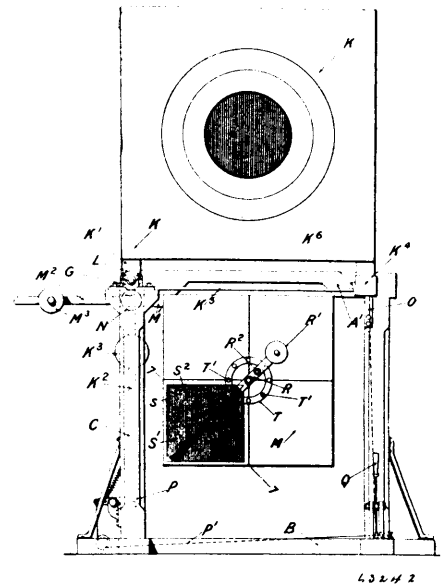
are driven from the box to the framing device, substantially as set forth. 37th. In a machine of the character described, the combination of a framing device adapted to receive slats and splints to be piled in alternate strata therein, a slat box discharging into said device, means for loading successively the discharged slats with splints, and a depressor arranged to bear on the splints while the slats are driven in, substantially as set forth. 38th. In a machine of the character described, the combination of framing mechanism, a slat holder, means for discharging loose slats from the holder into the framing mechanism, splint cutters discharging unto the slats from the holder, and a reciprocating depressor adapted to lower the slats and splints as the same are introduced into the framing mechanism, substantially as set forth. 39th. In a machine of the character described, the combination of framing mechanism, a slat holder discharging the same, a table thereover, splint cutters also discharging into said framing mechanism from said table, and a reciprocating depressor fitted within the table over both the slat holder and framing mechanism, substantially as set forth. 40th. In a machine of the character described, the combination of a framing device, a slat bex and splint cutting mechanism arranged to discharge alternately into said device, a table under the splint cutting mechanism, and a depressor composed of suitable bars joined together fitting in grooves under the table and extending over both the slat box and framing device, substantially as set forth. 41st. In a machine of the character described, the combination of a framing device, a slat holder discharging thereunto, splint feeding mechanism arranged to discharge also into said device, a depressor adapted to guide the slats as they are discharged from the holder, and a cam connected with said splint feeding mechanism and working said depressor, substantially as set forth. 42nd. In a machine of the character described, the combination of a framing device adapted to receive slats and splints to be piled in alternate strata therein, a suitably apertured table, splint cutters, a depressor located between the table and the framing device and having a spring arm passing through and extending over the table, and mechanism adapted to feed the splint material to the splint cutters and comprising a cam arranged to work the depressor alternately with the feed of the splint material, substantially as set forth. 43rd. In a machine of the character described, the combination of a table, a series of framing devices under the same, a series of adjoining slat boxes discharging into said framing devices from said table, a series of depressors located between the table and the framing devices and boxes thereunder, and a wheel carrying the splint material successively to the cutters and having a series of cams arranged to periodically work the depressors after the splints are cut and discharged and while the slats are being fed thereover, substantially as set forth.. 44th. In a machine of the character described, the combination of a framing device, means for placing slats therein, means for driving splints in close rows across said slats, a depressor arranged to bear upon and keep said splints in the order that they are driven in, and guiding devices adapted to maintain the slats and splints in the shape in which they are left by said depressor, ssubstantially as set forth. 45th. In a machine of the character described, the combination of a table, cutters thereon, mechanism to carry wooden blocks successively against said cutters and drive the splints into a channel running through said table, having a flaring wall connected with said channel, and framing mechanism, substantially as set forth. 46th. In a machine of the character described, a framing device provided with guides forming ways adapted to receive splint bearing slats in parallel piles therein, the said guides being inwardly projected to keep the splints in close rows upon the slats while the said piles are being formed, substantially as set forth. 47th. In a machine of the character described, a framing device provided with guides forming ways adapted to receive splint bearing slats piled up therein, the said way running parallel for some distance and then gradually diverging so that the splint bearing slats are first kept close together and afterward gradually separated, substantially as set forth. 48th. In a machine of the character described, the combination of a framing device adapted to receive alternate layers of slats and rows of splints, means for arranging said splints symmetrically across said slats and keeping the same in parallel piles and in a compact body for some distance therein, means for separating the symmetrically arranged piles of splint bearing slats, and partitions forming compartments adapted to receive the parted piles and splints therein preparatory to framing, substantially as set forth. 49th. In a machine of the character described, the combination with a framing device adapted to receive slats bearing transversely laid splints, of bevelled ribs and intermediate grooves arranged to meet the ends of alternate splints, substantially as set forth. 50th. In a machine of the character described, the combination with a framing device adapted to receive slats bearing close rows of transversely laid splints, of diverging ribs and grooves arranged to part and shift the splints first endwise and then sidewise along the slats placed therein, substantially as set forth. 51st. In a machine of the character described, the combination with a framing device adapted to receive slats bearing close rows of transversely laid splints, of bevelled and diverging ribs with intermediate grooves arranged to meet and work between the ends of alternate splints, whereby the same are shifted both endwise and sidewise, substantially as set forth. 52nd. In a machine of the character described, the combination of a framing device with spacing devices consisting of ribs and grooves formed on opposite walls therein, the said ribs facing said grooves, substantially as set forth. 53rd. In a machine of the character described, the combination of a framing device divided into ways adapted to receive splint bearing slats in parallel piles therein, means for separating said piles preparatory to spacing the splints, and partitions and walls provided with oppositely placed spacing devices, whereby the splints in the several piles contained in the framing device can be spaced simultaneously therein, substantially as set forth. 54th. In a machine of the character described, the combination of a framing device with spacing devices consisting of ribs and intermediate grooves, the said ribs and grooves running closely together in parallel planes for a short distance within said framing device, then gradually diverging toward a suitable point therein, and from that point again running in parallel planes, substantially as set forth. 55th. In a machine of the character described, the combination of a framing device containing splint-bearing slats having slotted ends and put up in piles therein, spring capped rods adapted to be inserted through the slotted ends of said slats and to engage with the top slat of each slat pile, and means for clamping and holding up the bottom slat of each such pile on the lower end of said rods, substantially as set forth. 56th. In a machine of the character described, the combination of a framing device arranged to hold splint bearing slats in piles, rods adapted to be passed through said slats and to engage with the top slat of each slat pile, and blocks carried by the lower end of said rods and adapted to clamp and hold the bottom slat of the slat pile thereon, substantially as set forth. 57th. In a machine of the character described, the combination of a framing device arranged to hold splint bearing slats put up in piles therein and having slotted ends, the top and bottom slats of each pile having slots of varying shape, spring capped rods adapted to be passed through the slotted ends of the slats in each pile, and to engage the top slat thereof, blocks sliding over said rods and brought to bear upon the bottom slat of each such pile, and spring pressed pawls holding up said blocks, substantially as set forth. 58th. In a machine of the character described, the combination of a framing chamber, devices adapted to clamp and frame splint bearing slats piled therein, and a carriage arranged to bring said devices into said framing chamber, substantially as set forth. 59th. In a machine of the character described, the combination of a series of framing chambers, a series of slat boxes surrounded by and discharging into said chamber, splint cutters, mechanism operating to load the slats discharged from said boxes with the splints produced by said cutters, carriages adapted to surround the series of slat boxes at the outlet end of the series of framing chambers, clamping and framing devices mounted upon said carriages, and hoisting mechanism, substantially as set forth. 60th. In a machine of the character described, the combination of a framing chamber divided into compartments adapted to hold splint bearing slats having suitably slotted ends and disposed in piles therein, a carriage, and rods arranged in opposite rows upon said carriage and adapted to be inserted through the piles of slats in said compartments and simultaneously frame and clamp the groups of slat piles therein, substantially as set forth. 61st. In a machine of the character described, the combination of a carriage, clamping rods inserted into suitable holes therein, clamping blocks adapted to slide upon said rods and seated over said holes, and means for holding the rods in position on said carriage, substantially as set forth. 62nd. In a machine of the character described, the combination of a carriage, clamping rods passing through flaring holes and sockets in said carriage, blocks located over said holes and provided with spring pressed pawls playing therein, and a plate adapted to engage the lower end of said rods and hold the same on the carriage, substantially as set forth. 63rd. In a machine of the character described, the combination of a carriage, clamping rods passed through suitable holes in said carriage, the said rods having a notched end, and a plate having D-shaped openings adapted to engage the notched end of said rods and to hold the same in position within the carriage, substantially as set forth. 64th. In a machine of the character described, the combination of a framing device containing a pile of splint bearing slats, a carriage, rods on said carriage adapted to be inserted through said pile of slats to clamp the same, and mechanism for raising and lowering said rods on the carriage, substantially as set forth. 65th. In a machine of the character described, the combination of a framing device containing a pile of splint bearing slats, a carriage, rods on said carriage, adapted to be inserted through said pile of slats to clamp the same, a clamping plate adapted to engage said rods, and a screw arranged to raise and lower said plate, substantially as set forth. 66th. In a machine of the character described, the combination of a carriage, rods mounted oppositely thereon and adapted to be inserted simultaneously through a number of piles of splint bearing slats to frame and clamp the same, a series of clamping plates engaging the ends of opposite rods, screws adapted to move said plates to and from said carriage, interconnected sprocket wheels on said screws, and means for turning said sprocket wheels, substantially as set forth. 67th. In a machine of the character described, the combination of a carriage, a number of rods mounted thereon in opposite rows adapted to be inserted simultaneously through piles of splint bearing slate disposed in groups and to frame and clamp the same, a series of clamping plates engaging the ends of opposite rods, screws adapted to move said plates to and from said carriage, sprocket wheels on said screws, a sprocket chain connecting said wheels, a main sprocket wheel and bevel gearing controlling the movement of said chain, and means for turning said gearing, substantially as set forth. 68th. In a machine of the character described, a splint frame consisting of superimposed slats

having slotted ends, the top slat having slots of less width and the bottom slat being provided with an under channel, wedge shaped rods carrying spring blades adapted to be passed through the slotted ends of said slats and become engaged with the narrow slotted ends of said top slat, blocks sliding upon said rods and arranged to bear upon said bottom slat within the under channel thereof, and spring pressed pawls adapted to clutch said rods and hold said blocks thereon, substantially as set forth. 69th. A splint frame composed of superimposed slats having slotted ends, barbed spring capped rods passing through said slotted ends and engaging the top slat, blocks sliding upon said rods and arranged to bear upon the bottom slat, and spring pressed pawls carried by said blocks and adapted to hold the slats together by clutching the rods, substantially as set forth. 70th. In a machine of the character described, the combination of framing mechanism, a slat holder, means for transferring slats in single layers from the holder to the framing mechanism, and means for driving splints over the slats transferred from the holder, substantially as set forth. 71st. In a machine of the character described, the combination of a table and splint cutting mechanism with a series of chutes thereabove having there feed openings in a small circle and their discharge openings in a larger circle and lower plane, whereby the splint material is fed down by gravity and spread out before reaching the table and splint cutting mechanism, substantially as set forth. 72nd. In a machine of the character described, the combination of splint cutters with a travelling device having a number of splint material carrying channels placed so as to follow one another while in motion and forming groups of closely adjoining compartments with intermediate spaces of suitable size between each group, substantially as set forth. 73rd. In a machine of the character described, the combination of a framing device adapted to receive slats and splints to be piled in alternate strata therein, with a depressor having parallel bars arranged to bear upon the splint loaded slats, hold down the splints thereon, and guide the slats as they come in, substantially as set forth. 74th. In a machine of the character described, the combination of framing mechanism with splint feeding mechanism and a slat holder discharging into said framing mechanism in directions at right angles one to the other, substantially as set forth. 75th. In a machine of the character described, the combination of a framing device, means for placing slats in layers therein, and means for driving successive rows of splints across said slats to form a group of splint frames in said framing device, the forward rows of splints being driven by the succeeding ones across all the slats in any one layer, substantially as set forth. 76th. In a machine of the character described, the combination of a framing device adapted to receive alternately slats and splints to be piled therein, a reciprocating device for feeding the slats, and a rotary device to cut the splints and drive the same across the slats as they are fed in, substantially as set forth. 77th. In a machine of the character described, the combination of a framing device containing splint loaded slats put up in piles to be divided into several frames, and spring capped rods adapted to be passed through the slats of more than one frame and to engage upon being retracted the top slat of the lower frame through which they are passed, substantially as set forth. 78th. In a machine of the character described, the combination of a table, splint cutters thereon, a splint material or block carrying device moving above said tables, a slat holder and framing mechanism located entirely under said table, a slat holder and framing mechanism for transferring slats from said holder to said framing mechanism, substantially as set forth. 79th. In a machine of the character described, the combination of a slat holder, means for passing slats therethrough, framing mechanism, means for transferring loose slats from the holder, and means for carrying the splint bearing slats through the framing mechanism in an opposite direction to that of the slats passing through the holder, substantially as set forth. 80th. In a machine of the character described, the combination of a table, splint cutters at the edge thereof, and a movable chute for the splint material, said chute having its top located in a central position above the table, and at a higher elevation, and its bottom running downwardly and outwardly toward the cutters, substantially as set forth. 81st. In a machine of the character described, the combination of splint cutters with a chute movable toward the same, said chute being divided in the direction of its travel into passages adapted to convey the splint material to and against said cutters, substantially as set forth. 82nd. In a machine of the character described, the combination of splint driving mechanism, a slat holder, framing mechanism receiving the splints and slats alternately from the splint driving mechanism and the slat holder, and spacing mechanism, substantially as set forth.

No. 63,242. Target. (*Cible.*)

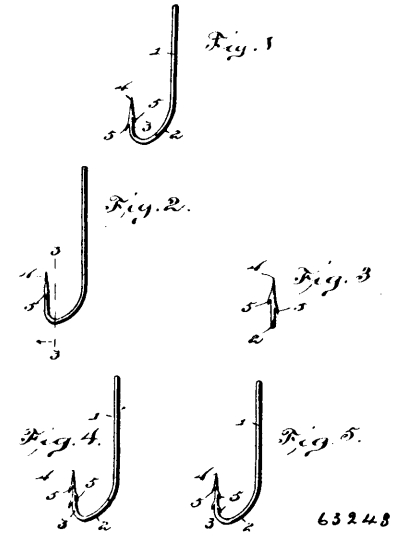
William Parnall and Tom Bell Burns, both of Bristol, Gloucester, England, 10th June, 1899; 6 years. (Filed 15th April, 1898.)

Claim.—1st. The combination with a target and a signalling dummy or second target of gear wheels or other mechanism connecting them together, catches O, P and lever Q and means for operating the catches, substantially as described or illustrated in the accompanying drawings. 2nd. The combination with a target and signalling dummy or second target of gear wheels or other mechanism connecting them together, catches O, P and lever Q, means for operating the catches, lever arms K^2, M^2, and balance weights K^3, M^3, substantially as described. 3rd. The combination with a target signalling dummy of a ring T, T^1, and a pivoted rod R, carrying an indicator S, S^1, S^2 with or without a balance weight, substantially



as described and illustrated in the accompanying drawings. 4th. In a target signalling dummy a duplicate indicating device whereby either a simple bull or a central shot can be signalled, comprising a disc and a flap hinged thereon, the disc underneath the flap being and the same colour so the one side of the flap and the rest of the disc the same colour as the other side of the flap, as described. 5th. In a target signalling dummy, the combination with an indicator plate S of one or more supplementary indicators S^1, S^2, for the purpose described. 6th. In a target signalling dummy, the combination with an indicator plate S, of flap S^1, S^2, arranged and operating, substantially as described and illustrated in the accompanying drawings.

No. 63,243. Fish Hook. (*Hameçon.*)

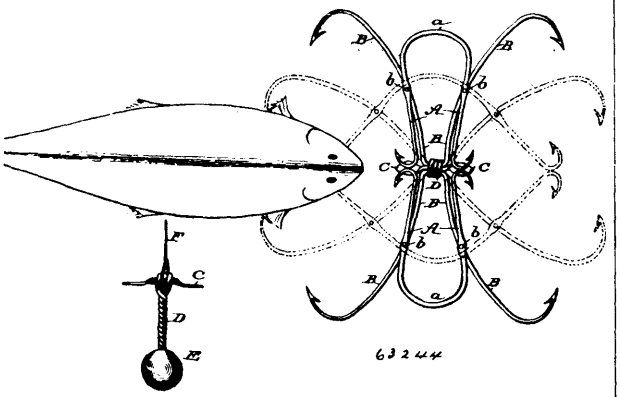


Silas D. Edgar and Paul E. Wirt, both of Bloomburg, Pennsylvania, U.S.A., 13th June, 1899; 6 years. (Filed 27th April, 1899.)

Claim.—1st. A fish hook having its short arm and shank arranged in substantial parallelism, and said short arm being provided at the side with a lateral barb or barbs pointing in a direction away from and outside of the space between the short arm and the shank, substantially as set forth. 2nd. A fish hook having its short arm provided with a plain tapering point, and below the plane of such point with lateral barbs projecting from the outer side thereof and pointing in a direction away from and outside of the space between the short arm and shank of the hook, said lateral barbs being

respectively arranged at opposite sides of the short arm of the hook and disposed one above the other, or in different planes, substantially as set forth. 3rd. A fish hook, having its short arm provided at the side with a lateral barb or barbs, pointing in a direction away and from the outside of the space between the short arm and shank of the hook, substantially as set forth.

No. 63,244. Fish Hook. (*Hameçon.*)



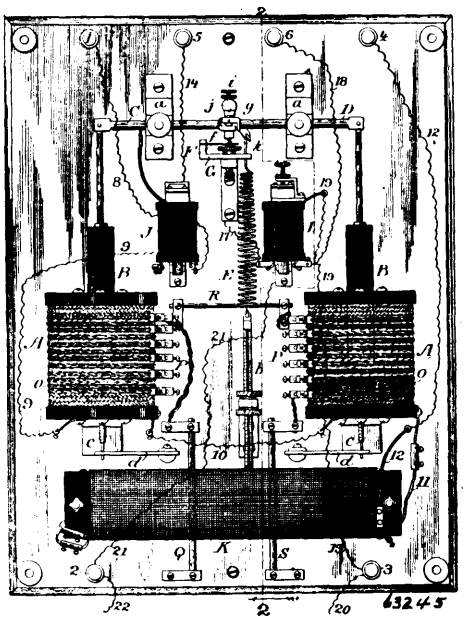
James Yelverton Payton and Hubert J. Hall, both of Waldron, Arkansas, U.S.A., 13th June, 1899; 6 years. (Filed 6th March, 1899.)

Claim.—1st. An automatic spring fish hook consisting of a pair of hooked and pointed ends restrained in unstable equilibrium in close juxtaposion to each other, and having a range of movement when disturbed by the fish directly outward and down the throat of the fish, substantially as shown and described. 2nd. An automatic spring fish hook consisting of two pairs of hooked and pointed ends connected by bow springs, each pair restrained in unstable equilibrium on opposite sides, and with an opposite thrust, and the two points of each pair having a range of movement when disturbed by the fish directly outward in opposite directions, one of the pairs thrusting directly into the mouth of the fish, and the other holding by its recoil the first pair up to its work and thus neutralizing reactionary movement, substantially as and for the purpose described. 3rd. An automatic fish hook, comprising spring bait hooks and spring grab hooks whose shanks are pivoted together, substantially as described, whereby the grab hooks are held open or distended by abutment of the curved free ends of the bait hooks, as specified. 4th. An automatic fish hook, comprising spring grab hooks and bait hooks whose shanks are pivoted together, one set lying flat upon the other and a weight or sinker attached at the central point, substantially as specified. 6th. An automatic fish hook, comprising spring bait and grab hooks, the latter being rigidly connected at their central bends, and their shanks loosely pivoted to the bait hooks and both sets of hooks being symmetrically arranged as shown and described, whereby, when set, the bait hooks abut and hold the grab hooks distended, and a cross bar arranged to support the bait hooks, substantially as specified. 6th. An automatic fish hook, comprising two spring grab hooks which are connected at their central heads, and two spring bait hooks, symmetrically arranged with relation to each other and the grab hooks, whereby, when set, the hooks all lie in practically the same horizontal plane, the bait hooks holding the grab hooks distended, and their points projecting outward or in opposite direction, and the opposite points of the grab hooks projecting inward toward each other, substantially as shown and described.

No. 63,245. Dynamo Regulator. (*Régulateur de dynamo.*)

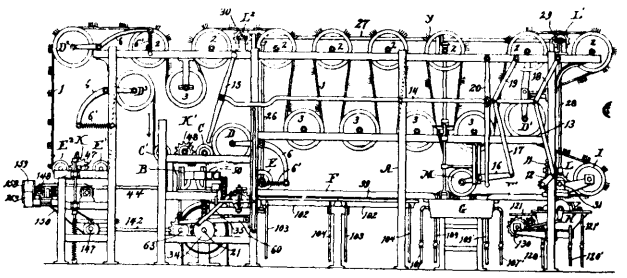
The Tirrill Automatic Potential Regulator Co., Laconia, assignee of Allen A. Tirrill, Whitefield, both in New Hampshire, U.S.A., 13th June, 1899; 6 years. (Filed 23rd February, 1899.)

Claim.—1st. In a potential regulator for a dynamo, the combination with the main supply wires, and a normally closed primary branch circuit connected to the supply wires and provided with one or more operating helices, of a pair of contact terminals arranged to be opened or closed upon each other by the action of said helics, a supplementary branch circuit connected also to the supply wires and terminating in the pair of contacts aforementioned, a relay arranged in this supplementary circuit, a shunt circuit connecting with the dynamo and provided with a rheostat, said shunt circuit having two terminals extended to the armature of the relay and being opened or closed by the same, substantially as and for the purpose described. 2nd. In a potential regulator for a dynamo, the combination with the main supply wires, of a solenoid regulator circuit connected to the supply, a shunt circuit from the dynamo field magnets with rheostat, a supplementary circuit and relay, the relay being worked by this supplementary circuit and controlling the terminals of the shunt circuit and the supplementary circuit having terminals operated by the solenoid circuit, and also an electro-magnet placed in the solenoid circuit and having an armature arranged when attracted to close the supplementary circuit and to open the same and render it inoperative whenever the solenoid circuit is accidentally broken, substantially as and for the purpose described. 3rd. In a potential regulator for dynamos, the combination of the solenoid coils, their cores, and the lever C, D, bearing contact point as described, a spring for drawing the inner ends down, and a superposed adjustable spring arranged above the inner ends of the levers to be impacted against by the rise of the inner ends of the levers whereby the latter are made to quickly return, substantially as described. 4th. In a potential regulator for dynamos, the combination with the solenoid coils, their cores, and the levers C, D, having contacts points as described the inner ends of said levers being lapped and the upper one having a spring to draw it down and a rotary disc or roller resting upon the lower lever, said disc being arranged in the plane of the levers to form a sensitive articulation, substantially as described. 5th. In a potential regulator for dynamos, the combination with the solenoid coils, their cores, and the levers C, D, having contact point as described, a subjacent spring bearing a contact point, and a clamping support for said spring made adjustable to grasp said spring at different positions along its length to vary its range of vibration, substantially as and for the purpose described.



No. 63,246. Match Making Machine.

(*Machine à faire les allumettes.*)



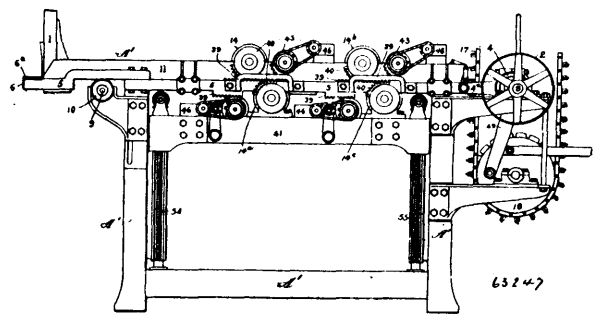
William Herman Wussow, Oskosh, Wisconsin, Robert Emmet Jennings and Joseph Fleshiem, both of Menominee, Michigan, all in the U.S.A., 13th June, 1899; 6 years. (Filed 27th March, 1899.)

Claim.—1st. In a match machine, an endless match carrier comprising a series of perforated match carrying transverse bars, and links securing said bars together flexibly each bar having a set of links secured rigidly to it, an adjacent bar being revoluble in the same set of links. 2nd. In a match machine, an endless match carrier comprising a series of independent perforated match carrying transverse bars, said bars being alternately long and short, the extremities of the longer bars projecting laterally beyond the ends of the short bars and serving as teeth to be engaged by toothed driving wheels, and the links securing said bars together flexibly. 3rd. In a match machine, an endless match carrier comprising a series of long and short transverse bars, said bars severally having a single series of diametrically disposed apertures for taking and

holding match sticks, and links in pairs one at each extremity of the bars pierced by two adjacent bars one of which bars is secured rigidly in said links and the other of which two bars is revoluble in said links. 4th. In a match machine, an endless match carrier comprising a series of long and short perforated independent match carrying transverse bars, the long bars projecting laterally at both extremities beyond the short bars, links securing the bars together flexibly, and driven toothed wheels meshing with the long bars of the carriers and adapted thereby to move the carrier forward. 5th. In a match machine, an endless flexible match carrier driving wheels geared to one portion of the carrier adapted to move that portion of the carrier continuously, other driving wheels geared to another portion of the carrier adapted to move that other portion of the carrier intermittently, permanently located idle pulleys supporting the carrier in part and other pulleys D, D^2, located at the junctions of these portions of the carrier that move differentially, and spring supported yielding arms in which said last mentioned pulleys are mounted and support the carrier yieldingly at those localities. 6th. In a match machine, the combination with an endless flexible match carrier, of two sets of driving wheels at a distance apart meshing with and adapted to move a portion of the carrier intermittingly, three sets of idle pulleys, one set D^2 in front of said sets of driving wheels, another set D^3 between the two sets of driving wheels, and the remaining set D behind said driving wheels, and spring supported yielding arms on which said three sets of pulleys are severally mounted, said pulleys being adapted to support the carrier thereon yieldingly. 7th. In a match machine, the combination with an endless flexible match carrier supported chiefly on permanently located ways and revoluble idle pulleys, of a set of pulleys I about which the carrier runs substantially reversing its direction to and from the pulley, pulley supports adjustable at a right angle to the general direction of the carrier towards and from said adjustable pulleys, means for adjusting said supports, and an adjacent set of carrier supporting pulleys D^1 mounted in spring retained swinging arms on which last mentioned pulleys D^1 the carrier runs next after running on the adjustable pulleys I. 8th. In a match machine, the combination with a composition supplying roller, of an endless flexible match carrier, a set of pulleys near to and above said roller on which said carrier travels, arms movable vertically on ways on the frame in which arms said pulleys are mounted, a vertically disposed rack on the frame, and a pinion mounted in said arms and meshing with said rack adapted to lift the carrier vertically directly away from said roller. 9th. In a match machine, the combination with a pan adapted to hold an inflammable material, and a flexible match carrier running above and adjacent to the pan, of a set of pulleys above and adapted to depress the carrier opposite the pan, a rock shaft having radial arms in which said pulleys are mounted, a crank arm on said rock shaft, a horizontally disposed shiftable bar 14, an obliquely disposed rod connecting said bar to said crank, and an opposite reversely obliquely disposed rod connecting said shiftable bar to the frame, by which said rock shaft may be rotated limitedly and said pulleys be raised and lowered. 10th. In a match machine, the combination with an endless flexible travelling carrier, consisting of transverse match carrying bars so constructed and arranged as to form thereof a continuous series of cog teeth engaging means at regular and equal distances apart throughout the length of the endless carrier, of a driving shaft, shafts and gears connecting the driving shaft directly to a portion of the carrier whereby that portion of the carrier is caused to travel continuously, an auxiliary intermittingly moving shaft 37 geared to another portion of said carrier, a ratchet wheel fixed on said shaft, an oscillating arm loose on the shaft, a spring actuated pawl pivoted on the arm engaging the ratchet wheel, and a rod pivoted eccentrically on the oscillating arm and to a crank on the driving shaft, whereby the entire carrier, a portion of it at a time, is adapted to be moved regularly equal distances and intermittingly. 11th. In a match machine, the combination with a driving shaft journalled in the frame, of an auxiliary shaft 37, a ratchet wheel fixed on said auxiliary shaft, an oscillating arm loose on the auxiliary shaft, a pawl pivoted on the oscillating arm and engaging the ratchet wheel, a rod connecting a crank on the driving shaft to the oscillating arm, a third shaft 41 geared to the auxiliary shaft, a worm on said third shaft, a fourth shaft 44 having a worm wheel meshing with said worm, short shafts 45, 46, respectively geared to said fourth shaft and to shafts 47, 48, said shafts 47 and 48 at a distance apart and provided with toothed wheels, and an endless flexible carrier engaged by said toothed wheels, whereby a considerable portion of said carrier is driven synchronously intermittingly. 12th. In a match machine, the combination with an endless flexible carrier, match discharging mechanism, stick sticking mechanism at a distance from and following the match discharging mechanism in the line of travel of the carrier and through which mechanism the carrier travels, means for moving these mechanisms and the carrier between and past these mechanisms intermittingly and synchronously, and a set of pulleys supported yieldingly on which the carrier travels and by which it is held taut between said mechanisms in the path of its intermitting movement. 13th. In a match machine, the combination with a movable cutter frame having therein a bed plate, of cutter bars fitted and slidable endwise in grooves in said bed plate, pins inserted loosely through said cutter bars into sockets in the bed plate holding the cutter bars against endwise movement, and a locking plate hinged to said frame and resting normally on the pins holding them releasably in place. 14th. In a match machine, the combination with a pan for holding a semi-liquid and ignitable composition, of a roller located partly in the pan, oscillating paddles in the pan below the roller, said paddles being suspended on radial arms fixed in hubs concentric with the roller, and means for oscillating the paddles. 15th. In a match machine, the combination with a pan for holding a semi-liquid ignitable composition, of a roller located partly in the pan, oscillating paddles in the pan below the roller, said paddles being suspended on radial arms fixed in hubs concentric with the roller, a crank arm rigid to one of said hubs, a connecting rod, and a driven shaft provided with an eccentric wrist to which said connecting rod is pivoted. 16th. In a match machine, the combination with a travelling end intermittingly resting match carrier, of a frame so mounted as to be movable in a plane at a right angle to the travel of the carrier adjacent thereto, punches fixed in said movable frame and so disposed as to be capable of entering stick apertures in said carrier from the rear side, a spring acting on said frame adapted to move said frame forward quickly and with an initially strong action and thrust the punches through the apertures in the carrier forcing the matches therefrom, and means for forcing the frame rearwardly against the constant action of the spring and holding the frame in such rear position except during temporary intervals when released therefrom. 17th. In a match machine, the combination with a travelling and intermittingly resting match carrier, of a punch carrying frame reciprocable in a plane at a right angle to the carrier, a spring acting on said frame adapted to force the punches in said frame quickly and with an initially strong action to their work, a lever arm (138) pivoted to the match frame at one extremity and connected to said punch frame at the other extremity, and a revoluble cam bearing against said lever arm medially adapted to force said frame and punches away from the carrier against the action of said spring, except at intervals intermittingly. 18th. In a match machine, the combination with a reciprocating frame and a series of punches fixed therein and reciprocating therewith, of an adjustable punch guide comprising two plate members each provided with sets of opposite and overlapping teeth and registering interdental spaces through which spaces the punches pass, said plate members being adjustable on their support towards and from each other.

No. 63,247. Match Making Machine.

(*Machine à faire des allumettes.*)



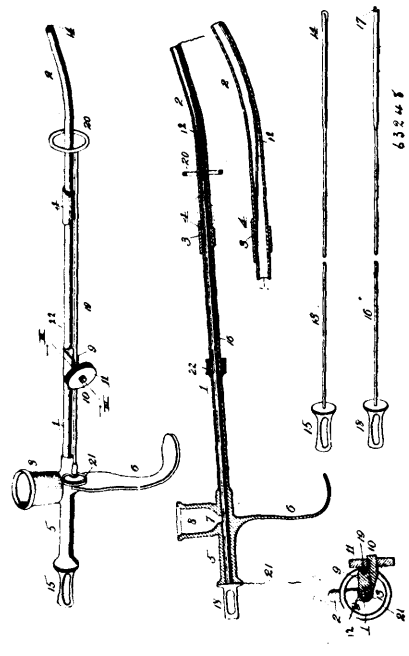
Frank Walton Mead, Hingham, Massachusetts, assignee of Joseph Boulard, Montreal, Quebec, Canada, 13th June, 1899; 6 years. (Filed 29th November, 1898.)

Claim.—1st. The match conveyor as constructed, to embrace in combination four chains 17^a, the shafts and sprocket wheels, the chains having the attached groups of fixed and movable jaws, the gripping facets 17^e, separators 17^f, in the fixed jaw, the interlocking separators 17^m, gripping washers 17^p, in the movable jaws, trip 17^t, at the extremes of the groups, the trip operator, pivotal rods 17^b, fixed jaw connections 17^b, to the chain links, and the rod connections 17^c and 17^d, for the parts, all arranged and co-operating, substantially as shown and described. 2nd. The combination of the general conveyor, its trip 17^t, the trip operator 22 and the sectional chutes 25, divergent in graduated order from a central supporting bar to a series of boxes moved intermittently in a direction transverse to that of the general conveyor, whereby the matches are dropped in a somewhat vertically inclined position, but approximately in the position required in the box when they fall from the opening of the inclined chutes, substantially as shown and described. 3rd. The combination of the general match conveyor 17, the trip 17^t and the trip operator 22, the transversely and intermittently driven box conveyor 27, and the co-operating individual chutes 25, their common central supporting bar, said chutes diverging in graduated order from the group lines of the main conveyor to the several box trains upon the box conveyor, substantially as shown and described. 4th. The conveyor constructed with four parallel chains 17^a, each having four series of plate links, the inner series of links between the chains having fixed arms 17^b, connected by rods 17^c and 17^d, from one chain to the other, and said inner series also being connected by a rod 17^b, on which are pivoted movable or swinging arms 17^i, the fixed arms 17^b and rods 17^c and 17^d, carrying a continuous series of gripping

parts 17^c, and the other rods 17^k and 17^l, carrying sectional swinging groups, substantially as shown and described. 5th. In a match making machine the combination of the match blank hoppers 1, match blank propelling side bars 5, the groups of saws 8, and the match splint guide plates 61 and 62, through which the saws operate, the separate, four sided, scalloped splint guide tubes 12, which are continuous from the saw guide plates 61 and 62 to the main conveyor 17, and the conveyor 17, substantially as shown and described. 6th. In a match making machine the main conveyor as constructed with individual match holding grippers having parallel fixed gripping facets 17^c, opposite to parallel swinging gripping washers 17^p, alternated with match separators 17^m, which have the projecting part 17^o passing between and past the lines of matches, the separating washers 17^t, the rigid perforated arms 17^b, rods 17^d and 17^c, in the fixed jaws, the rods 17^k and 17^l, in the swinging jaws, the spring 17^r, and the rods 17^h, connecting the inner links of the chain, all arranged in a double right line throughout the entire breadth of the group section for the purpose of receiving the groups of matches in a single row and depositing them in the same order, substantially as shown and described. 7th. In a match making machine, the combination of an intermittently moved main conveyor constructed with groups of parallel fixed gripping facets 17^c opposed to groups of parallel swinging gripping washers 17^p alternated with corresponding groups of match separators 17^m, which have the projecting parts 17^o, passing between and past the grouped lines of matches, the separating washers 17^t, the rigid arms 17^b perforated to hold the rods 17^c and 17^d, which support the fixed jaws, the rods 17^k and 17^l in the swinging jaw which is pivoted on the rods 17^h extending to and connecting the inner links of the chain, the match splint stop 17^g, the jaw closing spring 17^r, the jaw opening trip 17^t, the cross bar and detent 22, the chutes 25, said chutes being supported by said cross bar and diverging in graduated order from the group lines of the main conveyor to the several box trains upon the box conveyor, and the intermittently moved box conveyor made to rest at the instant of contact of 17^t and detent 22 and consequent disengagement and dropping of the several groups of matches, substantially as shown and described. 8th. In a match machine conveyor, the combination of the two chains constructed with armed links 17^b as described, the connecting and gripper supporting rods 17^c, 17^d, and 17^h, the section or group rods 17^k and 17^l extending between and connecting the swinging arms 17^i on 17^h and the gripping parts, substantially as shown and described. 9th. In a match making machine, the straight cross bar 22 having the series of chutes 25 diverging regularly and laterally each way from a central line to the several lines of travel of the several trains of boxes, in combination with an intermittent group depositing mechanism and a box carrier beneath, having a correspondingly intermittent movement, substantially as shown and described. 10th. In a match making machine, the combination of the main intermittently moved conveyor constructed with downwardly dependent and respectively rigid and movable gripping members, the trip and the movable members, the transverse straight bar 22 beneath bearing the series of divergent chutes, a stationary trip operator, and the intermittently moved box conveyor beneath the chutes, made to rest at the instant of contact of trip and trip operator and consequent disengagement and dropping of the groups of matches, substantially as shown and described. 11th. In a match making machine, a straight row of receiving hoppers 25, the individuals of which correspond in position to the lines of movement of the several trains of match groups, and having their lower or delivery ends divergent to correspond to the lines of travel of several transversely moving trains of receiving boxes, in combination with the main and intermittently moving general conveyer 17 and the intermittently actuated and transversely moving box carrier 27, substantially as shown and described. 12th. In combination with the main group depositing conveyor 17, the transverse conveyor 27 of the several trains of boxes, the uniformly spaced and the deep toothed ratchet wheels 30 and 31 having the upper and lower pointed pawl 34 and the intermutual co operative impelling mechanism and the guide chute mechanism, substantially as shown and described. 13th. In a match making machine the combination of the following named parts, viz., the frame A having reciprocating longitudinal bar mounted on each side, a series of hoppers having propelling bottoms connected to said side bars, a series of match splint dividers next to the propelling bottoms, succeeding single tube guides having pairs of printing roll open scallops, said single tube guides, i.e., constructed with sides, bottom and top, being continuous from the dividers to the main conveyor, the main conveyor and the excentric driving mechanism, substantially as shown and described. 14th. In a match making machine, for the purpose of forcing, dividing, timing and conducting the match material in proper positions to the main conveyor, the combinations of the described hopper bottom and reciprocating mechanism, the dividers and the single tube guides, scalloped and twisted, substantially as shown and described. 15th. In a match making machine, to be connected with a printing apparatus, the combination of the main conveyor constructed to carry groups of match splints, correspondingly arranged groups of single tube splint guides, made continuous from the match blank dividers to said conveyor, and constructed with pairs of open print roll admitting scallops, and having intervening straight and twisted closed sections, the side reciprocating bars, connected match blank driving hopper bottoms, and succeeding dividers, all arranged and co-operating substantially as shown and described. 16th. In a match making machine, the combination of the following co-operative parts, viz.: the single tube separate guides of match shaped section having consecutively, direct, scalloped, twisted, and direct scalloped sections, stationary hoppers whose bottoms are match blank propelling platens, reciprocating side bars to which these are attached, the blank dividers and racks upon said side bars for simultaneously operating any printing mechanism to be connected therewith, substantially as and for the purpose set forth. 17th. In a match making machine, the combination of the gangs of blank dividers of saws, single tube guides made continuous from dividers to main conveyor, constructed with four sides, but having a series of open scallops both in their top and in their bottom for admitting printing rolls, the match blank propelling hopper bottoms, preceding the dividers, the side bars 5 for moving the said hopper bottoms, and the connecting rods 4^a, shaft 3, pulley 2, and co-operative parts, substantially as shown and described. 18th. The combination of the eccentric propelled reciprocating side bars having attached racks for operating upper and lower printing rolls, the attached impelling hopper bottoms which push match splint blanks to the dividers and push the splints beyond the match dividers, the single tube guides complete with top, bottom and sides, and openings to admit printing rolls to the match splints, and having alternating straight and twisted sections and extending to the main conveyor, said conveyor, supports and operating mechanism, substantially as shown and described. 19th. In a match machine, the combination of a match conveyor and a match box conveyor moving at right angles to each other in different planes, and a match chute having a match receiving opening adapted to receive a group of matches transversely arranged with reference to the line of movement of the match conveyor, and a delivery opening substantially parallel to the line of movement of the match box conveyor, substantially as described. 20th. The independent, continuous single tube guides (*i. e.*, constructed complete with top, bottom and sides in one) extending from the dividers of match blanks to the main conveyor, and having scalloped direct sections resting against the supporting table 11, and bearer 60 and an intermediate twisted section, whereby provision is made for combination with a printing mechanism, the dividers and impelling operative mechanism, substantially as shown and described. 21st. In a match making machine, the separate, single tube guides of match shaped section, continuous from the dividers of saws to the main conveyor, constructed with open, scalloped, straight and intermediate twisted sections, substantially as shown and described.

No. 63,248. Surgical Dressing Packer.

(*Machine à emballer les appareils de pansement chirurgical.*)



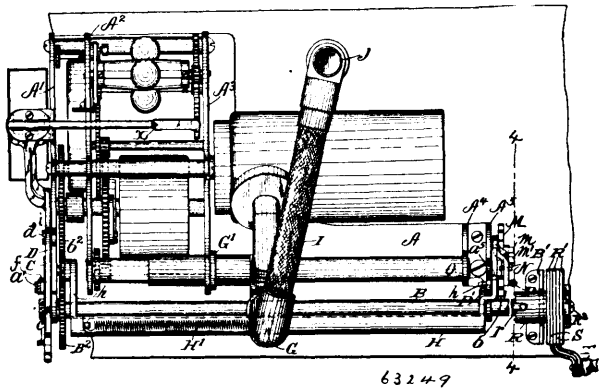
Elmore Oscar Smith and Aretus See McCleary, both of Kansas City, Missouri, U.S.A., 13th June, 1899; 6 years. (Filed 24th January, 1899.)

Claim.—1st. A surgical dressing packer, comprising a tube and a plunger fitting therein, and of somewhat greater length, consisting of a rod having an enlarged and approximately wedge-shaped front end, substantially as and for the purpose described. 2nd. A surgical dressing packer, comprising a tube provided with a guard to limit the insertion of the tube, a plunger fitting therein, and of somewhat greater length, consisting of a rod having an enlarged

and approximately wedge-shaped front end, substantially as and for the purpose described. 3rd. A surgical dressing packer, comprising a tube to receive a cord dressing, a spring in the tube to engage the cord, and a reciprocatory plunger fitting in the tube and adapted to repress the spring and feed the cord dressing forward through and discharge it from the front end of the tube, substantially as described. 4th. A surgical dressing packer, comprising a tube to receive a cord dressing, having an opening toward its front end, a curved spring fitted through the said opening into the front end of the tube, a sliding sleeve upon the tube to cover said opening and said spring, and a reciprocatory plunger fitting in said tube and adapted to feed the cord dressing through it and discharge it from its front end, substantially as described. 5th. A surgical dressing packer, comprising a tube to receive a cord dressing, a handle at its rear end, a guard to limit the insertion of the tube, a spring in the front end of the tube, and a reciprocatory plunger fitting in the tube and adapted to feed the cord dressing forwardly through and discharge it from the front end of the tube, substantially as described. 6th. A surgical dressing packer, comprising a tube provided with a hole and cup communicating therewith to receive the medicine, and a plunger fitting in said tube to feed therethrough a cord dressing, the latter being medicated as it passes said hole, substantially as described.

No. 63,249. Coin Controlled Graphophone.

(Graphophone actionné par une pièce de monnaie.)



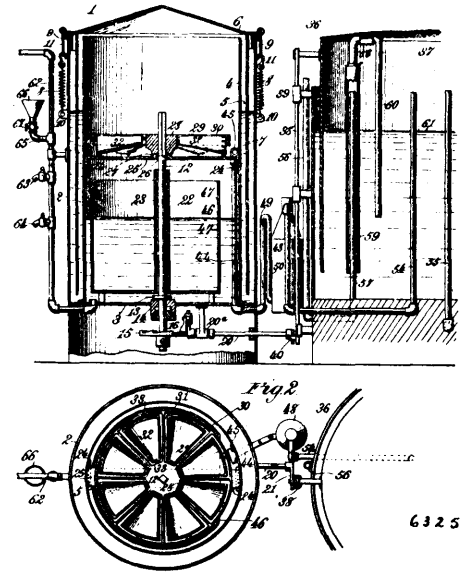
63249

The American Graphophone Co., Washington, D.C., assignee of Thomas H. Macdonald, Bridgeport, Connecticut, U.S.A., 13th June, 1899; 6 years. (Filed 12th January, 1899.)

Claim.—1st. In a coin controlled graphophone, the combination of a pivoted controlling bar whose movements throw the reproducer into and out of operative position, a toothed wheel having a projecting lug engaging an arm on said controlling bar at one point in the revolution of said wheel, whereby the bar is tilted to throw the reproducer into operative position, a stop limiting the throw of said bar, a winding shaft having a tooth thereon engaging said toothed wheel, a ratchet wheel on said shaft, a lug projecting therefrom, a pawl lever having a nose on one end engaging said ratchet and the other end in proximity to a coin chute, a pin on said pawl lever, a pivoted lever engaging said pin and limiting the tilting movement of the pawl lever and having a part depending in the path of the pin on the ratchet wheel, substantially as described. 2nd. In a coin controlled graphophone, the combination of driving spring, a winding shaft therefor, a ratchet wheel thereon, a tilting coin lever having a pawl nose engaging said ratchet wheel, a pivoted bar whose movements throw the reproducer of the graphophne into or out of operative position, means limiting the tilting movement of the bar in either direction, a toothed wheel having a projecting lug engaging a depending arm on said bar at one point in the revolution of said wheel, a catch holding said bar in position for the reproducer to operate, means on said toothed wheel tripping said catch before the wheel makes a complete revolution, a tooth on the winding shaft engaging said toothed wheel, and means limiting the turning movement of said wheel in either direction, substantially as described. 3rd. In a coin controlled graphophone, the combination of a driving spring, a winding shaft therefor, a coin operated lever controlling the winding movement thereof, a pivoted bar throwing the reproducer of the graphophone into and out of operative position, a catch for engaging and holding said bar in operative position, a toothed wheel having a lug for engaging an arm or lever on said bar to throw the latter into operative position, a lug on said wheel tripping said catch during the reverse revolution of the wheel, and a tooth on the winding shaft engaging said wheel, substantially as described. 4th. In a coin controlled graphophone, the combination of a winding shaft, a pivoted bar throwing the reproducer of the graphophone into and out of operative position, a toothed wheel having a lug engaging and throwing said bar into operative position during the winding, a catch engaging and retaining the bar in said position, a lug on said toothed wheel tripping said catch during the reverse movement of the wheel, and a tooth on the winding shaft engaging said toothed wheel, substantially as described. 5th. In a coin controlled graphophone, the combination of a driving spring, a winding shaft therefor, and coin controlled devices normally locking the same against winding, with means limiting the winding and unwinding of the spring, a catch retaining the reproducer in operative position and means operated by the winding shaft during its unwinding movement to trip said catch, substantially as described. 6th. In a coin controlled graphophone, the combination of a driving spring, a winding shaft therefor, a ratchet wheel on said shaft, a pawl lever having one end in proximity to a coin chute and a nose on the other end engaging said ratchet wheel, a stop in position to limit the tilting action of the pawl lever, and tripping means on the ratchet wheel to free said lever, substantially as described.

No. 63,250. Acetylene Gas Generator.

(Générateur de gaz acétylène.)



63250

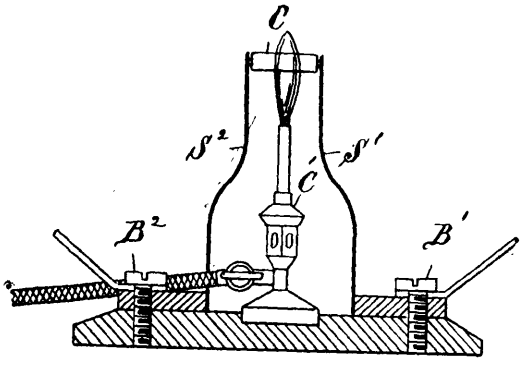
The Kinnear Manufacturing Company, assignee of Edward Stephen Martingdale, all of Warren, Pennsylvania, U.S.A., 13th June, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. In an acetylene gas generator, the combination with a receptacle for water, of a carbid container located above the same, comprising a revoluble frame carrying a series of pivoted buckets, and means operating in the revolution of the container to upset said buckets, substantially as described. 2nd. In an acetylene gas generator, the combination with a receptacle for water, of a carbid container located above the same, comprising a revoluble frame carrying a series of pivoted buckets, a rack located below said container and a series of teeth located on each of said buckets and adapted in the revolution of said container to engage said rack whereby to successively upset the buckets, substantially as described. 3rd. In an acetylene gas generator, the combination with a receptacle for water, of a rod revolubly mounted in said generator, a gas holder having a bell, means operated by the movement of the bell for revolving said rod, a carbid container mounted on said rod to turn therewith and comprising a frame carrying a series of pivoted buckets, and means operating in the revolution of the container to upset said buckets, substantially as described. 4th. In an acetylene gas generator, the combination with a receptacle for water, of a rod revolubly mounted in said generator and having a ratchet wheel secured thereon, a carbid container mounted on said rod to turn therewith and comprising a frame carrying a series of pivoted buckets, means for revolving said rod, comprising a crank rod having at one end a pivoted dog engaging the teeth of said ratchet wheel and at its other end a lever arm, a gas holder having a bell, a rod connected to said bell at its upper end and having its lower end operatively connected with said lever arm, and means operating in the revolution of the container to upset said buckets, substantially as described. 5th. In an acetylene gas generator, the combination with a receptacle for water, of a rod revolubly mounted in said generator, a carbid container mounted on said rod to turn therewith, and comprising a frame carrying a series of pivoted buckets, means operating in the revolution of the container to upset said buckets, a holder having a bell, and means for revolving said rod, comprising a ratchet wheel secured thereon, a crank rod having at one end a pivoted dog engaging the teeth of said ratchet wheel and at its other end a lever arm having a bifurcated end affording a long lower arm and a short upper arm, and a rod secured to said bell at its upper end and having at its lower end a pin engaging said upper and lower arms and working in the bifurcation off said

lever arm, the combination operating, substantially as described. 6th. In an acetylene gas generator, the combination with a receptacle for water, of a revoluble carbid container mounted above the same and comprising a circular frame having a series of buckets pivotally mounted therein on radial lines, said buckets being tapered from their outer to their inner ends to permit turning of same, a rack located below said container and a series of teeth carried by each bucket and adapted in the revolution of the container to successively engage said rack whereby to upset said buckets, substantially as described. 7th. An acetylene generator comprising an outer casing, a cylinder secured therein in a manner to afford an annular space, a cover having a depending tubular extension extending into said annular space, and spiral springs secured at one end to said cover and at the other end to said casing, the combination operating substantially as described. 8th. A safety device for acetylene gas generators, comprising a tube communicating with the water compartment thereof, and having a vertical extension communicating at its outer end with the air, cocks in said tube for ascertaining the water level, a branch pipe communicating with said vertical pipe for supplying water to the generater, and a valve in said branch pipe, the combination operating as set forth. 9th. In an acetylene gas generator, the combination with a gas holder comprising a chamber having secured on its inner side near the bottom thereof, a circular plate provided with a central aperture, a tubular extension depending from said aperture and having its lower end located above the bottom of the chamber, said tube affording an annular space between its wall and the wall of the chamber, a pipe leading from the generator and into said annular space, said chamber containing water, the level whereof is normally below the opening of said pipe in the annular space, and a pipe leading from said chamber to the gas holder, the combination operating as set forth. 10th. In an acetylene gas generator, in combination with a gas holder having a bell and containing water, a safety device for said holder comprising a tube communicating with the outer air and having a vertical extension within said holder, the open end whereof is above the water level, a U-shaped pipe connected to the bell and having one of its branches enlarged and enclosing said vertical pipe in a manner to slide thereon and its other branch of a lesser length than the first and having its open end submerged in the water, the combination operating substantially as described.

No. 63,251. Electrical Glow Light Lamp.

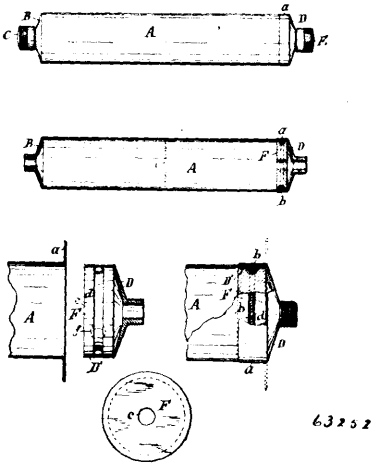
(*Lampe électrique incandescente.*)



George Westinghouse, Pittsburg, Pennsylvania, U.S.A., assignee of Dr. Walther Nernst, Gottingen, Prussia, Germany, 13th June, 1899; 18 years. (Filed 15th March, 1898.)

Claim.—1st. An improved electrical incandescent lamp, consisting of a strip of material which is an insulator at ordinary temperatures and becomes a good conductor and luminant at high temperatures, combined at its extremities with fixed terminals for conducting current through the same, and with a heat producing structure separate from the luminant and operating to raise all parts of the strip between the fixed terminals to a conducting temperature prior to the passage of the illuminating current, substantially as described. 2nd. The method of producing light by the passage of an electric current through a strip of material which is a non-conductor at ordinary temperatures, but becomes a good conductor and luminant at high temperatures, which consists in heating the same throughout by a source of heat separated from the luminant, until it becomes a good conductor, and then maintaining its conductivity and luminosity by the passage of an electric current, substantially as described. 3rd. An electric lamp consisting of a current carrying strip of material which is an insulator at ordinary temperatures and a relatively good conductor at an incandescence temperature, and heating apparatus separated therefrom and arranged to heat the strip to a conducting temperature throughout its entire section.

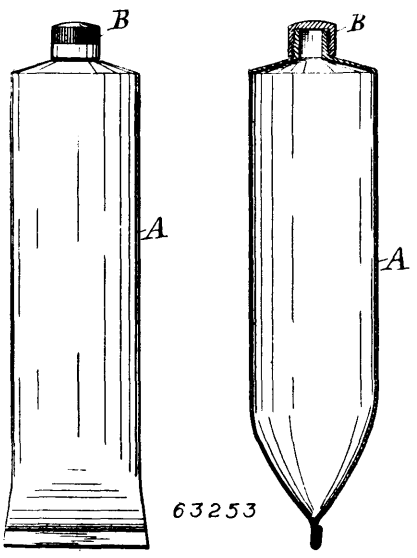
No. 63,252. Compressible Tube. (*Tube compressible.*)



Darius Smith, Syracuse, New York, U.S.A., 13th June, 1899; 6 years. (Filed 14th January, 1899.)

Claim.—1st. A pliable tube having its opposite ends each provided with an outlet which is relatively small and threaded, and a removable threaded cap for each end, as set forth. 2nd. A pliable tube having its opposite ends each provided with an outlet which is relatively small, and a removable cap for each outlet to close the same, one of said ends being integral with the tube, and the other end secured to the end of the tube by suitable binding means, as set forth. 3rd. A pliable tube having its opposite ends each provided with an outlet which is relatively small, and a removable cap for each outlet to close the same, one of said ends being integral with the tube, and the other end secured to the end of the tube by a tubular projection integral with the end and within the end of the tube, a circumferentially grooved and perforated piece within the said projection, and a binding device compressing the tube and tubular projection within the groove, as set forth. 4th. A pliable tube having its opposite ends each provided with an outlet which is relatively small, and a removable cap for each outlet to close the same, one of said ends being integral with the tube, and the other end secured to the end of the tube by a tubular projection integral with the end and within the end of the tube, a circumferentially grooved and perforated piece within the said projection, a binding device compressing the tube and tubular projection within the groove, and said tube having its end turned back upon itself to cover the binding device, as set forth. 5th. A pliable tube having its opposite ends each provided with an outlet, which is relatively small, and a removable cap for each outlet to close the same, one of said ends being integral with the tube, and the other end secured to the end of the tube by a tubular projection integral with the end and within the end of the tube, a circumferentially grooved and perforated piece within the said projection, a wire band compressing the tube and tubular projection within the groove, and said tube having its end turned back upon itself to cover the wire band, as set forth. 6th. A pliable tube having an end provided with an outlet which is relatively small, a removable cap to close the outlet, said end being secured to the end of the tube by suitable binding means, as set forth. 7th. A pliable tube having an end provided with an outlet which is relatively small, a removable cap to close the outlet, said end having a tubular projection integral with the end and within the end of the tube, a circumferentially grooved and perforated piece within the said projection, and a binding device compressing the tube and tubular projection within the groove, as set forth. 8th. A pliable tube having an end provided with an outlet which is relatively small, a removable cap to close the outlet, said end having a tubular projection integral with the end and within the end of the tube, a circumferentially grooved and perforated piece within the said projection, a binding device compressing the tube and tubular projection within the groove, and said tube having its end turned back upon itself to cover the binding device, as set forth. 9th. A pliable tube having an end provided with an outlet which is relatively small, a removable cap to close the outlet, said end having a tubular projection integral with the end and within the end of the tube, a circumferentially grooved and perforated piece within the said projection, a circular band compressing the tube and tubular projection within the groove, and said tube having its end turned back upon itself to cover the circular band and groove, substantially as described and shown.

No. 63,253. Compressible Tube and Surgical Dressing.
(*Tube compressible et appareil de pansement chirurgical.*)



Darius Smith, Syracuse, New York, U.S.A., 13th June, 1899; 6 years. (Filed 14th January, 1899.)

Claim.—1st. As a new article of manufacture, sterilized surgical dressing put up in compressible, hermetically sealed, sterilized ductile and impervious tubes, substantially as described. 2nd. As a new article of manufacture, sterilized surgical dressing put up in compressible, hermetically sealed, sterilized ductile and impervious metal tubes, the outlet thereof being smaller than the body of the tube, substantially as described.

No. 63,254. Edible and Soluble Tablet.
(*Tablette comestible et soluble.*)

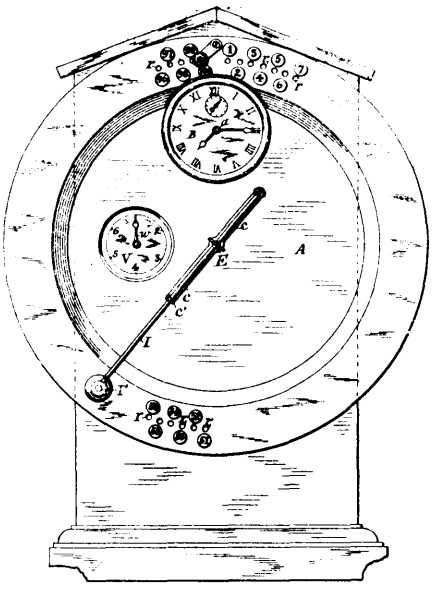
William Horlick, Racine, Wisconsin, U.S.A., 13th June, 1899; 6 years. (Filed 10th June, 1897.)

Claim.—1st. The herein described compressed edible and soluble tablet, formed by taking about equal quantities of coarsely broken or crushed barley malt, and wheat or other flour, and macerating the same in pure fresh cold water, raising the temperature to about 160 to 165 degrees Fahrenheit, and keeping the mash in agitation meanwhile until it becomes thin enough to filter, then filtering the same, and adding to a given quantity of the filtered extract a substantially equal quantity of pure fresh cow's milk, and mixing the two thoroughly, then pasteurizing the resulting product by holding it at a temperature of about 170 to 180 degrees Fahrenheit for some thirty minutes, next evapourizing this pasteurized product in vacuo, with agitation, until it is practically dry, and then removing the mass and subjecting it to heavy pressure in moulds forming the desired tablets, substantially as set forth. 2nd. The herein described method of preparing a compressed edible and soluble tablet, consisting in taking about equal quantities of coarsely broken or crushed barley malt, and wheat or other flour, and macerating the same in pure fresh cold water, raising the temperature to about 160 to 165 degrees Fahrenheit, and keeping the mash in agitation meanwhile until it becomes thin enough to filter, then filtering the same, and adding to a given quantity of the filtered extract a substantially equal quantity of pure fresh cow's milk, and mixing the two thoroughly, then pasteurizing the resulting product by holding it at a temperature of about 170 to 180 degrees Fahrenheit for some thirty minutes, next evapourizing this pasteurized product in vacuo to the consistency of a thick syrup or molasses, then adding from five to fifteen per centum of any desired flavoring, and thoroughly mixing the whole mass by stirring in vacuo, until it is evaporated to a practically dry form, and then removing the mass and subjecting it to heavy pressure in moulds forming the described tablets, substantially as set forth.

No. 63,255. Workmen's Time Record. (*Régistre horaire.*)

John Dey, Syracuse, New York, U.S.A., and Alexander Dey, Glasgow, Scotland, 13th June, 1899; 6 years. (Filed 17th October, 1898.)

Claim.—1st. In a workmen's time recorder, the combination with the clock, the record receiving piece and the support for the latter, of a carriage above the receiving piece supporting the type wheels and adapted to move transversely across the said piece, and means to depress the carriage at different times during its movement, as set forth. 2nd. In a workmen's time recorder, the combination with the clock, the record receiving piece, the support for the latter, and means for revolving said support, of a carriage above the receiving



piece supporting the type wheels and adapted to move transversely across the said piece, and means to depress the carriage at different times during its movement, as set forth. 3rd. In a workmen's time recorder, the combination with the stationary clock mechanism, the record receiving band, a roller supporting said band, and means for revolving the roller, of a carriage above the receiving piece supporting the type wheels and adapted to move transversely across the said piece, and means to depress the carriage at different times during its movement, as set forth. 4th. In a workman's time recorder, the combination with the stationary clock, the record receiving band, a roller supporting said band, a shaft for the roller, means for adjusting the roller longitudinally on the shaft, and means for turning the roller, of a carriage above the receiving piece supporting the type wheels and adapted to move transversely across the said piece, and means to depress the carriage at different times during its movement, as set forth. 5th. In a workmen's time recorder, the combination with the stationary clock, the record receiving piece, and a revoluble support for said piece, of a carriage movable transversely across said record piece, time printing wheels mounted upon and turning in bearings on said carriage, said wheels being connected to and actuated by said clock, and suitable means to move the carriage toward and from the support for the record receiving piece, as set forth. 6th. In a workmen's time recorder, the combination with the stationary clock, the record receiving piece, and a revoluble support for said piece, of a carriage movable toward and from the clock in a horizontal direction across said record piece, time printing wheels mounted upon the carriage, said wheels being yieldingly connected with the spindle of the minute wheel of the clock and suitable means to move the carriage toward and from the clock and toward and from the record piece, as set forth. 7th. In a workmen's time recorder, the combination with the stationary clock in the front part of the case, the record receiving piece, and a movable support for the same, of a carriage supporting time printing wheels at the rear of the clock, the shaft of the minute time printing wheel being substantially in line with the spindle of the minute hand of the clock, a flexible extensible connection between the said shaft and spindle, a rod having a spiral groove therein to move the carriage toward and from the clock, a guide for the carriage, and means operated independently of the said rod for moving the carriage toward and from the movable support for the record receiving piece, as set forth. 8th. In a workmen's time recorder, the combination with the stationary clock in the front part of the case, the record receiving piece, and a movable support for the same, of a carriage supporting time printing wheels at the rear of the clock, the shaft of the minute time printing wheel being substantially in line with the spindle of the minute hand of the clock, an extensible connection between the said shaft and the spindle consisting of a series of flexible pieces jointed together, a rod having a spiral groove therein to move the carriage toward and from the clock, a guide for the carriage, and means operated independently of the said rod for moving the carriage toward and from the movable support for the record receiving piece, as set forth. 9th. In a workmen's time recorder, the combination with the stationary clock in the front part of the case, the record receiving piece, and a movable support for the same, of a carriage supporting the printing wheels at the rear of the clock, the shaft of the minute time printing wheel being substantially in line with the spindle of the minute hand of the clock, a

laterally yielding and extensible connection between the said shaft and the spindle consisting of a series of thin bars crossing each other and pivoted together at their centres and at their extremities, a rod having a spiral groove therein to move the carriage toward and from the clock, a guide for the carriage, and means operated independently of the said rod for moving the carriage toward and from the movable support for the record receiving piece, as set forth. 10th. In a workman's time recorder, the combination with the stationary clock in the front part of the case, the record receiving piece and a movable support for the same, of a carriage frame supporting time printing wheels at the rear of the clock, a flexible extensible connection between the minute printing wheel shaft and the minute hand spindle, a horizontal rod having a spiral groove therein and adapted to move the carriage, a pair of springs supporting the carriage from the said horizontal rod, a guide for the lower part of the carriage frame, and means for moving the carriage against the action of the said springs toward the record receiving piece, as set forth. 11th. In a workman's time recorder, the combination with the stationary clock in the front part of the case, the record receiving piece and a movable support for the same, of a carriage frame supporting time printing wheels at the rear of the clock, a flexible extensible connection between the minute printing wheel shaft and the minute hand spindle, a horizontal rod having a spiral groove therein, a tube on said grooved rod having shoulders near its ends and a pin entering the groove, said shoulders on the ends of the tube engaging the bifurcated upper ends of plates forming part of the carriage frame, projections on opposite sides of the tube, a cross bar of the carriage frame below the tube and extending parallel thereto, coiled springs between the said projections and the sides of the cross bar to one side of the centre of the latter to support the carriage, a guide for the lower part of the carriage frame, means for turning the said grooved rod, and means for moving the carriage against the action of the pair of springs toward the record receiving piece, as set forth. 12th. In a workmen's time recorder, the combination with the stationary clock in the front part of the case, of the carriage for the time printing wheels back of the clock, an extensible connection between a clock spindle and a shaft of one of the time printing wheels, a threaded rod to move the carriage toward and from the clock, a record receiving band on a revoluble support below the time printing wheels, a stationary vertical plate between the clock and the carriage, a support at the rear of the carriage, horizontal bars extending parallel to each other between the said plate and support, an oscillating frame fulcrumed on one of said bars, a spring connecting the oscillating frame with the plate, a bar of the frame parallel to and below the threaded rod and adapted to engage and depress the carriage, and means to operate the said oscillating frame, substantially as described and shown. 13th. In a workmen's time recorder, the combination with the stationary clock in the front part of the case, of the carriage for the time printing wheels back of the clock, an extensible connection between a clock spindle and a shaft of one of the time printing wheels, a threaded rod to move the carriage toward and from the clock, a record receiving band on a revoluble support below the time printing wheels, a stationary vertical plate between the clock and the carriage, a support at the rear of the carriage, horizontal bars extending parallel to each other between the said plate and support, an oscillating frame fulcrumed on one of said bars, a spring connecting the oscillating frame with the plate, a bar of the frame parallel to and below the threaded rod and adapted to engage and depress the carriage, a vertical lever pivoted upon the vertical plate, a curved lever engaging one end of the vertical lever and the oscillating frame, and means to operate the vertical lever, substantially as described and shown. 14th. In a workmen's time recorder, the combination with the clock, of the carriage back of the clock and movable toward and from the same, the stationary support back of the carriage, a bar between the vertical plate and said support, an oscillating frame fulcrumed on the said bar and provided with a spring, the revoluble support for the record band, the shaft for the support extending through the front of the case, a lever carried on the end of the shaft, a longitudinally movable collar on the shaft operated by the lever, a vertical plate and engaging the said collar, and a small curved lever pivoted at the upper part of the vertical plate to connect the vertical lever with the oscillating frame, substantially as described and shown. 15th. In a workmen's time recorder, the combination with the clock, of the carriage back of the clock and movable toward and from the same, the stationary vertical plate between the clock and the carriage, the stationary support back of the carriage, a bar between the vertical plate and said support, an oscillating frame fulcrumed on the said bar and provided with a spring, the revoluble support for the record band, the shaft for the support extending through the front of the case, a lever carried on the end of the shaft, a longitudinally movable collar on the shaft, a pin passing through the said collar and a slot in the shaft, a plunger movable longitudinally in the hollow end of the shaft engaging the said pin and operated by the lever on the end of the shaft, a vertical lever pivoted in lugs projecting from the said vertical plate and engaging the said collar, and a small curved lever pivoted at the upper part of the vertical plate to connect the vertical lever with the oscillating frame, substantially as described and shown. 16th. In a workmen's time recorder, the combination with the revoluble impression roller, of a lever to turn said roller, a time printing wheel movable across said impression roller, and means to move the said printing wheel toward the impression roller, as set forth. 17th. In a workmen's time recorder, the combination with a revoluble impression roller, of a horizontal shaft secured rigidly to the roller, a lever to turn said shaft, a time printing wheel having its shaft above and parallel with the shaft of the impression roller, a screw to move the printing wheel and its shaft longitudinally and a lever to move the said wheel toward the impression roller, as set forth. 18th. In a workmen's time recorder, the combination with a clock and a revoluble impression roller, of a horizontal shaft secured rigidly to said roller, a time printing wheel connected to the clock, a frame for the printing wheel adapted to move in two directions at right angles to each other, stationary supports, an oscillating frame mounted horizontally on said supports and adapted to engage the printing wheel frame, and a lever to operate the oscillating frame, as set forth. 19th. In a workmen's time recorder, the combination with a clock and a revoluble impression roller, of a horizontal shaft secured rigidly to said roller, a time printing wheel connected to the clock, a frame for the printing wheel adapted to move in two directions at right angles to each other, stationary supports, an oscillating frame mounted horizontally on said supports and adapted to engage the printing wheel frame, a curved lever fulcrumed on one of the stationary supports to engage the oscillating frame, a spring to retract the frame, a sliding piece on the roller shaft, means to operate the same, and a lever pivoted intermediate its length to lugs projecting from the said stationary support, and connecting the said sliding piece with the curved lever, substantially as described and shown. 20th. In a workmen's time recorder, the combination with a clock and a revoluble impression roller, of a horizontal shaft secured rigidly to said roller, a time printing wheel connected to the clock, a frame for the printing wheel adapted to move in two directions at right angles to each other, stationary supports, an oscillating frame mounted horizontally on said supports and adapted to engage the printing wheel frame, a curved lever fulcrumed between lugs on the upper end of the stationary support between the clock and the frame carrying the printing wheel, to operate the oscillating frame to move the printing wheel and its frame toward the said roller, a spring to retract the oscillating frame, a sliding collar on the roller shaft, a plunger in the shaft to operate the collar, a lever on the end of the roller shaft to operate the plunger, and a lever connecting the sliding collar with the curved lever, substantially as described and shown. 21st. In a workmen's time recorder, the combination with the clock, of the impression roller, a horizontal shaft fixed to the roller, time printing wheels connected to the clock, a carriage for the printing wheels movable toward and from the clock and toward and from the impression roller, suitable means to move the carriage in the two directions, a dial on the front of the case of the recording mechanism, and a hand to traverse said dial connected to and operated by the carriage when the latter is moved toward and from the clock, as set forth. 22nd. In a workmen's time recorder, the combination with the clock, of the impression roller, a horizontal shaft fixed in the roller, time printing wheels connected to the clock, a carriage for the printing wheels, movable toward and from the clock and toward and from the impression roller, suitable means to move the carriage in the two directions, a dial on the front of the case of the recording mechanism, a hand to traverse said dial mounted on a spindle, a pulley on the spindle, a yoke for the spindle to turn in, a spring between the spindle and the yoke to retract the pulley, and a cord connecting the carriage with the pulley, as set forth. 23rd. In a workmen's time recorder, the combination with the record receiving piece and its support, the clock, time printing wheels connected to and rotated by one of the spindles of the clock, a carriage for the time printing wheels movable in two directions at right angles to each other, an oscillating frame to move the carriage in one direction, and a threaded shaft to move the carriage in the other direction, a notched wheel on one of the time wheels, a detent to arrest the movement of said notched wheel, a connection between the oscillating frame and the detent, a spring for the detent, inked ribbon mechanism mounted on the carriage, and a rod operated by the oscillating frame to move the pawl of the ratchet wheel of the inked ribbon mechanism, substantially as described and shown. 24th. In a workmen's time recorder, the combination with the record receiving piece and its support, the clock, time printing wheels connected to and rotated by one of the spindles of the clock, a carriage for the time printing wheels movable in two directions at right angles to each other, an oscillating frame to move the carriage in one direction and a threaded shaft to move the carriage in the other direction, a notched wheel on one of the time wheels, a detent to arrest the movement of said notched wheel, a connection between the oscillating frame and the detent, a spring for the detent, mechanism mounted on the carriagae for moving and reversing the movement of the inked ribbon, a straight horizontal pawl for the ratchet wheel of the inked ribbon mechanism, a detent below the pawl and parallel with the same, and a vertically movable rod sliding in the carriage frame, engaging the said pawl, and operated by the oscillating frame, as and for the purpose described. 25th. In a workmen's time recorder, the combination with the record receiving piece and its support, the clock, time printing wheels, connected to and rotated by one of the spindles of the clock, a carriage for the time printing wheels movable in two directions at right angles to each other, an oscillating frame to move the carriage in one direction, and a threaded shaft to move the carriage in the other direction, a notched wheel on one of the time wheels, a detent to arrest the movement of said notched wheel, a connection between the oscillating frame and the detent, a spring for the detent, mechanism

mounted on the carriage for moving and reversing the movement of the inked ribbon, a straight horizontal spring pawl for the ratchet wheel of the inked ribbon mechanism, a spring detent below the pawl and parallel with the same engaging the said ratchet wheel, a vertical longitudinally movable rod connecting the said pawl with the oscillating frame, the hand connected to the carriage, and a system of levers to operate the oscillating frame, substantially as described and shown.

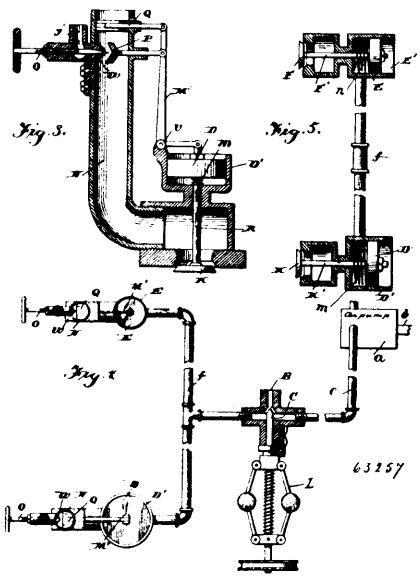
No. 63,256. Process of Removing Bones from Fish.

(*Procédé pour enlever les arêtes de poissons.*)

Martin Ekenberg, 3 Agnegatan, Stockholm, Sweden, 13th June, 1899; 6 years. (Filed 7th July, 1898.)

Claim.—1st. The method of separating the bones and flesh of fish, consisting in pressing the fish between cloths, netting, gratings or the like, causing the flesh to pass through said cloths, nettings or the like and leaving a residuium cake, composed of fish bone together with a slight quantity of flesh between the cloths, substantially as described. 2nd. The combination with the method described, the method of softening the fish previously to the pressing operation by subjecting it to pounding or mechanical treatment between grooved rollers, for the purpose of producing a pliable mass suitable for the pressing operation, substantially as described. 3rd. In carrying out the processes, the method of softening the fish previously to the pressing operation by heating it during a brief period to a maximum temperature of 100° C, for the purpose of producing a pliable mass suitable for the pressing operation, substantially as described.

No. 63,257. Explosive Engine. (*Machine explosive.*)

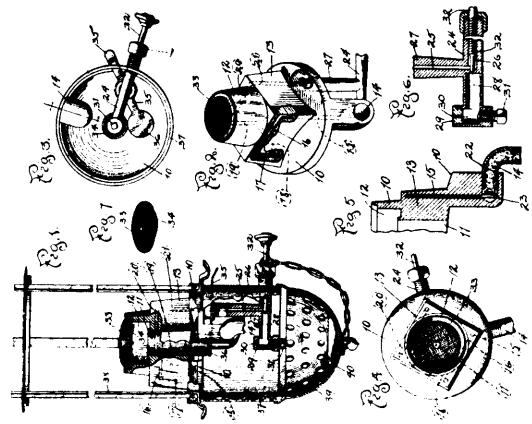


Alexander Winton, Cleveland, Ohio, U.S.A., 13th June, 1899; 6 years. (Filed 12th September, 1898.)

Claim.—1st. In an explosive engine, the combination of an explosive inlet port, a valve therefor actuated in one direction by the suction of the engine piston, a pressure actuated member acting against said piston action and operatively connected with the valve, a pressure producing device in communication with said pressure actuated member, a pressure escape, and a governor controlling said pressure escape, substantially as described. 2nd. In an explosive engine, the combination of an explosive inlet port, a valve controlling said port, a pressure actuated member controlling said valve, a pressure producing device in communication with said pressure actuated member, a pressure escape in communication with one side of said pressure actuated member, and out of communication with the other side of said member, and a governor for said escape, substantially as described. 3rd. The combination in an engine having a plurality of cylinders provided with inlet ports, valves controlling said ports, pistons or diaphragms controlling the valves, the area of one piston being greater than the area of the other piston, and a pressure producing device in communication with the pistons or diaphragms, substantially as described. 4th. In an explosive engine, the combination of a plurality of clyinders having explosive inlet ports, valves controlling the same, diaphragms or pistons controlling the valves, one diaphragm or piston having a greater area than the other, a pressure producing device in communication with the said pistons or diaphragms, and a governor situated between the pressure producing device and said pistons or diaphragms, substantially as described. 5th. The combination in an explosive engine, of the cylinder having an explosive inlet port, a valve controlling said port, a controller for the valve, a fluid feeder in communication with said port, and a fluid controller operatively connected with the valve controller, substantially as described. 6th. The combination with an explosive engine, the cylinder having an explosive inlet port, a mixing tube in communication therewith, a fluid feeder in communication with the mixing tube, a controller therefor, a controller for the said explosive inlet port valve, an air regulating valve for the said mixing tube, and an operative connection between the valve controller and the fluid and air controllers, substantially as described. 7th. The combination in an explosive engine, the cylinder having an explosive inlet port, a mixer in communication therewith, a fluid feeder in communication with the mixer, an air regulating device for the said mixer, a controller for the said valve, and a connection between the air regulator and the valve controller, substantially as described. 8th. The combination with an explosive engine cylinder having an explosive inlet port, a valve adapted to control the same, a mixer in communication with the said port, a controller for the valve, a bell crank lever having one end connected with the controller, a fluid feeder in communication with the mixer, a controller for the fluid feeder, the said controller being connected with the opposite end of the bell crank lever, substantially as described. 9th. The combination in an explosive engine of the cylinder having an explosive inlet port, a valve adapted to control the same, a mixer in communication with the said port, a controller for the valve, a bell crank lever having one end connected with the controller, a fluid feeder in communication with the mixer, the controller for the fluid feeder, an air controller being connected with the opposite end of the bell crank lever, substantially as described. 10th. In an explosive engine, the combination of the cylinder having an explosive inlet port, the valve controlling the same, a mixer in communication with the port, a controller for the valve, a fluid feeder in communication with the mixer, a controller for the fluid feeder, and a lever connection between the fluid controller and the valve controller whereby when the valve controller is moved the fluid controller is likewise moved and operated, substantially as described. 11th. The combination with an explosive engine having a plurality of cylinders with explosive inlet ports, valves for controlling the ports, a pressure producing device in communication with the pressure actuated member, the pressure actuated members having different working capacities for the purpose described. 12th. The combination with an explosive engine having a plurality of cylinders with explosive inlet ports, valves for controlling the ports, a pressure actuated member for each valve, a pressure producing device in communication with the pressure actuated members, the pressure actuated members working upon their valves with different degrees of force, substantially as and for the purpose described. 13th. The combination in an explosive engine, of an explosive inlet port, a valve therefor, a pressure producing device, a pressure actuated member controllng said valve, a communication between said pressure producing device and said pressure actuated member, an external escape for the pressure, and a governor controlling said escape, substantially as described. 14th. In an explosive engine, a plurality of cylinders, inlet ports therefor, valves controlling said ports, a pressure actuated member for each valve, a pressure producing device having communication with all said pressure actuated members, and a single pressure escape controlling the pressure upon all of said pressure actuated members, substantially as described.

No. 63,258. Hydrocarbon Oil Generator and Burner.

(*Foyer et générateur à hydrocarbones.*)



George Belle Jones, Chicago, Illinois, U.S.A., 13th June, 1899; 6 years. (Filed 16th December, 1898.)

Claim.—1st. A combined generator and burner for hydrocarbon oil, having a central bore and passages or channels arranged around said bore, with a delivery pipe for delivery the oil to said passages, and means for delivering the generated gases from such channels or passages to said bore, as and for the purpose set forth. 2nd. A combined generator and burner for hydrocarbon oil, having a central bore and passages or channels arranged around said bore, said chan-

nels or passages intersecting each other at right angles, a delivery pipe for delivering the oil to said passages, and means for delivering the oil to said passages, and means for delivering the generated gases from said passages to said bore, as and for the purpose set forth. 3rd. A combined generator and burner, having a central bore and passages or channels arranged around the same, a delivery pipe for delivering the oil to said passages or channels, and a gasometer adapted to receive the generated gas from said passages or channels and deliver the same through said bore, as and for the purpose set forth. 4th. A combined generator and burner, comprising a casting having a central bore and an enlarged boss, said boss provided therein with channels or passages surrounding said bore, a delivery pipe for supplying oil to said passages, and means for delivering the generated gas from said passages to said bore for ignition, as and for the purpose set forth. 5th. A combined generator and burner, comprising a casting having a central bore and passages or channels formed in said casting around said bore, a delivery pipe communicating with said passages, said pipe having its end filled or packed with waste, cotton, or the like, and means for receiving the generated gas from said passages and delivering the same to said bore, as and for the purpose set forth. 6th. A combined generator and burner, comprising a casting having a central bore, passages or channels formed in said casting around said bore, a delivery pipe communicating with one end of said passages, a gasometer communicating with the other end of said passage and comprising a casting having intersecting channels, a discharge orifice arranged in alignment with said bore, and means for controlling the area of junction of said intersecting channels, as and for the purpose set forth. 7th. In a combined generator and burner, means for generating a gas, a gasometer arranged to receive the generated gas and deliver the same to the burner, and including a plug tip having a fine orifice, and a needle valve for controlling the supply of generated gas, as and for the purpose set forth. 8th. In a combined generator and burner, means for generating a gas, a gasometer for receiving the generated gas and delivering the same to the burner, and comprising a chamber having an orifice in the end thereof, and a screw plug for regulating the area of said chamber, as and for the purpose set forth. 9th. A combined generator and burner, comprising a casting having a central bore and passages arranged around said bore, a gasometer arranged to receive the generated gas, and having an orifice arranged in central alignment with said bore, and means for disintegrating and spreading the gas, said means being arranged over the mouth of said bore, as and for the purpose set forth. 10th. A combined generator and burner, comprising a casting having a central bore and passages arranged around said bore, a gasometer arranged to receive the generated gas and deliver the same through said bore, and gauze caps arranged over the mouth of said bore, as and for the purpose set forth. 11th. A combined generator and burner, comprising a casting having a central bore and passages arranged around said bore, a gasometer arranged to receive the gas and deliver the same into said bore, and a damper for closing said bore, as and for the purpose set forth. 12th. A combined generator and burner, comprising a casting having a central bore and passages arranged around said bore, a gasometer arranged to receive the generated gas and deliver the same into said bore, a lever carrying a disc or plate and operating between the delivery orifice of said gasometer and said bore to close the latter, as and for the purpose set forth. 13th. A combined generator and burner, comprising a casting having a bore and passages arranged around said bore, a gasometer arranged to receive the generated gas and deliver the same into said bore, and a preliminary heater comprising a cup adapted to receive combustible material which when lighted will preliminarily heat the generator to start the apparatus, as and for the purpose set forth. 14th. In a combined generator and burner, a casing, a casting having a bore, and passages arranged around said bore, said casting arranged in said casing, a gasometer arranged to receive the generated gases and deliver the same into said bore, a cap for the end of said casing and severing for a preliminary heater, and a chimney support carried by said casing, as and for the purpose set forth.

No. 63,259. Gas Lighting Apparatus.

(Appareil à allumer le gaz.)

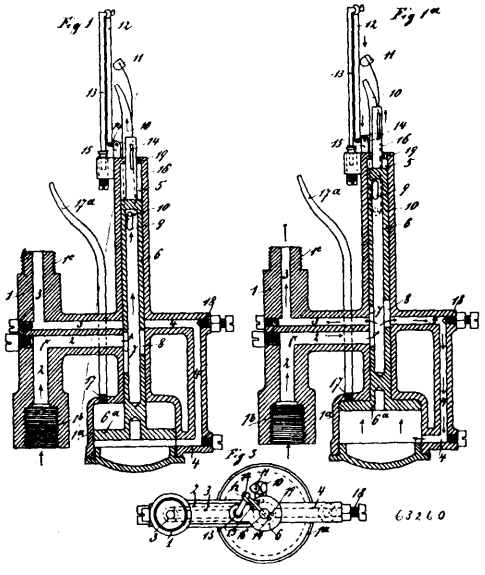
Ernst Salzenberg, Crefeld, Prussia, 13th June, 1899; 6 years. (Filed 19th October, 1898.)

Claim.—A spherical or ball shaped incandescent gas light emitting its rays radially by using gas under pressure of one atmosphere or more in combination with an incandescent mantle having a spherical shape, substantially as specified.

No. 63,260. Gas Igniter. (*Allume gaz.*)

Carl Friedrich Philipp Standebach, 45 Plagwitzerstrasse. Leipzig, Germany, 13th June, 1899; 6 years. (Filed 5th January, 1899.)

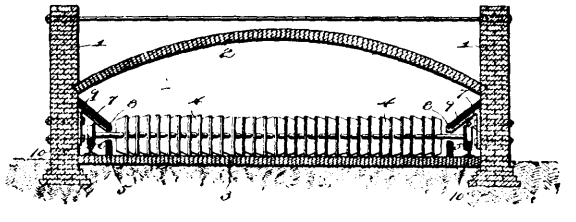
Claim.—1st. Automatic gas igniter, the distinguishing feature of which is that its action is regulated by means of a regulating piston slide 6, which when set in motion is under the influence of an external pressure and when put out of action is under the influence of its own gravity, the action of the external pressure on the regulating piston slide 6 being effected in such a manner, that the same is brought into co-operation with an expansive body, so that the increase in the volume of such body, resulting from the heating thereof by means of the igniting flame in the known manner, causes



the regulating piston slide to be raised, whereby a subordinate channel is opened, substantially as described. 2nd. The arrangement of a regulating piston slide 6 in combination with the casing of an automatic gas igniter the distinguishing feature of which is that the hollow chamber of the regulating piston slide, by means of suitably arranged slots or perforations in the walls thereof, owing to the different positions of the piston slide rendered necessary through the action of the whole contrivance comes into communication in a certain order of rotation with the channels 2, 10, 4 and 3, in such a manner that at the beginning of the setting in action the gases flowing in through 2 escape through 10, then fill the channel 4 and the space under the part 6^a of the piston slide in the further course of the action of the piston slide, reach the burner through the channel 3 and finally are shut off at 10, whilst upon the apparatus being put out of action the process is effected in inverted order. 3rd. A modified form of igniter for gas lighting apparatus, distinguished by a hollow regulating piston slide, the hollow space in which is divided into two compartments and furnished with suitably arranged slots or perforations in the slides, so that, at the starting of the action, the gases enter the lower compartment 6^d of the regulating piston slide, pass through the channel 10 then reach the hollow space below 6^a, flowing through the slot or perforation 9 into the upper part 6^c of the regulating piston slide and thence to the burner and finally, after the regulating piston slide has been further raised, are shut off again at 10, whilst when the action is discontinued the apparatus returns in inverted order to the starting position.

No. 63,261. Ore Roasting Furnace.

(Fourneau pour le grillage du minerais.)



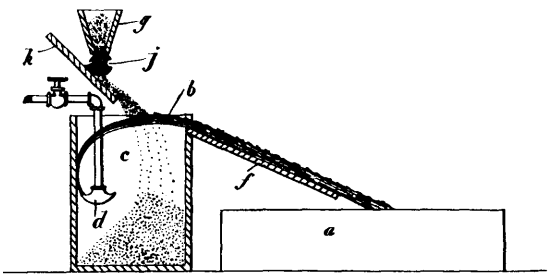
Lincoln D. Godshall, Everett, Washington, U.S.A., 13th June, 1899; 6 years. (Filed 25th January, 1899.

Claim.—1st. In a furnace for calcining or roasting ores and provided with slots or housings for inclosing the carriages and adjunctive parts of the stirrers, the combination of lower walls rising from the hearth and extending parallel with the side walls of the furnace, and upper walls secured to the side walls of the furnace and extending inwardly and downwardly and terminating a short distance from the said vertical walls, substantially as and for the purpose set forth. 2nd. In a calcining or roasting furnace, the combination of vertical walls placed upon the hearth a short distance from the side walls, and brackets secured to the side walls of the furnace and having inwardly and downwardly inclined members or portions which terminate a short distance above the top edges of the vertical walls, substantially as and for the purpose specified. 3rd. In a calcining

or roasting furnace, the combination of lower walls placed upon the hearth a short distance from the side walls, brackets secured to the said side walls and having inwardly and downwardly inclined members terminating in upwardly extending ledges, and refractory material placed upon the said inclined portions of the brackets, substantially as and for the purpose described.

No. 63,262. Ore Concentrator and Seperator.

(Concentrateur et séparateur de minerai.)

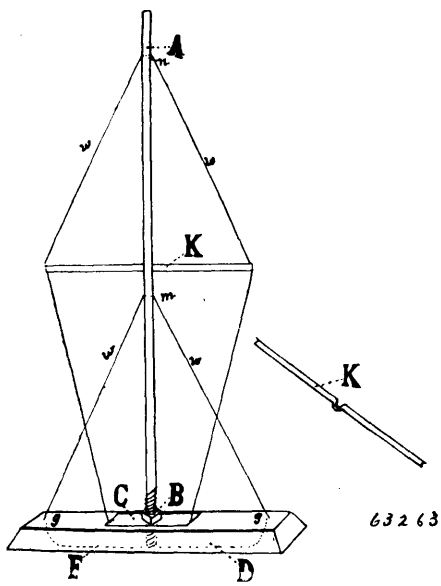


63262

Henry Pearth, Hawdon Brumell and Edmond Lonsdale, both of Buckingham, Quebec, Canada, 13th June, 1899; 6 years. (Filed 9th February, 1899.)

Claim.—1st. In the process of separating or concentrating minerals or ores, feeding the disintegrated and dried ore onto or upon a moving body of water so that the minerals which by their physical characters will float shall be carried beyond those that will not float, substantially as set forth. 2nd. In an apparatus for separating or concentrating minerals or ores, a receptacle for minerals of light specific gravity, a receptacle for mineral of greater specific gravity, a water supply pipe with its delivery end adapted, in conjunction with the wall of the second named receptacle, to direct a flat stream or body of water across the top of said latter receptacle into the first named receptacle and a feed hopper for the disintegrated and dried ore above such stream, substantially as described.

No. 63,263. Fence Post. (*Poteau de cloture.*)



63263

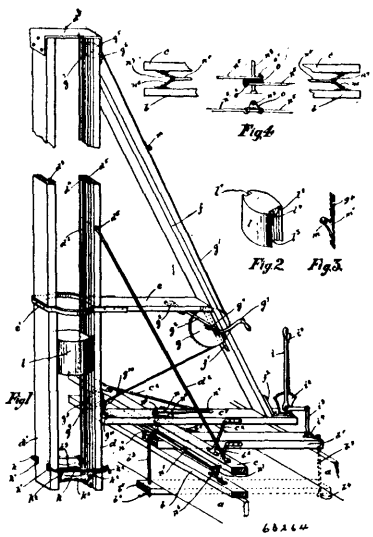
Dwyer Elson and William Windsor, both of Parkhill, Ontario, Canada, 13th June, 1899; 6 years. (Filed 24th March, 1899.)

Claim.—In a fence post, the combination of the concrete pedestal D, wire F embedded therein, wires *w*, *w*, cross bar K, iron post A, iron plate C, nut B, all combined and arranged, as and for the purpose set forth.

No. 63,264. Post Driver. (*Enfonceur de potcau.*)

Gudmundur S. Johnson, South Cypress, Manitoba, Canada, 13th June, 1899; 6 years. (Filed 22nd April, 1899.)

Claim.—A portable apparatus for driving posts, which may be placed on an ordinary waggon, having plate b, cross piece b^1, braces b^2, b^2, bolt rods b^3, b^3, hand screw nuts b^4, b^4, lower cross piece b^5, plate c, cross piece c^1, braces c^2, c^2, guide pieces d, d^1, braces d^2, d^2, runners d^3, d^4, the latter with channel d^5, top plate d^6, rail e, band e^1, brace f, slot f^1, sprocket wheel g, axle g^1, angle braces g^2, g^2, crank handle g^3, sprocket chain g^4, wheel g^5, axle g^6, slot



g^7, wheel g^8, slot g^9, axle g^{10}, bearing plate g^{11}, lever i, spring catch i^1, tooth plate i^2, rod i^3, hinge i^4, guide bars k, k, spring bearers k^2, k^2, rollers k^3, k^3, hammer l, lugs m, pulleys m^1, m^1, lever n, spring catch n^1, tooth plate n^2, pin n^3, spur n^4, bar n^5, or fork plate o, with double bars n^6, n^5, levers n^6, n^7, all formed, arranged and combined, as set forth.

No. 63,265. Bottle Stopper. (*Bouchon de bouteille.*)

Fig. 1.

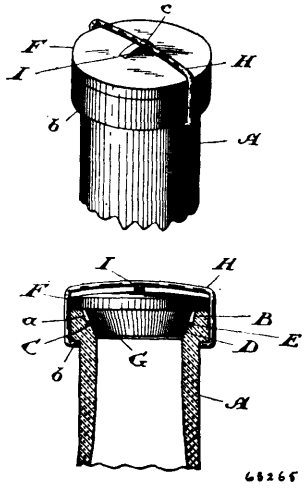


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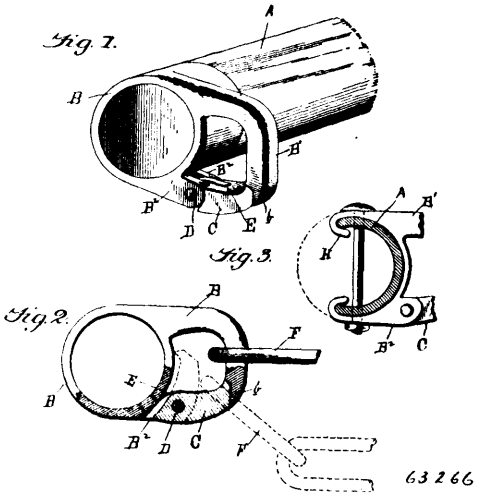
Fig. 2.

David Alexander Gordon, Wallaceburg, Ontario, Canada, 13th June, 1899; 6 years. (Filed 12th May, 1899.)

Claim.—1st. The combination with a bottle having a circular opening in the neck and an annular shoulder below the top of the said opening, of a packing ring placed on the said shoulder and a stopper provided with a tapered circular plug adapted to fit within the said opening and to compress laterally the said packing ring, substantially as and for the purpose specified. 2nd. The combination with a bottle having a circular opening in the neck and an annular shoulder below the top of the said opening, of a packing ring placed on the said shoulder and a stopper provided with a tapered circular plug adapted to fit within the said opening and to compress laterally the said packing ring, the taper of the plug being such that the annular space between it and the sides of the opening above the shoulder decreases in width from the shoulder upwards, substantially as and for the purpose specified. 3. The bottle A, having the wall B, the

shoulder C, and the wall D, in combination with the packing ring E, and the stopper F, provided with the tapered plug G, the parts being so shaped and proportioned that the bevel of the wall D, and the plug is substantially the same, and that the space *a* above the shoulder decreases in width from the shoulder upwards, substantially as and for the purpose specified. 4th. The combination with a bottle having a circular opening in the neck and an annular shoulder below the top of the said opening, of a packing ring placed on the said shoulder, a stopper provided with a tapered circular plug adapted to fit within the said opening and to compress laterally the said packing ring, and detachable means for holding the stopper in place, substantially as and for the purpose specified. 5th. The combination with a bottle having a circular opening in the neck and an annular shoulder below the top of the said opening, of a packing ring placed on the said shoulder, a stopper provided with a tapered circular plug adapted to fit within the said opening and to compress laterally the said packing ring, a wire clasp adapted to embrace the stopper, a shoulder or flange upon the outside of the bottle neck with which the ends of the said wire may be engaged, an incline upon the top of the stopper up which the middle of the wire clasp may be forced and a recess adapted to retain the wire and prevent it sliding down again until it is removed from the said recess, substantially as and for the purpose specified.

No. 63,266. Whiffletree Hook. (*Crochet de palonnier.*)



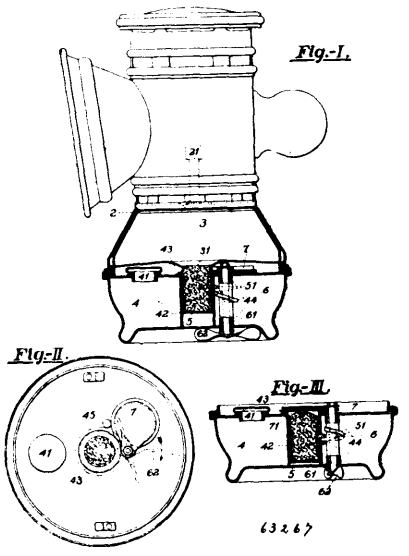
William E. Morgan, Metropolis, Illinois, U.S.A., 13th June, 1899; 6 years. (Filed 1st December, 1898.)

Claim.—1st. A whiffletree band and snap hook, comprising the band, the integral L-shaped nose portion with recessed end, the tongue pivoted to shoulders on the band, said tongue having its end upturned to receive the pull of the trace, as shown and described. 2nd. In a whiffletree hook, the body portion with snap hook carried thereon, the hooked edges H H, and the curved whiffletree over which said hooked edges are held and secured in place by means of a bolt, as shown and described.

No. 63,267. Acetylene Gas Generator.
(*Générateur de gaz acétylène.*)

Frank Rhind and The Bridgeport Brass Co., both of Bridgeport, Connecticut, U.S.A., 15th June, 1899; 6 years. (Filed 18th January, 1899.)

Claim.—1st. In a gas generator in combination a carbid holder, a font, a manually adjustable wick adapted to carry a liquid to said holder and a cap adapted to cover the aperture in said holder when the flow of liquid from said font is cut off, substantially as described. 2nd. In a gas generator in combination, a font, a superposed carbid holder, means for conveying liquid upward to said holder and a manually operated cap adapted to cover the aperture in said front when the flow of the liquid from said font is cut off, substantially as described. 3rd. In a gas generator in combination, a carbid holder, a font, a wick tube in said font, means for moving said wick tube into and out of operative relation with said holder and a cap adapted to cove the aperture in said font when the flow of liquid from said font is cut off, substantially as described. 4th. In a gas generator in combination, a carbide holder, a font, a wick tube in said font, means for producing and cutting off a flow of liquid to said holder, means as a cap adapted to cover the aperture in said font when the flow of liquid is cut off and a lever or button exterior to said generator operatively connected both to said means for cutting off the liquid supply and to said means for covering said aperture, substantially as described. 5th. In a gas generator in combination,



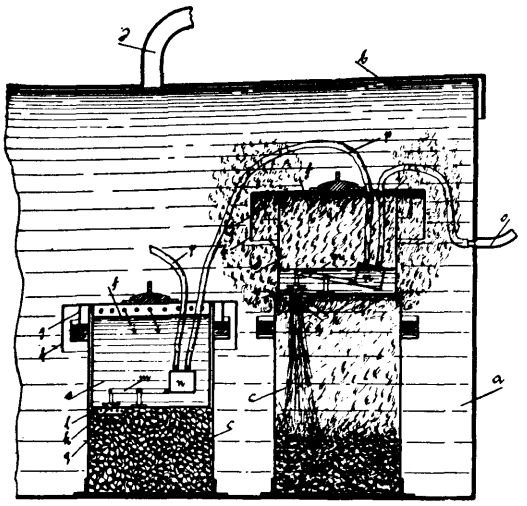
a carbid holder, a font, a wick tube in said font, means for the longitudinal adjustment of said wick tube, a cap adapted to cover the aperture in said font when said wick tube is not in operative position, a lever or button exterior to said generator and a shaft connected to said lever passing through the wall of said generator and acting to alternatively bring said wick tube and said cap into operative position, substantially as described. 6th. In a gas generator in combination, a carbid holder, a font, an adjustable wick tube in said font, a lever or button exterior to said font, a shaft connected to said lever and passing through the walls of said font, means as a cam on said shaft for adjusting said wick tube and means also operated by said shaft for closing the aperture in said font when said wick tube is not in its operative position, substantially as described. 7th. In a gas generator in combination, a carbid holder, a font, a wick tube in said font, a lever or button exterior to said font, a shaft connected to said lever and passing through the wall of said font, means as a cam on said shaft for the longitudinal adjustment of said wick tube and a cap on said shaft adapted to cover the aperture in said font when said wick tube is not in its operative position, substantially as described. 8th. In a gas generator in combination, a carbid holder, a font, a guide tube in said font, a bevelled collar or seating at the top of said font and surrounding the top of said guide tube, a vertically adjustable wick tube in said guide tube, a shaft passing through said font and provided at one end with an operating lever and at the other end with a cap adapted to bear upon said seating and a cam on said shaft engaging with said wick tube, substantially as described.

No. 63,268. Acetylene Gas Generator.
(*Générateur de gaz acétylène.*)

Albert Schwass & Company, assignee of Ludwig Bartmann, all of Berlin, Germany, 15th June, 1899; 6 years. (Filed 7th January, 1899.)

Claim.—1st. In actylene gas apparatus, a generating chamber completely filled with water, in order to prevent the admixture of a small body of gas with a large body of air in the first stage of the process of generation, as well as the lodging of acetylene gas in the generating chamber. 2nd. In a carbide receptacle, the combination with the cover, of a coffer adapted to fit the body of the receptacle above the carbide and exclude air therefrom, and means whereby said coffer may be filled with fluid to weight the cover down into place. 3rd. In a carbide receptacle, the combination with the cover, of a fluid weighted coffer adapted to fit into the body of the receptacle and expel air therefrom, means controlled from the exterior, whereby the contents of the coffer may be discharged upon the carbide, and means whereby the generated gas is introduced into the coffer to replace the fluid discharged. 4th. In a carbide receptacle, the combination with the body and cover, of an oil seal consisting of a trough upon the body of the receptacle for the reception of a fatty matter, and a flange upon the cover to dip into said trough. 5th. In a carbide receptacle, the combination with the body, of a trough thereon to contain fatty matter, and a cover provided with a flange to dip into said trough, and a second outer and deeper flange to form an air chamber to exclude water from the trough. 6th. In a carbide receptacle, the combination with the body and its oil trough, of the cover having a fluid-laden coffer to fit into said body, and the two flanges, means controlled from the

exterior for discharging the contents of said coffer upon the carbide, and means whereby the generated gas is introduced into said coffer



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to replace the fluid discharged. 7th. In a carbide receptacle, the combination with the body and the cover, of the fluid-laden coffer, the valve, the lever, the float on the power-arm of said lever, and the pipe whereby said float may be filled to depress the lever. 8th. The combination with the fluid filled generating chamber, of the carbide receptacle, its cover and fluid-laden coffer perforated near its upper end, the flanges on the cover and the oil trough on the body of the receptacle, the valve, the lever, the float on the power-arm of said lever, and the pipe leading to said float from the exterior of the generating chamber.

No. 63,269. Gas Generator. (*Générateur à gaz.*)

Fig. 2.

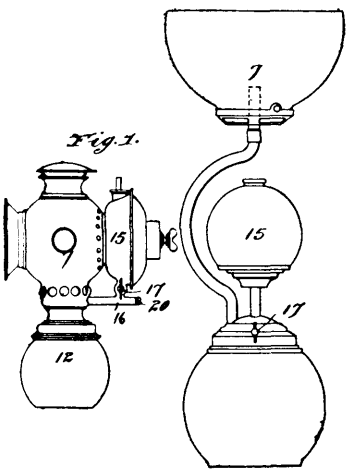


Fig. 1.

63269

The Badger Manufacturing Company, assignee of Edward Lambrick Williams, all of Kenosha, Wisconsin, U.S.A., 15th June, 1899; 6 years. (Filed 4th November, 1898.)

Claim.—1st. A gas generator comprising, in combination a generating chamber to contain a solid, a reservoir to contain a liquid, wherein the liquid level may be maintained above the generating chamber, a liquid supply pipe extending from the liquid chamber and opening into the generating chamber, and a porous material for porous packing enclosed within said supply pipe and extending substantially from the inlet to the outlet thereof, whereby the liquid is fed by gravity through said porous packing, substantially as described. 2nd. A gas generator comprising, in combination, a generating chamber, a liquid chamber above the generating chamber, and a tube connecting said chambers and packed with porous material extending from the liquid chamber to the generating chamber, substantially as described. 3rd. In a gas generator of the character described, a liquid supply pipe having an exposed terminal and a closure therefor, and a wick filling said supply pipe, one end of said wick being provided with an eyelet or equivalent metallic fastening, whereby said wick may be drawn into and removed from the tube, substantially as described. 4th. A gas generator comprising, in combination, a generating chamber, a liquid chamber above the generating chamber, and a tube packed with fibrous material and extending from the liquid chamber to the generating chamber, substantially as described.

No. 63,270. Stove. (*Poêle.*)

Fig. 1

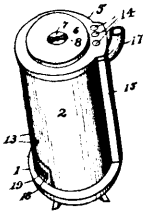


Fig. 3

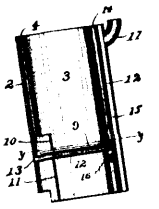


Fig. 2

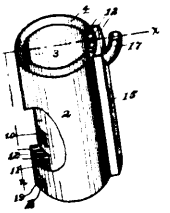
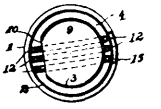


Fig. 4



63270

William Allbritain, Kansas City, assignee of John A. Hampton, Norwood, both in Missouri, U.S.A., 15th June, 1899; 6 years. (Filed 21st February, 1899.)

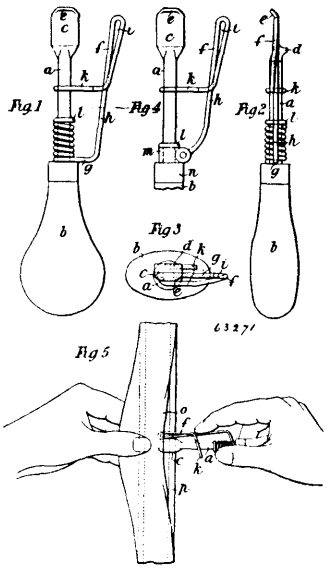
Claim.—1st. In a stove having an outer and inner casing and a smoke flue connected with the inner casing, a fuel chamber in the inner casing and a heating chamber therein under the fuel chamber arranged to provide a down draft into the fuel chamber, a side draft out of the fuel chamber and a return draft through the heating chamber to the smoke flue. 2nd. In a stove having an outer and inner casing, a fuel chamber in the inner casing, a heating chamber therein under the fuel chamber, and a smoke flue connected with said heating chamber, said fuel chamber and heating chamber having draft openings arranged to provide a down draft into the fuel chamber, a side draft out of the fuel chamber and a return draft through said heating chamber to the smoke flue, substantially as shown and described. 3rd. In a stove, the combination with a suitable base and top, and outer casing provided with a draft regulator at or near the bottom thereof, of an inner casing, a fuel chamber in said inner casing, a heating chamber therein under said fuel chamber and a smoke flue connected with said heating chamber, said fuel chamber and heating chamber having draft openings arranged to provide a down draft into said fuel chamber, a side draft out of said chamber and a return draft through said heating chamber to the smoke flue, and a series of tubes or pipes extending across said casing through said heating chamber and upward between said outer and inner casings and communicating at each end with the outside atmosphere, substantially as and for the purpose set forth. 4th. In a stove, the combination with a suitable base and top, a removable cover on the top provided with a draft regulator, and an outer casing provided with a draft regulator at or near the bottom thereof, of an inner casing having draft openings on one side thereof, a fire plate within said inner casing between said draft openings, a smoke flue connected with said inner casing below said fire plate, and a series of tubes or pipes extending across said casings under said fire plate, and upward between said outer and inner casings, and communicating through suitable openings in the top and outer casing with the outside atmosphere, substantially as and for the purposes set forth.

No. 63,271. Tool for Removing and Replacing Covers of Pneumatic Tires. (*Outil pour enlever et remettre les bandages pneumatiques.*)

Thomas Bennett and Herbert Bennett, both of London, England, 15th June, 1899; 6 years. (Filed 8th November, 1898.)

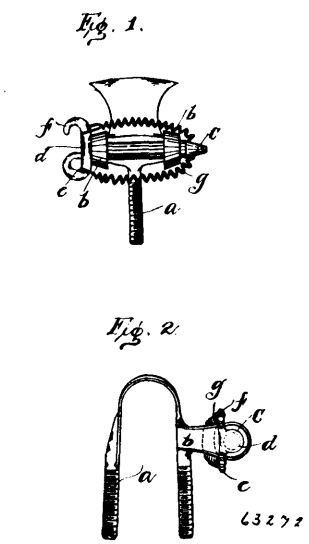
Claim.—1st. A tool for removing or replacing the covers of pneumatic tires, consisting of the combination with a lever or its equivalent adapted to be inserted under the edge of the tire cover for raising it, of an arm flexibly connected to the lever or rod and

so arranged that when the tire cover is raised, the said arm advances or can be advanced, substantially as described. 2nd. A tool for



removing and replacing the covers of pneumatic tires, consisting in the combination of a rod having a suitable handle and a flattened outer end with a spring or hinged arm or horn adapted to turn freely on the rod, substantially as described. 3rd. The described tool for removing and replacing the covers of pneumatic tires, comprising a rod *a*, having a flattened end *c* and flange *d*, and a spring arm such as *f* capable of turning on the rod *a*, combined and operating, substantially as described. 4th. The described tool for removing and replacing the covers of pneumatic tires, comprising a rod *a*, having a flattened end *c* and flange *d*, and a hinged arm or horn such as *f* capable of turning on the rod *a*, combined and operating, substantially as described.

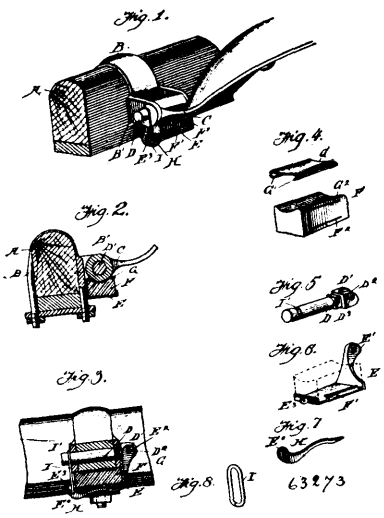
No. 63,272. Thill Couplings. *(Armon de limonière.)*



Zadoc L. Wheeler, Cedar Falls, Iowa, U.S.A., 15th June, 1899; 6 years. (Filed 15th December, 1898.)

Claim.—A thill coupling having a clip with two transversely aligned eyes thereon, a pin passed through the eyes and having a head with two upbent ends, one end forming an eye and the other end forming a hook, and a retractile spring one end of which is permanently engaged with the eye on the head of the pin and the other end of which has a loop capable of removable engagement with the hook on the head of the pin.

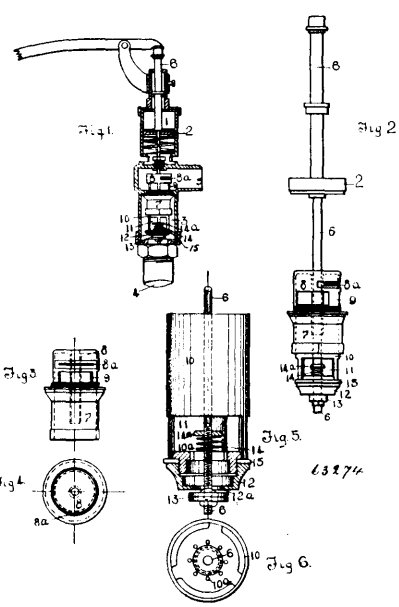
No. 63,273. Thill Couplings. *(Armon de limonière.)*



William E. Sherwood, Oneida, New York, U.S.A., 15th June, 1899; 6 years. (Filed 17th October, 1898.)

Claim.—The combination with the axle clip and thill iron, of a coupling pin, provided with a squared end adapted to fit in a correspondingly shaped opening in the clip ear, a projecting, bifurcated head for said coupling pin, a frame having end and side flanges adapted to engage an elastic block and secure the same therein, an upwardly projecting arm on one end of said frame, adapted to fit between the bifurcations formed in the coupling pin head, a locking lever pivoted to the other end of said frame, a link pivoted in the locking lever eccentric with the pivot of said lever, said link being adapted to engage a groove in the projecting end of the coupling pin, substantially as described.

No. 63,274. Water Closet Valve. *(Soupape de latrines à eau.)*

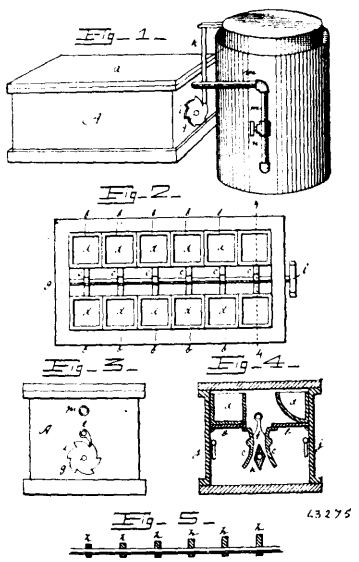


Robert S. Watson, Bay City, Michigan, U.S.A., 15th June, 1899; 6 years. (Filed 7th September, 1898.)

Claim.—1st. In a sanitary flushing device the combination with a casing having openings for inlet and discharge of water and means for opening and closing a water regulating valve, of a valve chest within said casing, a water regulating valve to operate within said chest and ports communicating therewith, a cushioning chamber adapted to receive the end of the valve, means whereby a certain quantity of water is discharged after the ports are closed, and a relief valve attached to the water valve, for the purpose set forth. 2nd. In a sanitary flushing device having openings for intake and

discharge of water and means for opening and closing a water regulating valve, of the herein described means for controlling the flow, that is to say, a hollow valve chest, a hollow water regulating valve operated therein, a cushioning chamber adapted to receive the end of the valve and to cushion the valve by hydraulic action, an opening in said chamber whereby a small quantity of water is discharged after the valve is closed, a relief valve attached to the hollow valve, adapted to open before it and close before it, substantially as described. 3rd. A water valve for flushing purposes comprising a cylindrical valve chest, a cylindrical valve having a water passage therethrough, the valve being longitudinally movable within said chest, adapted to cushion the valve by hydraulic action, water passages between the chest and chamber adapted to be opened or closed by the valve, and means, substantially as described for permitting temporarily the escape of water from the chamber, and then closing the escape orifice, for the purpose set forth. 4th. In a water closet valve, a cushioning chamber located near the extremity of the valve travel and adapted to engage the end of the valve, for the purpose set forth. 5th. In a water controlling device for flushing purposes, an outer valve chest, a cushioning chamber made integral with and above the chest, ports intermediate the chest and chamber, a hollow cylindrical valve fitting said chest and having longitudinal movement therein past the ports, together with openings in the chamber above the ports, the flow through the ports and chamber opening being controlled by the valve, substantially as described. 6th. In a water closet flushing device having a relief valve and a main valve operated by the same valve stem, a spring or other means substantially as described, operating between the valve stem and body of the main valve to allow the relief valve to open before the main valve, and closing the relief valve immediately upon removal of pressure from the valve stem. 7th. In a flushing device of the kind described a hollow cylindrical valve having lateral openings near its lower end, a perforated base, a cap for said base having a water inlet, a valve to close said inlet, and means substantially as described for closing the valve. 8th. In a relief valve for water closet valves, the inlet 12^a valve 13, valve rod 6, and spring 14 and nut 14^a, for the purpose specified. 9th. In a water closet flushing device, a valve chest having discharge ports, a cushioning chamber having a lateral opening therein, a hollow valve having inlet ports near its bottom and adapted to fit the valve chest and cushioning chamber, comprising means whereby the progressive longitudinal movement of the valve in closing successively closes the discharge, cushions the valve, permits the escape of a small quantity of water from the cushioning chamber and finally closes the inlet ports, substantially as described and for the purpose set forth.

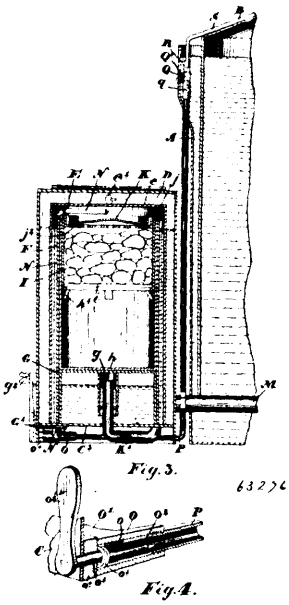
No. 63,275. Gas Generator. (*Générateur à gaz.*)



James Smith Ferguson, Minneapolis, Minnesota, U.S.A., 15th June, 1899; 6 years. (Filed 29th November, 1898.)

Claim.—1st. The combination with a telescope gas holder, of a case or cabinet having horizontally supported shelves hinged to its interior side or sides, magazines supported by, and latches supporting the said shelves, a shaft having cams mounted thereon, and a ratchet wheel affixed thereto, a pendent rod operated by the rising and falling case of the said telescope gas holder, adapted when on its downward course to contact with a tooth of, and to rotate said ratchet wheel, and a pipe connecting the said case or cabinet, and the said telescope gas holder, substantially as shown and for the purposes specified. 2nd. The combination with the telescope gas holder of a case or cabinet having horizontally supported shelves, magazines supported by, and latches supporting the said shelves, a shaft having cams mounted thereon, and a ratchet wheel affixed thereto, a pendent rod attached to, and operated by the rising and falling case of the said telescope gas holder, and a pipe connecting the said case or cabinet and the said telescope gas holder, substantially as shown and for the purposes specified.

No. 63,276. Acetylene Gas Generator.
(*Générateur de gaz acétylène.*)

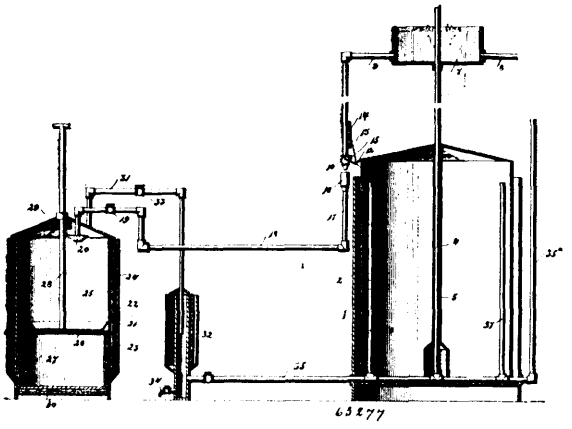


Byron Wallace Guthrie, Inglewood, Ontario, Canada, 15th June, 1899; 6 years. (Filed 22nd December, 1898.)

Claim.—1st. The combination with a suitable reservoir and pipe leading therefrom, of a generator comprising the outer case, a receiver, a bottomless case situated adjacent to the receiver, a cylindrical case located within such case, an inverted cup with downwardly extending tube closed at but perforated near the bottom, a substantially L-shaped bent tube having the lower end extending upwardly into the tube of the inverted cup above the water and the upper end extending above the water in the bottomless case, a similar bent tube having the lower end extending above the water in the inverted cup and the upper end extending into the tube in the receiver, which tube is closed at but perforated near the bottom, a suitable pipe leading from the receiver to the generator, a cylindrical carbide receptacle provided with a suitable bottom and grate intermediate the length thereof and a suitable distributing top and a pipe leading above such top and connected with the water supply and means for automatically cutting off such water supply, as and for the purpose specified. 2nd. The combination with a suitable reservoir and pipe leading therefrom, of a generator comprising the outer case, a receiver, a bottomless case situated adjacent to the receiver, a cylindrical case located within such case, an inserted cup with downwardly extending tube, a substantially L-shaped bent tube having the lower end extending upwardly into the tube, of the inverted cup above the water and the upper end extending above the water in the bottomless case, a similar bent tube having the lower end extending above the water in the inverted cup and the upper extending into the tube in the receiver, a suitable pipe leading from the receiver to the gasometer, a cylindrical carbide receptacle provided with a suitable bottom and grate intermediate of the length and a perforated top provided with tubular openings and a conical plate loosely resting on the perforated top and a pipe leading above such top and connected with the water supply and means for automatically cutting off such water supply, as and for the purpose specified. 3rd. The combination with a gasometer tank and receiver, of a generator comprising the outer case, a receiver, a bottomless case situated adjacent to the receiver, a cylindrical case located within such case, an inverted cup with downwardly extending tube, a substantially L-shaped bent tube having the lower end extending upwardly into the tube of the inverted cup above the water and the upper end extending above the water in the bottomless case, a similar bent tube having the lower end extending above the water in the inverted cup and the upper end extending into the inverted tube in the receiver, a suitable pipe leading from the receiver to the gasometer, a cylindrical carbid receptacle provided with a suitable bottom and grate intermediate of the length thereof, a suitable distributing top and a pipe leading above such top at one end and having the other end extending up into the water in the gasometer, a bent tube and a flexible tube connecting such bent tube to the top of the water

supply tube, a spring for normally holding the bent tube above the water and an arm on the gasometer designed to come in contact with the bent tube as and for the purpose specified. 4th. The combination with a gasometer tank and receiver, of a generator comprising the outer case, a receiver, a bottomless case situated adjacent to the receiver, a cylindrical case located within such case, an inverted cup with downwardly extending tube, a substantially L-shaped bent tube having the lower end extending upwardly into the tube of the inverted cup above the water and the upper end extending above the water in the bottomless case, a similar bent tube having the lower end extending above the water in the inverted cup and the upper end extending into the tube in the receiver, a suitable pipe leading from the receiver to the gasometer, a cylindrical carbide receptacle provided with a suitable bottom and a grate intermediate of the length thereof, a suitable distribution top and a pipe leading above such top at one end and having the other end extending up into the water in the gasometer, a bent tube and flexible tube connecting such bent tube to the top of the water supply tube, a spring for normally holding the bent tube above the water, an arm on the gasometer designed to come in contact with the bent tube and an inclined guide secured to the side of the gasometer and extending underneath the bent tube, as and for the purpose specified. 5th. The combination with a suitable pipe leading from a gasometer and branch pipes leading from such pipe to the carbide receptacle, of a three way cock comprising the casing connected to the water supply pipe, tapered plug fitting a corresponding opening in the casing, a suitable hole in the tapered plug, a stem extending through the casing and a handle for such stem for turning such tapered plug, as and for the purpose specified.

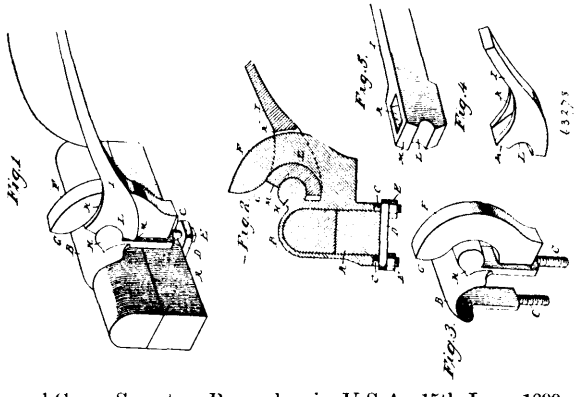
No. 63,277. Acetylene Generator. *(Générateur acétylène.)*



Isaac Ochs, Hespeler, Ontario, Canada, 15th June, 1899; 6 years (Filed 25th April, 1898.)

Claim.—An acetylene gas generating machine comprising a reservoir, a valved inlet pipe for conducting the liquid contained therein to the generating chamber composed of two telescopic sections and divided into upper and lower compartments, a moisture proof packing provided within said generating chamber, a valved outlet pipe for conducting said gas to a tank, a trap provided in the path of said gas composed of telescoping sections and having a compartment adapted to retain the moisture contained in the gas, the inlet valve being operated by the movement of the reservoir for automatically regulating the flow of liquid to the generator, substantially as described.

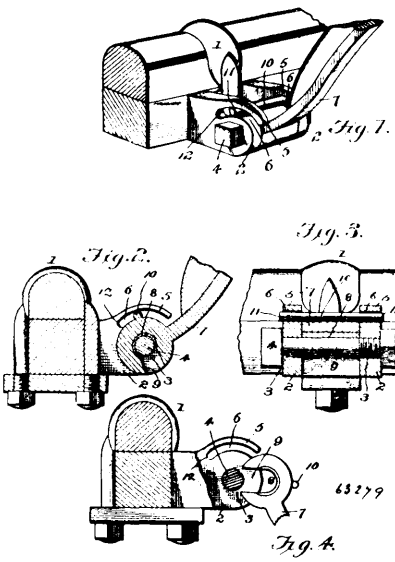
No. 63,278. Thill Couplings. *(Armon de limonière.)*



Samuel Gress, Scranton, Pennsylvania, U.S.A., 15th June, 1899; 6 years. (Filed 18th January, 1899.)

Claim.—1st. A pole or thill coupling, comprising a clip having a cylindrical extension on the face thereof, and a hook formed integrally therewith on its front face, pointing upward, and having its inner face concentric with said extension, substantially as set forth. 2nd. A pole or thill coupling having a clip provided with a cylindrical extension on its face, a curved hook formed integrally with the clip pointing upward concentric with the cylindrical extension, and a pole or thill iron having a curved slot and freely movable over the hooked portion, for the purpose set forth. 3rd. A pole or thill coupling having a clip, a curved hook and cylindrical extension formed integral therewith on the front face thereof, leaving an opening between the upper part of the hook and the clip, and the pole or thill iron provided with a curved face and curved slot to fit over the hook, stops being provided at each end of the curved face to limit the movement of the pole or thill iron by contacting with the clip, substantially as described.

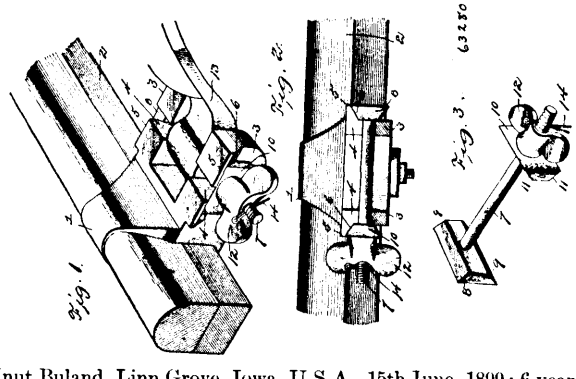
No. 63,279. Thill Coupling. *(Armon de limonière.)*



Achilles Stevens, Newport, Rhode Island, U.S.A., 15th June, 1899; 6 years. (Filed 10th March, 1899.)

Claim.—1st. In a thill coupling, the combination of an axle clip having spaced ears, fingers overhanging the ears, and a thill iron having lugs extending at opposite sides thereof, the lugs being adapted to engage under the respective fingers, substantially as and for the purpose set forth. 2nd. In a thill coupling, the combination of an axle clip having a pair of spaced ears, segmental fingers extending above the ears in the same plane, overhanging the outer ends thereof, and forming segmental slots between the upper sides of the ears and the fingers, and a thill iron having lugs extending at opposite sides thereof, said lugs being adapted to fit in the respective segmental slots and be retained therein by means of segmental fingers, substantially as shown and described.

No. 63,280. Thill Couplings. *(Armon de limonière.)*

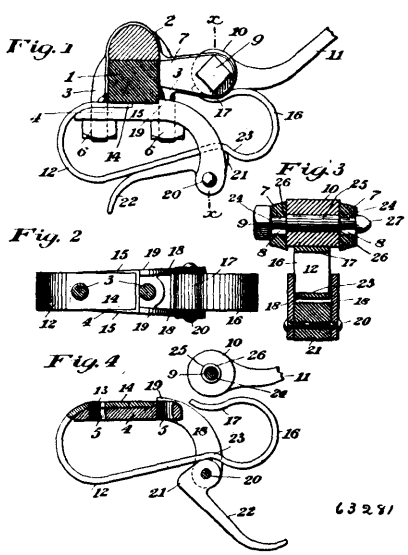


Knut Buland, Linn Grove, Iowa, U.S.A., 15th June, 1899; 6 years. (Filed 17th March, 1899.)

Claim.—1st. A thill coupling, comprising an axle clip having opposite spaced ears, which are provided with aligned slots and outwardly extending flanges, and a coupling bolt having a fixed head at one end, a washer slidable upon the other end of the bolt,

and means for adjusting the washer thereon, the bolt being adapted to be fitted in the eye of a thill iron and in the slots of the ears, whereby the head and the washer may be engaged with the flanges of the ears and retain the bolt in place, substantially as shown and described. 2nd. A thill coupling, comprising an axle clip having opposite spaced ears, each ear having an outwardly extending bevelled or undercut flange, and a transverse vertical slot formed therein, and a bolt having a fixed bevelled head, a bevelled washer slidable upon the bolt, and a nut for adjusting the washer, the bolt being adapted to be fitted in the eye of the thill iron, and in the slots of the ears, whereby the bevelled faces of the head and washer may be engaged with the respective bevelled flanges of the ears, substantially as and for the purpose set forth. 3rd. In a thill coupling, the combination of an axle clip having opposite spaced ears, each ear being provided with a vertical transverse slot open at its upper end, and outwardly extending flanges flush with the upper face of the ear, undercut or bevelled inwardly and downwardly and disposed at opposite sides of the slot, and a coupling bolt having a fixed transverse head convergently bevelled toward the bolt upon its upper and lower faces, an oblong washer slidably fitted upon the bolt having its upper and lower faces bevelled oppositely to those of the head, and a nut arranged upon the bolt outside of the washer, the bolt being adapted to be fitted in the eye of the thill iron and in the slots of the ears, and the nut being adapted to clamp the bevelled faces of the head and washer against the bevelled faces of the respective flanges, substantially as shown and described.

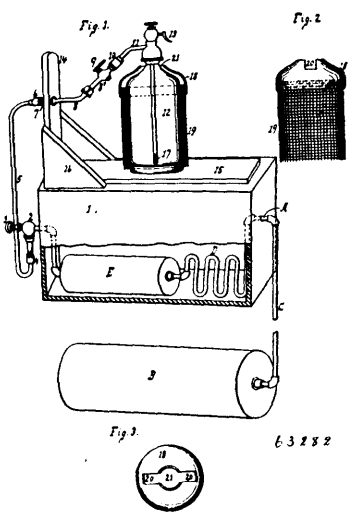
No. 63,281. Thill Couplings. (*Armon de limonière.*)



William Knapp, Cincinnati, Ohio, U.S.A., 15th June, 1899; 6 years. (Filed 15th May, 1899.)

Claim.—1st. In a thrill coupling, the combination of a clip having lugs, a thill iron having an eye pivotally held in said lugs, a clip tie plate having spaced arms projectiug beneath the thill iron, a spring extending under the clip tie plate between the arms thereof and held by said arms against lateral movement, said spring having its forward part adapted for engagement with the thill eye and means carried by said arms of the clip tie plate for placing the spring under tension, substantially as set forth. 2nd. In a thill coupling, the combination of a clip having lugs, a thill iron having an eye pivotally held in said lugs, a clip tie plate having spaced arms projecting beneath the thill iron, a spring extending under the clip tie plate between the arms thereof and held by said arms against lateral movement, said spring having its forward part engaged with the thill eye, a pin connecting the arms of the clip tie below said spring and a cam carried by said pin beneath said spring and arranged when moved, to place the spring under tension, substantially as set forth. 3rd. In a thill coupling, the combination of a clip having lugs, a thill iron having an eye, a clip tie, an anti rattler spring extending forward from the clip tie and having its forward part arranged for engagement with the thill iron to press the same in a direction transverse to the axis of its eye, a coupling bolt or pin passed through the clip lugs and through the eye of the thill iron and provided with locking mechanism controlled by the movement of the thill iron in a direction transverse to the axis of its eye, and means for placing said spring under tension to hold the parts against rattling and also to move the thill iron to operate the locking mechanism of the coupling bolt or pin, substantially as set forth. 4th. In a thill coupling, the combination of a clip having lugs, a thill iron having an eye, a coupling bolt or pin adapted for insertion in the clip lugs and thill eye and, when inserted, capable of movement in a direction transverse to its axis, and having shoulders to engage the lugs and lock the bolt or pin against removal from the lugs when said bolt or pin is moved transversely of its axis, and means to move the thill eye and bolt or pin to engage the shoulders with the lugs to hold said coupling bolt or pin against removal from the clip lugs, substantially as set forth. 5th. In a thill coupling, the combination of a clip having lugs, a thill iron having an eye, a coupling bolt or pin having shoulders to engage the clip lugs, an anti rattler spring adapted for engagement within the thill eye, and means for placing the spring under tension, said spring being arranged, when placed under tension, to move the thill eye and coupling bolt or pin to engage the shoulders thereof with said clip lugs to lock said bolt or pin against removal, substantially as set forth. 6th. In a thill coupling, the combination of a clip having lugs, a thill iron having an eye, a coupling bolt or pin having a cylindrical body portion adapted for insertion and turning movement in the clip lugs and thill eye and formed with annular shoulders adapted for engagement with the lugs of the clip, an anti rattler spring adapted for engagement with the thill eye, and means for placing said spring under tension, said spring being arranged, when placed under tension, to move the thill eye and coupling bolt or pin to arrange the shoulders thereof with the clip lugs to lock said bolt or pin against removal, substantially as set forth. 7th. In a thill coupling, the combination of a clip having lugs, a thill iron having an eye, a coupling bolt or pin adapted for insertion in the clip lugs and thill eye, means controlled by the upward movement of the thill eye to lock said bolt or pin against removal, an anti rattler spring arranged for engagement with the thill eye at the underside thereof, and means for placing said spring under tension, said spring, when placed under tension, being arranged to move the thill eye upward to lock the coupling bolt or pin, and when relaxed, to permit the thill eye to fall, whereby the coupling bolt or pin is unlocked and brought in position for removal to facilitate the shifting of the thills, substantially as set forth. 8th. In a thill coupling, the combination of a clip having lugs, a thill iron having an eye, a coupling bolt or pin adapted for insertion in the clip lugs and thill eye, said thill iron being adapted for movement between the clip lugs in a direction transverse to the axis of the coupling bolt or pin, means controlled by the movement of the thill iron transverse to the coupling bolt axis, for locking said coupling bolt or pin against endwise removal from the clip lugs, and means for moving said thill iron to lock said bolt or pin, substantially as set forth.

No. 63,282. Siphon Filling Device. (*Appareil à ciphon.*)

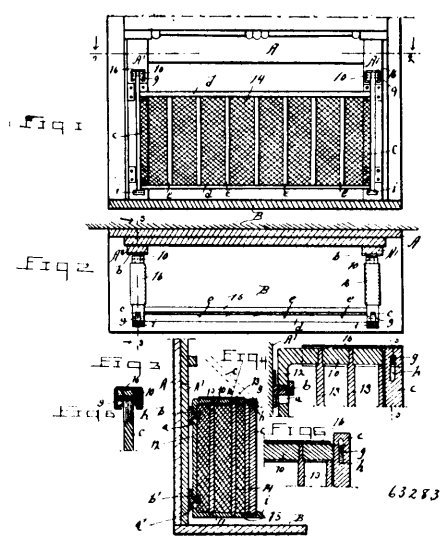


Peter E. Malstrom, New York City, New York, U.S.A., 15th June, 1899; 6 years. (Filed 22nd November, 1898.)

Claim.—1st. Means for filling siphon bottles having a discharge spout, comprising a portable siphon stand having a longitudinal base and an attached upright, a filling tube affixed to the said upright at a point above the base and extending outwardly from the upright over the base, a valve in the tube, and a coupling on the upright over the base, adapted to receive said spout, substantially outer end of said tube as described. 2nd. Means for filling siphon bottles having a discharge spout inclined downwardly from the top thereof, comprising a portable siphon stand having a longitudinal base and an attached upright, a filling tube affixed to the said upright at a point above the base and extending outwardly and upwardly over the base at an angle to said upright, a valve in the tube, and a coupling on the inclined outer end of said tube adapted to receive said spout, substantially as described. 3rd. Means for dispensing carbonated

beverages comprising the following instrumentalities, a portable stand having a base and an upright, a valved filling tube secured to the upright above the base and extending over the latter, a holder containing a liquid under pressure, a tube detachably connecting said holder and filling tube, a bottle having a siphon tube, an exterior valve and discharge spout at the top, and means on the outer end of said filling tube for detachably connecting the siphon spout thereto, substantially as described. 4th. Means for dispensing carbonated beverages, comprising a portable stand having a base and an upright, a valved filling tube extending from the upright at a point above and over the base, a coupling on the outer end of the said tube, a a cooling device, a holder for the carbonated beverage, piping leading from said holder into, through, and out of said cooler, and a tube detachably connecting said cooler outlet and the end of the filling tube at said upright, substantially as described. 5th. In an apparatus for charging siphons, the combination of a refrigerator, a cooler arranged therein and provided with an inlet and outlet extending outside the refrigerator, a portable siphon stand comprising a base provided at one end with an upright, a valved filling tube supported on the upright above the base and detachably coupled at one end with the cooler outlet and provided at its other end with a coupling extending over the base and constructed for attachment to the spout of a siphon bottle, substantially as described. 6th. In an apparatus for charging siphons, the combination of a refrigerator, a cooler arranged therein and provided with an inlet and a valved outlet extending outside the refrigerator, a portable siphon support comprising a base provided at one end with an upright, a valved filling pipe fixed to said upright above the base and provided at one end with a coupling, said pipe being bent upwardly to cause the coupling to assume a proper position for the reception of the spout of a siphon bottle placed upon the support, and a tube connected to the other end of the filling tube and detachably connected to the said outlet, substantially as described. 7th. Means for filling siphon bottles having a discharge spout, comprising a portable siphon stand having a longitudinal base and an attached upright, a filling tube affixed to said upright at a point above the base and extending outwardly from the upright over the base, a valve in the tube, and a coupling on the outer end of said tube, said coupling having a cap, an opening formed in the cap, an elastic washer in said cap, and a teat leading to said valve and extending through said washer, the teat centering the spout against said washer, substantially as described. 8th. A guard or shield, comprising the cup or dome shaped cap 18, the cylindrical and perforate guard 19 depending from the cap, aligned slots 20 formed in the top of the cap, and an enlarged opening in apex of the cap between the ends of said slots, as and for the purposes described.

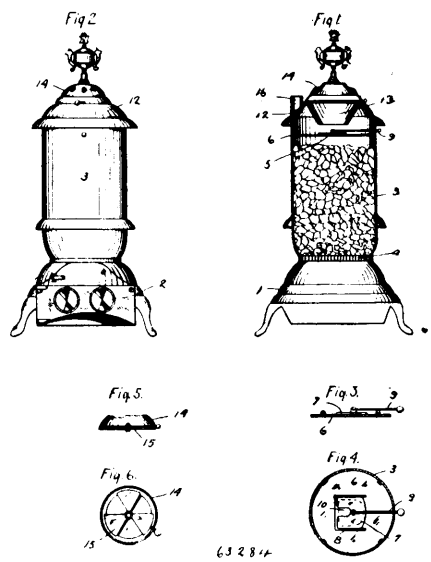
No. 63,283. Fireplace Fender. (*Ecran pour foyers.*)



Lorenzo P. Legg, Jefferson, Georgia, U.S.A., 15th June, 1899; 6 years. (Filed 22nd March, 1899.)

Claim.—1st. A fireplace fender having two side frames adapted to be secured to a building, and a front frame joined to the side frames, each side frame comprising a border-piece bent to form a top and a bottom rail and joined by a vertically extending back post, and each side frame also comprising lattice bars extended vertically between the top and bottom rails, and the front frame comprising two vertical side bars respectively movably carried by the front extremities of the top and bottom rails of the side frames, and the front frame also comprising horizontal front bars extending between the side bars of the front frame and the carrying vertically extending lattice bars. 2nd. A fireplace fender having two side frames each embodying a top rail and bottom rail, each bottom rail having a forwardly extending hook and each top rail having a pivot, a front frame for the fender, the front frame having two side bars rigidly joined by horizontaliy extending front bars, each side bar having a slot in which the pivots of the side frames are respectively received, and the lower end of each side bar being adapted to be removably engaged with the hooks of the bottom rails of the side frames, and a keeper-sleeve sliding on each top rail of the side frames.

No. 63,284. Stove. (*Poêle.*)



Frank J. Gould, Marion, Indiana, U.S.A., 15th June, 1899; 6 years, (Filed 10th April, 1899.)

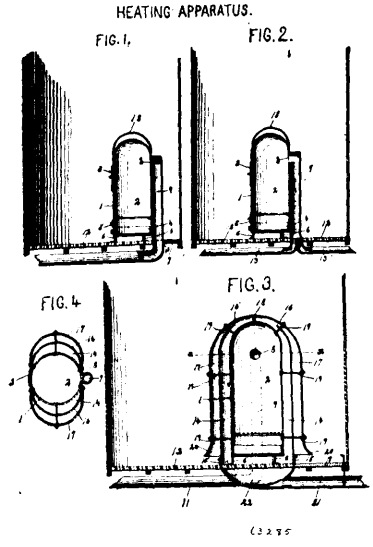
Claim.—1st A heating stove, comprising a shell for containing fuel divided into two chambers by a false top or diaphragm having an opening, a damper for regulating the size of such opening, a grate extending across the lower end of the shell, the shell being imperforate between the diaphragm and grate, means for introducing fuel through such diaphragm, and means for permitting the introduction of air beneath the grate and into the upper chamber, substantially as described. 2nd. A heating stove, comprising a shell for containing fuel divided into two chambers by a false top or diaphragm having an opening, a damper that can partially but never completely close such opening, a grate extending under the lower end of the shell, the shell being imperforate between the diaphragm and grate, means for introducing the fuel through such diaphragm, and means for permitting the introduction of air beneath the grate and into the upper chamber. 3rd. A heating stove, comprising a shell for containing fuel divided into two chambers by a false top or diaphragm having an opening, a damper for regulating the size of such opening, a grate extending across the lower end of the shell, the shell being imperforate between the diaphragm and grate, means for introducing fuel through such diaphragm, means for permitting the introduction of air beneath the grate, and an outlet pipe from the upper chamber, substantially as described. 4th. In a stove or furnace, a shell for containing the fuel, a diaphragm that divides the shell into an upper and a lower chamber, said diaphragm having an opening through it, a damper to regulate said opening but which cannot be entirely closed, a funnel above and registering with the opening in the diaphragm, a check damper above the funnel, an outlet pipe from the upper chamber, and a grate at the lower end of the stove through which air is admitted, said shell being imperforate between the grate and diaphragm.

No. 63,285. Heating Apparatus. (*Appareil de chauffage.*)

James McBride, Greenfield, Iowa, U.S.A., 15th June, 1899; 6 years. (Filed 21st April, 1899.)

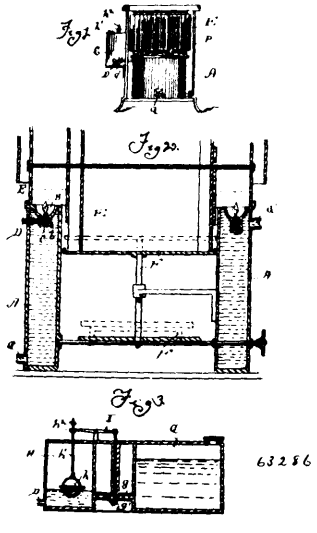
Claim.—1st. In a heating apparatus, the combination with a stove or heater proper, of independent vertically extending flues at opposite sides thereof communicating with a fresh air supply pipe at the lower ends, and auxiliary flues arranged outside the aforesaid flues and communicating at their upper ends therewith, the auxiliary flues terminating at their lower ends adjacent to but slightly above the floor and being flared, substantially as and for the purpose specified. 2nd. In a heating apparatus, the combination with a stove or heater proper, of a flue for the products of combustion communicating with the upper portion of the stove and extending down-

ward outside of the body of the heater through an opening in the floor of the room in which the heater is placed, the flue being



extended beneath and substantially parallel to the floor, and an open grating situated in the floor immediately above the underlying portion of the flue, substantially as and for the purpose specified. 3rd. In a heating apparatus, the combination with a stove or heater proper, of a flue communicating with the upper portion of the heater and extending downward upon the outside of the heater through an opening in the floor, branch flues communicating therewith at the floor line and extending in different directions beneath and substantially parallel to the floor, and open work gratings arranged in the floor immediately over the underlying branch flues, all arranged substantially as and for the purpose specified. 4th. In a heating apparatus, the combination with a stove or heater proper, of independent flues extending in parallel relation to and upon the outside of the heater and downward to the floor, a fresh air supply pipe extending upward through the floor and communicating with the lower ends of said flues, draft doors or dampers for said flues arranged near the floor, and auxiliary flues communicating with the upper ends of the aforesaid flues and extending downward parallel thereto and terminating adjacent to but slightly above the floor, substantially as and for the purpose specified.

No. 63,286. Oil Stove. (*Poêle à huile.*)



Edward H. Driggs, Berkeley, California, U.S.A., 15th June, 1899; 6 years. (Filed 27th April, 1899.)

Claim.—1st. In an oil stove, the combination of an annular jacket or shell having within it a cooling medium, an annular oil chamber at or near the top of said annular jacket and extending within the same and into the cooling medium, a wick therein, and an oil supply pipe for said oil chamber passing through said annular jacket and its contained cooling medium. 2nd. In a lamp stove, the combination of an annular jacket or shell containing a cooling medium having its top wall depressed to form an annular wick chamber extending into said annular jacket and into the contained cooling medium and a fuel supply pipe for said wick chamber through said annular jacket and its contained cooling medium. 3rd. In a lamp stove, the combination of an annular jacket or shell, containing a cooling medium, having its top wall annularly depressed to form an annular wick chamber B, an annular oil groove in the bottom thereof both extending into said annular jacket and its contained cooling medium, a wick in said wick chamber, and a fuel supply for said wick chamber, substantially as described. 4th. In a lamp stove, the combination of a water jacket, a narrow shallow wick chamber extending into said jacket, and a wick in said wick chamber substantially filling said chamber, a fuel supply connected with said wick chamber, an automatic regulator for said supply, and adjusting means for said regulator. 5th. In an oil stove, the combination of a water jacket, a shallow oil chamber for supplying the wick or burner extending into said water jacket, a supply reservoir for the oil chamber, a float chamber connected by said supply pipe to said reservoir and oil chamber, a float in said float chamber, a regulator valve in said supply pipe, and an exposed adjustable connection between said float and valve, substantially as described.

No. 63,287. Stove Pipe. (*Tuyau de poêle.*)

FIG. 1.

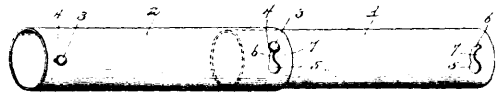


FIG. 2.

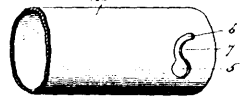
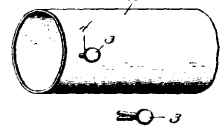


FIG. 3.



Henry Boggis, Philadelphia, Pennsylvania, U.S.A., 15th June, 1899; 6 years. (Filed 4th May, 1899.)

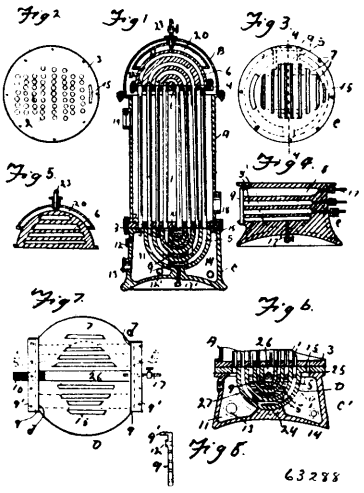
Claim.—1st. A pipe joint composing a pair of interfitting sections, one of which is provided with a laterally disposed longitudinally curved slot, having closed ends, and the other of which is provided with a projection designed to engage the slot, substantially as specified. 2nd. A pipe joint comprising a pair of interfitting sections, one of which is provided with a laterally disposed longitudinally curved slot, intermediate of the ends of the section, and terminating at one end in a discharge opening, the other section being provided with a headed pin designed to engage the slot, substantially as specified.

No. 63,288. Feed Water Heater.
(*Réchauffeur d'eau d'alimentation.*)

Charles J. Jackson, Erie, Pennsylvania, U.S.A., 15th June, 1899; 6 years (Filed 15th May, 1899.)

Claim.—1st. The combination, in a water heater, of several rows of tubes terminating at top and bottom in tube plates, a base on which the bottom tube plate rests containing passages connecting the bottoms of the tubes of an adjoining row, a cap on the tops of the tubes, also having passages and connecting the tops of the tubes in the second row with those of a third row, and so on for other rows until the outer rows are reached, water inlet and outlet passages, one communicating with a central row of the tubes and the other with an outer row, and an inclosing steam chamber. 2nd. The combination, in a water heater, of groups of tubes connected in series, the connection at the bottom being by curved passages cast in the base and extending transversely to openings at one side, a removable plate normally covering said openings, and a steam chamber inclosing the tubes. 3rd. The combination, in a water

heater, of groups of tubes the groups being connected in series by detachable curved passages at top and bottom, the passages at the

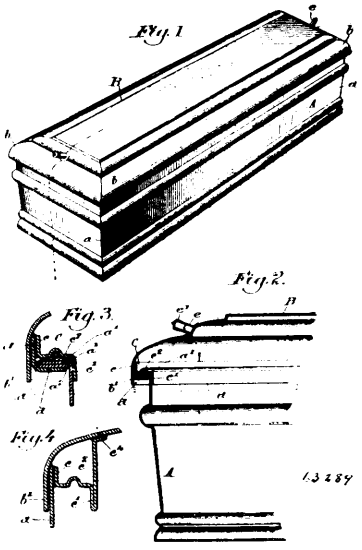


bottom having normally closed clearing openings and a removable cover therefor. 4th. The combination, in a water heater, of groups of tubes the groups being connected in series by passages at top and bottom, the passages at the bottom having blowing out connections whereby the passages and connected rows of tubes can be drained or blown out separately. 5th. The combination, in a water heater having a water inlet and outlet and a steam chamber, of rows of tubes connected in series by suitable passages, a scum chamber over the connecting passages of the last row of tubes, and one or more openings from said passage to the scum chamber. 6th. The combination, in a water heater having a water inlet and outlet and a steam chamber, of tubes suitably connected at the bottom, a tube plate in which the tubes terminate at the top, a cap having curved passages for connecting the tubes at the top, and a scum chamber connected with the outer passages. 7th. The combination, in a water heater, of tubes termmating at the top in a tube plate, a cap having curved passages for connecting the tubes, a scum chamber over the last passage, there being one or more openings from said last passage to the scum chamber, a lip or lips below the openings for diverting scum into the scum chamber, and a steam chamber. 8th. The combination, in a water heater having water inlets and outlets, and a steam chamber, of rows of tubes connected in series by passages, the rows of tubes and the passages being of greater capacity than the outlet of the heater, the passage to the last row of tubes at its outer end being contracted between the water outlet and the opening into the scum chamber so as to make it about equal in capacity to the water outlet, as specified, whereby scum is more perfectly diverted to the scum chamber, and said scum chamber. 9th. The combination, in a water heater having a water inlet and outlet and a steam chamber, of rows of tubes connected in series by suitable passages, a scum chamber over the connecting passage of the last row of tubes, and one or more openings from said passage to the scum chamber and a blow out connected to the scum chamber.

No. 63,289. Burial Casket. (*Cercueil.*)

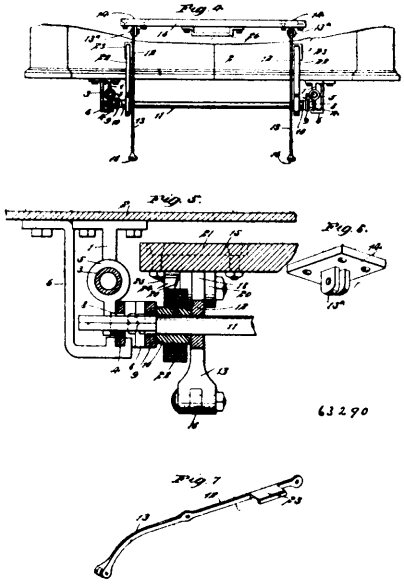
Charles Michael Drennan, Boston, Massachusetts, U.S.A., 15th June, 1899; 6 years. (Filed 13th March, 1899.)

Claim.—1st. A casket body having a laterally extended flange at or near its upper edge, a cover, an angle iron secured to the interior of said cover and having a depending lip to enter the open top of the body inside of its flange, and a retaining ear or ears supported inside said cover and adapted to be bent inwardly under the flanges of the body to retain the cover in its finished condition, substantially as described. 2nd. A casket body having a laterally extended top flange, a cover having a depending finished edge, an angle iron secured to the interior of the said cover air tight, and a series of retaining ears interposed between a lip of said angle iron and the interior of the cover at the junction of the angle iron with said cover, said ears being adapted to be bent upwardly under the flange of the body to retain the cover seated with the horizontal part of the flange at the body, substantially as described. 3rd. A casket body having a laterally extended top flange, a cover having a depending finished edge, an angle iron secured to the interior of the said cover air tight, and a series of retaining ears interposed between a lip of said angle iron and the interior of the cover at the junction of the angle iron with said cover, said ears being adapted to be bent upwardly under the flange of the body to retain the cover seated with the horizontal part of the angle iron resting on the horizontal



part of the flange at the body, a groove being formed between the horizontal part of the body to receive luting, substantially as described.

No. 63,290. Casket Handler. (*Poignée de cercueil.*)

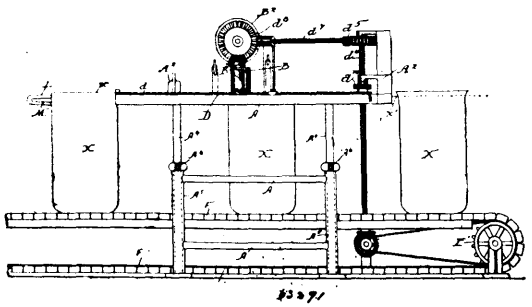


William Paul Fest, Rochester, New York, U.S.A,, 15th June, 1899; 6 years. (Filed 1st April, 1899.)

Claim.—1st. The combination with a vehicle, of guide rods secured to the bottom of the vehicle, bars mounted to move on said rods, and a platform having swinging movement relatively to said bars, substantially as specified. 2nd. The combination with a vehicle, of guide rods suspended from the bottom thereof, bars having sliding connection with said rods, a platform mounted to swing vertically with relation to the bars, and springs for assisting in the upward movement of said platform, substantially as specified. 3rd. The combination with a vehicle, of guide rods supported on the bottom thereof, bars having sliding connection with said rods and the said bars being longitudinally slotted, other bars having lugs extended into said slots, levers mounted to swing relatively to said other bars, and a platform having pivotal connection with the upper ends of said levers, substantially as specified. 4th. The combination with a vehicle, of guide rods attached to the bottom thereof, bars having sliding connection with said rods, other bars having lugs extended into slots in the first named bars, levers mounted to swing relatively to said other bars, link connections between downwardly extended portions of the levers of a slide and a platform having pivotal connection with the upper ends of said levers, sub-

stantially as specified. 5th. The combination with a vehicle, of guide rods supported on the underside of the bottom thereof, bars having sliding connection with said rods, other bars having sliding connection relatively to the first named bars, levers having swinging connections between downwardly extended portions of the levers, springs connected at one end to bearing blocks on said other bars and having their free ends engaging with the upper portions of the levers, and a platform having pivotal connection with the upper ends of the levers, substantially as specified. 6th. The combination with a vehicle, of guide rods supported on the underside of the bottom thereof, bars having sliding connection with the first named bars, a shaft having bearings in said other bars, levers having connection with said shaft, levers having swinging connection with lugs on said other bars, link connections between levers of a side, and a platform having pivotal connection with the levers, substantially as specified, 7th. The combination with a vehicle, of a casket handler, comprising bars and a platform mounted to swing relatively to said bars, the said bars and platform being mounted to slide wholly underneath the vehicle, substantially as specified.

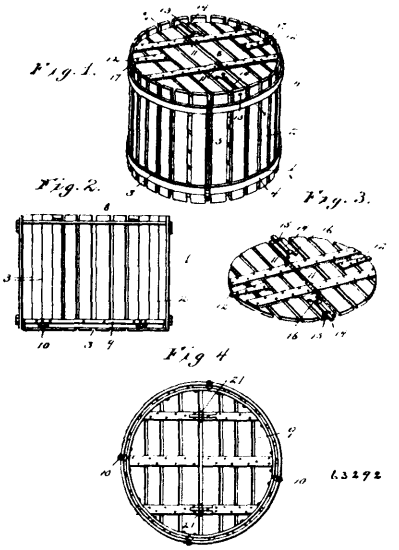
No. 63,291. Sewing Machine for Sewing Filled Sacks.
(Machine à coudre les sacs remplis.)



Arthur Thomas Timewell, Chicago, Illinois, U.S.A., 15th June, 1899; 6 years. (Filed 3rd March, 1899.)

Claim.—1st. In a machine for sewing filled sacks, the combination with a sewing mechanism of an endless travelling sack holder comprising a pair of opening and closing endless flexible clamps for receiving and feeding the mouth edges of the filled sacks and holding the same closed in position for sewing, and conveying the same past the sewing mechanism, substantially as specified. 2nd. A filled sack sewing machine, comprising in combination a sewing mechanism and an endless travelling sack holder, comprising a pair of opening and closing endless flexible clamps, substantially as specified. 3rd. A filled sack sewing machine, comprising in combination a sewing mechanism and an endless travelling sack holder consisting of a pair of endless chains having opposing parallel portions between and by which the mouth edges of the sack are received, fed clamped and held, substantially as specified. 4th. In a filled sack sewing machine, the combination with a sewing mechanism, of a pair of endless chains having opposing parallel portions between and by which the sacks are received, fed and clamped, the backs or meeting faces of said chains having the one a groove and the other an interfitting tongue to increase the clamping or holding action of the chains upon the sacks, substantially as specified. 5th. In a filled sack sewing machine, the combination with a sewing mechanism, of an endless travelling sack holder, comprising a pair of opening and closing continuous endless flexible clamps, and a conveyor for delivering the filled sacks to the endles travelling sack holder, substantially as specified. 6th. In a filled sack sewing machine, the combination with a sewing mechanism of an endless travelling sack holder, comprising a pair of opening and closing continuous endless flexible clamps, and a conveyor for supporting the weight of the filled sacks as they are carried through the machine past the sewing mechanism, substantially as specified. 7th. In a filled sack sewing machine, an endless travelling opening and closing continuous sack holder consisting of a pair of endless chains having parallel opposing portions travelling together and between which the sacks are clamped, substantially as specified. 8th. In a filled sack sewing machine, an endless travelling opening and closing continuous sack holder consisting of a pair of endless chains having parallel opposing portions travelling together and between which the sacks are clamped, and guides for the parallel portions of said chains, substantially as specified. 9th. In a filled sack sewing machine, the combination with a bed plate having a longitudinal slot *a*, of a sewing mechanism, and a pair of endless travelling sack holder chains, guides C C, and pulleys or sprocket wheels upon which said endless chains travel, whereby the filled sacks are automatically received, fed and clamped between and delivered from said chains, substantially as specified. 10th. In a filled sack sewing machine, the combination with the sewing mechanism, of an endless travelling sack holder comprising a pair of opening and closing continuous endless flexible clamps, and a knife or cutter for severing the chain of stitching or thread uniting the sewed sacks as they pass successively through the machine, substantially as specified. 11th. In a filled sack sewing machine, the combination with the sewing mechanism, of an endless travelling sack holder, a knife or cutter for serving the chain of stitching or thread uniting the sewed sacks as they pass successively through the machine, and an arm or lever projecting in the path of the filled sack for operating said knife or cutter, substantially as specified. 12th. The combination with a sewing mechanism, of a pair of endless travelling sack holder, chains adapted to receive and feed the mouth edges of the sack between them, and a conveyor for delivering the sewed sacks from the machine, substantially as specified. 13th. A filled sack sewing machine, comprising in combination a sewing mechanism and an endless travelling sack holder consisting of a pair of endless chains having opposing parallel portions between and by which the mouth edges of the sack are fed, clamped and held, and guides for the parallel portions of said chains, substantially as specified. 14th. In a filled sack sewing machine, comprising in combination a sewing mechanism and an endless travelling sack holder consisting of a pair of endless chains having opposing parallel portions between and by which the mouth edges of the sack are fed, clamped and held, and guides for the parallel portions of said chains, one of said guides being adjustable to and from its fellow, substantially as specified. 15th. In a filled sack sewing machine, the combination with the sewing mechanism, of an endless travelling sack holder, a knife or cutter for severing the chain of stitching or thread uniting the sewed sacks, as they pass successively through the machine, and an arm or lever projecting in the path of the filled sack for operating said knife or cutter by engagement with the filled sack as it passes, substantially as specified. 16th. The combination in a filled sack sewing machine, of opposing travelling, gripping and feeding devices for laterally gripping the mouth of the sack and feeding and conveying it to the sewing mechanism, and a guide over which the mouth of the sack may be folded and presented to the gripping and feeding devices in position to ensure stitching through both the folded and unfolded part of the mouth, substantially as specified. 17th. The combination in a filled sack sewing machine, of sewing mechanism, a carrier for filled sacks, a bar or guide over which the mouths of the sacks may be folded, and opposing travelling sack mouth gripping and feeding mechanism for laterally gripping, feeding and conveying the folded mouth of the sack from the bar to the sewing mechanism, substantially as described. 18th. The combination in a filled sack sewing machine, of sewing mechanism, a carrier for the filled sacks, a bar or guide over which the mouths of the sacks may be folded, and opposing travelling endless gripping and feeding mechanism for feeding, gripping and conveying the folded mouth of the sack from the bar to the sewing mechanism, substantially as specified.

No. 63,292. Barrel. (*Baril.*)

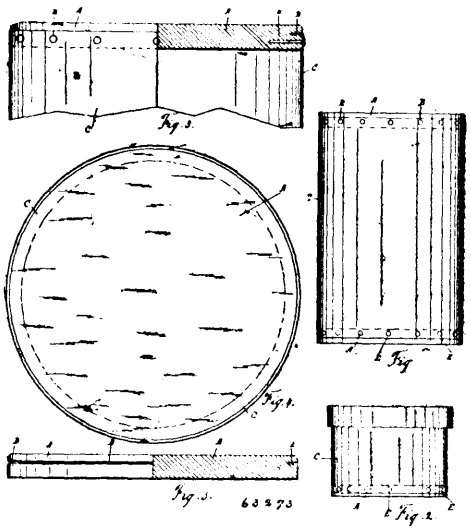


George W. Hinman, Lake Charles, Louisiana, U.S.A., 15th June, 1899; 6 years. (Filed 13th March, 1899.)

Claim.—1st. In a shipping barrel or crate of the character specified, the combination with a collapsible body having keepers in its upper portion, a lower removable head, and an upper removable divided head having fixed and sliding locking bars on each part thereof, the sliding locking bars being secured to the parts of the head by the pivoted crank links, substantially as described. 2nd. In a shipping barrel or crate, the combination of a collapsible body having keepers at the inner upper portion thereof, a lower body having keepers at the inner upper portion thereof, a lower and an upper divided head having slide-locks on each part thereof connected to crank links, the said slide-locks being adapted to engage the said keepers, substantially as described. 3rd. In a shipping barrel or crate of the character specified, the combination with a collapsible body, of a removable divided bottom, the parts

of which are hinged together, a divided collapsible inner rim for holding said bottom against outward movement, and a removable and divided upper head having locking bars on each part thereof, a portion of said locking devices being laterally movable to engage keepers on the barrel and being connected with the head by means of pivoted crank links, substantially as described.

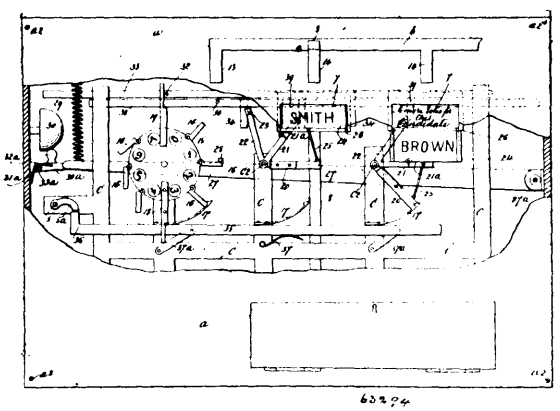
No. 63,293. Barrel, Dry Measure, etc.
(*Baril, mesure, etc.*)



John J. Magee and Frederick G. Rumball, both of London, Ontario, Canada, 20th June, 1899; 6 years. (Filed 22nd December, 1898.)

Claim.—1st. A barrel, keg, dry measure or other receptacle, having a head, end or bottom, in which a groove or recess is formed, in combination with a body provided with an inwardly projecting rim flange, substantially as and for the purpose set forth. 2nd. A barrel, keg, dry measure or other receptacle, having a head, end or bottom, in which a groove or recess is formed, in combination with a body provided with an inwardly projecting rim flange, and means for securing the adjacent portion of said body to said head, substantially as and for the purpose set forth.

No. 63,294. Voting Machine. (*Machine à voter.*)



Ernest Joseph Mead, Totnes, Devon, England, 21st June, 1899; 6 years. (Filed 3rd January, 1899.)

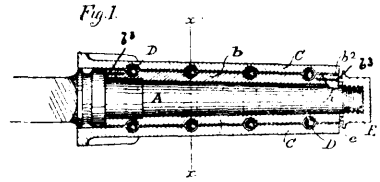
Claim.—1st. In a voting machine constructed as herein described, a dial plate provided with radial arms which are hinged to the perimeter thereof, and adapted to swing in one direction only, substantially as shown and described. 2nd. In a voting machine constructed as herein described, a dial plate provided with radial arms which are hinged to the perimeter thereof, and adapted to swing in one direction only, and a pivoted spring-supported arm which is adapted to operate on the dial plate, substantially as shown and described. 3rd. A voting machine, comprising a casing provided with a longitudinal slot in the front thereof, and downwardly dressed slots communicating therewith, a longitudinally movable lever pivotally supported in the casing, said lever being projected through said longitudinal slot and adapted to be depressed into said downwardly directed slots, a registering apparatus mounted n the casing of the machine and adapted to be operated by said lever, a series of connected radial arms mounted in the casing adjacent to one of said downwardly directed slots and adapted to be operated by said lever, the front of the casing being also provided with an opening in which is mounted a vertically movable name plate which is in operative connection with one of said radial arms, substantially as shown and described. 4th. A voting machine, comprising a casing provided with a longitudinal slot in the front thereof, and downwardly directed slots communicating therewith, a longitudinally movable lever pivotally supported in the casing, said lever being projected through said longitudinal slot and adapted to be depressed into said downwardly directed slots, a registering apparatus mounted in the casing of the machine and adapted to be operated by said lever, a series of connected radial arms mounted in the casing adjacent to one of said downwardly directed slots and adapted to be operated by said lever, the front of the casing being also provieed with an opening in which is mounted a vertically movable nameplate which is in operative connection with one of said radial arms, said last named radial arms being detachable from the other arms of the series, substantially as shown and described. 5th. A voting machine, comprising a casing provided with a longitudinal slot in the front thereof, and downwardly directed slots communicating therewith, a longitudinally movable lever pivotally supported in the casing, said lever being projected through said longitudinal slot and adapted to be depressed into said downwardly directed slots, a registering apparatus mounted in the casing of the machine and adapted to be operated by said lever, a series of connected radial arms mounted in the case adjacent to one of said downwardly-directed slots and adapted to be operated by said lever, the front of the casing being also provided with an opening in which is mounted a vertically movable nameplate which is in operative connection with one of said radial arms, said last named radial arms being detachable from the other arms of the series, and said casing being also provided with a dial plate provided with radial arms which are hinged to the perimeter thereof, and adapted to swing in a limited arc, and devices operated by said lever for turning said dial plate, substantially as shown and described. 6th. A voting machine constructed as herein described, and provided with registering apparatus, and means for operating the same, said machine being also provided with a dial plate having radial arms hinged to the perimeter thereof, and adapted to swing in a limited arc, a lever for turning said dial plate, substantially as shown and described. 7th. A voting machine constructed as herein described and adjustable as to the number of candidates to be voted for, said machine with a registry apparatus for each candidate which is adapted to be operated each time that said candidate is voted for, and said machine being also provided with means for indicating the number of votes remaining to each voter after a vote has been cast and means for indicating on the exterior of the case the names of the candidates, and devices for drawing each name from sight as soon as no further vote can be given to said candidates, substantially as shown and described. 8th. A voting machine constructed as herein described, and provided with registering apparatus, and means for operating the same, said machine being also provided with a dial plate having radial arms hinged to the perimeter thereof, and adapted to swing in a limited arc, a lever for operating the registering apparatus, and devices operated by said lever for turning said dial plate, and a gong which is operated by said devices each time that the dial plate is turned, substantially as shown and described. 9th. A voting machine, comprising a casing constructed as herein described, and provided with a horizontal slot in the front thereof, and vertical slots communicating therewith, a voting lever mounted in said casing and adapted to move longitudinally thereof, and to operate in said slots, separate series of registery devices mounted in said casing and adapted to be operated by said voting lever, an an indicator dial also mounted in said casing, a pivoted arm also mounted in said casing, and extending longitudinally thereof, and which is adapted to be operated by said voting lever, said pivoted arm being adapted to operate said indicator dial, separate series of radial arms mounted in said casing and adapted to be operated by said voting lever, movable name plates mounted in openings formed in the front of the casing, and in operative connection with one of the radial arms of each of said series, and longitudinally movable bars which are adapted to be operated by the indicator dial, and which are also adapted to operate the radial arms of each of said series, substantially as shown. 10th. A voting machine, comprising a casing constructed as herein described, and provided with a horizontal slot in the front thereof, and vertical slots communicating therewith, a voting lever mounted in said casing and adapted to move longitudinally thereof, and to operate in said slots, separate series of registry devices mounted in said casing and adapted to be operated by said voting lever, an indicator dial also mounted in said casing, a pivoted arm also mounted in said casing and extending longitudinally thereof, and which is adapted to be operated by said voting lever, said pivoted arm being adapted to operate said indicator dial, separate series of radial arms mounted in said casing and adapted to be operated by said voting lever, movable name plates mounted in openings formed in the front of the casing, and in operative connection with one of the radial arms of each of said series, and longitudinally movable bars which are adapted to be operated by the indicator dial, and which are also adapted to operate the radial arms of each of said series, and means for locking the separate parts of the mechanism which are adapted to be operated by keys inserted through

the front of the casing, substantially as shown and described. 11th. A voting machine comprising a casing constructed as herein described, and provided with a horizontal slot in the front thereof, and vertical slots communicating therewith, a voting lever mounted in said casing and adapted to move longitudinally thereof, and to operate in said slots, separate series of registry devices mounted in said casing, and adapted to be operated by said voting lever, an indicator dial also mounted in said casing, a pivoted arm also mounted in said casing and extending longitudinally thereof, and which is adapted to be operated by said voting lever, said pivoted arm being adapted to operate said indicator dial, separate series of radial arms mounted in said casing and adapted to be operated by said voting lever, movable name plates mounted in openings formed in the front of the casing, and in operattive connection with one of the radial arms of each of said series, and longitudinally movable bars which are adapted to be operated by the indicator dialy and which are also adapted to operate the radial arms of each of said series, and means for locking the separate parts of the mechanism which are adapted to be operated by keys inserted through the front of the casing and said casing being also provided with a gong or bell which is adapted to be operated by the pivoted arm which extends longitudinally of said casing, substantially as shown and described. 12th. A voting machine consisting of a casing the front of which is provided with a longitudinal slot near the top thereof, and vertical slots communicating with the bottom thereof, said front being also provided with openings which are adapted to receive vertically movable name plates, and which correspond with all of said vertical slots with the exception of the one at the left, a voting lever mounted in said casing and adapted to move longitudinally thereof, and to operate in said slots, a plurality of registry apparatus adapted to be operated by said lever, an arm as 27 pivotally mounted in one end of said casing and extending longitudinally thereof, and adapted to be operated by said voting lever, a bell or gong adapted to be operated by said arm, an indicator dial as 15 which is adapted to be operated by said arm, and also by said voting lever, separate series of radial arms as 20, 21, and 22 which are connected and pivotally mounted adjacent to said openings in which the name plates are placed, and one arm of each of said series being connected with the corresponding name plate, longitudinally movable bars mounted in said casing, and adapted to be operated by said indicator dial, said bars being also adapted to operate the radial arms of each of said series, and devices whereby the separate parts of the machine are locked against operation, substantially as shown and described. 13th. A voting machine consisting of a casing the front of which is provided with a longitudinal slot near the top thereof, and vertical slots communicating with the bottom thereof, said front being also provided with openings which are adapted to receive vertically movable name plates, and which correspond with all of said vertical slots with the exception of the one at the left, a voting lever mounted in said casing and adapted to move longitudinally thereof, and to operate in said slots, a plurality of registry apparatus adapted to be operated by said lever, an arm as 27 pivotally mounted in one end of said casing and extending longitudinally thereof, and adapted to be operated by said voting lever, a bell or gong adapted to be operated by said arm, an indicator dial as 15 which is adapted to be operated by said arm, and also by said voting lever, separate series of radial arms as 20, 21 and 22 which are connected and pivotally mounted adjacent to said openings in which the name plates are placed, and one arm of each of said series being connected with the corresponding name plate, longitudinally movable bars mounted in said casing, and adapted to be operated by said indicator dial, said bars being also adapted to operate the radial arms of each of said series, and devices whereby the separate parts of the machine are locked against operation, said devices consisting of a longitudinally and vertically movable bar as 35 provided with spring catches as 17, and an arm rigidly connected with the indicator dial by which said sliding bars are operated, substantially as shown and described. 14th. A voting machine, comprising a casing, the front of which is provided with communicating horizontal and vertically arranged slots or openings, vertically movable name plates mounted in said openings in the front of the casing, registering apparatus corresponding with said name plates, a lever projecting through the front of the casing and adapted to operate said registering apparatus and said name plates, a dial plate provided with radial arms hinged to the perimeter thereof and adapted to swing in a limited arc, a pivoted lever for operating said dial plate, said pivoted lever being adapted to be operated by said voting lever, and devices operated by said voting lever for moving said name plates, substantially as shown and described. 15th. A voting machine constructed as herein described, and provided with a pivoted arm 27, a dial plate 15 having radial hinged arms 16, a horizontal and vertically movable bar 35 provided with catches 17 adapted to operate in connection with the arms of the dial plate, said dial plate being adapted to turn in one direction, substantially as shown and described. 16th. A voting machine constructed as herein described and provided with a registering apparatus, a voting lever for operating the same, a dial plate adapted to turn in one direction only, and provided with radial arms hinged to the perimeter thereof, a pivoted arm for operating said dial plate, and a longitudinally and vertically movable bar provided with a catch for locking said dial plate, substantially as shown and described. 17th A voting machine constructed as herein described and provided with a front casing having a longitudinal slot or opening, and vertical slots or openings communicating therewith, registering apparatus mounted in said machine, a pivoted and longitudinally movable voting lever mounted in said machine and projecting through the horizontal slot or opening and adapted to operate said registry apparatus, the front casing of the machine being also provided with openings in which are mounted vertically movable name plate holders, a series of connected radial arms pivotally supported adjacent to each of said openings, one of which is connected with the name plate holders. and one of each of said series of arms being also provided with a hinged section, and the arm of each series with which the name plate holders, are connected being detachable, substantially as shown and described.

No. 63,295. Ball Bearings for Wheels.

(*Coussinet à boule pour roues.*)

Fig. 1.



63295

William Jenkins, Toronto, Ontario, Canada, 21st June, 1899; 6 years. (Filed 12th January, 1899.)

Claim.—1st. In a ball bearing for a wheel, a sleeve made fast upon the axle arm and fitting in the socket or boxing which turns thereon, circumferential grooves around the exterior surface of the sleeve registering with corresponding grooves around the interior surface of the boxing forming ball races for the balls of the bearing. the sleeve having an opening therethrough through which the balls are inserted into the races from the interior of the sleeve, substantially as described. 2nd. In a ball bearing for a wheel, a sleeve fitted in the socket or boxing which turns thereon, circumferential grooves around the exterior surface of the sleeve registering with corresponding grooves around the interior surface of the socket forming races for the balls, the sleeve having an opening through it at the top above the axle arm through which from the interior of the sleeve the balls are inserted into the races, the sleeve being fitted over and made fast upon the axle arm, substantially as described. 3rd. In a ball bearing for a wheel, a sleeve made fast upon the axle arm and held thereon by the axle nut which is out of contact with the boxing of the hub, the sleeve fitting into the boxing and suitable ball races being formed by circumferential grooves around the exterior surface of the sleeve registering with corresponding circumferential grooves around the interior surface of the boxing, the seleeve having an opening through which from the interior of the sleeve the balls are inserted into the races, substantially as described. 4th. In a ball bearing for a wheel, a sleeve made fast upon the axle arm and held thereon by the axle nut which is out of contact with the boxing of the hub, the sleeve fitting into the boxing, and suitable ball races being formed by circumferential grooves around the exterior surface of the sleeve registering with corresponding circumferential grooves around the interior surface of the boxing, the sleeve having an opening through it at the top and above the axle through which from the interior of the sleeve the balls are inserted into the races, substantially as described. 5th. In a ball bearing for a wheel, a removable sleeve made fast upon the axle arm and fitted into the hub boxing, circumferential grooves around the exterior surface of the sleeve registering with corresponding grooves around the interior surface of the boxing an opening in the sleeve through which the balls may be inserted into the races from the interior of the sleeve, the sleeve having on its interior surface a projection which fits into a corresponding indentation in the axle arm and a suitable axle nut arranged to come in contact with the sleeve and out of contact with the boxing, substantially as described.

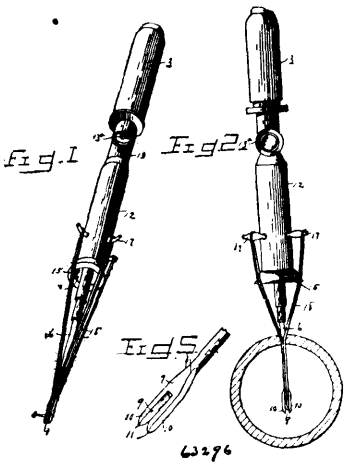
No. 63,296. Bicycle Tire Repair Tool.

(*Outil à reparer les bandages de bicycles.*)

Clarence E. Kelly and Amanda J. Haworth, Greentown, Indiana) U.S.A., 21st June, 1899; 6 years. (Filed 24th December, 1898.,

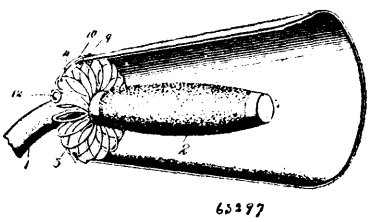
Claim.—1st. In a tool for repairing inflatable tubes, the combination with a shaft carrying a needle having an open ended slot in its pointed end, of a winged sleeve slidably supported on the shaft, substantially as and for the purpose specified. 2nd. In a tool for repairing elastic tubing, the combination with a shaft, carrying a needle having an open ended slot in its pointed end, of a sleeve slidably supported on the shaft and provided with a series of radiating pins, substantitally as and for the purpose specified. 3rd. In a tool for repairing elastic tubing, the combination with a shaft carrying a needle having a cylindrical body and a flattened pointed end portion provided with an open ended slot extending longitudinally thereof, of a sleeve slidably supported on the shaft and provided with a series of radiating pins, substantially as described. 4th. In a tool for repairing elastic tubing, the combination with a shaft carrying a needle having a cylindrical body and a flattened end por-

tion provided with an open ended slot extending longitudinally thereof, and inclined shoulders at the junction of the cylindrical



body and flattened end portion, of a sleeve slidably supported on the shaft and provided with a series of radiating pins, substantially as set forth. 5th. In a tool for repairing elastic tubing, the combination with a shaft carrying a needle having an open ended slot in its pointed end, of a sleeve slidably supported on the shaft and provided with a series of radiating pins, and a plate or disc fitted over the lower end of the sleeve and having its lower end concaved or dished, substantially as and for the purpose specified.

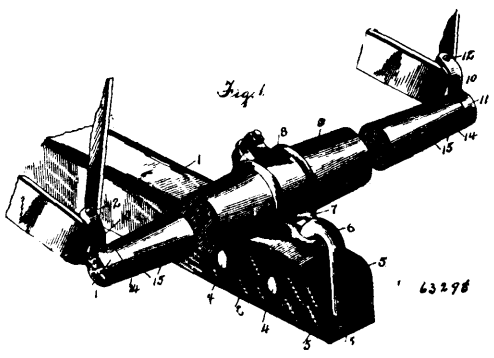
No. 63,297. Bicycle Hand Shade.
(*Abat-jour pour poignées de bicycles.*)



Francis Gallant, Tignish, Prince Edward Island, Canada, 21st June, 1899; 6 years. (Filed 21st December, 1898.)

Claim.—1st. A hand shade for bicycles, comprising a coiled spring removably connected to the handle bar, supporting bands removably secured to said spring, a shade portion mounted between said bands, and fastening means connected with said bands for removably securing the said hand shade in position, substantially as described. 2nd. A bouquet holder for bicycles, comprising a coiled spring, removably located on the handle bar, and a bouquet holder secured within the coils of said spring, substantially as described. 3rd. A hand shade for bicycles, comprising a coiled spring removably connected to the handle bar, and a shade portion removably connected to said spring, substantially as described. 4th. A hand shade for bicycles, comprising an endless coiled spring removably located on the handle bar, and a shade portion removably connected to said spring, substantially as described.

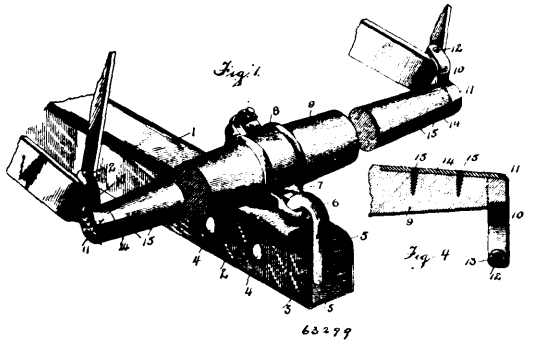
No. 63,298. Pole Tip. (*Ferrure de timon.*)



Louis Alphonse Nadeau, St. Athanase d'Iberville, Quebec, Canada, 21st June, 1899; 6 years. (Filed 27th April, 1899.)

Claim.—1st. A pole tip, comprising a partially enclosed recess at its front end, and having a hook secured thereto extending into said recess, whereby a neck yoke, having an attaching ring, may be removably secured on said hook portion, substantially as described. 2nd. A pole tip, comprising at its rear end flanges adapted to embrace the end of the pole, bolt for securing said tip to the pole, said tip having at its front end a partially enclosed recess, a hook rigidly secured to said tip and having its free end extending into said recess, whereby a neck yoke, having an attaching ring may be removably secured on said hook portion, substantially as described.

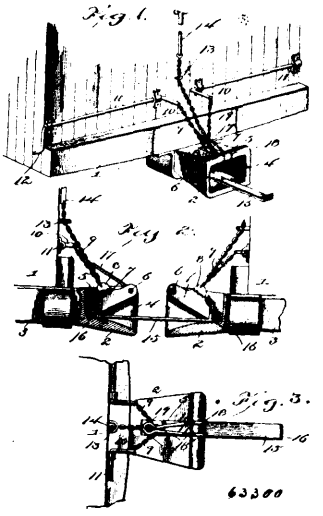
No. 63,299. Neck Yoke. (*Volée d'avant.*)



Louis Alphonse Nadeau, St. Athanase d'Iberville, Quebec, Canada, 21st June, 1899; 6 years. (Filed 16th February, 1899.)

Claim.—1st. The combination with a neck yoke, of a breast strap attachment, said attachment comprising an encircling portion, having its free ends extending rearwardly, a rotatable spool mounted between said free ends, and an attaching portion extending laterally from said encircling portion, said attaching portion being secured to said neck yoke, substantially as described. 2nd. A neck yoke, comprising a band or clip secured about its central portion and having an attaching ring rigidly secured thereto and a breast strap attachment provided with an encircling portion having its free ends extending rearwardly, a rotatable spool mounted between said free ends and an attaching portion extending laterally from said encircling portion, said attaching portion being secured to said neck yoke, substantially as described.

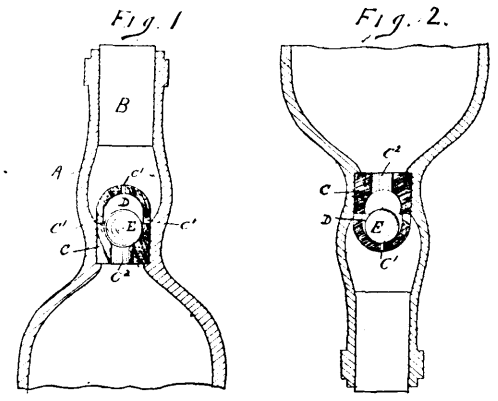
No. 63,300. Car Couplings. (*Attelage de chars.*)



James P. Autrie, Condor, Georgia, U.S.A., 21st June, 1899; 6 years. (Filed 15th May, 1899.)

Claim.—In a car coupler, the combination of a drawhead having a slot in the upper portion thereof and a pivot pin extending therethrough and across the slot, a gravitating dog having its front end engaged by said pivot pin and normally disposed at a downward angle of inclination, a flat-coupling link with upturned ends to engage the dog, and a swinging link having its ends mounted on the said pivot pin on opposite sides of the front end of the dog and its rear end formed into an eye to engage the ordinary coupling-pin.

No. 63,301. Non-Refillable Bottle.
(*Boutcille non-récmplissable.*)

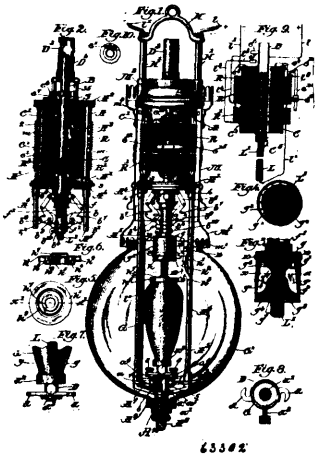


63301

Duncan Allan McIntyre, Inverell, and Alexander Young Dickinson, Manilla, both of New South Wales, Australia, 21st June, 1899; 6 years. (Filed 18th February, 1899.)

Claim.—A non refillable bottle, comprising a bottle having the neck portion thereof provided with a recess, an appliance forming a plug secured within said recess, a spherical chamber formed in the upper part of said plug and a passage leading from said chamber into the body of the bottle, a series of perforations formed in the upper portion of said plug and affording communication between said spherical chamber and the neck of the bottle, and a valve ball located within said spherical chamber and adapted to close said passage when the bottle is in its upright position, substantially as described.

No. 63,302. Arc Lamp. (*Lampe à arc.*)



63302

Frederick Augustus Gilbert, Brookline, and Emil Octavius Lundin Beachmont, both in Massachusetts, U.S.A., 21st June, 1899; 6 years. (Filed 1st May, 1899.)

Claim.—1st. In an arc lamp, a feed controlling clutch including rotatable members to directly engage the carbon, rocking carriers for said members, brakes mounted on the carriers to prevent rotation of and press said members against the carbon, and an actuator to operate the carriers and control the brakes to thereby raise and lower the clutch bodily, substantially as described. 2nd. In an arc lamp, a feed controlling clutch including rotatable members adapted to directly engage the carbon, rocking carriers for said members, brakes mounted on the carriers, and an actuator to throw the operation of the brakes and thereby throw the clutch into and out of operation and also to raise and lower the same bodily, combined with an adjustable stop to effect release of the carbon at a predetermined point, substantially as described. 3rd. In an arc lamp, a feed controlling clutch comprising rotatable contact members, rocking carriers therefor, brakes mounted on said carriers, to press the contact members against the carbon and prevent their rotation, a tubular actuator in which the upper carbon is freely movable, and connections between said actuator and carriers, to operate the latter and thereby regulate the feed of the carbon, substantially as described. 4th. In an arc lamp, the lamp body, a depending guide having a longitudinally slotted, tubular extension through which the upper carbon is loosely extended, combined with a controlling clutch for said carbon, comprising rotatable contact members, rocking carriers therefor, a support for said carriers, adapted to slide on the tubular extension, brakes on the carriers to act upon and press the contact members against the carbon, a clutch actuator, and connections between it and the carriers, to operate, substantially as described. 5th. In an arc lamp, a globe having a removable cover, through which the carbon passes, and means to lift the cover and retain it lifted from the globe for trimming, the cover when lifted engaging and holding the upper carbon stationary, substantially as described. 6th. In an arc lamp, a globe having a removable cover, through which the carbon is normally adapted to freely pass, a lifting arm to which said cover is pivotally jointed, and a detent to retain said arm and cover lifted, the cover when lifted inclining to the horizontal and engaging the upper carbon to prevent its downward movement, substantially as described. 7th. In an arc lamp, a globe cover having a central upturned hub exteriorly threaded at its upper end, a disc having an opening in which the carbon snugly fits, and a downturned, outwardly bent flange on said disc, threaded to engage the hub of the cover, the bent portion of the flange permitting lateral movement of the disc after separation of the said threaded portions, substantially as described. 8th. In an arc lamp, a globe having a central upturned hub, a co-operating disc having an opening in which the carbon snugly fits, and means to retain the disc on the cover while permitting free lateral movement about the hub, substantially as described. 9th. In an arc lamp, a globe cover having a central opening through which the carbon loosely passes, a co-operating disc apertured to snugly fit the carbon, and detachable connection between the cover and disc, permitting relative lateral movement thereof without separation, substantially as described. 10th. In an arc lamp, a controlling clutch for and to directly engage the carbon, a longitudinally movable tubular actuator therefor, in which the carbon is freely movable, a cut out circuit in which said actuator is included, and a circuit controller, one member of which is fixed and the other mounted on the actuator, movement of the actuator to separate the carbons in starting the lamp breaking the cut out circuit, substantially as described. 11th. In an arc lamp, an open cylindrical body, series wound and shunt coils inclosed therein, and a resistance coil wound upon the exterior of said body and insulated therefrom, whereby said resistance coil is supported independently of the series and shunt coils, substantially as described. 12th. In an arc lamp, a cylindrical body, series wound and shunt coils inclosed therein, a resistance coil wound upon the exterior of said body and in shunt with the series coil, and a sliding regulator to adjust the resistance, substantially as described. 13th. A contact device for electric lamp carbons, comprising a supporting member, and a plurality of independent gravity contact members mounted to rock about their lower ends, said lower ends resting on the bottom of the supporting member, the upper portions of said members having enlargements on their inner faces adapted to rest against the surface of the carbon, substantially as described. 14th. A contact device for electric lamp carbons, comprising a tubular support having a centrally apertured base, a plurality of independently movable gravity contact members, mounted at their lower ends on said base and radially disposed around the aperture therein, adapted to rock on their lower ends and move their upper portions into contact with the carbon, and a stop to engage the upper ends of said contact members and limit their inward movement, substantially as described. 15th. A contact device for electric lamp carbons, comprising a tubular support having a centrally apertured base, and a series of radially disposed gravity contact members mounted on said base and normally moved by gravity toward the longitudinal axis of the support, the lower ends of said members resting on the base adjacent the tubular support, substantially as described. 16th. In an arc lamp, a main body portion, depending arms connected at their lower ends, clamp screws on said connection, and a lower carbon holder provided with oppositely turned, hooked ears to engage and be held in place by said clamp screws, substantially as described. 17th. In an arc lamp, a detachable lower carbon holder having a globe socket and oppositely turned hooked ears, combined with a support having clamp screws to be engaged by said ears to retain the holder in place, substantially as described. 18th. In an arc lamp, the main body portion, depending arms connected at their lower ends by a cross-bar, a hub thereon longitudinally slotted at one side, and a lower carbon holder detachably mounted on the cross bar, substantially as described.

No. 63,303. Arc Lamp. (*Lampe à arc.*)

Willliam Edwin Irish, Cleveland, Ohio, U.S.A., 21st June, 1899; 6 years. (Filed 26th May, 1899.)

Claim.—1st. In an arc lamp, means for substituting an incan descent medium for the arc consisting of the combination with the carbons, of a connecting core between the carbons, the said core being composed of substances normally partially non-conductive o the electric current but adapted to become conductive under the influence of heat, substantially as and in the manner described. 2nd. In an arc lamp, means for substituting an incandescent medium for the arc, consisting of the combination with the carbons, the said core being composed of normally partially non-conductive material, but which becomes conductive under the influence of the arc, and thereupon conveys the current and maintains the lamp circuit to the exclusion of the arc, substantially as and in the manner described

3rd. The heretofore described method of substituting an incandescent medium for an arc in an arc lamp, contisting in first turning the

Fig. 1 Fig. 2 Fig. 3

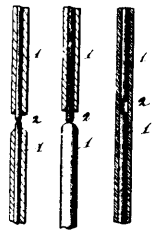
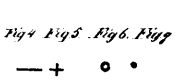


Fig. 4 Fig. 5 Fig. 6. Fig. 7

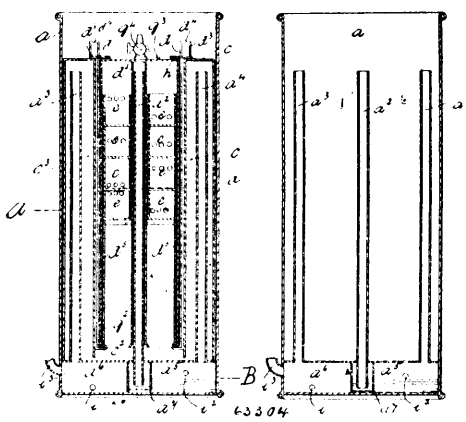


63303

circuit through the arc, heating by means of the arc an incandescing medium connecting the carbons, and thus making the medium conductive, and finally maintaining the circuit through the medium to the exclusion of the arc, and maintaining the incandescence of the medium thereby, substantially as described.

No. 63,304. Acetylene Gas Generator.
(*Générateur de gaz acétylène.*)

Fig. 1 Fig. 4

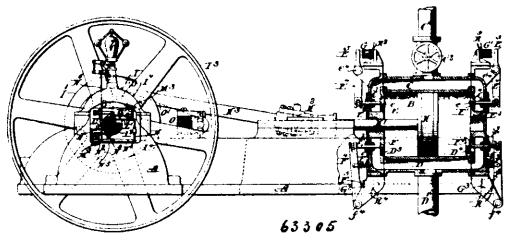


63304

Richard John Moss, Birmingham, England, 21st June, 1899; 6 years. (Filed 21st November, 1898.)

Claim.—1st. In an acetylene gas generating apparatus, the combination with a suitable water container and a gas holder working therein which has an open middle part such as c^2 of an independent and removable generating chamber open only at its bottom and which is loosely supported by the gas holder so as to depend within the latter's open middle part c^2 and which encloses carbide cages and which has its open bottom water sealed, and a central stand pipe such as a^2 which is enclosed within the said generating chamber so as to lead the gas generated from its top part downwardly and then upwardly into the gas holder, substantially as described. 2nd. In an acetylene gas generating apparatus, the combination of an angular water container a vertical stand pipes a^2, a^3, a^4, enclosed therein a gas holder c working with the said container and enclosing the stand pipes a^2, a^4, and which has an open middle part c^2 an independent and removable generating chamber open only at bottom and which is loosely supported by the gas holder so as to depend within its part c^2 and which encloses carbide cages and is water sealed at its open bottom and a central stand pipe a^2 which is enclosed within the said generating chamber and which leads from the said chambers top part to the stand pipe a^5, substantially as described. 3rd. In an acetylene gas generating apparatus, the combination of a square container a having stand pipes a^2, a^3, a^4, within it and water pockets i, i^2 communicating with said stand pipes a, gas holder c working in container enclosing the pipes a^3, a^4 and which has an open middle part c^2, and an independent generating chamber g loosely supported upon the gas holder so as to depend into its open middle part and which encloses the carbide cages and the central stand pipe a^2, substantially as described and set forth. 4th. In an acetylene gas generating apparatus as claimed in the preceding claim trapping the gas by means of a water seal formed in the water pocket a^5 in conjunction with the end of the stand pipe a^2 so that the gas in the gas holder is prevented from returning up the stand pipe a^2 when the generating chamber is withdrawn for recharging or for other purposes, substantially as described. 5th. In an acetylene gas generating apparatus, the combination with a container a, a gas holder c and a generating chamber g constructed, substantially as described of a carbide cage carrier fitting over the stand pipe a^2, and which comprises for the most part an open framework capable of supporting the generating chamber and the carbide cages upon the top of the gas holder so that they can be bodily withdrawn with the said carrier, substantially as described and set forth. 6th. Constructing the carbide cages e with a number of compartments and forming holes through the walls of the cages at different compartments for the purpose and in the manner, substantially as set forth. 7th. In an acetylene gas generating apparatus comprising a water container a and a gasometer c having an open middle part c^2 for accommodating a generating chamber or carbide holders, the use of a bucket such as m for collecting the spent carbide, substantially as set forth.

No. 63,305. Electro-Magnetic Mechanism for Actuating Engine Valves. (*Mécanisme électro-magnétique pour actionner les soupapes de machines.*)



63305

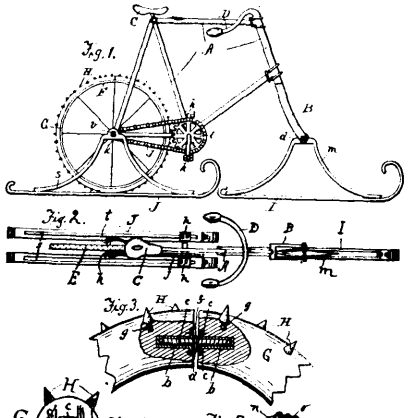
Ernest Warham Naylor, Philadelphia, Pennsylvania, U.S.A., 21st June, 1899; 6 years. (Filed 3rd December, 1898.)

Claim.—1st. In combination with a valve of an engine, an electromagnet arranged to actuate said valve, a source of electrical energy, a rotating disc showing a sickle like contact plate with its inner edge formed in a curve receding from the centre of the disc, a contact point resting on the face of the disc and adjustable to and from the centre thereof, and electrical circuit embracing the electromagnet aforesaid having one terminal in constant electrical contact with the contact plate and another in electrical contact with the point aforesaid and through it in intermittent contact with said plate. 2nd. In combination with an admission valve of an engine, an electromagnet arranged to actuate said valve, a source of electrical energy, a rotating disc showing a sickle like contact plate with its inner edge formed in a curve receding from the centre of the disc, a contact point resting on the face of the disc and adjustable to and from the centre thereof, a governor connected to said contact point as specified and so as to move it toward the centre of the disc as the speed increases, and an electrical circuit embracing the electromagnet aforesaid having one terminal in constant electrical contact with the contact plate and another in electrical contact with the point aforesaid and through it in intermittent contact with said plate. 3rd. In combination with an engine having admission and exhaust valves and separate electromagnets arranged to actuate them, a source of electrical energy, a rotating disc having one or more sickle shaped contact plates secured on its face with its or their inner edges forming curves receding from the centre of the disc, contact plates resting on the face of the disc, contact points resting an the face of the disc and adjustable to and from its centre, an electrical circuit including the electromagnet controlling the admission valve, and terminal of said circuit being in constant connection with a contact plate and another in connection with a contact point operating to intermittently contact with said plate, a governor arranged to move said contact point toward and from the centre of the disc, another electrical circuit including the electromagnet actuating the exhaust valve and having one terminal in constant connection with a contact plate and its other terminal in constant connection with the second contact point and means for adjusting the said last mentioned contact point on the disc. 4th. As a circuit controller for electrically actuated valves, a rotating disc having one or more sickle shaped contact plates on its face with their inner edge or edges formed in a curve receding from the centre of the disc. 5th. As a circuit controller for electrically actuated valves, a rotating disc having one or more sickle shaped contact plates on its face with their inner edge or edges formed in a curve receding from the centre of the disc, and a peripheral contact plate in electrical connection with said face plate. 6th. In combination with a circuit controller for electrically actuated valves consisting of a rotating disc having one or more sickle shaped contact plates with its or their inner edges forming a curve receding from the centre of the disc, two sets of contact points symmetrically disposed on each side of the centre of the disc as specified and so as to alternately make and break contact with said contact plate or plates. 7th. In combination with a circuit controller for electrically actuated valves consisting of a rotating disc having one or more sickle shaped contact plates with its or their inner edges forming a curve receding from the centre of the disc, and a peripheral contact plate in electrical connection with said face plate or plates, two sets of contact points symmetri-

cally disposed on each side of the centre of the disc as specified and so as to alternately make and break contact with said contact plate or plates, a contact point in constant contact with the peripheral plate, a source of electrical energy, circuit connections therefrom, one connecting to the contact point resting on the peripheral plate and the other branching so as to connect independently through its separate valve actuating devices to the face contact points aforesaid. 8th. In a valve actuating device, substantially asspecified, the combination of the revolving disc J and sickle shaped contact plates secured thereon, with one or more contact rods, as L^1, pivotally supported as specified to swing in an arc approaching and receding from the centre of the disc, and having also capacity to move to and from said disc, and means for moving said arm or arms on its or their pivotal supports. 9th. In a valve actuating device substantially as specified the combination of the revolving disc J and peripheral and sickle shaped contact plates secured thereon, with one or more contact rods as L^1, pivotally supported as specified to swing in an arc approaching and receding from the centre of the disc, and having also capacity to move to and from said disc, means for moving said arm or arms on its or their pivotal supports and a contact arm as K^1, bearing against the peripheral plate. 10th. A steam engine cylinder having in combination admission valves E E^1, opening outward from the ends of the cylinder, exhaust valves F F^1, opening inward from the ends of the cylinder and electromagnets arranged in connection with each valve to open the same. 11th. A steam engine cylinder having in combination admission valves E E^1, opening outward from the ends of the cylinder and provided with extensions *e e*, adapted to extend into the cylinder when said valves are closed, exhaust valves F F^1, opening inward from the ends of the cylinder and electromagnets arranged in connection with each valve to open the same. 12th. In combination with an engine having electromagnets arranged to actuate its valves, a dynamo actuated by the engine, a connection from one pole thereof to each electromagnet and through each said magnet to a contact point, a variable contact device arranged to operate in connection with said contact points and having electrical connection with the other pole of the dynamo, a second source of electrical energy also connected in circuit with the electromagnets and contact devices and switches whereby the dyanmo and second source aforesaid can be cut into and out of circuit. 13th. In combination with an engine having electromagnets arranged to actuate its valves, a source of electrical energy, a connection from one pole thereof to each electromagnet and through each said magnet to a contact point, a variable contact device arranged to operate in connection with said contact points and having electrical connection with the other pole of the source of electrical energy and means for independently closing the connection through each electromagnet at will.

No. 63,306. Foot Propelled Sled.

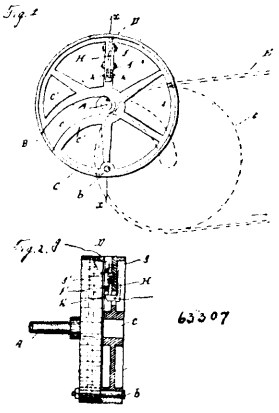
(Traineau mis en mouvement par le pied.)



Axel Ringborg, Alexandria, Minnesota, U.S.A., 21st June, 1899; 6 years. (Filed 9th December, 1898.)

Claim.—1st. In a foot propelled sled of the class described, the combination with the bicycle frame A, the runners I and J, the wheel E, having the rim F, and the removable pulling tire G, having openings in the ends thereof, of the means for adjusting and securing said pulling tire, consisting of the plates *a*, having the right and left threaded thimbles *b*, said plates *a*, secured against the ends of said pulling tire, G with the thimbles *b*, entering the openings formed in the ends of said tire, said plates adapted to be connected by a right and left threaded screw *c*, having a central head *f*, substantially as set forth. 2nd. In a foot-propelled sled, the combination with the rim F, of the wheel E, of a removable pulling tire, having openings in the inner ends thereof, thimble plates *a*, secured against said inner ends by the screws *c*, the thimbles *b*, formed integral with the plates *a*, and adapted to enter the openings in the inner ends of the tires, and provided with interior threads to receive a like threaded screw *c*, having a central head *f*, as set forth.

No. 63,307. Belt Pulley. (*Poulie de courroie.*)



Peter Rupp, White House, Ohio, U.S.A., 21st June, 1899; 6 years. (Filed 24th December, 1898.)

Claim.—1st. A belt pulley comprising two parts pivoted together on one side of their centre, one part being slidable, across the other so as to be eccentric of it, and means for locking the said parts when concentric with each other, substantially as set forth. 2nd. A belt pulley comprising two parts, one of the said parts being slidable across the other so as to be eccentric of it, and means for locking the said parts when concentric with each other, substantially as set forth. 3rd. A belt pulley comprising two parts pivoted together on one side of their centre, and a bolt for securing together the said two parts when concentric with each other, one part being slidable across the other when said bolt is retracted, substantially as set forth. 4th. The combination, with a shaft, and a main belt pulley mounted on it, of an auxiliary belt pulley slidable across the main pulley so as to be eccentric of it, and means for locking the said pulleys when concentric, substantially as set forth. 5th. The combination, with a shaft, and a main pulley mounted on it, of an auxiliary pulley pivoted to the main pulley on one side of the shaft and provided with an aperture or gap permitting it to be slid clear of the shaft, and means for locking the said pulleys when concentric, substantially as set forth. 6th. The combination, with a main pulley, of a slidable auxiliary pulley pivoted to the main pulley on one side of its centre, and a spring pressed bolt carried by one pulley and locking the two pulleys automatically when placed concentric with each other, substantially as set forth. 7th. The combination, with a main pulley, af a slidable auxiliary pulley pivoted to the main pulley on one side of its centre, a spring pressed bolt carried by one pulley and engaging with the other pulley when said pulleys are concentric, and a lever pivoted to the pulley which carries the said bolt and affording a means for retracting it, substantially as set forth. 8th. The combination, with a shaft, and a main pulley mounted on it, of an auxiliary pulley pivoted to the main pulley and on one side of the shaft and provided with an aperture or gap and curved arms on each side of said aperture which supports the rim and permit it to be slid clear of the shaft, and means for locking the auxiliary pulley when concentric with the main pulley, substantially as set forth.

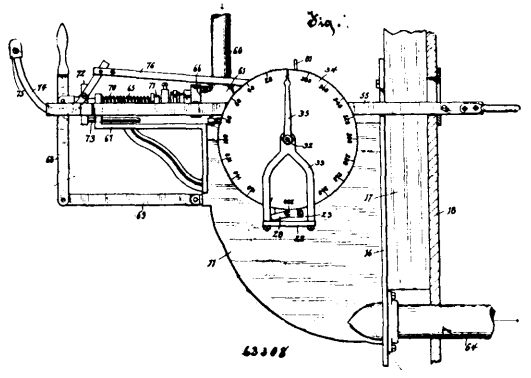
No. 63,308. Liquid Weighing machine.

(Machine à peser les liquides.)

Henry H. Huhn, Cato, Wisconsin, U.S.A., 21st June, 1899; 6 years (Filed 12th December, 1898.)

Claim.—1st. In a machine for weighing liquids, the combination of a shaft, a fluid actuated wheel mounted thereon, an index wheel having a series of graduations on one face thereof, and also provided with a series of teeth extending circumferentially therearound, a pointer adapted to be adapted to be adjusted to any particular point on the scale of the index wheel, and a dog carried by the shaft of the fluid actuated wheel, and adapted to engage the teeth of the index wheel, and thereby rotate said index wheel intermittently. 2nd. In a machine for weighing liquids, the combination of a shaft, a fluid actuated wheel mounted thereon, another shaft, an index wheel mounted on the latter shaft, said wheel having a series of graduations on one face thereof, and adapted to be intermittently rotated by the shaft of the fluid actuated wheel, a pointer on the shaft, and adapted to be adjusted to any particular point on the scale of the index wheel, valve mechanism for controlling the flow of the fluid to the fluid actuated wheel, clutch mechanism carried by the shaft of the index wheel, and intermediate mechanism between the valve and the clutch mechanism, said intermediate mec-

hanism adapted to be operated to hold the valve open, and when a certain amount of the fluid has passed out of the discharge of the



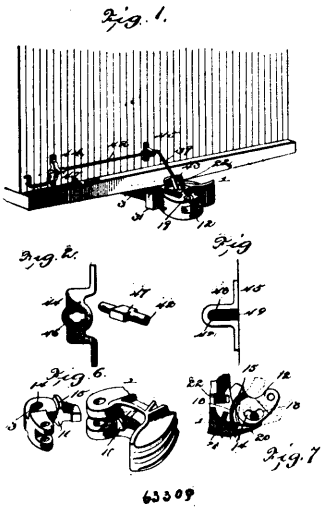
fluid actuated wheel, said intermediate mechanism adapted to automatically close the valve, and to throw the clutch mechanism into engagement with the index wheel in order to hold said wheel to adjusted position. 3rd. The combination, of a rotatable shaft having a cranked end, a slide to which the cranked end of the shaft is connected, a dog pivoted to said slide, an index wheel having a toothed periphery and a series of graduations on its face, the dog of the slide adapted to engage the teeth of the index wheel and to rotate said wheel intermittently, and a pointer adapted to be adjusted to any particular mark of the index wheel. 4th. The combination, of a shaft, an index wheel mounted loosely thereon, said wheel provided with a projecting rim having a recess in its periphery, a pointer mounted fast on the shaft, a sleeve rotatable with and slidable longitudinally on the shaft, said sleeve provided with an arm or projection adapted normally to bear against the edge of the rim of the index wheel, and means adapted after the index wheel has been rotated a sufficient distance to bring the recess of its rim into register with the projecting arm of the sleeve to force said arm into recess. 5th. The combination of a shaft, an index wheel mounted loosely thereon, said wheel provided with a projecting rim having a recess in its edge, a pointer fast on the shaft and adjacent to the graduated face of the index wheel, a sleeve rotatable with and slidable on the shaft, said sleeve provided with an arm or projection carrying an anti-friction roller adapted normally to bear against the edge of the rim of the index wheel, and means adapted after the index wheel has been rotated a sufficient distance to bring the recess or its rim into register with the arm of the sleeve, to force said arm longitudinally and cause the anti-friction roller thereof to seat itself in the recess of the rim. 6th. The combination, of a shaft, an index wheel mounted loosely thereon, said wheel provided with a projecting rim having a recess in its edge, a pointer mounted fast on the shaft adjacent to the graduated face of the index wheel, a sleeve rotatable with and slidable longitudinally on the shaft, said sleeve provided with an arm or projection, means for normally holding the arm of the sleeve against the edge of the rim of the index wheel, means adapted, after the index wheel has been rotated a sufficient distance to bring the recess of its rim into register with the projecting arm of the sleeve for forcing said arm into the recess, and a lever engaging the sleeve and adapted, when operated, to withdraw the arm of the sleeve out of engagement with the recess of the rim. 7th. The combination, of a shaft, an index wheel mounted loosely thereon, said wheel provided with a rim having a recess in its edge, a pointer mounted fast on the shaft adjacent to the graduated face of the index wheel, a sleeve rotatable with and slidable longitudinally on the shaft, said sleeve provided with an arm or projection adapted normally to bear against the edge of the rim of the index wheel, and to be forced into the recess of said rim after the index wheel has been rotated a certain distance, and a spring pressed lever engaging the sleeve. 8th. The combination, of a shaft, an index wheel mounted loosely thereon, said wheel provided with a projecting rim having a recess in its edge, a pointer mounted fast on the shaft adjacent to the graduated face of the index wheel, a sleeve rotatable with and slidable longitudinally on the shaft, said sleeve provided with an arm or projection adapted normally to bear against the edge of the rim of the index wheel, and to be forced into the recess of said rim, after the index wheel has been rotated a certain distance, a lever engaging the sleeve, a pin projecting from said lever, a valve, and mechanism for operating the valve, said mechanism, when operated so as to open the valve, adapted to be held in locked position by the pin, when said pin is forced in one direction by the turning of the lever, the parts being held to this position by the engagement of the arm of the sleeve with the edge of the rim, and the valve mechanism adapted to automatically close, when said arm is seated in the recess of the rim, and the position of the lever and pin thereby changed. 9th. The combination, of a shaft, an index wheel mounted loosely thereon, said wheel provided with a projecting rim having a recess in its edge, a pointer mounted fast on the shaft adjacent to the graduated face of the index wheel, a sleeve rotatable with and slidable longitudinally on the shaft, said sleeve provided with an arm or projection adapted normally to bear against the edge of the rim of the index wheel, and to be forced into the recess of said rim, after the index wheel has been rotated a certain distance, a lever engaging the sleeve, a pin projecting from said lever, a valve, mechanism for operating the valve, an arm carried by the valve operating mechanism, said arm adapted to be engaged by the pin, when the arm of the sleeve bears against the rim of the index wheel, and to be disengaged therefrom when the arm of the sleeve passes into the recess of the hub. 10th. The combination, of an inlet pipe, a sliding valve for regulating the same, a valve rod, an arm carried by the valve rod, a longitudinally movable pin separate from and adapted to engage with and to be disengaged from the arm, and when engaged therewith to hold the valve in an open position, and when disengaged therefrom to permit the valve to assume a closed position. 11th. The combination, of an inlet pipe, a sliding valve for regulating the same, a valve rod, an operating lever connected to the valve rod, an arm carried by the valve rod, a longitudinally movable pin separate from and adapted to engage with and to be disengaged from the arm, and when engaged therewith to hold the valve in an open position, and when disengaged therefrom to permit the valve to assume a closed position, and means for actuating the pin so as to cause said engagement with and disengagement from the arm. 12th. The combination, of an inlet pipe, a sliding valve for regulating the same, a spring encircled valve rod, an arm carried by the valve rod, a longitudinally movable pin separate from and adapted to be engaged with and to be disengaged from the arm, and when engaged therewith to hold the valve in an open position, and means for actuating the pin, so as to cause said engagement with and disengagement from the arm. 13th. The combination, of a shaft, an index wheel mounted loosely thereon and provided with a projecting rim having a recess on its edge, a pointer fast on the shaft and adjacent to the graduated face of the index wheel, a sleeve rotatable with and slidable longitudinally on the shaft, said sleeve provided with a projecting arm adapted to bear against the edge of the rim, a lever adapted to engage with the sleeve in order to effect its longitudinal movement in one direction, a pin carried by said lever, an inlet pipe, a valve for controlling said inlet pipe, a valve rod and an arm carried by said valve rod, said arm adapted to be engaged by the pin, when the arm of the sleeve is bearing against the edge of the rim of the index wheel, and to be disengaged therefrom, when the arm of the sleeve passes into the recess of said rim. 14th. In a machine for weighing liquids, the combination, of an inlet pipe, a valve for regulating the same, a valve rod, a lever carried by said rod, a valve operating arm pivoted to and extending from the short arm of said lever, a pin, a pusher bar, means for causing a down movement of said pusher bar when the same is pushed inwardly, and mechanism acted upon by the pusher bar on its down movement to cause a movement of the pin, and a consequent engagement of said pin with the end of the valve operating arm, the further in movement of the pusher bar causing said bar to act on the long arm of the lever to cause said long arm to be thrown upwardly, and a consequent out pulling of the valve rod and unseating of the valve carried thereby. 15th. In a machine for weighing liquids, the combination, of an inlet pipe, a valve for weighing the same, a valve rod, a lever carried by said rod, the long arm of the lever being weighted, a valve operating arm pivoted to and extending from the short arm of said lever, a pin, a pusher bar, means for causing a down movement of said pusher bar when the same is pushed inwardly, and mechanism acted upon by the pusher bar on its down movement, said mechanism causing a movement of the pin, and a consequent engagement of said pin with the valve operating arm, the further inward movement of the pusher bar causing said bar to act on the long arm of the lever, to thereby throw said long arm upwardly, said upward movement drawing outwardly the valve rod, and consequently the valve carried thereby. 16th. In a machine for weighing liquids, the combination of an inlet pipe, a valve for regulating the same, a valve rod, a lever carried by said rod, a valve operating arm pivoted to and extending from the short arm of the lever, a pin, a pusher bar, a regulating bar adapted to be placed on the pusher bar, a surface which engages said regulating bar as the pusher bar is moved inwardly, to thereby cause a down movement of the pusher bar, mechanism acted upon by the pusher bar mechanism acted upon by the pusher bar on the down movement of said pusher bar, said mechanism causing a movement of the pin, and a consequent engagement of said pin with the end of the valve operating arm, the further inward movement of the pusher bar causing said bar to act on the long arm of the lever, said long arm being thereby thrown upwardly, and said upward movement thereof drawing outwardly the valve rod, and consequently the valve carried thereby. 17th. In a machine for weighing liquids, the combination, of an inlet pipe, a valve for regulating the same, a valve rod, a lever carried by said rod, a valve operating arm pivoted to and extending from the short arm of said lever, a pivoted lever carrying a pin, a buffer bar, a regulating bar adapted to be placed on the push bar, a surface which engages said regulating bar as the pusher bar is pushed inwardly, to thereby cause a down movement of the pusher bar, a bell crank lever acted upon by the pusher bar, as said pusher bar moves downwardly, said bell crank lever engaging the lever carrying the pin, and causing said pin to engage the end of the valve operating arm, the further inward movement

of the pusher bar causing said bar to act on the long arm of the lever which is pivoted to the valve rod, causing said long arm to be thrown upwardly, said upward movement thereof drawing outwardly the valve rod, and consequently the valve carried thereby. 18th. In a machine for weighing liquids, the combination, of an inlet pipe, a valve for regulating the same, a valve rod, a lever carried by said rod, a value operating arm pivoted to and extending from the short arm of said lever, a pin, a pusher bar, means for causing a down movement of said pusher bar, when the same is pushed inwardly, mechanism acted upon by the pusher bar on the down movement of soid pusher bar, said mechanism acting on the pin and causing a movement of said pin, and a consequent engagement of the pin with the end of the valve operating arm, spring actuated rods engaging the pusher bar, and adapted to force said bar upwardly after the bar has been pushed inwardly a certain distance, the further in movement of the pusher bar causing said bar to act on the long arm of the lever, and thereby cause said long arm to be thrown upwardly, said upward movement causing an out pulling of the valve rod, and a consequent unseating of the valve carried thereby. 19th. In a machine for weighing liquids, the combination of an inlet pipe, a valve for regulating the same, a valve rod, a lever carried by said rod, a valve operating arm pivoted to and extending from the short arm of said lever, a pin, a pusher bar, means for causing a down movement of said pusher bar, when the same is pushed inwardly, mechanism acted upon by the pusher bar on its down movement to cause a movement of the pin, whereby said pin is brought into engagement with the end of the valve operating arm, the further movement of the pusher bar causing said bar to act on the long arm of the lever, and thereby cause said long arm to be thrown upwardly, the upward movement thereof causing an out pulling of the valve rod, and a consequent opening of the valve, means adapted, after a certain quantity of fluid has passed through the inlet, to cause a closing of the valve mechanism, and means adapted, on the out pulling of the pusher bar, to cause lever and the valve operating arm carried thereby to be returned to positions ready to be again acted upon. 20th. The combination, of a shaft, an index wheel mounted loosely thereon, said wheel provided with a projecting annular rim having a recess in its edge, a pointer mounted fast on the shaft adjacent to the graduated face of the index wheel, a sleeve rotatable with and slidable longitudinally on the shaft, said sleeve provided with an arm or projection, a cog wheel on the shaft, means adapted, after the index wheel has been rotated a sufficient distance to bring the recess of its rim into register with the projecting arm of the sleeve, for forcing said arm into the recess, a lever engaging the sleeve, a pusher bar provided on its underside with a series of teeth, means adapted, when the pusher bar is pushed inwardly, for causing a down movement of said pusher bar, mechanism acted upon by the pusher bar on its down movement, said mechanism acting on the lever to thereby withdraw the arm of the sleeve out of engagement with the recess of the rim, the continued in movement of the pusher bar causing the teeth thereof to act on the cog wheel and cause a rotation of the shaft and the index wheel carried thereby. 21st. The combination, of a shaft, an index wheel mounted loosely thereon, said wheel provided with a projecting annular rim having a recess in its edge, a pointer mounted fast on the shaft adjacent to the graduated face of the index wheel, a sleeve rotatable with, and slidable longitudinally on the shaft, said sleeve provided with an arm or projection, a cog wheel on the shaft, a lever engaging the sleeve, said lever carrying a pin, a pusher bar provided on its under face with a series of teeth, means for yieldingly supporting said pusher bar, a regulating bar adapted to be placed on the pusher bar, a surface with which said regulating bar comes in contact on the in pushing of the pusher bar, a bell crank lever operated by the pusher bar on the down movement of the bar, said bell crank lever adapted to act on the lever carrying the pin so as to cause a movement of said pin in one direction, a lever acted upon by the pusher bar upon the continued in movement of said pusher bar, a valve operating arm carried by said lever, a spring pressed valve rod also connected to the lever and carrying a valve, and an inlet pipe which said valve normally closed.

No. 63,309. Car Coupling. (*Attelage de chars.*)

Alonzo Kelly, Joseph C. Smith, William D. Block, and Wendell Fackler, all of Harrisburg, Pennsylvania, U.S.A., 22nd June, 1899; 6 years. (Filed 5th May, 1899.)

Claim.—1st. In a car coupler, the combination with a drawhead, of a knuckle having a continuous pivot pin slot or opening composed of two communicating branch slots disposed at an angle to each other, and a pivot pin passing through the drawhead and the slot aforesaid, and adapted for movement in the branch slots relatively of the knuckle, caused by the movement of the latter, substantially as described. 2nd. In a car coupler, the combination with a drawhead, of a knuckle having a continuous pivot pin slot or opening composed of two communicating branch slots, a pivot pin passing through the drawhead and slot, and adapted for movement in the branch slots relatively of the knuckle, and a spring co-operating with the knuckle to maintain the pin in proper position in the branch slots when the knuckle is in its different positions. 3rd. In a car coupler, the combination with a drawhead, of a knuckle having a pivot pin slot composed of communicating branch slots disposed substantially at right angles to each other, a pivot pin passing through said slot, an arc-shaped rib on the knuckle, and an arc-shaped groove in the drawhead adapted to receive said rib, substantially as described. 4th. In a car coupler, the combination with a drawhead composed of sections pivoted together and adapted to expand, of external means for keeping said sections normally closed, and a link pivoted to one section extending through the mouth of the coupler and connected to the other section by a slot and pin connection, substantially as described. 5th. In a car coupler, the combination with a drawhead composed of two sections pivoted together, of means for keeping the sections normally closed, a link adjustably connecting the sections together, and a bar connected to said link and also connected to one of the sections, substantially as described. 6th. In a car coupler, the combination with a drawhead having a recess or chamber, of a tail bolt having a rounded head free to turn in said chamber, a cap for said chamber and a fastening for the cap, substantially as described. 7th. In a car coupler, the combination with a drawhead, of a coupling mechanism, a movable latch for locking the coupling mechanism, a coil spring having one end seated in the drawhead and the other end bearing against the latch, a pin having one end loosely pivoted and its other end movable in a slot in the drawhead, a link connecting the latch with the pin and passing through the coil spring, and a trip adapted to engage the free end of the pin when the drawhead becomes detached, substantially as described. 8th. In a car coupler, the combination with a drawhead, of coupling mechanism, a releasable latch for securing the coupling mechanism, a pin passed loosely through the drawhead, a link connecting the pin to the latch, a spring for actuating the latch and pin, and a drawhead supporting yoke adapted to engage the pin and release the latch when the drawhead becomes detached, substantially as described. 9th. The combination with a drawhead and coupling mechanism carried thereby, of a latch for said coupling mechanism, a rockable uncoupling lever having a wiper arm adapted to engage the latch, a spring pressed bearing for said lever which acts as a brake therefor, and means for locking the lever in uncoupling position, substantially as described.

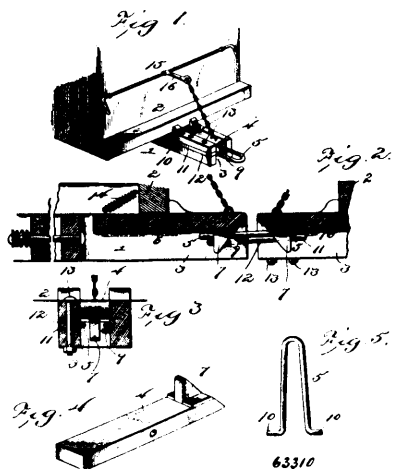


No. 63,310. Car Coupler. (*Attelage de chars.*)

James H. Whitfield and Evan P. Thagard, both of Ocala, Florida, U.S.A., 22nd June, 1899; 6 years. (Filed 24th March, 1899.)

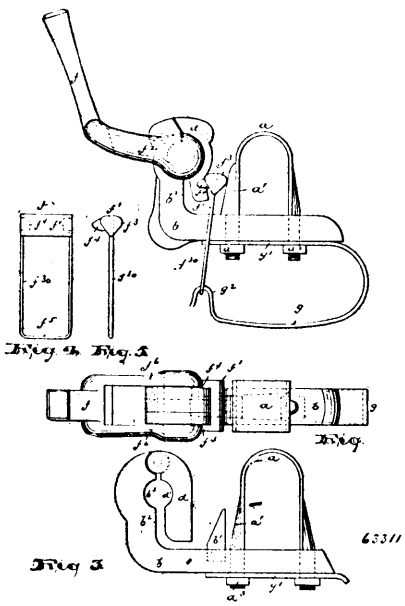
Claim.—1st. In a car coupling, the combination of a drawhead having a longitudinal opening and provided with a projection arranged within the opening and forming a support, a link carried by the drawhead, pivoted within the longitudinal opening of the same in rear of the projections, said link being extended in advance of the drawhead, and a hook also carried by the drawhead, pivotally mounted in the said opening and resting upon the upper face of the link and holding the same upon the projection or support, substantially as described. 2nd. In a car coupling, the combination of a drawhead provided with a support, a link carried by the drawhead, pivoted to the same in rear of the support and extending beyond the drawhead, and a hook also carried by the latter and pivotally mounted on the same, said hook resting upon the upper face of the link and holding the latter upon the support and provided with an engaging portion to interlock with the link of another drawhead, substantially as described. 3rd. In a car coupling, the combination of a drawhead provided with a longitudinal opening and having a bearing perforation at one side thereof, the other side of the drawhead being provided with a longitudinal slot, a link having pivots at the inner ends of its sides extending outward and arranged in the said perforation and in the slot of the drawhead, a plate detachably secured in the slot of the drawhead and retaining the link in position, a support arranged within the opening of the drawhead and located beneath the link, and a hook pivoted between

the sides of the drawhead and bearing upon the link, substantially as described. 4th. In a car coupling, the combination with a draw



head provided with a longitudinal opening, of a link pivoted in the opening of the drawhead and carried by the latter, a hook also pivoted in the same drawhead at a point between its ends and having its front portion engaging the upper face of the link to maintain the same in a horizontal position, and a spring connected with the inner portion of the hook, substantially as and for the purpose described.

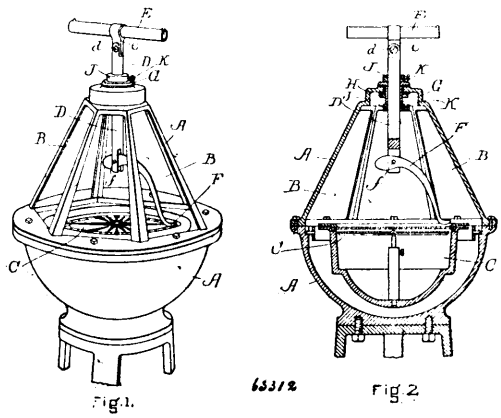
No. 63,311. Thill Coupling. (*Armon de limonière.*)



Jacob William Kohn and William Dimond, both of Newark, New Jersey, U.S.A., 22nd June, 1899; 6 years. (Filed 6th February, 1899.)

Claim.—1st. The combination in a thill coupling, with the axle, of the shaft iron clip body, tongue *d*, link *c*, pivoted to both the said body and tongue, a shaft iron, the pivot of which is adapted to be clamped between said tongue and body, a key for holding said tongue in clamped relation to the body and a spring for holding said key in locked relation to said tongue, substantially as set forth. 2nd. The combination with the shaft iron clip having an upward extension and back thereof, an inclined bearing, a clamping tongue in connection with said upward extension, and at its free end adapted to enter between said extension and inclined bearing and a key adapted to enter between said inclined bearing and said tongue, and means for holding said key in locking position, substantially as set forth. 3rd. The combination in a thill coupling, of a shaft iron clip body, having a clamping tongue and an inclined bearing a^1, a key adapted to be interposed between said tongue and an inclined bearing, and means for holding said key in locking position, substantially as set forth. 4th. The combination with a shaft iron clip body having a tongue and inclined bearing thereon, the opposite faces of said tongue and inclined bearing forming a flaring or V-shaped opening, of a key and a spring for holding said key locked between the tongue and bearing in said opening, substantially as set forth. 5th. The combination with the shaft iron clip body having a vertical extension at its forward end with a recess at the back to receive the shaft iron, a link *c*, pivoted near the extremity of said extension, a tongue pivoted to said link and adapted to lie back of and approximately parallel with said extension, a bearing a^1, arranged on said body back of said vertical extension and forming with the tongue a flaring opening or space, a key arranged in said flaring space and a spring holding said key against the converging walls of said space, substantially as set forth. 6th. The combination with the shaft iron clip body, having an upturned extension with a recess thereon, link *c*, tongue *d*, having a corresponding recess, and bearing a^1, forming with said tongue a space to receive a key and a key held in said space, substantially as set forth. 7th. The combination of a body having an upturned extension, a link *c*, pivoted thereon, a tongue *d*, pivoted on said link, a bearing a^1, a key comprising a loop of wire and a head f^1, the said head being adapted to be interposed between the tongue and bearing and a spring arranged beneath said body and adapted to engage the wire loop and hold said key in locked engagement, substantially as set forth. 8th. The improved thill coupling herein described, comprising a body *b*, having an upturned forward extension with a recess near its upper end, a link *c*, a tongue *d*, the last having a recess co-operating with the recess of the body to receive the shaft iron pivot, an inclined bearing secured to or formed on said body, a key having the head f^1, and lugs, and a spring secured beneath the body and having at its free end a hook adapted to engage the key to force the said key with an elastic pressure into locked relation with the tongue, and a shaft iron having ears and a pivot all formed of one integral piece, substantiallly as set forth. 9th. The combination in a thill coupling, of a shaft iron clip having an upward extension and back therefrom an inclined bearing, a clamping tongue in connection with said upward extension and at its free end adapted to enter between said extension and inclined bearing, and a key adapted to lie between said tongue and inclined bearing, substantially as set forth.

No. 63,312. Indicator for Ships' Compasses.
(*Indicateur pour boussoles.*)

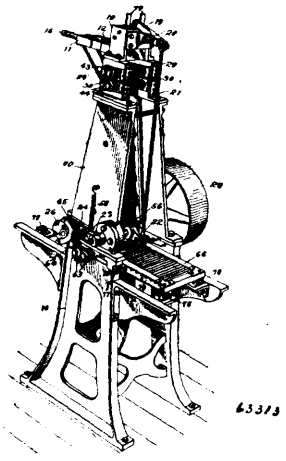


The Arbecam Indicator Co., Portland, Maine, assignee of Harry Peyton Arbecam, Boston, Massachusetts, U.S.A., 22nd June, 1899; 6 years. (Filed 2nd February, 1899.)

Claim.—1st. The described indicator for ships' compasses, consisting of a rotatable central shaft extending vertically through a bearing in the binnacle top and terminating inside of the binnacle above the compass, a pointer pivoted for vertical movement on the upper end of said shaft and adapted to be directed or pointed toward any object on the horizon, and a curved or oblique radial indicating arm attached to the lower end of said shaft and extending downwardly and outwardly rearly to the margin of the compass dial and in the same vertical plane as said pointer, substantially as set forth. 2nd. The described indicator for ships' compasses, consisting of a tubular pointer attached to the upper end of a rotatable vertical shaft which extends through the top of a ships' binnacle, in combination with a pivoted indicating arm attached to the lower end of said shaft above the compass, in the vertical plane of said pointer, and extending downwardly and outwardly nearly to the margin of the compass dial, so as to indicate thereon the bearing of any object toward which the pointer is directed, substantially as set forth. 3rd. The described indicator for ships' compasses, consisting of a vertical, rotatable shaft mounted centrally in the binnacle top and a pointer pivoted to the top of said shaft for movement thereon in vertical planes and adapted to rotate with the shaft only, in combination with a radial and counterbalanced indicator arm pivoted to the foot of said shaft in the same plane as said pointer at such height above the dial as to afford an unobstructed view thereof and extending to the margin of the dial, the counterbalancing of said arm keeping its extremity at a uniform distance from the dial, substantially as set forth.

No. 63,313. Match Making Machine.

(*Machine à faire des allumettes.*)

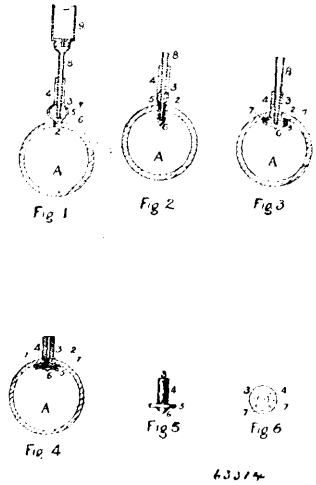


The International Machine Co., Jersey City, New Jersey, assignee of Wallace A. Downs, New York City, New York, all in the U.S.A., 22nd June, 1899; 6 years. (Filed 20th January, 1899.)

Claim.—1st. A match machine comprising a magazine having a central web or body portion and a series of splint chutes on opposite sides thereof, a splint cutting device arranged to deliver complete splints simultaneously to both series of chutes, and holding mechanism to receive the splints as they are discharged from the chutes. 2nd. A match machine comprising a magazine having a central web or body portion and a series of splint chutes on opposite sides of said web, the web having a thinned upper edge to act as a divider of two rows of splints, and splint cutting mechanism arranged to deliver complete splints into the chutes, substantially as described. 3rd. The combination with the magazine consisting of a central web having vertical splint chutes on its opposite sides, of a splint cutting device located above the magazine and arranged to discharge complete splints simultaneously into both series of chutes. 4th. A match machine comprising a magazine having a central vertical web with longitudinal splint chutes on opposite sides thereof, a pair of rotary cutters having overlapping knives the width of a match splint apart, said cutters being located above the magazine, means to feed veneer cards to said cutters, meshing feed rolls between the cutters and the magazine, said feed rolls being adapted to deliver the complete splints into two rows or series to the splint chutes, mechanism for feeding veneer to the cutters, and holding mechanism to receive the splints from the magazine, substantially as described. 5th. In a match machine, the combination with the rotary cutters having oppositely arranged and overlapping circumferential knives, of a stripping device consisting of bars supported beneath the cutters and parallel with their axes and to the stock feed, and a series of spurs projecting upward from the bars between the knives of the cutters, substantially as described. 6th. The combination with the rotary cutters having overlapping circumferential knives, of the parallel bars arranged below the cutters, the spurs projecting upward from the bars between the knives, and the guards as 35 at the ends of the bars projecting upward between the cutter rolls or shafts, substantially as described. 7th. The combination with the splint cutting mechanism adapted to deliver complete splints endwise, of the magazine located below the cutting mechanism and comprising a central vertical web having chutes on opposite sides, the chutes being adapted to receive the complete splints and diverging laterally toward the magazine bottom, substantially as described. 8th. The combination with the cutting mechanism adapted to deliver complete splints endwise, of the magzine located below the cutting mechanism and comprising a vertical web having chutes on opposite sides, the chutes being adapted to receive the complete splints and diverging laterally toward the magazine bottom, and feeding or guiding mechanism to direct the splints in two rows or series to both series of chutes, substantially as described. 9th. The combination with the splint chutes, of the cross shafts near the bottom of the chutes, a series of spring fingers secured to the shafts and swinging simultaneously in and out of the chutes, and mechanism for working the shafts, substantially as described. 10th. The combination with the cutting mechanism, the plunger to feed veneer to the cutting mechanism, the feed chutes and fingers movable out and in in relation to the chutes, of the driving shaft, and mechanism for working the plunger, the fingers and the holding frame from the drive shaft, substantially as described. 11th. The combination with the feed chutes of the oppositely arranged rock shafts having connecting spring pressed cranks, a series of spring fingers attached to the shafts and entering the feed chutes, and means, as the tongue, on one of the shafts and its engaging trip for intermittently moving the rock shafts and fingers, substantially as described. 12th. The combination with the holding frame having rows of perforations therethrough and the spring pressed slide bars in the frame, the said slide bars having independent leaf springs backed by cams thereon which are normally pushed across the perforations so as to grip splints therein, substantially as described.

No. 63,314. Device for Repairing Vehicle Tires.

(*Appareil à reparer les bandages de voitures.*)

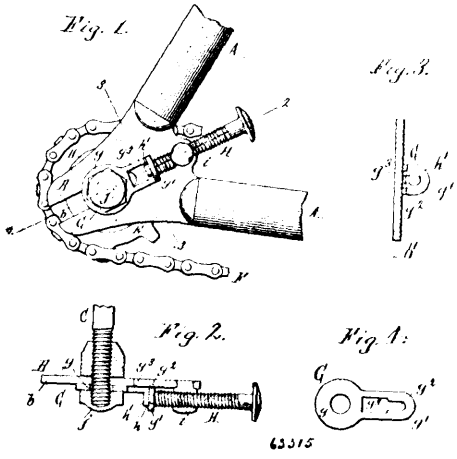


Sidney Hector Cluxton, Syracuse, New York, U.S.A., and William Henry Cluxton, Peterboro, Ontario, Canada, 22nd June, 1899; 6 years. (Filed 23rd November, 1898.)

Claim.—1st. A puncture closing plug, comprising a tubular stem and a hollow head provided with perforations adjacent to said stem. 2nd. A puncture closing plug, comprising a tubular stem and a hollow and longitudinally elastic head provided with perforations adjacent to said stem. 3rd. A puncture closing plug, comprising a tubular stem and a hollow perforated and longitudinally elastic head provided with an apex. 4th. The combination with a tire, of a puncture closing plug, comprising a tubular and laterally expansible and compressible stem, and a hollow and perforated and longitudinally elastic head provided with an apex. 5th. A puncture closing plug, comprising a tubular stem and a transverse head hollow, perforated and elastic in the direction of the bore of the stem.

No. 63,315. Chain Adjustment for Velocipedes.

(*Ajustage de chaines pour vélocipedes.*)

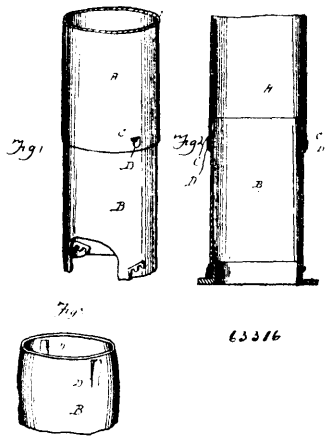


The Crosby & Mayer Company, Buffalo, New York, U.S.A., and Leo Melanowski, Paris, France, 22nd June, 1899; 6 years. (Filed 7th November, 1898.)

Claim.—1st. The combination with the fork end having a slot and a lug provided with a screw threaded opening, of the adjustable axle arranged in said slot, a washer for shifting plate engaging with the axle and provided with a lip or ear having an open slot and an adjusting screw arranged in the screw threaded lug of the fork end and having a neck or contracted portion arranged in the slot of said ear, substantially as set forth. 2nd. The combination with the fork end and the adjustable axle guided therein, of a washer or shifting plate engaging with the axle and provided at its front end with a lip or ear having a slot which extends inwardly through the

body of the plate, said plate being provided with a slot or opening which is wider than the slot of said ear and which communicates therewith, and an adjusting screw arranged in a screw threaded lug on said fork end and having a neck or contracted portion arranged in the slot of said ear, substantially as set forth. 3rd. The combination with the fork end and the adjustable axle guided therein, of a washer or shifting plate provided at its rear end with an eye which encircles the axle and at its front end with an ear having a slot which extends inwardly through the body of the plate, said plate having a slot or opening which is wider than the slot of said ear and which communicates therewith, and an adjusting screw arranged in a screw threaded lug on the fork end and provided near its rear end with a reduced portion forming a cylindrical neck which is arranged in the slot of said ear and a head which is adapted to pass through the enlarged slot or opening in the body of the plate, substantially as set forth.

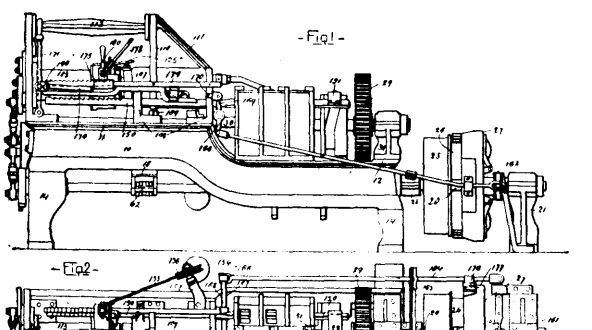
No. 63,316. Stovepipe Joint. (*Joint de tuyau de poêles.*)



Frank Tharp, Elken, and Edgar C. Wright, Ruffin, and Isaac K. Wright, also of Ruffin, all of North Carolina, U.S.A., 22nd June, 1899; 6 years. (Filed 7th June, 1899.)

Claim.—A pipe joint comprising a pipe section having a tongue cut therefrom, and an overlapping section provided with a slot having one of its walls bent inward to permit the entrance of said tongue in the longitudinal movement of the pipe sections, substantially as described.

No. 63,317. Machine for Making Stove Pipe Elbows.
(*Machine à faire les coudres de tuyau de poêles.*)



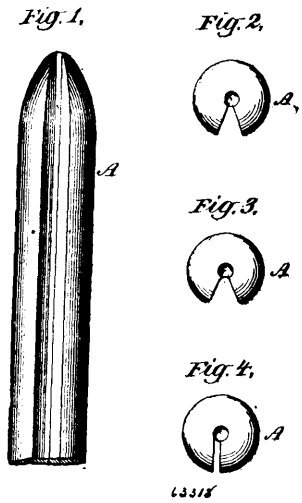
Alfred Nelson Fairman, Montreal, Quebec, Canada, 22nd June, 1899; 6 years. (Filed 23rd March, 1899.)

Claim.—1st. In a machine for making stove pipe elbows, the combination with means for holding the pipe to be crimped, of a rectilinearly reciprocating crimping portion, a pair of oscillating portions, means for operatively connecting said oscillating crimping portions to said rectilinearly reciprocating crimping portion, and means for acting upon said oscillating crimping portions and causing said oscillating crimping portions to actuate the rectilinearly reciprocating portion, all of said crimping portions to act simultaneously upon the pipe, substantially as described and for the purpose set forth. 2nd. In a machine for making stove pipe elbows, the combination with means for holding the pipe to be crimped, of a rectilinearly guided crimping portion, a pair of main segemental crimping portions, means for reciprocating said segemental crimping portions, means for operatively connecting said main crimping portions to said rectilinearly guided portion whereby said oscillating crimping portions will actuate the rectilinearly reciprocating portion, and means for guiding said segmental portions to cause same to oscillate and act upon the pipe, simultaneously with said rectilinearly reciprocating portion. 3rd. In a machine for making stove pipe elbows, the combination with means for holding the pipe to be crimped, of a rectilinearly guided crimping portion, a pair of main segmental crimping portions, means for reciprocating said segmental crimping portion means for operatively connecting said main crimping portions to said rectilinearly guided portion whereby said oscillating crimping portions will actuate the rectilinearly reciprocating portion, and adjustable means for guiding said segmental portions to cause same to oscillate and act upon the pipe simultaneously with said rectilinearly reciprocating portion. 4th. In a machine for making stove pipe elbows, the combination with means for holding the pipe to be crimped, of a rectilinearly guided crimping portion, a pair of segmental crimping portions, means for pivotally connecting one end of each of said segmental crimping portions to said rectilinearly guided portion, a rectilinearly guided cross head, means for reciprocating said cross head, means for connecting said cross head to the free ends of said segmental crimping portions, and means for guiding the movement of said segmental crimping portions, for the purpose set forth. 5th. In a machine for making stove pipe elbows, the combination with means for holding the pipe to be crimped, of a rectilinearly guided crimping portions, means for pivotally connecting one end of each of said segmental crimping portion to said rectilinearly guided portion, a rectilinearly guided cross head, means for reciprocating said cross head, means for connecting said cross head to the free ends of said segmental crimping portions, and adjustable means for guiding the movement of said segmental crimping portions, for the purpose set forth. 6th. In a machine, substantially as described, for making stove pipe elbows, the combination of the frame, means for holding the pipe to be crimped, a rectilinearly guided crimping portion, a pair of segmental crimping portions, means for pivotally connecting one end of each of said segmental crimping portions to said rectilinearly guided portions, rectillinearly guided cross head, means for connecting said cross head to the free ends of said segmental comprising portions, means for guiding the movement of said segmental crimping portions, a shaft mounted in the frame, a crank disc mounted rigidly upon one end of said shaft, a pitman connecting said disc to said cross head, a pinion mounted rigidly upon said shaft, a stub shaft mounted adjacent to said shaft, a pair of pinions rigidly connected together and mounted loosely upon said stub shaft, one of the pinions of said pair intermeshing with said before mentioned pinion and the other pinion of said pair being constructed with a segmental block, a third shaft having a disc mounted rigidly thereon one half of the periphery of said disc being plane and the other half gear toothed and intermeshing with the last mentioned pinion of said pair, and means for rotating said last mentioned shaft, substantially as and for the purpose set forth. 7th. In a machine, substantially as described, for making stove pipe elbows, the combination of the frame, means for holding the pipe to be crimped, a rectilinearly guided crimping portion, a pair of segmental crimping portions, means for pivotally connecting one end of each of said segmental crimping portions to said rectilinearly guided portions, a rectilinearly guided cross head, means for connecting said cross head to the free ends of said segmental crimping portions, adjustable means for guiding the movement of said segmental crimping portions, a shaft mounted in the frame, a crank disc mounted rigidly upon one end of said shaft, a pitman connecting said crank disc to said cross head, a pinion mounted rigidly upon said shaft, a stub shaft mounted adjacent to said shaft, a pair of pinions rigidly connected together and mounted loosely upon said stud shaft, one of the pinions of said pair intermeshing with said before mentioned pinion and the other pinion of said pair being constructed with a segmental block, a third shaft having a disc mounted rigidly thereof, one half of the periphery of said disc being plane and the other half gear toothed and intermeshing with the last mentioned pinion of said pair, and a means for rotating said last mentioned shaft, substantially as and for the purpose set forth. 8th. In stove pipe elbow making machine, a crimper consisting of a segmental body portion having a series of knife edged segmental sections secured rigidly to the inner edge thereof. 9th. In a stove pipe elbow making machine, a crimper consisting of a segmental body portion having its inner edge formed with a series of transverse dove tail grooves, and a series of segmental sections having their inner edges knife-edged and their outer edges formed with radial dove tail projections to take into said dovetailed groves, and a series of keys for securing said segmental sections to the body portion, substantially as described and for the purpose set forth. 10th. In a stove pipe elbow machine, a stationary mandrel, a reciprocating sleeve supported by and enclosing said mandrel, a rigid head carried by said reciprocating sleeve, a compressor head pivotally carried by said rigid head, means for crimping portions of a pipe length between said rigid and folder heads, means for oscillating said folder head to and from said rigid head, means for reciprocating said sleeve, and means for feeding the pipe length over said heads, substantially as described and for the purpose set forth. 11th. In a stove pipe elbow machine, a stationary mandrel, a reciprocating sleeve supported by and enclosing said mandrel, a rigid head carried by said reciprocating sleeve and having a circular groove in its

outer face, a folder head pivotally carried by said rigid head, means for crimping portions of a pipe length between said rigid and folder heads, means for oscillating said folder heads to and from said rigid head, means for reciprocating said sleeve, and means for feeding the pipe length over said heads, substantially as described and for the purpose set forth. 12th. A stove pipe elbow making machine, comprising a frame having its forward half formed with a bed plate and its rear half downwardly off-set, a mandrel support consisting of a body portion in the form of a sleeve having a forwardly projecting rigid mandrel sleeve, and formed with legs bolted to the bed plate near the rear thereof, a sleeve taking over and supported by said mandrel sleeve, a slotted head carried rigidly by the outer end of said outer sleeve and formed with a circumferential peripheral extension of slightly greater diameter than that of the exterior of the outer sleeve and the outer end of said head being diminished in diameter, a folder head formed with a circular recess in the rear side to receive the diminished end of said rigid head, and slotted at right angles to the slot in the rigid head, an inverted L-shaped retainer secured rigidly to the outer end of said rigid head and projecting through and overlapping the lower portion of said folder head, means for oscillating said folder head to and from the rigid head and means for reciprocating said rigid head, means for holding the pipe to be crimped, and means for crimping portions of the pipe between said heads, substantially as and for the purpose set forth. 13th. A stove pipe elbow making machine, comprising a frame having its forward half formed with a bed plate and its rear half downwardly off-set, a mandrel support consisting of a body portion in the form of a sleeve having a forwardly projecting rigid mandrel sleeve, and formed with legs bolted to the bed plate near the rear thereof, a sleeve taking over and supported by said mandrel sleeve, a slotted head carried rigidly by the outer end of said outer sleeve and formed with a circumferential peripheral extension of slightly greater diameter than that of the exterior of the outer sleeve and the outer end of said head being diminished in diameter, a folder head formed with a circular recess in its rear side to receive the diminished end of said rigid head, and slotted at right angles to the slot in the rigid head, an inverted L-shaped retainer secured rigidly to the outer end of said rigid head and projecting through and overlapping the lower portion of said folder head, a shaft supported at its forward end in a bearing set in the rear end of the bed plate and at its rear end in a pillow block bolted upon the rear end of the frame, a pair of cams mounted rigidly up in said shaft adjacent to said bed plate, a pair of rods carrying trundle rolls to take into cam grooves in the peripheries of said cams and extending forwardly and connected to the rigid head and folder heads respectively, means for holding the pipe to be crimped, and means for crimping portions of the pipe between said heads, substantially as described and for the purpose set forth. 14th. In a stove pipe elbow making machine, a pipe feeding carriage comprising a rigid ring and an expansil clamping ring located within said rigid ring, said rings receiving the pipe end between them, and means for expanding said expansil ring. 15th. In a stove pipe elbow making machine a pipe feeding carriage comprising a rigid ring and an open clamping ring located within said rigid ring, said rings receiving the pipe end between them, a wedge carried by the carriage and taking between the ends of said ring and a cam lever for moving said wedge, as described. 16th. In a stove pipe elbow making machine, a pipe feeding carriage and means for moving said carriage intermittently towards the front of the machine, comprising a pair of feed bars, a cross piece rigidly connecting said bars together near their rear ends, a trundle roll carried upon said cross piece, a shaft, a cam disc mounted rigidly upon said shaft and having a peripheral cam groove receiving said trundle roll, means for rotating said shaft, and feed dogs carried by the carriage and engaging the notches in the feed bars, substantially as described. 17th. A stove pipe elbow making machine comprising a pipe feeding carriage for holding the pipe to be operated upon, means for intermittently moving said pipe feeding carriage towards the front of the machine comprising a feed bar, means for crimping portions of the pipe, means for folding over and flattening the crimped portion, means for driving the machine comprising a driving shaft a continously driven pulley mounted loosely upon said shaft, a friction clutch pulley mounted rigidly upon said shaft, means for causing said friction clutch pulley to automatically engage and be disengaged from said driving pulley, consisting of a lateral projection upon the carriage, a suitable supported slidable bar extending parallel to the line of travel of the carriage and offset at its forward end to intersect the path of said lateral projection, a pawl adapted to engage a notch in the feed bar and held out of engagement therewith by the rear end of said bar, a bar mounted transversely of the machine and having a pair of downwardly projecting rigid lever arms, and an upwardly projecting rigid lever arm, a rod carrying the above mentioned pawl, and pivotally connected at its rear end to the said upwardly projecting lever arm, a pair of bars pivotally connected at their forward ends to said downwardly projecting lever arms, means for steadying the rear portions of said bars, means for operatively connecting the rear ends of said last mentioned bars to the friction clutch whereby, by the extreme forward movement of the carriage, the clutch pulley will be disengaged from the driving pulley, substantially as described and for the purpose set forth. 18th. A stove pipe elbow making machine comprising a pipe feeding carriage for holding the pipe to be operated upon, means for intermittently moving said feeding carriage towards the front of the machine, comprising a feed bar, means for crimping portions of the pipe, means for folding over and flattening the crimped portions, means for driving the machine, comprising a driving shaft a continuously driven pulley mounted loosely upon said shaft, a friction clutch pulley mounted rigidly upon said shaft and having its rim bevelled, means for causing said friction clutch pulley to automatically engage and be disengaged from said driving pulley, consisting of a lateral projection upon the carriage, a suitably supported slidable bar extending parallel to the line of travel of the carriage and off set at its forward end to intersec the path of said lateral projection, a pawl adapted to engage a notch in the feed bar and half out of engagement therewith by the rear end of said bar, a bar mounted transversely of the machine and having a pair of downwardly projecting rigid lever arms, and an upwardly projecting rigid lever arm, a rod carrying the above mentioned pawl and pivotally connected at its rear end to the said upwardly projecting lever arm, a pair of bars pivotally connected at their forward ends to said downwardly projecting lever arms and having brake shoes mounted thereon in close proximity to said clutch pulley means for steadying the rear portions of said bars, means for operatively connecting the rear ends of said last mentioned bars to the friction clutch, whereby by the extreme forward movement of the carriage the clutch pulley will be disengaged from the driving pulley and the brake shoes moved into engagement with the inclined rim of the clutch pulley, substantially as described and for the purpose set forth. 19th. In a stove pipe elbow making machine, means for automatically locating the pipe to be crimped relatively to the crimpers to determine the extent of the plane end of the completed elbow. 20th. In a stove pipe elbow making machine, means consisting of an adjustable stop varying the extent of backward movement of the carriage, substantially as described and for the purpose set forth.

No. 63,318. Electric Arc Carbon.

(*Carbone de lampe électrique à arc.*)



Daniel Bacon, New York City, New York, U.S.A., 22nd June, 1899; 6 years. (Filed 4th April, 1899.)

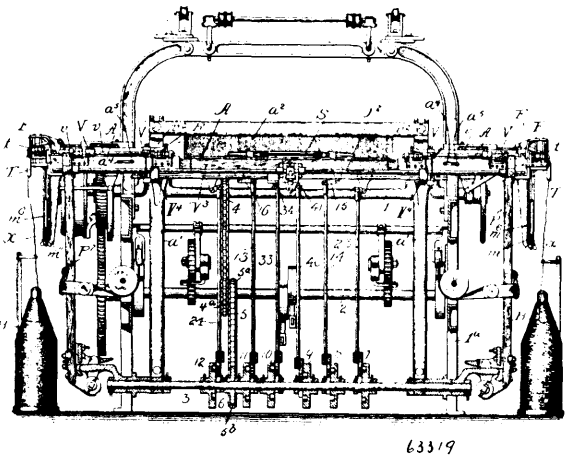
Claim.—An electric arc lamp carbon having a longitudinal groove or opening extending inwardly as far as the circumferential line of the crater or arc which will be formed during the use of the carbon, but not to the centre or axis of the carbon, substantially as specified.

No. 63,319. Loom. (*Métier.*)

The American Automatic Loom Co., New York City, New York, assignee of Daniel Munson Seaton, San Francisco, California, all of the U.S.A., 26th June, 1899; 6 years. (Filed 5th April, 1898.)

Claim.—1st. A thread feeder comprising a reciprocative head, thread holders or springs carried thereby, cutters also carried by said head, and means for operating said cutters during the movement of said head, substantially as described. 2nd. A thread feeder comprising a reciprocative head having mouths, thread holders or springs adjacent to said mouths, cutters carried by said head and adapted to act upon said holders or springs to operate them, and means for operating said cutters, substantially as described. 3rd. A thread feeder comprising a reciprocative head having mouths, thread holders or springs adjacent to said mouths, a thread guiding tube carried by said head adapted to direct the thread across said mouths between the head and the holders, and thread cutters carried by said head, substantially as described. 4th. A thread feeder comprising a reciprocative head having mouths, thread holders or springs adjacent to said mouths, a thread guiding tube carried by said head

adapted to direct a thread across said mouths between the head and the holders, thread cutters carried by and during the movement of



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said head, substantially as described. 5th. A thread feeder comprising a reciprocative head having mouths, holders or springs by said head on the exterior thereof and adjacent to said mouths, cutters carried by said head and having a movable member adapted to operate on said holders to open them, and means for operating said cutters, substantially as described. 6th. A thread feeder comprising a reciprocative head having mouths, holders or springs carried by said head adjacent to said mouths and normally pressing against said feeder, cutters carried by said head between said mouths adapted to act on said holders, and means for operating said cutters, substantially as described. 7th. A thread feeder comprising a head having mouths, holders or springs carried by said head adjacent to said mouths, a pin or rod connecting said holders or springs, cutters carried by said head having a movable member adapted to operate on said rod to move said holders or springs and means for operating the movable member of said cutters, substantially as described. 8th. In combination, the shuttle with its race, and the feed mechanisms comprising the plate or carrier with means for moving it, the holding means thereon for the weft thread, the cutting device and means for operating the cutter as the plate or carrier moves, substantially as described. 9th. In combination, the shuttle with its race, the feed device comprising the movable carrier, the holding means for the thread thereon, the cutter also on the carrier, and the cam on the fixed frame for operating the cutter as the carrier moves, substantially as described. 10th. In combination, the shuttle with its race, the feed device comprising the movable plate or carrier, the movable holding means for the weft thread on the carrier, the cutter and means for moving the same, said cutter controlling the action of holding device, substantially as described. 11th. In combination, the shuttle, the feed device, comprising the plate F^4, having the open mouths, the spring holders for the weft thread adjacent to the said mouths, the cutter arranged between the holders, the rod f^6 connecting the spring holders, and the cam for operating the cutter, said cutter being arranged to operate the spring holders, substantially as described. 12th. In combination, the shuttle and its race, a feed device comprising the vertically movable plate having the open mouths f^4, f^5, the springs f, f^1, f^2, f^3 adjacent thereto, the cutters, the frame F^1, the guide rods F^2, F^3, in said frame, and the cam on the said frame, one of the cutting knives having a projection to act on the cam, substantially as described. 13th. In combination with the shuttle and its race, the feed plate having the holders one above the other, with the cutter between, and means for giving the plate an upward movement after the first end of the thread has been taken from the upper or first holder and for giving the plate a step by step downward movement, to present the second, and then the first holder to the shuttle in succession, with a cutter operating on the movement of the plate, substantially as described. 24th. The combination of a reciprocative head, thread holders carried thereby, a frame having means to guide said head, thread cutters carried by said head having a movable member, a cam carried by said frame to act with said movable member, said cam having one face arranged to open the cutters, the other face of said cam being arranged to close the cutters, and springs to act on said movable member, substantially as described, 15th. The combination of a reciprocative head, thread holders or springs carried thereby, a pin or rod connecting said holders, cutters carried by said head having a movable member, the movable member being arranged to act on said pin or rod to operate said holders, a frame having means for guiding said head, a cam to act on the movable cutter, said cam having one face adapted to open said cutters and move the holders outwardly, the other side of the cam being arranged to close the cutters and permit the holders to close against the feeder, substantially as described. 16th. In combination, the shuttle, with its race, and feeding means for the weft thread, comprising movable holders for the end of the weft threads, a cutter device for severing the thread, means for moving the holders to present first one end of the weft thread to the shuttle and then the other, and means for operating the cutter devices during the movement of the feeding means, substantially as described, 17th. In combination in a loom, the shuttle and its race, and a feed mechanism for the weft threads comprising the clamps or holders for the opposite ends of the weft threads, and the cutter for severing the thread, with means for raising and lowering the said holders to present first one end of the thread and then the other to the shuttle, and means for operating the cutter during the movement of the feed, substantially as described. 18th. In combination, the shuttle with its race and the feeding mechanism for the weft thread, comprising the pair of holders, one for each end of the weft, the means for moving the holders to present, first one end of the weft, and then the other to the shuttle, a cutting device moving with the holders, and means for operating the cutting devices during the movement of the feed, substantially as described. 19th. In combination, the shuttle with its race and the feeding mechanism for the weft thread, comprising the holders for the ends of the thread, the movable carrier for said holders, and the cutter device on said carrier and between the holders, and means for operating the cutter during the movement of the feed, substantially as described. 20th. In combination, the shuttle with its race, and the feed mechanism, comprising the plate or carrier, having the open mouths f^4, f^5, the spring holders, the cutter or knife between the holders and on the plate, and means for operating the cutter or knife during the movement of the feeder, substantially as described. 21st. In combination, with the shuttle and its race, the feed device, comprising the holders and cutters for the weft thread, means for keeping the holders and cutters open while the thread is being drawn through, and means for operating the cutter during the movement of the feeder, substantially as described. 22nd. In combination, in a loom, the lay, the shuttle, with means for projecting the same through the shed, and a tension device between the shuttle and the source of weft supply, the said source of supply being outside of and independent of the shuttle, substantially as described. 23rd. In combination, the lay, the shuttle, the source of supply for the weft threads at each side of the loom and a tension device at each side of the loom between the shuttle and the supply of thread, substantially as described. 24th. In combination, the lay, the shuttle carried thereby, a tension device between the shuttle and an outside supply of weft thread, and a measuring device between the tension and shuttle, substantially as described. 25th. In combination, the lay, the shuttle thereon, the outside source of supply for the weft thread, a measuring, feeding and cutting device for the weft threads, and a tension device between the same and the outside source of supply, substantially as described. 26th. A tension device comprising a hollow holder and a lining or fabric therefor, substantially as described. 27th. A tension device comprising a hollow holder and a lining of plush within the same, substantially as described. 28th. A tension device comprising a hollow holder and a fabric lining projecting beyond the upper end of the same, substantially as described. 29th. A tension device comprising a hollow holder and a fabric lining projecting below the lower end of the same, substantially as described. 30th. A tension device comprising a hollow holder having a fabric lining combined with a guiding tube adapted to receive thread from the tension devices, substantially as described. 31st. A tension device comprising a hollow tube, having a fabric lining combined with a guiding tube arranged above the tension devices, and adapted to direct thread to the feeding devices, substantially as described. 32nd. A tension device comprising an adjustable hollow holder, having a fabric lining, combined with a stationary guide tube, substantially as described. 33rd. A measurer, comprising a reciprocative head having a tumbler pivoted thereto, and a stop to engage the tumbler, substantially as described. 34th. A measurer, comprising a reciprocative head, a tumbler pivotally carried thereby, a stop for engaging and operating the tumbler on either stroke, and means for adjustably holding the stop, substantially as described. 35th. A measurer, comprising a reciprocative head, a tumbler pivotally carried thereby, a stop for engaging and operating the tumbler on either stroke of the head, and an adjustable support for the stop, substantially as described. 36th. In combination, the shuttle, the race, the measurer, and adjustable means to release the thread therefrom when the requisite quantity of thread has been drawn, substantially as described. 37th. In combination with the shuttle and its race, a measurer, comprising a movable part having a tumbler to engage the thread, and means for operating the tumbler when the desired amount of thread is drawn, substantially as described. 38th. The combination of a reciprocative measurer with a slotted or hollow guide to receive a thread as drawn by the measurer from a supply, substantially as described. 39th. The combination of a reciprocative measurer with slotted guides m, m^1, to receive a thread between them as drawn from a supply, substantially as described. 40th. In combination, the shuttle, the race, the measurer operating transversely of the thread, to draw the same laterally in the form of a loop, and the guides between which the measurer moves, substantially as described. 41st. In combination, the lay, the shuttle thereon, an outside supply for the weft thread, means for guiding the thread to the shuttle from said supply and a measuring device operating transversely of the course of the weft thread, substantially as described. 42nd. In combination, the shuttle, the lay, the feed mechanism, comprising the holders for the ends of the weft thread, the movable carrier for the holders, a cutting device and a recipro-

cative measurer with means for operating the same, and means for operating the cutting device during the movement of the feeder, substantially as described. 43rd. In combination, the shuttle, the lay, the feed plate F^4, carrying the guide t^1, the holders for the weft ends, the measurer, the cutter and means for reciprocating the feed plate and measurer in opposite directions, substantially as described. 44th. In combination, the shuttle, the lay, the reciprocative carriers having the holders for the weft end, the cutter on the carrier, the movable measurer and means for holding the cutter and holders open while the measurer is drawing the thread, and means for operating the cutter during the movement of the reciprocative carrier, substantially as described. 45th. In combination, the shuttle, the lay, the reciprocative carrier having the holders for the weft ends and the cutters for the thread, the measurer with operating means therefor and the cam F^8, for controlling the cutter and holders having one part to hold the same open while the measurer is drawing the thread, substantially as described. 46th. In combination, the shuttle, the outside supply for the weft thread, a measuring device and a cutting and feeding device adapted to disengage the thread with means for operating said parts during the movement of the feeding device whereby the thread will be disengaged when the measurer is drawing the same, substantially as described. 47th. In combination, the lay, the shuttle, an outside supply for the weft threads, means for measurlng and cutting the loop lengths, and feeding means for presenting first one end of the loop length to the shuttle and then the other, and means for operating the cutting devices during the movement of the feeding devices, substantially as described. 48th. In combination, the shuttle having nippers to engage and release the weft thread, an outside supply for the weft thread, means for measuring the lengths of weft thread while the end of said weft is held by the shuttle within the web and means for opening the nippers to release the weft thread, substantially as described. 49th. In combination, the lay, the shuttle thereon having nippers, means for feeding the weft thread from an outside source of supply to the shuttle, means for stopping the shuttle before it reaches the end of its course and means for giving the shuttle an additional movement to complete its course, with means for opening the nippers, substantially as described. 50th. In combination, the lay, the shuttle, the stop arresting the picker stick, means for feeding the weft thread to the nippers of the shuttle, means for operating the nippers and means for giving the shuttle with the picker stick and stop an additional movement to complete the full course of the shuttle, substantially as described. 51st. In combination, the lay, the shuttle having nippers at each end and feed devices for the weft to the shuttle, means for arresting the shuttle to hold the weft thread within the web, means for measuring the weft thread within the web, means for measuring the weft thread at the opposite edge of the web and means for opening the nippers and pushing the shuttle to the end of its course to release the weft just laid in and to engage a new weft thread, substantially as described. 52nd. In combination, the lay, the shuttle having nippers at each end, a feed device for feeding the weft from an outside source to the shuttle and a pair of shuttle openers to operate the nippers as the shuttle completes its course, substantially as described. 53rd. In combination, the lay, the shuttle thereon having the nippers at each end, a pair of shuttle openers to open the nippers approximately simultaneously, a feed device at the end of the lay for the weft thread and a pusher for giving the shuttle its final movement, substantially as described. 54th. In combination, the lay, the shuttle thereon having nippers at each end, a supply of weft thread at each end of the beam, a measuring and cutting device at each end of the lay to measure off independent loop lengths and cut them, a feed device adapted to present first one end of the loop length to the shuttle and then the other on successive reciprocations of the shuttle, a pair of shuttle openers at each end of the lay adapted to open the nippers, a picker stick and a pusher at each end of the lay with means for operating the same to give the shuttle its final movement, substantially as described. 55th. In combination, the lay, the shuttle thereon having nippers at each end, means for measuring, cutting and feeding independent lengths at each end of the lay, the shuttle openers at each end of the lay, a pusher at each end of the lay, a cam shaft 3 with connections therefrom to the measurer, cutting and feeding mechanism, and connections from the cam shaft to the shuttle opener and pushers, substantially as described. 56th. In combination with the lay and its shuttle, the measuring, cutting and feeding device for the weft thread, the shuttle opening device and the pusher device, and means for supporting the same on the end of the lay, substantially as described. 57th. A shuttle stop and push comprising a slide, means carried thereby to push a shuttle, and means for operating said slide to carry the shuttle to the end of its course, substantially as described. 58th. In combination with a shuttle, a picker stick and stop for the shuttle adapted to engage the same and hold it in place against the picker stick to prevent its rebound, substantially as described. 59th. A shuttle stop and push comprising a slide, means carried thereby for engaging a shuttle, a picker stick located in the path of the shuttle, and means for positively moving said slide to move the shuttle to the end of its course, substantially as described. 60th. A shuttle stop and push comprising a slide carrying a movable stop to engage a shuttle, means for moving the slide, and means for moving said stop out of engagement with the shuttle, substantially as described. 61st. In combination with a shuttle, a stop adapted to engage the same to prevent its rebound, and means for lifting the stop out of engagement with the shuttle, substantially as described. 62nd. In combination, a shuttle, a picker stick, a stop therefor and operative connections adapted to move the parts positively, substantially as described. 63rd. In combination, a picker stick, a stop therefor and a pawl carried by the picker stick adapted to engage a shuttle and means for moving the parts, substantially as described. 64th. In combination, a stop therefor, a shuttle adapted to come in contact with the picker stick, a stop to prevent the rebound of the shuttle, means for moving the stop to push the shuttle to the limit of its movement, and means for releasing the shuttle from its stop, substantially as described. 65th. In combination with the picker stick, a slide P^5, having a stop to limit the movement of the stick, a stop for a shuttle carried by said slide, and means for operating said slide, substantially as described. 66th. A shuttle stop and push comprising a slide, a stop carried thereby to engage a picker stick, a movable stop carried by said slide to engage and push a shuttle, and means for operating said slide after a shuttle has engaged it, substantially as described. 67th. A shuttle stop and push comprising a slide having an opening, a pivoted stop located therein, means for moving said stop as the slide travels, and means for positively moving said slide, substantially as described. 68th. A shuttle stop and push comprising a slide, a movable stop carried thereby and having a projection or pin p, a pin p^2, to engage the latter, and means for positively moving said slide, substantially as described. 69th. The combination of a lay, a race, a housing thereon, a slide in said housing, said slide having a movable stop to engage a shuttle, and means for positively moving said slide when a shuttle is in engagement therewith, substantially as described. 70th. The combination of a lay, a race having an opening in one wall, a housing in line with said opening, a slide in said housing having a stop to engage a picker stick, a movable stop carried by said slide and adapted to pass through the opening in the race to engage a shuttle, means for positively moving said slide, and means for releasing said stop from the shuttle, substantially as described. 71st. The combination of a lay, a race having an opening in one wall, a housing over said opening a slide in said housing, a movable stop carried by said slide, said stop being adapted to engage a shuttle, means for releasing the stop from the shuttle, and means for positively moving said slide, substantially as described. 72nd. The combination of a lay, a race having an opening in one wall, a housing, a slide having a stop to pass through the opening in the race to engage a shuttle, said housing having an opening in one wall, a pin passing therethrough to engage the slide, and an arm to operate said pin, and means for reciprocating said arm, substantially as described. 73rd. The combination af a lay, a shuttle stop and push at each end thereof, and connections between said stops and pushes, and means for operating said connections to operate said stops and pushes simultaneously, substantially as described. 74th. The combination of a lay, a shuttle stop and push at each end thereof, a reciprocative rod extending along said lay, devices connecting said rod with said stops and pushes and means for reciprocating said rod, substantially as described. 75th. The combination of a lay, a shuttle stop and push, means for operating the same, and a stop carried by said push adapted to engage a picker stick, substantially as described. 76th. The combination of a lay, a picker stick, a slide carried by said lay having a stop to engage the picker stick, a movable stop carried by said slide to engage a shuttle, a shuttle having a shoulder to engage the picker stick and also having means to engage the stop carried by the slide, means for releasing the movable stop from the shuttle, and means for positively moving the slide, substantially as described. 77th. In combination, the lay, the shuttle having the weft threads, the shuttle openers and pusher with means for supporting said parts on the ends of the lay, said means consisting of a sleeve or box having the shuttle box therein, substantially as described. 78th. In combination, the lay, the shuttle thereon having nippers and having also a pair of openings s^9, s^{10}, means for feeding the weft threads to the nippers, means for operating the nippers and a pusher at each end of the lay to engage the said openings, substantially as described. 79th. The combination of a lay, thread feeding and cutting devices carried thereby, and a shuttle stop and push also carried by the lay adapted to check the flight of a shuttle and to move it to the feeding devices, substantially as described. 80th. The combination of a lay, feeding and cutting devices carried thereby, thread measuring devices, means for moving the feeding devices to present first one end and then the other end of a measured loop in line with the shuttle, a shuttle stop and push carried by said lay and means for operating the same for positively moving the shuttle to the feeding devices, substantially as described. 81st. The combination of a lay, thread feeding and cutting devices carried thereby, means for moving said feeding devices to present first one end and then the other end to a thread in the path of the shuttle, means for stopping and positively moving a shuttle to the feeding tension, and shuttle openers adapted to operate nippers on the shuttle to release one thread and to engage another, substantially as described. 82nd. The combination of a lay, thread feeding devices, a shuttle stop and push and shuttle openers located in such position relatively to the stop and push that when said push is moved, said openers will act on the nippers of a shuttle, and means for positively moving said stop and push, substantially as described. 83rd. A shuttle opener comprising a rocking arm and means for moving it into and out of line with the shuttle to operate the nippers thereof, substantially as described. 84th. In combination with

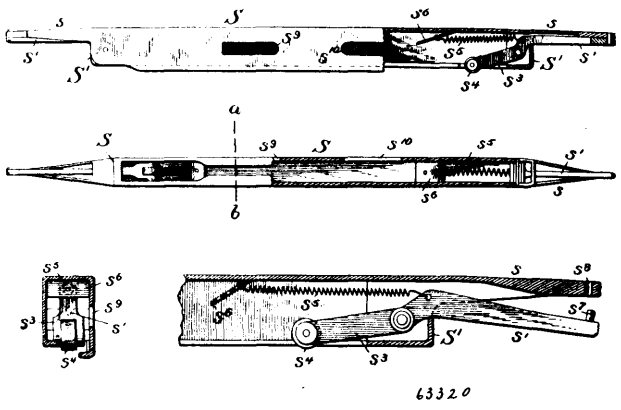
a casing, a shuttle opener comprising a rocking arm extending through a slot in said casing and means for operating said arm, substantially as described. 85th. In combination with a shuttle having a movable jaw, a casing at the end of the raceway adapted to receive said opener projecting through the casing, substantially as described. 86th. In combination with a shuttle having jaws, an opener for said jaws comprising a rocking arm, a rock shaft carrying said arm, a cam and connections between the rock shaft and cam, substantially as described. 87th. In combination with a shuttle having jaws at each end and devices for opening said jaws to release the yarn at one end to prepare for the reception of the yarn at the other end, comprising a rock shaft at each side of the loom, two openers carried by the said shaft and located a distance apart, a third rock shaft extending across the machine and having connection with the rock shafts at each side, a cam and connections between the cam and main rock shaft for operating the openers simultaneously, substantially as described. 88th. In combination, the lay, the shuttle thereon having nippers, the weft measuring, cutting and feeding devices at the ends of the lay, the shuttle openers, the shuttle pushing devices, the cam shaft 3 having cams thereon, the rods or shafts extending along the lay for operating the parts at the ends thereof and the upwardly extending rods between the same and the cams, substantially as described. 89th. In combination, the lay, the shuttle thereon having the nippers, the weft thread measuring, cutting and feeding devices, the openers for the nippers, a pusher, an attaching sleeve carrying said parts and adjustably secured to the lay, a cam shaft 3, and adjustable connections between the same and the operating parts carried by the sleeve, substantially as described. 90th. In combination, the lay, the shuttle, the pivoted plates J at the ends of the shuttle race, the rock shaft extending along the front of the lay and having fingers at the ends thereof to be operated thereby, the dagger or plate carried by the lay and adapted to be moved into and out of its normal position through the said rock shaft, and connections in the path of said dagger when in its normal position, said connections controlling the driving means to the loom, substantially as described. 91st. In combination, the lay, the shuttle thereon, the pivoted plates at the end of the lay, the rock shaft extending along the front of the lay, the fingers thereon to be engaged by the pivoted plates, the arm J^3, of the rock shaft, the dagger or plate pivoted on the lay and operated by the said arm, the lever K pivoted on the breast beam and lying in the path of the dagger when the same is in normal position, and connections from the said lever K to the driving means of the loom, substantially as described. 92nd. In combination, in a loom, the lay, the shuttle thereon, the pivoted plates J at the ends of the lay, the rock shaft extending along the lay, the fingers thereon to be engaged by the said plates, the dagger pivoted on the lay and controlled through said rock shaft, the lever K pivoted on the breast beam, the slotted plate K^1, secured on the loom frame, the hand lever working in said slot and adapted to be held by the right angular portion, and a lever K^2, engaging the lever K and the lever, substantially as described. 93rd. In combination, the lay, the shuttle thereon, the shuttle boxes, the plate J extending into the path of the shuttle, the weft feeding devices at the ends of the lay, the shuttle openers, the shaft V^3, for operating the same, the dagger J^4, supported on said shaft, the connections from the plate J to the said dagger, and the stop connection arranged to be operated by the said dagger, substantially as described. 94th. In combination, the lay, the shuttle carried thereby, the weft measuring, cutting and feeding devices, the opener devices, the pusher devices, the automatic stop device comprising the plates J and the sleeve at the end of the lay for supporting said devices, substantially as described. 95th. The combination of a lay with a housing or sleeve having a longitudinal slot W, opening at one end thereof, a race receiving the shuttle over said slot, and thread feeding devices located beyond the end of said slot, substantially as described. 96th. The combination of a lay, having a slot for a picker stick, with a housing or sleeve carried by the lay and having a slot to receive the picker stick, the top wall of said housing or sleeve having another slot that opens at one end thereof, a race over said slot to receive a shuttle, and thread feeding devices, substantially as described. 97th. The combination of a lay, having a slot to receive a picker stick, and a slot W^1, to receive a thread, with a housing or sleeve mounted upon said lay, and having a slot to receive a picker stick and a slot W aligned with the slot W^1, and opening at the end of said housing, a race over said slots, and thread feeding devices, substantially as described. 98th. The combination of a lay, a race to receive a shuttle and shuttle openers, comprising arms having adjustable shoes at their operating ends, substantially as described.

No. 63,320. Thread Carrier for Looms.

(*Porte-fil pour métiers.*)

The American Automatic Loom Co., New York City, New York, assignee of Daniel Munson Seaton, San Francisco, California, all of the U.S.A., 26th June, 1899; 6 years. (Filed 5th April, 1898.)

Claim.—1st. A shuttle comprising a hollow shell or casing having a longitudinal opening on one side, one wall of the casing projecting outwardly beyond the other wall at said opening, a movable jaw member within the shuttle and having one end extending beyond the edge of the other wall, substantially as described. 2nd. A shuttle comprising a hollow shell or casing having an overhanging



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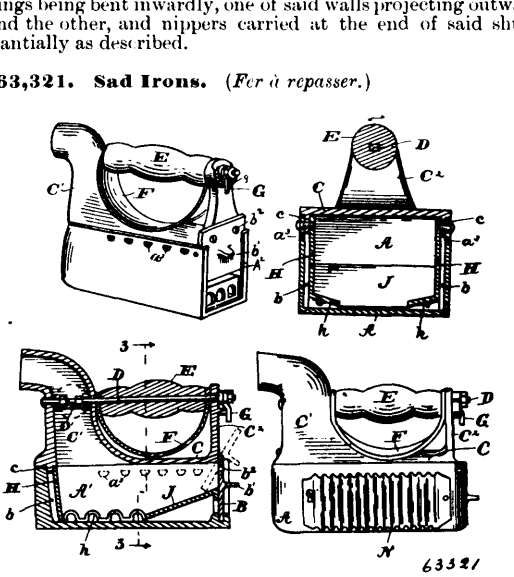
top wall and a bottom of less width, a pivoted jaw member within the shuttle and having one end extending beyond the edge of the bottom wall, substantially as described. 3rd. A shuttle comprising a body portion and nipping jaws and a pin secured on one end of the jaw members for straightening the yarn or thread, substantially as described. 4th. A shuttle comprising a body portion, a stationary jaw and a movable jaw, a pin secured on the movable jaw and a corresponding recess in the fixed jaw, substantially as described. 5th. A shuttle comprising a metal shell, closed on three side and partially open on the front, the edges of the front wall being out of line, a stationary jaw member at each end formed by an extension of the back plate, a movable jaw member at each end pivoted within the casing, the rear ends of the pivoted jaws protruding normally through the opening in the front wall, springs for keeping the movable jaws in contact with the body of the shuttle, substantially as described. 6th. A shuttle comprising a hollow casing, an opening on one side, one wall of said casing at said opening projecting outwardly beyond the opposite wall thereof, said projecting wall having bevelled ends, and nippers at the opposite ends, of the shuttle, substantially as described. 7th. A shuttle comprising a hollow casing having a longitudinal opening on one side, the walls of the shuttle at said openings being bent inwardly, one of said walls projecting outwardly beyond the other, and nippers carried at the end of said shuttle, substantially as described.

No. 63,321. Sad Irons. (*Fer à repasser.*)



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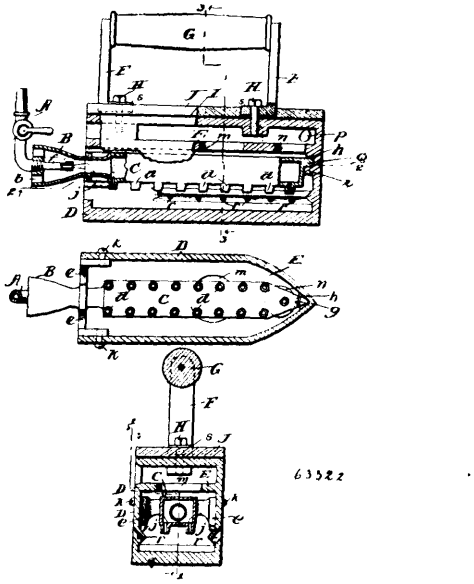
William E. Hoyt, New York City, New York, U.S.A., 26th June, 1899; 6 years. (Filed 18th March, 1899.)

Claim.—1st. The herein described sad iron, having the hollow body or chamber with perforated side walls, the top resting on the side walls of the chamber and having an underside flange which fits inside of the walls of the body portion, and having a chimney for carrying off the products of combustion, a shell comprising vertical walls separated by the flange from the walls of the body and having inwardly projected base flues and an integral inwardly sloping plate at its rear connecting the sides of the shell, and a sliding movable door or gate in one end of the iron adapted to be tilted inward to rest upon the inclined plate of the shell, to allow the air to be fed through the rear end of the iron as well as through the base flues of the sides, as and for the purpose specified. 2nd. The combination with a sad iron, having a hollow combustion chamber and a flue for the escape of the products of combustion, of a handle mounted on a

od supported by the iron and extending through the flue, and a damper mounted on the rod within the flue and changed in its position by rotating the handle, and an indicator on the handle rod working in a notched segment to show the position of the damper and prevent its too free action, substantially as specified. 3rd. The herein described sad iron, having the hollow body or chamber with perforated side walls, the top resting on the side walls of the chamber and having an underside flange which fits inside of the walls of the body portion, and having a chimney for carrying off the products of combustion, a shell comprising vertical walls separated by the flange from the walls of the body and having inwardly projected base flues and an integral inwardly sloping plate at its near end connecting the sides of the shell, and a sliding or movable door or gate in one end of the iron adapted to be tilted inward to rest upon the inclined plate of the shaft to allow the air to be fed through the rear end of the iron as well as the base flues of the sides, and a damper mounted on a rod within the flue and changed in its position by rotating the handle, substantially as specified.

No. 63,322. Sad Irons. (*Fer à repasser.*)



Joseph Gross, Chicago, Illinois, U.S.A., 26th June, 1899; 6 years. (Filed 9th March, 1899.)

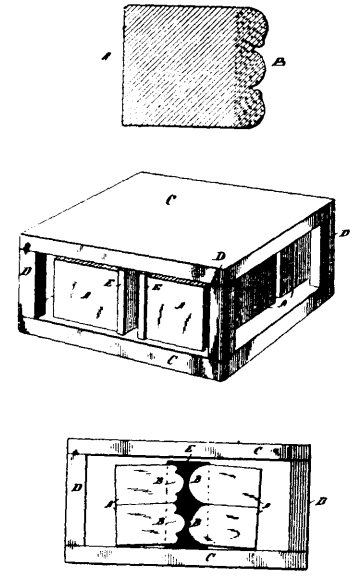
Claim.—1st. A hollow open rear sad iron having lower inclined side apertures deflecting toward its bottom and an apertured horizontal partition dividing the sad iron into upper and lower compartments, the upper one of which has side and front draft openings, together with a fuel gas burner having support in the lower one of said compartments and comprising a tube, an expansion chamber forming a transversely enlarged continuation of the tube as the forward end of same, a series of nipples depending from the expansion chamber and a gas cock supported in said tube. 2nd. A hollow open rear sad iron divided by an apertured horizontal partition into upper and lower compartments, the upper one of which has side and front draft openings, a recess in the point end of the sad iron inside the latter below said partition, and a fuel gas burner comprising a forward expansion chamber having a lip that engages said recess, a series of nipples depending from the expansion chamber, a rear tube leading into said expansion chamber, lateral angle-wings, extending in opposite directions, from the tube, and a gas cock supported in said tube, rear ledges inside the sad iron constituting rests for said angle wings, and set screws detachably connecting said sad iron and angle wings. 3rd. A hollow open rear sad iron divided by an apertured partition into upper and lower compartments, the upper one of which has side and front draft openings, together with a fuel gas burner, having support in the lower one of said compartments and comprising a tapered tube, an expansion chamber, forming a transversely enlarged continuation of the tube at the forward end of same, a series of nipples depending from the expansion chamber, and a gas cock supported in said tube to have its outlet in the smaller diameter of same. 4th. A hollow sad iron divided by an apertured partition into upper and lower compartments, the upper one of which has side and front draft openings, rear ledges inside the lower compartment, a fuel gas burner comprising a forward expansion chamber, a series of nipples depending from the expansion chamber, a rear tube leading into said expansion chamber, a gas-cock supported in the tube, and lateral angular wings extending in opposite directions from said tube to rest on said ledges, and have detachable connection with the sad iron. 5th. A hollow open rear sad iron divided by an apertured partition into upper and lower compartments, the upper one having side and front draft openings, and the lower one inclined apertures that deflect toward the bottom, together with a fuel gas burner having support in the lower one of said compartments and comprising a tapered tube, an expansion chamber forming a transversely enlarged continuation of the tube at the forward end of the same, a series of nipples depending from the expansion chamber and a gas cock supported in said tube to have its outlet in the smaller diameter of same.

No. 63,323. Artificial Stone. (*Pierre artificielle.*)

Peter Kleber, 23 Tanusstrasse, Mainz, Rhine Province, Prussia, 26th June, 1899; 6 years. (Filed 25th January, 1899.)

Claim.—1st. A process for the production of fire proof building stone or like articles consisting of slaking or tempering a mixture of pulverized calcine lime and sand, quartz, or the like, with dilute hydro-chloric acid, and subjecting the same wher it is formed and shaped into the required article to high pressure super-heated steam in a vessel of suitable construction, substantially as hereinbefore described. 2nd. A process for the production of fire proof building stones or like articles consisting of forming a plastic mass of a mixture of pulverised and calcined lime and sand quartz or the like, and slaked or tempered with water, and then after partial setting shaping or forming the required article, and then exposing in a vessel to a mixture super-heated steam and hydrochloric acid vapour, substantially as hereinbefore described.

No. 63,324. Artificial Stone. (*Pierre artificielle.*)

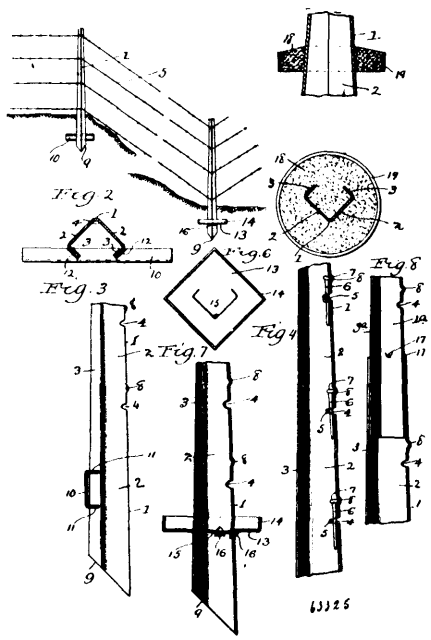


William Courtnay, New York City, U.S.A., 26th June, 1899; 6 years. (Filed 17th January, 1899.)

Claim.—1st. The composite building block described having the appearance of granite, the main body of the block being of granite, clay, and a minimum of flux, and the face being of different proportions of the material with an excess of flux, said face being solidified by of the flux, substantially as described. 2nd. The building block having its main body composed of granite, clay, and a flux, and its ornamental face composed of granite, clay in less proportion, and flux in greater proportion, the flux in the face portion only being in a solidified condition due to fusion, substantially as described. 3rd. The building block composed as to its body of granite, clay, and a minimum of flux, its face of granite, less clay, and a maximum of flux, said face compacted by fusion, and having a glazing over said face. 4th. The method of producing building blocks of granite appearance which consists in pulverizing granite, mixing the fine granite with clay and a flux, forming the body of the block of the said ingredients with a minimum of flux, and the face of the said ingredients with a maximum of flux, and burning the block until the face is fused and the body left unfused, substantially as described. 5th. The method of producing building blocks which consists in pulverizing granite, mixing the fine granite with clay and a flux, forming the body of the block of the said material with a minimum of the flux and the face of said materials with a maximum of the flux, glazing the face, and burning to first fuse the glazing and then the face composition, leaving the body unfused, but backed or burned. 6th. The method of forming artificial granite blocks, with ornamental faces, which consists of moulding the body of the block of a compound of granite, clay and a flux, and moulding the face thereon, of like materials, but in differing proportions, so that the face contains an excess of the flux, protecting the face by a non-combustible covering, the firing to the extent that the facing, under the covering, is fused, the body of the block remaining unfused

substantially as described. 7th. The method of forming artificial granite blocks, which consists in molding the block of a compound of pulverized granite, clay, and a flux, and the facing of like materials, but with an excess of the flux, and co-ating the facing with a glazing compound, firing the blocks, whereby a glazing is first formed, and continuing the firing until the flux in the facing is fused while the body remains unfused, substantially as described. 8th. The method of producing artificial granite blocks, which consists in moulding the body of a compound of granite, clay, and an excess of flux, covering the face with a glazing composition, burning to first form the glaze and then to fuse the flux in the facing, and afterward cooling and removing the glaze, substantially as described.

No. 63,325. Fence Post. (*Poteau de clotures.*)



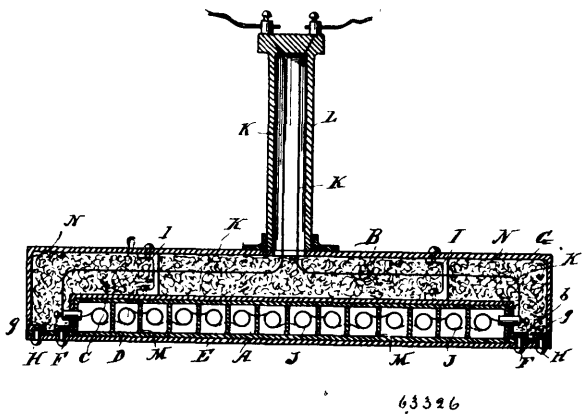
Hudley J. Donahoe, Chicago, Illinois, U.S.A., 26th June, 1899; 6 years. (Filed 22nd September, 1898.)

Claim.—1st. A metallic fence post having the notched angular front edge and the rear inwardly turned angle pieces 3 forming a post having three angular bends in cross section, the lower end of the post being free from permanent lateral projections whereby it may be driven into the earth, substantially as set forth. 2nd. A metallic fence post having the notched angular front edge and the rear inwardly turned angle pieces 3 projecting towards but not touching each other so as to strengthen the post while in use and to form interlocking members for clustering the posts during shipment, substantially as set forth. 3rd. As a new and useful article of manufacture a metallic fence post having the notched angular front edge for the transverse insertion of the fence wires and the rear angle pieces 3, and a cavity or indentation a slight distance from each of said notches for receiving a lug or head of the locking key, substantially as set forth. 4th. The combination of a metallic fence post angular in cross section and having the inwardly turned edges 3, and an anchor having a slit formed on the lines of the cross section of the post and through which slit the post is passed, the anchor being provided with a locking tongue fitting the interior of the post and binding the post against withdrawal, substantially as set forth. 5th. The combination with a tapering hollow metallic fence post angular in cross section and having the inwardly turned edges 3, of an extension having a tapering interior fitting into said hollow post, and a tongue struck up from one of said parts for engaging with and holding the other, substantially as set forth. 6th. The combination with a hollow metallic fence post angular in cross section with the inwardly turned edges 3, and having its upper end tapered, of a metallic compressible section fitting in the upper end of said post and having a tongue struck outwardly and engaging said post, substantially as set forth. 7th. The combination with a hollow post angular in cross section and having the inwardly turned edges 3, of a concrete girdle surrounding the post at the ground line, substantially as set forth.

No. 63,326. Electrical Heater. (*Chauffeur électrique.*)

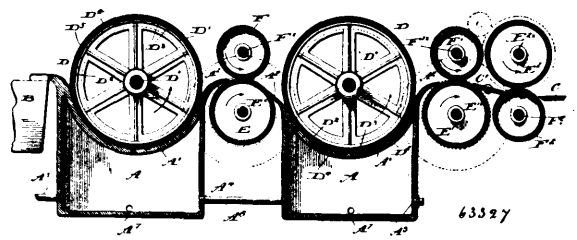
Charles William Jones, North Temescal, and Milton M. Martin, Oakland, both in California, U.S.A., 26th June, 1899; 6 years. (Filed 10th February, 1898.)

Claim.—1st. An electric heater comprising a bottom plate, a bottomless box secured centrally to said bottom plate whereby portions of the plate project laterally beyond the box on the four sides thereof, a casing of greater horizontal and vertical dimensions than said box surrounding the same and secured to the bottom plate



whereby a space is left between the box and casing at the sides and top of the box, a non-heat conducting material in said space between the box and casing, electric heating devices in said box provided with electrical connections, and insulating means between said box and bottom plate, substantially as described. 2nd. An electric heater comprising a bottom plate, a bottomless box having base flanges *h* on its sides and secured centrally on said bottom plate whereby the plate projects laterally beyond the box on the four sides thereof, a casing of greater horizontal and vertical dimensions than the box and substantially the breadth and width of said plate surrounding said box and secured detachably to said bottom plate by means of flanges *g* on the casing sides, whereby a space is left between the box and casing at the sides and top of the box, non-heat conducting material in said space between the box and casing, electric heating devices in said box provided with electric connections, and suitable insulation, substantially as described.

No. 63,327. Mangle. (*Calandre.*)



Allen Conkling, Chicago, Illinois, U.S.A., 26th June, 1899; 6 years. (Filed 29th May, 1899.)

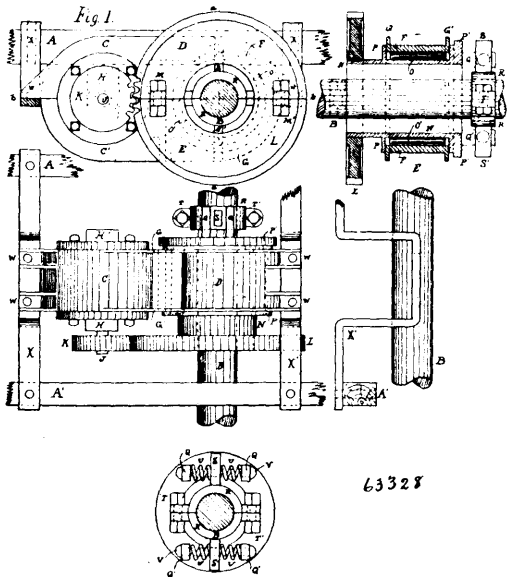
Claim.—1st. In an ironing machine, the combination with a steam chest having a concave ironing surface and a clothed drum operating upon said surface, of a pair of rotary ironing rollers, one of which is heated, said rollers being arranged in feeding relation to said steam chest as described, and suitable gearing for rotating said drum and rollers in the proper direction to cause the passage of goods over the ironing surface of the steam chest and through between said ironing rollers, substantially as specified. 2nd. In an ironing machine, the combination with a steam chest having a concave ironing surface, and a guiding horn, of a drum having a perforated shell and suitable clothing, a steam heated roll, and a co-operating clothed roll arranged to receive goods from the steam chest, substantially as specified. 3rd. In an ironing machine, the combination of a steam chest, a clothed perforated drum co-operating therewith, a guide, a rotary steam heated ironing roll, a clothed perforated drum co-operating therewith, and gearing for rotating the drums and roll in the desired direction, substanitially as specified. 4th. In an ironing machine, the combination with a steam chest, of a clothed drum co-operating therewith, inverted pairs of rotary ironing mechanism, suitable guides, and gearing for rotating the drums and ironing rolls in the desired direction, substantially as specified.

No. 63,328. Vehicle Driving Mechanism.
(*Moteur pour véhicules.*)

William Lord Bliss, New York City, New York, U.S.A., 26th June, 1899; 6 years. (Filed 2nd June, 1899.)

Claim.—1st. In combination, a truck frame, an axle, a hollow shaft mounted to rotate in the truck frame, said hollow shaft surrounding and spaced from the said axle and a flexible driving connection between said axle and hollow shaft, substantially as set forth. 2nd. In combination, a dynamo, a truck frame, an axle, a

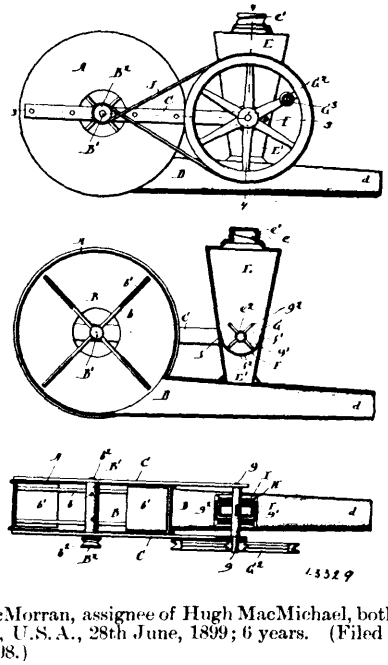
hollow shaft mounted to rotate in the truck frame, said hollow shaft surrounding and spaced from the said axle, a driving connec-



tion between the hollow shaft and the dynamo and a flexible driving connection between the axle and the hollow shaft, substantially as set forth. 3rd. In combination, a dynamo, a truck frame, a pillow block supported by the truck frame, a hollow shaft mounted to rotate therein, a driving connection between the hollow shaft and the dynamo, an axle extending through the hollow shaft and spaced therefrom and a flexible driving connection between the axle and shaft, substantially as set forth. 4th. The combination with a pillow block and a hollow shaft mounted to rotate therein, of an axle extending through the hollow shaft and spaced therefrom and a flexible driving connection between the axle and shaft, substantially as set forth. 5th. The combination of a hollow pillow block, a hollow shaft mounted to rotate in said pillow block, a driving axle extending through said hollow shaft, a clearance between said driving axle and said hollow shaft permitting eccentric motion of said driving axle within said hollow shaft, a dog mounted upon or forming a part of said driving axle and adapted to engage said hollow shaft whereby the rotation of said driving axle is communicated through said dog to said hollow shaft, substantially as herein described. 6th. The combination of a hollow pillow block, a hollow shaft mounted to rotate in said pillow block, an antifriction bearing between said hollow shaft and said pillow block, a driving axle extending through said hollow shaft, a clearance between said driving axle and said hollow shaft permitting eccentric motion of said driving axle within said hollow shaft, a dog mounted upon or forming a part of said driving axle and adapted to engage said hollow shaft whereby the rotation of said driving axle is communicated through said dog to said hollow shaft, substantially as set forth. 7th. The combination of a hollow pillow block, a hollow shaft mounted to rotate in said pillow block, a driving axle extending through said hollow shaft, a clearance between said driving axle and said hollow shaft permitting eccentric motion of said driving axle within said hollow shaft, a dog mounted upon or forming a part of said driving axle and adapted to engage said hollow shaft and one or more springs interposed between said dog and the point of engagement of said dog with said hollow shaft whereby the rotation of said driving axle is communicated through said dog and said springs to said hollow shaft, substantially as herein described. 8th. The combination of a hollow pillow block, a hollow shaft mounted to rotate in said pillow block, anti-friction bearing between said hollow shaft and said pillow block, a driving axle extending through said hollow shaft, a clearance between said driving axle and said hollow shaft permitting eccentric motion of said driving axle within said hollow shaft, a dog mounted upon or forming a part of said driving axle and adapted to engage said hollow shaft and one or more springs interposed between said dog and the point of engagement of said dog with said hollow shaft whereby the rotation of the said driving axle is communicated through said dog and said springs to said hollow shaft, substantially as herein described. 9th. The combination of a dynamo, an armature shaft thereof, a hollow pillow block connected to or forming a part of said dynamo, a hollow shaft mounted to rotate in said pillow block, suitable means for communicating the rotation of said hollow shaft to said armature shaft, a driving axle extending through said hollow shaft, a clearance between said driving axle and said hollow shaft permitting eccentric motion of said driving axle within said hollow shaft, a dog mounted upon or forming a part of said driving axle and adapted to engage said hollow shaft whereby the rotation of said driving axle is communicated through said dog to said hollow shaft and thence to said armature shaft of said dynamo, substantially as set forth. 10th. The combination of a dynamo, an armature shaft thereof, a hollow pillow block connected to or forming a part of said dynamo, a hollow shaft mounted to rotate in said pillow block, suitable means for communicating the rotation of said hollow shaft to said armature shaft, an anti-friction bearing between said hollow shaft and said pillow block, a driving axle extending through said hollow shaft, a clearance between said driving axle and said hollow shaft for permitting eccentric motion of said driving axle within said hollow shaft, a dog mounted upon or forming a part of said driving axle and adapted to engage said hollow shaft, whereby the rotation of said driving axle is communicated through said hollow shaft and thence to said armature shaft of said dynamo, substantially as herein described. 11th. The combination of a dynamo, an armature shaft thereof, a hollow pillow block connected to or forming a part of said dynamo, a hollow shaft mounted to rotate in said pillow block, suitable means for communicating the rotation of said hollow shaft to said armature shaft, a driving axle extending through said hollow shaft, a clearance between said driving axle and said hollow shaft permitting eccentric motion of said driving axle within said hollow shaft, a dog mounted upon or forming a part of said driving axle and adapted to engage said hollow shaft and one or more springs interposed between said dog and the point of engagement of said dog with said hollow shaft, whereby the rotation of said driving axle is communicated through said dog and said springs to said hollow shaft and thence to said armature shaft of said dynamo, substantially as herein described. 12th. The combination of a dynamo, an armature shaft thereof, a hollow pillow block connected to or forming a part of said dynamo, a hollow shaft mounted to rotate in said pillow block, suitable means for communicating the rotation of said hollow shaft to said armature shaft, an anti-friction bearing between said hollow shaft and said pillow block a driving axle extending through said hollow shaft, a clearance between said driving axle and said hollow shaft, for permitting eccentric motion of said driving axle within said hollow shaft, a dog mounted upon or forming a part of said driving axle and adapted to engage said hollow shaft and one or more springs interposed between said dog and the point of engagement of said dog with said hollow shaft, whereby the rotation of said driving axle is communicated through said dog and said springs to said hollow shaft and thence to said armature shaft of said dynamo, substantially as herein described.

No. 63,329. Powder Distributor.

(Distributeur de poudre.)

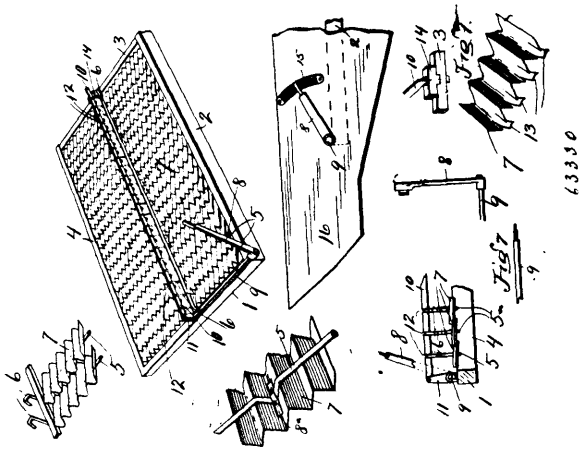


Edward McMorran, assignee of Hugh MacMichael, both of Chicago, Illinois, U.S.A., 28th June, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. In a powder distributor, the combination with the blast fan and its casing, the wind trunk leading therefrom, of a hopper above said wind trunk and leading thereto, a flexible perforated bottom within said hopper, an agitator arm working in said hopper, said arm being arranged to distend said flexible bottom, and means for concurrently driving said fan and said agitator arm. 2nd. In a powder distributor, the combination with the blast fan and its casing, the wind trunk leading therefrom, of a hopper above said wind trunk and leading thereto, a flexible perforated bottom within said hopper, a shaft passing transversely through said hopper, agitator arms upon said shaft, arranged to distend said flexible

bottom, and driving mechanism whereby said fan and said agitator arms are concurrently revolved. 3rd. In a powder distributor, the combination with the blast fan and its casing, and the wind trunk leading therefrom, of a hopper above said wind trunk and leading thereto, a flexible perforated curved rectangular bottom within said hopper, having two of its straight edges secured to the hopper sides and its curved sides free to play along the side walls of said hopper, an agitator arm or arms rigidly secured to a transverse shaft, and driving mechanism whereby said fan and said agitator arm or arms are concurrently driven. 4th. In a powder distributor, the combination with the blast fan and its casing, and the wind trunk leading therefrom, of a hopper above said wind trunk and leading thereto, a flexible perforated curved bottom within said hopper, a shaft passing transversely through said hopper, agitator arms secured to said shaft and consisting of a wire extended radially and transversely, the transverse portion thereof being arranged to distend said flexible bottom, and driving mechanism whereby said fan and said agitator are concurrently driven. 5th. The combination of the blast fan and its casing, and the wind trunk leading therefrom, of a hopper above said wind trunk, and leading thereto, a shaft extended transversely through said hopper, an agitator actuated thereby, supporting bars secured to each side of the fan casing and projected alongside of said hopper, and having bearings for the fan shaft and said agitator shaft, therein, and suitable mechanism for concurrently driving said fan shaft and said agitator shaft. 6th. The combination of the blast fan and its casing, and the wind trunk leading therefrom, of a hopper above said wind trunk, and leading thereto, a shaft extended transversely through said hopper, an agitator actuated thereby, supporting bars secured to each side of the fan casing and projected alongside of said hopper, and having bearings for the fan shaft and said agitator shaft therein, plates secured at each side of said hopper through which said agitator shaft passes, packing between said plates and the side walls of said hopper and suitable mechanism for concurrently driving said fan shaft and said agitator shaft.

No. 63,330. Separator. (*Separateur.*)



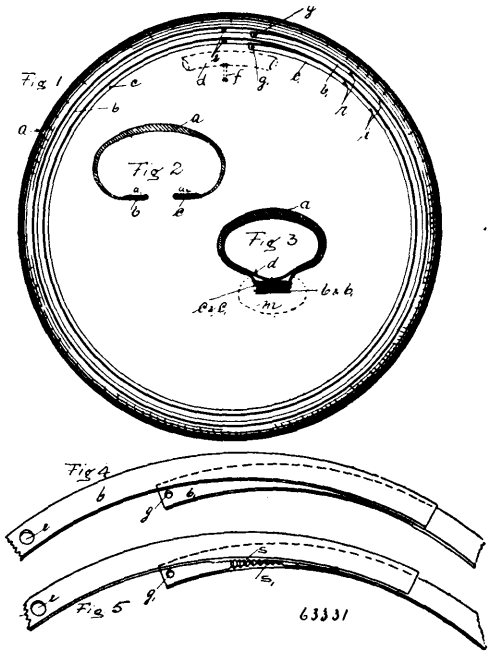
Frank Hixson and Benjamin F. Martin, both of Ashland, Ohio, U.S.A., 28th June, 1899; 6 years. (Filed 13th May, 1899.)

Claim.—1st. The combination with a rectangular frame, of a series of shafts journalled transversely therein and having U-shaped portions, corrugated slats connected to said shafts, a bar arranged longitudinally of the frame, and having notches in its upper edge with which the U-shaped portions of the shafts engage, a rock shaft, and arms connecting said rock shaft and said bar, and a lever for operating the rock shaft, substantially as and for the purpose specified. 2nd. The combination with a rectangular frame, of a series of shafts journalled transversely therein and having U-shaped portions, corrugated slats connected to said shafts, a bar arranged longitudinally of the frame and having notches in its upper edge with which the U-shaped portions of the shafts engage, a rock shaft, an arm connected to the rock shaft and to the longitudinal bar, an operating lever, and a removable block connected to the rectangular frame and supporting one end of the longitudinal bar, substantially as and for the purpose specified.

No. 63,331. Pneumatic Detachable Tire.
(*Bandage pneumatique pouvant être detaché.*)

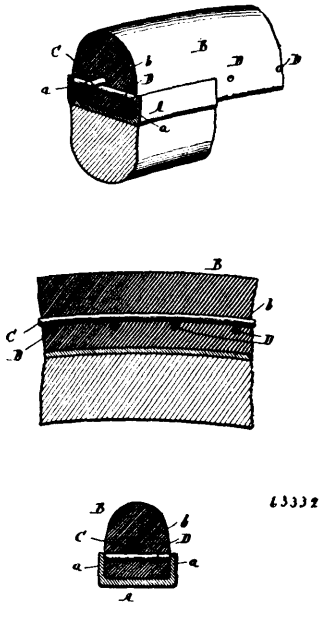
John James McDonald, Toronto, and Thomas John Rogers, Brantford, both in Ontario, Canada, 28th June, 1899; 6 years. (Filed 30th March, 1899.)

Claim.—1st. In a pneumatic detachable tire, two independent extensible metallic bands, seamed into the edges of the tire, partly secured there and overlapping each other, substantially as and for the purpose hereinbefore set forth. 2nd. In a pneumatic detachable tire, two independent extensible metallic bands, seamed and partly secured to the edges of the tire, one overlapping the other and provided with friction increasing surfaces, substantially as and for the



purpose hereinbefore set forth. 3rd. In a pneumatic detachable tire, two independent extensible metallic bands, seamed and partly secured into the edges of the tire, one overlapping the other and completely enveloping the inner tube, substantially as and for the purposes hereinbefore set forth.

No. 63,332. Vehicle Tire. (*Bandage de vehicule.*)

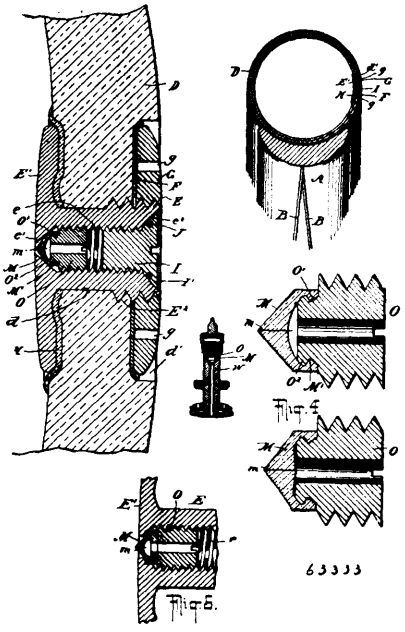


James Coomber and James Wilson, both of Chicago, Illinois, and Frederick Lee Norton, Racine, Wisconsin, U.S.A., 28th June, 1899; 6 years. (Filed 30th March, 1899.)

Claim.—1st. In a vehicle tire, the combination with a rim having side flanges, of an elastic strip seated within said rim and between said flanges, and having a longitudinal bore therein, a retaining band extending through said bore, and a series of independent cross stays in the elastic strip and independent of the retaining band. 2nd. In a vehicle tire, the combination with a rim having side flanges, of an elastic strip seated within the rim and between the side flanges and having a central longitudinal bore therein, of a retaining band extending through said bore, and a series of independent cross stays, and independent of the retaining band, and extending substantially between the rim flanges. 3rd. In a vehicle tire, the combination with a rim having side flanges, of an elastic strip seated within said rim and between said flanges, and having a

longitudinal bore therein, a retaining band extending through said bore, and a series of cross stays in the elastic strip independent of each other and independent of the retaining band, and extending substantially between said rim flanges. 4th. In a vehicle tire, the combination with a rim having side flanges, of an elastic strip seated within said rim and between said flanges, and having a longitudinal bore therein, a retaining band extending through said bore, and a series of cross stays independent of the band and independent of each other and transversely disposed intermediate the rim and band and having their terminals projected beyond the band and in close proximity to the rim flanges. 5th. In a vehicle tire, the combination with a rim having side flanges, of an elastic strip seated within said rim and between said flanges, and having a longitudinal bore therein, a retaining band extending through said bore, and a series of cross stays independent of the band and independent of each other and extending through the elastic strip.

No. 63,333. Pneumatic Tire. (*Bandage pneumatique*)

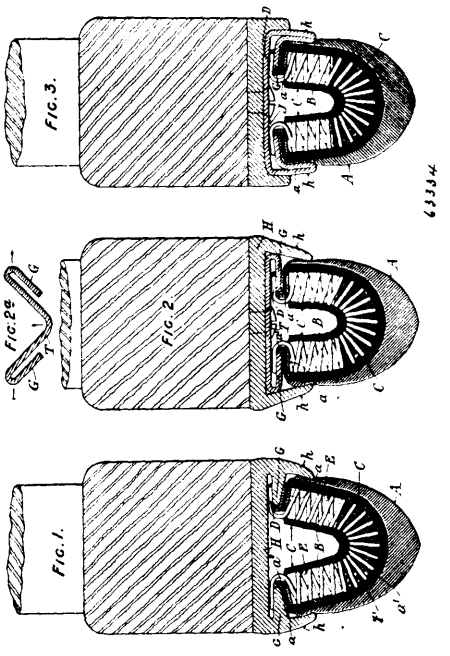


Franklin Eugène Rickman and Carrie Augusta Hawthorn, both of New York City, New York, U.S.A., 28th June, 1899; 6 years. (Filed 8th May, 1899.)

Claim.—1st. The hollow screw plug E approximating in length the thickness of the tire and set in the same, said plug having the inner head, outer externally threaded portion and longitudinal orifice e, in combination with a thin nut engaging said externally threaded portion and compressing the tire material to occupy a depression therein, and a suitable valve device located in the plug, substantially as herein specified. 2nd. The hollow screw plug E set in the tire, having its entire length but little greater than the thickness of a tire, provided with external screw threads E^2 and internal screw threaded orifice e, in combination with the pneumatic tire D, having the hole d and the sunk area d^1 surrounding the same on the exterior face, the thin nut G engaged by the outer threads with the screw plug and sunk tightly into the said recess, and a suitable automatic valve device engaged by the inner threads at the inner end of the screw plug, all arranged to serve substantially as herein specified. 3rd. The hollow screw plug E approximating in length the thickness of the tire and set in the same, said plug having the inner head, outer externally threaded portion and longitudinal orifice e, in combination therewith, an outer securing nut G, an automatic valve device located within the orifice e, and comprising a hollow cap M of rubber or analogous yielding material, having a thin aperture or slit m, and a hollow plug O having the cap M engaged with its inner end to be carried and held thereby in position to support it against back pressure, substantially as herein specified. 4th. The hollow screw plug E approximating in length the thickness of the tire and set in the same, said plug having the inner head, outer externally threaded portion and longitudinal orifice e, reduced at its inner end by the contraction e^1, in combination therewith, an outer securing nut G, an automatic valve device located in said orifice and comprising a hollow cap M of rubber or analogous yielding material having a thin aperture or slit m, and a hollow plug O, having the cap M, engaged with its inner end to be carried and held thereby in position to support it against back pressure, substantially as herein specified. 5th. In a valve for pneumatic tires, the hollow screw plug E and means for holding it, provided with the axial passage e having the contraction e^1 at the inner end and the enlargement e^2 at the outer end, in combination with a valve device comprising the flexible cap M having the slit m and the hollow valve bed O, with provisions as screw threads for adjusting the bed to confine the cap within the contracted end, and with the closing plug I having a packing ring J attached, all arranged to serve substantially as herein specified.

No. 63,334. Elastic Tire and Rim.

(*Bandage et jante élastique.*)



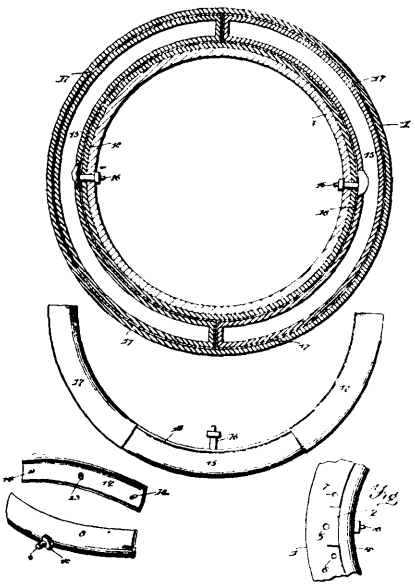
William Frederick Williams, 17 and 18 Great Pultney Street, Golden Square, London, England, 28th June, 1899; 6 years. (Filed 24th March, 1899.)

Claim.—1st. The combination with a wheel rim of channelled section, having flanges inwardly projecting from the side cheeks of the rim at a point intermediate of the bottom of the channel and the edges of the cheeks, of an elastic tire formed of an endless outer cover of transversely arched section provided with inwardly projecting rigid flanges in short lengths the cover enclosing a connected series of juxtaposed transversely extending springs bent to an arched form and the springs being provided with hooked ends which engage with the said inwardly projecting flanges of the rim, the sides of the cover being held between the cheeks of the rim whilst the flanges of the cover are clamped by the springs against the inwardly projecting flanges of the rim, substantially as specified. 2nd. The combination with a wheel rim of channelled section, having flanges inwardly projecting from the side cheeks of the rim at a point intermediate of the bottom of the channel and the edges of the cheeks, of an elastic tire formed of an endless strip of rubber having embedded therein juxtaposed transversely extending helical springs enclosed in tubular sheaths of plaited fabric, and formed of continuous wire, said springs being united two by two alternately at opposite ends by recurved or hook-shaped connecting members, the strip when applied to the rim being bent to a transversely arched form, and the said hook like parts being engaged with said inwardly projecting flanges of the rim and being retained in such engagement by the laterally expanding tendency of the strip, substantially as specified. 3rd. The combination with a wheel rim of channeled section enclosing flanges inwardly projecting from the side cheeks of the rim at a point intermediate of the bottom of the channel and the edges of the cheeks, of a strip having springs embedded therein, and of an endless outer cover of rubber of arched cross section provided with inwardly projecting rigid flanges adapted to embrace the edges of the spring strip and to be gripped between the edges of the strip and the flanges of the rim when the strip is bent to a transversely arched form and the hook like extensions of the springs are engaged with the said flanges as described, the cover fitting between the side cheeks of the rim, as described. 4th. In a vehicle wheel having a rim of channelled section, the combination of a liner having inwardly recurved flanges, said liner being fixed within the channel of the rim as described, and of an elastic tire formed of a strip of rubber having embedded therein juxtaposed transversely extending helical springs connected as described, by recurved or hook like members, and of an endless cover provided with inwardly projecting flanges at its edges, the tire when applied to the wheel being bent of transversely arched form and the recurved or hook like members being engaged with the inwardly projecting flanges of the liner, the flanges of the cover being gripped between the said

flanges of the liner and the edges of the spring strip whilst the cover is confined between the side cheeks of the rim, substantially as specified.

No. 63,335. Pneumatic Tire Tube.

(Tube de bandages pneumatiques.)



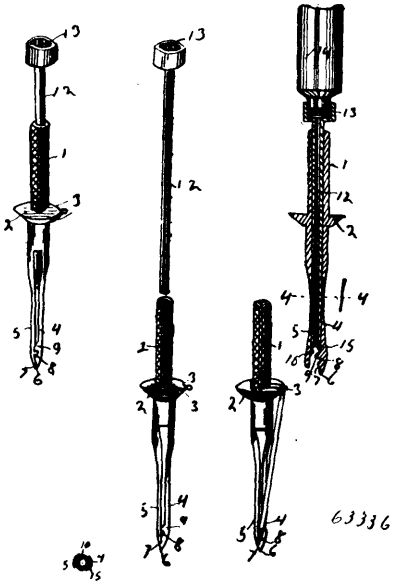
63335

James Hillary Driscoll, Rouse Point, New York, U.S.A., 28th June, 1899; 6 years. (Filed 3rd January 1899.)

Claim.—In combination, the inner segmental tubes 15, the outer tube 1 formed with the orifices 6 and 7 and integral flap 2, provided with the orifice 5, the crescent shaped plate 8 formed with a threaded stud bolt 9 and adapted to be inserted within said outer tube 1, and allow said bolt to project outwardly through the orifice in the flap, and the counter part plate 12 formed with the orifice 13, to receive said bolt, and with the short studs 14 14, to engage the orifices 6 and 7, in the outer tire, and the nut 10 secured on said stud bolt, substantially as shown and described.

No. 63,336. Pneumatic Tire Repair Tool.

(Outil à réparer les bandages pneumatiques.)

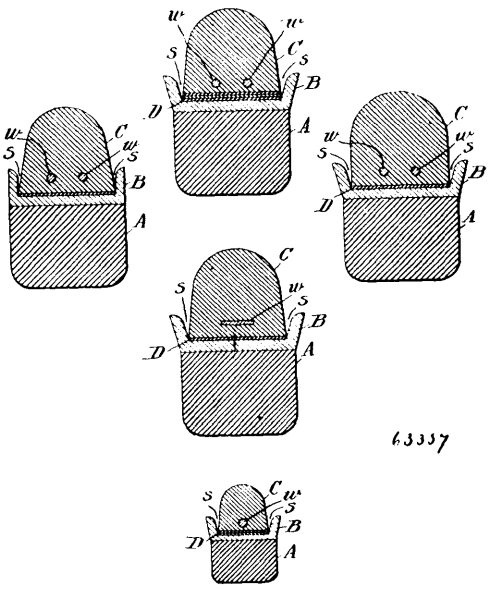


63336

Howard C. March, Portage, Ohio, U.S.A., 28th June, 1899; 6 years. (Filed 15th May, 1899.)

Claim.—In a repair tool of the class described, the sleeve provided with the notched collar, and the parallel spring arms, one of which is formed with a retaining recess, and a pointed end in combination with the tube 12, adapted to be inserted in said sleeve, and between said arms to spring them apart, substantially as and for the purpose set forth.

No. 63,337. Vehicle Tire. *(Bandage de vehicules.)*



63337

Woodburn Langmuir, New York City, New York, U.S.A., 28th June, 1899; 6 years. (Filed 20th May, 1899.)

Claim.—1st. In a wheel for vehicles, the combination of a channel having a flanged rim, a solid rubber tire tapering from the base so as to leave a V-shaped space between the flanges of the rim and the sides of the tire, and wires for retaining the tire within said channel, substantially as described. 2nd. A vehicle wheel having a metallic rim, with flanges projecting to form a channel or groove with straight or inclined sides, a rubber tire, the base of which is adapted to rest in said groove or channel, the sides of the tire forming an angle with the base, and leaving a V-shaped space between the tire and the rim of the channel, and independent retaining wires, passing entirely through the inner portions of said tire, and also within the outer peripheries of the flanges, substantially as described. 3rd. A vehicle wheel having a metallic rim with flanges projecting to form a channel or groove with straight or inclined sides, a rubber tire the base of which is adapted to rest in said groove or channel, the sides of the tire forming an angle with the base, and leaving a V-shaped space between the tire and the rims of the channel, and independent retaining wires, passing entirely through the inner portions of said tire, substantially as described.

No. 63,338. Wall Plaster. *(Plâtre pour murs.)*

Feodor Boas, St. Hyacinthe, Quebec, 2th June, 1899; 6 years. (Filed 29th August, 1898.)

Claim.—1st. A composition of matter, comprising silicate of magnesia largely in excess, mixed with quicklime and water, substantially as described. 2nd. A composition of matter, comprising silicate of magnesia cemented together by double silicate of lime and magnesia, substantially as described. 3rd. A composition of matter to form a wall plaster, comprising granular and fibrous silicate of magnesia cemented together by double silicate of lime and magnesia, substantially as described. 4th. A composition of matter in which a double silicate of lime and magnesia is the chief binding agent. 5th. A composition of matter to form a dry wall plaster, comprising comminuted silicate of magnesia, largely in excess, mixed with quicklime, substantially as described. 6th. A slab of siliate of magnesia cemented together by double silicate of lime and magnesia, substantially as described. 7th. A composition of matter, consisting of crushed chrysotile gangue mixed with quicklime, substantially as described.

No. 63,339. Winding and Measuring Machine for Ribbon, etc. *(Machine à enrouler et mesurer le ruban, etc.*

Brinton Dougall Wight, Napinka, Manitoba, Canada, 28th June, 1899; 6 years. (Filed 27th March, 1899.)

Claim.—1st. The combination with the standard supported and having the central guideway and the disc and crank handle at the upper end thereof, of the L-shaped arm adjustably held in the guideway in the standard and provided with an opposing disc opposite the disc at the top of the standard, as and for the purpose specified. 2nd. The combination with the standard suitably supported and

having the central guideway and the disc and crank handle at the upper end thereof, of the L-shaped arm adjustably held in the

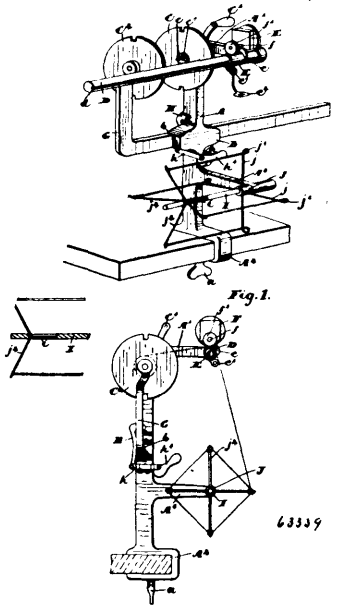


Fig. 1.

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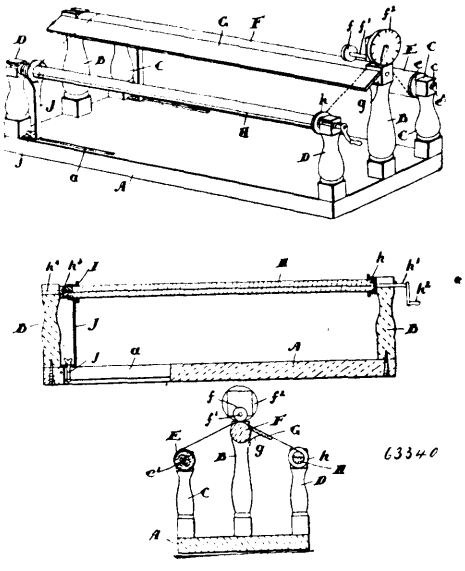
guideway in the standard and provided with an opposlng disc opposite the disc at the top of the standard, the arm attached to or forming part of the top of the standard and provided with a cross spindle, the sleeve adjustable longitudinally thereon, the measuring device, and roller at the top of the sleeve and under which the ribbon passes and a swift or reel for supporting the ribbon, as and for the purpose specified. 3rd. The combination with the standard suitably supported and having the central guideway and the disc and crank handle at the upper end thereof, of the L-shaped arm adjustably held in the guideway in the standard and provided with an opposing disc opposite the disc at the top of the standard, the arm attached to or forming part of the top of the standard and provided with a cross spindle, the sleeve adjustable longitudinally thereon, and provided with a guiding flange and the ribbon guide, as and for the purpose specified. 4th. The combination with the standard suitably supported and having the central guideway and the disc and crank handle at the upper end thereof, of the L shaped arm adjustably held in the guideway in the standard and provided with an opposing disc opposite the disc at the top of the standard, the arm attached to or forming part of the top of the standard, and provided with a cross spindle, the sleeve adjustable longitudinally thereon and provided with a finger loop for moving it longitudinally, as and for the purpose specified. 5th. The combination with the standard suitably supported and having the central guideway and the disc and crank handle at the upper end thereof, of the L-shaped arm adjustably held in the guideway in the standard and provided with an opposing disc opposite the disc at the top of the standard and provided with a cross spindle having a longitudinal groove therein, the sleeve provided with a tongue extending into the groove, as and for the purpose specified. 6th. The combination with the standard suitably supported and having the central guideway and the disc and crank handle at the upper end thereof, of the L-shaped arm adjustably held in the guide in the standard and provided with an opposing disc opposite the disc at the top of the standard, the hanger pivoted on the standard, the links extending at each side thereof and the cam handle pivotally connected to the links and designed to tighten the hanger against the L-shaped arm, as and for the purpose specified. 7th. The combination with the standard provided with a disc journalled at its upper end and the L-shaped arm provided with a disc at its upper end and adjustably held in the standard, of the arm extending forwardly in the standard and the spindle held in its end thereof and the swift or reel comprising the spring arm J^1, and the collapsible arms J^2, pivotally connected to the end of the spring arms and pivotally connected and adjustable on the spindles, as and for the purpose specified.

No. 63,340. Paper Measuring Machine.

(Machine à mesurer le papier.)

Brinton Dougall Wight, Napinka, Manitoba, Canada, 28th June, 1899; 6 years. (Filed 28th March, 1899.)

Claim.—1st. The combination with a suitable base and the supporting standards of the roll, of the central standards provided with a suitable roller suitably jonrnalled, the measuring roller connected thereto and actuating a suitable measuring device and the winding slitted roller, in the slit of which the end of the paper is held, and means for keeping such roller closed as it rotates, as and for the purpose specified. 2nd. The combination with a suitable base and the su porting standards of the roll, of the central standards pro-



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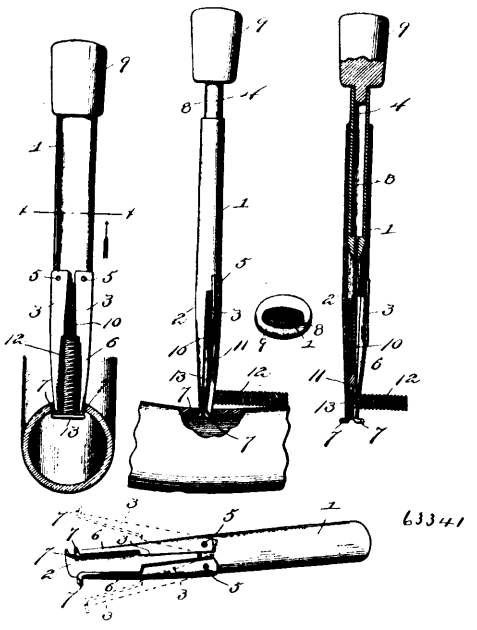
vided with a suitable roller suitably journalled, the measuring roller connected thereto and actuating a suitable measuring device, the winding slitted roller, in the slit of which the end of the paper is held, and the flanged sleeve extending over the separable end of the slitted roller, as and for the purpose specified. 3rd. The combination with a suitable base and the supporting standards of the roll, of the central standards provided with a suitable roller suitably journalled, the measuring roller connected thereto and actuating a suitable measuring device, the winding slitted roller in the slit of which the end of the paper is held, the flanged sleeve extending over the separable end of the slitted roller and the forked standard adjustably held on the base plate, as and for the purpose specified. 4th. The combination with a suitable base and the supporting standards of the roll, of the central standards provided with a suitable roller suitably journalled, the measuring roller connected thereto and actuating a suitable measuring device, the winding slitted roller in the slit of which the end of the paper is held, the flanged cap secured at one end of the sleeve and provided with a suitable crank handle on the handle thereof, and the screwed cap at the opposite end provided with a suitable spindle, as and for the purpose specified.

No. 63,341. Tool for Inserting Valve Stems in Pneumatic Tires. *(Outil pour inserer les tiges de soupapes dans les bandages pneumatiques.)*

Albert Whisler, Greentown, Indiana, U.S.A., 28th June, 1899; 6 years. (Filed 14th June, 1899.)

Claim.—1st. A device of the character described, comprising a holder for supporting the valve stem at approximately right angles thereto, and a plunger adapted to engage with the stem and force the head thereof edgewise into and through the valve stem opening of the tire, substantially as set forth. 2nd. A device of the character described, comprising a hollow casing, fingers provided upon the casing forming a holder for supporting the valve stem at approximately right angles thereto, and a plunger arranged within the casing and adapted to engage and force the head of the valve stem edgewise into the opening of the tire, substantially as and for the purpose set forth. 3rd. A device of the character described, comprising a holder adapted to hold the valve stem by the head thereof with the body of the stem at approximately right angles to the holder, and a plunger adapted to engage the head of the stem and force the head edgewise into and through the valve stem opening of the tire, substantially as set forth. 4th. A device of the character described, comprising a hollow casing, fingers provided upon one end of the casing, some of the fingers being pivoted forming a holder for supporting the valve stem at approximately right angles thereto, and a plunger adapted to engage with and force the stem into the opening, substantially as set forth. 5th. A device of the character described, comprising a hollow casing, fingers provided upon end of the casing, the fingers upon the other side thereof being fixed and the fingers upon the other side thereof being pivoted to the casing, said pivoted fingers receiving the valve stem therebetween, and a plunger carried by the casing and adapted to extend between the fingers and engage the valve stem, substantially as and for the purpose set forth. 6th. A device of the character described, comprising a hollow casing having a stationary finger at one end and a pair of fingers pivoted to the same end of the casing and upon the

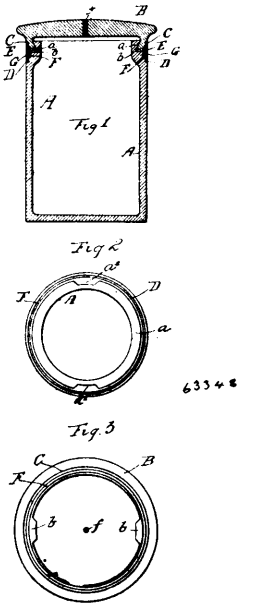
opposite side thereof, the pivoted fingers being cut away upon their opposing inner edges and adapted to receive the valve stem therebetween with its head between the stationary finger and the pivoted fingers, and a plunger arranged within the casing and between the fingers and adapted to engage the head of the valve stem, substantially as and for the purpose set forth. 7th. A device of the character described, comprising a holder having fingers adapted to hold the valve stem therebetween, each of the fingers being provided with an outwardly extending flange, and a plunger carried by the holder and adapted to engage the valve stem, substantially as set forth. 8th. A device of the character described, comprising a holder having fingers adapted to receive the head of the valve stem therebetween, and a plunger carried by the holder, said plunger being provided with a concaved seat or notch in one end thereof which is adapted to engage with the edge of the head of the valve stem, substantially as set forth. 9th. A device of the character described, comprising a hollow casing having means for holding the valve stem at approximately right angles thereto, and a plunger arranged within the casing, said plunger consisting of a stem having a shank at one end adapted to engage the valve stem and an operating head or handle at the other end thereof, whereby the head of the valve stem may be inserted edgewise into and through the valve stem opening, substantially as set forth. 10th. A device of the character described, comprising a holder for the valve stem and a plunger, the holder having movable fingers which are adapted to support the valve stem at approximately right angles thereto and to be inserted in the valve stem opening of the tire and stretch said opening during the operation of the plunger, whereby the head of the stem may be inserted edgewise into and through the valve stem opening, substantially as set forth. 11th. In a device of the class described, the combination with the holder for the valve stem to hold the stem at approximately right angles to the holder and in position for insertion, of means for forcing the head of the stem edgewise from the holder into the valve stem opening, substantially as described. 12th. In a device of the class described, the combination with the holder for supporting the valve stem at approximately right angles thereto and adapted to be inserted into the valve stem opening and expand the same, of means for forcing the head of the stem edgewise from the holder into the opening, substantially as described.



No. 63,342. Jar Closure. (*Fermeture de jarre.*)

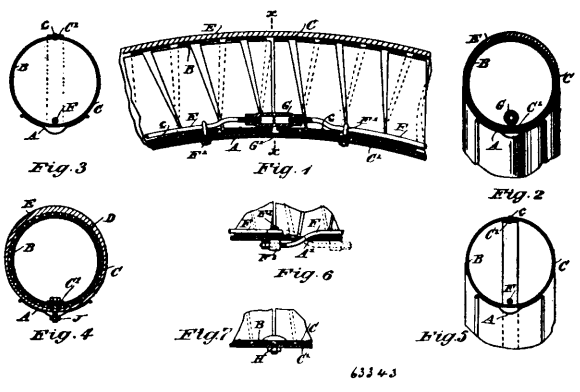
Thomas Hunter Dodd and Margaret Bygate Dodd, both of 73 Galgate, Barnard Castle, Durham, England, 29th June, 1899; 6 years. (Filed 4th November, 1898.)

Claim.—1st. An improved means for hermetically sealing jars and the like, consisting of a groove formed in the upper edge of the jar, and in the lower edge of the cover at the outside, and a rubber ring or band placed in the said groove covering the joint, substantially as described and for the purpose specified. 2nd. An improved means for sealing jars and other receptacles in vacuum process consisting of two grooves, one inside the other, formed from channels at the upper edge of the jar and at the lower edge of the cover, suitable material placed in the inner groove during the vacuum process and a rubber ring placed in the outer groove when the jar is cool, covering and sealing the joint substantially as described and shown, and for the purposes specified. 3rd. The use for sealing jars and like receptacle in vacuum process of a composition of fibre or fabric such as asbestos, silk, cotton or the like and plaster of Paris with a binding or setting medium of a saccharine solution, substantially as herein described. 4th. The use for sealing jars and like receptacles



in vacuum process of a composition of fibre or fabric such as asbestos, silk, cotton or the like and plaster of Paris with a binding or setting medium of a saccharine solution and albumen, substantially as herein described. 5th. In the vacuum sealing process by heat the combination and use with the means of sealing jars and other receptacles as described, of a composition of fibre or fabric in suitable form and plaster of Paris albumen and saccharine solution with or without the added borax and soot, substantially as herein described. 6th. The herein described composition of matter for sealing jars and the like, consisting of a fabric base, as specified, and a powder composed of 30 parts of plaster of Paris and 1 part of soot, and a solution composed of 1 grain of pure borax, 12 grains of pure cane sugar, 5 grains of albumen and 1 ounce of water, substantially in the proportions set forth and herein described.

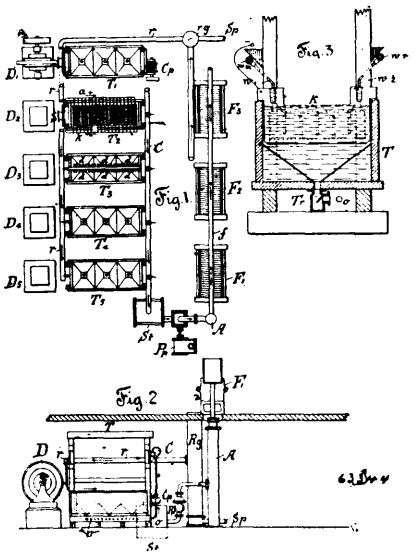
No. 63,343. Velocipede Tire. (*Bandage de vélocipèdes.*)



George Ernest Spicer, 33 Westbourne Street, East Praham, and James Amasa Bigelow, 2 Lincoln Street, North Richmond, both of Victoria, Australia, 29th June, 1899; 6 years. (Filed 30th May, 1898.)

Claim.—1st. As an inner tire for a velocipede or other vehicles, two spiral or helical spring ribbons such as B and C, wound reversewise upon one another and secured by rivets or the like to a flexible tie band or rib such as C^1, substantially as described and illustrated in the drawings. 2nd. As an inner tire for the purpose specified two helical or spiral spring ribbons such as B and C, wound reversewise to and over one another and made of steel or other suitable metallic substance and attached by rivets to an annular flexible tie band or rib such as C^1, and means for securing said tire to the wheel rim, substantially as described and illustrated in the drawings. 3rd. As a complete tire for the purpose specified the combination of the two metal spiral or helical ribbons such as B and C, riveted to a tie band or rib such as C^1, a tie wire such as F, a binding of canvas taping such as D, and a rubber cover such as E, all assembled and secured, substantially as herein described and as illustrated in the drawings.

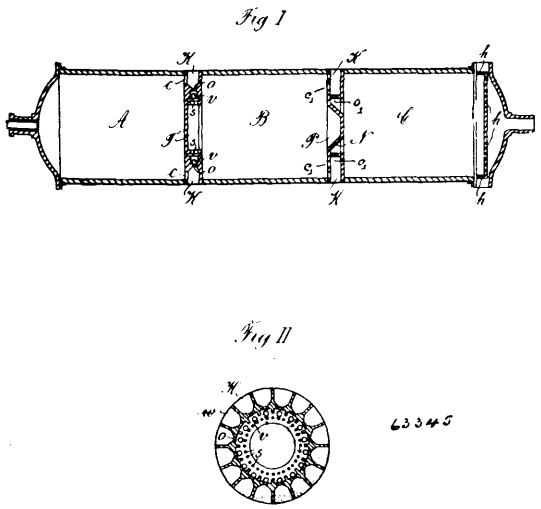
No. 63,344. Process of Manufacturing Pigments by Electrolysis. *(Procédé pour la fabrication de mordant par l'électrolyse.)*



Herman Charles Woltereck, New York City, New York, U.S.A., 29th June, 1899; 12 years. (Filed 5th January, 1899.)

Claim.—In a process of producing pigments by electrolysis, the process of cooling or heating the electrolyte as required, of continuously circulating the electrolyte and of regenerating the same, after removing the product and before returning the electrolyzer, by the introduction of gases, chemicals or solutions of the same as required.

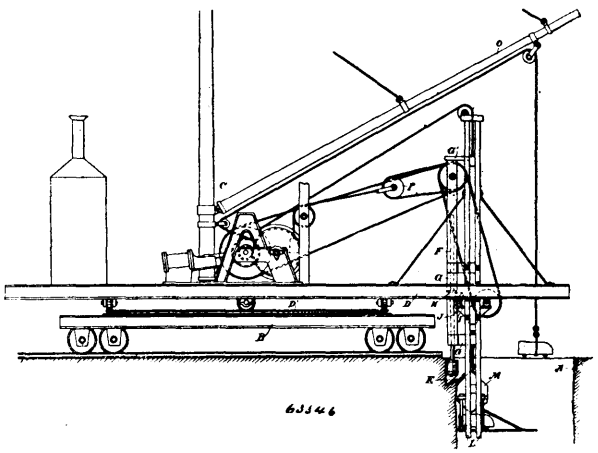
No. 63,345. Tubular Ball Mill.
(Moulin pulverisateur à boule.)



Meyer Joseph Davidsen, 29 Vestergade, Copenhagen, Denmark, 29th June, 1899; 6 years. (Filed 22nd November, 1898.

Claim.—1st. A ball mill consisting of a tubular drum provided with a horizontal or approximately horizontal axle and by means of vertical partitions divided into alternate grinding chambers and conveying chambers of which the said grinding chambers are filled in part with balls for effecting the grinding, whilst the conveying chambers are provided with suitable devices for carrying the material, when the drum is revolving, from a lower point in one grinding chamber to a higher situated point in the next following, substantially as described. 2nd. A form of construction of the conveying chambers characterized by an annular space arranged along the periphery of the drum between two grinding chambers, the said annular space being divided into a number of cells K by means of partitions w, the cells communicating with the preceding grinding chamber by means of side openings c and with the next following grinding chamber by means of openings o arranged at the bottom of the cells and provided with ball valves. 3rd. A form of construction of the conveying chambers characterized by an annular space arranged along the periphery of the drum between two grinding chambers, the said annular space being divided into a number of cells K by means of partitions w, the cells communicating with the preceding grinding chamber by means of openings o^1, and with the next following grinding chamber by means of openings g^1, arranged at the bottom of the cells, a conical plate with its apex turned in the directions of the outlet being arranged in the circular space not occupied by the cells for the purpose of directing the material from the cells into the next following grinding chamber.

No. 63,346. Apparatus for Disengaging Frozen or Compacted Earth. *(Appareil pour pulveriser la terre gelée.)*



James M. Davidson, Fort Jones, California, U.S.A., 29th June, 1899; 6 years. (Filed 22nd December, 1897.)

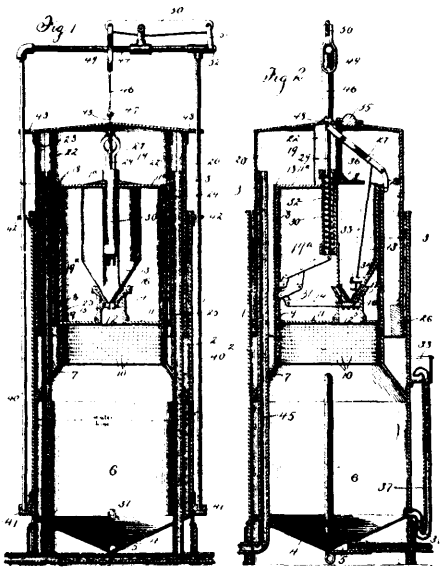
Claim.—1st. In an apparatus for detaching and disengaging frozen or other compacted material, cutters mounted upon vertically movable stems and cams and tappets by which the cutters are alternately raised and allowed to drop upon the surface to be detached, a frame work upon which the actuating mechanism of said cutters is supported, said frame work being movable in guides which allow it to follow the cut downward to any desired depth, a car movable with relation to the surface upon which the cut is being made having a frame work adjustably projecting therefrom, said frame work carrying the guides and frame of the cutter mechanism, substantially as shown and described. 2nd. An apparatus for detaching and disengaging frozen and other compacted material consisting of vertically moving cutters and cams and tappets by which they are raised and allowed to drop upon the surface to be disengaged, cams and a countershaft through which power is transmitted to the cutters, a frame upon which the cutters and the driving shafts are mounted, a second guide frame with a carriage upon which it is horizontally adjustable, within which guide frame the cutter and driving shaft frame are vertically movable, belt connections between a countershaft and a motor carried upon the car, an intermediate take-up pulley by means of which the length of the belt between the motor and the countershaft can be regulated, and a frame work upon which said pulley is carried movable in unison with the changes in position of the countershaft and the mechanism actuated thereby, substantially as shown and described. 3rd. In an apparatus for detaching and disengaging frozen or other compacted material, cutters mounted upon vertically movable stems and cams and tappets by which the cutters are alternately raised and allowed to drop upon the surface to be detached, a frame work upon which the actuating mechanism of said cutters is supported, said frame work being movable in guides which allow it to follow the cut downward to any desired depth, a car movable with relation to the surface upon which the cut is being made having a frame work adjustably projecting therefrom, said frame work carrying the guides and frame of the cutter mechanism, and a carriage therefor movable transversely to produce the width of the cut, substantially as shown and described.

No. 63,347. Acetylene Gas Generating Apparatus.
(Appareil générateur de gaz acétylène.)

Henri Joseph Azarie Giroux and Narcisse Aza Giroux, both of Charlesbourg, Quebec, Canada, 29th June, 1899; 6 years. (Filed 31st October, 1898.)

Claim—1st. An acetylene gas generating apparatus, comprising a gas holder, a generating chamber arranged within said gas holder and communicating therewith, a carbide receptacle located within the gas holder, a passage leading from said carbide receptacle to the said generating chamber, and a valve arranged in said passage and adapted to be opened by the descent of the gas holder, substantially as described. 2nd. An acetylene gas generating apparatus, comprising a gas holder, a generating chamber arranged within said gas holder and communicating therewith, a carbide receptacle

located within the gas holder, a passage leading from said carbide receptacle to the said generating chamber, and a valve arranged in



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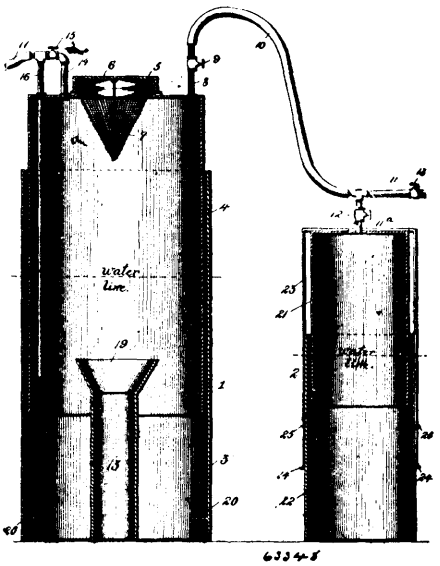
said passage and adapted to be opened by the descent of the gas holder, and a series of spring operated levers connected with said valve upon the ascent of the gas holder, substantially as described. 3rd. An acetylene gas generating apparatus, comprising a gas holder, a generating chamber formed therein, a gas holding compartment located above and having operative connection with said generating chamber, a carbide receptacle located within said gas holder, said receptacle having an intermittently opened carbide outlet, and surplus gas escape mechanism, mounted entirely within said gas holder, and operated by the movement of the inner section of said gas holder, for automatically passing the excessive gas from said gas holding compartment, substantially as described. 4th. The combination with a gas holder formed of telescoping sections, of a series of independent compartments formed contiguous to the inner side of the inner section of said gas holder, a water seal whereby said compartments are normally kept out of operative connection with the gas holding compartment, means operated by the upward movement of said inner section for making an operative connection between said gas holding compartment and said independent compartments, and escape pipes located in said independent compartments for carrying off the surplus gas when the said water seal is broken and the operative connection with the gas holder has been made, substantially as described. 5th. The combination with a gas holder formed of telescoping sections, of a series of depending flanges secured to the top and sides of the inner section of said gas holder, forming independent compartments, a water seal for said compartments, said flanges having opening near their lower ends, which are normally closed, and escape pipes having their inner ends located within said independent compartments, for allowing of the passage of the surplus gas from the gas holding compartment when the water seal is broken, substantially as described. 6th. An acetylene gas generating apparatus, comprising a gas holder, a generating chamber, a gas holding compartment having operative connection with said generating chamber, and a carbide receptacle adapted to automatically deliver carbide to said generating chamber, gas holding compartment and said carbide receptacle being located entirely within said gas holder, substantially as described. 7th. An acetylene gas generating apparatus, comprising a gas holder, a generating chamber, a gas holding compartment having operative connection with said generating chamber, a carbide receptacle having a carbide outlet adapted to permit the passage of carbide from said receptacle to said generating chamber, and a valve intermittently operated for opening and closing said carbide outlet, said generating chamber, gas holding compartment, carbide receptacle and valve mechanism being located entirely within said gas holder, substantially as described.

No. 63,348. Acetylene Gas Apparatus.

(Générateur de gaz acétylène.)

Sauveur Turcotte, Inverness, Quebec, Canada, 29th June, 1899; 6 years. (Filed 14th December, 1898.)

Claim.—An acetylene gas generating apparatus, comprising a combined generator and gas holder, a carbide receptacle secured therein, a residue receptacle located below said carbide receptacle, an escape pipe mounted in said generator, said escape pipe automatically carrying off the surplus gas, an auxiliary outlet pipe connected to said escape pipe, for removing the entire quantity of gas, a valved connection between said generator and the service



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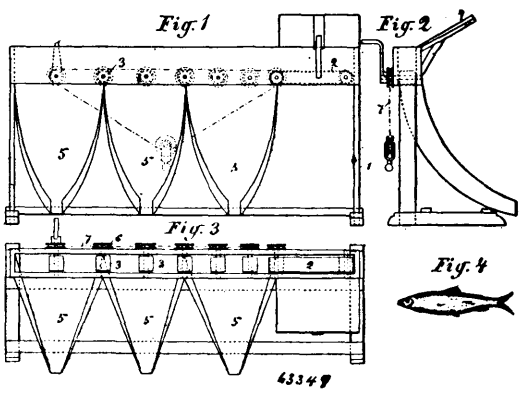
pipes, and a telescopic auxiliary storage tank, connected to said valved connection, by means of which gas may be passed from said generator to said storage tank, to be used when said generator is inoperative, to supply said service pipes, substantially as described.

No. 63,349. Fish Cleaning Apparatus.

(Appareil à nettoyer le poisson.)



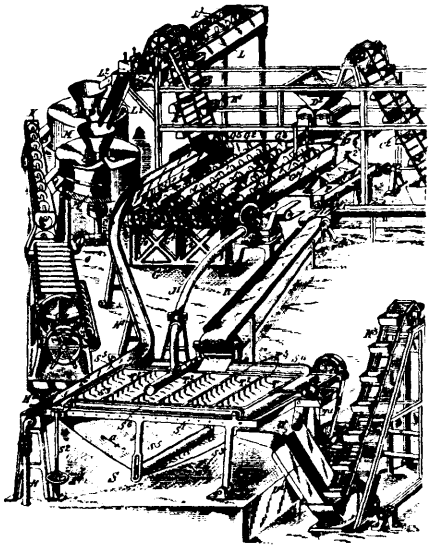
63349

Martin Ekenberg, 3 Agnegatan, Stockholm, Sweden, 29th June, 1899; 6 years. (Filed 4th January, 1898.)

Claim.—1st. In apparatus for cleaning or otherwise treating fish, feeding arrangement by means of which the fish is brought to occupy the required position, consisting of supports 3, 3, on an aperture across which the fish is fed in the direction of its length by means of an endless belt or by equivalent means, said supports or the edges of said aperture being located at a maximum distance from each other of half a fish's length for the purpose of causing the fish to drop head first between the supports or through the aperture, substantially as set forth. 2nd. In the arrangement specified, supports composed of a series of rotating rolls placed at gradually increasing distances from each other in the direction of feeding, for the purpose of causing the fish carried forward on the rollers to drop between the latter when arriving at an aperture of sufficient length and thus sorting the fish according to size, substantially as set forth. 3rd. In apparatus for cleaning or otherwise treating fish, an arrangement for turning the fish composed of an inclined chute of sufficient width at the top to provide room for the fish to lie on its side in it and narrowing down towards the lower end so as to cause the descending fish to rise on edge, substantially as set forth. 4th. An extension of the chute, consisting of an inclined tube which is of oval section and placed on the edge, this tube being twisted spirally so as to cause the fish to be turned as it passes through it, substantially as set forth. 5th. A fish cleaning machine, consisting of two rows of yielding rollers 12, between which the fish is fed, the intervals at which the rollers are placed in said rows being less than a fish's length, a knife 25, located in the plane dividing the rows of rollers and adapted to cut open the belly of the fish, and a brush 27,

also located in the same plane beyond the knife and serving to remove the contents of the belly of the fish, substantially as set forth. 6th. In apparatus of the character specified, guide and carrying rollers conical or tapering towards one end and close to the opening thus formed between the row of rollers, a longitudinal support or guide 13, for the fish advancing between the rows of rollers, said support or guide being preferably grooved, substantially as described. 7th. In the machine specified, the arrangement of bearings of the rollers movable at an angle to the row of rollers and actuated by springs 18, serving to keep the rollers pressed towards each other, flexible shafts 23, connecting the rollers with their respective driving gears which are geared to the main driving shaft, substantially as described.

No. 63,350. Treatment of Cotton Seed.
(Traitement des graines de coton.)



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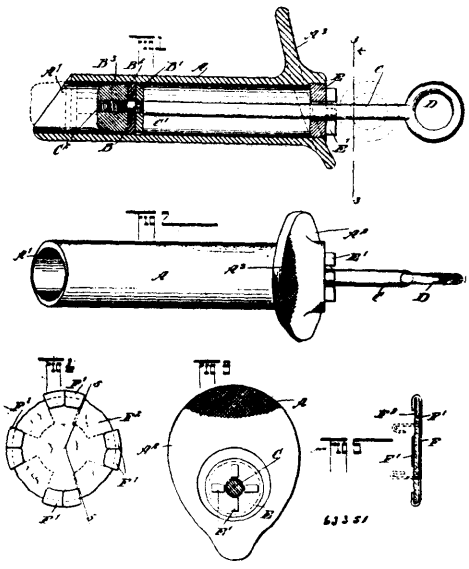
John Charles William Stanley, London, England, 29th June, 1899; 6 years. (Filed 29th March, 1898.)

Claim.—1st. In the treatment of cotton seed, separation of the hulls and kernels in washing separators wherein worm agitators force hulls and the proportion of fragmentary kernels intermixed with them through an opposing stream of fluid which carries off the fragments of kernel from the hulls, and wherein the main bulk of kernels and the proportion of fragmentary hulls intermixed with them are delivered on to a stream of water descending over an ascending band which delivers the fragments of hull over its upper end whilst the kernels are carried away in the descending stream, substantially as and for the purpose specified. 2nd. In the treatment of cotton seed, separation of the hulls and kernels in washing separators wherein worm agitators force hulls and the proportion of fragmentary kernels intermixed with them through an opposing stream of fluid which carries off the fragments of kernel from the hulls, and wherein the main bulk of kernels and the proportion of fragmentary hulls intermixed with them are delivered on to a stream of water descending over an ascending band which delivers the fragments of hull over its upper end whilst the kernels are carried away in the descending stream, the separators being so combined that the exhaust or overflow of hulls from the band are delivered to the separator in which the major proportion of hulls are treated, whilst the exhaust of kernels from this latter is delivered on to the band aforesaid, substantially as and for the purpose specified. 3rd. In apparatus for the treatment of cotton seed the combination of a washing separator having a channel or zigzag channel throught which water passes and which contain agitators to propel the charge through an opposing flow of water, of a washing separator comprising an inclined band, means for delivering a stream of water over its surface and a reciprocatory stirrer, substantially as and for the purpose specified. 4th. In apparatus for the treatment of cotton seed, a washing separator comprising a channel or zigzag channels through which water passes and agitators which propel the charge in a direction opposite to that in which the wash water flows, substantially as and for the purpose specified. 5th. In apparatus for the treatment of cotton seed, a washing separator comprising an inclined bend means for delivering a stream of water over its surface and a reciprocatory separator with or without an adjustable table, substantially as and for the purpose specified.

No. 63,351. Pessary Applier. *(Applique de pessaire.)*

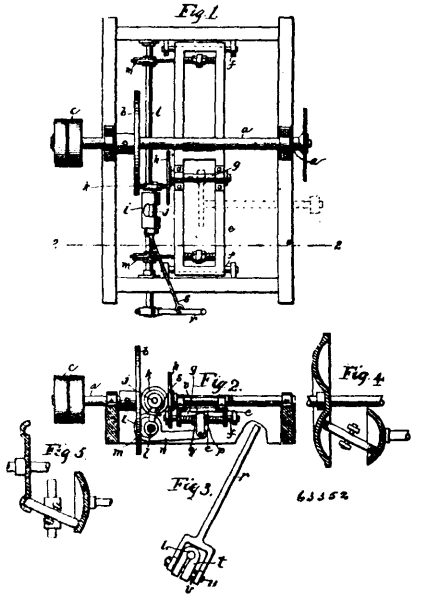


63351

Edward Allison Butler, San Diego, California, U.S.A., 29th June, 1899; 6 years. (Filed 25th November, 1898.)

Claim.—An applicator, comprising a barrel having one end beveled and formed at the opposite end with an approximately pear shaped flange extending in one plane at an acute angle to the inclination of the bevel, and having its upper outer face serrated, and a piston in said barrel, said piston being provided with a suitable packing and a head beyond said packing, the said head being in the form of a truncated cone with the sides inclined toward the beveled end of the barrel, as and for the purpose set forth.

No. 63,352. Friction Gearing. *(Engrenage à friction.)*



George S. Hale, Bridgewater, Virginia, U.S.A., 29th June, 1899 6 years. (Filed 12th January, 1899.)

Claim.—1st. In a mechanism for transmitting motion, the combination of a main drive disc, a countershaft journalled on an axis passing between the axis and periphery of said drive disc and carrying a counter disc, another disc journalled between said discs and adapted to bear upon the adjacent faces of the same simultaneously, and means for moving said intermediate disc across the centre of the countershaft and to and from the centre of the drive disc, as and for the purposes set forth. 2nd. In a mechanism for transmitting motion, the combination of a main shaft carrying a drive disc, a countershaft carrying a supplemental drive disc, the axis of this disc being parallel with the main shaft and passing

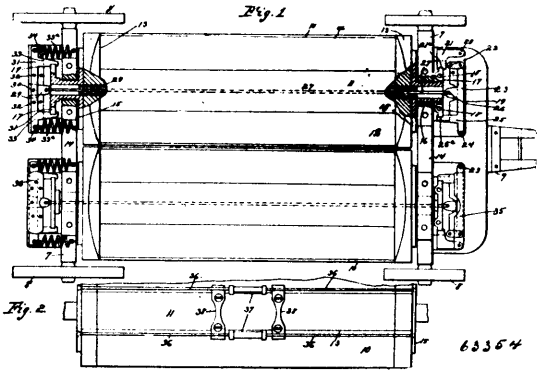
through a point between the main shaft and the edge of the main drive disc, the adjacent faces of said discs being parallel, an intermediate disc bearing simultaneously upon the adjacent faces of said discs, means for adjusting said intermediate disc, and means for bringing said discs together upon the intermediate disc and varying the pressure thereon, substantially as described. 3rd. The combination of a main shaft carrying a main drive disc, a countershaft carrying a counter disc, an intermediate disc transmitting motion from the main disc to the counter disc, means for sliding said intermediate disc, devices for bringing the main and counter discs together upon the intermediate discs, and a single operating device controlling said means and said devices. 4th. The combination of a main shaft carrying a main disc, a countershaft carrying a counter disc, an intermediate wheel transmitting motion from one disc to the other, a sliding carriage carrying said intermediate wheel, a carriage carrying one of said discs, a rock shaft and devices connecting said rock shaft to said carriage, and an operating lever adapted to simultaneously rock said shaft and adjust the intermediate wheel. 5th. In mechanism for transmitting motion, the combination of a main drive disc, a countershaft carrying a counter disc, an intermediate friction wheel, a carriage carrying said wheel, a rock shaft supporting said carriage, eccentrics carried by said rock shaft, a sliding carriage carrying the countershaft, rods adjustably connecting said eccentrics with the latter carriage, a lever pivotally carried by said rock shaft, a link connecting said lever to the carriage carrying the intermediate friction wheel, whereby the one lever will serve to adjust said friction wheel and to regulate the pressure exerted thereon by the counter disc. 6th. In mechanism for transmitting motion, a main driving shaft carrying a main driving wheel, a countershaft having its axis substantially parallel with the main shaft and at one side thereof, a friction disc carried by said shaft, and a transmitting wheel supported between the main driving wheel and said friction disc and having simultaneous contact therewith, said transmitting wheel being movable across the centre of said friction disc, whereby the action of the latter may be reversed and its speed varied. 7th. In mechanism for transmitting motion, the combination of a main drive wheel, a countershaft carrying a friction disc, the axis of said disc and shaft being to one side of the main shaft, a shaft supported in the same plane radially with the axis of the countershaft and main shaft and carrying a transmitting wheel having contact with the main wheel and the friction disc, said shaft being movable to permit said transmitting wheel to travel from one side of the centre of the friction disc to the other side thereof, whereby the speed and the direction of rotation of said disc may be controlled.

No. 63,353. Artificial Stone. (*Pierre artificielle.*)

Emery Coulton, Blaton, Belgium, 29 juin, 1899; 6 ans. (Déposé 29 octobre, 1896.)

Résumé.—Le procédé de fabrication de la pierre artificielle qui consiste 1, à pulvériser à l'impalpable les matières premières (sable et chaux dans proportions indiquées), puis 2, à placer des caisses contenant les matières premières ainsi pulvérisées dans des chaudières contenant assez d'eau pour submerger les dites caisses, puis 3, à chauffer la chaudière à environ 150° durant 6 heures, puis enfin 4, à faire passer durant tout le temps du chaffage un courant d'électricité à travers l'eau contenue dans la chaudière, le tout tel que ci-dessus décrit.

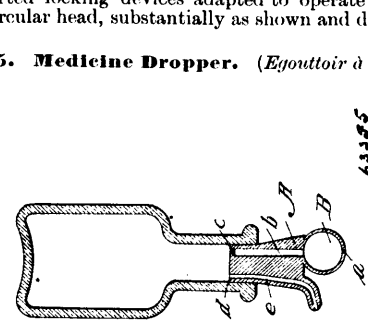
No. 63,354. Dumping Apparatus. (*Appareil à bascule.*)



Harry Cooper, San Antonio, Texas, U.S.A., 29th June, 1899; 6 years. (Filed 15th December, 1898.)

Claim.—1st. A vehicle provided with a dumping bed or body having tubular bearings at each end thereof, which pass through supports at the ends of the vehicles, a rod mounted longitudinally of the bottom of the bed or body and passing at each end through said tubular bearings, circular heads connected with the outer ends of said tubular bearings, and locking devices suitably supported adjacent to said circular heads and adapted to engage therewith, said locking devices being in operative connection with said rod, and means for operating said locking devices, substantially as shown and described. 2nd. A vehicle provided with a dumping bed or body having tubular bearings at its opposite ends which pass through suitable supports connected with the axles of the vehicle, said tubular supports being also provided at its outer end with a circular head, a rod mounted longitudinally of the bottom of the gear or body, and passing at each end through said tubular bearings, pivoted locking devices at each end of the vehicle and in operative connection with said rod and adapted to engage with said circular heads, and means for operating said locking devices, substantially as shown ad described. 3rd. A vehicle provided with a dumping bed or body, the central portion of which is supported by a truss frame connected with the bottom and the ends thereof, said bed or body being also provided at each end with a tubular bearing, a rod mounted longitudinally of the bottom of said bed or body and passing through said tubular bearings, circular heads connected with the outer ends of said tubular bearings, locking devices pivotally supported adjacent to said circular heads and adapted to engage therewith, said locking devices being in operated connection with said rod, and one of said locking devices at one end of the vehicle, being adapted to operate all of said devices, substantially as shown and described. 4th. A vehicle provided with a dumping bed or body, the central portion of which is supported by a truss frame connected with the bottom and the ends thereof, said bed or body being also provided at each end with a tubular bearing, a rod mounted longitudinally of the bottom of said bed or body and passing through said tubular bearings, circular heads connected with the outer ends of said tubular bearings, locking devices pivotally supported adjacent to said circular heads and adapted to engage therewith, said locking devices being in operative connection with said rod, and one of said locking devices at one end of the vehicle, being adapted to operate all of said devices, the locking devices at the opposite end of the vehicle being spring operated, substantially as shown and described. 5th. A vehicle provided with a dumping bed or body having tubular bearings connected with the opposite ends thereof, and passing through supports connected with the axles of the vehicles, said tubular bearings being each provided at its outer end with a circular head, spring operated crank levers suitably supported at one end of the vehicle and adapted to engage with the adjacent circular head, a locking plate pivotally supported at the opposite end of the vehicle and adapted to engage with the adjacent circular head a lever pivotally connected with said locking plate and provided with an arm which is also adapsed to engage with said circular head, a rod mounted longitudinally of the bottom of the bed or body, and connected at one end with said last named lever, and at the opposite end with said crank levers, substantially as shown and described. 6th. A vehicle provided with a dumping bed or body, provided at each end with a tubular bearing, a rod mounted longitudinally of the bottom of said bed or body and passing through said tubular bearings, circular heads connected with the outer ends of said tubular bearings springoperated locking devices pivotally supported at one end of the vehicle and adapted to engage with the adjacent circular head and with which said rod is connected, and locking devices pivotally supported at the opposite end of the vehicle and adapted to engage with the adjacent circular head, said last named locking devices being also in connection with said rod, substantially as shown and described. 7th. A vehicle provided with suppports at each end, and a dumping bed or body having tubular bearings at each end thereof, rigidly secured thereto and passing through said supports said bearings being each provided at its outer end with a circular head, and locking devices which are adapted to engage with said circular heads, and to be disconnected therefrom, substantially as shown and described. 8th. A vehicle provided with a dumping bed or body having tubular bearings at each end thereof, said bearings being each provided at its outer end with a circular head, and locking devices which are adapted to engage with said circular heads, and to be disconnected therefrom, one of said circular heads being provided with radial holes or openings adapted to receive a bar or lever, substantially as shown and described. 9th. A vehicle provided with a dumping bed or body provided at one end with a tubular bearing, the outer end of which is provided with a circular head, and pivotally supported locking devices adapted to operate in connection with said circular head, substantially as shown and described.

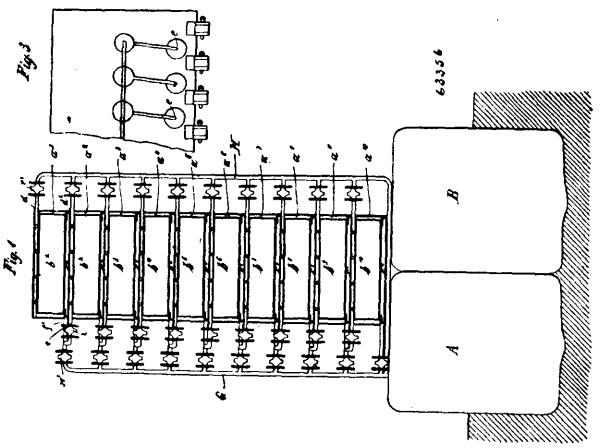
No. 63,355. Medicine Dropper. (*Egouttoir à médecine.*)



William Robert Sine, Williamsport, Pennsylvania, U.S.A., 29th June, 1899; 6 years. (Filed 12th January, 1899.)

Claim.—1st. A dropping attachment for bottles and the like, requiring the bottle to be inverted, comprising a bulb adapted to be compressed and having an air inlet to expand the same, a passage through the stopper from the bulb and a normally closed opening at the bottom of said passage adapted to allow the ingress of air under pressure but to obstruct the egress of the liquid, and an independent passage through the stopper for the discharge of the liquid. 2nd. A dropping attachment for bottles requiring the bottle to be inverted, comprising a rubber stopper having an air inlet passage and a liquid exit passage, a bulb in communication with the outside air for forcing air through the air inlet passage and a slit in the bottom of the stopper connecting the air inlet passage with the interior of the bottle, said slit being normally closed by reason of the elasticity of the material of the stopper and preventing the egress of the liquid through the air passage in the inverted position of the stopper, substantially as described.

No. 63,356. Apparatus for the Continuous Extraction of Fats, etc. (*Appareil pour l'extraction continue de graisse, etc.*)



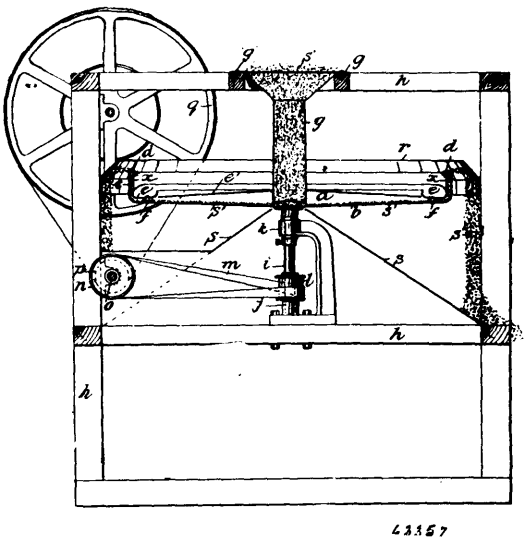
Ernst Schliemann and Edgar von Boyen, both of 25 Catherinenstrasse Hamburg, Germany, 29th June, 1899; 6 years. (Filed 10th May, 1898.)

Claim.—1st. The herein described process for continued extraction, which consists in causing the solvent or menstrum to flow through tanks, arranged column-wise, continuing the material to be treated and from the first of which it passes into the next tank and so on, thereby becoming gradually saturated with extract and finally passing out from the last of such tanks, fresh solvent being always supplied to that tank, containing the most exhausted material, constructed and arranged, substantially as hereinbefore described. 2nd. For carrying out the herein described process for continuous extraction, apparatus in which a number of chambers are arranged column-wise and communicate with each other through a system of piping or with a steam supply pipe and which chambers are each provided with a tank to receive the material to be treated, and with a perforated serpentine for supplying solvent which after acting in one chamber flows into the next below it through the corresponding serpentine, constructed and arranged, substantially as hereinbefore described. 3rd. In apparatus as herein described, chambers a^1 to a^{10}, provided with hermetically closed doors d and with angle iron for supporting the perforated tanks b^1 to b^{10}, above the bottom of such chambers, whereby space is left to allow passage to the solvent from chamber to chamber through perforated serpentines arranged above such tanks, constructed and arranged, substantially as hereinbefore described. 4th. In apparatus as herein described, the arrangement whereby each individual chamber can be put into communication alternately with the solvent supply pipe and with the next chamber or with both simultaneously, as well as with the steam pipe, when requisite, the outlet of said chambers being so arranged as to cause them to communicate with each other and also through a pipe G direct with distilling apparatus, constructed and arranged, as hereinbefore described.

No. 63,357. Gold Saving Machine.
(*Machine à recueillir l'or.*)

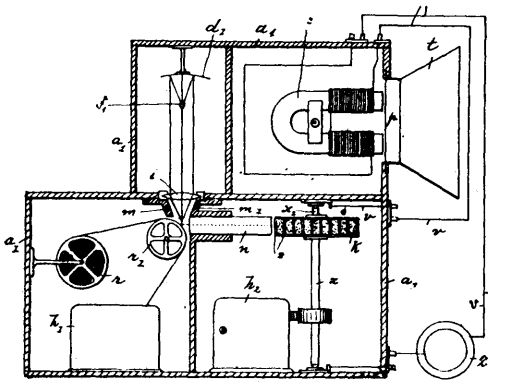
Gustaf Dillberg and William Walker, both of 77 Elizabeth Street, Sydney, New South Wales, Australia, 29th June, 1899; 6 years. (Filed 5th August, 1898.)

Claim.—1st. In a machine for saving free gold by the aid of mercury, a lip projecting inwards from the top of a shallow pan, below which lip, when the pan is revolved at sufficient high speed, liquid mercury may be held in an upright position by centrifugal force, substantially as and for the purpose herei set forth. 2nd. In a machine for saving free gold by the aid of mercury, a ring shaped



cover or roof, rigidly fixed to a shallow pan, between which and the bottom of the pan, when the pan is revolved at sufficiently high speed, liquid mercury may move towards the side, by centrifugal force, substantially as and for the purpose herein set forth. 3rd. In a machine for saving free gold by the aid of mercury, a ring shaped cover of roof, rigidly fixed to a shallow pan between the edge of which and the side of the pan, when the pan is revolved at sufficiently high speed, liquid mercury may pass up the side of the pan by centrifugal force, substantially as and for the purpose herein set forth. 4th. In a machine for saving free gold by the aid of mercury, the combination of a shallow pan as described, with liquid mercury, substantially as and for the purpose herein set forth. 5th. In a machine for saving free gold by the aid of mercury, the combination of the pan a with the feeding tube or funnel g, substantially as and for the purpose herein set forth. 6th. In a machine for saving free gold by the aid of mercury, a shallow pan, in which, by the combination of centrifugal force and gravitation, material may be forced through the mercury, substantially as and for the purpose set forth.

No. 63,358. Phonograph. (*Phonographe.*)

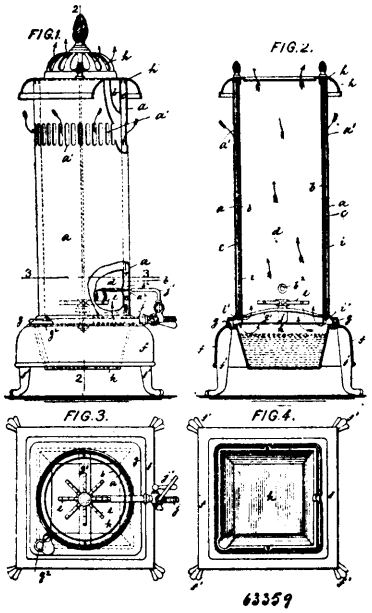


Josef Chania, Lemberg, Galicia, Austria, 29th June, 1899; 6 years. (Filed 15th September, 1898.)

Claim.—1st. The method of varying radiant energy which consists in actuating a vibratory element by sound waves projected against it and directing the energy upon said vibratory element at a point or points thereon between the same and the approaching sound waves, substantially as described. 2nd. In a sound recording apparatus, the combination of a source of light, a movable sensatized body, a vibratory reflector adapted to transmit the rays of light from the source thereof to the sensatized body, and means for projecting sound waves onto said reflector at the points of impact of the light rays therewith, substantially as described. 3rd. In a sound recording apparatus, the combination of a source of light, a movable sensatized body, a vibratory reflector adapted to transmit

the rays of light from the source thereof to the sensatized body, a lens disposed between said vibratory reflector and said sensatized body and adapted to concentrate the rays on the latter, and means for projecting sound waves onto said reflector at the points of impact with the light rays, substantially as described. 4th. In a sound delivering apparatus, a source of radiant energy, a suitable body having indulations on its surface composing the record to be delivered, an electric circuit, including a sounding device and a series of expansible circuit closing devices, the radiant energy being adapted to be transmitted from its source onto the undulations of said body and thence to the expansible circuit closing devices, substantially as described. 5th. In a sound delivering apparatus, a source of radiant energy, a suitable body having undulations on its surface composing the record to be delivered, a reflector for transmitting the radiant energy from its source onto said body in coincidence with its undulations, a lens disposed between said reflector and said body and adapted to concentrate said radiant energy, an electric circuit, a divided arbor included in said circuit and having suitable rotating means, selen strips operatively disposed between the portions of said arbor, said selen strips being in the line of reflection of the radiant energy from said body, an electro magnet also included in said circuit and a sound producing diaphragm controlled by said electro magnet, substantially as described.

No. 63,359. Gas or Oil Stove. (*Poêle à gaz ou huile.*)



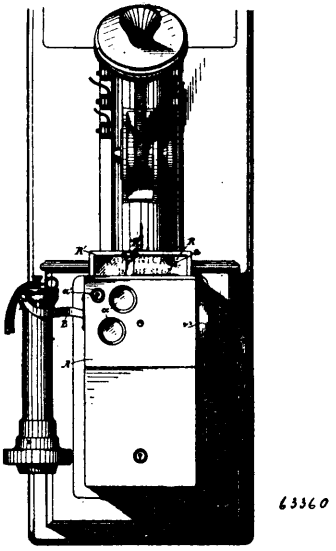
Henry Charles Steinhoff, West Hoboken, New Jersey, U.S.A.' 29th June, 1899; 6 years. (Filed 16th May, 1899.)

Claim.—1st. A heater composed of two shells which are open at the bottom and form an inner combustion chamber and a surrounding down-take flue communicating with the combustion chamber at its lower end, combined with a burner within the combustion chamber, and a water pan beneath the burner and in communication at the lower open end of the shells, with the down-take flue and also with the combustion chamber, substantially as specified. 2nd. A heater composed of a base having an open top plate, a water pan contained within the base beneath the top plate, two shells which are open at the bottom, and of which the outer shell is supported upon the top plate and has an upper air inlet, means for supporting the inner shell, and an inclosed burner, all being so constructed that the down-take flue and combustion chamber formed by the shells, communicate at the bottom with one another and also jointly through the open top plate with the water pan, substantially as specified.

No. 63,360. Coin Controlled and Registering Telephone.
(Téléphone actionné par une pièce de monnaie.)

Robert D. Cranston and Sylvester M. Williams, both of San Francisco, California, U.S.A., 29th June, 1899; 6 years. (Filed 9th February, 1899.)

Claim.—1st. A coin controlled telephone apparatus, including a normally locked mechanism, means whereby it is released by a current from a central station to open a curcuit, and coin controlled means for restoring the broken circuit. 2nd. A coin controlled telephone apparatus including a normally locked mechanism, means whereby it is released by a current from a central station to open a circuit, and coin controlled means whereby a line circuit broken by central is restored by the user to place the telephone in condition for use with a subscriber. 3rd. The combination with a box or case, a normally locked rotatable disc having chambers for the reception of coins, a pawl lying in the path of movement of the disc and normally locking the latter against movement, said disc being



tripped to release the disc by the contact of a coin carried by the latter, a push bar and means whereby it operates the disc, an indicator and lever mechanism connected with and operated by the push bar, means whereby said mechanism is locked and the parts held depressed, and means whereby said mechanism is released and rendered operative by a current from a central station. 4th. A coin controlled telephone apparatus including a receiver suspending arm, a lever fulcrumed thereon and contacts controlled by said lever one of which is maintained when the receiver is removed from said arm to enable the user to communicate with the central station, a normally locked mechanism and means whereby it is released by a current from central, said contact lever being in the path of and actuated by the released mechanism to break the first named contact and establish a second one, and coin controlled means for restoring the circuit broken from the central station. 5th. A coin controlled telephone apparatus including a containing case, a lever mechanism and means whereby it is held in a locked condition, means whereby a release of the locked mechanism is effected from a central station, coin controlled means for restoring a circuit broken from the central station, a registering mechanism and a coin box and means whereby it is locked within the containing case. 6th. In a telephone, a receiver suspending and movable when the receiver is removed to notify the central station, a second lever turnable upon the same fulcrum, a normally locked mechanism by which said lever is retained in position when the receiver is removed, contacts controlled by said lever, one of which is maintained, and the other broken when the receiver is removed, an electro magnet, the circuit through which is controlled from the central office, disengaging mechanism actuated by said magnet whereby the lever is released and turned to break the first named contact and complete the second, a push bar by which the parts are returned to their original position and locked a coin controlled carrying device and mechanism intermediate between the carrier and the push bar whereby the latter is movable only when a coin is within the carrier. 7th. A coin controlled telephone apparatus comprising a rotary disc having peripheral chambers which are successively brought into line with the coin chute and adapted to receive and hold a coin, a mechanism by which the disc is rotated consisting of a push bar, a ratchet fixed upon the disc shaft and pawls actuated by the push bar whenever the latter is depressed, a lever arm also movable by the push bar, a latching device by which the lever is retained after having been pushed down, a magnet, a means actuated by said magnet whereby the latching device is released and the push bar allowed to return to its normal position. 8th. The combination in a telephone of a push bar, a mechanism actuated by said bar whereby telephone is placed in communication with the central office, a coin carrier revoluble in unison with the movements of the push bar and a pawl mechanism whereby the coin carrier is normally locked to prevent its rotation, said pawl mechanism being disengaged to allow movement of the push bar when the coin has been placed in the carrier. 9th. In combination with a telephone, a receiver, a suspending arm therefor and contacts which make a connection with a central office when the receiver has been removed, a mechanism whereby the user places it in condition for communication, a push bar by which said mechanism is actuated, a coin carrier with which the push bar is connected, a pawl mechanism by which said carrier and bar are locked when no coin is in the carrier, said pawl being disengaged so as to allow the movement of the carrier and push bar when the coin has

been placed therein. 10th. The combination with a telephone of a rotatable coin carrier with peripheral pockets, a chute through which the coins are delivered successively into said pockets when they arrive in line therewith, a check pawl to prevent backward rotation, a spring pressed lever lying in the path of the passing coins contained in the pockets, capable of being lifted by the pressure of said coin to allow the carrier to advance, a receiver and suspending arm therefor, contacts whereby the removal of the receiver makes connection with the central office, a mechanism connected with the telephone whereby the user places it in condition for communication, a push bar by which said mechanism is actuated, the movement of said push bar being controlled by the movements of the coin carrier and its locking lever. 11th. A coin controlled telephone apparatus comprising a rotary disc having peripheral chambers which are successively brought into line with the coin chute and adapted to receive and hold the coin, a mechanism by which the disc is rotated consisting of a push bar, a ratchet fixed upon the disc shaft and pawls actuated by the push bar whenever the latter is depressed, a lever arm also movable by the depression of the push bar, a latching device by which the lever is retained after having been pushed down, an electro magnet fixed within the box, connections with the central office whereby a current may be established through the magnet, a means for disengaging a latch through the operation of the magnet when said current is established and a contact lever with means whereby it is actuated to return it to a position indicating that the box is in readiness for use. 12th. The combination in a telephone of a receiver suspending arm, electrical connections and contacts which are made when the receiver is removed from the arm, whereby communication is made with the central office, an electro magnet within the local box and under the control of the central office, and mechanism actuated thereby to restore the box to its normal condition when connection has been made, a coin controlled mechanism and a carrier with a device by which the carrier is locked when no coin is within it, and a push bar whereby the coin carrier and the mechanism of the telephone are actuated. 13th. The combination of a revoluble coin carrier having peripheral chambers adapted to be successively brought into line with the coin passage, mechanism by which the telephone is placed in communication with the central office, a registering mechanism and a push rod and pawl and ratchet mechanism by which the carrier is revolved and the telephone placed in communication. 14th. The combination in a coin controlled telephone apparatus of a revoluble coin carrier, a mechanism by which the telephone is placed in communication with the central office, a visible indicator movable in unison therewith, and a push rod by which said mechanisms are actuated. 15th. The combination in a coin controlled telephone apparatus of a coin carrier, a mechanism by which the telephone is placed in communication with the central office and a visible indicator to show when communication has been established, and a device by which the apparatus is placed in condition for communication after the instruments are connected, said device also actuating the coin carrier, and being locked thereby when no coin has been introduced. 16th. The combination of a coin controlled telephone apparatus of a push bar by which the coin carrier is advanced and the telephone placed in communication, and locking and releasing devices whereby the telephone may be placed in condition for use only when a coin is introduced, or independently thereof. 17th. A coin controlled telephone apparatus comprising a coin receiver and carrier, mechanism by which the telephone is placed in communication first with the central office and afterwards with a subscriber, and means for actuating the carrier dependent upon the deposit of a coin, a plate upon which said mechanism is carried, a telephone box for which said plate forms a closure, a receiver suspending lever, contact plates, and a device by which the contacts are made or cut-off secured within the box, and devices by which the plate is removably secured to the box, and its mechanism connected with that of the box. 18th. The combination with a coin controlled apparatus, of a revoluble carrier, a push bar by which the coin carrier is advanced and the telephone placed in communication, a coin chute into which the revoluble carrier delivers the coin, and a receiving box into which the coin is delivered with mechanism for locking said box in position within the case and sealing it therein. 19th. A coin controlled telephone apparatus comprising a revoluble coin receiver and carrier, mechanism by which the telephone is placed in communication first with the central office and afterwards with the subscriber, a means for actuating the telephone dependent upon the deposit of the coin, a locked and sealed receiving box into which the coin is delivered, a travelling indicator and mechanism by which it is actuated and a punch actuated in unison with the depression of the push bar of the telephone, whereby the deposit of a coin is permanently registered upon a travelling strip.

No. 63,361. Apparatus for Manufacturing Mosaic Cloth.
(*Appareil pour la fabrication de toiles en mosaïque.*)

Frederick Walton, 114 Holborn, London, England, 29th June, 1899; 6 years. (Filed 9th February, 1899.)

Claim.—1st. In apparatus for the manufacture of mosaic floor cloth, in combination with a range of tesseroe cutting cylinders, a pair of pulleys and a travelling band adapted to lead transfer plates under successive cutting cylinders and a pair of cutting rollers adapted to sever the tesseroe at the meeting line of the plates, substantially as described. 2nd. In apparatus for the manufacture of mosaic floor cloth, in combination with the drum for removing the tesseroe from the transfer plates and the band for causing the

FIG. 11.

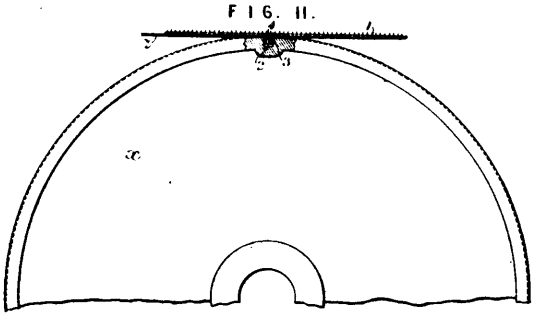
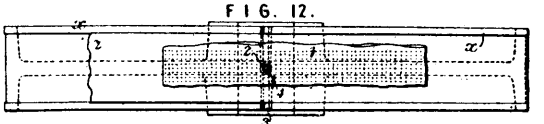


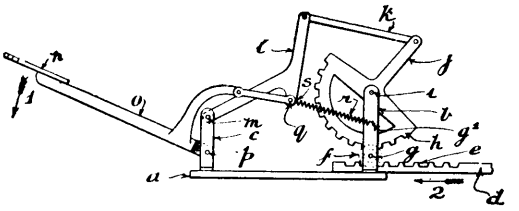
FIG. 12.



63361

plates to travel under the drum, a heated roller and a pair of pressing rollers adapted to cause the tesseroe to adhere to the backing, substantially as described. 3rd. For operating with plain internal rollers of the cutting cylinder, not requiring to be driven, a modification of the stems of the bottom plates, which consists in fitting with sleeves and sliding springs, substantially as directed.

No. 63,362. Brake. (*Frein.*)

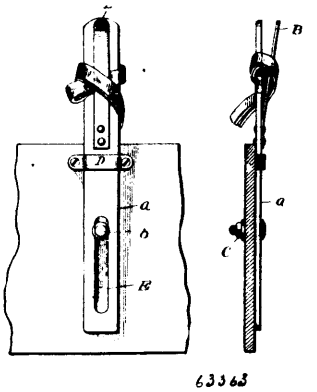


63362

Henry James Warmington, Staines Bridge, Staines, Middlesex, England, 29th June, 1899; 6 years. (Filed 23rd January, 1899.)

Claim.—In brakes for vehicles, a pivoted quadrant piece operating a pinion wheel which gears with a sliding racked rod, said quadrant piece being actuated by means of a link pivotally attached to a prolongation thereon, said link being attached to a pivoted lever which is in turn operated by a pivoted lever, having at one end a surface for the reception of the foot when applying the brake, a spring for the purpose of bringing the mechanism to its initial position.

No. 63,363. Rein Holder. (*Porte rênes.*)



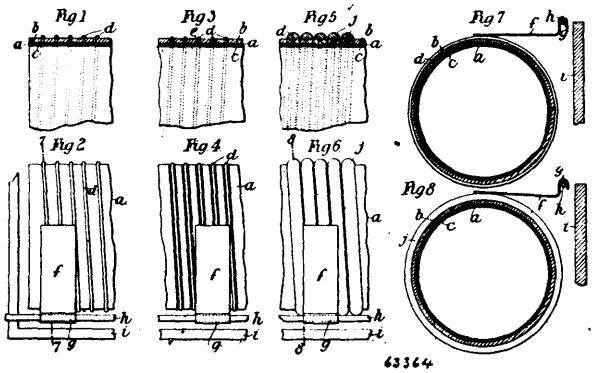
63363

David L. Max, Houston, Missouri, U.S.A., 29th June, 1899; 6 years. (Filed 25th January, 1899.)

Claim.—An adjustable bar provided with a spring at its upper end which gradually separates from the bar, and a slot in its lower end,

a securing thumb nut co-operating with the slot, and a staple near the upper end of said bar through which it passes, substantially as set forth.

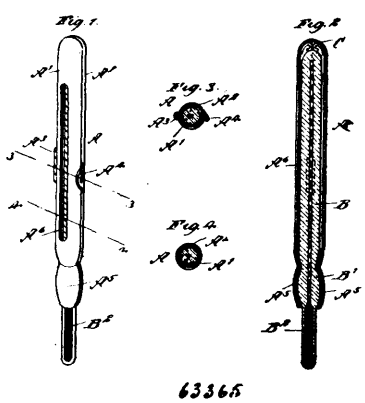
No. 63,364. Wire Manufacture. *(Fabrication de fil de fer.)*



Richard David Sanders, Eastbourne, England, 29th June, 1899; 6 years. (Filed 4th February, 1899.)

Claim.—1st. In the manufacture of wire by electro deposition a cylinder having removably wound thereon, either on its surface or in a shallow groove in its surface, a round, oval or semicircularly shaped wire in such a manner that the said wire always projects above the surface of the cylinder, substantially as and for the purpose described. 2nd. In the manufacture of wire by electro deposition the combination with the cylinder having a foundation wire wound thereon as described in claim 1, of contact makers adapted to always rest upon the said foundation wire or upon the metal deposited upon the foundation wire, substantially as described. 3rd. Wire manufactured by electrolysis on a foundation wire removably wound on a cylinder, as described in claim 1, such manufactured wire being approximately semicircular in cross section, substantially as described.

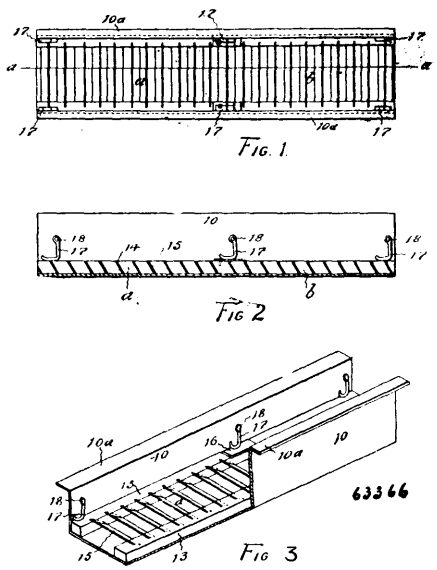
No. 63,365. Clinical Thermometer Shield.
(Protecteur de thermomètre clinique.)



Jennie Cathryn Harrington, Elgin, Iowa, U.S.A., 29th June, 1899; 6 years. (Filed 6th February, 1899.)

Claim.—1st. A clinical thermometer shield, consisting of a casing made in two longitudinal sections hinged directly together and provided with a fastening device, the said sections being arranged to receive and hold a thermometer, the said casing being at one end to permit the mercury bulb of the thermometer to extend beyond this end, and springs arranged in the opposite closed end of the casing and adapted to engage the end of the thermometer, substantially as shown and described. 2nd. A clinical thermometer shield, consisting of a casing made in two hinged sections adapted to be fastened together and arranged to receive and hold a thermometer, the sections being provided with offsets to engage the correspondingly shaped lower end of the thermometer, the bulb of which extends beyond the lower open end of the said offsets, and a spring in the other closed end of the said casing to engage the outer end of the thermometer, substantially as shown and described. 3rd. A clinical thermometer shield, consisting of a casing made in two longitudinal sections hinged together at or near their middle and provided with a spring catch to fasten the sections together, the said sections being shaped to increase the thermometer with the exception of the mercury bulb thereof, one of the sections being provided with a longitudinal slot to expose the graduation of the thermometer to permit of reading the indicated degrees of temperature, substantially as shown and described.

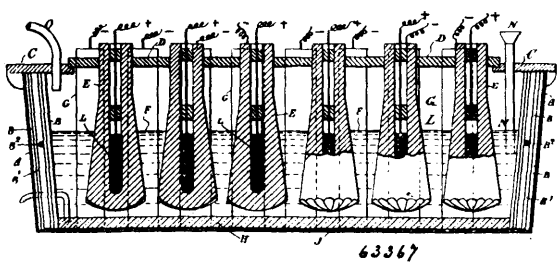
No. 63,366. Sluice Box for Gold Saving.
(Boîte d'écluse pour ramasser l'or.)



Eugene Woodburn Davies, Everett, Washington, U.S.A., 29th June, 1899; 6 years. (Filed 7th February, 1899.)

Claim.—1st. In a sluice box, the main body of which is preferably constructed of metal and having the flat bottom and vertical sides, having outwardly projecting flanges 10^a on their upper edges, in combination with removable set of riffles *a* and *b*, consisting of side strips 13 on each side of the sluice, having the diagonal slots 14 and flat riffle bars 15 with their opposite ends arranged in said slots, and means for securing the said strips 13 in their proper position, as and for the purposes specified. 2nd. In a sluice box of the class described having a metal body, in combination with a set of riffles *a* and *b*, as specified, means for securing said riffles in the bottom of the box, consisting of clamps 17th pivoted to the inner walls of the main body, and arranged to have their loose ends pressed down on the oppposite edges of the said riffles, as specified.

No. 63,367. Separation of Zinc. *(Séparation du zinc.)*

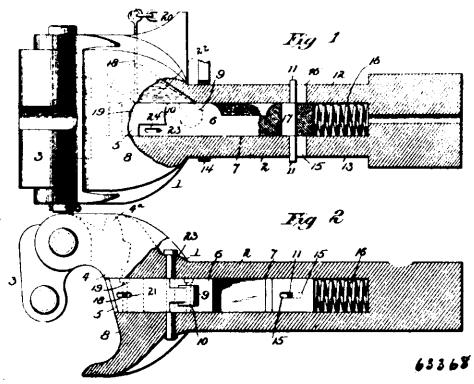


Farham Maxwell Lyte, 60 Finborough Road, South Kensington, London, England, 29th June, 1899; 6 years. (Filed 21st January, 1899.)

Claim.—1st. The separation of zinc and chlorine from zinc chloride by dehydrating it by heating in the presence of zinc or zinc alloyed with an electro negative metal aided or not by reversed electrolysis and then electrolysing it. 2nd. Obtaining zinc chloride from minerals by grinding and calcining at a low temperature, extracting the zinc sulphate thus formed and converting it into zinc chloride by treatment with solid sodium or calcium chloride and a small quantity of water. 3rd. In the separation of zinc and chlorine; the conversion of zinc sulphate into zinc chloride by treatment with solid sodium or calcium chloride and a small quantity of water completely dehydrating the zinc chloride and then submitting it to electrolysis. 4th. Obtaining zinc and chlorine from minerals by grinding and calcining at a low temperature, extracting the zinc sulphate thus formed and converting it into zinc chloride by treatment with solid sodium or calcium chloride and a small quantity of water, completely dehydrating the said zinc chloride as herein described and then submitting it to electrolysis, carbon anodes and a cathode of fused zinc being employed. 5th. The improved electrolytic cell consisting of

slabs of refractory material the joints being made of asbestos cords. 6th. Forming the lower end of the anodes with deep channels for facilitating the escape of the chlorine.

No. 63,368. Car Coupler. *(Attelage de chars.)*



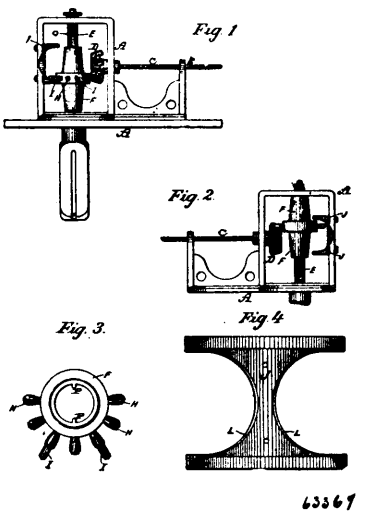
Oliver C. Patton and William C. Sydenham, both of Grand Junction, Colorado, U.S.A., 30th June, 1899; 6 years. (Filed 27th February, 1899.

Claim.—1st. In a car coupler, the combination with a draw head provided with a central longitudinal chamber, of a latch and latch bar located and adapted to slide longitudinally therein, means for retaining the bar in the slot, and a spring adapted to hold the bar and its associated parts in their normal positions and to overcome in the event of the draw head pulling out, substantially as described. 2nd. In a draw head, the combination with the usual knuckle and its arm, of a latch centrally disposed in a longitudinal recess in said draw head, a longitudinal bar located within the recess and pivoted to the latch, said latch being adapted to lift upward away from the knuckle arm to release the latter in the usual uncoupling operation and to slide with the bar backward longitudinally in the draw head in the event of abnormal longitudinal strain upon the draw bar, substantially as described. 3rd. In a car coupler, the combination with a knuckle and its arm, of a latch having a vertical and endwise movement whereby it can be operated under normal and abnormal conditions, a longitudinally movable bar to which the latch is pivoted, lateral porjections on the bar and an external yoke with which the projections come in contact under abnormal strain, substantially as described. 4th. In a car coupler, the combination with a draw bar having a central longitudinal chamber open at its front end, of a longitudinally movable latch bar located in said chamber, a transverse pin passing through the bar and stem of the draw head, a spring for normally pressing said bar forward, a yoke embracing the stem of the draw head and a latch hinged to said bar as a means for raising and lowering the latch, substantially as described. 5th. In a draw bar, the combination with a longitudinally movable latch centrally disposed within the draw bar, of a bar to which the latch is attached, said bar being provided with an open socket in its forward end, a head on the end of the latch adapted to fit within the said socket whereby the parts are connected, a spring disposed within the draw head and adapted to normally hold the latch bar and latch in position to permit the former to be operated, a transverse pin projecting beyond the exterior of the neck of the draw head and a yoke embracing the draw head and adapted to be struck by the projecting ends of the said pin in the manner, and for the purpose, substantially as set forth. 6th. In a car coupler, a knuckle provided with a longitudinally and vertically movable locking latch, in combination with a longitudinally movable bar, and a pivotal T-joint between the latch and bar, substantially as described. 7th. In a car coupler, a knuckle provided with a locking latch pivoted to a longitudinally movable bar by a pivotal T-joint, a spring for normally holding the bar in position, means for lifting the latch, an external yoke and a projecting pin movable with the bar, and arranged to come in contact with the yoke, substantially as described.

No. 63,369. Mechanical Movement.
(Mouvement mécanique.)

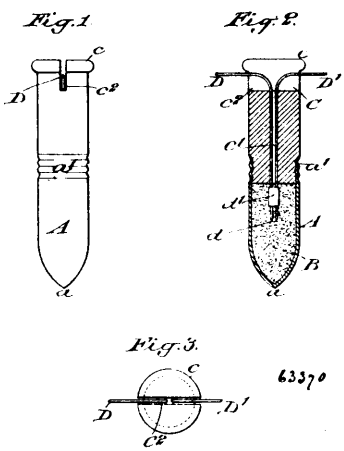
Otto Clausen, assignee of Adolph Plagman, both of Davenport, Iowa, U.S.A., 30th June, 1899; 6 years. (Filed 23rd January, 1899.)

Claim.—1st. A shaft which revolves continuously in one direction, and is provided upon its inner end with a gear or pinion, combined with a vertically moving cylinder provided with pins or projections between its ends, and which pins or projections mesh with the teeth of the pinion or gear, a vertical shaft upon which the cylinder is splined, and stop guides with which two of the teeth upon the cylinder engage, substantially as shown. 2nd. A suitable frame, a horizontal driving shaft journalled therein, provided with a pinion or gear at its inner end, a vertical shaft provided with a suitable device at its lower end, and a cylinder having a rising and falling movement upon its upper portion, and which cylinder is provided with teeth of unequal lengths, combined with suitable stop guides with which the long teeth upon the cylinder engage, and which



cylinder has a vertical rotary reciprocating motion with the vertical shaft, substantially as described. 3rd. A mechanical movement composed of a suitable framework, two shafts placed at right angles to each other, the driving shaft being provided with a gear or pinion upon its inner end, and a vertically moving cylinder splined upon the vertical shaft, and which cylinder is provided with teeth or projections of unequal length, combined with a stop guide, having two curved surfaces which extend in opposite directions, and with which curved surfaces the pins upon the cylinder engage, the cylinder being raised and lowered and made to reverse its rotary movement by the teeth of the pinion catching under the pins or projections upon the cylinder, while first raising the cylinder and then lowering it, substantially as set forth.

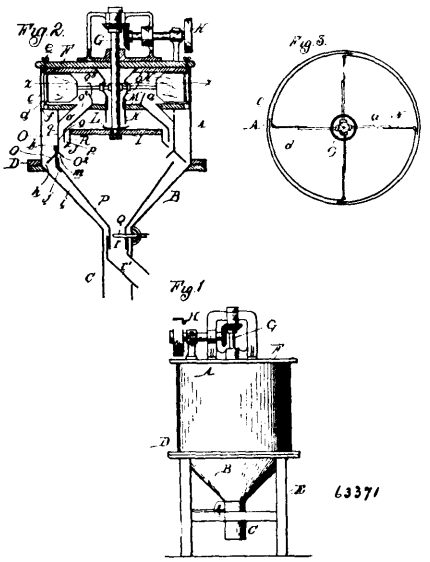
No. 63,370. Dynamite Cartridge Cap.
(Capsule de cartouches de dynamite.)



The C. C. Chemical Company, assignee of William Proctor Ferguson, all of New York City, New York, U.S.A., 30th June, 1899; 6 years. (Filed 14th February, 1899.)

Claim.—1st. A fulminate cap for dynamite cartridges, comprising a casing for the fulminate, the said casing being developed at one end into a well defined point for insertion into the explosive charge, a handle fixed to and projecting away from the opposite end of the shell along the line of its axis for pushing the fulminate cap into the explosive charge and wires extending through the said handle into the charge of fulminate for exploding it, the said wires being so arranged as to leave the end of the handle free for the reception of the finger in pushing the cap into the cartridge, substantially as set forth. 2nd. A fulminate cap for dynamite cartridges, comprising a pointed shell for receiving the fulminate, a handle fixed to and extending away from the shell along the line of its axis, the said handle being provided with a longitudinal bore and a transverse slot and wires extending from within the charge of fulminate along the longitudinal bore and thence along the transverse slot in the handle, substantially as set forth.

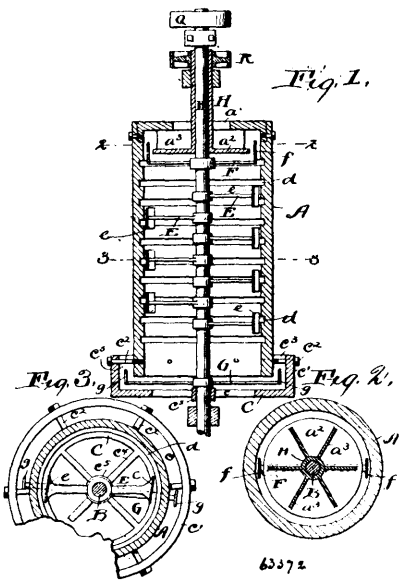
No. 63,371. Separator and Purifier.
(*Séparateur et épurateur.*)



William H. Likins and Louis Blessing, both of Jackson, Michigan, U.S.A., 30th June, 1899; 6 years. (Filed 2nd November, 1898.)

Claim.—1st. In a separator, the combination of an outer casing closed on top, a horizontal partition dividing said casing into a fan chamber, above, and a separating chamber below, a receiving hopper leading to the separating chamber, a horizontally revolving fan in said fan chamber, a series of wing valves surrounding the fan and forming between the valves and the outer casing an annular wind chamber, said horizontal partition having an annular port below the wind chamber and an annular port below the fan chamber whereby communication is established respectively between the annular wind chamber and separating chamber and between the separating chamber and the fan chamber in rear of the fan blades, and a circular partition O in the separating chamber between said annular ports. 2nd. In a separator, the combination of the outer casing closed on top, the fan in the top of said casing, the series of wing valves surrounding the fan pivotally secured at one end and adjustably secured at the opposite end, the wind chamber formed between the wing valve and the outer casing, the horizontal partition M below the fan having the annular ports f and o^2, and the downwardly extending partition between said ports dividing the space below the horizontal partition into the separating chamber g and aspirating chamber O, o^1 connecting said ports. 3rd. In a separator, the combination of an outer casing closed on top, a horizontally revolving fan in the top of said casing, a circular series of segmental valves surrounding said fan and dividing the casing into a fan chamber and an annular d scharge chamber surrounding the fan chamber, a horizontal partition in the casing below the fan, a separating chamber below the wind chamber and communicating therewith, an aspirating chamber below the fan chamber and communicating therewith, an inner casing dividing the separating and aspirating chambers concentrically with the outer casing, and a receiver vertically adjustably supported in position below said inner casing and controlling the communications between the separating and aspirating chambers. 4th. In a separator, the combination of an outer casing closed on top, a horizontally revolving fan in the top of said casing, a series of segmental circular valves surrounding said fan and provided with adjusting devices, a wind chamber between said valves and the outer casing, a horizontal partition below the fan, an inner casing below said partition concentric within the outer casing and forming therewith an annular separating chamber communicating with the wind chamber, an annular aspirating chamber within said inner casing chamber and communicating with the fan, a receiver below said inner casing, an opening between said receiver and casing through which the separating and aspirating chambers communicate, inclined deflecting flanges projecting inwardly and outwardly over said opening. 5th. In a separator and purifier, the combination of an outer casing comprising a cylindrical upper portion closed on top, and a conical, lower portion terminating in a discharge spout, a fan in the top of the casing, an annular wind chamber surrounding the fan and communicating therewith through a series of adjustable wind valves, an inner casing below the fan concentric within the outer casing and forming between it and the outer casing an annular separating chamber below the wind chamber and communicating therewith, an aspirating chamber within said inner casing and communicating with the fan and with the lower end of the separating chamber, feed devices for discharging the material through the aspirating chamber, a conical receiver vertically, adjustably supported below the inner casing and forming an adjustable opening therewith connecting the separating chambers, a lower separating chamber formed between said receiver and the lower part of the outer casing and an inclined deflecting flange between the two separating chambers and extending below the opening into the aspirating chamber.

No. 63,372. Ore Separator. (*Séparateur de minerai.*)

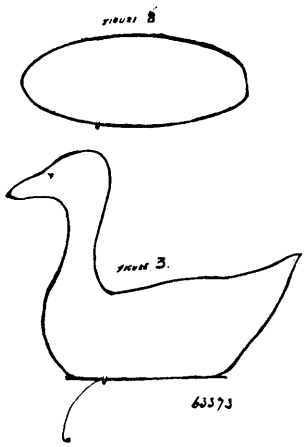


Archibald Francis Perks, Port Hope, Ontario, Canada, and Cecil R. Luton, Cleveland, Ohio, U.S.A., 30th June, 1899; 6 years. (Filed 5th August, 1898.)

Claim.—1st. A centrifugal cylinder having an opening at its upper end, means immediately beneath said opening for directing the material to be operated upon towards or against the inner side of the cylinder, a central opening at the bottom of the cylinder for the exit of the dross, and a side opening or openings for the exit of the material which has been separated from the dross, substantially as set forth. 2nd. The combination of a centrifugal cylinder having an opening at its top and means immediately beneath said opening for directing the material to be operated upon against the inner surface of the cylinder, a central opening at the bottom of the cylinder for the exit of the dross, and a side opening or openings for the exit of the material which has been separated from the dross, the inner surface of the cylinder being grooved, corrugated or indented, substantially as and for the purpose described. 3rd. The combination of a centrifugal cylinder having an opening at its top with means immediately beneath said opening for directing the material to be operated upon against the inner surface of the cylinder, a central opening at the bottom of the cylinder for the exit of the dross, and a side opening or openings for the exit of the material which has been separated from the dross, with an independent shaft located on the axis of the cylinder and revolving at a different rate of speed therefrom and carrying arms with ploughs or scrapers at their ends which loosen, detach or agitate the material adhering to the sides of the cylinder, substantially as and for the purpose set forth. 4th. The combination of a centrifugal cylinder having an opening at its top with means immediately beneath said opening for directing the material to be operated upon against the inner surface of the cylinder, a central opening at the bottom of the cylinder for the exit of the dross and an opening or openings for the exit of the material which has been separated by the dross with means for rocking, oscillating or otherwise vibrating the cylinder while it is revolving to agitate and stir the mass of material adhering to its sides, substantially as set forth. 5th. The combination of a centrifugal cylinder having an opening at its top, a plate or disc a^2, located beneath said opening provided with radial wings, a shaft located on the axis of said cylinder and revolving at a different rate of speed therefrom with arms F, extending from said shaft and support blades or stirrers f, moving in the space between the edge of the disc a^2, and the inner surface of the cylinder, substantially as and for the purpose set forth. 6th. A centrifugal cylinder having an opening at its upper end and means immediately beneath said opening for directing the material to be separated towards or against the inner side of the cylinder, the plate C, supported below the lower end of the cylinder and having a central aperture for the passage of the dross and a vertical flange c^1, at its outer side leaving between it and the lower end of the cylinder a vertical passage for the material separated from the dross, a shaft located on the axis of the cylinder and revolving at a different rate of speed therefrom and carrying an arm G, with agitating blades or stirrers g, at its ends which move through the vertical passage between the flange c^1, and the lower end of the

cylinder to agitate the material therein, substantially as set forth. 7th. The combination of a centrifugal cylinder having an opening at its top, a disc a^2, provided with radial wings immediately beneath said opening, a disc plate C, having a central aperture for the passage of the dross and a vertical flange at the outer edge connected by stay bolts to the lower end of the cylinder, a shaft located on the axis of said cylinder and revolving at a different rate of speed therefrom, carrying stirrers *f*, and *g*, operating respectively in the space between the edge of the disc a^2, and the inner side of the cylinder, and the flange c^1, and the outer side of the lower end of the cylinder, and also stirrers or agitators *c*, carried by said shaft, operating close to the inner surface of the cylinder at suitable intervals throughout its length, substantially as set forth. 8th. The combination of a centrifugal separating cylinder having grooves or indentations formed on its inner surfaces, a shaft located concentrically in the cylinder and revolving at a different rate of speed therefrom, arms extending from said shaft carrying at their extremities plows or scrapers which move close to the inner surface of the cylinder, substantially as and for the purpose set forth. 9th. The combination of a centrifugal separating cylinder having an opening at its top with means immediately beneath said opening for directing the material against the inner surface of the cylinder, a central opening at the bottom of the cylinder for the exit of the dross and a series of side openings for the passage of the material separated from the dross with means for adjusting the area of said side openings and regulating the flow of the separated material, substantially as set forth.

No. 63,373. Decoy for Wild Ducks or Geese. (*Leurre.*)



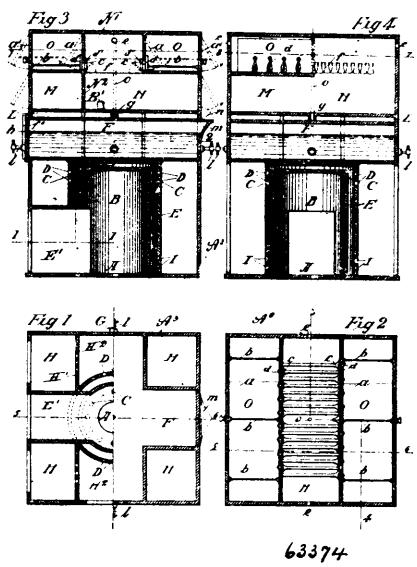
Robert John Girdlestone, Brandon, Manitoba, Canada, 30th June, 1899; 6 years. (Filed 2nd June, 1898.)

Claim.—1st. A pneumatic decoy fowl composed of a top part of air tight material shaped to imitate the fowl to be decoyed. 2nd. A base preferably of an oval shape to which said top part is firmly fastened, an air inlet in said base and means for closing said air inlet when the decoy has been inflated, substantially as shown and described in diagram and written specification.

No. 63,374. Antiseptic Cabinet. (*Cabinet antiseptique.*)

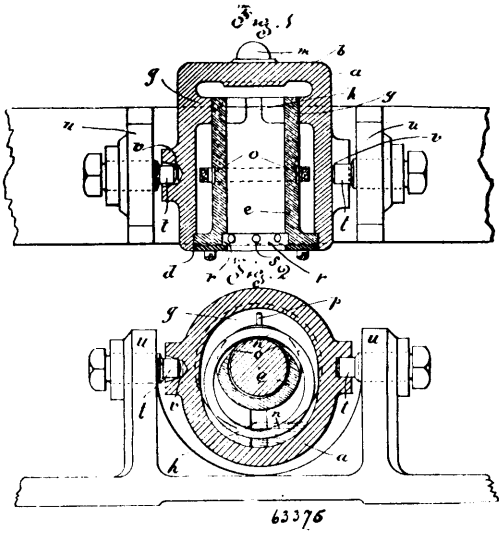
Clarence Anglin Bradley, Beatrice, Nebraska, U.S.A., 30th June, 1899; 6 years. (Filed 9th September, 1898.)

Claim.—1st. In a disinfecting apparatus, the combination with a case, of a water tank therein, a superimposed hot air disinfecting chamber, a receptacle located thereabove and communicating t erewith, means for heating the tank, chamber, and receptacle, and doors formed in the receptacle. 2nd. In a disinfecting apparatus, the combination with a case, of a hot air disinfecting receptacle located in the upper end thereof, implement holders located therein, and means for heating said receptacle. 3rd. In a disinfecting apparatus, the combination with a case, of a hot air disinfecting receptacle located therein, means for heating the same, a communicating cold air compartment, and a door between the same and receptacle. 4th In a disinfecting apparatus, the combination with a case, of a disinfecting receptacle located therein and provided with a door, a compartment located adjacent to the receptacle and adapted to communicate therewith and provided with a door, and means for actuating the door of the receptacle by opening and closing the door of the compartment. 5th. In a disinfecting apparatus, the combination with a case, of a disinfecting receptacle chamber provided with a door, a compartment located adjacent thereto and adapted to communicate therewith, and provided with a door, and rods loosely connecting the adjacent sides of the said doors, whereby they may be simultaneously operated. 6th. In a disinfecting apparatus, the combination with a case, of a disinfecting receptacle



located therein, a door for the same having a series of openings, devices for automatically closing each opening, and implement holders located in the receptacle in line with the openings in the door. 7th. In a disinfecting receptacle chamber located therein and having a series of openings, and automatically operated yielding closures for said openings. 8th. In a disinfecting apparatus, the combination with a disinfecting receptacle chamber provided with a series of openings in one of its walls, of automatically operated closures for said openings, 9th. In a disinfecting apparatus, the combination with a disinfecting receptacle chamber having a series of openings in one of its walls, of a series of automatically operated yielding and flexible closures for said openings. 10th. In a disinfecting apparatus, the combination with a disinfecting receptacle chamber provided with a series of openings in one of its walls, of spring actuated gates located in rear of said openings from which side they are adapted to automatically close the same, and a series of yielding automatic closures in front of said openings. 11th. In a disinfecting apparatus, the combination with a disinfecting chamber having a door provided with openings, of a compartment provided with a door and adapted to communicate with the receptacle, means for simultaneously operating both doors, and automatically operated divided closures for the openings of the doors of the receptacle. 12th. In a disinfecting apparatus, the combination with a disinfecting re eptacle chamber having a series of openings in one of its walls, of the razor holders *f*, aligning with the openings and divided spring actuated clamps located over the openings and adapted to grasp the shanks of the razors. 13th. In a disinfecting apparatus, the combination with a case, of a water tank located therein and combining the wall of the cabinet to form vertical side heat passages, means for heating the tank, a superimposed hot air chamber having a transverse dome formed in its top, implement supports located therein, and doors leading to said dome. 14th. In a disinfecting apparatus, the combination with a case, of a hot water tank located therein, means for heating the same, a hot air disenfecting receptacle located thereabove and combining therewith to form a hot air space, means for giving access to the said receptacle, and hot air passages leading from the heating means to said hot air space. 15th. In a disinfecting apparatus, the combination with a case, of a disenfecting chamber located therein and provided in its top with a transverse dome of reduced width having entrances at its longitudinal sides and opposite parallel compartments adapted to communicate therewith and produced by the reduced dome and provided with doors. 16th. In a disinfecting apparatus, the combination with a case, of an X-shaped water tank located therein, means for heating the tank, and hot air passages produced between the same and case, a superimposed disenfecting chamber spaced from the tank and forming a hot air space, and cool air chambers located at opposite sides of the disenfecting chamber and normally out of communication with the same. 17th. In a disinfecting apparatus, the combination with the case, the heating drum consisting of the inner drum B, having openings C, in its top, and the hooded entrance E^1, and the outer drum E, having the lower openings I, and upper openings D, and a superimposed hot air disinfecting chamber. 18th. The combination with the rectangular case A^3, the heating drum and perforated partitions H^1, arranged as shown, and producing the compartments H^2, H^2, having doors, of the superimposed water tank F, hot air disenfecting chambers N, M, the intermediate wall M^2, the dome N^1, and the opposite chambers O, O.

No. 63,375. Bearings. *(Coussinet.)*



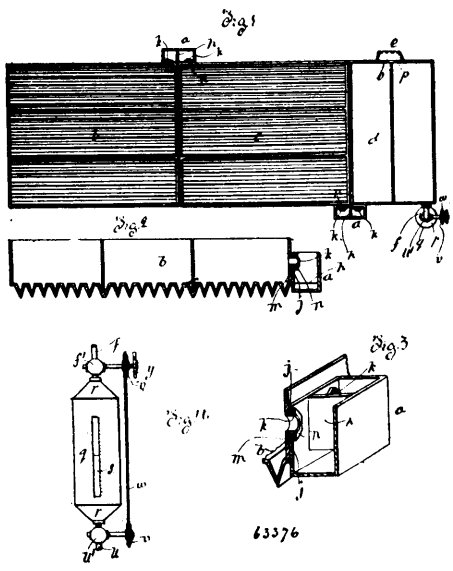
James Alexander Jamieson, Montreal, Quebec, Canada, 30th June, 1899; 6 years. (Filed 2nd November, 1898.)

Claim.—1st. The combination with a shaft or journal, of a bearing comprising an horizontally arranged cylindrical casing having one end closed, a bushing located within said casing and having its outer end formed with a circumferential flange to close the open end of said casing, said bushing being transversely slotted and of sufficiently less length than the interior of said casing to provide a space betwen the inner end thereof and the closed end of the casing, a centrolineally projecting flange formed on the interior of the casing near the inner end thereof to support the inner end of said bushing and having an opening in the lower part thereof, and an oiling ring resting through said slot, upon the shaft, substantially as described. 2nd. The combination with a shaft or journal, of a bearing comprising an horizontally arranged cylindrical casing and having one end closed, a bushing located within said casing and having its outer end formed with a circumferential flange to close the open end of said casing, said bushing being transversely slotted and of sufficiently less length than the interior of said casing to provide a space between the inner end thereof and the closed end of the casing, a centrolineally projecting flange formed on the interior of the casing near the inner end thereof to support the inner end of said bushing and having an opening in the lower part thereof, an oiling ring resting through said slot, upon the shaft, a collar having a flat perimeter and formed in one with and encircling said shaft in the line with an annular groove formed in the bushing, substantially as described. 3rd. In combination with a bearing, a bushing located in said bearing and having an annular groove, a shaft extending through said bushing, an arrester device in the form of a collar having a flat perimeter and encircling the shaft to break the even continuity of its surface at a point within the bushing near one end thereof, the groove in the bushing being opposite to and wider than the said collar for receiving oil thrown the latter by centrifugal force, as described.

No. 63,376. Sap Evaporator. *(Evaporateur de sève.)*

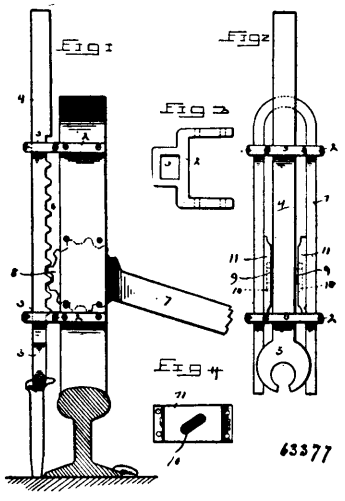
George Robert Small, Dunham, Quebec, Canada, 30th June, 1899; 6 years. (Filed 18th November, 1898.)

Claim.—1st. In an evaporator, an open topped connector, for connecting two adjoining pans, and arranged exteriorly of such pans, as and for the purpose set forth. 2nd. In an evaporator, a detachable open topped connector, for connecting two adjacent pans, and arranged exteriorly of such pans, as and for the purpose set forth. 3rd. In an evaporator, a connector for connecting two adjoining pans, having a diaphragm and arranged exteriorly of such pans, as and for the purpose set forth. 4th. In an evaporator, a detachable connector for connecting two adjoining pans, having a diaphragm and apertures in one side corresponding with apertures in the pans to the exteriors of which it is attached, and nipples and nuts for securing the connector to the pans, as and for the purpose set forth. 5th. In combination with a pair of abutting evaporator pans having apertures in their side walls, the exterior connector *a*, having diaphragm *h*, apertures *j j*, nipples *k k*, and nuts *n*, substantially as shown and described. 6th. In combination with an evaporator pan divided into compartments and having apertures in the end of same from each compartments, an exterior connector secured to the end of the pan and covering said apertures. 7th. In combination with an evaporator pan divided into compartments and having apertures *j j*, in the end of same, the exterior connector *e*, secured to the end of the pan and covering said apertures, substantially as shown and described. 8th. In combination with the outlet pipe of an evaporator pan, a measuring vessel having its upper end connected with



said outlet pipe and its lower end provided with a length of pipe, valves in said pipes and means for simultaneously operating both valves, as and for the purpose set forth. 9th. In combination with the outlet pipe *t*, of an evaporator pan, a measuring vessel *q*, connected to such pipe and having a pipe *u*, at its lower end, a valve in each of said pipes, valve stems t^1, u^1, sprocket wheels *r*, chain *w*, and handle *y*, all substantially as and for the purpose set forth.

No. 63,377. Spike Extractor. *(Extracteur de cheville.)*



Louis Luckhoff, Kenton, Ohio, U.S.A., 30th June, 1899; 6 years. (Filed 25th March, 1899.)

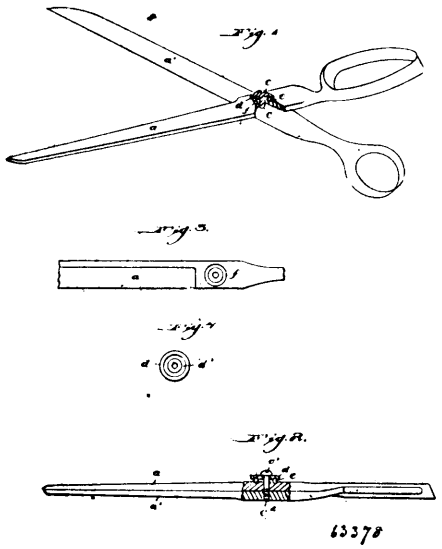
Claim.—In a spike extractor, the combination with the supporting frame having parallel sides, clips bolted to said sides and having aligned eyes, bearing plates secured to the inner faces of said sides and provided with obliquely extending bearing recesses, a claw bar connected to said frame by the said clips and having rack teeth upon one of its sides, and an operating lever having a toothed head to engage said rack teeth, and provided with trunnions that are seated in the recesses of the bearing plates, substantially as set forth.

No. 63,378. Scissors. *(Ciseaux.)*

Thomas Murphy, Sewickley, Pennsylvania, U.S.A., 30th June, 1899; 6 years. (Filed 1st February, 1899.)

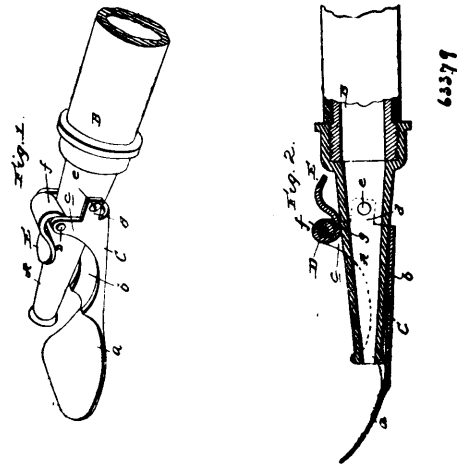
Claim.—1st. In combination, the shear half *a*, provided with a circumferential groove forming a ball seat, the pivotal screw *c*, for fastening the halves *a* and a^1 together, the washer *d* which is provided on its underneath face with a circumferential groove, and the balls arranged in said grooves in the washer, and the shear half *a*, substantially as shown and described. 2nd. A ball bearing scissors, comprising the two halves *a* and a^1, the pivotal screw by means of

which the two halves are secured together, the washer carried by said screw, said washer and the shear half *a*, provided with circum-



ferential grooves surrounding the pivotal screw, and forming a ball race for the balls which are interposed in said grooves and rest between the washer and the shear half *a*, substantially as shown and described.

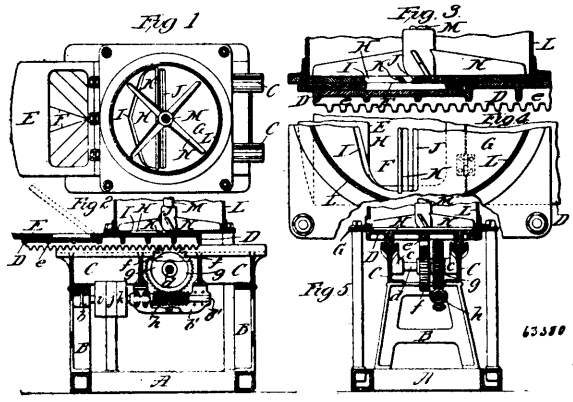
No. 63,379. Spray Device. (*Appareil à jet d'eau.*)



Richard Orford, St. Joseph, Michigan U.S A., 30th June, 1899; 6 years. (Filed 20th February, 1899.)

Claim.—1st. The combination of a nozzle, a spray attachment pivotally connected to the nozzle and having ears disposed at opposite sides of the same, and eccentric lever arranged between and connected with the ears and adapted to bear against the nozzle, substantially as specified. 2nd. The combination of a nozzle, a spray attachment comprising a broad and inclined forward portion and a concave shank arranged to receive the nozzle and having ears disposed at opposite sides of the nozzle and rearwardly extending lugs on said ears pivotally connected to the nozzle, and an eccentric lever arranged between and connected with the ears and adapted to bear against the nozzle, substantially as specified. 3rd. The combination of a nozzle, a spray attachment formed of a single piece of sheet metal and comprising a broad and inclined forward portion and a concavo-convex shank arranged to receive the nozzle and having ears disposed at opposite sides of the nozzle and rearwardly extending lugs on said ears, rivets pivotally connecting the lugs to the opposite sides of the nozzle, a pintle disposed transversely and secured in the ears of the attachment, and the eccentric lever having the eye or barrel receiving the pintle and the eccentric portion adapted to bear on the nozzle, substantially as specified.

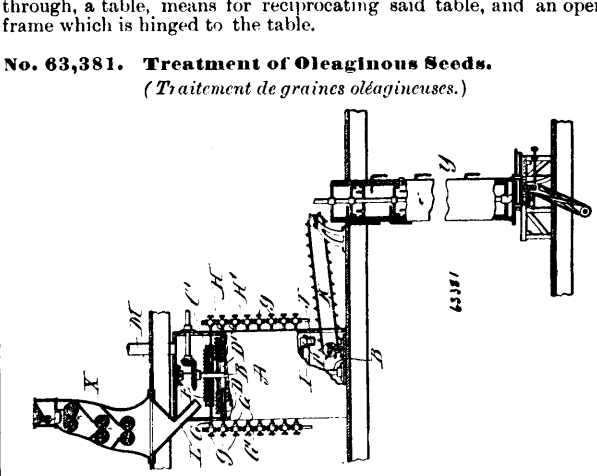
No. 63,380. Linseed Cake Forming Machine.
(*Machine à faire des gateaux de graine de lin.*)



Alexander Euston, St. Louis, Missiouri, U.S.A., 30th June, 1899; 6 years. (Filed 13th January, 1899.)

Claim.—1st. The combination with a heater or tempering kettle, of a mould frame, and distributing devices extending across the mould opening in said frame, substantially as described. 2nd. The combination with a heater or tempering kettle formed with an opening through which the seeds are forced, of a mould frame adapted to be moved passed said opening, and wires arranged across the mould opening in said frame, substantially as described. 3rd. The combination with a heater or tempering kettle fo med with an opening, of a mould frame adapted to be moved past said openin; to receive a charge of seeds in its opening, and wires across said mould opening, said wires being arranged at an angle to the movement of the mould frame, substantially as described. 4th. The combination with a heater or tempering kettle formed with an opening in its bottom, of a table operating under said opening, a mould frame carried by said table, distributing devices arranged across the opening in said mould frame, and means for reciprocating said table and its carried mould frame, substantially as described. 5th. The combination with a heater or tempering kettle, of a bottom therefor formed with an opening having bevelled edges, a knife bar arranged across said opening, and a mould frame adapted to co-operate with said opening, substantially as described. 6th. The combination with a heeater or temperin kettle, of a bottom plate therefor, which bottom plate is formed with an opening having beveiled edges, a knife bar arranged across said opening, flights arranged above said bottom plate, a reciprocating table carrying a mould frame, and means for reciprocating said table, substantially as described. 7th. The combination with a heater or tempering kettle, of a bottom plate therefor formed with an opening having bevelled edges, flights operating above said opening, a reciprocating table operating beneath said bottom plate, means for reciprocating said table, a mould frame carried by said table, and distributing devices arranged at the upper edges of the mould opening in said mould frame, substantially as described. 8th. The herein described apparatus for forming linseed cake, the same comprising the following elements in combination: a heater or tempering kettle for the seeds which is formed with a discharge opening in its bottom, angled flights arranged within the heater and above said discharge opening for forcing the seeds therethrough, a table, means for reciprocating said table, and an open frame which is hinged to the table.

No. 63,381. Treatment of Oleaginous Seeds.
(*Traitement de graines oléagineuses.*)



Alexander Euston, St. Louis, Missouri, U.S.A., 30th June, 1899; 6 years. (Filed 13th January, 1899.)

Claim.—The process herein described of treating oleaginous seeds preparatory to extracting the oil therefrom, the same consisting in first crushing the seeds, then drying the seeds, and finally moistening the seeds, substantially as described.

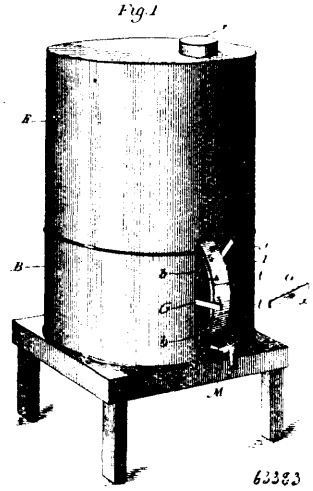
No. 63,382. Treatment of Plants Used in Textile Industries. *(Traitement de plantes en usage dans des industries textiles.)*

Dr. August H. Prinz, Vienna, Baumgarten, Austria, 30th June, 1899; 6 years. (Filed 30th May, 1898.)

Claim.—The herein described process for the treatment of jute, bast and the like, consisting in first subjecting the material to mechanical means to loosen the jute and free it from tips and root ends, macerating the material thus treated without the aid of heat by subjecting it to caustic soda lyes, next subjecting the macerated material to pressure to express the lye absorbed by the jute bast, next subjecting the macerated material to the action of chlorine gas, washing the chlorinated jute in cold water, subjecting the chlorinated and washed jute to the action of caustic soda lye, again washing the jute, subjecting the purified and washed material to a bleaching process and finally washing and drying the jute fibres, substantially as described.

No. 63,383. Liquid Measure. *(Mesure pour liquides.)*

Fig. 1



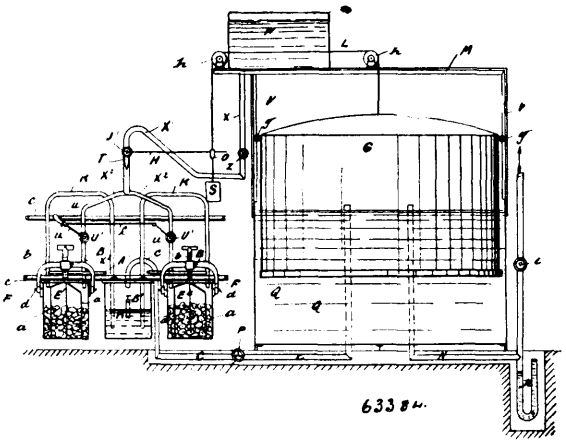
63383

Roy Douglas Beman, Meadville, Pennsylvania, U.S.A., 30th June, 1899; 6 years. (Filed 30th January, 1899.)

Claim.—1st. The combination of the air tight tank R, the measuring vessel C, the equalizing pipe P leading from the top of the tank, the valve casing I, the supply pipe N leading from the tank to the valve casing, the air inlet *f*, the air pipe O connecting said inlet with the top of the tank, the two way valve I^w in the casing I, the discharge pipe Q, the pipe H leading from the valve casing I to the measuring vessel, the joint E^1 and its casing E, and the pivoted siphon pipe D connected with the joint. 2nd. The combination with the storrage tank, and the measuring vessel, of the pipes N and H for supplying liquid from the former to the latter, the discharge pipe Q, the valve casing with which said pipes connect, the air pipe O extending from said casing to the top of the tank, a valve in the casing having an air inlet relatively arranged to open the air pipe to the tank only during the discharge from the measuring vessel, and a valveless air equalizing pipe extending from the top of said vessel to the top of the tank. 3rd The combination with the storage tank, and the measuring vessel, of the pipes N and H for supplying liquid from the former to the latter, the discharge pipe Q, the valve casing with which said pipes connect, the air pipe O extending from said casing to the top of the tank, a valve less air equalizing pipe extending from the top of the measuring vessel also to the top of the tank, a valve in the casing controlling the supply of liquid to and its discharge from the measuring vessel, and also admitting air to pipe O only during such discharge, and a syphon pipe connected to the inner end of the pipe H by a movable joint. 4th. The combination of the elevated air tight tank R, the measuring vessel C located in the supporting base B, the equalizing pipe P extending from the top of the vessel C to the top of the tank, the pipes N and H for supplying liquid from the tank to the vessel C, the pipe Q for drawing off the contents of the vessel C, the valve casing I with which the pipes N, H and G connect, the rotary two way plug I^1 in said casing, the pipe O for supplying air to the top of the tank, said pipe also connecting with the valve casing I, the liquid passages *i* and i^1 and the air inlet *f* in the valve, the joint casing E located in the measuring vessel, and having the rotary hollow plug E^1, and the syphon pipe D connected with the valve, said joint E^1 and valve I^1 having handles projecting beyond and working in slots in the supporting base of the tank.

No. 63,384. Acetylene Gas Machine.

(Machine à gaz acétylène.)



63384

August Wartenweiler, Engwang, and Reinhard Spengler, Hasli, both in Switzerland, 30th June, 1899; 6 years. (Filed 16th March, 1898.)

Claim.—1st. An acetylene gas generating chamber, a refrigerating chamber, operatively connected to said generating chamber, a water supply for said generating chamber, a gasometer connected to said refrigerating chamber, a pipe leading from said water supply to said generating chamber, a valve located in said pipe for regulating the passage of the water, a lever connected to said valve, and a rope, connected to said gasometer and said lever, whereby the water will be introduced to said generating chamber in regulated quantities, and gas will be formed, cooled and washed when the supply of gas in said gasometer is reduced, substantially as described. 2nd. An acetylene gas generating apparatus, comprising a plurality of generating chambers, a refrigerating chamber, operatively connected with and common to each of said generating chambers, a water supply for said generating chambers, a gasometer, connected to said refrigerating chamber, a pipe leading from said water supply to said generating chambers, a valve located in said pipe for regulating the passage of the water, a lever connected to said valve, and a rope, connected to said gasometer and said lever, whereby the water will be introduced to said generating chambers in regulated quantities, and gas will be formed, cooled and washed when the supply of gas in said gasometer is reduced, substantially as described. 3rd. An acetylene gas generating apparatus, comprising a plurality of generating chambers arranged in successively operative series, a refrigerating chamber operatively connected with and common to each of said generating chambers, a water supply for said generating chambers, a gasometer, connected to said refrigerating chamber, a pipe leading from said water supply to said generating chambers, a valve located in said pipe for regulating the passage of the water, a lever connected to said valve, and a rope, connected to said gasometer and said lever, whereby the water will be introduced to said series of generating chambers intermitently, and gas will be formed, cooled and washed when the supply of gas will be formed, cooled and washed when the supply of gas in said gasometer is reduced, substantially as described.

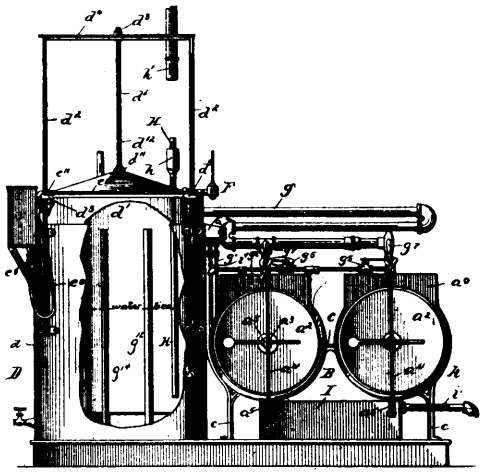
No. 63,385. Acetylene Gas Generator.

(Générateur à gaz acétylène.)

Joseph Alfred Plante, Quebec, Canada, 30th June, 1899; 6 years. (Filed 18th March, 1898.)

Claim.—1st. An acetylene gas generating apparatus, comprising a series of independent generating chambers, a water reservoir, a pipe leading from said reservoir, a restricted opening formed at the end of the said pipe, a series of receiving cups located below said opening, pipes leading from said receiving cups to said chambers, a gas tank, and pipes connecting said gas tank and said generating chambers, substantially as described. 2nd. An acetylene gas generating apparatus, comprising a series of independent generating chambers, a water reservoir, a pipe leading from said reservoir, said pipe having a vertical movement to automatically regulate the passage of water therethrough, a restricted opening formed at the end of said pipe, a series of receiving cups located below said opening, pipes leading from said receiving cups to said chambers, a gas tank, and pipes connecting said gas tank and said generating chambers, substantially as described. 3rd. A generating chamber comprising a casing, a cooling tank formed thereon, a removable perforated basket located within said chamber, said basket being adapted to contain carbide, a water supply leading into said chamber and onto said bracket, said supply delivering the water drop by drop, a perforated outlet for the gas, and an outlet for surplus water, substantially as described. 4th. A generating chamber comprising a casing, a cooling tank formed thereon, a removable perforated

basket located within said chamber, said basket having a series of compartments, a water supply leading into said chamber and to each



63386

of said compartments, said supply delivering the water drop by drop, a perforated gas outlet and a gas sealed outlet for the surplus water, substantially as described. 5th. A water supply system for acetylene gas generators, comprising a water reservoir, a valved outlet therefrom, an automatically regulated pipe leading from said valved outlet, a restricted opening formed at the end of said pipe, whereby the water will be passed therefrom drop by drop, receiving cups mounted below said opening to receive said drops of water, pipes connecting said receiving cups and the generating chambers for the passage of the water and auxiliary pipes for carrying away the excess of water from said receiving cups, substantially as described.

No. 63,386. Photographic Printing. (*Lithographe.*)

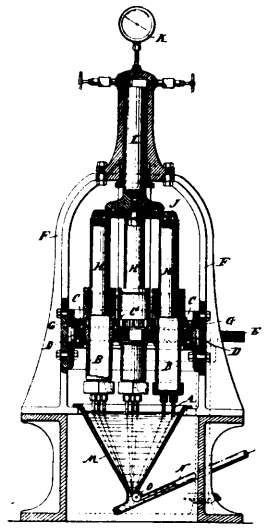
Thomas Manly, London, England, 30th June, 1899; 6 years. (Filed 2nd November, 1898.)

Claim.—1st. A photographic printing paper or other material, prepared with salts of chromium and manganese or other metallic salts, with or without a preservative, for use in the production of photographic images in pigment and chemical colours, substantially as herein described. 2nd. The production of photographic images in pigment and other colours by the following process, viz., the exposure of a paper or other suitable material prepared with chromic and manganese or other metallic salts, under a negative or other screen, to obtain a print, developing such print by washing it in water to remove the unchanged salts, coating the washed print with pigmented or coloured gelatine, drying such gelatine-coated washed print, treating such print with an acetic solution containing a reducing agent, drying such pigmented print, and developing the image by dissolving in hot water the remaining soluble gelatine, substantially as herein set forth. 3rd. In the manufacture of a photographic printing material as described, the use of a sensitizing solution consisting of the following solutions prepared separately:—A, saturated solution of potassium bichromate, to which has been added as much boric acid as it will dissolve at a temperature of 16 degrees centigrade or thereabout; B, manganese sulphate, 25 parts to 100 parts distilled water; C, manganese chloride, 25 parts to 100 parts distilled water; D, aluminium sulphate, 25 parts to 100 parts distilled water; E, dextrine or gum arabic, 25 parts to 100 parts distilled water, these solutions being mixed in the following proportions:—A, 10 parts; B, 3 parts; C, 2 parts; D, 1 part; E, 1 part, substantially as herein set forth. 4th. In the production of photographic images in pigment and chemical colours as described, the employment of the following acetic solution for the purpose stated:—magnesium sulphate, 25 grammes; glacial acetic acid, 5 cubic centimeters; hydroquinone, 2·50 grammes or 2½; ferrous sulphate, 50 grammes or half a gramme; water, 1,000 cubic centimeters or 1 litre, substantially as herein set forth.

No. 63,387. Method of and Apparatus for Spinning Artificial Silk. (*Methode et appareil pour filer la soie artificielle.*)

Robert Wilihelm Strehlenert, Stockholm, Sweden, 30th June, 1899; 6 years. (Filed 27th December, 1897.)

Claim.—1st. The method of spinning artificial silk, consisting in pressing or drawing out prepared solution through rotating or non-rotating mouth pieces, giving these mouth pieces or groups of mouth pieces a motion in a continuous path, two or more of which mouth pieces collected in a group may during their motion in said path rotate around a common axis in the same or in opposite direction to the direction of said motion and in collecting the strands or threads pressed out to a common point under or in front of the mouth pieces, from which point the twisted thread is wound up, partly for the



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purpose of twisting the strands or threads, and partly for the purpose of adjacent strand catching a broken strand, on account of the circular motion of threads, substantially as set forth. 2nd. In the method set forth the improvement that the strands are pressed out of the mouth pieces below the surface of a fluid which is given a rotating motion in the same direction as the mouth pieces in their circular path, and also flows in the same direction as that in which the threads pass, in order that the fluid on account of its rotation may retard the throwing out of a broken thread or strand in a radial direction, and thereby facilitate its being caught by an adjacent thread or strand, substantially as set forth. 3rd. For carrying out the methods set forth an apparatus consisting of a set of mouth pieces or groups of mouth pieces A arranged in a circle which are connected with press cylinders B^1 or with canals from a common reservoir containing the prepared solution, which mouth pieces, cylinders with mouth pieces, or holders of the mouth pieces, or groups thereof are rotatably mounted in a rotating disc or ring D, substantially as set forth. 4th. In the apparatus mentioned the arrangement of a preferably funnel shaped vessel M containing fluid and mounted under or in front of the mouth pieces, which vessel in its narrow mouth has a knee of roller to collect the threads, which continue in a pipe N to the bobbin holder, said vessel having at or near its top a pipe for supplying fluid, the mouth of said pipe being di ected in the same direction as the motion of the mouth piece in their path for the purpose of causing the fluid to rotate, substantially as set forth.

No. 63,388. Fireproofing Process.

(*Procédé pour rendre le bois etc., à l'epreuve du feu.*)

Leopold Litynski August Rodakkiewicz, and Felks Kurowski, all of Lumberg, Austria, 30th June, 1899; 6 years. (Filed 13th January, 1899.)

Claim.—The herein described process of rendering fire proof wood, textile fabrics, paper, pulp, straw and other material so that they are inaffected in a conflagration, consisting in the impregnation of such materials with a solution of carbonate of potash and boracic in combination with a solution of basic carbonate of magnesium and boracic acid, obtained by the addition of amoniacal salts.

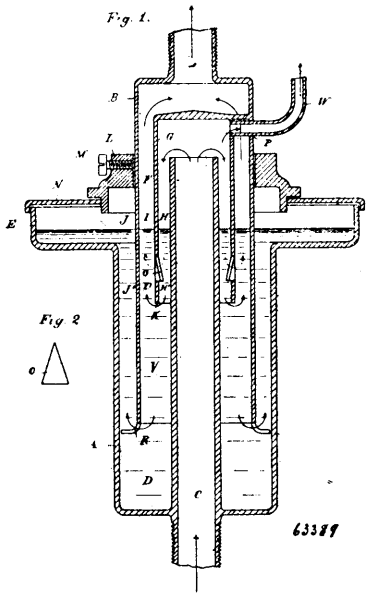
No. 63,389. Device for Illuminating Street Lamps.

(*Appareil pour illuminer les lamps de rue.*)

Theodore Hahn, Kotzschenbroda, Saxony Germany, 30th June, 1899; 6 years. (Filed 27th August, 1898.)

Claim.—1st. An apparatus for automatically lighting and extinguishing gas lights according to the pressure of the gas supplied consisting of three more fluid columns which serve to open and cut off the gas feed without substantially diminishing the pressure of the gas in combination with only stationary rigid parts to contain and convey the said fluid and the gas, all operating substantially as described. 2nd. The combination with an apparatus for automatically lightening and extinguishing gas lights according to the pressure of the gas supplied and consisting of three or more fluid columns serving to open and cut off the gas feed without substantially diminishing the pressure of the gas together with rigid stationary parts containing and conveying the said fluid and the gas, of the enlargement of the upper part of that fluid column whose surface is exposed

to atmospheric pressure substantially as and for the purpose described and shown at E and J, in the accompanying drawings. 3rd. The



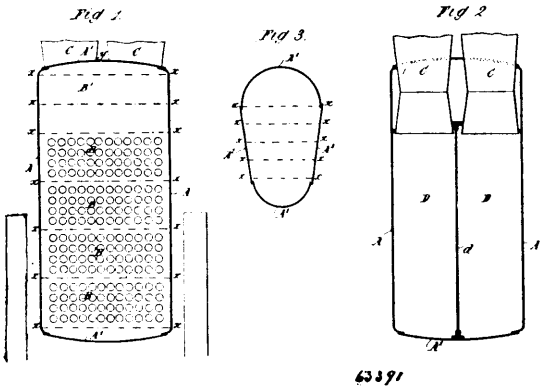
combination with an apparatus for automatically lightning and extinguishing gas lights according to the pressure of the gas supplied and consisting of three or more fluid columns serving to open and cut off the gas feed together with rigid stationary parts containing and conveying the said fluid and the gas, of a conduit for the igniting flame or pilot light substantially as and for the purpose described and illustrated. 4th. The combination with an apparatus for automatically lighting and extinguishing gas lights according to the pressure of the gas supplied and consisting of three or more fluid columns serving to open and cut off the gas feed together with the rigid stationary parts containing and conveying the said fluid and the gas, of triangular valves as and for the purpose described and illustrated. 5th. The combination with an apparatus for automatically lighting and extuinguishing gas lights according to the pressure of the gas supplied and consisting of three or more fluid colums serving to open and cut off the gas feed together with rigid stationary parts containing and conveying the said fluid and the gas, of an annular clamp or ring and means for adjusting the same all substantially as and for the purpose described and illustrated. 6th. In an apparatus for automatically lighting and extinguishing gas lights according to the pressure of gas supplied, the use of three or more separate vertical pipes with connections and one of which pipes can be provided with an enlargement or cistern substantially as shown in the drawings. 7th. In an apparatus for automatically lighting add extinguishing gas lights according to the pressure of gas supplied, the use of a syphon formed or bifuricated gas conduit having three or more branches one of which can be enlarged to act as cistern substantially as shown in the drawings.

No. 63,390. Manufacture of Organic Products from Sea Weeds. (*Fabrication de pruduits organiques de plantes marines.*(

Axel Krefting, 18 Kort Adlers Gade, Christiana, Norway, 30th June, 1899; 6 years. (Filed 13th August, 1898.)

Claim.—1st. The method for dissolving and treating sea weed preparatory to manufacturing valuable products therefrom, comprising the following steps: dissolving the salts from the sea weed by thorough elutriation, cleansing the sea weed in a thin solution of alkali or alkali carbonate, substantially as described. 2nd. The method for dissolving and treating sea weed preparatory to manufacturing valuable products therefrom, comprising the following steps: dissolving the salts from the sea weed by thorough elutriation with water, to which is added a suitable calcium compound, such as the hydrate, chloride or sulphate, in the proportions of a half to two and a half per cent of the compound to the weight of the sea weed, the cleansing of the sea weed by washing and finally dissolving the sea weed in a thin solution of alkali or alkali carbonate, substantially as described.

No. 63,391. Locomotive Boiler. (*Chaudière de locomotive.*)

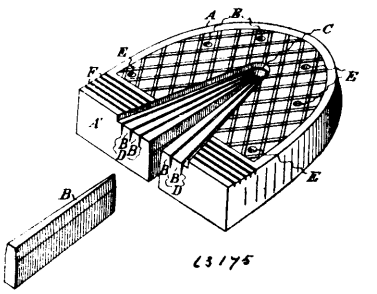


Henri Thuile, Alexandria, Egypt, 30th June, 1899: 6 years. (Filed 25th June, 1898.)

Claim.—A type of locomotive tubular boiler, essentially formed of a shell or body of a pronounced rectangular and longitudinally uniform section with vertical or approximately vertical side plates, furnished with smoke tubes which open on one side into the fire box placed at one extremity of the boiler shell, on the other side into two smoke boxes forming the other extremity, these two smoke boxes being juxtaposed, separated by a vertical partition and supplied each with a smoke pipe, as above described.

ERRATUM.

Substitute the annexed design for the illustration published under No. 63,175 in The Canadian Patent Office Record for May, 1899.



TRADE-MARKS

Registered during the month of June, 1899, at the Department of Agriculture—Copyright and Trade-Mark Branch.

6947. FRANK S. HALFORD, Toronto, Ont. Tea, 1st June, 1899.

6948. 6949. 6950. 6951. COMPAGNIE FERMIÈRE DE L'ÉTABLISSEMENT THERMAL DE VICHY, No. 24 Boulevard des Capucins, Paris, France. Eaux Minérales, 1 juin 1899.

6952. MORRIS STEINERT, New Haven, Connecticut, U.S.A., Keyed Stringed Musical Instruments, 1st June, 1899.

6953. THE ROCK CITY TOBACCO Co., (Ltd.,) Quebec, Que. Tabac coupe, et en torquette à fumer et à chiquer, 6 juin 1899.

6954. THE CALGARY MILLING Co., Calgary, N.W.T. Flour 7th June, 1899.

6955. THE HOOVER MANUFACTURING COMPANY, LIMITED, Winnipeg, Man. Men's and Boys' Clothing, 7th June, 1899.

6956. THE EMPIRE TOBACCO COMPANY, LIMITED, Granby, Que. Plug Tobacco, 9th June, 1899.

6957. CHARLES MOYE AND FREDERICK H. BURNS, Toronto, Ont. Medicinal Preparations, 9th June, 1899.

6958. COCHRANE, CASTLE & COMPANY, Ottawa, Ont. Tea, 9th June, 1899.

6959. JOHN CAMPBELL, St. Thomas, Ont. Flour, 12th June, 1899.

6960. DARWIN LEWIS VAN VLACK, Toronto, Ont. A Wood Preservative, 12th June, 1899.

6961. JAMES R. CROMPTON & BROTHERS, LIMITED, Elton Paper Mills, near Bury, England. Paper, 13th June, 1899.

6962. DUFOUR & COMPANY, Thal, Kanton St. Gallen, Switzerland. Silk Bolting Cloth, Silk Gauze, being Silk Piece Goods, 13th June, 1899.

6933. NAVIGENS MAILHOT, Trois-Rivières, Que. Un Remède Vegetal pour guérir la Dyspepsie, 13 Juin, 1899.

6964. THE IMPERIAL SYRUP COMPANY, LIMITED, Vancouver, B.C. Syrups, Honeys, Sugars, Mince-meat, Jams and Jellies, 15th June, 1899.

6965. THE W. R. BROCK COMPANY, LIMITED, Toronto, Ont. Dress Materials, such as Cashmeres, Serges, Poplins. Velours, Sedans, Estamins, and Silk and Cotton Velvets, 15th June, 1899.

6966. PORTLAND CEMENTFABRIK SATURN, Hamburg, Germany. Cement, 16th June, 1899.

6967. 6968. HUNT & COMPANY, Montreal, Que. Tea, 16th June, 1899.

6969. COX, LONG & COMPANY, LIMITED, London, England and Ottawa, Ont. Sawn Lumber, 17th June. 1899.

6970. CURTIS'S & HARVEY, LIMITED, 3 Gracechurch Street, London, England. Explosive Substances, 17th June, 1899.

6971. JOHN LABATT, London, Ont. Extract of Malt, 23rd June, 1899.

6972. THE AMERICAN COFFEE COMPANY, Toronto, Ont. Coffees, 23rd June, 1899.

6973. McLENNAN, McFEELY & COMPANY, LIMITED LIABILITY, Vancouver, B.C., Hardware, such as Cutlery, Axes, Saws, Carpenters' tools, Wedges, Sledges, Picks, Mattocks, &c., 24th June, 1899.

6974. THE SPRAMOTOR COMPANY, London, Ont. Painting, Spraying, Whitewashing and disinfecting apparatus, materials and accessories, 24th June, 1899.

6975. THE CELLULAR CLOTHING COMPANY, LIMITED, 72 Fare Street, London, England. General Trade Mark, 24th June, 1899.

6976. IRVING ABRAHAM MITCHELL, Philadelphia, Pennsylvania, U.S.A. Cigars, Cigarettes, Cheroots and other manufactures of Tobacco, 27th June, 1899.

6977. } HENRY WREN ROWLAND & WILLIAM HENRY HARRISON, Crosby
6978. } and Aughton, respectively. Lancaster, England. All kinds of Tinned Fruits, 27th June, 1899.

6979. J. & J. COLEMAN, LIMITED, Carrow Works, Norwich, and 108 Cannon Street, London England. Mustard, 28th June, 1899.

6980. NARCISSE LACERTE, Lévis, Qué. Une préparation médicale employée dans les cas de Diphtérie, 28 juin 1899.

6981. VICTORIEN CASTONGUAY, Montreal Que. Hams, 29th June, 1899.

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10612. LOVELL'S IMPROVED BILL BOOK. Robert James Lovell, Toronto, Ont., 2nd June, 1899.

10613. CLIPPED WINGS. By Lottie McAlister. (Book.) William Briggs, Toronto, Ont., 2nd June, 1899.

10614. STAR SPANGLED BANNER AND UNION JACK. (Song.) By Samuel Francis Wood, Ottawa, Ont., 2nd June, 1899.

10615. THE AMERICAN CUP RACE. (Song.) Samuel Francis Wood, Ottawa, Ont., 2nd June, 1899.

10616. FORM OF MINING REPORT. Alexander Roy, Toronto, Ont., 5th June, 1899.

10617. THE CANADIAN YEAR BOOK, 1899. Published by Alfred Hewlett, Toronto, Ont., 5th June, 1899.

10618. WITHOUT DOGMA. A Novel of Modern Poland. By Henryk Sienkiewicz. Translated from the Polish by Iza Young. George N. Morang & Co. (Ltd.), Toronto, Ont., 5th June, 1899.

10619. THE CANADIAN MAGAZINE. (June, 1899.) The Ontario Publishing Co. (Ltd.), Toronto, Ont., 5th June, 1899.

10620. HAIL CANADA. National Song. By J. Harry King, Toronto, Ont., 5th June, 1899.

10621. SONGS OF THE SETTLEMENT AND OTHER POEMS. By Thomas O'Hagan, Toronto, Ont., 5th June, 1899.

10622. PRACTICAL HINTS ON PLAYING AT SIGHT. By V.A.L.E. Hannah Dore, Halifax, N.S., 5th June, 1899.

10623. THE STENOGRAPHER'S COMPANION. Volume II. No. 3. June, 1899. Robert Goltman, Montreal, Que., 6th June, 1899.

10624. CUT-RATE CABLE CODE. Charles Henry Binks, Montreal, Que., 7th June, 1899.

10625. CANADIAN SUMMER RESORT GUIDE, 1899. Frederick Smily, Toronto, Ont., 8th June, 1899.

10626. NEW SONGS OF THE UNIVERSITY OF TORONTO. Whaley, Royce & Co., Toronto, Ont., 8th June, 1899.

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10635. LOVED AND LOST. (Song.) Words by P. H. Dingman. Music by Will Pearce. William Murray Pearce, Elginburg, Ont., 17th June, 1899.

10636. GROUPE PHOTOGRAPHIQUE DES PRÊTRES DU DIOCÈSE DE NICOLET. Pierre Alfred Papillon, Nicolet, Qué., 17 juin 1899.

10637. THE BANDMASTER. March and Two-Step. By Milton Willard. Charles O. Brokaw, St. Joseph, Missouri, U.S.A., 20th June, 1899.

10638. BUNKER HILL. March and Two-Step. By Arthur W. Pryor. Charles O. Brokaw, St. Joseph, Missouri, U.S.A., 20th June, 1899.

10639. ONE NIGHT IN JUNE. Words and Music by Chas. K. Harris. Arranged by Joseph Clauder. Chas. K. Harris, Milwaukee, Wisconsin, U.S.A., 20th June, 1899.

10640. A RAG TIME SPASM. Cake Walk and Two-Step. By W. H. Hodgins. Amey & Hodgins. Toronto, Ont., 20th June, 1899.

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10644. CANADIAN INFANTRY WITH OLIVER EQUIPMENT. (Card.) Toronto Lithographing Co. (Ltd.), Toronto, Ont., 20th June.

10645. CANADIAN CAVALRY, ARTILLERY AND NORTH-WEST MOUNTED POLICE. (Card.) Toronto Lithographing Co. (Ltd.), Toronto, Ont., 20th June, 1899.

10646. BENBOW. First-Class Battle Ship. (Card.) Toronto Lithographing Co. (Ltd.), Toronto, Ont., 20th June, 1899.

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10650. MAP SHOWING GRAIN BELT OF MANITOBA AND THE NORTH-WEST TERRITORIES. Buhman Brothers & Co., Winnipeg, Man., 20th June, 1899.

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10657. MILITIA SECTION ROLL BOOK. William Egerton Hodgins, Ottawa, Ont., 24th June, 1899.

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10659. PLAIN TALES FROM THE HILLS. By Rudyard Kipling, London, England, 27th June, 1899.

10660. LIFE'S HANDICAP. By Rudyard Kipling, London, England, 27th June, 1899.

10661. RAISING THE CENTRE POLE SUN DANCE TENT. (Photo.) Geraldine Moodie, Lakefield, Ont., 27th June, 1899.

10662. McMILLAN'S NEW BRUNSWICK VERTICAL WRITING BOOKS. The W. J. Gage Co. (Ltd.), Toronto, Ont., 27th June, 1899.

10663. THE ADVENTURES OF JENNIE BAXTER, JOURNALIST. By Robert Barr. The Copp, Clark Co. (Ltd.), Toronto, Ont., 28th June, 1899.

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10665. A GENTLEMAN PLAYER. His Adventures on a Secret Mission for Queen Elizabeth. By Robert Neilson Stephens. William Briggs, Toronto, Ont., 29th June, 1899.

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