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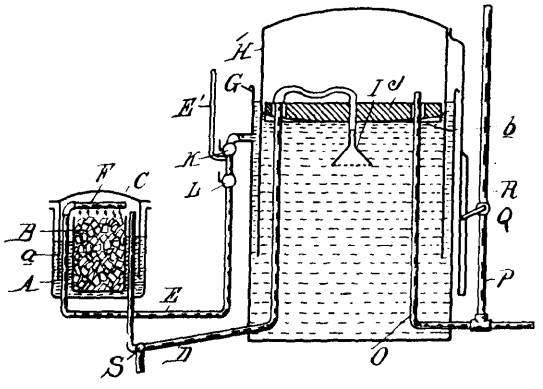
No. 62,483. Gas Apparatus. (*Appareil à gaz.*)



62483

John Shannon, Wixom, David A. Killins, South Lyon, and Fred J. Cook, Fowlerville, all in Michigan, U.S.A., 1st February, 1899; 6 years. (Filed 10th January, 1898.)

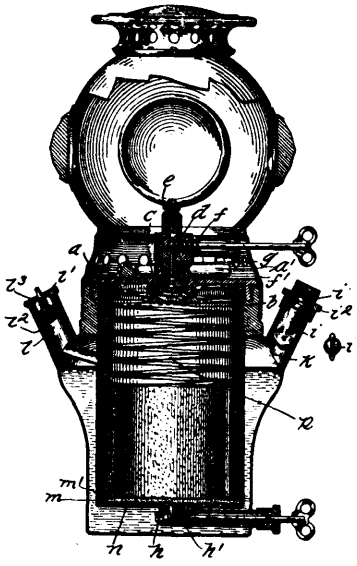
Claim.—1st. The combination with a gas generating chamber and a gasometer connected therewith, of a pipe connecting the water chamber of the gasometer with said generating chamber, two valves in said pipe, the lever M and connections between said lever and valves whereby said valves are oppositely opened or closed by the movement of said lever, a link N connected to the gas tank of said gasometer, and a lost motion connection between said tank and the lever M. 2nd. A gas generator comprising a cylindrical vessel open at its upper end and containing water, a vessel for holding the generating compound of similar shape but of lesser diameter removably placed within said outer vessel so as to form a surrounding annular water chamber, a cover having a depending cylindrical flange adapted to be immersed in said annular chamber and a gas outlet pipe passing up through said annular chamber to above the water level. 3rd. The combination with a gas generating chamber and a gasometer connected therewith, of a pipe connecting the water chamber of the gasometer with said generating chamber, two valves in said pipe, the lever M adapted to oppositely open and close said valves, and an air vent pipe connecting to said water pipe between the valves and extending up to above the water level of the tank, and the link N connected to the gas tank of the gasometer and having a lost motion connection to said lever. 4th. The combination with a gas holder having water in the lower portion thereof, of a float within said holder having channels on its underside extending from centre to periphery and a gas inlet pipe for said holder, having a discharge nozzle centrally below said float. 5th. A gas generator comprising a cylindrical vessel open at its upper end and containing water, a vessel for holding the generating compound of similar shape but of lesser diameter removably placed within said outer vessel so as to form a surrounding annular water chamber, a cover having a depending cylindrical flange adapted to be immersed in said annular chamber, and a gas outlet pipe passing up through said annular chamber above the water level. 6th. A gas generator comprising an outer cylindrical casing open at its upper end and containing water, an inner vessel of similar shape but lesser diameter removably placed within said outer vessel so as to form a surrounding annular water chamber, a cover having a depending cylindrical flange adapted to be immersed in said annular water chamber, gas outlet and water inlet pipes passing up through said annular chamber to above the water level, and a laterally extending perforated pipe swivelled to the upper end of the water inlet pipe. 7th. A gas generator comprising an outer cylindrical casing open at its upper end and containing water, an inner receptacle of similar shape but lesser diameter removably placed within said outer casing so as to form a surrounding annular water chamber, a cover having a depending cylindrical flange adapted to be immersed in said annular chamber, water inlet and gas outlet pipes passing up through said annular chamber to above the water level, and the curved perforated pipe F swivelled to the upper end of said water inlet pipe. 8th. The combination with a gasometer, of a horizontal deflector plate therein extending across the tank below the surface of the water, and a gas inlet pipe having a discharge nozzle centrally below said plate. 9th. The combination with a gasometer of a horizontal deflector plate therein below the surface of the water, having a series of radial channels on its under side and a gas inlet pipe having a discharge nozzle centrally below said deflector plate. 10th. The combination with a gasometer of a float therein extending across the tank and having a series of radial channels on its underside, gas inlet and outlet pipes passing up through said tank and through apertures in said float, and a downward extension to said inlet pipe terminating in a perforated discharge nozzle centrally below said float. 11th. The combination with a gasometer and a gas operating chamber, having a removable cover and a pipe connecting said generating chamber and gasometer, of a drain or vent valve for said connecting pipe, a locking bail for said cover, and a connection between said locking bail and valve adapted to open the latter upon the turning down the former to permit of detaching the cover.

No. 62,484. Acetylene Gas Generator.
(*Générateur à gaz acétylène.*)

The Wizard Manufacturing Company, assignee of Milton Morris Kohn, all of Chicago, Illinois, U.S.A., 1st February, 1899; 6 years. (Filed 18th September, 1897.)

Claim.—1st. In an acetylene gas generator, the combination with a chamber for carbide of calcium, of a yielding movable part which confines the carbide and residue in a compact body but which yields on the expansion of the carbide due to its decomposition, and means for supplying a regulated quantity of water to the carbide, substantially as described. 2nd. In a generator adapted to generate gas from a liquid and a solid gas-producing substance, a chamber to contain the solid, and a liquid reservoir, a body of absorbent material adapted to be saturated with the liquid gas-producing substance, and having direct and extended contact with the solid gas-producing substance, and a liquid inlet for supplying a regulated quantity of liquid to said absorbent material, whereby the said

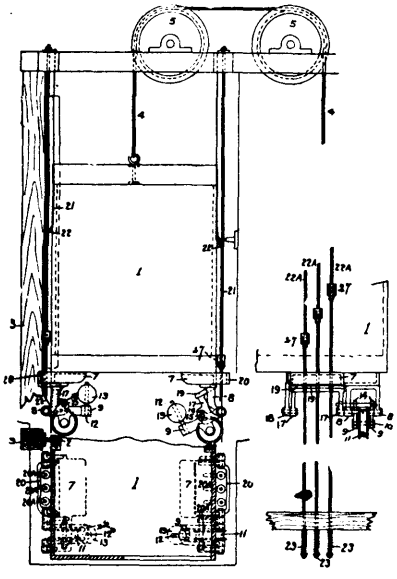
absorbent serves to limit and distribute said liquid to said solid, substantially as described. 3rd. In a generator adapted to generate



62484

gas from a liquid and a solid gas-producing substance, a chamber to contain the solid, and a liquid reservoir, a body of absorbent material adapted to be saturated with the liquid gas-producing substance, and having direct and extended contact with the solid gas-producing substance, a controllable liquid inlet for supplying a regulated quantity of liquid to said absorbent material, whereby the said absorbent serves to limit and distribute said liquid to said solid, and a valve for the liquid inlet, substantially as described.

No. 62,485. Elevator. *(Elevateur.)*



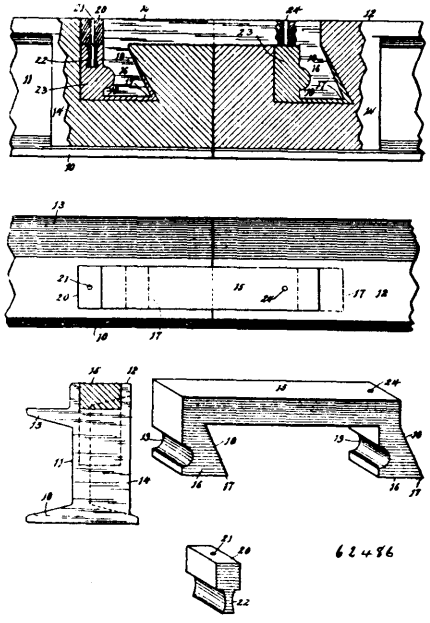
62485

Rudolph Charles Smith and James Cruickshank, Yonkers, New York, U.S.A., 1st February, 1899; 6 years. (Filed 19th January, 1899.)

Claim.—1st. The car having a projecting part, combined with a vertical slideway in the elevator shaft, a sliding stop on said slideway and normally stationary therewith and in the path of said projecting part, and lever mechanism for automatically withdrawing said projecting part from the path of said stop, to pass the latter, when the car is travelling at a safe speed, substantially as set forth. 2nd. The car having a projecting part, combined with a series of suspended wire slideways in the elevator shaft, the stops on said slideways and normally stationary therewith and in the path of said projecting part, the weighted frame connected with said projecting part and the tramway for maintaining said frame and projecting part in their normal running position except when arriving, at a safe speed, adjacent to said stops, and then under such safe condition releasing said frame sufficiently to temporarily withdraw the said projecting part from the path of said stop, substantially as set forth. 3rd. In an elevator, the flexible wire suspended slideway, and the stop thereon and normally stationary therewith, combined with the car having a part to contact with said stop in case of accident to gradually arrest the car, substantially as set forth. 4th. The car having a projecting part, combined with the series of slideway wires, the stops normally stationary therewith and in the path of said projecting part, the tilting frame connected with and controlling said projecting part, the trolley wheel carried by said tilting frame, and trolley wire or tramway engaging said wheel and having the curvature adjacent to said stop, substantially as set forth. 5th. The car having the movable plate whose outer portion is slitted, the movable frame carrying said plate, the weighted frame connected with and controlling said movable frame, and the tramway for maintaining said weighted frame in normal running position but permitting it to tilt downward to operate said plate at the proper time, combined with the series of wire slideways straddled by said plate, and the series of stops normally stationary on said slideways and adapted in case of accident to be engaged by said plate, substantially as set forth. 6th. The car having the slitted plate, combined with the suspended slideway wires adapted to freely pass through the slits in said plate, and the stops on said wires and normally stationary thereon and in the path of the slitted portion of said plate, substantially as set forth. 7th. In an elevator, the vertical slideway in the elevator shaft, and the stop thereon and normally stationary therewith, combined with the car having a movable part normally in the path of said stop, the movable frame carrying said movable part, the weighted frame loosely connected with said movable frame, and the tramway controlling the action of said weighted frame, substantially as set forth. 8th. The car having a projecting part, combined with the wire slideway in the elevator shaft and suspended by a yielding means of resistance, as described, and the stop on said slideway and in the path of said projecting part, substantially as set forth. 9th. In an elevator, the suspended slideways composed of the multiplicity of flexible wires, and the stops on said slideways and normally stationary therewith, combined with the car having a part to contact with said stops in case of accident to gradually arrest the car, substantially as set forth.

No. 62,486. Railway Rail Bond.

(Lien de rail de chemin de fer.)



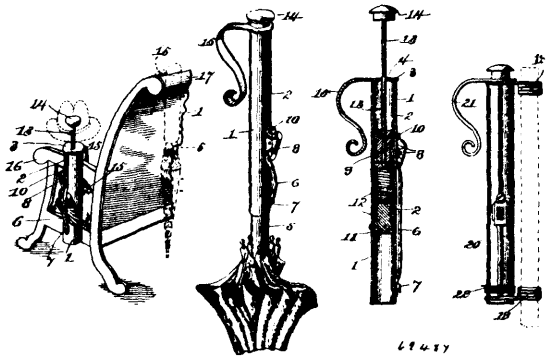
62486

Frederick Hachmann and Elizabeth Maria Francis Baasen, both of Milwaukee, Wisconsin, U.S.A., 1st February, 1899; 6 years. (Filed 18th January, 1899.)

Claim.—1st. The combination with abutting railway rails having a recess in the tread of each rail at the abutting ends thereof and sockets each with an overhanging wall in the rails at the inner ends of the recesses, of a bonding device having a bar-like body fitted in said recesses and terminal legs with toes projecting laterally in the same direction inserted in the said socket, the toes being under the overhanging walls of the sockets, and means for locking said bonding device in place in the rails. 2nd. The combination with the abutting ends of two railway rails provided with registering recesses in the treads of the rails and sockets having undercut walls in the rails at the inner extremities of the recesses, of a bar-like bonding device fitted in said recesses, and legs on the extremities of said bar

having projecting toes, said legs being inserted in said sockets the toes under the overhanging walls of the sockets, a plug in the recess at the end of the bonding device holding the bonding device in place, the toes of the legs under the overhanging walls, and metal fillings introduced into molten state into the sockets about the legs securing the parts in position. 3rd. A bonding device for bonding together railway rails, consisting of an integral metal bar and legs thereon, one at each extremity of the bar projecting in the same direction, the legs having laterally projecting toes on corresponding sides of the legs. 4th. An integral bonding device for bonding together railway rails, comprising an elongated bar, legs at the ends of the bar projecting therefrom on the same side of the bar, the legs each having a bevelled side wall, an enlarged free end projecting laterally in the same direction, and a recess in the wall opposite the bevelled wall. 5th. A railway rail provided with recesses one at each end in the tread of the rail extending in the direction of the length of the rail from its ends inwardly a distance, and provided with sockets entering deeper into the rail one at or near the end of each of said recesses and continuous therewith, said sockets each having an undercut wall, the undercut walls of the sockets projecting in the same direction whereby two abutting rails may be securely bonded to each other by a conforming bonding piece.

No. 62,487. Carrier or Holder. (*Porte-paquet.*)



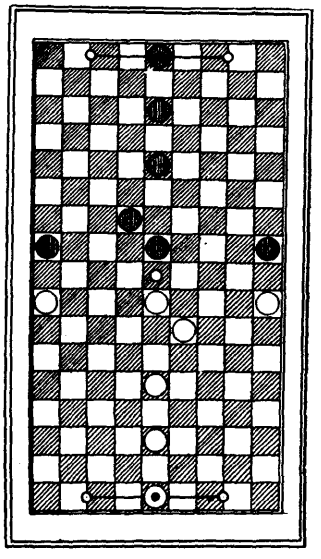
John Quigley, Richard Simpson and Matthew A. Blair, all of Blossburg, Pennsylvania, 1st February, 1899; 6 years. (Filed 3rd December, 1898.

Claim.—1st. A carrier of the character described, comprising a slotted tube having a handle, a plunger in the tube, a holder upon the outside of the tube, and connected to the dlunger through the said slot, a spring in the tube having one end connected to the latter and the other end attached to the plunger and projecting upon the outside of the tube. 2nd. A carrier of the character described, comprising a slotted tube having a spring handle, a stem projecting through the top of the tube, an elastic holder having one end secured upon the outside of the tube and the other end connected to the said stem upon the inside of the tube. 3rd. A carrier of the character described, comprising a slotted tube, a stem projecting from the tube, an elastic holder having one end secured to the tube and the other end connected to the stem upon the inside of the tube, and a spring in the tube connected to the latter and to the said stem. 4th. The combination, with the slotted tube, and a spring handle secured thereto, of an elastic holder upon the outside of the tube, a spring controlled plunger in the tube to which the said holder is connected, and a stem secured to the plunger and projecting from the tube for operating the holder, as set forth. 5th. A carrier comprising a slotted tube having a spring handle, a spring on the inside of the tube, a stem connected to the spring and the latter to the tube, an article holder having one end connected to the stem and the other end to the tube, and the springs upon the outside of the tube, as set forth.

No. 62,488. Game Apparatus. (*Appareil de jeu.*)

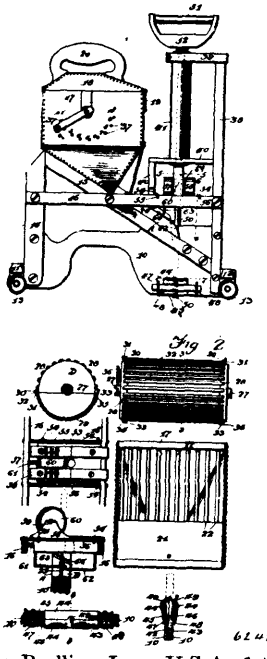
George McKenzie Patterson and James Philip Fennell, both of Berlin, Ontario, Canada, 1st January, 1899; 6 years. (Filed 19th October, 1898.)

Claim.—1st. A game board divided into equal squares alternately of contrasting colours or shades, the board being so proportioned that an odd number of squares lies along each side, a row of squares on each diameter of the board, and having a goal line drawn across the middle square at opposite ends of the board, and one or more squares on each side thereof, substantially as and for the purpose specified. 2nd. A game board divided into 153 equal squares alternately of contrasting colours or shades, the board being 17 squares long by 9 broad, and having a goal line drawn across the middle square at opposite ends of the board, and one or more squares on each side thereof, substantially as and for the purpose specified. 3rd. A game apparatus comprising a board divided into an odd number of equal squares alternately of contrasting colours or shades, so that a row of squares lines on each diameter of the board, in combination with a puck placed on the central square of the board and two sets of men of contrasted colours, each set placed on one-half of the board as follows:—a marked man on the middle square at the end, a man three squares from the end on the middle row, a man



five squares from the end on the middle row, a man eight squares from the end on the middle row, a man four squares to the right and one four squares to the left of the last named man, and a man on one of the first squares diagonally behind the said man, substantially as and for the purpose specified. 4th. A game apparatus comprising a board divided into an odd number of equal squares alternately of contrasting colours of shades, so that a row of squares lies on each diameter of the board, and having a goal line drawn across the middle square at opposite ends of the board, and one or more squares on each side thereof, in combination with a puck placed on the central square of the board and two sets of men of contrasted colours each set placed on one half of the board as follows:—a marked man on the middle square at the end, a man three squares from the end on the middle row, a man five squares from the end on the middle row, a man eight squares from the end on the middle row, a man four squares to the right and one four squares to the left of the last named man. and a man on one of the first squares diagonally behind the said man, substantially as and for the purpose specified.

No. 62,489. Shingle-Nailing Machine.
(*Machine à clouer le bardeau.*)



Christ J. Lonning, Paullina, Iowa, U.S.A., 1st February, 1899; 6 years. (Filed 17th October, 1898.)

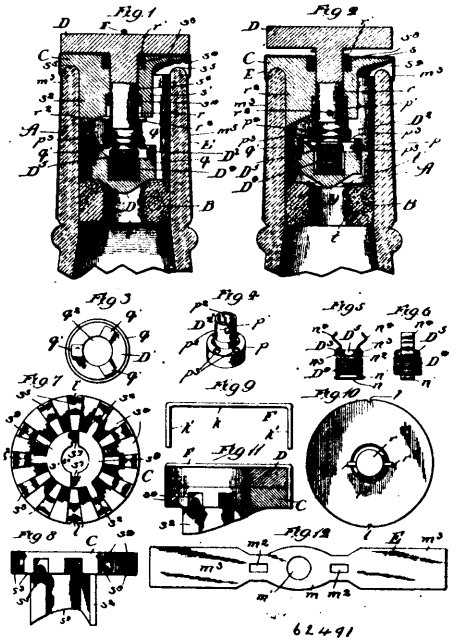
Claim.—1st. A nail-driving machine comprising a vertical guide-way, a rod mounted for reciprocation in said guide-way, a handle secured to said rod for manuel operation, means for feeding the nails to said guide-way singly and successively, and means for propelling the machine. 2nd. A shingle-nailing machine comprising a wheeled truck, a nail magazine mounted on said truck, nail-driving mechanism mounted for manual actuation on said truck, a nail-feeding mechanism between said magazine and the driving mechanism. 3rd. A shingle-nailing machine comprising a wheeled truck, a hopper mounted on said truck, a slotted guide-way for the nails leading from said hopper, a magazine mounted in said hopper and feeding the nails to said guideway, a nail driving mechanism, a carriage traversing the path of said nail driving mechanism, and actuated thereby in one direction, a spring actuated in the opposite direction, picking arms fixed to said carriage, and means whereby said picking arms are caused to present the nails single to the driving mechanism by a step-by-step movement. 4th. In a machine of the class described, a guide-way for the nails, and a deflecting plate on said guide-way to deflect improperly positioned nails out of the machine.

No. 62,490. Casein Product. (*Produit caséique.*)

Wilhelm Krische and Adolf Spitteler, Wolfratshausen, Munich, Empire of Germany, 1st February, 1899; 6 years. (Filed 19th March, 1898.)

Claim.—1st. A new article of manufacture lactoform partaking of the nature of horn and not increasing in volume when immersed in water, produced by the action on casein, and on other similar albuminous substances of salts and acids simply or jointly, and of formaldehye, substantially as described. 2nd. A new article of manufacture, lactoform, produced by treating any casein compound with formaldehyd, substantially as described. 3rd. A new article of manufacture, lactoform, produced by impregnating or coating any suitable body with any casein compound and treating the body so coated or impregnated with formaldehyd, substantially as described.

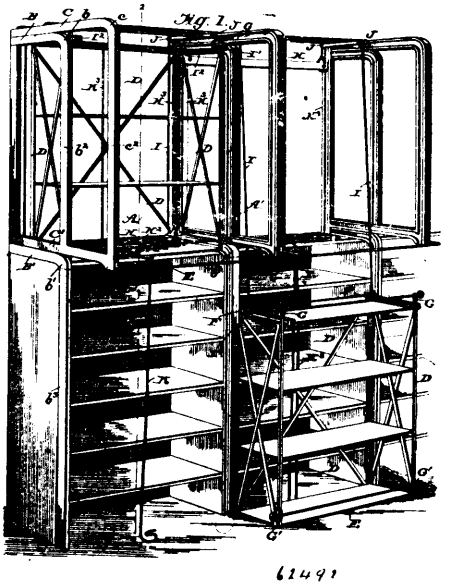
No. 62,491. Bottle-Stopper. (*Arrête bouteille.*)



The Chicago Non-Refillable Bottle-Stopper Company, assignee of Charles Nathan Brisco, all of Chicago, Illinois, U.S.A., 1st February, 1899; 6 years. (Filed 18th January, 1899.)

Claim.—1st. In a bottle-stopper, a valve, a valve-closing spring, a housing provided with ports admitting liquid thereinto when it is attempted to refill the bottle, and a solvent body or its equivalent within said housing normally holding said spring against action and protected by the housing against liquid contact while the bottle contents are being poured out, said body being exposed to liquid contact when an effort is made to refill the bottle, and serving, when disintegrated, to release said spring to permit it to act to close the valve, substantially as described. 2nd. In a bottle-stopper, the combination with a valve-seat and valve at the base-portion of the stopper, means for opening and closing the valve, an outlet for liquid toward the outer end of the stopper, and a passage for the liquid extending from the valve-seat to said outlet, of a chamber communicating with said passage, a valve-closing spring, a body of solvent material in said chamber holding the spring out of its valve-closing position, and operating, when disintegrated by contact with liquid, to release the spring to seat the valve, substantially as and for the purpose set forth. 3rd. In a bottle-stopper, the combination of a cap-piece, to fit the mouth of the bottle, having a sleeve-portion to extend into the neck of the bottle and form an outlet passage for liquid about the sleeve-portion, a valve-operating handle having a stem passing through said sleeve-portion, a valve-seat in the neck of the bottle, a valve at the valve-seat, a housing-piece between the valve and stem forming a chamber communicating with said outlet passage, a removable valve-attaching piece in said chamber securing the valve to the said stem, a valve-closing spring in said chamber, a body of solvent material in the chamber operating to hold the valve-attaching piece in valve-attaching position and the spring out of valve-closing position, whereby when the solvent material is disintegrated by contact with liquid the valve-closing spring is released and the valve-attaching piece is disconnected, substantially as and for the purpose set forth. 4th. In a bottle-stopper, the combination of a cap-piece, to fit the mouth of the bottle, having a sleeve-portion to extend into the neck of the bottle and form an outlet passage for liquid about the sleeve-portion, a valve-operating handle having a stem passing through said sleeve-portion, a valve-seat in the neck of the bottle, a valve at the valve-seat, a housing-piece between the valve and stem, of material readily susceptible to injury by heat, forming a chamber communicating with said outlet passage, a removable valve-attaching piece in said chamber securing the valve to the said stem, a valve-closing spring in said chamber, a body of solvent material in the chamber operating to hold the valve-attaching piece in valve-attaching position and the spring out of valve-closing position, whereby when the solvent material is disintegrated by contact with liquid the valve-closing spring is released and the valve-attaching piece is disconnected, substantially as and for the purpose set forth. 5th. In a bottle-stopper, the combination of a cap-piece, to fit the mouth of the bottle, having an opening through it, and having discharge ports whereby liquid may pass from the mouth, a handle having a stem passing through said opening in the cap-piece, a valve-seat in the bottle, a valve, and means connecting said valve rigidly to said stem to cause the valve to move positively up and down with the stem, said means being capable of disconnecting the valve from the stem under the conditions specified, and for the purpose set forth.

No. 62,492. Shelving. (*Tablette.*)



James Milton Lippincott and Clinton Silas Hall, both of Oakland, California, U.S.A., 1st February, 1899; 6 years. (Filed 3rd October, 1898.)

Claim.—1st. The combination of the guideways having vertical and lateral wings and the movable shelving section having portions operating in said guideways, substantially as set forth. 2nd. The combination of the movable shelving section having portions engaging the guideways and the guideways having wings receiving said portions, substantially as set forth. 3rd. The combination of the vertically movable shelving section and guideways having lateral portions whereby the shelving section may be adjusted horizontally at the upper end of its play, substantially as set forth. 4th. The combination with the framing and the shelving section having a lateral movement, of the counterbalance cord having a movable connection with the shelving section whereby the stress of the counterbalance will not hinder the lateral movement of the shelving section, substantially as set forth. 5th. An apparatus, substantially as described comprising the movable shelving section having a transverse box like guide and the counterbalance cord having a

roller held and movable in said box like guide, substantially as set forth. 6th. The combination of the vertical and laterally movable shelving section and the backing line for moving such section laterally, substantially as set forth. 7th. The combination of the vertically and laterally movable shelving section, the drag line for moving the shelving section laterally and the movable connection between said section and the backing line, substantially as set forth. 8th. An apparatus, substantially as described, comprising the guideways having horizontal portions provided at their outer ends with outwardly curved portions and the shelving sections having portions movable in said guideways, substantially as set forth. 9th. An apparatus substantially as described comprising the elevated framing having guideways for the movable shelving section and the shelving section having portions engaging such guideways, substantially as set forth. 10th. The combination of the framing having vertical and lateral guideways, the shelving sections having portions moving in said guideways, the backing line having a vertically movable connection with the shelving section and adapted to adjust the latter horizontally, the counterbalance cord and means whereby said cord is movably connected with the shelving section whereby the stress will not hinder the horizontal movement of the shelving section, substantially as set forth. 11th. The combination of the guideways and the movable shelving section having rollers operating in said guideways, substantially as set forth. 12th. An apparatus, substantially as described, comprising the framing having guideways arranged one above the other and the shelving section having at its front and rear edges projections operating in said guideways, substantially as set forth. 13th. An apparatus, substantially as described comprising the movable shelving section, the guideways for the front and rear edges of said section, the guideways for the front of the section being projected in advance of those for the rear of said section, and portions of the section in position to operate in said guideways, substantially as set forth. 14th. An apparatus, substantially as described, comprising the movable shelving section provided at its front and rear edges with portions to operate in the guideways the portions at the front edge being in a plane above those at the rear, the guideways having portions arranged one above the other in position to receive the portions on the shelving section, the guideway receiving the front portion of the shelving being projected in advance of that which receives the rear portion of the section, substantially as set forth. 15th. The improvement in shelving herein described comprising the movable shelving section and the cable or cord by which the shelving section may be raised and lowered, substantially as set forth. 16th. In an apparatus, substantially as described, the combination of the vertically and laterally movable shelving section and the counterbalance cord or cable detachably connected therewith substantially as described. 17th. In an apparatus, substantially as described, the combination of the vertically and laterally movable shelving section the counterbalancing cord or cable connected with the said section and the counterbalancing cord to cable detachably connected with the front end of the shelving section, substantially as set forth. 18th. In an apparatus, substantially as described the combination of the framing having a guide for the front counterbalancing cord and such cord having a head stopping below the said guide and the vertically and laterally movable shelving section having a catch engaging above the head on the counterbalancing cord, substantially as shown and described.

No. 62,493. Separation and Purification of Nitrate of Ammonia. (*Separation et purification de nitrate d'ammonique.*)

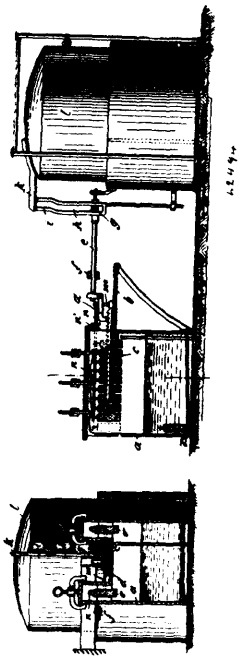
Robert N. Lennox, Fulham, London, England, 1st February, 1899; 6 years. (Filed 8th February, 1899.)

Claim.—1st. The separation of nitrate of ammonia from a mixture of sulphate of ammonia and nitrate of soda or nitrate of other metal, by distillation in vacuo, or under a pressure less than that of the atmosphere at such a temperature (not above 230° Centigrade) that material destruction of the nitrate of ammonia does not occur, substantially as hereinbefore described. 2nd. The purification of ammonia from non-volatile substances by distillation in vacuo, or under a pressure less than that of the atmosphere and under conditions of heating not above 230° Centigrade, substantially as hereinbefore described. 3rd. The manufacture of nitrate of ammonia by mixing sulphate of ammonia with the nitrate of a metal capable of double decomposition, as described, placing the mixture in a closed vessel and reducing the pressure therein, and then heating the vessel to distil the nitrate which is afterward condensed, substanially as hereinbefore described.

No. 62,494. Acetylene Manufacturing Apparatus. (*Appareil de manufacture d'acétylène.*)

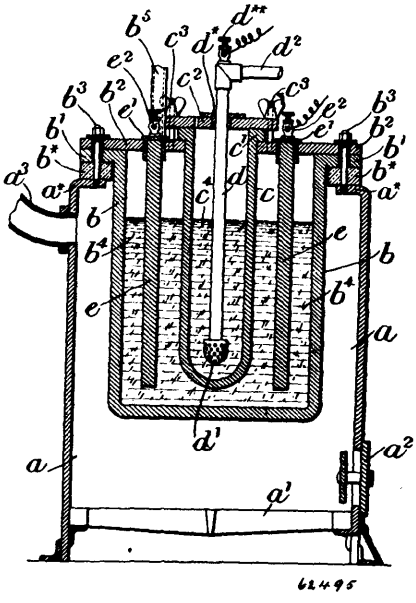
Hermann Otto Marks, 10 Schoneberger Ufer, Berlin, Germany, 1st February, 1899; 6 years. (Filed 11th March, 1898.)

Claim.—1st. In acetylene generating apparatus, supplying definite charges of calcium carbide to the gas generating apparatus in proportion to the consumption of gas, by carrying the said charges on rods or bars which receive a step-by-step motion from the bell of the gas holder, so as to cause the charges to fall successively from the rods into the water in the generator, at differents parts thereof, constructed and arranged, substantially as hereinbefore described. 2nd. In acetylene gas generating apparatus as shown, arranging the carbide charges or cartridges *o* in two rows, the charges of the one



row being shifted in position relatively to those of the other row, so that cartridges will fall alternately from each row into the water, constructed and arranged, substantially as hereinbefore described. 3rd. In acetylene gas generating apparatus as shown, connecting to the bell *l* of the gas holder a bar with cam-shaped groove or slot *h i* which actuates a rod *a* and catch *d*, by means of which a toothed bar *c* and rods *n* have the requisite step-by-step motion imparted to them for supplying successive charges of calcium carbide to the water of the gas generator, constructed and arranged substantially as hereinbefore described.

No. 62,495. Electric Battery. (*Batterie électrique.*)

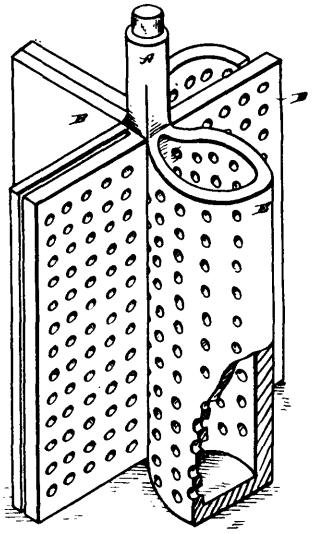


John Laskey Dobell, 46 Connaught Road, Harlesden, Middlesex, England, 1st February, 1899; 6 years. (Filed 14th February, 1898.)

Claim.—1st. An electric battery, comprising a trough or container, a porous pot suspended within the trough or container, a quantity of lead within the trough or container and outside the porous pot, carbon or carbonaceous matter arranged in or fed to the lead, a quantity of a suitable oxygen carrier within the porous pot, which will readily take up oxygen from air or other suitable oxidising agent and readily give it up through the porous pot to the fused

lead, a furnace for keeping the lead and oxygen carrier in a fused state, and a supply of air or other oxidising agent continuously injected into the oxygen carrier, substantially as herein shown and described and for the purpose stated. 2nd. In an electric battery, the employment, as an oxygen carrier, of a compound consisting of bi-chromate of potash, chromium tri-oxide and caustic soda or caustic potash, in the proportions substantially as hereinbefore described. 3rd. In an electric battery, and the lead of which is fed with carbonaceous material in a suitable broken form, a conical or other suitable perforated partition arranged between the trough or container and porous pot for keeping the carbon immersed in the fused lead, substantially as herein shown and described and for the purpose stated. 4th. In an electric battery, which is fed with suitable carbonaceous material, a conical or other suitable perforated partition between the trough or container and the porous pot for keeping the carbonaceous material immersed in the fused lead, and feed pipes for conveying the carbonaceous material to the fused lead, substantially as hereinbefore described and set forth.

No. 62,496. Storage Battery. (*Accumulateur électrique.*)



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Stephen J. Martin, Detroit, Michigan, U.S.A., 1st February, 1899; 6 years. (Filed 14th March, 1898.)

Claim.—1st. In a secondary battery, an electrode consisting of a series of perforated tubes attached to and surrounding a central core, said tube adapted to contain the active material, substantially as described. 2nd. In a secondary battery, an electrode consisting of perforated tubes composed of conducting material, said tubes being formed around and integral with a central core which is prolonged into a stem for uniting the several elements, and being closed at their lower ends, and active material carried within said tubes, substantially as described. 3rd. In a secondary battery, an electrode consisting of four perforated tubes, secured to and formed around a central core in the form of a cruciform figure, said core arranged to project above the tubes for the purpose of uniting the several elements, and a connecting-bar adapted to engage the projecting ends of the core, substantially as described. 4th. In a battery, the combination of the elements A^1, B^1, each of which consists of the core A, to which are secured the oval tubes E, opposed to each other, and arranged around the core to form a cruciform figure, each tube of the positive element located between two of the negative element, active material located within said tubes, and connecting-bars adapted to unite the elements of each series, substantially as described.

No. 62,497. Valve for Steam Engines.
(*Soupape pour machines à vapeur.*)

James B. Allfree, of Indianapolis, Indiana, U.S.A., 1st February, 1899; 6 years. (Filed 27th May, 1898.)

Claim.—1st. In a valve gear for steam engines, the combination of an engine shaft, a regulating eccentric mounted on said shaft, a rocker arm or sliding bracket reciprocated by said eccentric, a modifying eccentric relatively mounted on said arm or bracket, a valve and means to connect said modifying eccentric to said valve. 2nd. In a valve gear for steam engines, a reciprocating lever, a modifying eccentric mounted in said lever, and means whereby a motion of alternate rotation is imparted to said modifying eccentric, a valve and means for connecting said modifying eccentric to said valve, substantially as set forth. 3rd. The combination in valve gear for steam engines of a reciprocating rocker arm or lever, an eccentric shaft carried by said lever, means whereby motion of rotation is transmitted to said eccentric, through and by said lever, substantially as shown. 4th. In a valve gear for steam engines, the combination of a reciprocating lever, an eccentric carried by said lever, means for rotating said eccentric alternately in opposite directions simultaneously with the reciprocation of said lever, substantially as shown. 5th. In a valve gear for steam engines, the combination with a reciprocating lever, a shaft journalled in said lever, an eccentric pinion on said shaft, a pinion on said shaft, a toothed sector meshing with said pinion, pivoted on said lever, a rod pivotally connected at one end of said sector and to an eccentric at its other end to reciprocate said sector, substantially as shown. 6th. In a gear for slide valves for steam engines, the combination with a valve, a modifying eccentric-pin, means for connecting said pin to said valve, means for supporting and carrying said eccentric pin, a main eccentric, an eccentric rod extending from said main eccentric to said supporting and carrying means whereby said means is reciprocated, and means whereby the said eccentric pin is rotated, as shown. 7th. In a valve gear for steam engines, the combination with a valve, a modifying eccentric pin, a rod connecting said eccentric pin to said valve, a lever or rocker-arm, means on said rocker arm whereby said eccentric pin shaft is supported and means to rotate said pin alternately in opposite directions, substantially as shown. 8th. In a valve gear for steam engines, the combination with a slide valve, a rocker arm, a modifying eccentric pin, rotatively mounted on said rocker arm, a rod connecting said slide valve to said eccentric pin a toothed pinion on shaft of said eccentric pin, a toothed sector pivoted on said rocker arm adapted to mesh with said pinion and means for oscillating said rocker arm and said sector, substantially as set forth. 9th. In a valve gear for steam engines, a slide valve, a modifying eccentric pin, a rod connecting said eccentric-pin to said valve, a rocker arm, a shaft carrying said eccentric pin, rotatively supported on said rocker arm, a toothed pinion on said shaft, a toothed sector pivotally secured on said rocker arm, adapted to mesh with said pinion and means for oscillating said rocker arm and said sector in opposing directions, substantially as shown. 10th. In a valve gear for steam engines, the combination with a slide valve, a modifying eccentric pin, a rod connecting said valve to said eccentric-pin, a rocker-arm, an eccentric pin shaft rotatively carried by said rocker arm, a toothed pinion on said shaft, a toothed sector pivoted on said rocker arm, and adapted to mesh with said pinion, a main eccentric adapted to reciprocate said rocker arm and means for oscillating said sector upon its axis in directions going practically opposite to motions of said rocker arm, as shown. 11th. In a valve gear for steam engines, the combination of a slide valve, a modifying eccentric pin, a rod connecting said valve to said eccentric pin, a rocker arm, an eccentric pin shaft carried by said rocker arm, a tooted pinion on said shaft, a toothed sector pivoted on said rocker arm adapted to rotate said pinion, a main eccentric adapted to oscillate said rocker arm and an auxiliary eccentric adapted to oscillate said sector in opposite directions, substantially as described. 12th. In a valve gear for steam engines, an eccentric located at an intermediate point between the primary means for traversing the valve and means whereby the said eccentric is caused to rotate, causing a modification of the primary movement, all substantially as shown. 13th. In a gear for slide valves of steam engines, a modifying eccentric located at a point intermediate between the main or primary eccentric and the valve to be operated and means by which the said intermediately located eccentric is caused to rotate whereby a modified movement is imparted to the valve for the purposes set forth. 14th. In a valve

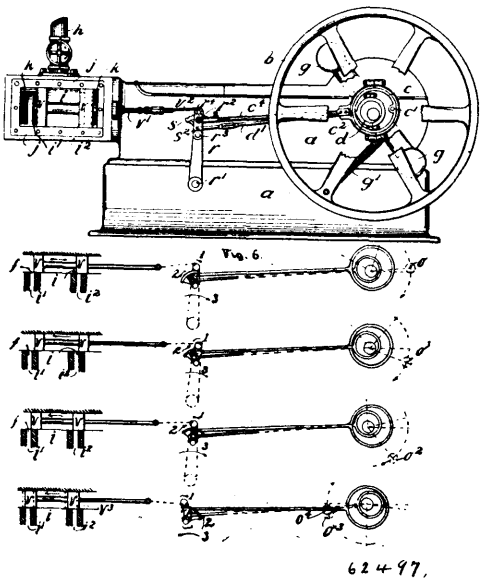

Fig. 6.

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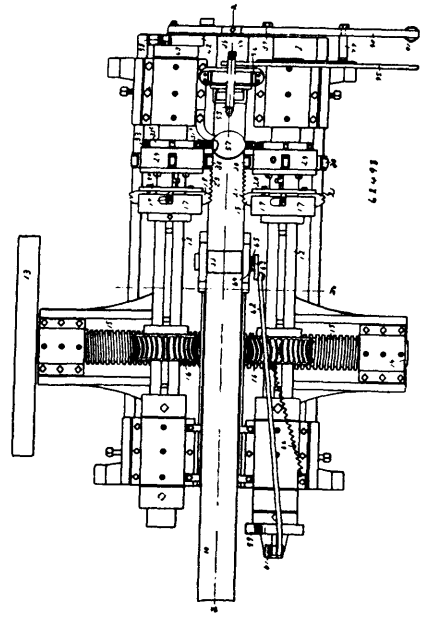
gear for steam engines, the combination of a valve, a means for producing a primary reciprocating motion, a modifying eccentric operating between said primary motion and said valve and means for connecting said eccentric to said valve, whereby a modified movement is imparted to the said valve, substantially as described. 15th. In a valve gear for steam engines the combination of a valve, means for imparting motion to said valve, a modifying eccentric operating between said means and said valve, a means for rotating said eccentric upon its axis, means for laterally oscillating said axis simultaneously with action of rotation, resulting in a compound motion and means for imparting to said valve, latter said motion, whereby the velocity of valve travel is accelerated at one point and retarded at another, substantially as set forth. 16th. In a valve gear for steam engines the combination of a valve, primary means for imparting motion to said valve, a modifying eccentric placed between said means and said valve, means for rotating said eccentric upon its axis and means for laterally oscillating said modifying eccentric across its axis accelerating the travel at the beginnings and endings of the valve motion and retarding at the intermediate portion of valve travel, as set forth and described. 17th. In gears for slide valves of steam engines the combination of a valve, suitable means for imparting motion to said valve, an eccentric between said means and said valve means for connecting said eccentric to said valve, suitable means for rotating said eccentric alternately in opposite directions, for the purpose of increasing and diminishing the velocity of said valve at certain portions of travel, as shown. 18th. In a motion for slide valves of steam engines, the combination with a slide valve, means whereby an accelerated motion is imparted to said valve at the beginnings and endings of its stroke and whereby the velocity of said valve is retarded at and during the intermediate portions of its stroke. 19th. In a gear for slide valves of steam engines the combinations of a primary or main eccentric, a rocker-arm operated by said eccentric, a modifying eccentric mounted rotatively in said rocker-arm, a toothed pinion secured to said modifying eccentric, means for connecting said valve to said modifying eccentric, a toothed sector mounted movably on said arm, a secondary or auxiliary eccentric adapted to operate said sector simultaneously in directions opposite from movements of said rocker arm. 20th. In a valve gear for engines, the combination with a cylinder provided with ports for the admission and exhaust for actuating fluid, a valve controlling said ports, and a piston in said cylinder, of a primary valve gear, connection between the piston and primary valve gear for operating the said gear, a controlling or modifying device connected to the valve and means for causing said controlling or modifying device to oppose the movement of the primary gear until the resultant retarded motion acting upon the valve causes the latter to dwell after the close of admission and before the close of exhaust during each stroke of the piston, substantially as described. 21st. In a valve gear for engines, the combinations with a cylinder provided with admission and exhaust ports for the actuating fluid, a valve for controlling said ports, a piston in said cylinder, of a primary valve gear, connection between the piston and primary gear for operating the same, a controlling or modifying eccentric device connected with the valve and connections between said eccentric device and primary gear, so disposed as to cause the eccentric device to oppose the movement of the primary gear until the resultant retarded motion imparted to the valve causes said valve to dwell after the close of admission and before the close of the exhaust during each stroke of the piston, substantially as described. 22nd. In a valve gear for engines, the combination with a cylinder provided with admission and exhaust ports for the actuating fluid, a valve for controlling said ports, and a piston in said cylinder, of a primary valve-gear, connections between said primary valve gear, and pretext for poerating said gear, an auxilliary eccentric carried by and moving with said primary gear and connected to the valve, and means for giving said eccentric a motion of rotation alternately in opposite directions, and so disposed as to compel the resultant motion of the opposing movement of the auxiliary eccentric to cause the valve to dwell after the close of admission and before the close of the exhaust during each stroke of the piston, substantially as described. 23rd. In a valve-gear for engines, the combination with a cylinder provided with ports for admission and exhaust of the actuating fluid, a valve for controlling said ports, and a piston in said cylinder, a main eccentric operated by the movements of the piston, a rocker-arm connected to and operated by said eccentric, an auxiliary or modifying eccentric connected to said rocker arm and to the valve, with means intermediate of said eccentric and auxiliary eccentric for causing the auxiliary eccentric to alternately act in conjunction with and oppose the motion of the main eccentric, whereby the valve is caused to move quickly in opening and closing the admission and exhaust and move slowly until it dwells after the close of admission and before the close of exhaust, substantially as described. 24th. In a valve gear for engines, the combination with a cylinder provided with suitable ports, a valve for controlling said ports, a piston and shaft connected with the same, of a main eccentric on said shaft, a rocker arm operated by said main eccentric, an auxiliary eccentric connected with the rocker arm, so as to vibrate therewith but free to rotate, in either direction, a segmental rack, and a pinion operated thereby and connected to the auxiliary eccentric, and a link connecting said auxiliary eccentric with the valve, whereby the rate of travel of the valve is alternately accelerated and retarded according as the main eccentric and auxiliary eccentric act in the same or opposite directions so that the valve is caused to dwell or stop just after the close of admission and just before the close of exhaust, substantially as described. 25th. In a valve gear for steam engines, the combination with a distributing valve, a modifying eccentric, a rod connecting said eccentric and said main valve, of a rocker arm, an eccentric shaft carried by said rocker arm, a pinion on said shaft, a segment pivoted on said rocker-arm and meshing with said pinion, and means for oscillating said rocker arm and said segment, whereby the valve is caused to dwell or stop just after the close of admission and just before the close of exhaust, during each stroke of the piston. 26th. In a valve gear for steam engines, the combination with a distributing valve, a modifying eccentric, a rod connecting said eccentric to the valve, of a rocker arm, a shaft on which the eccentric is mounted and carried by said rocker arm, a pinion of said shaft, a segment pivoted on said rocker-arm and meshing with said pinion, and means for oscillating said rocker arm and said segment in opposite directions, whereby the valve is caused to dwell just after the close of admission and just before the close of exhaust, during each stroke of the piston. 27th. In a valve gear for steam engines, the combination with a distributing valve, a main eccentric, a modifying eccentric and a rod connecting said valve and said modifying eccentric, of a rocker arm, a shaft on which the eccentric is mounted carried by said rocker-arm, a pinion on said shaft, a segment rack pivoted on the rocker-arm and meshing with said pinion, and suitable connecting rods connecting said rocker arm and said segment to the main eccentric to oscillate said rocker arm and said segment simultaneously in opposite directions, whereby the valve is caused to dwell or stop just after the close of admission and just before the close of exhaust, during each stroke of the piston, substantially as set forth. 28th. In a valve gear for steam engines, the combination with a cylinder provided with ports for the admission and exhaust of actuating fluid, a piston in said cylinder, and a valve controlling said ports, of a valve-operating mechanism connected with the valve, and connections between said valve-operating mechanism and the piston, said valve-operating mechanism and connections being so disposed and timed with respect to the movements of the piston that a differential movement is imparted to the valve, comprising quick motions to open and close the admission and exhaust and motions retarded until the valve is caused to dwell or stop just after the close of admission and before the close of exhaust, all during each stroke of the piston.

No. 62,498. Machine for Making Seal Retaining Staples. (*Machine pour faire des crampons.*)



Max E. Biersach, Milwaukee, Wisconsin, U.S.A., 1st February, 1899; 6 years. (Filed 29th August, 1898.)

Claim.—1st. A machine for making seal retaining staples, comprising a bed, one or more shafts supported at the sides thereof, a set of feed rollers arranged to feed strips of material intermittently over the bed, and a set of operating tools actuated from said shaft or shafts and adapted to serrate the edges of the material, bend down the points or teeth of the serrated edges, and to separate the material transversely, substantially for the purpose set forth. 2nd. A machine for making seal retaining staples, comprising a bed, one or more shafts supported at the sides thereof, a set of feed rollers arranged to feed strips of material intermittently over the bed, and a set of operating tools actuated from said shaft or shafts and adapted

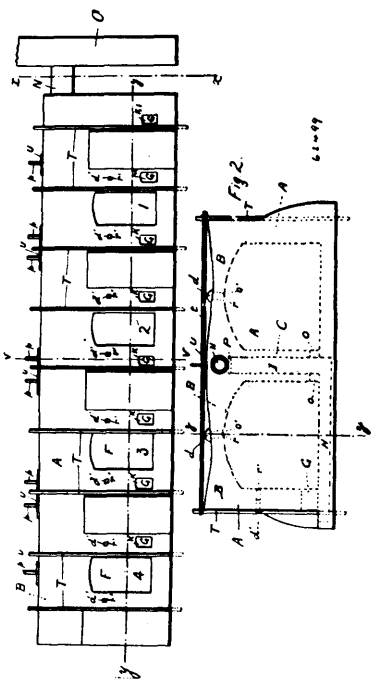
to serrate the edges of the material, bend down the points or teeth of the serrated edges, dent the teeth longitudinally, and to separate the material transversely, substantially for the purpose set forth. 3rd. A machine for making seal retaining staples, comprising a bed, means for feeding strips of material over the bed, a set of rotary punchers for serrating the edges of said strips, means for bending the serrated edges, and means for separating the material transversely between the successive teeth, substantially for the purpose set forth. 4th. A machine for making seal retaining staples, comprising a bed, means for feeding strips of material over the bed and serrating the edges thereof, a rotary bender head adapted to engage the serrated edges and bend the teeth, and means for separating the strip transversely, substantially for the purpose set forth. 5th. A machine for making seal retaining staples, comprising a bed a pair of parallel shafts supported at the respective sides of the bed means for actuating said shafts from the source of power, a set of rollers arranged to feed strips of material intermittently over said bed, punchers and dies for serrating or cutting out the edges of said strip to farm the points of the seal retaining staples, a device for bending the points, and a knife for cutting or separating the strip transversely between the successive points, said feed rollers, punchers, benders, and knife being in connection with, and simultaneously operated by the said shafts, substantially for the purpose set forth. 6th. A machine for making seal retaining staples, comprising a bed, a pair of parallel shafts supported at the respective sides of said bed, means for actuating said shafts from the source of power, xt set of rollers arranged to feed strips of material intermittently over said bed, punchers and dies for serrating or cutting out the edges of said strip to form the points of the seal retaining staples, a device for bending the points, denters for crimping or denting the points longitudinally, and a knife for separating or cutting the strip transversely between the successive points, said feed rollers, punchers, benders, denters and knife being in connection with, and simultaneously operated by, the said shafts, substantially for the purpose set forth. 7th. A machine for making seal releasing staples, comprising a bed, a pair of parallel shafts supported at the respective sides of said bed, means for actuating said shafts from the source of power, a set of rollers arranged to feed strips of material intermittently over said bed, punchers and dies for serrating or cutting out the edges of said strip to form the points of the seal retaining staples, a device for bending the points, denters for crimping or denting the points longitudinally, a printer for stamping the uncut portion of the material, and a knife for cutting or separating the strip between the respective points, said feed rollers, punchers, benders, denters, printer, and knife being in connection with, and simultaneously operated by the said shafts, substantially for the purpose set forth. 8th. A machine for making seal retaining staples, comprising a bed, a pair of parallel shafts supported at the respective sides of the bed, means for actuating said shafts from the source of power, a set of rollers arranged to feed strips of material intermittently over the bed, rotary puncher heads located upon said shafts, and provided with punchers adapted to register with dies located upon the bed whereby the material is notched at its edges, rotary bender heads, also located upon said shafts, and adapted to intermittently engage and bend the notched edges of the material, a shear plate located at the end of the bed, and a reciprocatory knife adapted to cut-off that portion of the material strip which projects over the bed, with connections whereby said knife is operated from one of the shafts. 9th. A machine for making seal retaining staples, comprising a bed, a pair of parallel shafts supported at the respective ends of the bed, means for actuating said shafts from the source of power, a set of rollers arranged to feed strips of material intermittently over the bed, rotary puncher heads located upon said shafts, and provided with punchers adapted to register with dies located upon the bed, whereby the material is notched at its edges, rotary bender heads also located upon said shafts and adapted to intermittently engage and bend the notched edges of the material, a shear plate located at the end of the bed, and a reciprocatory knife adapted to cut-off that portion of the material strip which projects over the bed, with connections whereby said knife is operated from one of the shafts, and a printing device adapted to print upon or stamp the uncut portion of the material strip, connected to the knife arm and operated from the latter. 10th. A machine for making seal retaining staples, comprising a bed, a pair of parallel shafts supported at the respective sides of the bed, means for actuating said shafts from the source of power, a set of rollers arranged to feed strips of material intermittently over the bed, rotary puncher heads located upon said shafts and provided with punches adapted to register with dies located upon the bed, whereby the material is notched at is edges, rotary bender heads also located upon said shafts, and adapted to intermittently engage and bend the notched edges of the material, a shear plate located at the end of the bed, and a reciprocatory knife adapted to cut-off that portion of the material strip which projects over the bed, a spring for holding said knife with its edged normally above the shear bar, and an eccentric located on one of said shafts and arranged to actuate the knife at the regular intervals. 11th. A machine for making seal retaining staples, the combination of a frame, a bed divided along its longitudinal centre, with its lower surface provided with projections engaged in slots in said frame, set screws for adjustably securing the bed sections to the frame, right and left screw-threaded shafts running transversely of the bed sections, whereby the latter may be separated and adjusted as desired, together with means for passing strips of material over said bed, and a set of operating tools for forming said into the desired shape and cutting it into sections. 12th. In a machine for making seal retaining staples, the combination of a frame, a bed divided along its longitudinal centre, means for laterally adjusting the bed sections to increase or diminished the width of the bed, a pair of parallel shafts supported from the resective bed sections, a worm shaft extending transversely of the bed sections, a worm shaft extending transversely of the bed sections, and connected with a source of power, suitable gearing fast on said shafts, and engaged by said worm shaft, a set of operating tools located upon said shafts and adapted to cut and bend the edges of a strip of sheet metal pa-sed over said bed, together with a separating knife actuated from one of said shafts, and adapted to cut the material into sections. 13th. In a machine for making seal retaining staples, the combination of a frame, a bed divided along its longitudinal centre, means for laterally adjusting the bed sections to increase or diminish the width of the bed, a pair of parallel shafts supported from the respective bed sections, a worm shaft extending transversely of the bed sections and connected with a source of power, suitable gearing fast on said shafts and engaged by said worm shaft, and a set of operating tools located upon said shafts and adapted to cut and bend the edges of a strip of sheet metal passed over said bed, means for feeding said strip intermittently, together with a separating knife actuated from one of said shafts and adapted to cut the material into sections. 14th. In a machine for making seal-retaining staples, the combination of a frame, a bed divided along its longitudinal centre, means for laterally adjusting the bed sections to increase or diminish the width of the bed, a pair of parallel shafts supported from the respective bed sections, a worm shaft extending transversely of the bed sections and connected with a source of power, suitable gearing fast on said shafts and engaged by said worm shaft, and a set of intermittently acting operating tools located upon said shafts and adapted to cut and bend the edges of a strip of sheet metal passed over said bed, means for feeding said strip intermittently, together with a separating knife actuated from one of said shafts and adapted to cut the material into sections. 15th. In a machine for making seal retaining staples, the combination of a frame, a bed divided along its longitudinal centre, means for laterally adjusting the bed sections to increase or diminish the width of the bed, a pair of parallel shafts supported from the respective bed sections, a worm shaft extending transversely of the bed sections, and connected with a source of power, suitable gearing fast on said shafts and engaged by said worm shaft, and a set of operating tools located upon said shafts and adapted to cut and bend the edges of a strip of sheet metal passed over said bed, a pair of feed rollers for actuating said strip, an eccentric located on one of said shafts, and connections adapted to be intermittently actuated by said eccentric, and to communicate their motion to said feed-rollers, together with a separating knife actuated from one of said shafts, and adapted to cut the material into sections. 16th. In a machine for making seal-retaining staples, a rotary puncher-head, comprising a head-block adapted to be keyed to an actuating shaft, and provided with recesses in its sides, punches removably secured in said recesses by set-screws, and a lateral disc removably secured to the recessed side of the puncher-head, and adapted to furnish a lateral support for the punches, substantially for the purpose set forth. 17th. In a machine for making seal-retaining staples, a bender-head comprising a head-block adapted to be keyed to an actuating shaft and provided with sockets in its periphery, arms movably engaged to said sockets and seated upon spring cushions located therein, and rolle s journalled to the outer ends of said arms, substantially for the purpose set forth. 18th. In a machine for making seal-retaining staples, a bender-head comprising a head-block adapted to be keyed to an actuating shaft, and provided with sockets in its periphery, arms movably engaged in said sockets and provided with studs engaging in slots at the sides thereof, springs located in said sockets and adapted to force the arms outwardly, and rollers journalled to the outer ends of said arms, substantially for the purpose set forth. 19th. In a machine for making seal-retaining staples, the combination of a rotary bender-head provided with a laterally projecting hub, a spring retracted denter-bar located adjacent thereto, and provided at its rear end with a curved plate or sector, and one or more rollers journalled to an arm or arms projecting from the hub of the bender-head, and adapted to impinge upon said curved plate to actuate the denter-bar, substantially for the purpose set forth.

No. 62,499. Continuous Kilns. *(Four.)*

Albert Ghysens, Montréal, Québec, Canada, 1er février 1899; 6 ans. (Déposé 18 mars 1898.)

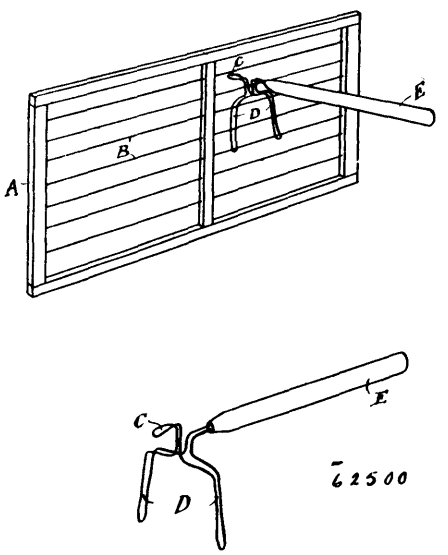
Résumé.—1° Dans un four continu, un mur A percé de portes F et G, de trous r^1, une voute B percée de trous r et o^1, un mur C, des murs D percés d'ouvertures L, de planchers M sur lesquels sont placés des grillages J faisant communiquer les compartiments avec H et H^1, situés audessous du plancher M, le tout tel que montré et pour les fins indiquées. 2° Dans un four continu, un mur C percé d'ouvertures *o* contenant dans son intérieur des cheminées I faisant

suite aux couloirs H des conduits N de forme rectangulaire, vis-à-vis des cheminées, et cylindrique entre les cheminées, dans les partie-



rectangulaires sont installées, des régistres P munis de bras p traversant des plaques métalliques U, le tout tel que montré et pour les fins indiquées.

No. 62,500. Bird Cage Perch. (*Perche pour cages d'oiseaux.*)



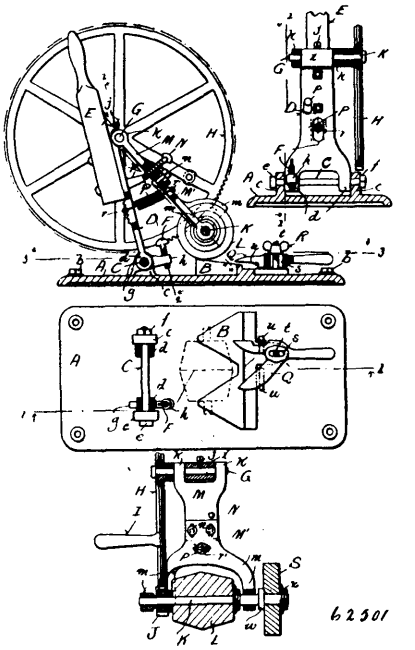
Fred Downing, Toronto, Ontario, Canada, 1st February, 1899; 6 years. (Filed 29th September, 1898.)

Claim.—The herein described bird-cage perch and attachment, consisting of a perch of any suitable material, a spring-wire attachment secured to the end of the said perch and projecting at its free end to the outside of the cage forming the handle C, the wire of the attachment extending round a number of the wires of the cage whereby the perch is retained in position substantially as described.

No. 62,501. Grinding Machine. (*Machine à aiguiser.*)

Clarence Justin Luther, Poynette, Wisconsin, U.S.A., 1st February, 1899; 6 years. (Filed 17th October, 1898.)

Claim.—1st. A grinding-machine having a cast-metal base in one piece with a pair of upwardly-extending lugs and a V-notched bevel-top sickle-bar support, a sickle-bar clamp-plate in suitable connection with the base, a tilt-plate having lugs in pivotal connection with the base-lugs, an arbor supported by the tilt-plate, a frame in pivotal



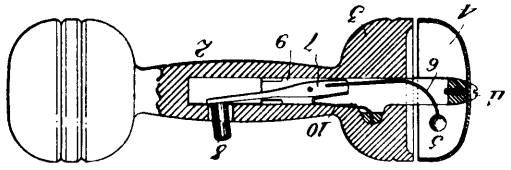
connection with the arbor, suitable means for effecting positive pivotal adjustment of the frame, a spiral-spring connected at its ends to said tilt-plate and frame to move therewith coincident with its expansion and contraction, a grinding-wheel having its arbor rotative in bearings constituting parts of the frame, a pinion fast on the former arbor, a driving spur-wheel loosely mounted on the former arbor to mesh with said pinion. 2nd. A grinding-machine having a tilt-plate provided with a depending rear stop that comes to rest on the base of the machine, an adjustable stop arranged to limit forward movement of the tilt-plate, an arbor supported by the tilt-plate, a frame having positive pivotal adjustment on the arbor, a spiral spring connected at its ends to said tilt-plate and frame, a grinding-wheel having an arbor rotative in bearings constituting parts of the frame, a pinion fast on the latter arbor, a driving spur-wheel on the former arbor having mesh with the pinion, a transverse bevel-top V-notched ledge on the machine-base and a clamp mechanism for a sickle-bar supported on said ledge. 3rd. A grinding-machine having a tilt-plate, an arbor supported by the same, a frame having positive pivotal adjustment on the arbor, a spiral spiral spring connected at its ends to the tilt-plate and frame to move therewith coincident with its expansion and contraction, a grind-wheel having an arbor in rotative connection, with said frame, a pinion fast on the latter arbor a driving spur-wheel on the former arbor in mesh with the pinion, a transverse bevel-top V-notched ledge on the machine-base, and a clamp mechanism for a sickle-bar supported on said ledge. 4th. A grinding-machine having a tilt-plate, an arbor supported by the same, a frame in positive pivotal adjustment on the arbor, a spiral spring having one end thereof in adjustable connection with the tilt-plate longitudinally of the same and its other end in non-adjustable connection with the frame although movable with both, a grinding-wheel having an arbor in rotative connection with said frame, a pinion fast on the latter arbor, a driving spur-wheel on the former arbor having mesh with the pinion, a transverse bevel top V-notched ledge on the machine-base, and a clamp-mechanism for sickle-bar supported on the ledge. 5th. A grinding-machine comprising a tilt-plate and means for locking the same in swung-back position, an arbor supported by the tilt-plate, a frame in spring-connection with said tilt plate and having positive pivotal adjustment on the arbor, a sickle-bar supporting ledge and clamp on the machine-base, an arbor rotative in the frame and having one of its ends extended from said frame for the engagement of a detachable grinding-wheel when said tilt-plate is locked in swung-back position, a grinding-wheel fast on the frame-supported arbor for work on sickle-bar knife sections when the aforesaid tilt-plate is free to be swung forward, a pinion fast on the latter arbor, and a driving spur-wheel loosely mounted on the former arbor to mesh with the pinion.

No. 62,502. Dumb Bell. (*Haltère.*)

Joseph N. Maingot, St. George's, Grenada, British Windward Islands, 1st February, 1899; 6 years. (Filed 3rd November, 1898.)

Claim.—1st. A dumb-bell or similar exercising device, having a bell thereon, a knob or handle supported upon the device, and an

operative connection between said handle and the hammer of the bell, substantially as described. 2nd. A dumb-bell or similar exer-



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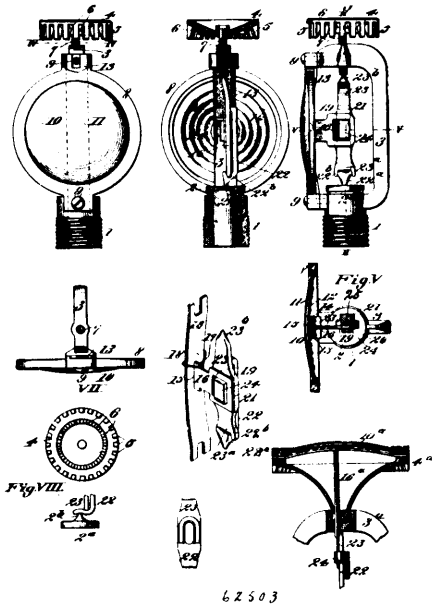
cising device, having a bell secured thereto, and a projecting knob connected to and arranged to actuate the hammer of the bell, substantially as described.

No. 62,503. Fire Extinguisher Sprinkler.

(Extincteur d'incendie.)



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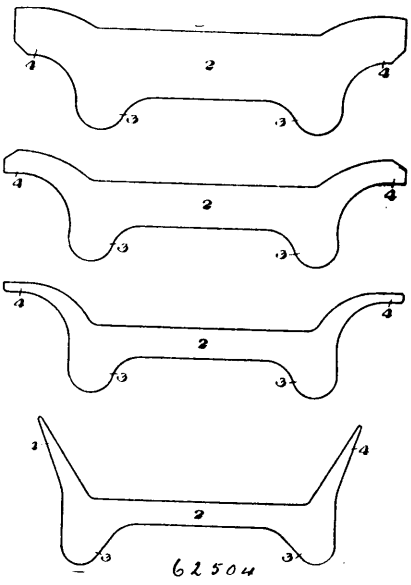
Campbell Beauregard Shaw, St. Louis, Missouri, U.S.A., 1st February, 1899; 6 years. (Filed 2nd December, 1898.)

Claim.—1st. In an automatic sprinkler, the combination of a valve, a sectional strut arranged to hold said valve to its seat, a thermostatic chamber provided with a flexible wall, and a connection between said flexible wall and strut, through means of which the members of said strut are locked together and released by the flexing of said wall in thermostatic action, substantially as set forth. 2nd. In an automatic sprinkler, the combination of a valve, a sectional strut arranged to hold said valve to its seat, a spray disc, a screw stem carried by said disc and arranged to engage the outer end of said strut, a thermostatic chamber provided with a flexible wall, and a connection between said flexible wall and strut, through means of which the members of said strut are locked together and released by the flexing of said wall in thermostatic action, substantially as set forth. 3rd. In an automatic sprinkler, the combination of a valve, a sectional strut arranged to hold said valve to its seat, a thermostatic chamber provided with a flexible wall, and a key arranged to lock the members of said strut together, said key being so disposed as to be acted upon in the flexing of said wall, whereby it is released from said strut, substantially as set forth. 4th. In an automatic spinkler, the combination of a valve, a sectional strut arranged to hold said valve to its seat, a thermostatic chamber provided with a flexible wall, a spring seated against said wall, a key forming a connection between said wall and said strut arranged to lock the members of said strut together, and a loop carried by said spring arranged to engage the edge of said key, substantially as set forth. 5th. In an automatic sprinkler, the combination of a valve, a strut arranged to hold said valve to its seat, a thermostatic chamber provided with a flexible wall, and a connection between said flexible wall and strut, through means of which said strut is held and released by the flexing of said wall in thermostatic action, substantially as set forth. 6th. In an automatic sprinkler, the combination of a valve, a strut arranged to hold said valve to its seat, and a thermostatic chamber provided with a flexible wall adapted to move said strut to release said valve on the flexing of said wall in thermostatic action, substantially as and for the purpose set forth.

No. 62,504. Rolling Tie-Plate.

(Plaque de traverse roulante.)



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Andrew Morrison, Pittsburg, Pennsylvania, U.S.A., 2nd February, 1899; 6 years. (Filed 23rd November, 1898.)

Claim.—1st. In the rolling of tie-plate bars, rolls having preliminary passes arranged to form a plate with projecting flanges, and bumps opposite the said flanges, and succeeding passes arranged to press laterally against the bumps and force them outwardly beyond said flanges to widen the plate, substantially as described. 2nd. In the rolling of tie-plate bars, rolls having preliminary passes arranged to form laterally projecting flanges upon the plate, and bumps opposite to said flanges, intermediate passes arranged to force the flanges into a substantially right-angled position at the side edges of the plate, and final passes arranged to press laterally against the bumps and force them outwardly to widen the plate, substantially as described. 3rd. In the rolling of tie-plate bars, rolls having a set of eight passes, the first four passes being arranged to reduce the thickness of the plate and form angular flanges at its edges, and oppositely located bumps, a fifth pass arranged to straighten the flanges into a right-angled position, and the three final passes being arranged to force the metal of the bumps into the body of the plate so as to widen it beyond the flanges and prevent substantially shortening of the flanges, substantially as described. 4th. The method of rolling tie-plate bars, consisting in gradually thinning the plate body and forming laterally projecting flanges along the side edges, with bumps located opposite thereto, forcing said flanges into a right-angled position at the edge of the plate and then pressing laterally against the bumps so as to force them outwardly and widen the plate beyond the flanges, substantially as described.

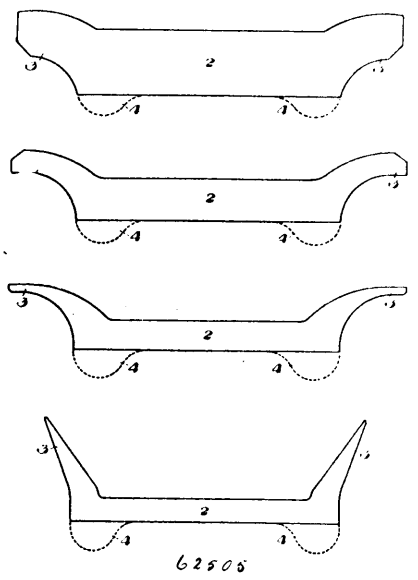
No. 62,505. Tie-Plate Manufacture.

(Fabrication de plaque de traverse.)

Andrew Morrison, Pittsburg, Pennsylvania, U.S.A., 2nd February, 1899; 6 years. (Filed 23rd November, 1898.)

Claim.—1st. In the manufacture of tie-plate bars, rolls having preliminary passes arranged to form the plate body with laterally projecting flanges, intermediate passes arranged to form the plate of its final width and force the flanges into a substantially right-angled position at the side edges of the plate, and final passes arranged to force the metal of the flanges inwardly and produce a plate with the flanges set in from its edges, substantially as described. 2nd. In the manufacture of tie-plate bars, rolls having preliminary passes arranged to form a plate with laterally projecting flanges and opposite bumps, intermediate passes arranged to shape the plate of its final width and force the flanges into a right-angled position at its side edges, and final passes arranged to in-set the flanges from the side edges and force the metal of the bumps into the plate, substantially as described. 3rd. In the manufacture of tie plate bars, rolls having passes arranged to form a plate with a projecting flange at its side edge, and a final pass or passes arranged to force the metal of the flange inwardly without substantial widening of the plate, and thus produce a plate with the flange set in from its edge, substantially as described. 4th. The method of rolling tie-plate bars and similar material, consisting in rolling a plate with a flange at its side edge and then forcing the metal of the flange inwardly from the edge without substantially increasing the width of the plate, substantially as described. 5th. The method of

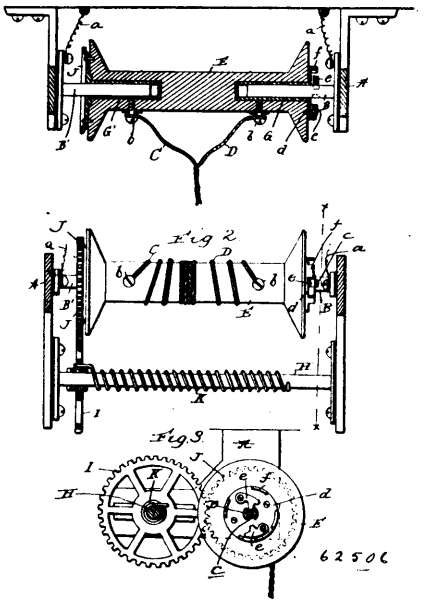
rolling tie-plate bars, consisting in forming a bar with substantially right-angled flanges at its side edges, and bumps opposite the flanges,



and then forcing the flanges inwardly from the edges and rolling the metal of the bumps into the plate without substantially increasing the width of the plate, substantially as described.

No. 62,506. Electric Lamp Hanger.

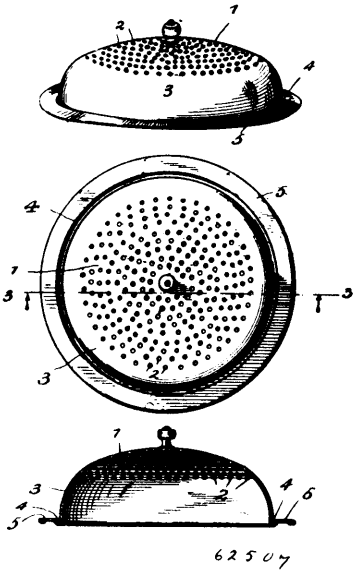
(Pendant de lampe électrique.)



William F. Murphy, Iowa, state of Iowa, U.S.A., 2nd February, 1899; 6 years. (Filed 16th November, 1898.)

Claim.—1st. In a hanger for electric devices, the combination of bracket arms, metallic spindles connected with and extending inwardly from the bracket arms and adapted to be electrically connected with the opposite poles of an electric generator, the spool or drum having metallic bushings in its opposite ends snugly receiving the spindles, wires wound on the spool and adapted to be connected with an electrical device, metallic screws connecting the wires to the spool or drum and impinging against the bushings thereof, suitable means for rotating the spool to wind the wires thereon, and suitable means for normally holding the spool against rotation, substantially as specified. 2nd. The hanger described for electric devices comprising the bracket arms, metallic spindles connected with an extending inwardly from the bracket arms, one of said spindles having seats, the spool or drum having metallic bushings in its ends snugly receiving the spindles and also having a gear, and pawls adapted to engage the seats of the spindle, an arbor carried by the bracket arm a gear mounted on said arbor and meshing with the gear on the spool or drum, a coiled spring surrounding the arbor and having one end fixed with respect to the bracket arms and its opposite end connected with the gear on the arbor, the wires adapted to be connected with an electric device and wound on the spool or drum and the screws connecting said wires to the spool or drum and impinging against the bushings therein, substantially as specified.

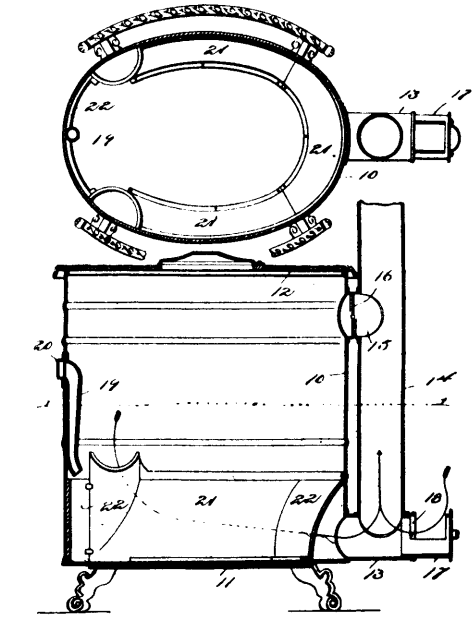
No. 62,507. Frying Pan. *(Poêle à frire.)*



Hiester A. Bowers, Reading, Pennsylvania, U.S.A., 2nd February, 1899; 6 years. (Filed 17th January, 1899.)

Claim.—A frying pan cover comprising a partially imperforate body having its arched or crowned upper part provided with a plurality of minor perforations, an exterior supporting flange outside of the body, and an inclined wall which joins the flange and lower edge of the body and forms with the body an exterior collecting trough at the base of the body, substantially as described.

No. 62,508. Sheet-Metal Stove. *(Poêle en feuille métallique.)*

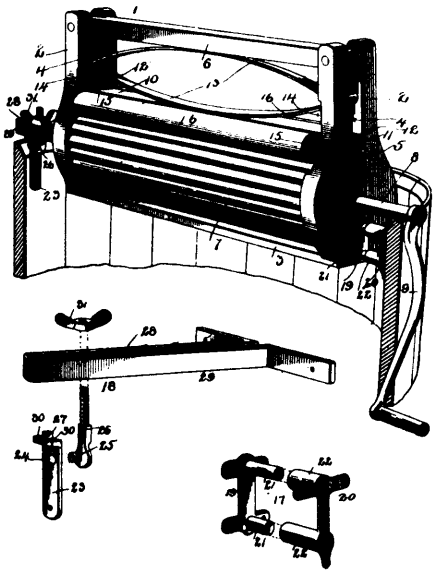


Charles T. McCarroll, Ottumwa, Iowa, 2nd February, 1899; 6 years. (Filed 17th January, 1899.)

Claim.—1st. In a sheet-metal stove having smoke-discharge openings therein, the combination of a plate within the stove resting upon the bottom and engaging the sides thereof and having draft openings therein, and forming within the sides and bottom a com-

bined smoke-conduit and ash-fender, for the purposes stated. 2nd. In a sheet-metal stove having smoke-discharge openings therein at its rear end, the combination of a plate 21 to extend around the interior of the stove and resting upon the bottom and engaging the sides of the stove and having draft-openings therein near the front of the stove, and forming with the sides and bottom a combined smoke-conduit and ash-fender for conducting the products of combustion through the said draft-openings in the plates, then rearwardly through the said draft-openings in the plates, then rearwardly through the conduit formed by the plates and stove to the smoke-discharge opening at the rear of the stove.

No. 62,509. Washing Machine. (*Machine à laver.*)



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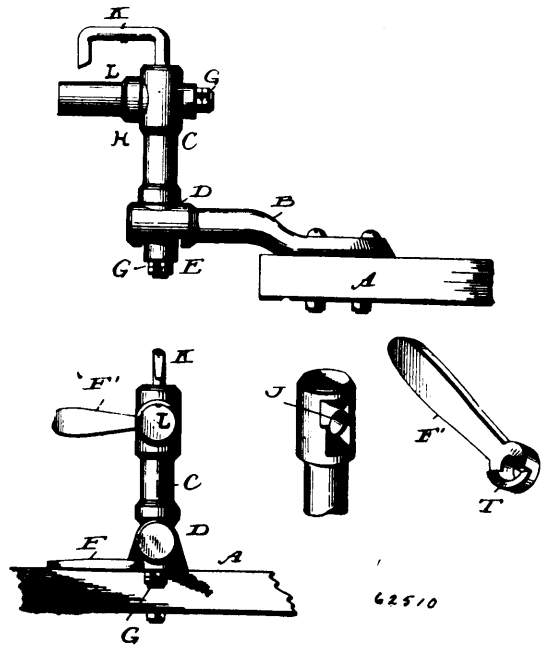
Moïse Bourdeau and Delphis Thibodeau, both of St. Jean d'Iberville, Quebec, 2nd February, 1899; 6 years. (Filed 17th January, 1899.)

Claim.—1st. A washing machine comprising a frame, a corrugated rubber roller pivotally mounted therein, a rubbing block having a corrugated face located in said frame and having a vertical movement therein, rolls connected to and having a movement with said block, and a spring removably located in said frame adapted to adjustably hold said block and said rolls in their lower position, substantially as described. 2nd. The combination with a receptacle of a washing machine, and means for adjustably holding said machine in rigid position during its use, substantially as described. 3rd. The combination wish a receptacle, of a washing machine, said machine having one of its ends removably secured to said receptacle and having its opposite ends removably and adjustably secured thereto. 4th. The combination with a receptacle, having a series of fixed members secured therein, of a washing machine, having co-operating members secured thereto, the member at one end of said machine being removably secured to its corresponding member on the receptacle, the member on the opposite end of the machine being removably and adjustably secured to the opposite member in said receptacle, substantially as described.

No. 62,510. Cutterhead Knife Adjusting Device.
(*Appareil à assujetir les couteaux pour porte-lames.*)

Samuel S. Farney, Castorland, New York, U.S.A., 2nd February, 1899; 6 years. (Filed 17th January, 1899.)

Claim.—1st. In a device of the character described, a bracket-arm, a post carried by said arm, a stub-shaft or axle also carried by the bracket-arm, lever actuated mechanism for locking and releasing the connections between the bracket-arm and the post, and for locking and releasing the connection between the post and the stub-shaft, and a gauge arm connected with the post and extending over the stub-shaft, substantially as described and for the purpose specified. 2nd. The combination with the bracket-arm, the post having its lower end sleeved in an aperture in the bracket-arm, a stub shaft having one of its ends sleeved within a horizontal opening in the upper end of the post, the locking levers F and F¹ sleeved upon the lower end of the post and the inner end of the stub-shaft or axle respectively and having bevelled or cam faces to engage bevelled shoulders as described, and the bracket-arm K connected with the



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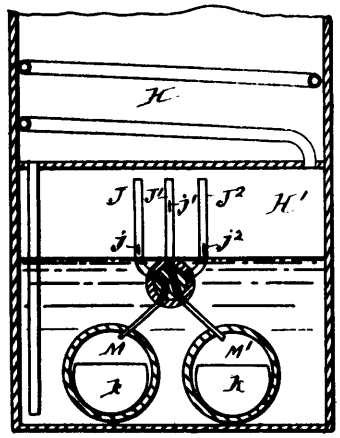
post and having its free end extended downward, said free end of the arm being bevelled, substantially as described, and for the purpose specified.

No. 62,511. Acetylene Gas Lamp. (*Lampe à gaz acétylène.*)



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Frederick Hugh Smith, The Limes, Dunblane, Perth, Scotland, 2nd February, 1899; 6 years. (Filed 1st February, 1898.)

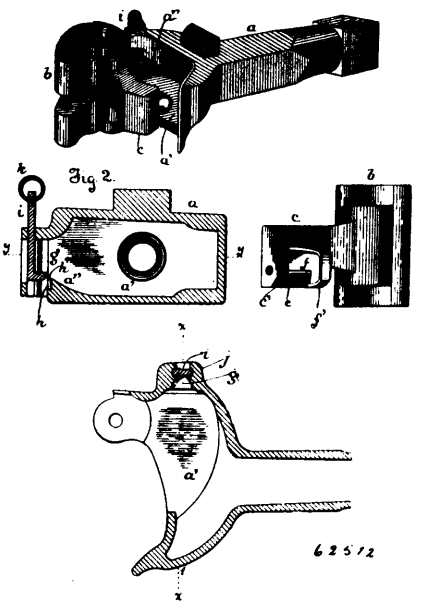
Claim.—1st. An acetylene gas generator having a water tank divided into two compartments and the lower of which is fitted with two circular carbide chambers and semi-circular drawers arranged to be automatically and alternately brought into action, as described and shown. 2nd. In an acetylene gas generator having two carbide chambers, the arrangement of the three upright tubes J, J¹, J², the two outer tubes of which have slots *j*, *j*² at a lower level than the slot *j*¹ in the central tube J¹, and the five-way cock L whereby the water is caused to attack the carbide in the one chamber when the carbide in the other becomes exhausted, as described and shown.

No. 62,512. Car Coupler. (*Attelage de chars.*)

John J. Malloy, Portland, Oregon, U.S.A., 2nd February, 1899; 6 years. (Filed 16th December, 1898.)

Claim.—1st. In combination, a draw-head, as *a*, provided with a recess on its exterior, and a knuckle pivoted to said draw-head, and having an arm entering said recess of the draw-head, a hook in the end of the arm and a vertical aperture for the hook to drop into and lock the knuckle upon the arm thereof having entered said recess, there being an inclined approach in the floor of said recess to auto-

matically lift and guide said hook to said locking aperture, and means for lifting said hook to disengage the knuckle arm again.

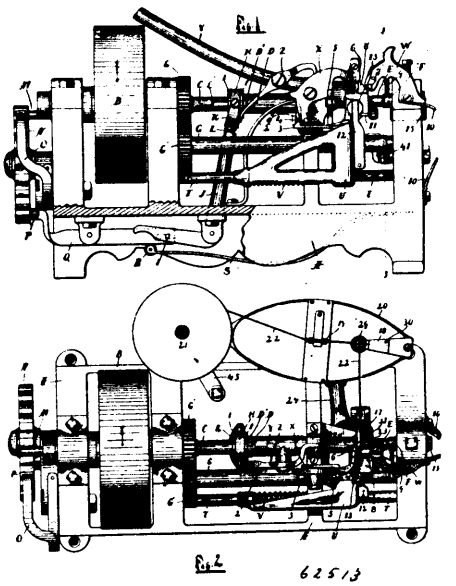


2nd. In combination, a draw-head, as *a*, provided with a recess, and a knuckle pivoted to said draw-head and having an arm entering said recess of the draw-head, a hook in the end of the arm, and a vertical aperture for the hook to drop into and lock the knuckle upon the arm thereof having entered said recess, their being an inclined approach in the floor of said recess to automatically lift and guide said hook to said locking aperture, and the surface of the said vertical aperture engaging the hook being somewhat inclined to cause the upper part thereof to protrude and the contacting surface of the nose of the hook being correspondingly fomed, for the purpose specified, and means for lifting said hook to disengage the knuckle arm again. 3rd. In combination, a draw-head, as *a*, provided with a recess, and a knuckle pivoted to said draw-head and having an arm entering said recess of the draw-head, a hook in the end of the arm, and a vertical aperture for the hook to drop into and lock the knuckle upon the arm thereof having entered said recess, there being an inclined approach in the floor of the said recess to automatically lift and guide said hook to said locking aperture, a jog as *h* in the right wall of such aperture for the nose of the hook to rest in, and the vertical surface *h* of such jog being slightly inclined to cause the upper part thereof to protrude and the contacting surface of the nose of the hook being correspondingly formed, for the purpose specified, and means for lifting said hook to disengage the knuckle arm again.

No. 62,513. Machine for Applying Jackets to Projectiles. (*Machine pour appliquer des enveloppes aux projectiles.*)

Myron Clark Lisle, Grand Rapids, Michigan, U.S.A., 2nd February, 1899; 6 years. (Filed 9th December, 1898.)

Claim—1st. The combination of an inclined tube having a substantially horizontal end, downward lateral extension at the lower end of said tube and having its axis parallel to the axis of said lower end, a rotative and longitudinally movable spindle in the axis of said extension and having its end traversing the same, a rotative socket in line with the axis of said spindle end mechanism to operate said said spindle, substantially as described. 2nd. The combination of an inclined tube having substantially horizontal lower end and an opening in its side between said end and the inclined portion, a pivoted lever extending through said opening and within said tube, a lateral extension below the lower end of said tube and having its axis in line therewith, a rotative spindle traversing said extension and in the axis thereof, a rotative socket in line with said spindle, and means for operating said spindle and lever, substantially as described. 3rd. The combination of a driving shaft, a spindle longitudinally movable on said shaft and rotative therewith, a bell crank connected to said spindle to reciprocate the same, a spring engaging said bell crank, a crank pin on the driving shaft, a notched wheel moved by said crank pin, and a stud on said wheel to operate said bell crank, substantially as described. 4th. The combination of a driving shaft having a crank pin and longitudinal slot, a hollow spindle having a pin passing through said slot and a reduced and curbed end, a rotative socket opposite spindle, collars on said spindle, a ring rotative between said collars, a yoke pivoted to said ring, a bell crank having an arm connected to said yoke, a spring and pivoted lever engaging the other arm of said bell crank a notched wheel operated by the crank pin and having a stud engaging and operating the pivoted lever, substantially as described. 5th. The combination of an inclined tube having a lateral extension and an



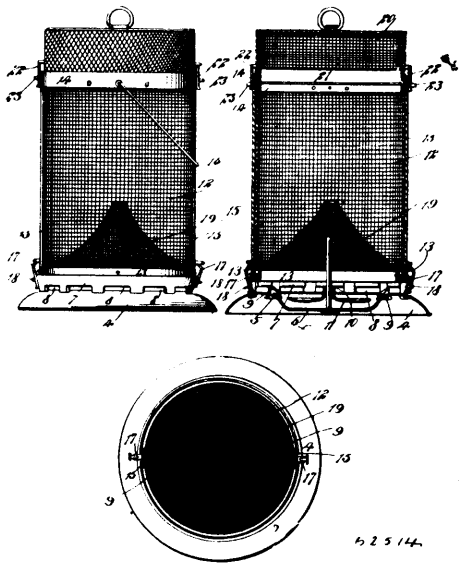
opening, a pivoted lever having one end in said opening, a shaft having a crank pin and a longitudinal slot, a hollow spindle having a reduced and cupped end and collars, and a pin traversing said slot, a ring rotative between said collars, a yoke pivoted to said ring, a bell crank lever, a telescopic extension attached to said yoke a spring and pivoted lever engaging said bell crank lever, an inclined end on said pivoted lever, a notched wheel intermittently rotated by the crank pin, a stud on said wheel engaging said inclined end of the lever, a spring stop engaging said notched wheel, and a rotative socket opposite the end of the spindle, substantially as described. 6th. The combination with a rotative socket and a hollow rotative spindle having a cupped and corrugated end and a transverse pin, of a driving shaft within said spindle having a longitudinal slot terminating in opposite lateral extensions having inclined sides to engage said pin, whereby said spindle is both rotated and pressed toward the socket by the rotation of the spindle, substantially as described. 7th. In combination with means for rotating a projectile and a reciprocating carriage having a twine feeding beak, a hammer having a cupped end to strike the projectile and secure the twine in a groove in the same, and means of operating said hammer, substantially as described. 8th. In combination with means for rotating a projectile, and a reciprocating carriage having a twine feeding beak, a spring actuated hammer to strike the projectile and secure the end of the twine thereto, a lug and shoulder on said hammer, a dog engaging said shoulder, a hook on the carriage engaging said lug and a projection to engage the dog, substantially as described. 9th. In combination with means for rotating a projectile and a reciprocating carriage having a twine feeding beak, a hammer having a cupped end and striking the projectile at the rear to secure the twins, and a hammer having a cutting tool to sever the twine and a chisel face to secure the end thereof and striking the projectile near the forward end, and mechanism to operate said hammers, substantially as described 10th. In combination with means for rotating a projectile and a reciprocating carriage having a twine feeding beak, a spring actuated hammer having a cutting tool to sever the twine and a chisel face to secure the same, a lug on said hammer, and a triangular plate on said carriage engaging said lug, substantially as described. 11th. In combination with means for rotating a projectile, a reciprocating carriage having a twine feeding beak, a trimming plate and a hook having a lateral projection, a hammer having a cupped end, a shoulder, a lug, and a dog engaging said shoulder, a hammer having a cutting tool and chisel face, and a lug engaged by the triangular plate, substantially as described. 12th. In combination with means for rotating a projectile, a reciprocating carriage, a twine feeding beak, a hammer having a shoulder and a lug, a dog engaging said shoulder, a hook on the carriage engaging the lug and having a projection engaging the dog, a second hammer having a lug, and a triangular plate on the carriage engaging said lug, substantially as described. 13th. The combination of a rotative spindle, having a corrugated and cupped end, a rotative socket, a reciprocating carriage, a twine feeding beak on said carriage, a spring-actuated hammer for securing the twine to the projectile, and a second hammer for securing and cutting said twine, and means for operating said hammers, substantially as described. 14th. In combination with means for rotating a projectile and winding and securing twine thereon, a carriage and a thread cutting tool attached to said carriage to form a spiral groove in said projectile to receive the twine, substantially as described. 15th. In

combination with means for rotating a projectile, and mechanism for winding and securing twine upon the same, a carriage operating said mechanism, a thread cutting tool movable on said carriage, a spring engaging said tool, a lever engaging the same, and an adjustable stop to engage said lever, substantially as described. 16th. In combination with means for rotating a projectile and securing the ends of twine thereto, and means for severing said twine, a twine feeding beak movably mounted on a carriage and moving oppositely to said carriage during the first revolution of the projectile, substantially as described. 17th. In combination with means for rotating a projectile and securing the ends of twine thereto, and means for severing said twine, a reciprocating carriage, a twine feeding beak pivotally mounted on said carriage, and a spring to turn said beak on its pivot during the first revolution of the projectile, whereby the twine is laid in a groove around the projectile, substantially as described. 18th. In combination with a longitudinally movable spindle having a cupped and corrugated end, and a rotative socket, a carriage, a twine feeding bank pivotally mounted on said carriage, a thread cutting tool movable on said carriage, a spring and lever to move said tool, a spring actuated hammer having a cupped end, a lug, a shoulder and a stop, a pivoted dog to engage said shoulder, a hook on the carriage engaging the lug and having a projection engaging the dog, a second spring actuated hammer having a cutting tool, a chisel end, a lug, and a stop, and a triangular plate on the carriage engaging said lug, substantially as described. 19th. In combination with mechanism for winding twine upon a projectile, a guide arm having a divided and pivoted end, a spring pressing the parts of said end against the opposite sides of the same, and a hook on said arm to retain the twine, substantially as described. 20th. In combination with means for rotating a projectile, and securing the ends of the twine thereto and severing the same, a movable feeding beak, a spool, oiling mechanism, and a divided guide having one side pivoted, a spring pressing the pivoted side against the twine, and a hook on the fixed side to retain the twine, substantially as described. 21st. In combination with a reciprocating carriage, a half-nut on said carriage, a rotative shaft having a thread engaging said nut, a spring to move said carriage, a pivoted arm engaging said carriage and disengaging the nut from the thread, and means for periodically engaging said arm with the carriage, substantially as described. 22nd. In combination with a reciprocating carriage having a half-nut, a spring to move said carriage one way, a screw-threaded shaft to move said carriage the other way, an arm to lift the carriage out of engagement with the shaft and to form a track for the carriage to run back on, a lug on said arm, and a reciprocating rod having an inclined flange attached to engage said lug, substantially as described. 23rd. In combination with a reciprocating carriage and a spring and screw-threaded shaft to oppositely move the same, a pivoted arm to lift the carriage out of engagement with the shaft, a lug on said arm, a latch having notches to engage the arm and hold the same, a reciprocating rod, a plate pivoted in a slot in said rod and having lugs to limit the movement of said slot, an inclined flange on said plate to engage the lug on the arm, and a spring engaging said plate, substantially as described. 24th. In combination with a reciprocating carriage, a half-nut, a spring and a screw-threaded shaft to move said carriage, a spring to hold the nut in engagement with the shaft, a pivoted arm to disengage the same and provide a track for the carriers, a notched latch engaging the movable end of the arm and engaging and released by the carriage, a lug on the arm, a reciprocating rod having a slot, a plate pivoted in the slot and having lugs to limit the movement, a spring engaging said plate and an inclined flange on the plate engaging the lug on the arm when moved in one direction, and running over the lug when moved in the other direction, substantially as described. 25th. In combination with a reciprocating carriage and a reciprocating spindle, a driving-shaft connected to the spindle, a crank-pin on said shaft, a notched wheel engaged by said pin, a stud on said wheel, a bell-crank lever operated by said stud and connected to said spindle to reciprocate the same, a rod pivoted at one end to said lever, an inclined flange attached to said rod, an arm moved by said flange and engaging the carriage, a latch to hold said arm and released by the carriage, a counter-shaft geared to the driving-shaft and having screw-threads engaging a half-nut on the carriage, and a spring to return the carriage, substantially as described. 26th. The combination of an inclined tube having a lateral extension, a longitudinally movable spindle traversing said extension, a driving-shaft connected to said spindle, a bell-crank lever attached to the spindle, a wheel having a stud to operate said lever and rotated by the driving-shaft, a reciprocating carriage, a spring to move said carriage, a screw-threaded shaft engaging a half-nut on said carriage and geared to the driving-shaft, a rod connected to the bell-crank lever and having attached flange and a pivoted arm operated by said flange to raise the carriage out of engagement with the shaft, a twine feeding beak on the carriage, spring actuated hammers to secure and sever the twine, and means for operating said hammers connected to said carriage, substantially as described.

No. 62,514. Fly Trap. *(Globe-mouche.)*

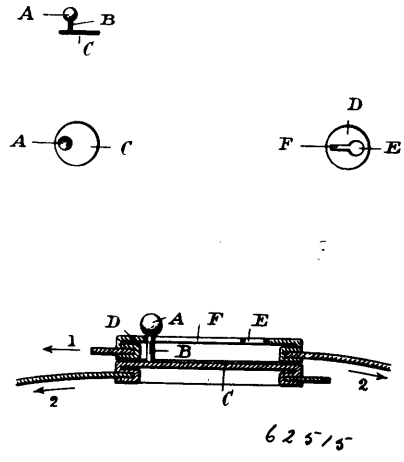
William Engelbrecht, Ash Grove, Illinois, U.S.A., 2nd February, 1899; 6 years. (Filed 21st November, 1898.)

Claim.—1st. A fly trap, having a base with a central orifice therein, a pan seated in said orifice and adapted to contain the bait, a post standing centrally on the pan, a float movable vertically on the post and adapted to be sustained by the liquid bait within the pan,



an annulus bearing on the base and surrounding the pan and having orifices for the admission of the flies, a cage seated on the annulus, and a funnel within the cage, the funnel overhanging the bait pan and opening into the cage. 2nd. A fly trap, having a base with an orifice in the center thereof, a bait pan seated in the orifice, a post standing on the bait pan, a float having vertical movement on the post, an annulus seated on the base, and a cage bearing on the annulus and located over the bait pan. 3rd. A fly trap, having a receptacle for liquid bait, a post standing in said receptacle, and a float movable vertically on the post and capable of being sustained on the bait in said receptacle. 4th. A fly trap, having a base provided with a receptacle for liquid bait, a cage supported on the base, and a float adapted to be sustained on said liquid bait to afford a resting place for the flies.

No. 62,515. Garment Fastener. *(Attache de vêtement.)*



Eugéne Berthoin, Rue Lesdguieres, Grenoble, Isére France, 2nd ruary, 1899; 6 years. (Filed 17th January, 1899.)

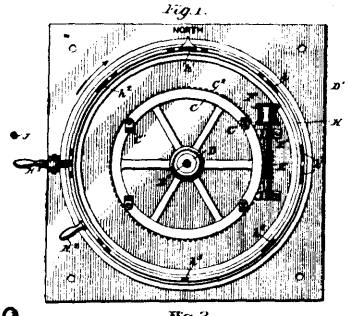
Claim.—1st. A clasp stud or button operating by tension and comprising a head the stem of which is mounted eccentricly upon its foot or base. 2nd. A clasp stud or button operating by tension and comprising a part provided with an aperture or recess and terminating in a groove or slideway. 3rd. A clasp stud or button, the means of fastening which is supplied by the combination of one part comprising the head and stem of the stud, with another part having a recess and a slideway, all substantially as described and illustrated in the drawings.

No. 62,516. Signalling Method and Apparatus.
(Méthode et appareil de signalement.)

Robert Frederick Foster, New York City, New York, U.S.A., 2nd February, 1899; 6 years. (Filed 17th October, 1898.)

Claim.—1st. The method substantially as hereinbefore set forth of signalling to indicate the direction from and to which a signal is sent,

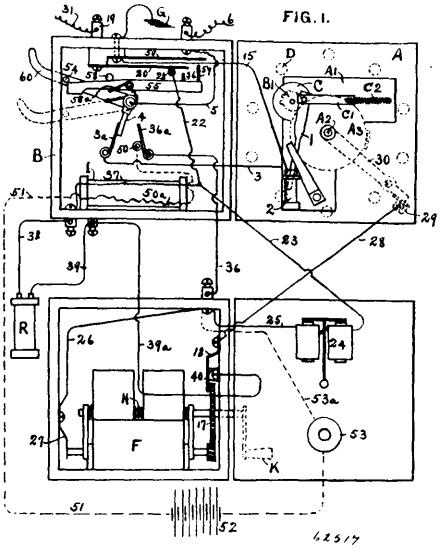
which consists in projecting concentrated sound waves in various predetermined directions and in varying the character of the signals in accordance with the various points of the compass, whereby the observer within the range of any of the sounds can determine the direction of the source of said signals. 2nd. In a signalling device the combination with a sound-director adapted to project concentrated sound waves in various given directions, of means for varying the sounds in accordance with the direction from and to which they are sent, substantially as described. 3rd. In a signalling device, the combination with a sound-director, adapted to project concentrated sound waves in various given directions, of means for varying the sounds in accordance with the direction from and to which they are sent, and devices for adjusting said means with relation to the points of the compass, substantially as described. 4th. In a signalling device, the combination with a sound-director adapted to project concentrated sound waves in various given directions, of means for varying the sounds in accordance with the direction from and to which they are sent, and an auxiliary signal arranged to be operated by the sound-director and adapted to indicate the course of the moving object, substantially as described. 5th. In a signalling device, the combination with a rotating sound-director, of means for varying the sounds in accordance with the direction from and to which they are sent, substantially as described. 6th. In a signalling device, the combination with a rotating sound-director, of means for rotating the same, and adjustable means for varying the sounds in accordance with the direction from and to which they are sent, substantially as described. 7th. In a combined signalling device, the combination with a rotating sound-director, of means for varying the sound in accordance with the direction from and to which they are sent, an auxiliary signalling device, and means controlled by the sound-director, for operating the auxiliary signalling device, substantially as described. 8th. In a signalling device, the combination with a sound-director, of a sounder located in operative relation therewith means for rotating the sound and sound-director, and means for operating the sounder to produce varying signals in accordance with the position of the sound-director, substantially as described. 9th. In a signalling device, the combination with a sound-director, of a sounder located therein, a rotating support for the sounder and sound-director, a pipe connected to the sounder, a valve device located in said pipe, and means for operating said valve device, substantially as described. 10th. In a signalling device, the combination with a sound-director, of a sounder located therein, a rotating support for the sounder and sound director, a pipe connected to the sounder and extending through the pivot of the rotating support, a valve device controlling the sounder, and means for controlling the valve, substantially as described. 11th. In a signalling device, the combination with a sound-director, of a sounder located therein, a rotating support for the sounder and sound-director, a pipe connected to said sounder, a valve advice in said pipe, and a ring for operating said valve, substantially as described. 12th. In a signalling device, the combination with a sound-director, of a sounder located therein, a rotating support for the sounder, and a sound-director, a pipe connected to said sounder, a valve device in said pipe, and means for operating the rotating support continuously, a ring for operating the valve device, and means for adjusting the ring, substantially as described.



No. 62,517. Telephone Exchange. (*Echange de téléphone.*)

Frank A. Lundquist, Chicago, Illinois, U.S.A., 2nd February, 1899; 6 years. (Filed 27th October, 1898.)

Claim.—1st. A contact closing device consisting of a crank, a pitman connected thereto, an electrical connection with which said pitman makes a contact once during each revolution of said crank, a device connected to said crank and adapted to draw it to and hold it in position where said pitman will not be in electrical contact, and connections between said crank and a crank arm for permitting said first-mentioned crank to be turned by hand. 2nd. In a circuit closing device, a crank, a pitman connected thereto, a mercury receptacle into which said pitman is thrust by said crank, means for causing said crank to stop at a fixed position, and connections for permitting said crank to be rotated. 3rd. In combination with a circuit closing device consisting of a crank, a pitman, and a mercury receptacle into which said pitman is thrust by said crank, a hand lever and connections between said hand lever and said crank for giving said crank a rapid revolution. 4th. In combination with a telephone, a mercury receptacle, a pitman adapted to be thrust into said receptacle by a crank, a crank for so thrusting it, devices for turning said crank by hand, a bell ringing device located at a distant telephone, and connections from said receptacle and said pitman to said bell ringing device. 5th. A receiver hook provided with a pin, a flexible lever adjacent thereto and provided with a curved or inclined part for permitting said pin to pass said lever when moving in one direction by bending it but to engage and move said lever when moving in the other direction, and means for disengaging said lever from said pin when moved a required distance. 6th. A circuit closing device consisting of a mercury receptacle and a pitman adapted to be thrust therein, a crank arm adapted to be rotated about a pivot and provided with connections for operating said circuit closing device, a stop in the path of said crank arm at its normal position and against which it is normally held, and electrical connections whereby a circuit may be completed from the support for said crank arm through said mercury receptacle when said arm is being rotated and from said support through said stop when said arm is in its normal position. 7th. A circuit closing device operated by the rotations of an arm about its pivot, a stop in the path of said arm against which it is normally and automatically held, a bell ringing generator, a pointer located at a distant station and adapted to be rotated about a pivot, a magnet for moving said pointer into successive contact with a series of insulated points, electrical connections from said contact closing device to said magnet, a separate connection from said stop through said generator to said pointer, and a series of connections from said insulated points to a series of telephones. 8th. A ratchet-wheel mounted upon a spindle, devices for turning said wheel step by step, means for connecting and disconnecting said wheel and spindle, a spring for returning said spindle to normal position when released, a pointer carried by said spindle, a series of insulated contact points in the path of said pointer, connections from a telephone to said pointer, and means for controlling the movement of said pointer from said telephone. 9th. A ratchet-wheel loosely mounted on a spindle, a magnet and pawl for turning said wheel step by step, means for connecting and disconnecting said wheel and spindle, a spring for returning said spindle to a normal position when released from said wheel, a pointer carried by said spindle, a series of insulated contact points over which said pointer sweeps and into electrical contact with which it comes, connections from a telephone to said magnet and to one of said contact points, connections from each of the other contact points to a different telephone, and means for enabling the subscriber at the first mentioned telephone to operate said magnet so as to move the said pointer into electrical connections with any one of said other telephones. 10th. A ratchet-wheel loosely mounted on a spindle, spur ratchet teeth on said wheel by which it receives and crown ratchet teeth by which it transmits motion, a magnet and connec-



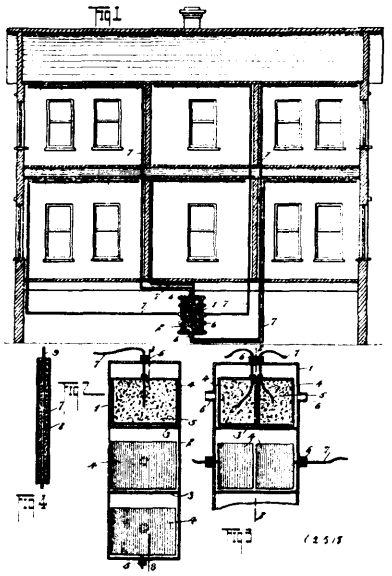
tions for turning said wheel, a stationery pawl for holding it, an arm secured to said spindle and provided with a lug for engaging said crown teeth, a second magnet and connections for raising said arm to release it from said wheel, a spring for returning it to normal position when so released, and a second spring for returning it to engagement with said wheel when returned to normal position. 11th. A ratchet wheel, a magnet and device for causing it to turn in one direction only, an arm mounted on the axis of said wheel and arranged to turn in two directions, means for engaging said arm to and disengaging it from said wheel, a series of contact points connections to which are closed in succession when said arm is rotated by said wheel, and means for controlling said operations from a distant telephone. 12th. A circuit closing device and a stop for holding it open, a bell ringing generator, a pointer and a series of insulated points, a magnet for moving said pointer into successive contact with said points, connections from the circuit closing device to said magnet, separate connections from said stop through said generator to said pointer, and a series of connections from said insulated points to a series of telephones. 13th. An arm movable about a pivot, a circuit closing device, connections between said arm and said circuit closing device for operating the latter rapidly by the movement of the former, a series of fixed points in the path of said arm, each one representing a position in which said circuit closing device is open, a spring, the tension of which is exerted to stop said arm at said points, a second circuit closing device closed by said arm when stopped at its normal position, connections from the first mentioned circuit closing device to mechanism for making electrical connections between a given telephone and any one of a series of other telephones, and connections from the second circuit closing device to the calling mechanism of the selected telephone. 14th. A ratchet-wheel loosely mounted on a spindle, spur teeth on said wheel by which it receives and crown teeth by which it transmits motion, means for turning said wheel in one direction only, means for engaging said spindle to and disengaging it from said wheel, a spring for returning said spindle to a normal position when disengaged from said wheel, and means for controlling said operations from a distance. 15th. A series of contact points, a pointer adapted to be moved into successive contact with said points, a ratchet-wheel connected to said pointer, devices for turning said wheel in one direction and preventing its turning in an opposite direction, means for disengaging said pointer from said wheel, a spring for moving said pointer in an opposite direction when disengaged, and a stop for said pointer at its normal position. 16th. A flexible and resilient arm adapted to be rotated about a pivot and to operate a circuit closing device a successive number of times during each revolution, a stop, against which said arm rests when in normal position, an opening in said stop for permitting said arm to pass when depressed, and electrical connections from said stop and also from the support of said arm, whereby said arm and stop form part of an electrical circuit when said arm is in normal position. 17th. A circuit closer, an arm for operating it, a spring for stopping said arm at positions that will leave said circuit closer open, a second circuit closer closed by said arm when stopped at its normal position, a pointer and a series of insulated contact points, connections from each contact point to a different telephone, a magnet for moving said pointer into successive contact with said points, and connections from the first circuit closer to said magnet and from the second circuit closer to said pointer. 18th. A circuit closing device, an arm for operating it, a second circuit closed by said arm when in its normal position, a third circuit closer operated by the receiver hook of a telephone, a bell ringing generator, a pointer and a series of insulated contact points, a magnet for moving said pointer into successive contact with said points, connections from each point to a different telephone, connections from the first circuit closer and through the third to said magnet, and separate connections from the second circuit closer through said generator to said pointer. 19th. A circuit closing device consisting of a crank having a pitman adapted to be thrust into a cup of mercury once during each revolution of said crank, a spring arranged to hold said pitman normally from contact with said mercury, a revolvable arm and connections for giving said crank a number of revolutions for each revolution of said arm, and indicating marks in the path of said arm for showing the number of times that said circuit closing device is operated. 20th. A circuit closer operated by the rotation of an arm about its pivot, a second circuit closer closed by said arm when at its normal position, a selecting device for making connections from a pointer to any one of a series of telephone connections from the first mentioned circuit closer to the selecting device, a separate connection from the second circuit closer through a telephone receiver to said pointer and thence to the selected telephone, a bell ringing generator, a crank for turning it, and means connected therewith for breaking connection through the receiver and completing it through said generator. 21st. A series of telephones connected to a series of contact points, a pointer adapted to be moved by successive steps into electrical connection with said contact points, a magnet for moving it, connections from said magnet to a circuit closing device operated by the receiver hook of a telephone, means whereby said circuit closing device will be open when said hook is depressed and closed when elevated, connections from said circuit closing device to a second circuit closer for completing a circuit through said magnet when the first mentioned circuit closing device is closed, an arm for operating said second circuit closer and adapted to be moved by a hand over the face of a dial, and distinguishing marks on the face of the dial for indicating the number of times said second circuit closer has completed a circuit through the magnet for moving said pointer. 22nd. A series of electrical contact points, a pointer adapted to be moved into successive contact with said points, a magnet and connections for moving said pointer by successive steps from one point to the next, a spring for returning said pointer to normal position when released from its propelling mechanism, a second magnet and connections for causing such release, a circuit closing device operated by a crank for making connections to said first mentioned magnet, an arm and connections for turning said crank, indicating points in the path of said arm for showing the number of times said circuit closing device is operated, a telephone receiver and a hook for supporting it, a lever adjacent to said hook and arranged to be moved and released by the descent of said hook, and means whereby the movement of said lever will close the circuit through said second magnet and cause the release of said pointer from its propelling and holding mechanism. 23rd. In combination with a switching mechanism provided with propelling and releasing devices, connections from each device to a telephone, a circuit closer located in the connection to one device and operated by the other device, contact terminals on each connection at the telephone, a second circuit closer adapted to make simultaneous contact with both terminals, a receiver hook, and means for operating said second circuit closer by the movement of said hook. 24th. A ratchet-wheel, devices for moving it intermittently in one direction and preventing its return, a pointer carried by said wheel, means for releasing said pointer from said wheel and returning it to normal position when so released, a series of insulated contact points in the path of said pointer, connections from a telephone to one of said contact points and to said propelling and releasing mechanisms, connections from each of the other contact points to a different telephone, and means for enabling the subscriber at the first-mentioned telephone to operate the propelling and releasing devices to move said pointer into connection with any one of said telephones and to return it to normal position. 25th. A propelling mechanism arranged to turn in one direction, devices for preventing it from turning in an opposite direction, a pointer, means for connecting said pointer to and releasing it from said propelling mechanism, a spring for returning it to normal position when released, connections from the propelling and releasing mechanisms to a telephone, a circuit closing device located at said telephone and operated by hand for controlling said propelling mechanism, and a second circuit closing device operated by the weight of a telephone receiver for controlling said releasing mechanism. 26th. A pointer and an electrically operated propelling mechanism therefor, a magnet for releasing said pointer from its propelling mechanism, separate connections from said magnet and said propelling mechanism to a telephone, a circuit closer located in the line to said magnet and operated by said propelling mechanism, a second circuit closer adapted to make simultaneous contacts with each of said connections, a movable receiver hook, and means for operating said second circuit closer by the movement of said hook. 27th. A magnet, a ratchet-wheel and a circuit closer operated by said magnet, a pointer carried by said wheel, a second magnet for releasing said pointer from said wheel and provided with connections to said circuit closer, separate connections from said first mentioned magnet and from said circuit closer to a telephone, and means operated by the weight of a receiver for sending simultaneous electrical impulses over each of the connections to said telephone. 28th. A ratchet-wheel, a magnet and pawl for turning it, a second pawl for holding it, a pointer adapted to engage and be turned by said ratchet-wheel, a second magnet for releasing such engagement, a spring for returning said pointer to normal position when so released, connections from each magnet to a telephone, a circuit closer located in the connection to one magnet, said circuit closer being normally open but closed by the movement of the other magnet, a second circuit closer located at the telephone and adapted to make simultaneous electrical contact to both connections, a movable receiver hook, and means for operating said second circuit closer by the movement of said hook. 29th. A pointer and a ratchet-wheel for moving it, a magnet for turning said wheel, a second magnet for releasing said pointer from said wheel, connections from each of said magnets to a telephone, a circuit closer operated by a crank for sending a current through the propelling magnet, and separate circuit closer operated by the weight of a receiver for sending simultaneous currents through both magnets.

No. 62,518. Fire Alarm. (*Avertisseur d'incendie.*)

Joseph Casavello, Cumberland, British Columbia, 2nd February, 1899; 6 years. (Filed 21st November, 1898.)

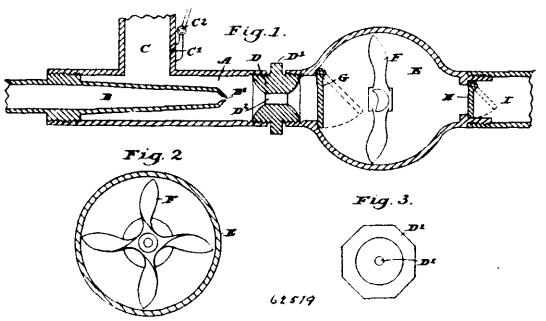
Claim.—1st. A fire alarm, comprising a casing having an open-work wall, a series of canisters in the casing, fireworks composition in the canisters, and a fuse leading into each canister, substantially as specified. 2nd. A fire alarm, for a building, comprising a casing having openings or spouts, partitions dividing the casing into compartments, a canister in each compartment, fireworks composition in each canister, and a fuse leading through the openings or spouts, and into the fireworks composition, substantially as specified. 3rd

A fuse consisting of a waterproof tube, an explosive powder therein and a soft wire within and extended throughout the entire length of



the tube whereby the fuse may be bent and at the same time supported by the wire, substantially as specified.

No. 62,519. Vacuum Producing Machine.
(*Machine pour produire un vacuum.*)



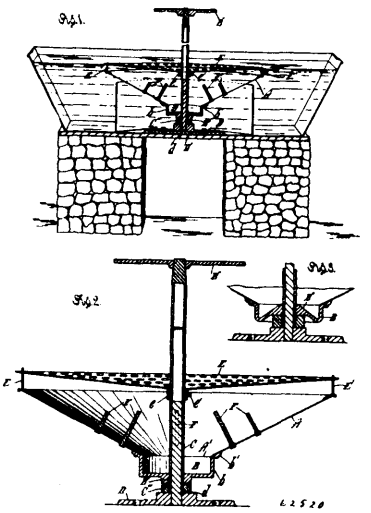
Marc Fink, Argyle Street, St. Kilda, Victoria, British Columbia, Canada, 2nd February, 1899; 6 years. (Filed 13th August, 1898.)

Claim.—As an apparatus for exhausting air and creating a practically complete or perfect vacuum, the combination of a vacuum tube such as A, an injector such as B with outlet bore such as B^1, and air-exhaust pipe such as C, with safety-puncture valve pipe as C^1, C^2, a connecting nut such as D, with centre-bore or duct such as D^2, with cone-shaped sides such as D^3, a bulb-shaped water-cushion such as E, with revolving beaters or mixers such as F^1, and swinging-disc-shaped clacks such as G and H, and outlet or discharge pipe such as I fitted together as a complete apparatus for connection to and operation by water or steam supply applied and working, substantially as before described and illustrated in accompanying drawings.

No. 62,520. Gold Saving Appliance.
(*Appareil à ramasser l'or.*)

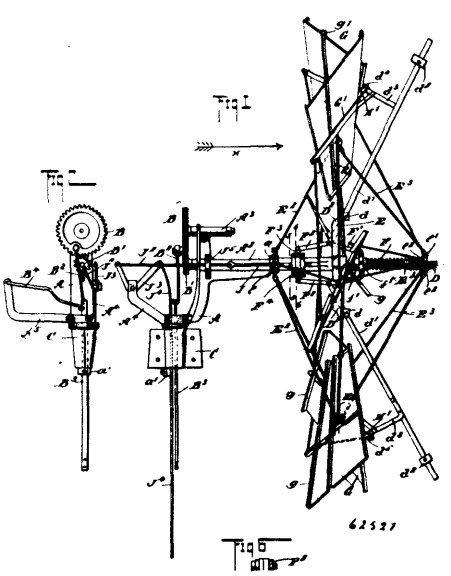
Thomas J. Burke, Los Angeles, California, U.S.A., 2nd February, 1899; 6 years. (Filed 5th April, 1898.)

Claim.—1st. A gold-saving appliance comprising a dish-shaped receptacle provided at its centre with a cup, a centrally arranged stem projecting upward from the receptacle, and suitable means for journalling the receptacle to rotate in a horizontal plane. 2nd. A gold-saving appliance comprising a receptacle having a downwardly and inwardly sloping sides terminating at the centre in a cup, a socket arranged in the centre of the cup, a stem or standard adapted to be secured in the socket and provided with a journal-opening, and a base provided with a projecting journal-pin to seat in the socket and to journal the receptacle to rotate in a horizontal plane. 3rd. A gold-saving appliance comprising a dish-shaped receptacle provided at its receptacle provided at its centre with a cup, a centrally arranged stem projecting upwardly from the receptacle and provided in its bottom with a journal-opening, a support provided with a journal-pin to seat in the socket, a grizzly arranged



upon the stem above the receptacle to screen the material delivered thereupon, and means for rotating the receptacle in a horizontal plane. 4th. A gold-saving appliance comprising a tank for containing water and adapted to be heated by a furnace, a dish-shaped receptacle provided with a centrally arranged stem and adapted to be journalled in the tank to rotate in a horizontal plane, and means for rotating the receptacle. 5th. A gold-saving appliance comprising a cast or pressed metal cup having a flaring lip, a conical sheet metal basin or receptacle having its inner edge secured to the lip of the cup, a screw-threaded socket provided in the bottom of the cup, a standard provided on one end with screw-threads to screw into such socket and having in such end an axially arranged journal-pin-socket, a suitable support provided with a journal-pin arranged to enter the journal-pin-socket and to journal the pan to rotate in a horizontal plane, and means for rotating the receptacle. 6th. A gold-saving appliance comprising a dish or basin shaped receptacle provided at its centre with a cup having an upwardly projecting conical bottom a centrally arranged stem projecting upwardly from the receptacle, and means journalling the receptacle to rotate in a horizontal plane.

No. 62,521. Wind Mill. (*Moulin à vent.*)



Ored Olsson, Ord, Nebraska, U.S.A., 2nd February, 1899; 6 years. (Filed 31st October, 1898.)

Claim.—1st. A wind-mill, having vanes adjustable at an angle to the direction of the wind, governor arms pivoted upon and revolving

with the mill, a coiled spring surrounding the main shaft of the mill and connected with the governor arms, and connections from the governor arms to the adjustable vanes, substantially as described. 2nd. A wind-mill, having vanes mounted on radial pivots so as to be adjustable at an angle to the direction of the wind, links connecting the vanes to turn them all together, governor arms pivoted upon and revolving with the mill, a coiled spring surrounding the wheel shaft and connected with the governor arms, and connections from the governor arms to the adjustable vanes, substantially as shown and described. 3rd. A wind-mill, having vanes adjustable at an angle to the direction of the wind, governor arms pivoted upon and revolving with the mill, a coiled spring surrounding the main shaft of the mill and connected with the governor arms, connections from the governor arms to the adjustable vanes, and a buffer engaged by the governor when the wheel slows down, substantially as described. 4th. A wind-mill, having spokes and vanes mounted to turn on the spokes, connections between the vanes to turn them all together, links connecting the spokes, governor arms pivoted upon and turning with the mill, and limiting hooks upon the governor arms, adapted to engage the links when the vanes are in one limiting position, substantially as described. 5th. In a wind-mill, a frame or standard having a horizontal arm provided with a shaft bearing extending lengthwise of the same, a wheel shaft within said bearing, a wheel mounted on the shaft, a collar journalled outside the horizontal arm of the frame and held against longitudinal movement thereon, and a guy extending from said collar to the wheel arms, substantially as described. 6th. A wind-mill vane, consisting of a plate having its side edges flanged and a radial flange or hollow rib intermediate said edges, and a transversely extending bar secured to the plate and having a loop formed therein and constituting a bearing, substantially as described. 7th. A wind-mill, having radial spokes and vanes, each consisting of a plate having a transversely extending bar secured thereto, and having a loop formed therein and adapted to encircle a spoke to form a pivot bearing for the vane, substantially as described. 8th. A wind-mill, having radial spokes and vanes, the latter each consisting of a plate having a transversely extending bar secured thereto, and having a loop formed therein adapted to encircle a spoke to form a pivot bearing for the vane, said plates having holes through which loops extend, substantially as described. 9th. A wind mill, having radial spokes, a vanes each consisting of a plate pivoted upon a spoke and having a transversely extending bar, and a truss bar secured upon one side of the plate, the truss bar bowing outward to pass over the pivot bearings between the spokes and plates, substantially as described. 10th. A wind mill, comprising a wheel having a main shaft, spokes, vanes pivoted upon the spokes, a governor comprising arms pivoted upon the wheel frame and connected with the vanes to control their angle, a coiled spring surrounding the shaft, a collar upon the shaft and engaging one end of the spring, and links connected to the collar and governor arms, substantially as described. 11th. A wind mill, comprising a wheel having a shaft, spokes, vanes pivoted upon the spokes, a governor comprising arms pivoted upon the wheel frame and connected with the vanes to control their angle, a frame having a horizontally extending sleeve receiving the shaft, said sleeve having an external longitudinally extending groove, a ring turning upon the sleeve and held against sliding thereon, guys or braces extending from the ring to the wheel frame, a collar slidable upon the sleeve, links connecting the collar with the governor arms, a bar lying in the groove in the sleeve and passing through the ring and engaging the collar, and connections to said bar from the ground, whereby the bar and the collar may be slid upon the sleeve to shift the governor and vanes, substantially as described. 12th. A wind mill, comprising a wheel having a shaft, spokes, vanes pivoted upon the spokes, a goveroor comprising arms pivoted upon the mill frame and connected with the vanes to control their angle, a coiled spring surrounding the shaft, a collar upon the shaft and engaging one end of the spring, links connecting the collar and the governor arms, a frame having a longitudinally extending sleeve receiving the shaft, a collar slidable upon the sleeve, links connecting the collar with the governor arms, and means operative from the ground for sliding the latter collar upon the sleeve, substantially as described. 13th. A wind mill, comprising a wheel having a shaft, spokes, vanes pivoted upon the spokes, a governor comprising arms pivoted upon the wheel frame and connected with the vanes to control their angle, a coiled spring surrounding the shaft, a collar upon the shaft and engaging one end of the spring, links collecting the collar and the governor arms, a frame having a horizontally extending sleeve receiving the shaft, said sleeve having an external longitudinally extending groove, a ring turning upon the sleeve and held against sliding thereon, guys or braces extending from the ring to the wheel frame, a collar slidable upon the sleeve, links connecting said collar with the governor arms, a bar lying in the groove in the sleeve and within the ring and engaging the collar, and connections from the ground to said bar whereby it and the collar may be slid upon the sleeve to shift the governor and vane, substantially as described.

No. 62,522. Hay Pressing and Baling Machine.

(*Machine à mettre le foin en ballot.*)

William Turner Younger, Austin, Texas, U.S.A., 2nd February, 1899; 6 years. (Filed 18th January, 1899.)

Claim.—1st. In a press, the combination with the main body, provided with the guiding slots, of the movable racks outside of

Fig. 1.

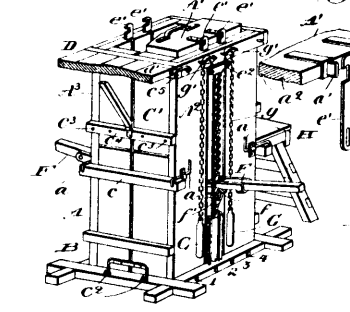


Fig. 3.

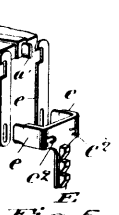


Fig. 5.

Fig. 2.

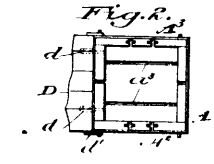
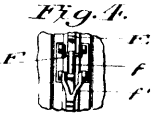


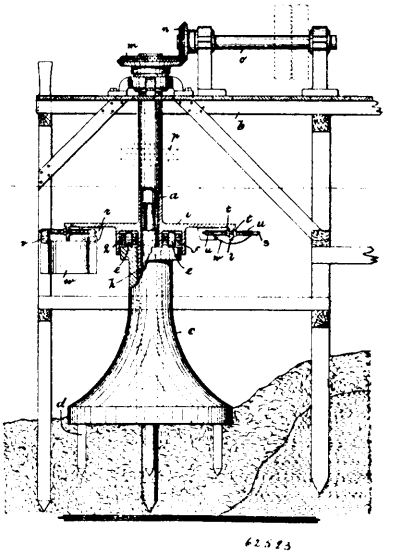
Fig. 4.



62522

the main body and having parts engaging said slots, the follower having arms also engaging said slots, devices connecting the racks and the follower arms, and the actuating levers, substantially as described. 2nd. In a press, the combination with the main body or casing, having the guiding slots in its sides and the grooves extending at right angles to said slots, of the movable racks having arms engaging said slots, the follower hooks engaging the rack arms and adapted to slide in the grooves in said slots, the follower having arms for engaging said hooks and slots, and the actuating levers for said racks, substantially as described. 3rd. In a press, the combination with the main body of the ratchet rack having the inwardly extending arms, the follower hooks detachably engaging the said arms, and the follower having the arms detachably engaging said hooks, substantially as described.

No. 62,523. Water-Wheel. (*Roue d'eau.*)



62523

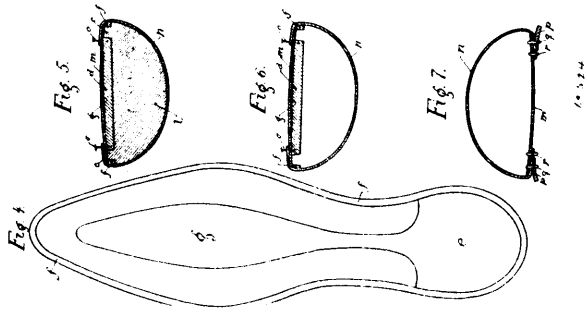
Frederick Jacob, Newark, New Jersey, U.S.A., 2nd February, 1899; 6 years. (Filed 3rd March, 1898.)

Claim.—1st. A water-wheel, comprising a vertically arranged shaft, a horizontal disc revolubly mounted on said shaft and provided at or near its outer edge with a series of downwardly extending lugs or projections, a horizontal radially arranged pin or axle penetrating each lug, a blade or float loosely mounted on each pin or axle and having its central portion outwardly curved or bent, and bearing with its upper edge, when in normal position, against

the under side of its respective lug or projection, and a power transmitting wheel-carrying tube or hub connected with the disc, substantially as and for the purposes described. 2nd. A water-wheel, comprising a vertical shaft, a pillar surrounding the lower portion of said shaft, a horizontal disc revolubly mounted on said shaft and provided at or near its outer edge with a series of downwardly extending lugs or projections, a series of anti-friction rollers intermediately arranged between the disc and the head of the pillar, a series of radially arranged blades pivotally connected to their respective lugs or projections and having their central portions outwardly curved, and a power-transmitting wheel-carrying tube or hub connected with said disc, substantially as and for the purposes described. 3rd. The combination with a vertical shaft of a pillar surrounding the lower portion of said shaft, a power-transmitting wheel-carrying tube revolubly mounted on said shaft and extending into the central bore of said pillar, a horizontal disc mounted on said tube and provided with a downwardly extending annular flange, a series of anti-friction rollers intermediately arranged between said disc and the pillar, a circular frame surrounding the tube and supporting said anti-friction rollers, and a series of radially arranged blades or floats pivoted to and depending from the outer portion of said disc, each of said blades being limited in its rearward movement, substantially as described.

No. 62,524. Foot Covering and Process of Making it.

(*Appareil et méthode de coudre les chaussures.*)



Julius Larsen, 4 Rolfsvey, Copenhagen, Denmark, 3rd February 1899; 6 years. (Filed 18th January, 1899.)

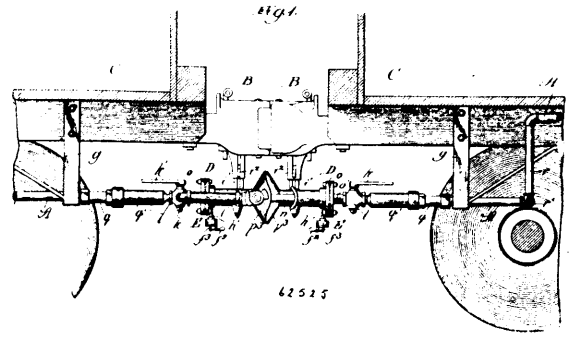
Claim.—1st. A process for the manufacture of machine-sewn foot coverings provided with welts, characterized by the sewing together of the insole, upper and welt without turning the work, through the medium of a line of stitching which completely passes through all three parts and the stitches of which are vertical to the surface of the sole of the boot or shoe, the said stitching being parallel to the vertical edge of the insole, and the outer sole being secured by ordinary sewing to the welt. 2nd. In a process of the kind described in claim 1, the arrangement of safety stitching which is applied inside the connecting stitching and which connects the upper to the insole for the purpose of facilitating repair should the connecting thread proper become worn. 3rd. Apparatus for carrying out the process described in claim 1, consisting of a last which is provided with a recess or rabbet around the edge of the underside and with a central recess *b*, between which recesses a projecting strip *c*, is formed, in combination with a frame *e*, of iron or the like which consists of a rim *f*, adapted to pass into the recess or rabbet *a*, of the last of which is provided with a thin tongue *g*, and with a leather piece *d*, of such a form that it can be inserted into the recess *b*, said leather piece *d*, being adapted to hold the frame *e*, in the work, after the last has been removed, by means of long tacks which are passed through the upper, the insole and the leather piece *d*. 4th. The modification of the last claimed in claim 3, wherein the projection *c*, is applied to the underside of the last from which a portion is removed to a depth corresponding to the height of the said strip.

No. 62,525. Train Pipe Coupling.

(*Joint de tuyau pour convois.*)

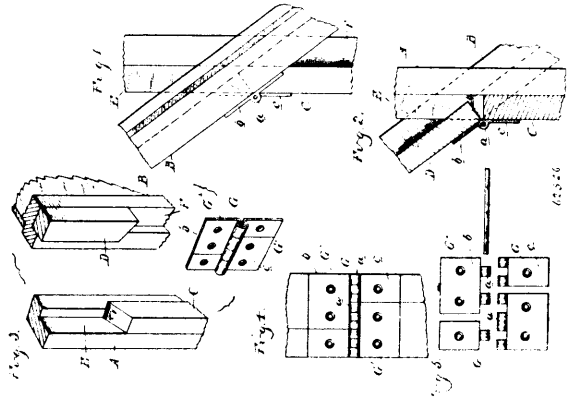
Joseph Ethan Forsyth, Chicago, Illinois, U.S.A., 3rd February, 1899; 6 years. (Filed 18th January, 1899.)

Claim.—1st. In an automatic train-pipe coupling, the combination of a head provided with a rear chamber at which to connect the pipe, tubular chambers leading from and communicating with each other through said rear chamber, and a tube confined in and projecting beyond one of said tubular chambers, substantially as described. 2nd. In an automatic train-pipe coupling, the combination of a head provided with a rear chamber at which to connect the pipe, tubular chambers leading from and communicating with each other only through said rear chamber, a tube headed at its opposite ends and confined at one head in a spring-pressed bearing in one of said tubular chambers, the other tubular chamber terminating in a bell-mouth and containing a spring-pressed valve, substantially as described. 3rd. In an automatic train-pipe coupling, the combination of a head provided with a rear chamber at which to connect the pipe, tubular chambers leading from and communicating with each other through said rear chamber, and a tube confined in and projecting beyond one of tubular chambers, the other tubular chamber terminating in a bell-mouth and containing a dish-faced spring-



pressed slitted rubber washer *m*, substantially as described. 4th In an automatic train-pipe coupling, the combination of a head provided with a rear chamber at which to connect the pipe, tubular chambers leading from and communicating with each other through said rear chamber, a tube headed at its opposite ends and confined at one head against a bearing in one of said tubular chambers containing a washer e^1 controlled by a spring-pressed tubular bearing v^2, the other tubular chamber terminating in a bell-mouth and containing a slitted washer *m* controlled by a spring-pressed tube p^4, substantially as described. 5th. In an automatic train-pipe coupling, the combination of a head provided with a rear chamber, a connection between said chamber and pipe containing a three-way valve, an elbow-tube extending from said connection for a hose-coupling, tubular chambers leading from and communicating with each other through said rear chamber, and a tube confined in and projecting beyond one of said tubular chambers, substantially as described. 6th. In combination with the chamber of a train steam-pipe automatic coupling, a drip-device comprising a chamber *h* containing a bearing f^5 and provided with a discharge-opening in its bottom, a valve *f* seated in said opening and having a protruding stem f^3 and a guide-stem f^4 in said bearing, and a lever f^2 fulcrumed between its ends, weighted at one end and connected at its opposite end with said valve-stem, substantially as described. 7th. In an automatic train-pipe coupling, the combination of a head provided with rear chambers respectively connecting with the air-brake pipe, the air-signal pipe and the steam-pipe, a pair of tubular chambers p^1 and p^2 leading from and communicating with each other through each of said rear chambers, and a tube *n* confined in and projecting beyond each chamber p^1, substantially as described. 8th. In an automatic train-pipe coupling, the combination of a head D provided with rear chambers having a cover equipped with nipples each communicating with one of said chambers for connection thereof respectively with the air-brake pipe, signal-pipe and steam-pipe, chambers p^1 leading from said rear chambers and each having loosely confined in it a tube *n*, and chambers p^2 leading from said rear chambers and each terminating in a bell-mouth p^3 and containing a spring-pressed valve *m*, substantially as described.

No. 62,526. Swinging Window. (*Fenêtre oscillante.*)

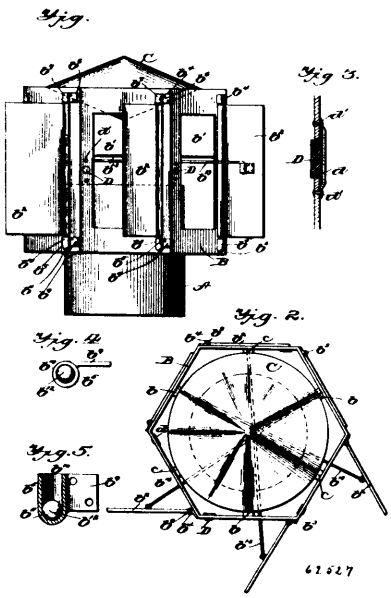


George W. Golden, Detroit, Michigan, U. S. A., 3rd February, 1899; 6 years. (Filed 19th January 1899.)

Claim.—1st. The combination with a window frame and centrally pivoted sash therefor, of centrally abutting oppositely extending stops, formed respectively on said sash and frame, adapted to engage with corresponding reverse rabbets in said frame and sash. 2nd. The combination with a with a window sash and frame formed with their parting line having a lateral off-set, of a hinge located at said off-set having its securing portions divided on a correspondingly off-set line. 3rd. A hinge comprising engaging knuckles and securing

plates extending on opposite sides thereof, said plates being divided transversely of the axis of the knuckles on a line laterally off-set upon opposite sides of said knuckles.

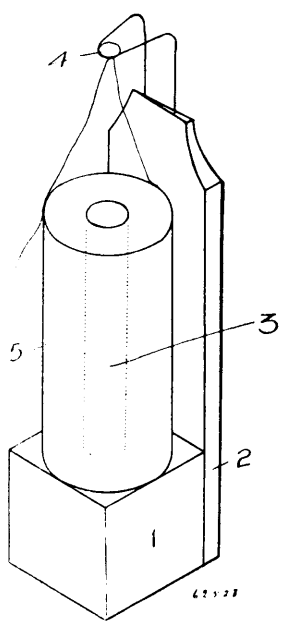
No. 62,527. Ventilator. (*Ventilateur.*)



Louis Heinrich Honigbaum, Knob, California, U.S.A., 3rd February, 1899; 6 years. (Filed 19th January, 1899.)

Claim—In a ventilator, a casing hexagonal in a cross section and provided in each side with a draft opening, in combination with a corresponding series of doors hinged on vertical axes at the sides of said openings and designed to close the same, a series of rods connecting the doors in opposite pairs, and a protecting cone arranged at the upper end of the casing, said cone being of less diameter than the casing so as to leave a surrounding space and being of greater diameter than the flue pipe, substantially as and for the purpose described.

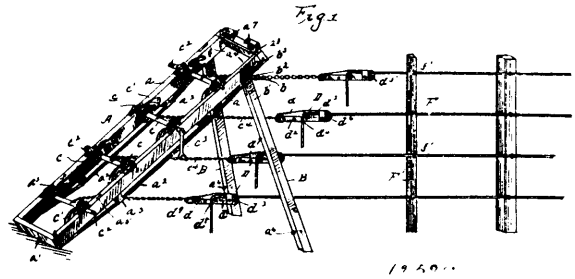
No. 62,528. Twine Holder. (*Porte-fil.*)



Jonas Ludiah French, Cookshire, Quebec, Canada, 3rd February, 1899; 6 years. (Filed 19th January, 1899.)

Claim.—In a twine holder the combination of the block 1, the upright 2, the spindle 3, the wire 4, all arranged and combined as hereinbefore shown and described and for the purposes specified.

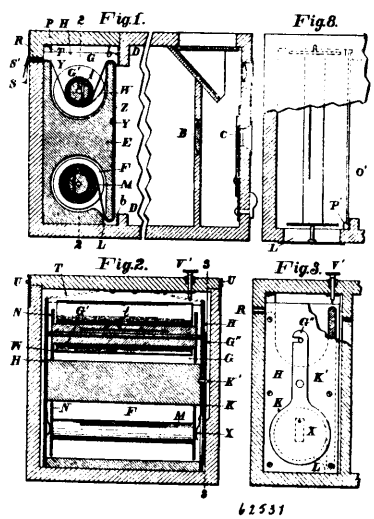
No. 62,529. Wire Stretcher. (*Tendeur de fil de fer.*)



Daniel H. Jones, Lenoir City, Tennessee, U.S.A., 3rd February, 1899; 6 years. (Filed 20th January, 1899.)

Claim.—1st. In a wire-stretching machine, the combination with a suitable supporting-frame, of a plurality of winding-drums mounted thereon, and wire-clamps connected to said drums respectively and each comprising a base, two cam-levers arranged end to end upon said base, one of the same being rigid and the other pivoted, and an angular guard extending longitudinally along the entire upper edge of the stationary lever, so as to hold the wire thereon, the construction being such that the wire-jams between the peripheries of the respective levers, substantially as described. 2nd. In a wire-stretching machine, the combination with a suitable frame having grooves formed near one end and provided with inclined bottoms, supporting-legs provided with a plurality of adjusting apertures and mounted in said grooves, adjusting-bolts passing through said supporting-legs and the frame to secure said legs firmly in said grooves, so that their lower ends will be spread apart to form a lateral brace and a plurality of winding-drums mounted upon said frame, substantially as described

No. 62,530. Photographic Camera.
(*Camera photographique.*)



Maximilian Kahn, New York City, New York, U.S.A., 3rd February, 1899; 6 years. (Filed 29th July, 1898.)

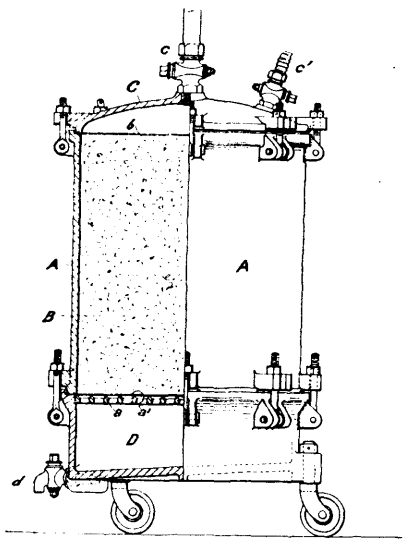
Claim.—1st. A camera-box or case having within rolls for holding a sensitized film, and a continuous web of suitable material wound therewith in combination with a clotted opening in the case for the passage of the web, the motive power for the operation of unwinding the film from one roll and rewinding on the adjacent roll being applied exteriorly at the projecting end of said web, as set forth. 2nd. A camera-box or case having therein a spool or reel provided with a sensitized film, and a continuous web of suitable material wound therewith, and an adjacent reel and means for unwinding said film and web, and rewinding said film of the adjacent roll by withdrawing said web from the camera case, as set forth. 3rd. A camera-box or case having therein a removable roll-holder, provided with a roll which has thereon sensitized film and a continuous web of suitable material, and a reel for receiving the sensitized film from the aforesaid reel, as set forth. 4th. A camera-box or case having therein a removable roll-holder provided with means for entirely closing the same on removal to protect the enclosed film, substantially as set forth. 5th. A camera-case or box having rolls therein, separably

removable for holding a sensitized film and web, in combination with a slotted opening in the case for the web, substantially as set forth. 6th. A camera case or box having rolls therein, separably removable for holding a sensitized film and web, in combination with a slotted opening in the case for the passage of said web and an adjustable exposure plate, substantially as shown. 7th. A camera box or case having therein a removable roll holder provided with means for entirely closing same, to protect the enclosing film, in combination with a roll for holding a sensitized film and a continuous web of suitable material wound therewith, and an adjacent roll for receiving the sensitized film, as set forth. 8th. The combination with the box or case of a camera, a roll holder having means for supporting a spool or reel of sensitized film, and a spool or reel for receiving the film as unwound, the said roll holder being formed or provided with a guide or path for the passage of the film and a flexible strip through which path the said flexible strip may be drawn in frictional contact with the receiving spool, so as to impart rotary movement thereto, and to and through a slot in the case of the camera, as set forth. 9th. The combination with the box or case, of a camera, of a means for transferring the film from the original to the receiving spool or roll, the said means consisting of a roll holder constructed or provided with a guide or path for the film and a flexible strip of band, through which path the said strip or band may be drawn in frictional contact with the receiving spool so as to impart rotary motion thereto, and to and through a slot in the case of the camera, as set forth. 10th. The combination with the box or case of a camera of means for supporting a spool or reel for carrying a sensitized film, and a receiving spool or reel for said film, means for directing the course of the film and a flexible strip from the original spool through the field of exposure to the receiving roll, and a spring adapted to press the flexible strip in contact with the receiving roll, the case of the camera being provided with a slot through which the flexible strip may be drawn after passing in contact with the receiving reel, as set forth. 11th. The combination with the box or case of the camera, of means for supporting the original and receiving film spools or reels therein, means for directing the film and a flexible strip or band from the original to the receiving spool or reel, and directing the said flexible strip or band in frictional contact with the receiving spool or reel to a slot in the camera case, and a hinged flap covering the said slot, as set forth. 12th. The combination with the box or case of a camera, of means for supporting the original and receiving film spools or reels therein, means for directing the films and a flexible strip or band from the original to the receiving spool or reel and directing the said flexible strip or band in frictional contact with the receiving spool or reel to a slot in the camera case, and a hinged flap provided with a rigid cutting edge, and covering the said slot, as set forth. 13th. The combination with the box or case of a camera, of means for supporting the original film spools or reels therein means for directing the film and a flexible strip or band from the original to the receiving spool or reel, and directing the flexible strip or band in frictional contact with the receiving spool or reel to a slot in the camera case, a hinged flap covering the said slot and a spring acting therein to keep the slot closed or covered by said flap, as set forth. 14th. The combination with the box or case of a camera of a roll holder, consisting of a block, having a recess for a roll of film, a slot leading from the same for the passage of the film, a recess for the receiving spool or reel, and a flat surface over which the film passes in its movement from one reel or spool to the other through the field of exposure, as set forth. 15th The combination with the box or case of a camera having a hinged lid and a slot for the passage of the paper band or strip, of a roll holder adapted to be inserted in and withdrawn from the said case, means for supporting the original and receiving spools or reels therein, and formed with a guide or path through which a strip wound on the original reel with the film may be drawn in frictional contact with the receiving reel, so as to impart rotary motion thereto, as shown. 16th. The combination with the camera case having a slot for the passage of the paper band or strip, of a roll holder provided with means for directing a paper strip from the original reel to the said slot and in frictional contact with the receiving reel and a punch or marker set in the wall of the case at a point near the edge of the field of exposure, as set forth.

No. 62,531. Treatment of Ores or Compounds Containing Gold or Silver. (*Traitment de minerais ou composé contenant de l'or oude l'argent.*)

John Cunninghame Montgomerie, Ayr, Scotland, and Henry Parkes, 237 Friern Road, Dulwich, Surrey, England, 3rd February, 1899; 6 years. (Filed 31st May, 1897.)

Claim.—1st. In the extraction of gold and silver from ores or compounds containing the same by means of cyanide and a caustic alkali, the employment of ammonia or a salt of ammonia, bromine or a salt of bromine, or fluorine or a salt of fluorine in conjunction with a dioxide, peroxide, or other suitable oxygen-yielding substance, substantially as herein described.. 2nd. In the extraction of gold and silver by means of cyanide and caustic alkali, the employment of an alkaline or earthy dioxide or nitro prusside, or of a peroxide or other suitable oxygen-yielding substance in conjunction with a reagent operating to liberate oxygen therefrom, substantially as herein described. 3rd. In the treatment of ores, particularly those of a refractory character, for the extraction of the gold and silver contained therein, as also of the copper, zinc, or other base metals, calcining the ore until the sulphides are converted into sulphides and oxides, mixing the calcined ore with a chemical com-



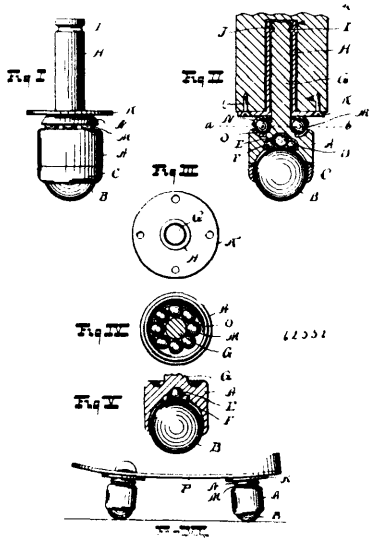
pound, consisting of common salt, protosulphate of iron, and nitrate of soda, substantially in the proportions respectively specified (or composed of their respective alternatives), maintaining the mixture for a certain time at a dull red or red heat, without admission of air, and, after washing out the soluble salts, treating the ore with solutions of sulphuric acid, again washing it, treating it with hyposulphite of soda to extract the silver, and ultimately extracting the gold by a cyanide or other suitable known process. 4th. In the extraction of gold and silver from cyanide solutions containing the same, the herein described process consisting in filtering the solution through a charcoal filter, heating the filtering material on the same becoming surcharged with cyanogen or its compounds, condersing the resultant gases and obtaining ammonium cyanide and other ammonium salts in solution, applying the regenerated charcoal (still containing the precious metals) in the filtration of a further charge or charges of the solution and ultimately from the charcoal the precious metals accumulated therein. 5th. In the extraction of gold and silver from cyanide solutions with the aid of a charcoal filter, or in the separation by the same means of the precious metals from solutions containing copper and zinc, the herein described method of treating the filtering material for the regeneration of the charcoal and the recovery of the cyanogen compounds or of the precious metals, such method consisting in repeatedly heating the filtering material as often as it becomes inert, condensing the gases evolved, recovering the cyanogen compounds from the products of such condensation and the precious metals from the filtering material. 6th. In the treatment of auriferous and argentiferous solutions, which also contain base metals, the employment of a charcoal filter, substantially as herein described, the gold and silver being retained in the charcoal, whilst the copper and zinc pass through with the liquid, whence they may be subsequently recovered. 7th. The regeneration of a charcoal filter by drying the charcoal preferably in the sun, and repeatedly doing so on its ceasing to precipitate the precious metals, until it ultimately becomes unfit for use as filtering material. 8th. In the treatment of refactory ores containing precious metals, calcining the ore at a low heat till it ceases to gain weight, then mixing with it a chemical compound containing common salt, protosulphate of iron and nitrate of soda, or their respective alternatives, and submitting the mixture ore and compound to heat without stirring or admission of air. 9th. In the treatment of refractory ores containing precious metals, calcining the ore at a low heat till the sulphides are mostly converted into sulphates, then mixing with it a chemical compound containing common salt, protosulphate of iron and nitrate of soda or their respective alternatives, and submitting the mixture of ore and compound to heat without stirring or admission of air. 10th. In the treatment of refractory ores containing precious metals, calcining the ore at a low heat till the sulphides are mostly converted into sulphates, then mixing with it a chemical compound containing common salt, protosulphate of iron and nitrate of soda or their respective alternatives, submitting the mixture of ore and compound to heat without stirring or admission of air, then washing out the soluble salts, finally treating the ore with hyposulphite of soda to extract the silver, and then with a cyanide if gold is present.

No. 62,532. Caster. (*Roulette.*)

Edward Lowry Dimmitt, Kansas City, Missouri, U.S.A., 3rd February, 1899; 6 years. (Filed 20th December, 1898.)

Claim.—1st. In a caster, the combination with a holder provided with an upwardly extending shank and a recess in its lower end, of

an inverted cup in the said recess, one or more balls located in the said cup, a roller ball located in the said recess and bearing upon the



said balls in the cup, means for preventing the falling out of the roller ball from the recess, a cup upon the upper end of the holder provided with a hole through which the shank extends, a series of balls located in the said cup, an inverted cup upon the said series of balls, and a sleeve provided with means for securing to the article on which the caster is to be used and adapted to receive therein the shank, substantially as described. 2nd. In a caster, the combination with the holder provided with an upwardly extending shank and a recess in the lower end, of a seat in the said recess, a series of balls in said seat, a roller ball located in said recess, a ring, the upper end of which is secured to the holder at its lower end, the ring being smaller in its smallest internal diameter than the diameter of the roller ball, a sleeve provided with a disc at its lower end having an opening adapted to receive the shank, means for detachably securing the shank to the sleeve while permitting its rotation therein, and a series of balls upon the holder and grouped around the shank and adapted to support the disc when the shank is inserted into the sleeve, substantially as described.

No. 62,533. Gelatine, Glycerine and Bichromate of Potash Treatment. (*Traitement de gélatine, glycérine et bichromate de potasse.*)

Chester Ives, East Molesey, Surrey, England, 3rd February, 1899; 6 years. (Filed 25th July, 1898.)

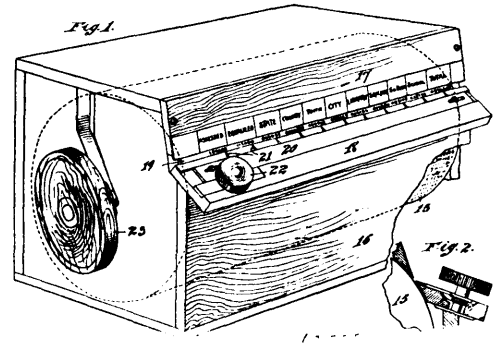
Claim.—1st. The process herein described for producing a plastic composition from gélatine, bichromate of potash and glycerine, which consists in using and mixing the said ingredients in an anhydrous condition, substantially as described. 2nd. The process of producing from a composition of gelatine, glycerine and bichromate of potash a substance of rubber or gutta percha like character, which consists in mixing the ingredients in an anhydrous state, whereby the chemical action set up between the bichromate of potash and the gelatine is sufficiently inactive to allow time for moulding or otherwise causing the composition to assume the shape of the desired product before the chemical action had advanced so far as to prevent the perfect adhesion of the molecules of the composition, moulding the composition under pressure, and heating it while under pressure to a temperature of from 200 degrees to 300 degrees Farenheit, substantially as described.

No. 62,534. Petroleum Treatment. (*Traitement de petrole.*)

Chauncey B. Forward and John Milne Davidson, both of Cleveland, Ohio, U.S.A., 3rd February, 1899; 6 years. (Filed 28th September, 1898.)

Claim.—1st. The process of making asphalt from crude petroleum or any heavy hydrocarbon oil by treating the crude petroleum or heavy hydrocarbon oil with acid to separate the carbonaceous matter from the oils, washing the carbonaceous matter to free it from the acid, then mixing it with heavy hydrocarbon oil and subjecting it to a high degree of heat for a considerable period, substantially as described. 2nd. The process of making asphalt from petroleum, tar or from crude pretroleum after the lighter oils have been distilled off by treating it with acid to separate the carbonaceous matter from the remaining oils, washing the carbonaceous matter to remove the acid, then mixing it with heavy hydrocarbon oil and subjecting the mixture to a high degree of heat for a considerable period, substantially as described. 3rd. The process of refining or reducing crude petroleum by treating it with acid to separate the mixture of oils obtained by this process into oils of various kinds by successive distillations, by mixing the carbonaceous matter separated as above from the oils with heavy hydrocarbon oil and subjecting the mixture to a high degree of heat for a considerable period, substantially as described. 4th. The process of making asphalt from crude petroleum or any hydrocarbon oil by first treating the crude petroleum with acid to separate the carbonaceous matter from the oils, then adding to said carbonaceous matter a heavy hydrocarbon oil and subjecting the same to a high degree of heat, and then adding marl or lime, substantially as described. 5th. The process of treating petroleum tar or petroleum after the lighter oils have been removed by distillation, by using acid to separate the carbonaceous matter from the remaining oils, by mixing the same with a heavy hydrocarbon oil and subjecting the mixture to a high degree of heat and then adding marl or lime, substantially as described. 6th. The process of producing asphalt from crude petroleum, petroleum tar or any heavy hydrocarbon oil by treating the same with acid to separate the carbonaceous matter from the oils, then subjecting this carbonaceous matter to a considerable degree of heat for a considerable period, substantially as described. 7th. The process of producing asphalt from crude petroleum, petroleum tar or any heavy hydrocarbon oil by treating the same with acid to separate the carbonaceous matter from the oils, then subjecting this carbonaceous matter to a considerable degree of heat for a considerable period, and then adding marl or lime, substantially as described.

No. 62,535. Arithmetical Calculator.
(*Calculateur d'arithmétique.*)



Warren Allen Drake, Riverside, Illinois, U.S.A., 3rd February, 1899; 6 years. (Filed 3rd November, 1898.)

Claim.—1st. An arthmetical calculator comprising in combination, a suitable backing or support having numbers arranged thereon with a decimal bar or pointer, said support and said bar or pointer being capable of relative movements, whereby the values expressed by the numbers may be increased or decreased, substantially as described. 2nd. An arithmetical calculator, comprising in combination, a suitable backing or support having arranged thereon a plurality of numbers, with a decimal bar consisting of or having a plurality of pointers, said support and said bar or pointers having relative movement, whereby the value of the numbers may be increased or decreased in a ten fold ratio, substantially as described. 3rd. An arithmetical calculator, comprising in combination, a suitable backing or support having delineated thereon, a plurality of columns of numbers and a decimal bar or indicator having pointers arranged thereon and connected so as to be movable simultaneously and through equal distances, whereby any number or row of numbers may be brought adjacent to said bar and said pointers moved to increase or decrease the value of said numbers expressed in a ten fold ratio, substantially as described. 4th. An arithmetical calculator, comprising in combination, a movable backing or support having numbers arranged thereon in parallel columns with a movable decimal bar having a pointer for each column of figures, substantially as described. 5th. An arithmetical calculator, comprising in combination a rotatable cylinder having delineated and arranged thereon in tubular form, a series of numbers and a decimal bar having pointers, one for each column of figures, and whereby the rotation of the cylinder may be made to bring any row of numbers into juxtaposition to the decimal bar and by the movement of the latter along said row, the value of the numbers expressed may be increased or diminished in a ten fold ratio, substantially as described. 6th. An arithmetical calculator, comprising in combination, a suitable casing or support having a slight opening therein, a revoluble cylinder mounted within said casing and having numbers delineated and arranged in parallel columns and rows thereon, a decimal bar mounted to slide in suitable ways adjacent to said sight opening and said bar having pointers thereon for each column of figures, substantially as described. 7th. An arithmetical calculator, comprising in combination, a suitable casing, a cylinder rotatably mounted therein, a sight opening in the wall of said casing, a shelf arranged upon the casing adjacent to said sight opening and having ways thereon, a decimal bar mounted to slide in said ways, a series of headings arranged above the casing above the sight opening, and a series of numbers arranged upon the cylinder in parallel circumferential columns and transverse rows, said decimal bar having a plurality of pointers, one for each column, and whereby said numbers may be

indicated or pointed off, according to the decimal system of notation, substantially as described. 8th. An arithmetical calculator, comprising in combination, a plurality of rotatably mounted cylinders or supports having numbers tabularly arranged thereon and a decimal bar or pointer, said supports being independently rotatable upon their axes and severally movable with relation to the decimal bar, whereby any number on either or any supports may be brought into juxtaposition to the bar and the value thereof increased or diminished, substantially as described. 9th. An arithmetical calculator, comprising in combination, a decimal bar having pointers thereon, a plurality of rotatable supports each having numbers serially arranged in tabular form thereon, said supports being rotatable upon their own axes and bodily movable, substantially as described. 10th. An arithmetical calculator, comprising in combination, a decimal bar having pointers thereon, a series of cylinders mounted upon axes parallel to said bar, ea h of said cylinders having depicted thereon a series of numbers in tabular form, said cylinders being mounted upon a suitable frame work revolving upon an axis and each capable of independent rotation on its own axis, substantially as described. 11th. An arithmetical calculator, comprising in combination, a decimal bar having pointers thereon, a hollow external cylinder having a series of numbers depicted thereon in tabular form and provided with one or more transverse slots affording a sight opening and one or more internal cylinders journalled upon and moving with said external cylinder and with its periphery adjacent to said slot and capable of rotation upon its own axis, substantially as described. 12th. An arithmetical calculator, comprising in combination, a suitable casing, a sliding decimal bar, an external cylinder capable of rotation about a fixed axis and a plurality of interior cylinders rotatably mounted within said external cylinder, suitable gearing for operating said cylinders and a locking mechanism for the external cylinder, substantially as described. 13th. An arithmetical calculator, comprisinn in combination, an interest table delineated upon a suitable support and comprising, in parallel columns, numbers representing the principal and numbers representing the interest calculated for various times and a decimal bar ar indicator, said table and said bar being movable with relation to each other and said decimal bar having pivoted pointers, subst ntially as described. 14th. An arithmetical calculator comprising in combination an interest table mounted upon a suitable backing or support, a bar having pointers thereon, said bar and said table being movable with relation to each other, whereby various amounts may be indicated, and said pointers having each an independent movement, whereby multiplication of one of the factors may be mechanically effected, substantially as described. 15th. An arithmetical calculator comprising in combination a rotatable cylinder or support having delineated thereon, in parallel columns, numbers indicating principal and interest, a bar having pointers thereon, one for the principal and one for each of the several columns representing interest or time, said pointers being pivoted upon said bar and serially numbered, said serial numbers having each arranged adjacent thereto, one or more ciphers normally concealed and capable of being exposed by the manipulation of the pointer, whereby the time indicated by any given pointer may be increased and the interest correspondingly increased by such manipulation, substantially as described. 16th. An arithmetical calculator comprising in combination a rotatable support or cylinder adapted to receive thereon an interest table, a sliding decimal bar having pointers pivoted thereon, said pointers being serially numbered and a series of movable shutters, whereby any number delineated upon the cylinder may be separately exposed, substantially as described. 17th. In an arithmetical calculator, the combination with a rotatable cylinder or support, of a sliding decimal bar having pivoted pointers and a series of movable shutters mounted upon a common support capable of bodily movement, whereby said shutters may be separately or simultaneously moved as desired, substantially as described. 18th. An arithmetical calculator comprising in combination one or more main supports or cylinders having a main table or tables delineated thereon, a supplementary rotatable support or cylinder having a table thereon computed with relation to the small amounts which are adapted to furnish the terminal figures of the amounts of the main table or tables, and a sliding decimal bar having pointers thereon co-operating with said cylinders, substantially as described. 19th. An arithmetical calculator comprising one or more main cylinders having a main table or tables delineated thereon, a supplementary cylinder tabulated for small amounts, and a sliding decimal bar having two series of pointers mounted thereon, movable in relation to said bar and co-operating respectively with the main and supplementary cylinders, substantially as described. 20th. An arithmetical calculator comprising one or more main cylinders having a main table or tables delineated thereon, a supplementary cylinder tabulated for small amounts, a sliding decimal bar, and two series of pointers pivotally mounted on said decimal bar and connected in pairs to move in unison, said series co-operating respectively with the main and supplementary cylinders, substantially as described.

No. 62,536. Primary Battery. (*Pile électrique.*)

Axel Peters, 27 Langgade, Valby, Copenhagen, Denmark, 3rd February, 1899; 6 years. (Filed 8th October, 1898.)

Claim.—1st. In a primary battery the employment as a negative electrode of electrically prepared poroxide of lead, substantially as set forth. 2nd. In a primary battery the employment of electrically prepared peroxide of lead supported by a plate, grid or frame of lead as a negative electrode, substantially as set forth. 3rd. In a primary battery the employment as a negative electrode of electrically prepared peroxide of lead contained in a porous pot, substantially as set forth. 4th. In a primary battery the combination of a negative electrode of electrically prepared peroxide of lead and a positive electrode of zinc, iron or tin. 5th. In a primary battery the combination of a negative electrode of electrically prepared peroxide of lead and a positive electrode of amalgamated zinc, iron or tin. 6th. In a dry battery the combination of a negative electrode of electrically prepared peroxide of lead and a positive electrode of amalgamated tin, substantially as set forth. 7th. In a dry battery, the combination of a negative electrode of electrically prepared peroxide of lead and a positive electrode of amalgamated tin, substantially as set forth.

No. 62,537. Process of Dyeing Mixed Goods.
(*Procédé pour teindre le coton et la laine.*)

Henri Nicholas Frederick Shaeffer, Manchester, New Hampshire, U.S.A., 3rd January, 1899; 6 years. (Filed 4th October, 1898.)

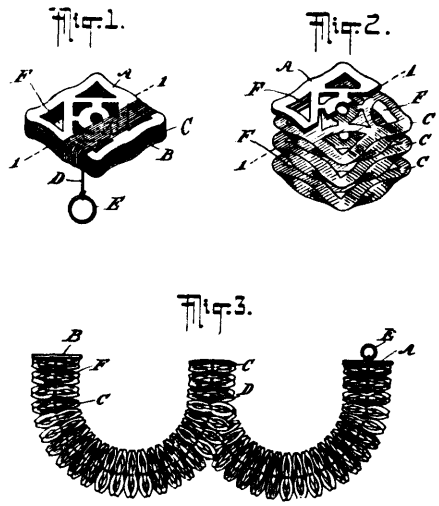
Claim.—1st. The process of dying mixed goods composed of animal and vegetable fibers, which consists in dyeing the animal fiber of the goods in a vat or vessel containing a dyeing solution which dyes the animal fiber only, washing the goods so dyed, and then saturating or impregnating the whole of the partially dyed goods with an aniline black liquor and subsequently developing the aniline black on the vegetable fiber of the mixed goods, substantially as described. 2nd. The process of dyeing mixed goods composed of animal and vegetable fibers, which consists in dyeing the animal fiber of the goods in a vat or vessel containing a black dyeing solution which dyes only the animal fiber and which is unaffected by the aniline black, washing and then padding the partially dyed goods with an anniline black liquor, and subsequently developing the aniline black on the vegetable fiber of the mixed goods, substantially as described. 3rd. The process of dyeing mixed goods composed of wool and cotton a fast black, which consists in dying the wool fiber with a black dye which dyes the wool only and which is unaffected by aniline black, and dyeing the cotton by padding the goods with an aniline black liquor, and developing the black in the cotton after it has been padded, substantially as described.

No. 62,538. Battery Solution.
(*Solution pour batteries électriques.*)

Henry Blumenberg, Wakefield, New York, U.S.A., 3rd February, 1899; 6 years. (Filed 17th October, 1898.)

Claim.—1st. The battery solution herein described, consisting of chlorate of alkali or alkaline earth, and a bi-sulphate of alkali or alkaline earth, in approximately equal proportions and mixed with water, substantially as described. 2nd. An electrolyte for a primary battery, composed of chlorate of soda and bi-sulphate of soda in about equal proportions, mixed with water, substantially as specified.

No. 62,539. Paper Decorator. (*Decorateur de papier.*)



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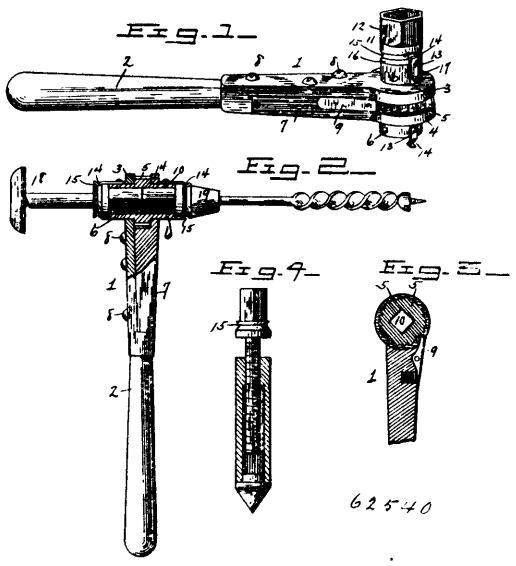
Rudolf Burger, Port Richmond, New York, U.S.A., 4th February 1899; 6 years. (Filed 24th December, 1898.)

Claim.—1st. A paper decoration consisting of an upper base and a lower base with layers of fine tissue-paper between them, pasted

on each other, once in the centre, and once at the edge, or near the edge, or at edge positions, and a string of wire passing through them, fastened with one end to the lower base and having a ring at the other end, substantially as shown and described. 2nd. A paper decoration consisting of two bases between which a number of tissue-papers are pasted together consecutively, once in the centre and once at the corners and a string passing through the centre, substantially as shown and described. 3rd. A paper decoration consisting of an upper base A, a lower base B, tissue-paper C pasted together alternatively, once in the centre and once at the edge or at edge positions, a design F stamped throughout the layers and a string D, substantially as shown and described. 4th. In a decoration, the combination of the two bases A and B, the tissue-papers C pasted on one another, once at the centre and once at the edge, or near the edge, or at edge positions, and the string D and one cut-out design stamped through the layers alone or through the article as a whole, substantially as shown and described. 5th. The arrangement of tissue layers between two bases, the tissue layers pasted together once in the centre and once at the edge, or near the edge, or at edge positions, and artistically stamped out, a string passing through the layers, fastened at one base, and ending on the other end with a ring or its equivalent, substantially as shown and described.

No. 62,540. Combination Tool. (*Outil à combinaison.*)



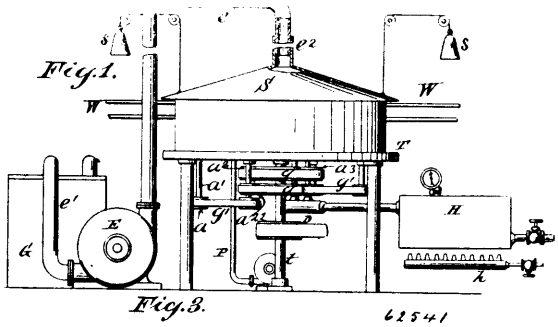
Elias Francis Cooper, Mount Gilead, Ohio, U.S.A., 4th February, 1899; 6 years. (Filed 30th December, 1898.)

Claim.—1st. In the device of the class described, the combination with a shank or lever, a ratchet-wheel mounted thereon and provided with an opening, and a pawl engaging the ratchet-wheel, of a shank adapted to fit in the opening of the ratchet-wheel, and provided with an exterior annular groove V-shaped in cross-section, said shank being designed to be carried by a tool to enable the same to be applied to the ratchet wheel, and a spring mounted on the exterior of the ratchet-wheel at the hub thereof, projecting beyond the same and provided at its outer end with an inward-extending V-shaped bend, engaging the annular groove and presenting oppositely-inclined inner faces, whereby it is adapted to engage the groove and disengage itself from the same automatically, substantially as described. 2nd. In a device of the class described, the combination with a shank or lever provided with perforated ears forming a bearing, a ratchet-wheel having extended hubs 6 journalled in the perforations of the ears, a pawl engaging the ratchet-wheel, springs disposed longitudinally of the extended hubs, secured at their inner ends to the same, and having their outer portions projecting beyond the hubs and provided with inwardly-extending V-shaped bends, a shank fitted in one of the hubs and provided with an exterior annular groove V-shaped in cross-section, and a stem or shank fitted in the other hub 6, provided at its outer end with a breastplate and having an annular enlargement provided with an annular groove V-shaped in cross-section and receiving the adjacent spring, substantially as described.

No. 62,541. Means for Removing Superfluous Solder from Sheet Metal Cans. (*Moyen d'enlever la soudure superflue des boites en fer blanc.*)

Olin Stephen Fellows, Middletown, New York, U.S.A., 4th February, 1899; 6 years. (Filed 17th December, 1898.)

Claim.—1st. In solder-saving apparatus, the combination of a can-forwarding surface, a can-retarding wheel moving in a direction opposite to that of the said can-forwarding surface, and means for effecting the removal of superfluous solder from the cans while



rotating between said opposed travelling surfaces, substantially in the manner and for the purpose described. 2nd. In solder-saving apparatus, the combination of a can-forwarding wheel, an opposed auxiliary wheel revolving in the opposite direction, and means for effecting the removal of superfluous solder from the cans while rotating between said opposed wheels, substantially in the manner and for the purpose described. 3rd. In solder-saving apparatus, the combination of a a can-forwarding wheel, opposed concentric rails, and means for manipulating the cans for the removal of superfluous solder, substantially as described. 4th. In solder-saving apparatus, the combination of a can-forwarding surface, and an opposed auxiliary wheel revolving in the opposite direction for the purpose of retarding the advance of the cans and increasing their axial rotation, substantially in the manner and for the purpose set forth. 5th. In solder-saving apparatus, the combination of a can-forwarding surface, oppo-ed rails, and an opposed auxiliary-wheel revolving in the opposite direction for the purpose of retarding the advance of the cans, substantially in the manner and for the purpose set forth. 6th. In solder-saving apparatus, the combination of a can-forwarding surface, an opposed auxiliary-wheel revolving in the opposite direction for the purpose of retarding the advance of the cans and increasing their axial rotation, and means for projecting jets of vapour against said cans, substantially in the manner and for purpose described. 7th. In solder-saving apparatus, the combination of a can-forwarding surface, an opposed auxiliary-wheel revolving in the opposite direction for the purpose of retarding the advance of the cans, and means for projecting jets of superheated steam against said cans, substantially in the manner and for the purpose described. 8th. In solder-saving apparatus, the combination of a can forwarding surface, an opposed auxiliary-wheel rotating in the opposite direction for the purpose of retarding the advance of the cans, and a brush arranged to act against a can while the latter is between the said forwarding-wheel and said opposed auxiliary retarding-wheel, substantially in the manner and for the purpose described. 9th. In solder-saving apparatus, the combination of a can-forwarding surface, an opposed auxiliary-wheel rotating in the opposite direction for the purpose of retarding the advance of the cans, and means for projecting a cooling blast into a can while between said forwarding-wheel and auxiliary retarding-wheel, substantially in the manner and for the purpose described. 10th. The combination of apparatus for removing the superfluous solder from cans, a hood surrounding said solder-removing apparatus, an exhausting device for withdrawing the air from said hood and injecting it into a receiving-chamber, and said receiving-chamber provided with means for retaining the solid particles of matter carried over to it by the air, substantially as the manner and for the purpose described.

No. 62,542. Manufacture of Ceramic Stone.
(*Fabrication de pierre céramique.*)

Louis Antoine Garchy, Demi Lune, Lyons, France, 4th February, 1899; 6 years. (Filed 10th November, 1898.)

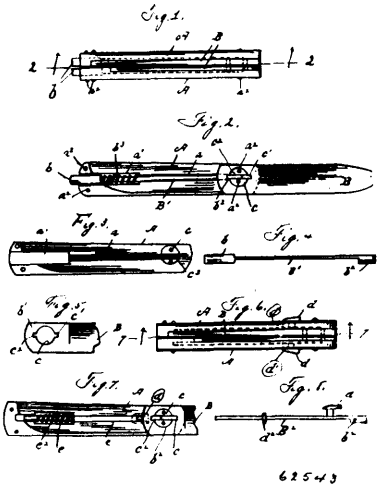
Claim.—1st. Preparing the glass and other material in the form of pieces, grains and powder agglutinated by silicate or gum and roughly shaping the paste so formed. 2nd. Introducing the roughly shaped mass or of the dry material into a highly heated mould of refractory material lined with sand or the like, and subjecting it to heat of such degree and for such time as to effect devitrifaction and agglomeration. 3rd. The admixture, when desired of slag, scoria, or vitrifiable minerals with the glass, and the introduction of pieces of coloured material into the soft devitrified mass.

No. 62,543. Pocket Knife. (*Canif.*)

Andrew Berglund, Maniztee, Michigan, U.S.A., 4th February, 1899; 6 years. (Filed 24th December, 1898.)

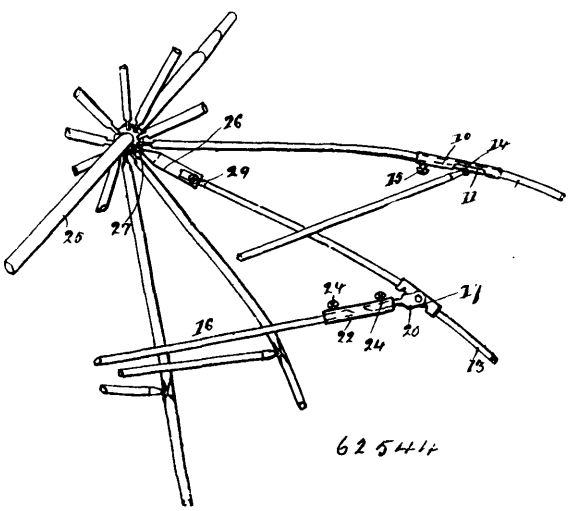
Claim.—The combination with the side piece of the handle of a pocket-knife, having on its inner surface the groove *a*, provided with the enlargement a^1, of the circular boss *c*, having the slot c^3, secured on the side piece at the end of the groove therein, the blade B, having the circular opening C, to receive the boss, and the recesses c^1 and c^2, the locking-bar B^1, having the projection b^2, to

fit within the slot of the boss and to engage the recesses c^1 and c^2, of the blade, and the enlargement b, extending through the enlarge-



ment a^1, and the spring b^3, located within the enlargement a^1, and having one of its ends resting against the contracted portion of said enlargement and its other end against the enlargement b, on the locking-bar, substantially as described.

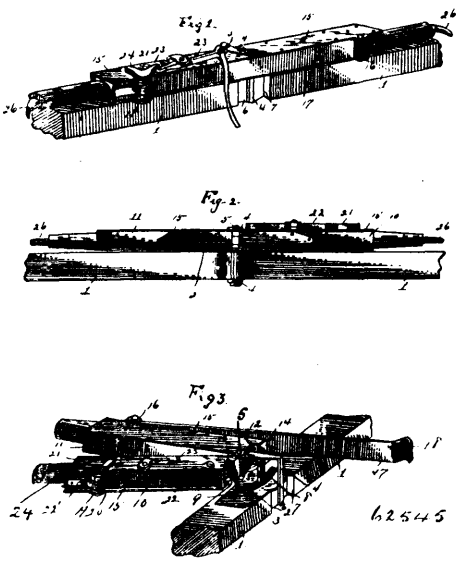
No. 62,544. Umbrella Repairing Device.
(*Appareil à reparer les parapluies.*)



William Thompson Brown McDonald, Granby, Quebec, Canada, 4th February, 1899; 6 years. (Filed 25th June, 1898.)

Claim.—1st. A tubular section adapted to connect together disconnected rib portions of an umbrella, one end of said tubula section receiving one of said disconnected rib portions, a set screw taking through said tubular end and bearing upon said disconnected rib portion, and means for connecting the other end of said tubular section to the other disconnected rib portion, for the purpose set forth. 2nd. A device for repairing broken umbrella ribs, consisting of a tubular section having a portion adjacent to one end thereof cut away and the portion intervening said cut away portion and said end slit, and the other end thereof provided with a set screw, substantially as described and for the purpose set forth. 3rd. A device for repairing broken umbrella ribs, consisting of a tubular section having one end formed with a rigid hook and the other end provided with a set screw, substantially as described and for the purpose set forth. 4th. A device for repairing broken umbrella ribs, consisting of an open T-portion having its leg portion pivotally connected to its cross-piece, and a tubular section adapted to receive said leg portion disposed and arranged, substantially as described and for the purpose set forth. 5th. A device for connecting together disconnected or broken umbrella rib portions, consisting of a tubular section having a pair of set screws taking therethrough near each end thereof, substantially as described and for the purpose set forth.

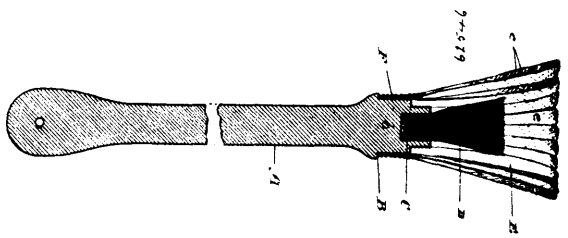
No. 62,545. Singletree. (*Palonnier.*)



Henry C. Bratton, Lafayette, Tennesee, U.S.A., 4th February, 1899; 6 years. (Filed 21st November, 1898.)

Claim.—1st. The combination of a singletree formed of sections hinged together and pivoted to the cross bar of the shafts, a bar pivoted to one of said sections and adapted to extend to the opposite section, a clasp upon the end of said bar, an eccentric shaft journalled in the other section and adapted to be engaged by the clasp of the bar, a trigger upon the end of said shaft, a tripping lever pivoted to said section and adapted to engage the trigger for operating the shaft to disengage the clasp of the bar therefrom, and means for accomplishing the movement of said lever, substantially as set forth. 2nd. The combination of a singletree formed of sections hinged together and pivoted to the cross bar of the shafts, a plate upon the upper side of said cross bar having curved slot, a clevis pivoted to the top bar, a pin secured at its upper end to the upper arm of the clevis and its lower end having a head movable in said slot, a bar pivoted to one of said sections and adapted to extend to the opposite section, a clasp upon the end of said bar, an eccentric shaft journaled in the other section and adapted to be engaged by the clasp of the bar, a trigger upon the end of said shaft, a tripping-lever pivoted to said section and adapted to engage the trigger for operating the shaft to disengage the clasp of the bar therefrom, and means for accomplishing the movement of said lever, substantially as set forth.

No. 62,546. Dish Mop. (*Guipon à vaisselle.*)

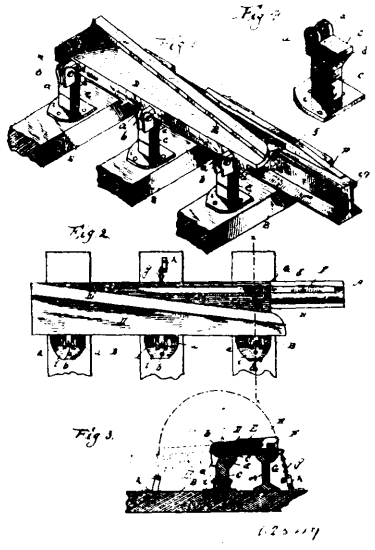


Ephraim Parsons Roden and Hector Prenter, both of Toronto, Ontario, Canada, executors of the last will and testament of William H. Rodden, 4th February, 1899; 6 years. (Filed 8th July, 1898.)

Claim.—1st. A dish-mop, consisting of a handle, and a cloth secured to the handle composed of a series of loops overhanging the adjacent end of the handle, substantially as specified. 2nd. A dish-mop, consisting of a handle, a brush secured to the handle, a textile fabric webbing formed into a series of loops, surrounding and overhanging the brush, and secured to the handle, substantially as specified. 3rd. A dish-mop, consisting of a handle, a central bore extending inwardly from one end of the handle, a fibre brush, one end of which is secured within the bore, a coarse crash linen webbing formed into a series of loops surrounding and overhanging the brush, the inner ends of the loops bound to the handle, substantially as specified.

No. 62,547. Switch Derailer.

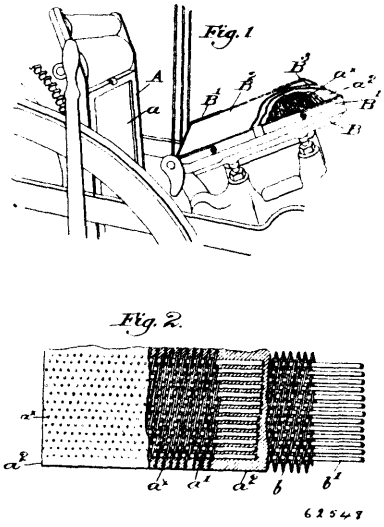
(Aiguille pour remettre es trains sur la voie.)



Ezra Smyth, Greencastle, Indiana, U.S.A., 4th February, 1899; 6 years. (Filed 20th January, 1899.)

Claim.—1st. In a switch-derailer for sidings, the plate D, provided withs a witch-mate E, cut-away portion H, rail F, stay or safety plate G, and the hinged lugs *b*, substantially as set forth. 2nd. The derailer comprising the plate D, switch-mate E, plate H, and inclined plate F, adapted to rest on the railroad rail, the safety plate or stay G, in combination with the hinged supports or standards C, all operating together, substantially as set forth. 3rd. The combination in a derailer of the supports of standards C, having hinged lugs *a*, the flat supporting-face *c*, and projection *d*, to support plate D, the latter having hinge-lugs *b*, on one side, and safety or stay plate G, on its opposite side, the said hinges and supports preventing lateral movement of the derailer in one direction while the safety-plate G, prevents in the other, said hinges, supports and safety-plate G, being held in position by the plates D and H, substantially as described.

No. 62,548. Tympan. (*Tympan.*)

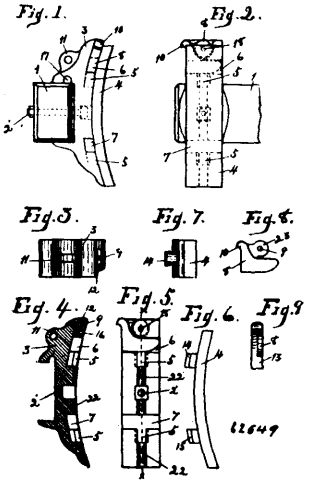


Arthur Samuel Allen, Boston, Massachusetts, U.S.A., 4th February, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. The use in a press for printing, of a tympan composed of wire bent to form a series of coils lying side by side, substantially as described. 2nd. The use in a press for printing, of a tympan composed of wire bent to form a series of coils constituting spring coils lying side by side, and a suitable covering applied thereupon to constitute the face of the tympan, substantially as described. 3rd. In a printing press, a rigid unyielding type-plate or printing surface, combined with a tympan presenting a series of coils adapted to yield transversely to their length at any point to any unevenness of said type-plate or printing surface, substantially as described. 4th. A tympan for use in printing presses, consisting of wire bent to present a series of coils or turns, and a yielding bracing incorporated therewith, substantially as described. 5th. The use in a press for printing, of a tympan containing wire bent to form a series of coils constituting an acting face for the tympan, substantially as described. 6th. The use in a press, of a tympan composed of a series of interlocked spring coils internally braced by a yielding substance, substantially as described. 7th. The use in a printing press, of a tympan consisting of a series of interlocked spring coils internally braced by a yielding substance between the several twists of the spring coils, subsantially as described. 8th. The use in a printing press, of a tympan composed of spring coils lying side by side with the individual turns of one coil overlapping the turns of the adjacent coil, and a yielding bracing in which said coils are embedded, substantially as described. 9th. The use in a printing press, of a tympan comprising wire bent to present turns or coils and lying side by side, the turns of the coils in use receiving and resisting pressure transversely to their length, said turns or coils being internally braced by a yielding substance, substantially as described. 10th. The use in a press for printing, of a tympan composed of spring coils laid side by side, and mesh wires inserted in said spring coils, substantially as described. 11th. The use in a printing press, of a tympan composed of a plurality of layers of wire or spring coils, one lying on the other, and a bracing for one or both of said layers. 12th. The use in a printing press, of a tympan composed of a plurality of series of coils of wire superimposed, one of said series being enclosed in a bracing, one of said series of spring coils being more flexible than the other. 13th. The use in a printing press, of a tympan composed of spring coils laid side by side, and mesh wires inserted in said spring coils, and a bracing for said spring coils. 14th. The use in a press for printing, of a tympan composed of spring coils lying side by side and interlocked, said spring coils receiving upon them a suitable covering to constitute the acting face of the tympan.

No. 62,549. Shoe-Brake and Head.

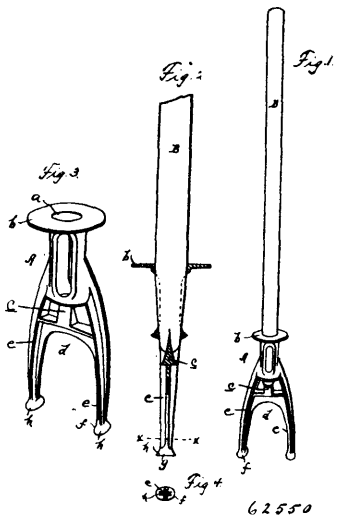
(Sabot et tête de frein.)



William Henry Phelps, Fort Wayne, Indiana, U.S.A., 4th February, 1899; 6 years. (Filed 20th January, 1899.)

Claim.—1st. A brake-shoe, having T lugs upon its rear face, in combination with a brake-head provided with longitudinal and transverse slots adapted to receive and engage said brake-shoe lugs, and also provided with a slot 12 constructed as described, a key 8 pivotally mounted in said slot 12, and having upon its outer edge a lug 10 and upon its lower edge a forwardly-projecting flange adapted when the key is seated to project into the upper transverse slot of the shoe-brake and prevent the upward riding of the shoe, all arranged substantially as described. 2nd. A brake shoe, having T headed lugs upon its inner face, with their outer edges serrated as described, combined with a brake-head having a face conforming to the inner face of the shoe, and provided with transverse grooves or slots intersecting a longitudinal slot adapted to receive and engage said lugs as described, and also provided at its upper part with a recessed slot 12, a key pivotally secured therein by a suitable bolt, and having upon its outer edge a lug 10 and upon its lower edge a serrated flange adapted when the key is seated to project into the upper transverse slot of the brake-head and detachably engage with the adjacent serrated edge of the upper lug, and all arranged as described and shown.

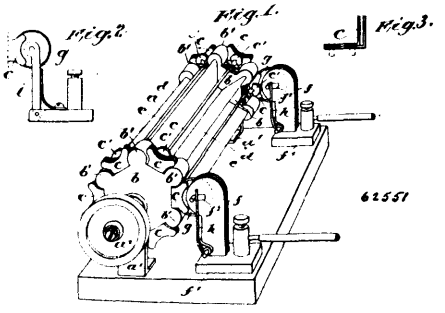
No. 62,550. Laundry-Fork. (*Fourche pour buanderies.*)



Frank X. Krabach, Defiance, Ohio, U.S.A., 4th February, 1899; 6 years. (Filed 20th January, 1899.)

Claim.—1st. The laundry-fork, comprising a stick or handle of wood, and a head having the socket open at both ends and receiving the stick or handle, the branches, the cross-bar connecting the branches, and the wedge on said cross-bar arranged coincident with the socket so as to split the end of the stick or handle and spread the branches thereof apart, substantially as described. 2nd. The improved head, having the socket at one end and the fork at its opposite end, with the branches of the latter terminating in tips of approximately oval shape in outline, flat on their outer ends and rounded on their backs or rear sides, and also having the shield at the outer end of the socket, and the wedge disposed in the plane of the socket and arranged adjacent to the inner end thereof to receive a stick or handle, substantially as described. 3rd. A laundry-fork, comprising a stick or handle of wood, and a head having the socket open at both ends and receiving the handle, and the wedge arranged exterior to the socket and coincident with the same so as to split the end of the stick or handle and spread the branches thereof apart, substantially as specified.

No. 62,551. Magazine Fuse Block.
(*Fusée multiple pour lumières électriques.*)



William Ehrhardt, West Hoboken, Dr. William A. Seimel and Theodore F. Reeves, both of Greenpoint, New York, U.S.A., 4th February, 1899; 6 years. (Filed 7th December, 1898.)

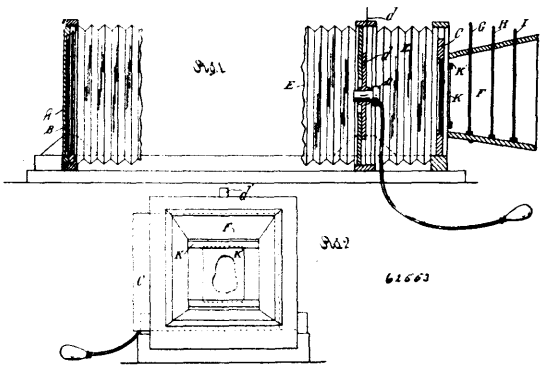
Claim.—1st. In a magazine fuse-block, the combination of a rotary cylinder or shaft provided with star-shaped end pieces, the arms of which terminate in rounded formations of insulating material, contact clips to which the fusible strips are connected located between the said rounded projections and spring-mounted rotating discs adapted to make connection with said contacts and to roll over said rounded projections when the block is shifted. 2nd. In a magazine fuse-block, the combination of a plurality of pairs of contact-clips *c* arranged between the arms of a star-shaped carrier and a rolling, spring-mounted contact-disc adapted to roll out of contact with one pair of clips and into contact with the next and over the intervening arm of the carrier, substantially as described. 3rd. The combination of a disc *s*, the two spring-plates *f* between which it is clasped, said plates being provided with slots in which the shaft of the disc is located, a spring *h* bearing against the shaft of the disc and a rotating body carrying a plurality of contact-clips separated by projections of insulating material, said clips being adapted to be brought successively into contact with the disc, substantially as described.

No. 62,552. Method of Treating Hydro-Carbon Oils.
(*Méthode de traitement d'huile hydro-carbure.*)

Arthur J. Boote, Henry G. W. Kittredge and Francis H. Steele, all of Toledo, Ohio, U.S.A., 4th February, 1899; 6 years. (Filed 15th October, 1898.)

Claim.—1st. In the treatment of oils for the removal of sulphur compounds contained therein, the herein described method of first treating the oil with an alkaline solution of an oxide of lead and then further treating it with hypochlorite of calcium, and then removing the precipitate. 2nd. In the treatment of distillates of the hydro-carbon oils of the class described, the herein described method of submitting the distillate to a process of desulphurization by treating it first with an oxide of lead in alkaline solution and then with chloride of lime or suitable hypochlorite, removing the precipitate and also submitting the distillate either before or after such treatment to the usual sulphuric acid and soda treatment.

No. 62,553. Camera. (*Camera.*)



Hermann Stender and Henry Peace Ware, Los Angeles, California, U.S.A., 4th February, 1899; 6 years. (Filed 20th September, 1898.)

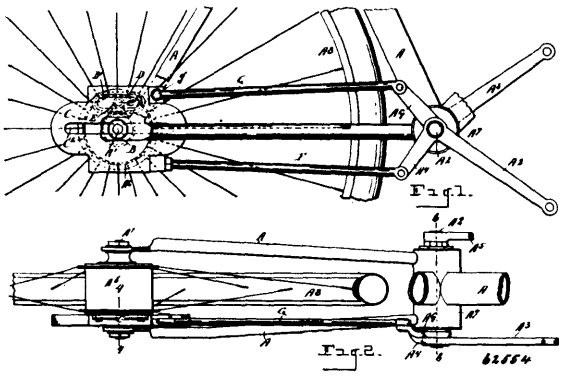
Claim.—1st. An enlarging camera provided with a negative or transparency holder, a vignette arranged in front of such holder, and a light diffusing chamber arranged in front of the vignette. 2nd. An enlarging camera comprising a plate-holder, a lens arranged between the plate-holder and the negative or transparency holder, a vignette holder arranged in front of the negative or transparency holder, and a light diffusing chamber arranged in front of the vignett holder. 3rd. In a camera, the combination of a transversely movable negative holder and a lens vertically movable independently of the body of the camera. 4th. In an enlarging camera, the combination of a transversely slidign negative-holder, a plate-holder, and a vertically adjustable lens between the negative holder and the plate-holder. 5th. In an enlarging camera, the combination of a transversely sliding negative-holder, a light diffusing chamber in front of the negative-holder, and a vertically adjustable lens between the negative-holder and the plate-holder, substantially as and for the purpose set forth. 6th. In an enlarging camera, the combination set forth of the negative or transparency holder, the light diffusing chamber, arranged in front of such holder, and coloured light diffusing screens arranged in the chamber. 7th. An enlarging camera comprising a light-diffusing chamber provided with a plurality of diffusing screens, one of which is of a tint to regulate the actinic quality of the white light, a plate holder, a negative-holder between the light-diffusing chamber and the plate-holder, and a lens between the negative-holder and the plate-holder. 8th. A camera provided with a negative-holder and a plate-holdes, a lens between the negative-holder and the plate-holder, a light-diffusing chamber in front of the negative-holder and provided with two white screens, and a tinted screen arranged between the two white screens to regulate the actinic quality of the white light.

No. 62,554. Bicycle Gear and Mechanical Movement.
(*Engrenage de bicycle et mouvement mécanique.*)

Samuel N. Rapp, Detroit, and Mina G. Ives, Dearborn, both of Michigan, U.S.A., 4th February, 1899; 6 years. (Filed 23rd November, 1898.)

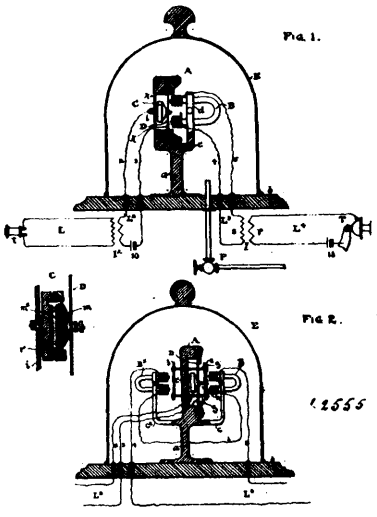
Claim.—1st. The combination with an axle and its hub, of a circular gear toothed on its periphery mounted upon the hub and concentric therewith, a horizontally elongated planet gear toothed throughout on its outer periphery and having its outer periphery in mesh with the first-named gear, and mechanism to carry the planet gear around about the periphery of the first-named gear, said planet gear having a reciprocatory engagement with the mechanism, substantially as set forth. 2nd. The combination of an axle and its hub, of a gear mounted upon said hub, a horizontally elongated planet gear toothed on its outer periphery and having its outer periphery in mesh with the first-named gear, reciprocatory mechanism to carry the plant gear around and about the periphery of the

first-named gear and round about said axle, whereby the planet gear will exert its power continuously upon the first-named gear, said



mechanism reciprocatory in the same plane throughout its movement, and said planet gear having a reciprocatory engagement with said mechanism, substantially as set forth. 3rd. In a bicycle, the combination with a rear axle and its hub, of a crank axle, a gear toothed on its periphery mounted upon the hub, a horizontally elongated planet gear toothed throughout on its outer periphery and having its outer periphery in mesh with the first-named gear, and mechanism actuated by the crank axle to carry the planet gear around about the periphery of the first-named gear and wound about the axle, whereby the planet gear will exert its power continuously upon the first-named gear, said planet gear having a reciprocatory engagement with said mechanism, substantially as set forth. 4th. The combination of a frame, an axle, a hub upon said axle, a circular gear mounted upon said hub inside said frame and concentric with said hub, a planet gear toothed on its outer periphery having its outer periphery in mesh with the first-named gear, and mechanism to carry the planet gear around and about the periphery of the first-named gear and round about said axle inside said frame, substantially as set forth. 5th. The combination of an axle and its hub, of a gear toothed upon its periphery mounted upon said hub, a channelled planet gear meshing on its periphery with the gear upon the hub, a crank arm mounted upon the hub and working in the channel of the planet gear, a channelled reciprocatory rod astride the axle provided with upwardly and downwardly projecting channelled arms and arranged to carry the periphery of the channelled gear about the gear upon the hub and round about the axle, the planet gear made vertically reciprocatory in said arms, substantially as set forth. 6th. The combination with an axle and its hub, of a gear mounted thereupon, a planet gear toothed upon its periphery in mesh with the gear upon the hub, and a channelled reciprocatory connecting rod astride the axle provided with upper and lower channelled arms and arranged to carry the periphery of the planet gear about the periphery of the gear upon the hub, and round about the axle, said planet gear provided with a tongue having a reciprocatory movement in said arms at the front and at the rear of the gear upon the hub, substantially as set forth. 7th. The combination of an axle and its hub, a gear upon said hub, a channelled reciprocatory connecting rod astride said hub, on elongated vertically reciprocatory channelled planet gear carried by said rod in mesh with the periphery of the gear upon the hub, a crank arm having a vertically reciprocatory engagement with the opposite end of said rod, and means engaged with the channel of the planet gear to hold said gears in mesh, substantially as set forth. 8th. In a bicycle, the combination with a rear axle and its hub, a rock-shaft, a rock-arm rigid with said shaft, a pedal lever to actuate said rock-shaft and rock-arm, an additional pedal lever provided with a crank-arm engaged upon the rock-shaft, mechanism for driving the hub on the rear axle, and connecting rods connecting said arms with said mechanism, one of said connecting rods having a jointed engagement with said mechanism, the other rod having a fixed engagement with said mechanism, said connecting rods at their ends opposite the crank arms having a reciprocatory movement only, one of said connecting rods having a fixed engagement with the case, and the other connecting rod a jointed engagement with the case, substantially as set forth. 9th. In a bicycle, the combination with a rear axle and its hub, mechanism to drive the hub on the rear axle provided with a reciprocatory case located astride the rear axle, a rock-shaft, a rock-arm rigid with said shaft, a pedal lever to actuate said rock-shaft and rock-arm, a pedal lever provided with a crank-arm engaged upon the rock-shaft, and connecting-rods connecting said rock-arm and said crank-arm with said case, said connecting-rods at their ends opposite the crank-arms having a reciprocatory movement only, one of said connecting-rods having a fixed engagement with the case and the other connecting-rod a jointed engagement with the case, substantially as set forth.

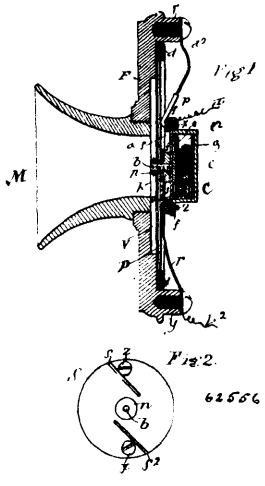
No. 62,555. Telephone Relay. (*Relais téléphonique.*)



The Bell Telephone Comapny of Canada, Montreal, Quebec, Canada, assignee of John Stone Stone, Boston Massachusetts, U.S.A., 4th February, 1899; 6 years. (Filed 15th November, 1898.)

Claim.—A telephone-relay comprising an electro-magnet in one circuit, transmitting-electrodes in a second circuit, a diaphragm common to both said electro-magnet and said transmitting-electrodes, and a vacuum-chamber inclosing said magnet, electrodes, and diaphragm, substantially as described.

No. 62,556. Telephone Transmitter.
(*Transmetteur téléphonique.*)



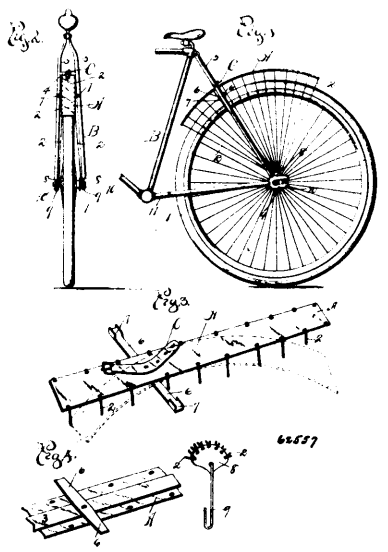
The Bell Telephone Company of Canada, Montreal, Quebec Canada, assignee of Herbert Edward Shreeve, Boston, Massachusetts, U.S.A., 4th February, 1899; 6 years. (Filed 18th November, 1898.)

Claim.—1st. In a telephone-transmitter, the combination of the vibratory diaphragm, and the front and back electrodes both mounted thereon, the former being rigidly, and the latter elastically attached thereto, with a variable-resistance medium composed of substantially spherical or rounded carbon granules or particles, held between and in constant contact with the said electrodes, substantially as specified. 2nd. In a telephone-transmitter, the combination with the vibratory diaphragm, of a case or chamber elastically attached to the said diaphragm and wholly supported thereby, and two electrodes having adjacent contact-surfaces, inclosed in said case, one being mounted directly on the diaphragm and the other on the back of the case, with a variable-resistance medium constituted of spherical or rounded particles of granulated carbon held between the said electrodes, within the said chamber, substantially as set forth. 3rd. The combination in a telephone-transmitter, with a diaphragm carrying both electrodes, one mounted directly thereon, and the other through an interposed elastic arm or plate, of a mass of granular carbon held between and in contact with the said electrodes to constitute a variable-resistance medium, the grains or particles of carbon being spherical or rounded in form, substan-

tially as set forth. 4th. In a transmitting-telephone of the granular-carbon type, the combination with the diaphragm, of a case or chamber containing the electrodes, supported on the said diaphragm, and provided with a spring-back forming or carrying one of said electrodes, the other being attached directly to the diaphragm, and a mass of rounded or substantially spherical carbon granules or particles held between the said electrodes within the said case, substantially as described. 5th. In a transmitting-telephone of the granular-carbon type, the combination of the diaphragm, a resilient or elastic disc or plate secured centrally thereto, a containing case chamber supported on the spring edges of the said plate and closed thereby, and a variable resistance medium contained within the said chamber and consisting of a front electrode directly secured to the diaphragm, a complementary electrode carried upon the rear wall of said chamber, and spherical or rounded carbon granulations held between the said electrodes, substantially as specified herein.

No. 62,557. Skirt Guard for Bicycles.

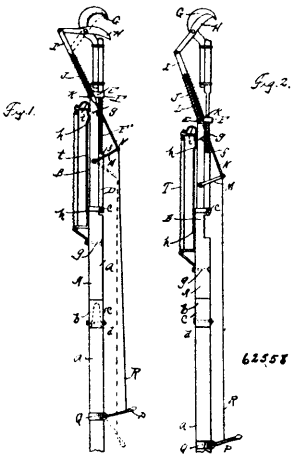
(Garde-jupes pour bicycles.)



Patrick A. Toomey, Chicago, Illinois, U.S.A., 6th February, 1899; 6 years. (Filed 16th August, 1898.)

Claim.—1st. In a bicycle skirt guard, the combination of a flexible and elastic wheel periphery covering strip which can be bent or curved into form or shape substantially corresponding to the curvature of the wheel periphery, and which, when so bent or curved, tends to lessen its degree of curvature, and lacing or like means for holding the periphery covering strip in a curved or bent condition. 2nd. A bicycle skirt guard, comprising a flexible and elastic periphery covering strip which can be bent or curved into form or shape corresponding substantially with the curvature of the wheel periphery, and which, when so bent or curved, tends to assume a less curved or bent condition, lacing, or like means, for covering the sides of the wheel, and also for holding the periphery covering strip in a curved or bent condition, means for attaching the lacing to the bicycle frame, and means for attaching the periphery covering strip to the same. 3rd. A bicycle skirt guard comprising a flexible and elastic periphery covering strip which can be bent or curved into form or shape substantially corresponding in curvature with the wheel periphery, and which, when so bent or curved, tends to assume a less bent or curved condition, a strap or the like for temporarily attaching such strip to a rear cross-bar arranged on the bicycle frame above the rear wheel, lacing which converges downwardly from the strip so as to hold the same in a bent or curved condition, and also so as to protect the skirt from the wheel spokes, discs or plates to which the lower ends of the lacings are connected, and hooks having their upper ends connected with the discs or plates, and their lower ends constructed to slide below and detachably engage the portions of the bicycle frame formed at the junctions of the rear upright, and rear horizontal bars. 4th. A skirt guard for bicycles, comprising an aluminium wheel periphery covering strip having a normally straight form, lacing attached thereto and converging downwardly therefrom on the opposite sides of the wheel, and devices for detachably attaching the aluminium strip and the lower ends of the lacing to the bicycle frame. 5th. In a bicycle skirt guard, a disc or plate to which the lacing can be attached, and a hook having its upper end secured to such disc or plate, and its lower end so formed as to permit of its sliding under and detachably engaging the portion of the bicycle formed at the junction of the rear upright and horizontal side bars. 6th. The combination with a bicycle, of a skirt guard therefor, comprising a flexible and elastic periphery covering strip arranged in position over the rear wheel, and bent or curved out of its normal form or shape and into substantial correspondence with the curvature of such wheel periphery, lacing or like means for holding such strip in curved or bent condition, and devices for detachably attaching the strip and the lower portions of the lacing to the bicycle frame. 7th. In a bicycle skirt guard, the combination of a periphery covering strip, and a couple of spring arms extending downwardly therefrom, and adapted to spring outwardly and detachably engage the rear upright bars of the bicycle.

No. 62,558. Pruning Implement. (*Sécateur.*)



Abraham H. Knight Chapel, and Homer M. Moyers, Henry W. Moyers, and Parion L. Moyers, all of Shock, West Virginia, U.S.A., 6th February, 1899; 6 years. (Filed 30th December, 1898.)

Claim.—1st. A pruning implement comprising a handle, a vertically-movable rod upon the handle, a blade connected with the upper end of the rod, and having a laterally-projecting cutting edge, a blade intermediately pivoted to said vertically-movable blade and having a cutting edge under the lateral cutting edge thereof, a rod pivoted to the opposite end of the intermediately-pivoted blade and having a longitudinal slot, a pin projecting from the upper end of the handle through the said slot for limiting its upward movement, whereby a cutting action is produced by a downward pull upon the handle, the parts combined to operate as described. 2nd. A pruning implement comprising a handle, a rod vertically movable upon the said handle, one end of the rod projecting beyond the handle and carrying a blade with a laterally-projecting cutting edge, a second blade intermediately pivoted to the first blade with a cutting edge under the lateral projecting portion, a rod connected to the opposite end of the intermediately-pivoted blade, a pin or projection extending from the handle and limiting the upper movement of the said rod, and a spring serving to hold the rod normally upward, whereby a cutting action is produced by a downward pull upon the handle, as described. 3rd. A pruning implement comprising a handle, a rod having its lower end provided with a sleeve surrounding the handle, the upper end of the handle having a guideway through which the upper end of the rod passes, a knife secured to the upper end of the rod and having a laterally-projecting cutting edge or blade, an intermediately-pivoted blade with a cutting portion below the lateral cutting edge of said blade, an operating connection with the opposite end of the intermediately-pivoted blade, a spring surrounding said rod and holding it normally downward, a pin for the connection of the intermediately-pivoted blade, whereby a cutting action is produced by a downward pull upon the handle, substantially as described.

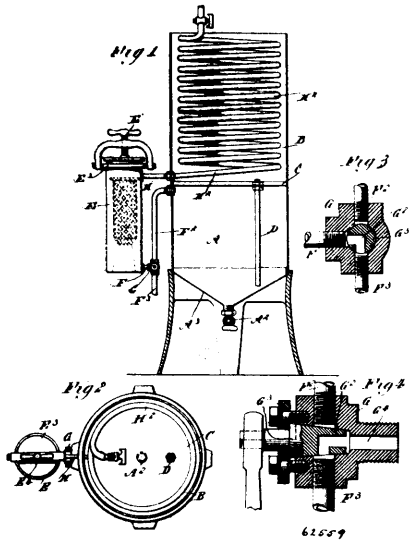
No. 62,559. Acetylene Gas-Making Apparatus.

(Appareil pour la fabrication du gaz acétylène.)

George Henry Crowther, Robert Holiday and Edward Cockshaw, all of Muddersfield, York, England, 6th February, 1899; 6 years. (Filed 10th October, 1898.)

Claim.—1st. An acetylene gas apparatus, comprising a cistern, a holder communicating with the cistern, and a gas generator having a delivery-pipe leading from its upper end directly to the service-pipe, and a valved pipe leading from its lower end into the upper end of the holder, whereby the water will be forced from the generator into the holder immediately upon stopping the flow of gas, substantially as described. 2nd. An acetylene gas apparatus, comprising a cistern, a holder below the cistern, and into which a pipe from the cistern extends nearly to the bottom thereof, a coil of pipe in the cistern and adapted to be connected with the service-pipe, a gas generator connected directly with the said coil, and a pipe leading from the lower end of the generator into the upper end of the holder, and provided with a three-way cock, substantially as described. 3rd. An acetylene gas apparatus, consisting of a water-holder having a drain-pipe in its bottom, a cistern above

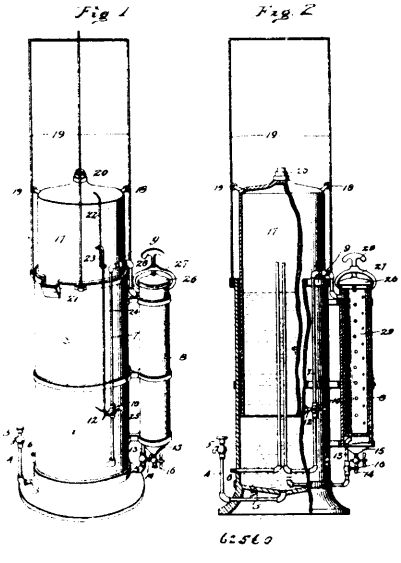
the holder and separated therefrom by a horizontal partition, a pipe leading from the partition down to within a short distance of the



bottom of the holder, a coil of pipe in the cistern and adapted to be connected with a service-pipe, a generator having its upper end connected with the said coil, said generator being outside of the holder and on about a level therewith, a pipe leading from the upper end of the holder to the lower end of the generator, and a three-way cock in said pipe, substantially as herein shown and described. 4th. An apparatus for producing and storing acetylene gas, the combination, with a gas generator, of a displacement-holder, a pipe or passage from the lower part of the generator to the higher part of the holder, and provided with a three-way valve for placing same into and out of communication with each other and for coupling the pipe F from the generator to the waste-pipe, and a pipe or passage leading direct from the generator to a cooler or to service-pipes, substantially as described.

No. 62,560. Acetylene Gas Generator.

(*Générateur de gaz acétylène.*)

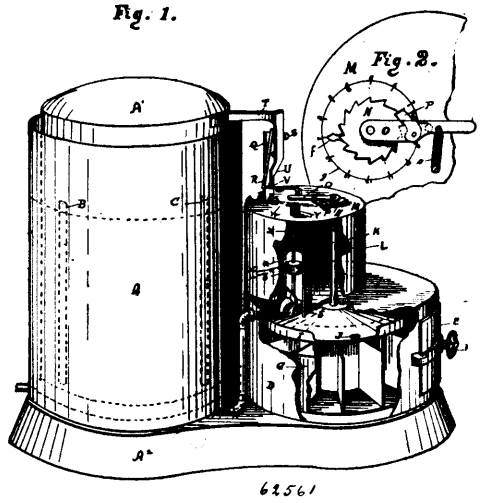


James Maxon Schofield, Stockton, California, U.S.A., 6th February, 1899; 6 years. (Filed 17th October, 1898.)

Claim.—1st. The combination with the tank, the water outlet pipe terminating at a point above the bottom of the tank and the holder mounted within said tank, of the generator chamber, the foraminous carbide cage and the pipes 7 and 13, connecting said chamber and tank, substantially as shown and described. 2nd. The combination with the tank, the holder mounted within the tank and the valve-rod depending from the holder, of the generator chamber, the pipe 7 connecting said chamber and tank and the valve 10 provided with the lever 12 projecting into the path of said valve-rod, substantially as shown and described. 3rd. The combination with the tank 1, the pipe 4, the holder 17 mounted within said tank, the valve operating rod carried by said holder and terminating in the arm 25, of the generator chamber, the removable carbide cage, the pipe 7 connecting said chamber and tank, the valve 10, located in the pipe 7 and having its lever projecting into the path of the arm 25, and the valved pipe 13 connecting the lower ends of the chamber and tank, substantially as shown and described.

No. 62,561. Acetylene Gas Generator.

(*Générateur de gaz acétylène.*)



John Sharpe, Ottawa, Ontario, Canada, 6th February, 1899; 6 years. (Filed 10th September, 1898.)

Claim.—1st. An acetylene gas generator comprising a movable gasometer, a reservoir, a water cup within said reservoir, a generator divided into compartments, an automatic revoluable water distributor overhanging the said divided compartments, an indicator showing which generating compartment is in use, substantially as described. 2nd. An acetylene gas generator comprising a gasometer, a revoluable water distributor deriving its motion from the said gasometer, a reservoir, a water cup within the said reservoir discharging the contents into said water distributor at predetermined periods, an indicating device showing the used and unused carbide in the generators, substantially as described. 3rd. In a gas generating machine comprising a reservoir, a revoluable water distributer as a conveyer from the said reservoir into each separate generator compartment at predetermined periods, an indicator moving simultaneously with the said water distributer and deriving its movements from the gasometer, as and for the purpose herein specified. 4th. In a gas generating machine comprising a gasometer provided with an extended arm, a rock arm engaging therewith, a pawl a ratchet-wheel, a revoluable water distributer connected thereto and moved in one direction step by step, an opening in said water distributer through which the water is conveyed to the separate generating compartments, as and for the purpose herein specified. 5th. In a gas generating machine comprising a reservoir, a water cup within the reservoir, a rod projecting through said reservoir and up and provided with double plunger plugs within the said cup which serves to open and close the said cup, a revoluable water distributer below the cup and provided with raised rim to conduct the water to its opening, as and for the purpose specified.

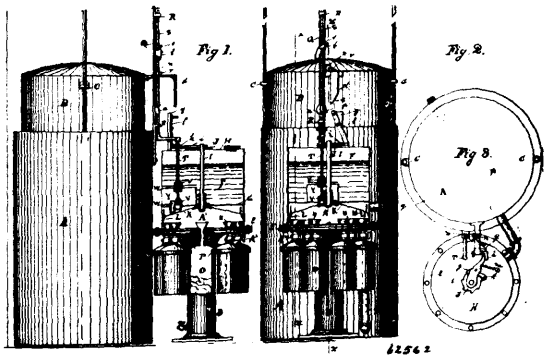
No. 62,562. Acetylene Gas Generator.

(*Générateur de gaz acétylène.*)

John Sharpe, Ottawa, Ontario, Canada, 6th February, 1899; 6 years. (Filed 12th October, 1898.)

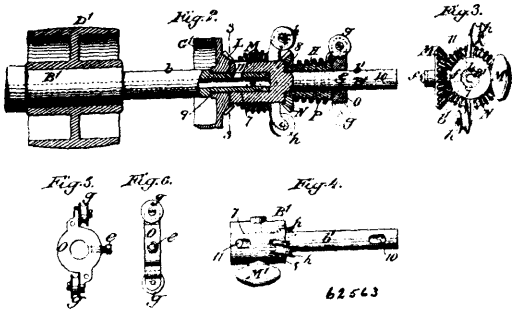
Claim.—1st. An acetylene gas generating machine a series of generators, a movable gasometer as a primary and ultimate mover, an automatic water distributor as a selecting device, ultimately as a water conveyor, a reservoir, a water cup within said reservoir, condensing chamber interposed between said reservoir and generators, a drip cup below the condensing chambers, as and for the purpose herein specified. 2nd. In combination, a series of generators, a revoluble water distributor in common with said series of generators, a series of cut-off cocks interposed between said generators and body of machine, a condensing chamber above the said generators, a reservoir and water-cup provided with rocking-piece *b*, as a means to regulate the supply from said cup, as and for the purpose herein specified. 3rd. In combination, a series of generators detachable from machine while the latter may be in use, stop-cocks connecting

the generators and condensing chamber, a drip cup, a water distributor within the said condensing chamber, a water-cup above the



said distributor and conveying thereby to the generator the contents of said cup at predetermined periods, as and for the purpose herein specified.

No. 62,563. Flier for Spinning Machinery.
(*Volant pour machines à filer.*)



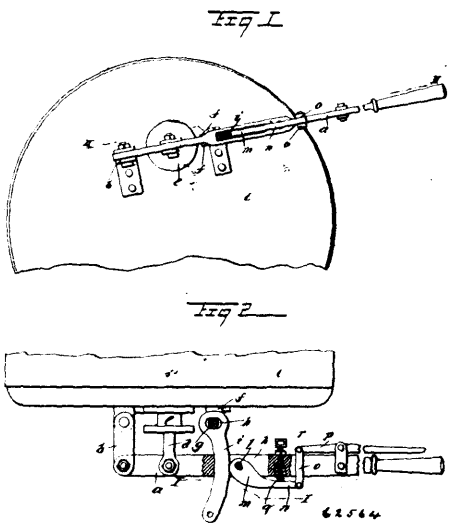
John Good, Far Rockaway, New York, 6th February, 1899; 6 years. (Filed 18th October, 1898.)

Claim.—1st. The combination with a flier, of a capstan, the axis of which is coincident with the axis of the flier, substantially as described. 2nd. The combination with a flier, of a capstan so fitted upon the journal of the flier that the flier and capstan may rotate independently of each other, substantially as herein described. 3rd. The combination with a flier and a capstan fitted loosely on the journal thereof, of means for driving the flier and means for driving said capstan at a speed differing from the speed of the flier, substantially as herein described. 4th. The combination of a flier and a capstan fitted loosely on the journal thereof, means for driving said flier and capstan independently of each other, and a spiral guide attached to the flier and encircling the capstan, substantially as herein described. 5th. The combination of a flier, a capstan fitted loosely on the journal thereof, means for driving the flier, a gear fitted to the flier journal to turn thereon independently thereof and means for driving said gear, a gear fast to the capstan and an intermediate gear carried by the flier journal, substantially as and for the purpose herein set forth. 6th. The combination of the flier journal made of two parts b, b^1, one of which is provided with a socket 7, to receive and hold the end of the other which is provided with a shoulder 9, a capstan and attached gear N, fitted to turn on said part b^1, a pulley and attached gear L, fitted to turn on said part b, between its shoulder 9, and the end of said socket 7, and an intermediate loose gear M, carried by said part b^1, and engaging with the gears M, N, all substantially as and for the purpose herein described. 7th. The combination with a flier and a capstan fitted loosely upon the journal thereof, of guide sheaves attached to the journal at opposite ends of the capstan, substantially as herein described.

No. 62,564. Throttle Lever. (*Levier de manoeuvre de vapeur.*)

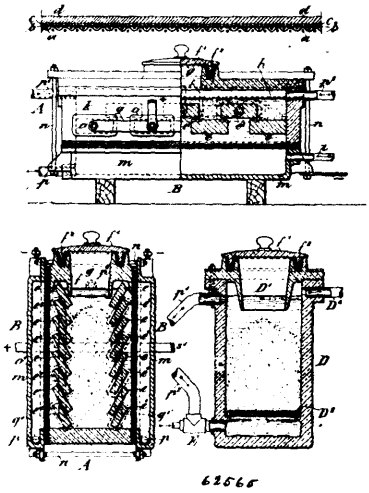
Lorin Winfield Canady, Toyah, Texas, U.S.A., 6th February, 1899; 6 years. (Filed 22th September, 1898.)

Claim.—1st. In a throttle, the combination with the boiler having a swinging arm, of a lever fulcrumed on said arm, a second arm mounted to swing on the boiler and having sliding engagement with the lever, and a spring-pressed cam carried on the lever and capable of engaging the arm. 2nd. The combination of a lever, an arm on which the lever is fulcrumed, a second arm past which the lever slides, a cam mounted to turn on the lever and capable of locking the said second arm to the lever, a spring mounted on the lever and pressing the cam, a hand piece mounted to rock on the lever, and a connection between the hand piece and the cam, substantially as described. 3rd. The combination of a lever, an arm mounted to swing adjacent to the lever, a cam mounted to rock on the lever and



engaging the arm to the lock the same to the lever, a spring-pressing the cam, and a hand piece mounted on the lever and connected with the cam to move the same against the spring.

No. 62,565. Electrolysis of Salts. (*Electrolyse du sel.*)



James Hardgreaves, Farnworth-in-Widnes, Lancaster, England, 6th February, 1899; 6 years. (Filed 24th October, 1898.)

Claim.—1st. The herein described method of preparing a combined diaphragm and electrode for use in electrolytic cells, consisting in covering wire cloth or perforated plate with a thin layer of temporarily retentive material, such as paper or clay, then applying a superposed coating of hard or dense material, such as Portland cement, and ultimately covering the latter with a soft or porous material, such as asbestos cloth, slag wool, clay, or the like, a stratified diaphragm, dense as to one side and porous as to the other, resulting substantially as set forth. 2nd. In an electrode-diaphragm, the combination with a wire-cloth cathode, such as a, of a superposed layer of paper, clay or other temporarily retentive material, b, a coating of Portland cement c, and a covering d composed of asbestos, substantially as and for the purposes specified. 3rd. In constructing a combined diaphragm-electrode, coating the cathode with a soluble substance, which, upon the application of the superposed layers of hard and dense material and soft or porous materials being completed, is dissolved or removed and leaves a narrow space between the cathode and the said hard or dense material, substantially as described. 4th. In a combined diaphragm and electrode constructed in the manner herein described, covering the side of the diaphragm remote from the cathode with a soft or porous material composed of asbestos with lime, indurated with a solution of silicate of soda, substantially as set forth. 5th. The herein described method of constructing electrolytic cells, consisting in coating one side of each of a pair of lead plates with pitch, inserting the anodes through

perforations in said plates, and forming the walls by casting cement against the layer of pitch. 6th. For use in the decomposition of salts by electrolysis, a saturating vessel comprising a receptacle D furnished with a grid for supporting a quantity of salt, a charging orifice for said salt closed by a sealed cover, an inlet for weakened brine from the electrolytic cell beneath the grid, and at the upper part of the vessel an outlet for strong brine and an outlet for chlorine, substantially as and for the purposes set forth. 7th. The combination, with a saturating vessel D, of a steam jet for injecting weakened brine beneath the grid which supports the salt, substantially as set forth.

No. 62,566. Drying Apparatus. (*Appareil à sécher.*)

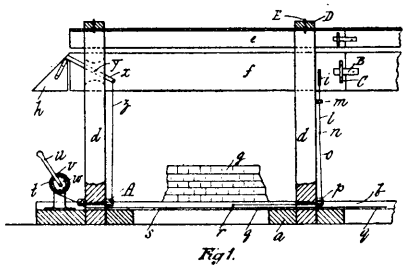


Fig 1.

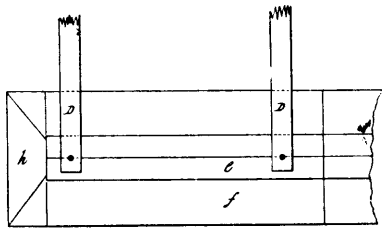


Fig 2. 62566

Edwin Gibson, 51 Parcival Road, Bush Hill Park, Enfield, Middlesex, England, 6th February, 1899; 6 years. (Filed 2nd November, 1898.)

Claim.—An improved appliance for use in connection with the drying of bricks and other articles and substances, the said appliance consisting essentially of two boards on which to rest whatever is to be dried, the said boards being connected by cross base pieces from which and between the boards upstand posts, the upper ends of which are connected by a ridge piece, below which are hinged flaps or wings, and at each end a flexible hood, the said flexible hoods and the said hinged flaps or wings being raised or lowered as and when required, by rolling cords, chains, or the like on or off a drum, the said cords, chains or the like acting on horizontal and vertical rods the latter of which operate hinged arms below the flaps and pivoted levers below the hoods, the whole substantially as described in the above specification, and exemplified in the accompanying drawings.

No. 62,567. Lobster Preserving and Packing Process.
(*Procédé pour préserver et conserver le homard.*)

Thomas C. Peters, Manchester, Massachusetts, U.S.A., 6th February 1899; 6 years. (Filed 28th October, 1898.)

Claim.—1st. The process herein described for preserving lobsters by enclosing them in glass jars or their equivalent, in the solution above in detail described. 2nd. The process of preserving lobsters by enclosing them in glass jars or their equivalent in a solution composed of the ingredients above set forth, substantially as described.

No. 62,568. Beer Manufacturing Process.
(*Procédé pour la fabrication de la bière.*)

Paul Kropf, Chicago, Illinois, U.S.A., 6th February, 1899; 6 years. (Filed 26th October, 1898.)

Claim.—1st. In the manufacture of beer, fermenting the wort for a period of from eight to twelve days, and then introducing ozonized air into the wort during the latter part of such fermentation. 2nd. In the manufacture beer, fermenting the wort for a period of from eight to twelve days, and then introducing ozonized air into the wort for from four to six hours during the latter part of such fermentation. 3rd. In the manufacture of beer, fermenting the wort for a period of from eight to twelve days, and then introducing electrically ozonized air into the wort during the latter part of such fermentation.

No. 62,569. Magazine Camera. (*Camera.*)

Harry Dudley Haight and Lincoln Lawrence Cossitt, both of Chicago, Illinois, U.S.A., 6th February, 1899; 6 years. (Filed 31st October, 1898.)

Claim.—1st. In a camera, the combination with a series of automatically forwardly movable plate-holders, placed edgewise, one back of the other, of an automatically returnable oscillatory pawl adapted to the upper edges of the forwardmost plate-holder so that

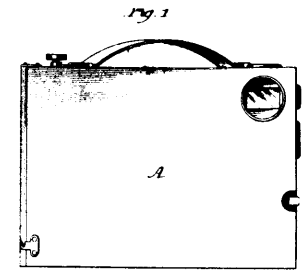


Fig 1

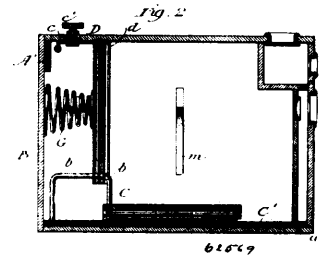


Fig 2

62569

the same will fall face downwards in front of the focal point of said camera. 2nd, In a camera, the combination with a removable tray, and a series of automatically forwardly movable plate-holders placed edgewise, one back of the other, on said tray, of a box and an automatically returnable oscillatory pawl journalled in the top thereof adapted to engage the upper edges of the forwardmost plate-holder so that the same will fall face downwards in said tray in front of the focal point of said camera, as set forth. 3rd. In a camera, the combination with a series of automatically forwardly movable plate-holders placed edgewise, one back of the other, and each provided with an offset in the upper edge thereof, as described. of suitable box and an oscillatory pawl pivoted therein above said holders, having a downwardly projecting finger therefrom which is adapted to engage the upper edge of the forwardmost plate-holder so that the same will fall face downwards in front of the focal point of said camera, as set forth. 4th. In a camera, the combination with suitable longitudinally arranged parallel rails, posts between the forward ends of said rails, and a series of automatically forwardly movable plate-holders placed edgewise, one back of the other, on said rails and each having openings in their lower portions next their lower edges, in longitudinal alinement with said posts, of an oscillatory pawl adapted to engage the upper edges of the forwardmost plate-holder and cause the same to fall face downwards so that said post will enter the opening in the plate-holder made to receive it, as set forth. 5th. In a camera, the combination with a plate-holder having an offset in its upper edge, as specified, and having an opening therein near its lower edge, of suitably arranged parallel rails, upon which said plate is placed edgewise, a post placed between and in the same transverse plane as the forward ends of said rails, a box and an automatically returnable oscillatory pawl pivoted therein above said plate, which is adapted to engage the said offset in the upper edge of the plate-holder, as and for the purposes set forth. 6th. In a camera, the combination with a tray, suitable longitudinally arranged parallel rails thereon, one or more posts on said tray located between the forward ends of the rails, and a series of automatically forwardly movable plate-holders placed edgewise, one back of the other on said rails, and each having openings in their lower edges in longitudinal alinement with said posts, of an automatically returnable oscillatory pawl adapted to engage the upper edges of the forwardmost plate-holders, as and for the purpose set forth. 7th. In a camera, the combination with a plate-holder having an offset in its upper edge, as specified, having indentations in its lower edge, and having one or more openings near said lower edge between indentations, of suitably arranged parallel rails, upon which said plate-holder is placed so that said rails enter said indentations, one or more vertical posts placed between and in the same transverse plane as the forward end of said rails, and an automatically returnable oscillatory pawl pivoted above said plate-holder and adapted to engage said offset in the upper edge of said plate-holder, as and for the purpose set forth. 8th. In a camera, the combination with a plate-holder having an offset in its upper edge, as specified, and having indentations in its lower edge, and having openings therein near its lower edge between said indentations, of a suitable removable tray, parallel rails arranged longitudinally near the rear end of said tray upon which said plate is placed edgewise, one or more arising from said tray between and in the same transverse plane as the forward end of said rails, a suitable box and an oscillatory pawl pivoted above said plate-holder in the upper edge of said plate-holder, as and for the purpose set forth. 9th. The combination with a rectangular shaped plate-holder having its side edges bent back over itself to form guideways, having an offet in its

upper edge, as specified, having indentations in its lower edges, and having openings therein near its lower edges between said indentation in combination with a suitable camera box and devices therein for manipulating said plate-holder.

No. 62,570. Carpet. (*Tapis.*)

Fig.1.

Fig.2.

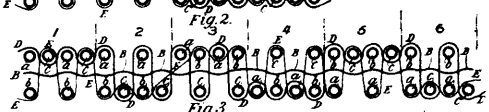
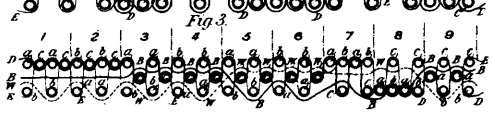


Fig.3.



62570

Thomas Fox Naylor and Arthur Naylor, both of Green Street, Kidderminster, Worcester, England, 6th February, 1899; 6 years. (Filed 7th November, 1898.)

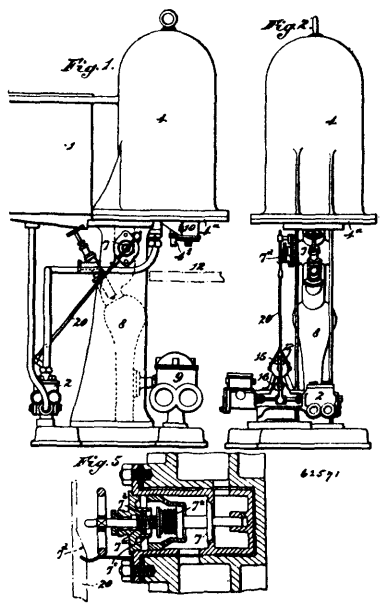
Claim.—1st. In the class of carpet specified, a fabric woven with two piles of weft material, one ply being composed one half only of the number of weft shots in the other ply, and having a stuffer warp B between the said piles which is occasionally left uncovered to appear as if on the surface of the fabric to produce its colour effect, substantially as and for the purpose herein described. 2nd. In the class of carpet specified, a fabric woven with two plies of weft material, one ply being composed of one half only of the number of weft shots in the other ply, and having a stuffer warp B and a stuffer warp W of diverse colours, each being occasionally left uncovered to appear as if on the surface of the fabric to produce its colour effect, substantially as and for the purpose herein described. 3rd. In the class of carpet specified, a reversible fabric woven with two plies of weft material, one ply being composed of one half only of the number of weft shots in the other ply, and having a stuffer warp B between plies which is occasionally left uncovered to appear as if on a surface of the fabric to produce its colour effect, substantially as and for the purpose herein described. 4th. In the class of carpet specified, a fabric woven with two plies of weft material, one ply being composed of one half only of the number of weft shots in the other ply, and having a stuffer warp B and a stuffer warp W of different colours between the said plies each being occasionally left uncoveerd to appear as if on the surface of the fabric to produce their diverse colour effects, and worked on the other surface or back to form a twill, substantially as and for the purpose herein described. 5th. In the class of carpet specified, a fabric woven with two plies of weft material with a stuffer warp between them, the said plies being composed of sets or courses of three weft threads, of which two weft threads form one ply, and one weft the other ply, the said stuffer warp being occasionally left uncovered to appear as if on a surface of the fabric to produce its colour effect, substantially as and for the purpose herein described.

No. 62,571. Syrup Preparing Apparatus.

(*Appareil pour la preparation des sirop.*)

Edward Shaw, Broad Street, London, England, 6th February, 1899; 6 years. (Filed 2nd November, 1898.)

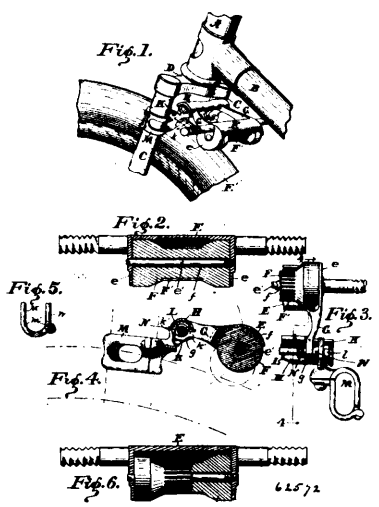
Claim.—1st. Apparatus for preparing syrup for the use in the mnnufacture of sweetmeats, comprising an externally heated tube through which the syrup is passed, means for exhausting vapour and a valve that opens communication between said coil and exhausting means only when the pressure in the coil exceeds a predetermined pressure, as set forth. 2nd. Apparatus for preparing syrup for the use in the manufacture of sweetmeats, comprising an externally heated tube, a chamber into which said tube discharges, means for removing vapour from said chamber and for maintaining the pressure therein and in the externally heated tube at or only slightly above that of the atmosphere, as set forth. 3rd. Apparatus for preparing syrup for use in the manufacture of sweetmeats, comprising an externally heated tube, a chamber into which said tube discharges, means for removing vapour from said chamber and a valve that controls communication between said tube and the means for removing vapour and opens only when the pressure in said chamber exceeds a predetermined pressure, as set forth. 4th. Apparatus for preparing syrup for use in the manufacture of sweetmeats, comprising an externally heated tube, a chamber into which said tube discharges, means for removing vapour from said chamber, and a valve that controls communication between said tube and the means for removing vapour and opens only when the pressure in said chamber exceeds a predetermined pressure and means for periodically causing an increased pressure in said chamber, as set forth. 5th. Apparatus for preparing syrup for the use in the manufacture of sweetmeats, comprising an externally heated tube, a chamber into which said tube discharges, means for removing vapour from said chamber and a valve that controls communication between said tube



and the means for removing vapour and opens only when the pressure in said chamber exceeds a predetermined pressure and a valve whereby said communication is periodically closed, as set forth. 6th. Apparatus for preparing syrup for use in the the manufacture of sweetmeats, comprising an externally heated tube, a chamber into which said tube discharges and which is formed with a liquid discharging aperture closed by an outwardly opening loaded valve, means for removing vapour from said chamber, means for periodically causing an increased pressure therein and a valve that controls communication between the tube and the vapour removing means and opens only when the pressure in said chamber exceeds a certain predetermined pressure, as set forth. 7th. Apparatus for preparing syrup for the use in the manufacture of sweetmeats, comprising an externally heated tube, a pump for feeding syrup thereto, a chamber into which said tube discharges and which is formed with a syrup a syrup discharging aperture, means for removing vapour from said chamber, a valve that controls communication between the tube and the vapour removing means and opens only when the pressure in said chamber exceeds a certain predetermined pressure, and that is connected with said feed pump, and by the closing of which the pressure in the chamber is periodically caused to increase, as set forth. 8th. Apparatus for preparing syrup for use in the manufacture of sweetmeats, comprising a coiled tube, a collecting chamber communicating therewith and formed with a syrup discharging aperture, both said tube and chamber being contained within a steam-charged dome or cover, a syrup feeding pump, an air or vapour pump, and a valve controlling communication between said chamber and the air or vapour pump, said valve opening only when the pressure in the chamber exceeds atmospheric pressure, and being connected to mechanism driven by the feed pump whereby it is periodically closed, as set forth. 9th. Apparatus for preparing syrup for use in the manufacture of sweetmeats, comprising a tank 1, feed pump 2, coil 3, steam chamber 4, collecting chamber 5, with syrup discharging aperture 10, vapour pipe 6, fitted with baffle 6^a, and leading to a condenser 8, an air pump 9 and a valve 7, as set forth. 10th. Apparatus for preparing syrup for use in the manufacture of sweetmeats, comprising a tank 1, a feed pump 2, coil 3, a collecting chamber 5 with valved syrup discharging aperture 10, a steam chamber 4 enclosing both coil 4 and chamber 5, a vapour pipe 6 fitted with baffle 6^a and leading to a jet condenser 8 arranged in the stand of the apparatus, an air pump 9, and a valve 7 that controls communication between the chamber 5 and the condenser 8, and opens only when the pressure in the chamber 5 exceeds that of the atmosphere, and is operated by the feed pump 2 so as to periodically close said communication, as set forth. 11th. Apparatus for preparing syrup for use in the manufacture of sweetmeats, comprising a syrup feeding pump, an externally heated tube, a collecting chamber into which said tube discharges and which has a syrup discharging aperture, a vapour or air pump, a valve controlling communication between said collecting chamber and vapour or air pump, which opens when the pressure in the chamber exceeds that of the atmosphere, a rod connecting the said valve to a lever provided on opposite sides of its fulcrum with a pin or abutment, a couple of wheels driven by said feed pump and each carrying a stud, the said pins or abutment being arranged respectively in the paths of the said studs, which come successively in contact with their respective studs and intermittently rock the lever and open and

close the valve, as and for the purpose set forth. 12th Apparatus for preparing syrup for use in the manufacture of sweetmeats, comprising a syrup feeding pump, an externally heated tube, a collecting chamber into which said tube discharges and which has a syrup discharging aperture, a vapour or air pump, two valves controlling communication between the said collecting chamber and vapour or air pump, one of which opens when the pressure in the chamber exceeds that of the atmosphere, a rod connecting the other of said valves to a lever provided on opposite sides of its fulcrum with a pin or abutment, a couple of wheels driven by said feed pump, and each carrying a stud, the said pins or abutments being arranged respectively in the paths of the said studs, which come successively in contact with their respective studs and intermittently rock the lever and open and close the latter valve, as and for the purpose set forth.

No. 62,572. Bicycle Brake. *(Frein de bicycles.)*



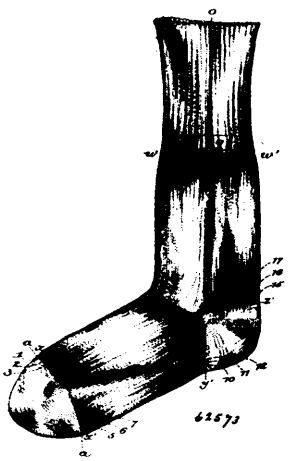
Clarence K. Davis, Indianapolis, Indiana, U.S.A., 6th February, 1899; 6 years. (Filed 21st September, 1898.)

Claim.—1st. The combination, with a bicycle frame, and the wheel of a bicycle, of a casing secured to said frame, said casing being cylindrical in form and having closed ends and a closed upper portion over the flanges of the roller, a spindle mounted in the ends of said casing, and a roller of elastic material, as rubber, having an annular recess with outwardly flaring or tapering sides following the contour of the bicycle tire in section, and being mounted on said spindle snugly between the ends of the casing and in close proximity to the bicycle tire, said roller also fitting at its terminal upper portions snugly against the upper portion of the casing substantially as described. 2nd. The combination, with a bicycle frame and the wheel of a bicycle, of a casing secured to said frame, said casing being cylindrical in form and having closed ends, a spindle mounted in the ends of said casing, and a roller of elastic material as rubber having an annular recess with outwardly flaring or tapering sides, following the contour of the bicycle tire in section, and being mounted on said spindle snugly between the ends of the casing and in close proximity to the bicycle tire whereby when the brake is applied the pressure between the wheel and the brake is instantaneously transmitted to the casing through the ends of the roller substantially as described.

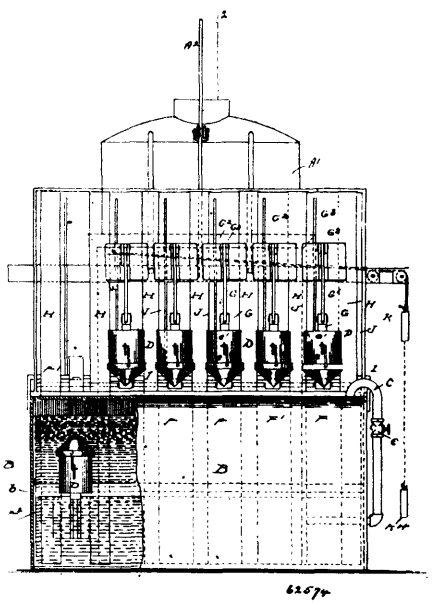
No. 62,573. Stocking. *(Bas.)*

John Franklin Nelson, Rockford, Illinois, U.S.A., 7th February, 1899; 18 years. (Filed 9th January, 1899.)

Claim.—1st. A machine-knit completed sock or stocking having a ribbed top and formed throughout its entire length without seam by uninterrupted knitted loops. 2nd. A machine-knit completed sock or stocking having a ribbed top and formed throughout its entire length without seam by successive rows of uninterrupted interlocking knitted loops. 3rd. A machine-knit sock or stocking having a ribbed top, and formed throughout its entire length without seam by uninterrupted knitted loops which produce wales that are continuous throughout the toe, foot, heel and leg, and which join by knitted loops the ribbed top. 4th. A machine-knit sock or stocking having a ribbed top and formed throughout its entire length without seam by successive rows of uninterrupted interlocking knitted loops which produce a series of wales which are continuous throughout the toe, foot, heel, leg and ribbed portion, the wales of the ribbed portion thereby forming continuations of the wales of the leg portion without any break, ridge or enlargement at the joint. 5th. A machine-knit sock or stocking having a ribbed top and formed throughout its entire length without seam by uninterrupted knitted loops which produce wales in the leg and ribbed top that are continuous and without break or interruption at the joint of the leg with the ribbed top.



No. 62,574. Acetylene Gas Making Machine.
(Machine pour la fabrication du gaz acétylène.)



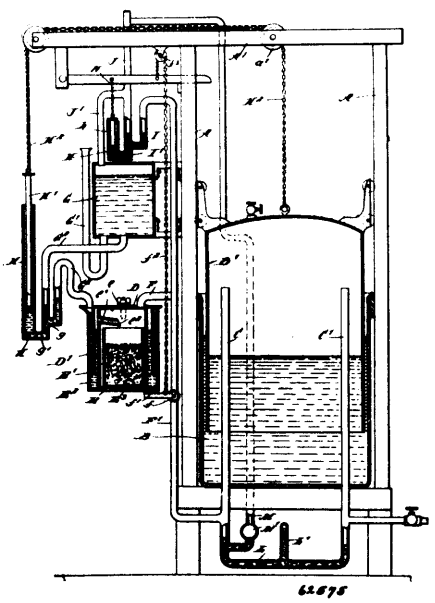
William Watson Camp, Smithville, and Hugh Steven Wallace, Hamilton, Ontario, Canada, 7th February, 1899; 6 years. (Filed 3rd September, 1898.)

Claim.—1st. An acetylene gas generator, comprising an open topped water tank, a gas collector or bell open at the bottom, and extending into the water in the tank, a carbide holder normally supported outside the tank, and means for automatically immersing the carbide holder in the tank, and for carrying it beneath the bell. 2nd. An acetylene gas generator, comprising on open topped water tank a gas collector or bell, open at the bottom and extending into the water in the tank, and means actuated by the fall of a gasometer bell for automatically immersing the carbide holder, and for carrying it beneath the bell, a carbide holder, normally supported outside the tank. 3rd. An acetylene gas generator, comprising an open topped water tank, a gas collector or bell open at the bottom and extending into the water in the tank, a carbide holder normally supported outside the tank a weight mounted to slide on guides and connected with the carbide holder, said weight being adapted to immerse the carbide holder and carry it beneath the bell, and a catch normally holding the weight, raised and released by the descent of the gasometer. 4th. An acetylene gas generator, comprising an open topped water tanks a gas collector or bell, open at the bottom and extending into the water of the tank, a carbide holder, normally supported outside the bell, a weight mounted to slide on guides, a link connecting the weight with the carbide holder, and a catch adapted to engage the carbide holder in its

descent, and to swing it under the bell. 5th. An acetylene gas generator, comprising an open topped water tank, a gas collector or bell, open at the bottom, and extending into the water in the tank, a vertical guide, extending down into the tank, a weight mounted to slide thereon, a link pivoted to the weight, a clamp or base, adapted to secure the carbide holder and pivoted to the link, a carbide holder and a catch adapted to engage the clamp or base, in its descent, and to swing the holder beneath the bell. 6th. An acetylene gas generator, comprising an open topped water tank, a gas collector or bell, open at the bottom and extending into the water in the tank, a vertical guide extending down into the tank, a weight mounted to slide thereon, a catch normally holding the weight raised, a link pivoted to the weight, a clamp or base adapted to secure a carbide holder thereto, and pivoted to the link, a carbider holde, a catch adapted to engage the clamp in its descent, and to swing the holder beneath the bell, and means for freeing the catch by the descent of the gasometer bell. 7th. A carbide holder, comprising a cup having perforated sides, a cap fitting tightly over the cup, and having gas escape apertures therein, and a second cap fitting loosely over the perforated cup and its cap. 8th. A carbide holder, comprising a cup, having perforated sides, a cap fitting tightly over the cup, and having gas escape apertures therein, and a second cup, fitting loosely over the perforated cup and its cap, and consisting of two parts, a cylindrical and a conical cap, closely fitting one end of the cylinder and having a longitudinal movement thereon. 9th. An acetylene gas apparatus, comprising a generator tank, having a vertical partition extending across the upper portion thereof, that portion of the tank on one side of the partition being covered, and forming a gas collector or bell, a series of carbide holders, temporarily supported above the open part of the tank, a rising and falling gasometer, and means operated thereby, for successively immersing the holders and carrying them beneath the partition. 10th. An acetylene gas apparatus, comprising a rising and falling gasometer, a frame alongside thereof, a series of levers pivoted on the frame, and adapted to support a charge of carbide, a catch normally holding the levers up, a horizontal bar mounted on the gasometer bell, and a trip mounted to slide on the said bar, and having a step-by-step movement upon said bar, whereby, it is adapted to successively engage the trips and a free charge of carbide at each descent of tne bell. 11th. An acetylene gas apparatus, comprising a rising and falling gasometer, a frame alongside thereof, a series of levers pivoted on the frame and each adapted to support a charge of carbide a catch normally holding the levers up, a horizontal bar mounted on the gasometer bell, a trip mounted to slide on said bar, a cord and weight attached thereto, a pair of trip controlling rods slightly overlapping and being laterally separated, the lower end of the upper, and the upper end of the lower, being above the catch, and a side extending arm on the trip engagable with both rods, whereby the trip is caused to successively engage the catches and free the carbide holders.

No. 62,575. Acetylene Gas Apparatus.

(*Appareil à gaz acétylène.*)



62575

Alexander B. Wark, of Derry, and Allan W. Wark, Lancaster, both in New Hampshire, U.S.A., 7th February, 1899; 6 years. (Filed 6th September, 1898.)

Claim.—1st. In acetylene gas generators, the combination of a generator containing carbide, a water tank above the generator, and a gasometer connected with the generator, with a valve for controlling the admission of water to the generator, comprising two connected upwardly extending pipe sections communicating respectively with the water tank and the generator, a third pipe section connecting with the bottom of the others by a trap or seal and open to the air at its top, said pipes being adapted to receive mercury to form a seal, and a plunger within the third pipe and connected with the gasometer bell to rise and fall therewith, substantially as described. 2nd. A water feed valve comprising a water conveying pipe having a trap or downward bend therein, a controlling pipe connected to the bottom of the above trap by a second trap, mercury in said pipes sufficient normally to close the lower trap and to partially close the upper trap, and a plunger in the controlling pipe, adapted to enter the mercury and raise its level so as to close both traps, substantially as described. 3rd. A water feed valve, comprising a trap formed in a water conveying pipe, a chamber connected to the bottom thereof, a plunger adapted to enter said chamber, said chamber and trap having mercury therein sufficient to seal the trap when the plunger is in and to open it when the plunger is out, and means for automatically operating the plunger, substantially as described. 4th. In an acetylene gas apparatus, the combination of a generator having a separable cover, and means by which the parts are compelled to move in a certain path when separated, with a gas conveying pipe leading from the generator, and a valve therein having a handle projecting into the path of movement of the generator parts when separated, and closed by engagement therewith, substantially as described. 5th. A liquid seal or trap for gas pipes, having a supply of sealing liquid insufficient of itself to form a complete seal, and a plunger adapted to enter the liquid and raise its level to close the seal, substantially as described. 6th. A liquid seal or trap for gas pipes, having a supply of sealing liquid insufficient of itself to form a complete seal, a plunger adapted to enter the liquid and raise its level to close the seal, and means for automatically controlling the position of said plunger, substantially as described. 7th. In an acetylene gas apparatus, the combination of a generator comprising a tank consisting of two nested cylinders adapted to receive water between them, and a cover having a flange entering the space between the inside cylinders and thereby making a water seal, with a gas-conveying pipe leading from the generator, and having a valve therein provided with an arm adapted to be engaged and closed by the movable part of the generator when said generator is opened, substantially as described. 8th. In an acetylene gas apparatus, the combination of a generator comprising a tank consisting of two nested cylinders adapted to receive water between them, a fixedly supported cover for the generator, having a flange entering the space between the spaced cylinders and thereby making a water seal, and means for securing and supporting the tank from the cover, with a gas-conveying pipe leading from the generator and having a valve adapted to be engaged and closed by the generator tank when the latter is dropped from the cover, substantially as described. 9th. A gasometer, having a charging and a discharging pipe, and a pipe connecting the two and having a trap or water seal therein, and a blow-off pipe connected with said trap, substantially as described. 10th. An acetylene gas apparatus, comprising a generator, a gas discharge pipe leading therefrom, a valve in the discharge pipe, a blow-off valve connected with the discharge pipe between the first valve and the generator, and connections from the first valve, whereby when it is closed the blow-off valve is opened, substantially as described. 11th. In an acetylene gas generator, the combination of a generator chamber, composed of a vessel having an inner partition forming a water seal about its open end, and provided with an overflow into the central or carbide holding, with a cover for the generator, having a flange entering the water seal, and a water feed pipe discharging through the cover flange, whereby the water for generation of gas passes through the seal.

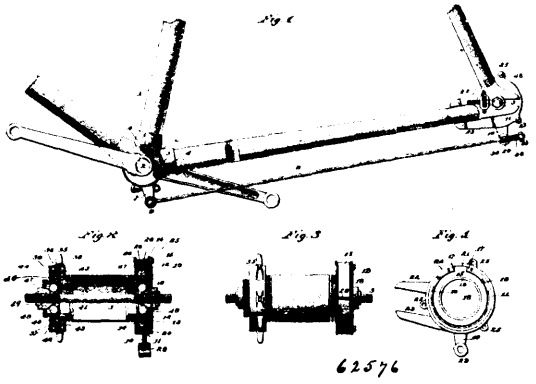
No. 62,576. Bicycle Brake and Sprocket.

(*Frein et rochet de bicycles.*)

Alexander Patterson Morrow and Harman Healy Fulton, both of Elmira, New York, U.S.A., 7th February, 1899; 6 years. (Filed 27th September, 1898.)

Claim.—1st. The combination with a bicycle or like vehicle, of clutch mechanism carried on the crank axle, brake mechanism carried by the rear hub and axle, and a connection between said clutch mechanism and brake whereby the brake is operated by back pedalling. 2nd. The combination with a bicycle or like vehicle, of clutch mechanism on the crank axle, brake mechanism on the rear hub and axle, comprising a fixed friction band, a brake spring for engaging said band, and a friction ring, and a connection between the clutch mechanism and friction ring. 3rd. The combination with a bicycle or like vehicle, of clutch mechanism on the crank axle, and comprising friction balls, and a clutch ring having a projecting arm, brake mechanism carried on the rear hub and axle, and comprising a fixed friction band, a brake spring surrounding said band, and a ring surrounding and controlling said spring, and a connection between the clutch ring and brake ring whereby the latter is moved to apply the brake, when the driving motion of the crank shaft is reversed. 4th. In a bicycle or like machine, the combination, with clutch mechanism on the crank axle and a suitable connection, of brake mechanism comprising a friction band secured upon the rear hub, a friction spring embracing said band and having

projections at its ends, a casing enclosing said band and spring and slotted to accommonate the projections on said spring, and a brake



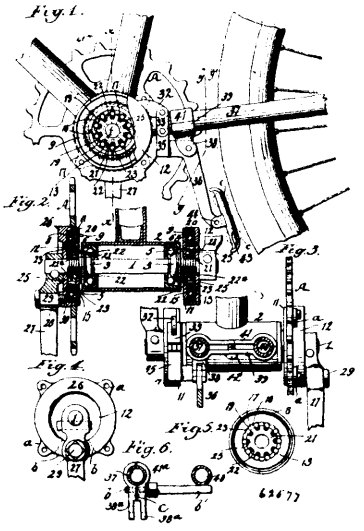
band encircling the casing and having an internal projection to engage the spring. 5th. In a bicycle or like vehicle, the combination with clutch mechanism arranged on the crank axle, and a connecting rod, of brake mechanism comprising a friction band fixed upon an extension of the rear wheel hub, a spring embracing said band, a casing enclosing the band and spring, said casing having projecting stops or arms for engaging the frame of the machine and being slotted to accommodate the ends of the spring, and a brake band surrounding the casing and having an arm secured to the connecting rod and a projection on its inner side to contact with the spring and cause the latter to clamp the friction band. 6th. The combination with a bicycle or like machine, of a clutch device on the crank axle, brake mechanism on the rear hub, and a rod connecting the clutch device and brake mechanism, and means for cushioning the movement of said rod. 7th. The combination with a bicycle or like vehicle, of clutch mechanism on the crank axle, brake mechanism on the rear hub and axle, comprising a fixed friction band, a brake spring around the latter, and a brake-ring adapted to contact said spring and provided with a projecting arm formed with an eye, a rod for connecting the clutch mechanism and brake-ring, and an eye-bolt secured within the eye of the brake-ring arm and serving to support the rear end of the rod, and a spring and nut on the end of the rod. 8th. A coasting device for cycles, comprising a sprocket rim provided with a central internal flange, formed on opposite si les with race-ways for two sets of balls, a collar secured to the rear hub, clutch mechanism between said rim and collar, and retaining rings for supporting the balls in the race-ways. 9th. In a bicycle or like vehicle, the combination with the crank-shaft, of a clutch device arranged on said shaft, and comprising a ring provided with a projection, which projection is adapted to be connected to an adjacent brake device. 10th. In a bicycle or like vehicle, the combination with the crank-shaft, of a clutch device comprising a disc arranged on said shaft and having peripheral friction devices, and a clutch ring arranged on the periphery of the disc and having a projection provided with means for securing said projection to the brake mechanism. 11th. A sprocket-wheel for bicycles and like vehicles, comprising a rim recessed on opposite sides to form race-ways, in combination with two sets of antifriction balls located on said race-ways. 12th. A sprocket-wheel for bicycles and like vehicles, comprising a rim recessed on opposite sides to form race-ways for two sets of balls, and the rim projecting inwardly beyond the race-ways, in combination with friction rollers interposed between the inner periphery of the rim and the axial support of the rim. 13th. The combination with a bicycle or like machine, of a crank-arm having a projected hub integral therewith, and clutch mechanism secured to said hub. 14th. The combination with a bicycle or like machine, of a crank-arm having a laterally projected hub, a disc or the equivalent secured to said hub, and clutch mechanism carried by said disc. 15th. The combination with a bicycle or like machine, of a crank-arm having a projected hub, a disc or the equivalent secured to or integral with said hub, clutch mechanism carried by said hub, and clutch ring surrounding the disc clutch mechanism, said ring having a projecting arm provided with means for securing said arm to the brake mechanism.

No. 62,577. Bicycle Brake and Coaster.

(*Frein de bicycle et appareil à côtoyer.*)

Victor Emanuel Doremus, Patrick T. Wall, and Henry A. Siebrecht, all of New York City, New York, U.S.A., 7th February, 1899; 6 years. (Filed 11th January, 1899.)

Claim—1st. In a bicycle or other pedal-operated vehicle, the combination with the vehicle driving-shaft, of a collar having a plurality of recesses around its periphery containing rollers and springs to force them normally outwardly, and a ring surrounding the said collar and having a plurality of pockets in its inner periphery, the said ring connected to a shell mounted loosely on the shaft, and the said collar connected loosely to the shaft, the said shell adapted or connected to a sprocket-wheel or to a brake, substantially as shown and described. 2nd. In a bicycle or other pedal-operated vehicle, the combination with the vehicle driving-



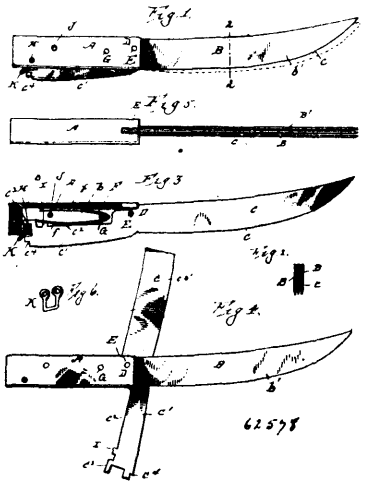
shaft, of clutching mechanisms secured to each end thereof between the crank hanger and the cranks, the clutching mechanisms respectively comprising a peripherally recessed collar secured to the shaft and containing spring actuated rollers in its recesses, and a ring containing interiorly a plurality of pockets engaging the said rollers, each pocket having one inclined and one radial surface, the angles of the inclined surfaces of the respective oppositely located rings extending in reverse directions, whereby one ring is adapted to be rotated in one direction and its opposite ring in the reverse direction, each ring connected to a shell loosely mounted upon the shaft, one shell having an extended arm engaging a brake, and the other shell connected to the vehicle driving-sprocket, substantially as shown and described. 3rd. In a bicycle coaster, the combination of a sprocket loosely mounted upon the crank shaft and means for locking the sprocket thereto only during the forward rotation of said shaft, and a crank secured to the shaft and provided with means whereby it may be alternately locked to and disconnected from the sprocket, substantially as shown and described. 4th. In a back-pedaling brake for bicycles, or similar vehicles, the combination of a shell having an arm extended therefrom and being loosely mounted upon the crank shaft, and means for locking the shell to the shaft only during backward rotation of the said shaft, with a brake comprising a yoke or hanger secured to frame of the vehicle, a downwardly extended arm pivotally attached to the said hanger and connected to a brake shoe, a forwardly and upwardly extended arm and a link pivoted to the arm of the said shell, substantially as shown and described. 5th. In a back-pedaling brake for bicycles, or similar vehicles, the combination of a shell having an arm extended therefrom and being loosely mounted upon the crank shaft, and means for locking the shell to the shaft only during backward rotation of the said shaft, with a brake comprising a split collar and integrally formed hangers clamped to one of the chain-stays of the bicycle frame, a clamping bolt therefor which has an extension bearing on the opposite chain-stay, a downwardly extended arm pivotally attached to the said hanger and connected to a brake shoe, a forwardly and upwardly extended arm and a link pivoted to the arm of the said shell, substantially as shown and described.

No. 62,578. Knives. (*Couteaux.*)

Nels Hockerson, jr., and Charles Hockerson, both of Marine Mills, Minnesota, U.S.A., 7th February, 1899; 6 years. (Filed 20th January, 1899.)

Claim.—1st. The combination of the handle, the sheath, the cutting blade pivotally connected to the handle and adapted to have its cutting edge swing below the front edge or above the back edge of the sheath, and means connected to the blade for causing it to move around said pivot and lying adjacent to the handle, whereby they are accessible to the hand of the operator grasping the handle, and are adapted to cause the cutting edge of the blade to protrude from the front edge of the sheath under the pressure of such grasp, substantially as set forth. 2nd. The combination of the handle, the sheath, the blade pivotally connected to the handle and adapted to have its cutting edge swing beyond either the front edge or the back edge of the sheath, means connected to the blade for causing it to move around said pivot and lying adjacent to the handle, whereby they are accessible to the hand of the operator when grasping the handle, to cause the said cutting edge to protrude from the front edge of the sheath and a movable stop for the handle, substantially as set forth. 3rd. The combination of the handle, the sheath, the normally-vibratable blade, the pivot for the blade carried by the

handle, means for normally moving the blade around said pivot to hold it within the sheath, and a bar or stem c^1 connected to the

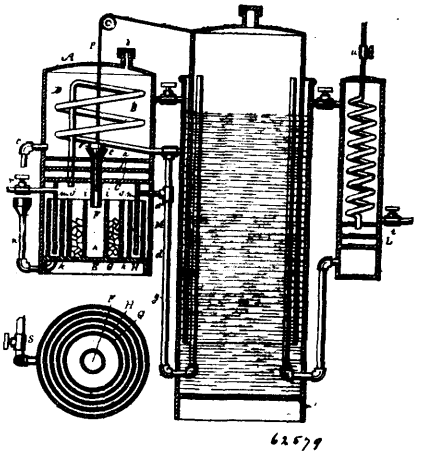


blade, and having a part protruding from the handle whereby it is accessible to the hand of the operator when grasping the handle, and adapted to permit the pressure of such grasp to cause the edge of the blade to protrude from the sheath during the time of cutting with said blade, substantially as set forth. 4th. The combination of the handle, the sheath rigid with the handle, the blade held against longitudinal movement upon a fixed pivot connecting it to the handle, whereby the blade can swing transversely to the handle and sheath, means adjacent to the handle for moving the blade about its pivot, and the spring, substantially as set forth. 5th. The combination of the handle, the sheath rigid with the handle, the blade held against longitudinal movement by a fixed pivot connecting it to the handle, and means accessible to the hand of the operator for rocking the blade around said fixed pivot to cause its edge to protrude from the sheath, and the returning-spring, substantially as described. 6th. The combination of the handle, the sheath rigid with the handle, the blade held against longitudinal movement relative to the sheath by a fixed pivot connecting it with the handle, means for normally holding the blade within the sheath, and means accessible to the hand of the operator grasping the handle for causing the edge of the blade to rock around the said fixed pivot to protrude from the sheath, substantially as set forth. 7th. The combination of the handle, the sheath rigid with the handle, the blade normally within the sheath, the pivot for the blade connected to the handle, the stem or bar c^1 connected to the blade and normally protruding from the handle, and the spring acting to cause the bar or stem c^1 to protrude from the handle, substantially as set forth. 8th. The combination of the handle A, the sheath B, B^1, the pivot E, the blade having the cutting part c normally retained within the sheath and adapted to swing around said pivot, and the arm or bar c^1 protruding from the handle and swinging around said pivot oppositely to the blade c, substantially as set forth. 9th. The combination of the handle, the sheath, the blade having the swinging cutting part c and the oppositely-swinging part c^1, the spring for rocking the said parts c, c^1, and the movable stop, substantially as set forth. 10th. In a knife of the character described, the combination with the sheath, the handle, and the spring permanently supported by the handle and sheath, of the pivoted blade adapted to be turned relative to the sheath and handle independently of the spring to permit the sharpening of the blade without adjustment, substantially as set forth. 11th. In a knife of the character described, the combination with the sheath, the handle, and the spring permanently supported upon the handle and sheath, of the pivoted blade adapted to be turned to a position substantially at right angles to the sheath, and the removable stop for the blade-shank, adapted to limit the movement of the blade in either direction, substantially as set forth. 12th. In a knife of the character described, the combination with the sheath, the handle and the spring, of the pivoted blade, and means in rear of the sheath and adjacent to the handle for adjusting the blade relative to the spring to vary the position of the cutting edge relative to the edge of the sheath, substantially as set forth.

No. 62,579. Gas Generator. (*Générateur à gaz.*)

Nelson Likins, Minneapolis, Minnesota, and Adolph Levy, Helena, Montana, both in the U.S.A., 7th February, 1899; 6 years. (Filed 14th September, 1898.)

Claim.—1st. In a gas generator the combination of a case, closed at its top and open at its bottom, horizontally divided into two compartments by two or more floors having vented air-space between them, the upper one of said compartments being adapted to serve as a water-tank, and the lower one of said compartments being adapted to serve as a retort-chamber, said compartments being connected by means of a duct extending through the said floors, said duct having



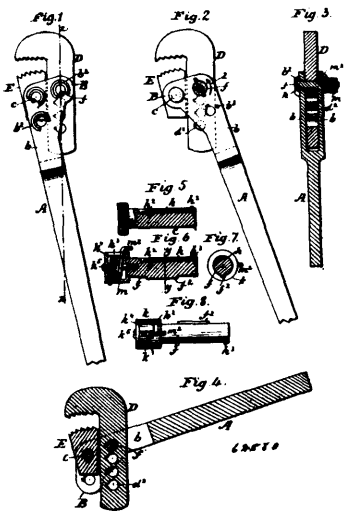
a gravity-valve therein, through the operation of which the flow of water from the said water-tank to the said retort-chamber is automatically controlled, a removable retort chambered within the retort-chamber, said retort being fashioned with double walls whereby it may be water-sealed, and having an annular calcium-carbid holder formed with perforated interior and exterior walls, whereby water may be admitted to the lower strata of the calcium-carbid, an annular wall extending downward from the said water-tank to the said retort-chamber for the purpose of sealing the retort, a pipe extending from the said retort-chamber through the said water-tank thence to a telescope gas-holder, and a chain connecting the said gravity-valve with the dome of the said telescope gas-holder, whereby the said gravity-valve is operated, all substantially as shown and described. 2nd. In a gas generator, the combination of a case horizontally divided into two compartments being connected by a duct having a gravity-valve therein, a retort chamber within the lower one of said compartments, said retort being fashioned with double walls whereby it may be water-sealed, and provided with an annular chamber having interior and exterior perforated walls adapted to hold calcium-carbid or other gas-forming material, an annular wall extending downward from the upper into the lower chamber for the purpose of sealing said retort, a pipe leading from the lower through the upper of said chambers, thence to a telescope gas-holder, for the purpose of carrying off the gas, and a chain connecting the said gravity-valve with the dome of the said telescope gas-holder whereby said gravity-valve is operated, substantially as shown and described. 3rd. In a gas generator, the combination of the case A divided into two compartments B and C, by means of the floors a, a, a, the duct e connecting the said compartments B and C, the gravity-valve f operating within the said duct e, the pipe D extending from the said compartment C, through the said compartment B, thence to the gas-holder I, the retort E, having the annular chamber G fashioned with perforated walls, adapted to hold calcium-carbid or other gas-forming material, and with the annular chamber H fashioned with solid walls adapted to hold water for the purpose of sealing the same, the annular wall M incased within the annular chamber H, the chain p connected with, and extending from the said gravity-valve f, to, and over or around the pulley q, thence to, and connected with the dome of the said telescope gas-holder I, whereby the said gravity-valve f may be automatically operated, the purifying-box L and the condensing-coil K, substantially as shown and described.

No. 62,580. Wrench. (*Clé à écrou.*)

Robert Ashworth and Albert W. Ashworth, both of New Haven, Connecticut, U.S.A., 7th February, 1899; 6 years. (Filed 25th November, 1898.)

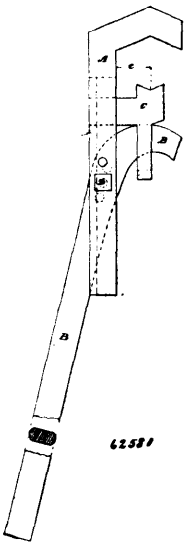
Claim.—1st. A wrench consisting of a handle having its inner end extended laterally and forked, each branch of said fork having three perforations, the perforations in one of the branches having a key-seat, two pivot pins having spring catches mounted upon each pin, substantially as described. 2nd. In a wrench thecombination of a handle having its inner end extended laterally and forked, each branch of said fork having three perforations, the perforations in one of the branches having a key-seat, two pivot-pins having spring-catches mounted thereon, one of said pins, having a feather on one side, and two oppositely disposed jaws pivotally mounted upon said pins, substantially as described. 3rd. In a wrench the combination of a handle having its inner end extended laterally and forked, each branch of said fork having perforations the per-

forations in one of the branches having a key-seat and said branch provided with a small perforation alongside of the key-seated



perforation, a pivot pin having a spring catch and a feather on its side, the head of said pin being hollow and its side slotted, with a coiled spring within said head, substantially as described.

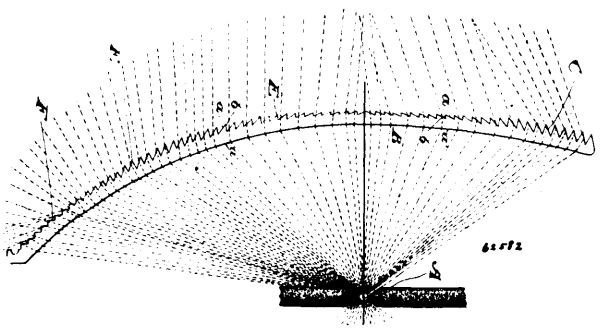
No. 62,581. Pipe Wrench. (*Clé à tuyau.*)



William Crawford, Sudbury, Ontario, 7th February, 1899; 6 years. (Filed 22nd November, 1898.)

Claim.—The use of a cam lever B, in the operation of the jaws A. and C, substantially as and for the purpose set forth hereinbefore.

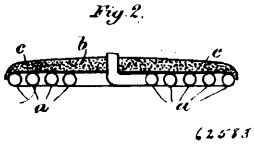
No. 62,582. Lamp Globe. (*Globe de lampes.*)



James Gray Pennycuick, and Frederick William Barrett, 7th February, 1899; 6 years. (Filed 25th November, 1898.)

Claim.—1st. A glass lamp globe or envelope having a series of external horizontal prisms formed thereon, each having two refracting surfaces and one neutral surface set at such an angle that at any given point it is coincident with or parallel to the direction of an incident ray falling on the prism from the centre of illumination, will take when deflected by the refractive effect of the prism, substantially as and for the purpose specified. 2nd. A glass lamp globe or envelope having a series of external horizontal prisms formed thereon, each having two refracting surfaces and one neutral surface, the refracting surfaces varying in their angle of inclination to each other according to the position of the prisms, with respect to the centre of illumination, substantially as and for the purpose specified. 3rd. A glass lamp globe or envelope having a series of external horizontal prisms formed thereon in three sets, the upper set being adapted to deflect incident rays from the centre of illumination to or below the horizontal, the middle set to deflect incident rays down towards the perpendicular, so as to produce a cone of illumination of equal intensity at all points in any given plane at right angles to the axis of the cone, substantially as and for the purpose specified. 4th. A glass lamp globe or envelope having a series of external horizontal prisms formed thereon above and below a neutral line, the prisms above the neutral line being adapted to deflect incident rays from the centre of illumination to or below the horizontal, and the prisms below the neutral line to deflect incident rays up towards the horizontal, each prism having one face coincident at any given point with a line parallel to the direction the incident ray will take when deflected by the refractive effect of the glass prism, substantially as and for the purpose specified. 5th. A glass lamp globe or envelope having a series of external prisms formed thereon above and below a neutral line, the prisms above the neutral line being adapted to deflect incident ray from the centre of illumination to or below the horizontal, and the prisms below the neutral line to deflect incident rays towards the horizontal, the refracting surfaces of each prism being varied in angle according to its position with regard to the centre of illumination, the effect of the varying prisms being to produce a cone of illumination of equal intensity at all points in any given plane at right angles to the axis of the cone, substantially as and for the purpose specified.

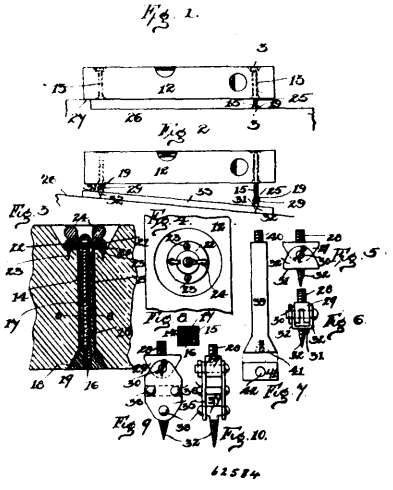
No. 62,583. Earth Thawing Device.
(*Appareil à dégeler la terre.*)



Thomas Mills, Sandhurst, Berks, England, 7th February, 1899; 6 years. (Filed 10th January, 1898.)

Claim.—1st. The improved thawing pad having in combination the coil of pipe *a*, the layer of non-conducting material *b*, and the metal plate *c*, one end of the pipe projecting centrally upward through the material *b*, and plate *c*, substantially as shown and described.

No. 62,584. Level. (*Niveau.*)

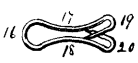


Charles Mortimer Potter, Naugatuck, Connecticut, U.S.A., 7th February, 1899; 6 years. (Filed 28th December, 1898.)

Claim.—1st. A level which is provided at each end with a sliding bar which is passed vertically therethrough, each of said sliding bars being provided with a screw-threaded central bore, and with a screw-

threaded shaft which is passed thereinto from the upper end thereof, and means for operating said screw-threaded shaft so that the sliding bars may be projected below the bottom of the level, said sliding bar being angular in cross-section and being mounted in castings which are secured in said level, and said sliding bars being also provided with scales which are formed thereon, and the lower ends thereof being provided with attachments with which are pivotally connected blocks or heads provided with screws, substantially as shown and described. 2nd. A level which is provided at each end with a sliding bar which is passed vertically therethrough each of said sliding bars being provided with a screw-threaded central bore, and with a screw-threaded shaft which is passed thereinto from the upper end thereof, and means for operating said screw-threaded shaft so that the sliding bars may be projected below the bottom of the level, said sliding bars being angular in cross-section and being mounted in casings which are secured in said level, and said sliding bars being also provided with scales which are formed thereon, and the lower ends thereof being provided with attachments with which are pivotally connected blocks or heads provided with screws, and a plate or board which is connected with the level by means of said screws, substantially as shown and described.

No. 62,585. Tag Clasp. (*Agrafe d'étiquettes.*)

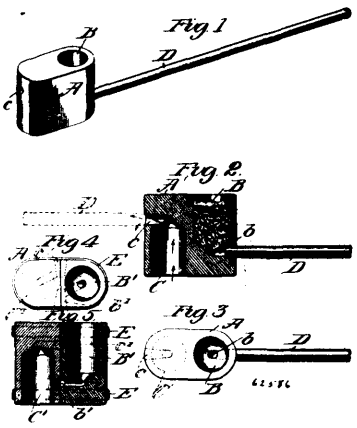


62585

Simon Dancyger, Dayton, Ohio, U.S.A., 7th February, 1899; 6 years. (Filed 13th January, 1899.)

Claim.—As an article of manufacture, a tag clasp consisting of a single piece of wire, bent centrally to form a loop and also spring arms between the loop and the ends of the wire, the spring of said arms normally drawing them together, the free ends bent inwardly on different planes to form hooks and arranged to lap each other in such manner that when inserted in the material and pulled, the said free ends will close and engage the material and strengthen each other against strain, substantially as set forth.

No. 62,586. Tobacco Pipe. (*Pipe à tabac.*)



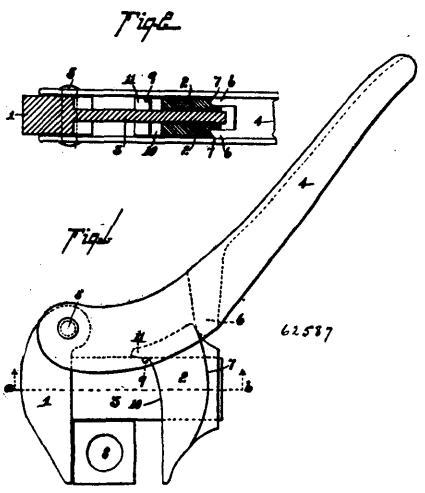
Louis Eulenstein, Holstein, Missouri, U.S.A., 7th February, 1899; 6 years. (Filed 20th January, 1899.)

Claim.—A tobacco-pipe comprising a body formed with a plurality of bowls arranged side by side, each of said bowls having an independent stem-opening, said bowls being so arranged with relation to each other, that the burning bowl will generate heat to dry the damp accumulation in the unoccupied bowl and cause a circulation of fresh air to pass through said unoccupied bowl and its stem-opening, substantially as described.

No. 62,587. Wrench. (*Clé à écrou.*)

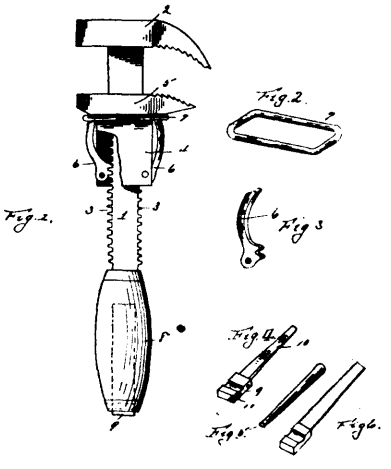
Joshua Pusey, Philadelphia, Pennsylvania, U.S.A., 17th February, 1899; 6 years. (Filed 17th January, 1899.)

Claim.—1st. An automatic wrench composed of the combination of an outer jaw, an inner jaw, a stem connecting the two jaws upon which one of the jaws is adapted to slide, and a handle pivoted to the outer one of the said jaws, which handle has lugs or projections adapted to bear and slide against suitable surfaces of the inner jaw, whereby when the handle is rotated on its pivot towards the inner jaw the latter will be caused to move towards the outer jaw, and grip a nut or the like, between the two jaws, an automatic wrench having in combination, an outer and an inner jaw, a stem connecting the two jaws on which one of them is adapted to slide, a bifurcated handle pivoted to the head or upper part of the outer jaw, and having projections adapted to bear and slide against



surfaces of the inner jaw, and having also a pin or projection adapted to bear against the forward edge of said inner jaw and thus to carry back the latter jaw when the handle is rotated on its pivot away from said jaw, together with a suitable stop for limiting the outward throw or movement of the handle, substantially as and for the purpose described.

No. 62,588. Wrench. (*Clé à écrou.*)



62588

Eli P. Gaines, Fairland, Indian Territory, 7th February, 1899; 6 years. (Filed 20th January, 1899.)

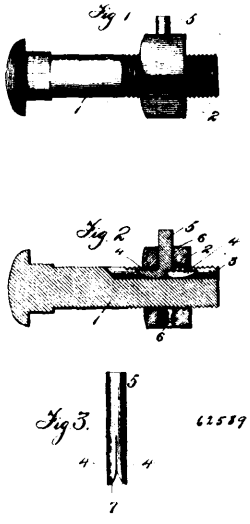
Claim.—1st. A monkey-wrench comprising a toothed stem having a jaw at one end thereof, a sliding sleeve upon said stem having a jaw to co-act with the jaw of the stem, toothed detents carried by said sleeve and projecting through the openings therein, and a ring upon said sleeve for holding said detents in position. 2nd. A monkey-wrench comprising a toothed stem having a jaw at one end thereof, a sliding sleeve upon said stem having openings in the sides thereof, toothed detents pivoted within said openings to co-act with the teeth of the stem and having wedge-shaped end pieces, and a ring surrounding said stem to co-act with said wedge-shaped portions of the detents.

No. 62,589. Bolt and Nut Lock. (*Arrête-écrou et boulon.*)

Herbert William Collins, Cartwright, Manitoba, Canada, 8th February, 1899; 6 years. (Filed 24th January, 1899.)

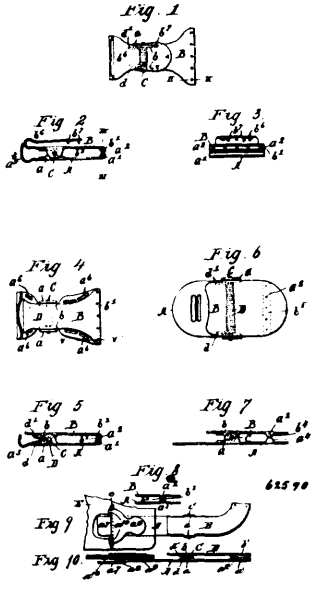
Claim.—A nut lock, comprising a bolt, a nut, radial openings formed in the sides of said nut, a recess formed longitudinally of said

bolt, said recess extending across the threaded portion of said bolt, and a pin having its ends bifurcated, said pin being adapted to be



driven into one of said radial openings and extend in opposite directions along said recess, substantially as described.

No. 62,590. Spring Clamp. *(Crampon à ressort.)*



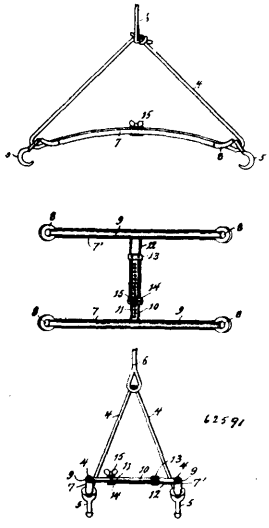
Edward N. La Veine, Kansas City, Missouri, U.S.A., 8th February. 1899; 6 years. (Filed 23rd January, 1899.)

Claim.—1st. A clamp, embodying two pivoted members formed with opposing jaws, one jaw being provided with a series of pins and the other with a series of perforations through which said pins project when the clamp is closed, substantially as described. 2nd. A spring clamp, comprising a pair of members pivoted together and formed with approximately semicircular opposing jaws, one jaw being provided with a series of pins and the other with a corresponding series of perforations through which said pins project, substantially as described. 3rd. A spring clamp of the type described, having one of its members bifurcated at its rear end to form branch arms, and one of said arms bent upon itself to provide an overhanging arm, the latter being formed with ears projecting in the opposite direction past said bent portion, substantially as and for the purpose described.

No. 62,591. Hoisting and Lowering Device.
(Monte-charge.)

Hugh R. Patriarch, Milwaukee, Wisconsin, U.S.A., 8th February, 1899; 6 years. (Filed 23rd January, 1899.)

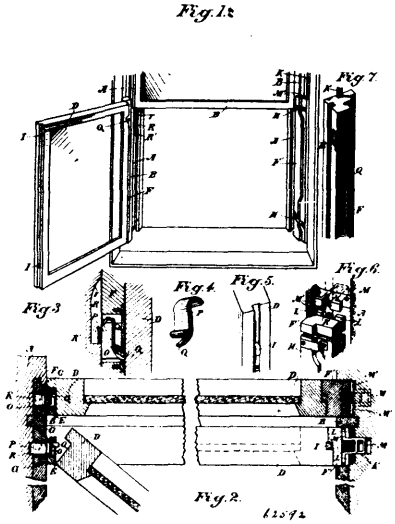
Claim.—1st. In a hoisting and lowering device, the combination of an arm adapted to be adjusted to the barrel, receptacle, or article to be elevated or lowered, a sling secured to and having a portion thereof extending longitudinally of said arm, and hooks freely



carried by the sling, and unconnected with the arm. 2nd. In a hoisting and lowering device, the combination of arms adapted to be adjusted to the barrels, receptacles, or articles to be elevated or lowered, slings, each secured to and having a portion thereof extending longitudinally of each arm, and hooks freely carried by the slings, and unconnected with the arms. 3rd. In a hoisting and lowering device, the combination, or an arm adapted to be adjusted to the barrel, receptacle, or article to be elevated or lowered, said arm provided at opposite ends with eyes and extending longitudinally of the arm, and hooks freely carried by the sling, and unconnected with the arm. 4th. In a hoisting and lowering device, the combination, of an arm adapted to be adjusted to the barrel, receptacle, or article to be elevated or lowered, said arm being upwardly curved longitudinally, and having its opposite ends bent upwardly and provided with eyes, a sling passing through the eyes, and fitted to and extending longitudinally of the arm, and hooks freely carried by the sling and unconnected with the arm. 5th. A frame for a hoisting and lowering device, comprising arms and a transverse connecting member, said arms adapted to be fitted and adjusted to the surfaces of the barrels, receptacles, or articles to be elevated or lowered, and to have portions of the ropes of the hoisting and lowering mechanism secured and fitted thereto and extending longitudinally thereof. 6th. A frame for a hoisting and lowering device comprising arms and a transverse adjustable connecting member, said arms adapted to be fitted and adjusted to the surfaces of the barrels, receptacles, or articles to be elevated or lowered, and to have portions of the ropes of the hoisting and lowering mechanism fitted to and extending longitudinally thereof. 7th. A frame for a hoisting and lowering device comprising arms and a transverse connecting member, said arms adapted to be adjusted and fitted to the surfaces of the barrels, receptacles, or articles to be elevated or lowered, said arms provided with longitudinal recesses adapted to receive portions of the ropes of the hoisting and lowering mechanism, said portions of the ropes secured to the arms and extending longitudinally in said recesses. 8th. A frame for a hoisting and lowering device comprising arms and a transverse connecting member, said arms being curved upwardly in the direction of their lengths to adapt them to be adjusted to the contour of the curved surfaces of the barrels, receptacles, or articles to be elevated or lowered, and said arms adapted to have portions of the ropes of the hoisting and lowering mechanism fitted and secured thereto and extending longitudinally thereof. 9th. A frame for a hoisting and lowering device comprising arms and a transverse connecting member, said arms provided at their ends with eyes through which the ropes of the hoisting and lowering mechanism are adapted to pass. 10th. A frame for a hoisting and lowering device comprising an arm upwardly curved in the direction of its length, and having a recess in its surface, said arm adapted to have a portion of the rope of the hoisting and lowering mechanism fitted and secured thereto and extending longitudinally in the recess thereof. 11th. A frame for a hoisting and lowering device comprising arms and a transverse connecting member, said arms adapted to be adjusted to the barrels, receptacles, or articles to be elevated or lowered, and said transverse connecting member consisting of two overlapping parts extending from the respective arms, and means for retaining said overlapping parts in adjusted position. 12th. A frame for a hoisting and lowering device, comprising arms and a transverse connecting member, said arms adapted to be adjusted to the barrels, receptacles, or articles to be elevated or lowered, and said transverse connecting member consisting of two overlapping parts extending from the respective arms, collars carried by each

part of the connecting member and surrounding the other part of said connecting member, and a set screw passing through an opening in one of the collars, through any of the series of perforations in one of the parts of the connecting member, and engaging the other part of said connecting member.

No. 62,592. Window Sash. (*Croissée de fenêtre.*)



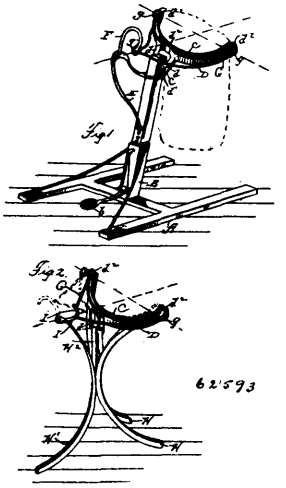
Bernard Hausmann, San Francisco, California, U.S.A., 8th February, 1899; 6 years. (Filed 21st January, 1899.)

Claim.—1st. In a window-sash, the combination of slides, parting strips and stops having tongues adapted to engage the vertically grooved and shaped sides of said slides, a sash, one edge of which is hinged to one of said slides, a locking-loop and hook-bolt by which the opposite edge of the sash is engaged with the slide upon that side, and means comprising a stop slidable horizontally in the pulley-stile adapted to engage the upper end of the slide to retain it in place when the sash has been disengaged therefrom. 2nd. In a window-sash of the character described, guided grooved and shaped slides, to one of which one edge of the sash is hinged, a hook or hooks upon the opposite edge of the sash, and corresponding loops upon the slide with which the hooks engage when the sash is closed, a means for retaining in place and preventing the slide from moving upwardly when the sash has been disengaged therefrom, consisting of a stop or channel upon the slide and a yoke horizontally slidable in the pulley-stile so as to engage with said stop or channel or be disengaged therefrom. 3rd. In a window of the character described, guided vertically movable slides, hinges by which the sash is connected with one of said slides, a hook fulcrumed in said slide, a recess in the pulley-stile, and a plate fixed at the lower end of the recess, with which said hook engages when the sash is opened to prevent downward movement of the slide and sash. 4th. In a window of the character described, guided slides with vertically grooved and shaped sides, a sash hinged to one of said slides adapted to open about its hinges, a recess and a plate fixed in the pulley-stile behind the slide and between the parting strip and stop, a hook fulcrumed in an open chamber in the slide and adapted to engage the fixed plate by gravitation when the sash is opened, and a tongue extending from the lower end of the hook plate to contact with the sash when closed. 5th. In a window-sash of the character described, guided vertically movable slides, a sash hinged to one of said slides, means for locking the opposite edge of the sash in engagement with the opposite slide, and a gravity hook fulcrumed in the slide to which the sash is hinged, having a tongue extending from the lower end, with which tongue the sash contacts when closed so as to retain the hook within the slide, a plate fixed in the pulley-stile, with which plate the hook automatically engages when the sash is opened about its hinges. 6th. In a window-sash of the character described, guided vertically movable slides, a sash hinged to one of said slides, means for locking said slide to the pulley-stile when the sash is opened about its hinges, and means for holding the opposite slide in place consisting of a yoke slidable transversely in a recess in the pulley-stile, and a stop or channel upon the vertical slide with which said yoke engages when extended.

No. 62,593. Bag Holder or Clamp. (*Accroche-sac.*)

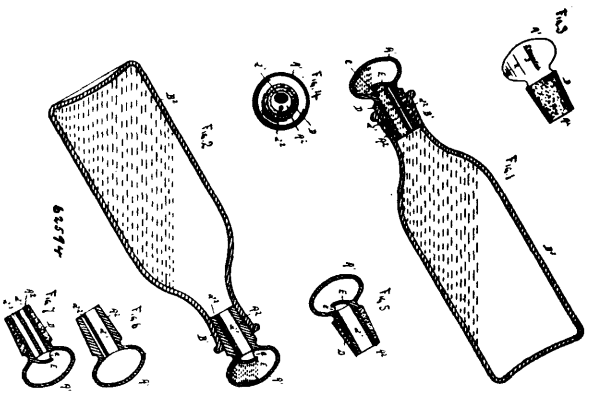
William J. Ayres, Bryan, Ohio, U.S.A., 8th February, 1899; 6 years. (Filed 20th January, 1899.)

Claim.—1st. In a clamp or holder, the combination with the jaws or clamps, one movable toward and from the other, of a mechanism for advancing the movable jaw embodying a pivoted member movably connected with its support and jaw respectively, and adapted when swung on its centre to have its free end move across its centre of motion to form a lock, and a spring for supporting the jaw with a yielding pressure, substantially as described. 2nd. In a clamp or



holder, the combination with the jaws or clamps one movable toward and from the other, of a yielding support embodying a toggle for advancing said movable jaw, said toggle being adapted to move across its dead-centre to form a lock, substantially as described. 3rd. In a clamp or holder, the combination with the jaws or clamps one movable toward and from the other, of a toggle pivotally connected with the jaw at one end and with its support at the opposite end and a spring interposed at one end of the toggle whereby the jaw is supported with a yielding pressure, said toggle being movable across its dead-centre to form a lock, substantially as described. 4th. In a clamp or holder, the combination with the jaws or clamps one movable toward and from the other, of a toggle having one of its members jointed to the movable jaw and having its other member jointed to an elastic arm on a suitable support, said toggle being adapted to move across its centre of motion to constitute a lock, substantially as described. 5th. In a bag-holder, the combination with the stand or support, and the fixed jaw of a yielding movable jaw, a yoke having its ends pivotally connected with the ends of the movable jaw and constituting one member of a toggle and a second toggle member pivotally connected with the stand or support at one end and with the yoke at the opposite end, substantially as described.

No. 62,594. Bottle Stopper. (*Bouchon de bouteille.*)

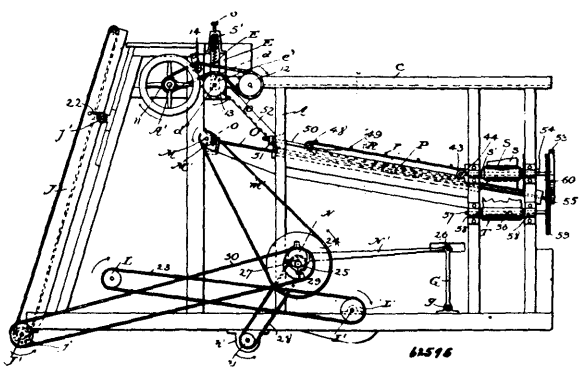


William D. Worthen, Big Stone City, South Dakota, U.S.A., 8th February, 1899; 6 years. (Filed 17th January, 1899.)

Claim.—1st. As a new article of manufacture, a bottle stopper consisting of a closed chamber having a shank adapted to fit and form the closure to the neck of the bottle and with two or more conduits through said shank and leading into said closed chamber,

substantially as and for the purpose set forth. 2nd. As a new article of manufacture, a bottle-stopper consisting of a closed chamber having a shank adapted to fit and form the closure to the neck of the bottle and with two or more conduits through said shank and leading into said closed chamber, and with a dam covering the open ends of said conduits within said closed chamber, substantially as and for the purpose set forth. 3rd. As a new article of manufacture, a bottle-stopper, consisting of a closed chamber having a shank adapted to fit and form the closure to the neck of the bottle and with two or more conduits through said shank and of unequal diameter, and leading into said closed chamber, substantially as and for the purpose set forth. 4th. As a new article of manufacture, a bottle-stopper consisting of a closed chamber having a shank adapted to fit into and form the closure to the neck of the bottle and with two or more conduits through said shank and of unequal diameters and leading into said closed chamber and a dam covering the open ends of said conduits within said closed chamber, and open on the side next the larger of said conduits, substantially as set forth. 5th. A bottle-stopper consisting of a closed chamber having a shank projecting therefrom, and with two or more conduits leading therethrough and opening into said closed chamber, and a sleeve of cork or other suitable flexible substance surrounding said shank and adapted to fit the neck of the bottle, substantially as and for the purpose set forth. 6th. As a new article of manufacture, a bottle-stopper consisting of a closed chamber having a shank projecting therefrom and adapted to fit into and form the closure to the bottle and with a conduit through said shank and leading into said closed chamber and with a dam covering the open end of said conduit within said chamber, substantially as and for the purpose set forth.

No. 62,595. Corn Husker. (*Epluchoir de blé d'inde.*)



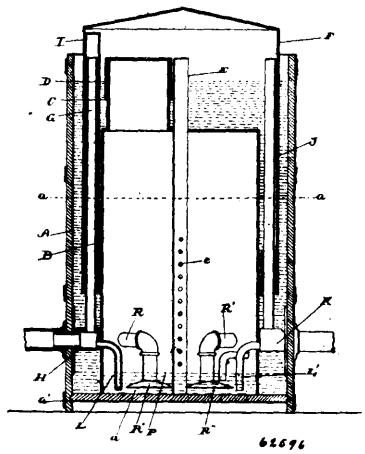
Peter Rupp, White House, Ohio, U.S.A., 8th February, 1899; 6 years. (Filed 10th December, 1899.)

Claim.—1st. A corn husker and feed cutter, comprising separate mechanism for pinching off the ears, cutting up the leaves and stalks, and husking the ears, a reciprocatory shoe provided with a downwardly and forwardly inclined bottom H for catching the leaves and stalks, and a downwardly and rearwardly inclined bottom below the said bottom H for catching the huskings, said lower bottom having perforations at its rear part, a toothed cylinder and concave for receiving the heavy material from the lower bottom, a guard over said cylinder, and a fan for blowing the light material over the said guard, substantially as set forth. 2nd. A corn husker and feed cutter, comprising separate mechanisms for cutting up the leaves and stalks, and husking the ears, separate bottoms for catching the cut fodder and the huskings, a toothed cylinder and concave for receiving the heavy portions of the fodder and huskings collected by the said bottoms, a guard over the said cylinder, and a fan for blowing the light portions of the fodder and huskings over the said guard, substantially as set forth. 3rd. The combination with a series of husking rolls, of a driving roller journalled in stationary bearings and arranged over the delivery ends of the said rolls, arms 50 pivoted at one end and provided with means for adjusting their length, a vertically movable roller journalled in the free ends of the said arms and arranged over the receiving ends of the said rolls, and a conveyer web carried by the said rollers and moving the ears from the receiving ends to the delivery end of the said rolls, said arms 50 affording a single means both for tightening the said web and permitting its receiving end to rise and receive the ears, substantially as set forth.

No. 62,596. Acetylene Gas Generator.
(*Générateur de gaz acétylène.*)

August H. Deike, Guelph, Ontario, Canada, 8th February, 1899; 6 years. (Filed 4th February, 1898.)

Claim.—1st. A carbide chamber for an acetylene gas apparatus, embracing in its construction a gas-tight compartment, a carbide holder, centrally situated within the compartment, a rasidue pan below the carbide holder, a downwardly converging ledge interposed between the carbide holder and the residue pan, and a water spraying apparatus above the carbide holder, substantially as specified. 2nd. A carbide chamber for an acetylene gas apparatus, embracing

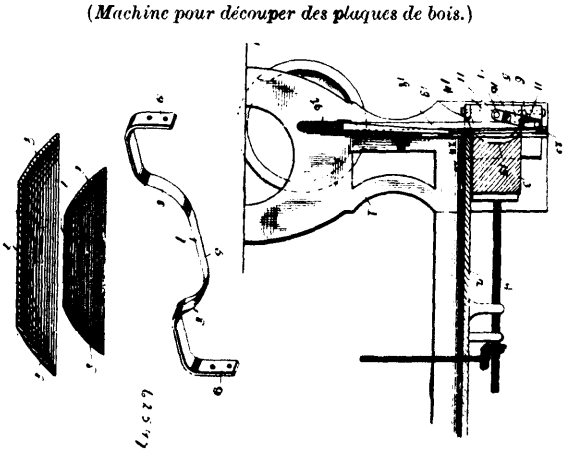


in its construction a gas-tight compartment, a carbide holder of a grate-bar construction, centrally situated within the compartment, a residue pan within the compartment below the carbide holder, a water spraying apparatus above the carbide holder, and a supplemental water spraying apparatus to saturate the contents of the residue pan, substantially as specified. 3rd. A carbide chamber for an acetylene gas apparatus, embracing in its construction a gas-tight compartment, a carbide holder of a grate-bar construction, centrally situated within the compartment, a residue pan within the compartment below the carbide holder, a water spraying apparatus above the carbide holder, a supplemental water spraying apparatus to saturate the contents of the residue pan, and a downwardly converging ledge interposed between the carbide holder and the residue pan, substantially as specified. 4th. A carbide chamber for an acetylene gas apparatus, embracing in its construction a gas-tight compartment, a carbide holder of a grate-bar construction, centrally situated within the compartment, a residue pan within the compartment below the carbide holder, a water spraying apparatus above the carbide holder, a supplemental water spraying apparatus to saturate the contents of the residue pan, embracing in its construction a water holder, a leg for the water holder, a pipe from the water holder extending to substantially the bottom of the leg, and forming the means of communication between them and a spout from the upper part of the leg into the compartment above the residue pan, substantially as specified. 5th. A carbide chamber for an acetylene gas apparatus embracing in its construction a gas-tight compartment, a carbide holder of a grate-bar construction, centrally situated within the compartment, a residue pan within the compartment below the carbide holder, a water spraying apparatus above the carbide holder, a supplemental water spraying apparatus to saturate the contents of the residue pan, embracing in its construction a water holder, a leg for the water holder, a pipe from the water holder extending to substantially the bottom of the leg, and forming the means of communication between them, a spout from the upper part of the leg into the compartment above the residue pan, and a downwardly converging ledge interposed between the carbide holder and the residue pan, substantially as specified. 6th. In an acetylene gas generator, a carbide chamber embracing in its construction a gas-tight compartment, one or more openings into the compartment, each opening surrounded by an open frame, having two diametrically opposed lugs projecting outwardly from its rim, a lever hinged or pivotally connected to one of the lugs, a link pivotally connected to the other and adapted to embrace the sides of the lever when the parts are assembled to close the opening, a set screw to securely hold the lever in its closed position, a cover to close the opening surrounded by the frame, and a swivel-screw passing through the cover and lever to admit of any required pressure being applied to the cover, substantially as specified. 7th. In an acetylene gas apparatus, a water supplying apparatus for the carbide chambers, embracing in its construction a water-chest, a rock-shaft journalled in the water-chest a valve chamber below the water-chest, a spigot valve within the valve chamber, a plurality of passages from the water-chest into the valve chamber, a plurality of valves carried by the rock-shaft to close the passages, a plurality of passages through the spigot valve communicating, when the valve is turned for that purpose, with corresponding passages through the casing of the valve chamber, a series of ducts communicating with the passages through the valve casing to convey the water to the carbide chambers, and means to automatically operate the rock shaft to open or close the passages to the valve chamber, substantially as specified. 8th. A water supplying apparatus for the carbide chambers of an acetylene gas generator, embracing in its construction a water chest, a rock shaft journalled in the water chest, a spigot valve, a valve chamber for the spigot valve immediately below the water chest, a plurality of passages from the water chest into the valve chamber, a plurality of valves carried by the rock

shaft to close the passages to the valve chamber, a plurality of right-angled passages centrally through the spigot valve, communicating one with each of the passages from the water chest, a plurality of passages formed through each of the opposite walls of the valve chamber, means for turning the spigot valve to bring the right-angled passages through it into communication first with the passages on one side of the valve chamber and then on the other side, a spray pipe from each of the passages on one side of the valve chamber into one of the carbide chambers, and a spray pipe from each of the passages on the other side of the valve chamber into the other carbide chamber, a lever to turn the spigot valve, and a means for automatically operating the rock shaft to open and close the passages to the valve chamber, substantially as specified. 9th. A water supplying apparatus for the carbide chambers of an acetylene gas generator, embracing in its construction a water chest, a rock shaft journalled in the water chest, a spigot valve, a valve chamber for the spigot valve immediately below the water chest, a plurality of passages from the water chest into the valve chamber, a plurality of valves carried by the rock shaft to close the passages to the valve chamber, a plurality of right-angled passages centrally through the spigot valve, communicating one with each of the passages from the water chest, a plurality of passages formed through each of the opposite walls of the valve chamber, means for turning the spigot valve to bring the right-angled passages through it into communication first with the passages on one side of the valve chamber and then on the other side, a spray pipe from each of the passages on one side of the valve chamber into one of the carbide chambers, and a spray pipe from each of the passages on the other side of the valve chamber into the other carbide chamber, a lever to turn the spigot valve, a means for automatically operating the rock shaft to open and close the passages to the valve chamber, consisting of a crank connected to the rock shaft, a floating gasometer, and a cam carried by the floating gasometer to actuate the crank of the rock shaft, substantially as specified. 10th. In an acetylene gas apparatus, a water supplying apparatus for the carbide chambers, embracing in its construction a water chest, a rock shaft journalled in the water chest, a valve chamber below the water chest, a spigot valve within the valve chamber, a plurality of passages from the water chest into the valve chamber, a plurality of valves carried by the rock shaft to close the passages, a plurality of passages through the spigot valve, communicating, when the valve is turned for that purpose, with corresponding passages through the casing of the valve chamber, a series of ducts communicating with the passages through the valve casing to convey the water to the carbide chambers, a means to automatically operate the rock shaft to open or close the passages to the valve chamber, consisting of a crank connected to the rock shaft, a floating gasometer, and a cam carried by the floating gasometer to actuate the crank of the rock shaft, substantially as specified. 11th. In an acetylene gas apparatus, a water supplying apparatus for the carbide chambers, embracing in its construction a water chest, a rock shaft journalled in the water chest, a valve chamber below the water-chest, a spigot valve within the valve chamber, a plurality of passages from the water-chest into the valve chamber, a plurality of valves carried by the rock shaft to close the passages, a plurality of passages, through the spigot valve communicating, when the valve is turned for that purpose, with corresponding passages through the casing of the valve chamber, a series of ducts communicating with the passages through the valve casing to convey the water to the carbide chambers, a means to automatically operate the rock shaft to open or close the passages to the valve chamber, consisting of a crank connected to the rock shaft, a floating gasometer, a cam carried by the floating gasometer to actuate the crank of the rock shaft, and a spring or springs to return the rock shaft and valves to their normal position, when the crank has been released from engagement with the cam, substantially as specified. 12th. An ascetylene gas apparatus embracing in its construction a liquid tank, a condensing chamber in the lower end of the liquid tank, a floating gasometer in the liquid tank enclosing the upper part of the condensing chamber an outlet from the condensing chamber into the gasometer, in combination with a carbide chamber or chambers, inlets from the carbide chambers into the lower end of the condensing chamber, and an overflow from condensing chamber, substantially as specified. 13th. In an acetylene gas apparatus a condenser embracing in its construction a closed condensing chamber located within the liquid tank, a pipe extending from the bottom of the condensing chamber through the top and fitted with an outlet, in substantially the same plane as the top of the liquid chamber, perforations in that part of the outlet pipe within the condensing chamber, a hand-hole through the top of the condensing chamber, a pipe surrounding the hand-hole and extending into substantially the same plane as the top of the liquid tank, a cover to tightly close the top of the hand-hole, pipe and inlet pipes, from the carbide chamber or chambers into the condensing chamber, the lower end of each of the inlet pipes provided with a perforated distributor in close proximity to the bottom of the condensing chamber, substantially as specified. 14th. In an acetylene gas apparatus a condenser embracing in its construction a closed condensing chamber located within the liquid tank, a pipe extending from the bottom of the condensing chamber through the top and fitted with an outlet, in substantially the same plane as the top of the liquid chamber, perforations in that part of the outlet pipe within the condensing chamber, a handle-hole through the top of the condensing chamber, a pipe surrounding the hand-hole and extending into substantially the same plane as the top of the liquid tank, a cover to tightly close the top of the hand-hole, pipe and inlet pipes, from the carbide chamber or chambers into the condensing chamber, the lower end of each of the inlet pipes provided with a perforated distributor in close proximity to the bottom of the condensing chamber in combination with the liquid tank surrounding the condensing chamber, a floating gasometer within the liquid tank, enclosing the upper part of the condensing chamber, an outlet pipe within the gasometer, extending from above the top of the liquid tank to approximately the bottom thereof, and a coupling connected to the lower end of the outlet pipe, substantially as specified. 15th. In an acetylene gas apparatus a condenser embracing in its construction a closed condensing chamber located within the liquid tank, a pipe extending from the bottom of the condensing chamber through the top and fitted with an outlet, in substantially the same plnne as the top of the liquid chamber, perforations in that part of the outlet pipe within the condensing chamber, a hand-hole through the top of the condensing chamber, a pipe surrounding the hand-hole and extending into substantially the same plane as the top of the liquid tank, a cover to tightly close the top of the handle-hole, pipe and inlet pipes, from the carbide chamber or chambers into the condensing chambers, the lower end of each of the inlet pipes provided with a perforated distributor in close proximity to the bottom of the condensing chamber in combination with the liquid tank surrounding the condensing chamber, a floating gasometer within the liquid tank, enclosing the upper part of the condensing chamber, two outlet pipes within the gasometer each extending from above the top of the liquid tank to approximately the bottom thereof, a coupling connected to the lower end of each outlet pipe extending through the liquid tank, a drain pipe extending from each coupling through the condensing chamber to substantially the bottom thereof, a sleeve within the gasometer enclosing one of the outlet pipes, an enlargement of a lesser length than the sleeve connected thereto, having its lower end open, and an opening from the upper end of the enlargement into the upper end of the sleeve, substantially as specified. 16th. In an acetylene gas apparatus, a pressure gauge, embracing in its construction a pipe, fitted into the gas containing portion of the condensing chamber, a valve-chest connected to the pipe, an outlet port for the valve-chest, a valve within the valve-chest to close the outlet port, a push-button to displace the valve to open the outlet port, a substantially U-shaped gauge-glass partially filled with liquid, one end of the gauge-glass in communication with the outlet port of the valve-chest, and a dial-plate between the legs of the gauge-glass, to register the pressure of the gas on the liquid, substantially as specified. 17th. In an acetylene gas apparatus, a pressure gauge, embracing in its construction a pipe, fitted into the gas containing portion of the condensing chamber, a valve-chest connected to the pipe, an outlet port for the valve-chest, a valve within the valve-chest to close the outlet port, a push-button to displace the valve to open the outlet port, a substantially U-shaped gauge-glass partially filled with liquid, one end of the gauge-glass in communication with the outlet port of the valve-chest, a dial-plate between the legs of the gauge-glass, to register the pressure of the gas on the liquid, and an outlet from the gauge-glass, normally closed by the push-button when in thrust, to displace the valve from the outlet port of the valve-chest, substantially as specified.

No. 62,597. Machine for Cutting Plates from Wood.

(*Machine pour découper des plaques de bois.*)

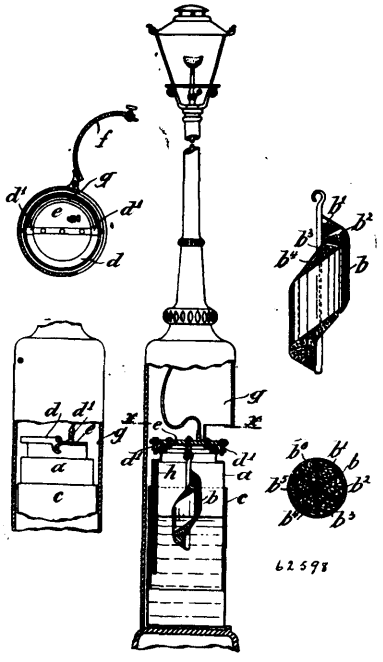


Asa H. Hall and Henry Tonnelier, both of Traverse City, Michigan, U.S.A., 8th February, 1899; 6 years. (Filed 20th January, 1899.)

Claim.—1st. In a machine of the class described, the combination of a frame adapted to support a block of wood, an oscillating cutting-off knife arranged to engage such block of wood, means for oscillating the knife, and a substantially semi-circular stationary guide receiving the knife and provided with a straight central portion, whereby the dishes severed from the block will be formed with flat central portions or bottoms, substantially as described. 2nd. In a machine of

the class described, the combination of a frame provided with ways having curved end portions and a straight central portion, the extensible oscillating arms mounted on the frame and engaging said ways, and a knife carried by said arms and provided with a straight central portion and curved end portions, substantially as described. 3rd. In a machine of the class described, the combination of a frame provided with guide-slots, oscillating arms mounted on the frame and composed of two sections slidingly connected with each other, projections carried by the outer sections of the arms and engaging the guide-slots, and a knife carried by the oscillating arm, substantially as described. 4th. In a machine of the class described, the combination of a frame provided with guide-slots, extensible oscillating arms engaging the slots, an oscillating knife carried by the arms, a vertically reciprocating facing-knife, a shaft journalled on the frame and provided with crank-bends, and pitmen connected with the crank-bends and with the oscillating arms and the facing-knife, substantially as described. 5th. In a machine of the class described, the combination of a frame having ways with curved end portions and straight central portions, a knife having a straight central portion and curved end portions, and arms carrying the knife and provided with adjustable means whereby they are permitted to conform to the configuration of and travel in the said ways, substantially as described. 6th. In a machine of the class described, the combination of a frame provided with stationary ways having curved end portions and a straight central portion, the oscillating arms engaging said ways, and a knife carried by said arms and provided with a straight central portion and curved end portions, substantially as described.

No. 62,598. Acetylene Gas Generator.
(Générateur à gaz acétylène.)



Dr. Leon Steiner, Bucharest, Roumania, 8th February, 1899; 6 years. (Filed 12th April, 1898.)

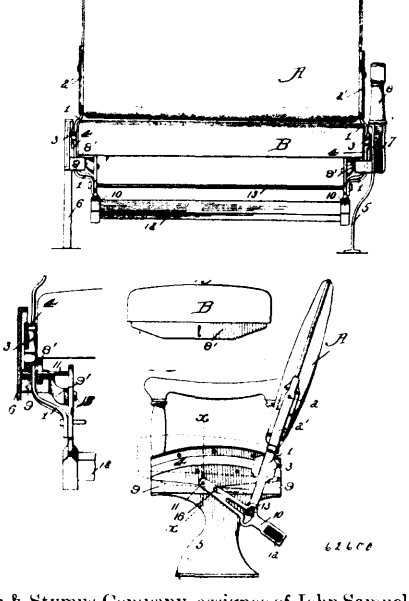
Claim.—1st. An acetylene gas apparatus provided with a carbide receptacle or tank located in the gasometer attached to the shell, and ascending and descending therewith, whereby the tank is immersed when the shell descends, substantially as described. 2nd. In an acetylene gas apparatus, a carbide tank b composed of separate partitions b^1 b^2 b^3, whose sieve bottoms are arranged in different levels, for the purpose of the carbide being attacked successively by the water, substantially as described. 3rd. In an acetylene gas apparatus, a shell a provided with a detachable cover e, to which is attached the carbide tank b, the cover being fixed to the shell by means of a bow d d^1, substantially as described and for the purposes set forth. 4th. In an acetylene gas apparatus, the combination of the gasometer c with a rising pipe h which serves as a safety valve, substantially as described. 5th. The combination of an acetylene gas apparatus with a street lantern, the apparatus being placed in the lower hollow part g of the lantern, the latter being accessible by a door f, substantially as described and for the purposes set forth.

No. 62,599. Yeast Product. *(Produit de levain.)*

Jean Peeters, 201 Chaussée de Haecht, Schaerbeek, Brussels, Belgium, 8th February, 1899; 6 years. (Filed 17th March, 1898.)

Claim.—1st. The hereinabove described process for the manufacture of extracts of yeast, which consists in washing the yeast, after it is strained in a solution acidulated with acetic acid, dissolving and digesting at a temperature of about 50° C, the washed yeast with an addition of tartaric acid, washing the product of the digestion in alcohol, and evaporating said product to the desired consistency. 2nd. The hereinbefore described process for the manufacture of extracts of yeast, which consists in washing the yeast, after being strained, with a solution acidulated with acetic acid, dissolving and digesting at a temperature of about 50° C, the washed yeast, with an addition of tartaric acid, washing the product of the digestion with alcohol, adding sodium chloride to said product, and evaporating the same to the desired consistency. 3rd. The hereinbefore described process for the manufacture of extracts of yeast, which consists in washing the yeast, after being strained, in a solution acidulated with acetic acid, dissolving and digesting under presssure the washed yeast, with the addition of tartaric acid, at a temperature of about 120° C, washing the product of digestion with alcohol, and evaporating said product to the desired consistency. 4th. The hereinbefore described process for the manufacture of extracts of yeast, which consists in washing the yeast, after straining, in a solution of acetic acid of one-thousandth, dissolving the washed yeast in water, to which is added tartaric acid, in the proportion of about eight hundred parts of water, one hundred parts of dry yeast, and two parts of tartaric acid, digesting the yeast in this solution at a temperature of about 50° C, evaporating the solution after filteration, to a syrupy or pasty consistency, washing the product with alcohol by pouring the alcohol in slowly and agitating the mixture, decanting the alcohol, dissolving the residue in about three times its weight of water, and evaporating the solution to the desired consistency.

No. 62,600. Car Seat. *(Siège de chars.)*

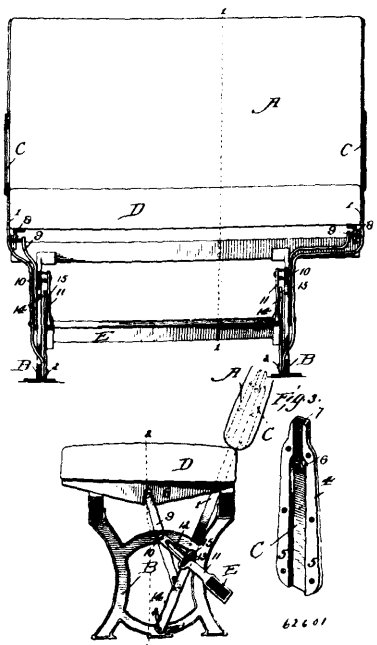


The Pottier & Stymus Company, assignee of John Samuel Johnston, New York City, New York, U.S.A., 9th February, 1899; 6 years. (Filed 10th January, 1899.)

Claim.—1st. In combination with the seat, a back supported upon striker arms which are supported upon blocks, and curved ways on which said blocks slide, whereby the back is shifted, substantially as described. 2nd. In combination with the seat, a back supported on striker arms, which are supported on blocks, and curved ways on which said blocks slide with locking mechanism engaging with the lower end of said striker arms, substantially as described. 3rd. In combination, with the striker-arms of a shifting car seat-back, a foot-rest, levers having longitudinal and transverse slots, and means on the striker-arms engaging the slots, whereby the arms are locked in either position of the back, substantially as described. 4th. In combination, the back, the striker-arms carrying the same, the foot-rest and the foot-rest levers, said levers being adapted to lock said striker-arms. 5th. In combination, the seat, the back, the striker-arm carrying the same adapted to be shifted from side to side of said seat, and a single locking device for holding said seat in either of its adjusted positions, substantially as described. 6th. In combination, the seat, the back, the striker-arms on which the back is supported and locking means comprising a foot-rest to hold the back and striker-arms in either position, substantially as described. 7th. In combination, the seat, the back, the striker-arms supporting the back and a locking lever engaging the seat and striker-arms to hold them in either position, substantially as described. 8th. In combination, the seat, the back, the striker-arms supporting the back,

and a foot-rest arranged to shift with the parts and having connection thereto to lock them in either position, substantially as described. 9th. In combination, the back, the seat, the striker-arms supporting the back, and the locking lever adapted to shift with the back and having a longitudinal and a transverse slot engaging a part on the striker-arm to hold it in either position, substantially as described. 10th. In combination, the seat, the back, the striker-arms and the levers having longitudinal and transverse slots to engage a part on the striker-arms, said levers having extensions to engage the seat, substantially as described. 11th. In combination, the frame, a back adapted to shift from side to side thereof, the striker-arms, the sliding connection between the striker-arms and the frame and the lock for the lower ends of the striker-arms, substantially as described.

No. 62,601. Car Seat. (*Siège de chars.*)



The Pottier & Stymus Company, assignees of John Samuel Johnston, New York City, New York, U.S.A., 9th February, 1899; 6 years. (Filed 10th January, 1899.)

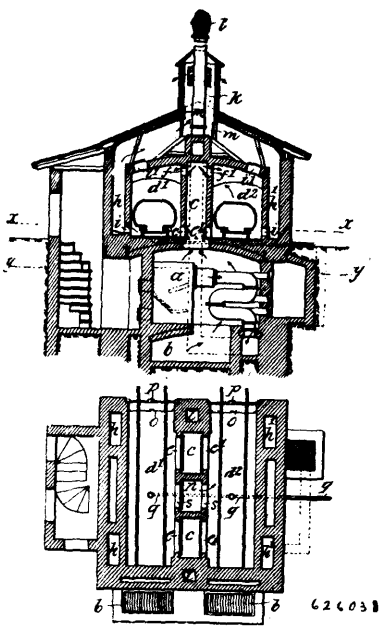
Claim.—1st. In combination with a reversible seat back, mounted upon striker arms rigidly attached thereto and pivoted at their lower ends with a movable seat, a lever connecting said striker arms and the seat, and locking mechanism consisting of locking levers which support the foot rest, substantially as described. 2nd. In combination with the back mounted rigidly upon striker arms which are pivoted at their lower ends whereby the back may be shifted, the arm 14 fixed to the lower end of the striker arm and a locking lever engaging therewith, substantially as described. 3rd. In combination with the striker arm and the arm 14 fixed thereto, the locking lever having the longitudinal and transverse slot adapted to lock the striker arm, substantially as described. 4th. In combination the back, the striker arms connected rigidly thereto and pivoted at their lower ends, the arms 14 fixed to said lower ends, the slotted arms 11 and the foot rest E, all substantially as described. 5th. In combination the back, the striker arms connected rigidly thereto and pivoted at their lower ends, the arm 14 fixed to said lower ends, the slotted arms 11, the foot rest E and the levers 9 connecting the striker arms with the movable seat, substantially as described. 6th. In combination with the set back and the striker arms, the socket piece C having the groove 4, the flanges 5 and the hole 6, and an extended narrower groove 7, all as set forth. 7th. In combination the seat, the back, the striker arms supporting the back and the levers between the striker arms and the seat for shifting the latter, substantially as described. 8th. In combination the seat, the back, the striker arms pivoted to the frame and a foot rest forming a lock for the striker arms. 9th. In combination the seat, the striker arms pivoted at their lower ends and the lock arranged at a point intermediate of the upper and lower ends of the striker arms, substantially as described. 10th. In combination the back, the seat, the striker arms pivoted at their lower ends and the locking levers having longitudinal and transverse slots arranged at a point between the upper and lower ends of the striker arms and connected therewith, substantially as described.

No. 66,602. Process of Simultaneously Producing Metals and Carbides. (*Procédé pour la production simultanée de métaux et carbures.*)

Dr. Heinrich Aschermann, No. 5 Terrasse, Cassel, Prussia, 9th February, 1899; 6 years. (Filed 28th March, 1898.)

Claim.—The process for simultaneously producing metals and carbides, consisting in mixing an oxide and a sulphid having different affinities to carbon with coal, and heating the mixture electrically, as set forth.

No. 62,603. Wood Preserving Process and Apparatus. (*Procédé et appareil pour la préservation du bois.*)

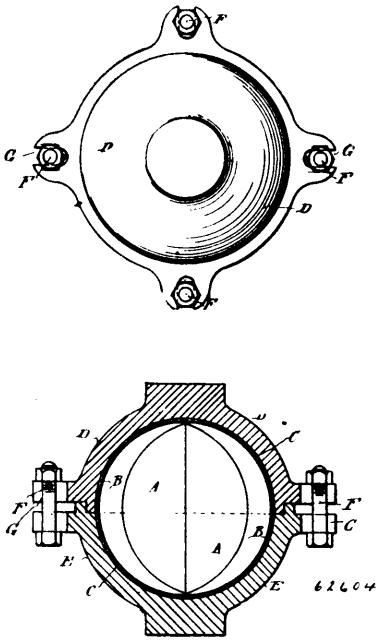


Carl Tschurl, Vienna, Lower Austria, 9th February, 1899; 6 years. (Filed 24th August, 1898.)

Claim.—1st. In preserving wood, a process for drying green, wet or frozen wood, while at the same time utilising the heat emanating from the hot wood already impregnated and cooling the latter, the said improved process consisting in introducing alternately the fresh, non-impregnated wood into one of the two drying chambers d^1, d^2, connected with each other in such a manner as to enable the establishing and interrupting the said connection, and introducing the hot wood coming from the impregnating boiler into the second of the said two chambers, whereupon, by a suitable operation of the closing devices between the two chambers, an exchange of air and temperature is effected between the two chambers and the waste heat of the preserved wood is utilized for the preliminary heating and the preliminary drying of the fresh wood which is introduced into the chamber previously used for cooling the preserved wood, whilst the cooling chamber is shut off from the preliminary heating chamber and put in connection with the outer air for the purpose of its complete cooling, substantially as described. 2nd. In preserving wood, a modified process for drying green, wet or frozen wood while at the same time utilizing the heat emanating from the hot wood already impregnated and cooling the latter, the said modified process consisting in that instead of the two drying chambers two boilers of identical construction are arranged, which can be brought, when necessary, in connection with the impregnating boiler, within which three boilers the three operations of preliminary drying, preserving proper, and cooling of the wood, are effected successively in such a manner that in one of these three boilers takes place the preliminary heating operation, in the second boiler the preserving proper, and in the last boiler the cooling operation, whereupon, by suitably reversing the closing devices, each of the said operations are successively carried on in the next of the three boilers, so that each of the three boilers is utilized for the successive performance of all three operations, substantially as described. 3rd. For carrying out the improved process for drying green, wet or frozen wood, while at the same time utilizing the heat emanating from the hot wood already impregnated and cooling the latter, an apparatus consisting of two chambers d^1, d^2 arranged one aside the other and heated by means of heating devices a, a arranged below the same, the said two chambers d^1, d^2 being connected with the hot air passages c, c by means of openings c, c^1 and f, f^1, which are arranged near the floor and the ceiling and can be closed by means of valves, the said chambers d^1, d^2 being further connected with one common fresh air passage n that can be closed by a shute s and finally with the exit passages h, h^1, terminating into the funnel k, by means of

the suction openings *i*, *i*¹, which can be closed by valves, substantially as described.

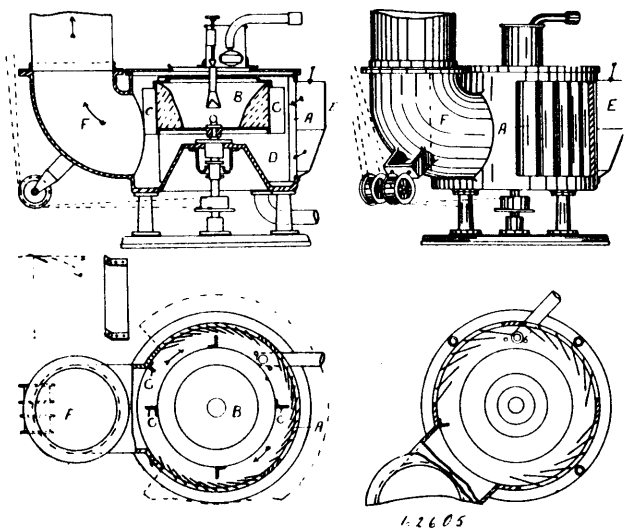
No. 62,604. Foot Ball. *(Ballon.)*



John Henderson, Andrew Stewart Bryce, and John Churchman Robertson, all of Glasgow, Lanark, Scotland, 9th February, 1899; 6 years. (Filed 12th April, 1898.)

Claim.—1st. The combination of the core block A, composed of separable sections, and the hollow enclosing mould composed of separable male and female members D and E, substantially as and for the purpose hereinbefore set forth. 2nd. The combination with the core block A, composed of separable sections, of the hollow enclosing mould composed of separable male and female members D and E, slotted lugs G, on said members, and belts F, for engaging said slotted lugs, and securing the said members together, substantially as and for the purpose hereinbefore set forth. 3rd. The combination with a collapsible core, of a hollow mould composed of two separable male and female members, slotted lugs upon said members and bolts for securing said members together, substantially as and for the purpose hereinbefore set forth.

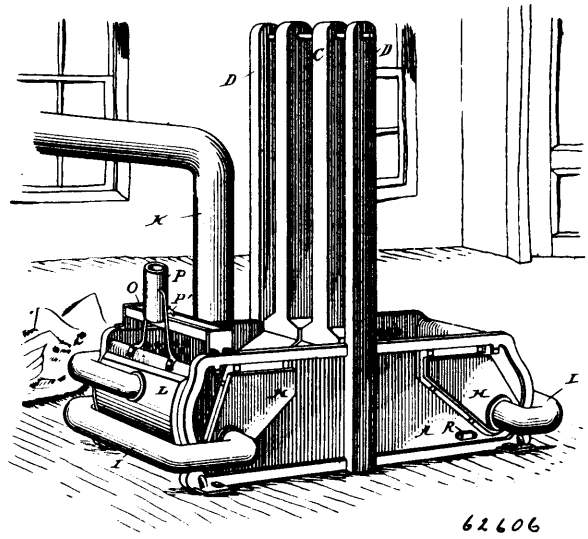
No. 62,605. Apparatus for Treating and Cooling with Air Heated Liquid Fats and Oils. (*Appareil pour le traitement et refroidissement de liquides, graisses et huiles.*)



Charles Graham Hepburn, Sydney, New South Wales, Australia, 9th February, 1899; 6 years. (Filed 12th September, 1898.)

Claim.—1st. In apparatus for air blowing oils and liqud fats, the combination of an oil sprayer, louvres surrounding said sprayer to catch said spray, and means for causing an air draught through said louvres, substantially as described. 2nd. In apparatus for air blowing oils and liquid fats, the combination of a rotating filter adapted to eject the filtrate in a spray, and to act as an air whirler, louvres surrounding said rotating filter through which air is sucked inwards, an uptake through which the spent air is ejected, and a well into which the treated filtrate passes, substantially as described. 3rd. In apparatus for air blowing oils and liquid fats, the combination of a rotating filter adapted to eject the filtrate in a spray, and louvres completely surrounding said filter and moving therewith within a casing having air inlet openings at the centre and an air outlet at the side, and a well to receive the treated filtrate, substantially as described. 4th. In apparatus for air blowing oils and liquid fats, the combination of a rotating sprayer and louvres completely surrounding said sprayer and moving therewith within a casing having air inlet openings at the centre and an air outlet at the side, and a well to receive the treated oil or fat, substantially as described. 5th In apparatus for air blowing oils and liquid fats, the combination of a rotating sprayer and louvres completely surrounding said spraying and moving therewith within a casing having air inlet openings at the bottom and an air outlet at the top, a well to receive the treated oil or fat and an air propeller to promote air circulation, substantially as described. 6th. In apparatus for air blowing oils and liquid fats, the combination of a rotating sprayer, two or more concentric rings of louvres completely surrounding said sprayer and rotating therewith, a fixed ring of louvres surrounding said movable louvres, a monitor or casing with well to receive the treated material, and an air propeller below the louvres, substantially as described.

No. 62,606. Leather Manufacturing Apparatus.
(*Appareil pour la fabrication du cuire.*)

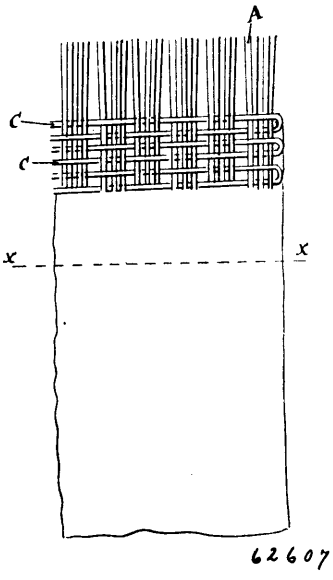


Daniel Hays, Gloversville, New York, U.S.A., 9th February, 1899; 6 years. (Filed 8th October, 1898.)

Claim.—1st. In a machine for fulling, drying and tanning hides and skins, a stationary vat or stock having the perforated sides and ends, the air-trunks covering the said perforated portion, and the air-supply pipes leading to the said air-trunks, substantially as shown and described. 2nd. In an apparatus for fulling, drying and tanning hides and skins, a stationary vat or stock having the perforated sides, ends and bottom, the air-trunks covering the said perforated portions, and the air-supply pipes leading to the said trunks, substantially as shown and described. 3rd. In an apparatus for fulling, drying and tanning skins and hides, a stationary stock or vat having the perforated sides, ends and bottom, the air-trunks covering the said perforated portions, the air-supply pipe and the heating coil arranged in the main air-supply pipes for the purpose of maintaining the air at a proper temperature, substantially as shown and described. 4th. In an apparatus for fulling an tanning hides and skins, the combination of a stock or vat having the perforated ends, sides and bottom, and the air-trunks covering the said perforated portions, the air pipes leading to the said trunks, the distributing-trough and oil-tank, all arranged and adapted to operate, substantially as shown and described. 5th. In an apparatus for manufacturing leather, a stationary stock or vat having beaters or hammers operating therein, a top or cover fitted upon said stock or vat and having an opening at the centre to permit the movement of the beaters or hammers, the aprons attached to the edges of said opening and depending into the stock, and the air-pipes leading into the stock or vat through the top or cover, substantially as described. 6th. In an apparatus for manufacturing leather, a stationary stock or vat having beaters or hammers operating therein, a top or cover fitted upon said stock or vat

and having an opening at the centre to permit the movement of the beaters or hammers, said cover or top having one or more hinged lids or portions, the aprons attached to the edges of the central opening and depending into the stock, and the air pipes leading into the stock or vat through the top or cover, substantially as described.

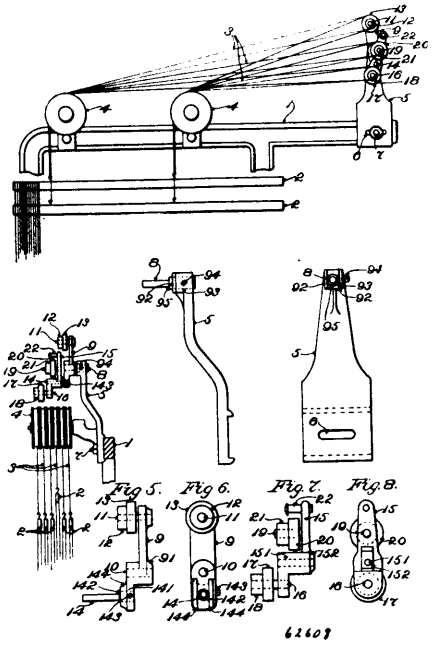
No. 62,607. Felt Drying Cloth. (*Sechoir pour draps feutrés.*)



Ernest Régnier, LeGond, France, 9th February, 1899; 6 years. (Filed 8th October, 1898.)

Claim.—1st. A fabric such as described, composed of woollen and silk threads incorporated together, as and for the purpose set forth. 2nd. Unstretchable felt-cloth, the warp of which is formed in several groups of silk threads freely arranged on the side of each other, and the weft of which is formed by twisting silk and woollen threads together. 3rd. A fabric such as described, having its warp composed of a series of groups of silk threads A, loosely arranged parallel to one another and held together by single threads of silk and wool C, twisted together to form the wefts and interwoven with said groups of warp threads, substantially as and for the purpose set forth.

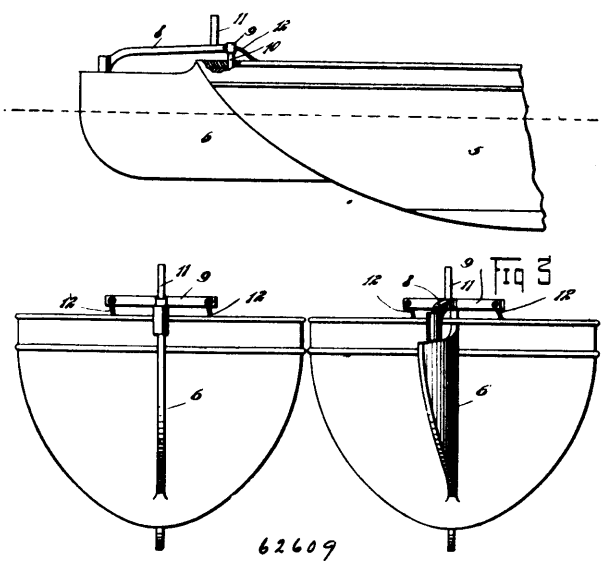
No. 62,608. Loom Mechanism. (*Métier.*)



Fred Lacey, Valleyfield, Quebec, Canada, 9th February, 1899 years. (Filed 14th October, 1898.)

Claim.—1st. The combination with the loom, arch or stand, of a main supporting lever having a pair of harness rolls mounted to turn on one arm of said lever, the secondary lever mounted pivotally on the other arm of the said main lever, the pair of harness rolls mounted pivotally on one arm of the secondary lever, the other arm of said secondary lever having means of receiving harness cording, substantially as described. 2nd. The combination with a support, of the main or supporting lever mounted pivotally on the said support, the pair of harness rolls mounted to turn on one arm of the said lever, the secondary lever mounted pivotally on the other arm of the said main lever, the pair of harness rolls mounted pivotally on one arm of the said secondary lever, the other arm of said secondary lever having means of receiving harness cording, and means of holding, respectively, the main lever from movement relatively to the support and the secondary lever from movement relatively to the main lever, substantially as described. 3rd. The combination with the support, of the main or supporting lever mounted pivotally on the said support, the pair of harness rolls mounted to turn on one arm of the said lever, the secondary lever mounted pivotally on the other arm of the said main lever, and the respective pairs of harness rolls mounted pivotally on the respective arms of the said secondary lever, one arm of the said secondary lever having in addition means, as the pin 3, of receiving harness cording, substantially as described. 4th. The combination with the support, of the main or supporting lever mounted pivotally on the said support, the pair of harness rolls mounted to turn on one arm of the said lever, the secondary lever mounted pivotally on the other arm of the said main lever, the respective pairs of harness rolls mounted pivotally on the respective arms of the said secondary lever, one arm of the said secondary lever having in addition means, as the pin 3, of receiving harness cording, and means of holding, respectively, the main lever from movement relatively to the support and the secondary lever from movement relatively to the main lever, substantially as described. 5th. The combination with the lever 15, and a support or mounting therefor, of the pair of harness rolls mounted pivotally on one arm of said lever and the pin mounted on the other arm of the said lever for receiving harness cording, substantially as described. 6th. The combination with the support, of the main or supporting lever, the secondary lever pivotally mounted on one arm of the said main or supporting lever, the other arm of said main or supporting lever, and both arms of the said secondary lever having provisions for the attachment of harness cording, and means of locking when desired the said main lever to the support and the secondary lever to the main lever, substantially as described.

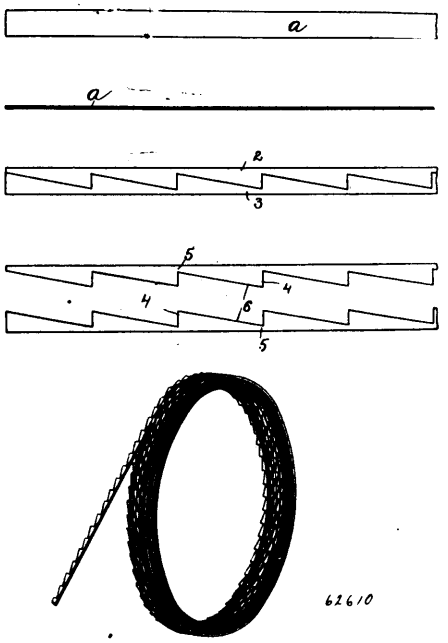
No. 62,609. Improvements in Rudders for Marine Vessels. (*Gouvernail pour vaisseaux.*)



John William Dobson, Salt Lake City, Utah, U.S.A., 9th February, 1899; 6 years. (Filed 20th April, 1897.)

Claim.—1st. A rudder for marine vessels, the rudder being constructed of flexible material, so that the rudder when turned will present a curved surface to the action of the water. 2nd. A marine vessel having a rudder, the in-board end of which is rigidly attached to the vessel, the rudder being constructed of flexible material so that when turned, it will present a curved surface to the action of the water. 3rd. A marine vessel having a rudder attached rigidly thereto, the rudder being formed of flexible material, a tiller pivotally connected to the outer portion of the rudder, a cross-bar attached to the front portion of the tiller, a pivot mounting the cross-bar on the vessel, and a hand stud attached to the tiller shaft of the cross-bar.

No. 62,610. String Nail. (*Ruban de clous.*)



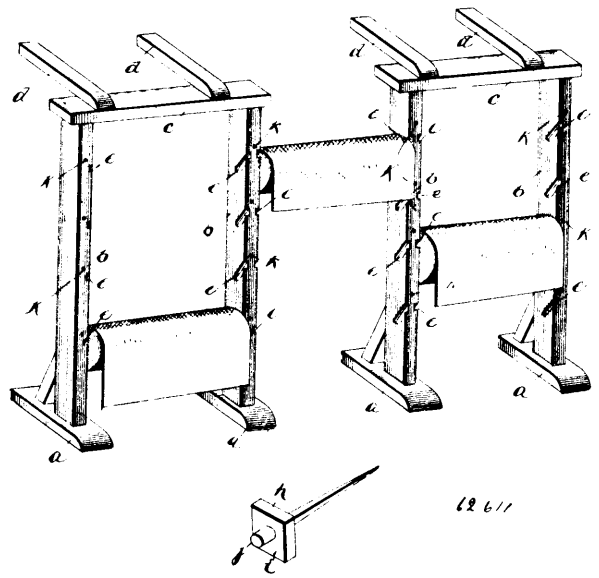
George Goddu, Winchester, Massachusetts, U.S.A., 9th February, 1899; 6 years. (Filed 25th October, 1898.)

Claim.—1st. As a new article of manufacture, a string nail consisting of a metal strip cut from a substantially flat, thin, ductile metal band or ribbon of substantially uniform thickness throughout its length, and characterized in that one side of the string nail strip is substantially straight and the other side is composed of sections inclined and transverse with relation to the substantially straight side to sub-divide the said strip into a series of connected headed and pointed tapering nails, with the inclined sections of uniform length and extended from one transverse section to the next contiguous transverse section, substantially as described. 2nd. As an improved article of manufacture, a string nail consisting of a series of substantially flat, thin and ductile connected headed and pointed tapering nails, each nail having a substantially straight side, a substantially straight head extended substantially at right angles to the said straight side, and an inclined opposite side extended continuously from the end of the head of one nail to the head of the next adjacent or contiguous nail but between the sides of the head of the contiguous nail, substantially as described. 3rd. A string nail cut from a thin ductile ribbon of sheet metal of substantially uniform thickness, said string nail having one practically straight edge, and the other edge composed of longer inclined faces, each of which forms one longitudinal edge of a nail, and shorter transverse faces, each of which forms a part of the outer end or head of the nail.

No. 62,611. Display Rack. (*Ratelier de montre.*)

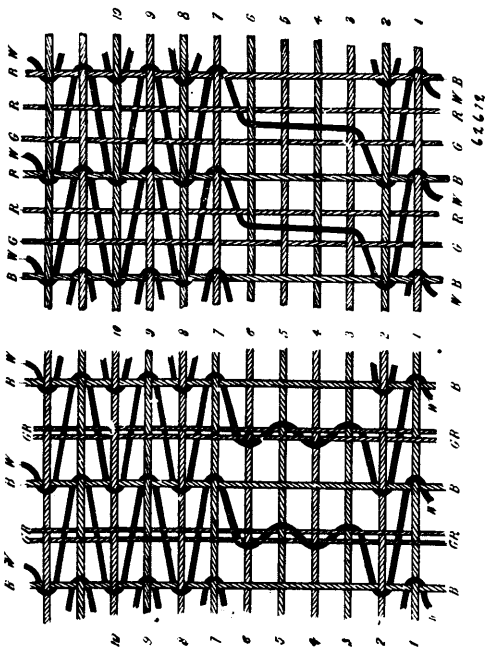
Harley D. Wells, Spencer, West Virginia, U.S.A., 9th February, 1899; 6 years. (Filed 7th October, 1898.)

Claim.—1st. A movable and interchangable rack consisting of a base, the uprights provided with notches forming bearings for the carrying pins, said uprights being united at their upper ends and provided with lateral extensions by which they are held in position when arranged in pairs, the uprights having notches or bearings on their exterior, by which the necks, when the location thereof is changed to be set in a straight line are adapted to carry rolls or bolts beween them thus one pair forming three racks, in combination with a headed tapering pin for carrying the roll, substantially as set forth. 2nd. The combination with a rack, of the uprights, the bases, said uprights extending at right angles therefrom and mounted within said base, the series of notches on the inner sides thereof, a similar series on the outer side, a cross-bar at the upper part of the same connecting said uprights, the rearwardly extending arms therefrom, and a pin connecting the roll of goods to the rack, the same comprising the stem having a headed end, an outward extension therefrom to form a bearing to rest in the notches of the uprights, and the tapered or reduced portion to extend partly through the bolt or roll so as to hold the same within the uprights and in the desired position, for the purpose set forth. 3rd. The combination of the racks having bearings as specified, with the journal pins, said pins having at one end journals to engage said bearings, the opposite ends being angular in cross-section and tapered to enter the end of the roll or carpet, substantially as described. 4th. The combination of the racks having bearings as specified, with the journal pins, said pins having at one end journals to engage said bearings, the opposite ends being angular in cross-section and tapered to enter the



end of the roll of carpet and being also provided with a rigid collar to prevent the end of the roll from rubbing against the bearings, as set forth.

No. 62,612. Figured Cloth. (*Tissu.*)



William Strang, jr., 201 Greenhead Street, Glasgow, Scotland, 9th February, 1899; 6 years. (Filed 8th July, 1898.)

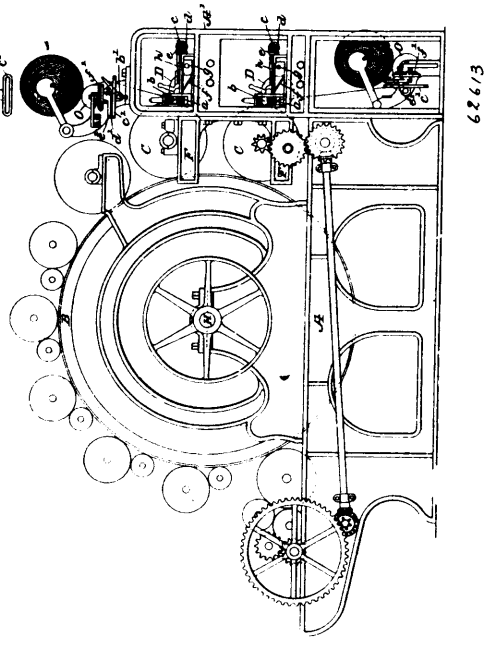
Claim.—A figured cloth or fabric produced by weaving whip or figuring threads, binding threads and ground threads in combination, the design being produced by manipulating the whip or figuring threads and binding threads so that where figuring is required the whip or figuring threads are held to the point of contact of the binding and weft threads, and where figuring is not required the whip or figuring threads are allowed to return to the ground threads situated on each side of the binding threads.

No. 62,613. Yarn Manufacture. (*Fabrication de fil.*)

William Henry Drury, Waltham, Massachusetts, U.S.A., 9th February, 1899; 6 years. (Filed 19th October, 1898.)

Claim.—1st. In a machine for spinning or making yarn from fibrous material, the combination with mechanism for continuously subdividing a web, sheet or width of carded fibrous material

lengthwise into many or numerous narrow and separate sections or strips, of mechanism for continuously forming or rolling up said



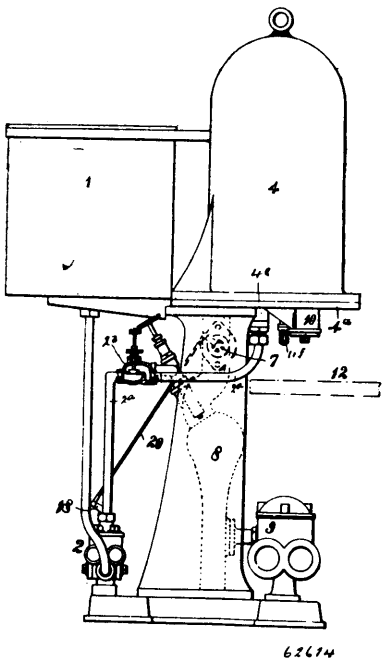
sections or strips of material severally into fibrous rolls and revolving said rolls, mechanism whereby said rotatating fibrous rolls, as they form, are severally and continuously drawn lengthwise of themselves into strands of yarn, condensing straps between whose meeting surfaces said strands of material pass while being so drawn, and means for operating said straps to rub said strands of material in the same direction as that in which they are being revolved, substantially as and for the purposes hereinbefore set forth. 2nd. In a machine for spinning or making yarn from fibrous materials, the combination with a plural number of series of rings, having their surfaces arranged in relation to each other like ordinary doffer-rings of the same number of series, for receiving fibrous material in numerous narrow sections or subdivisions, of mechanism to co-operate with such rings to collect therefrom and form or roll up said sections or subdivisions of material severally into fibrous rolls and revolve said rolls, mechanism whereby said rotating fibrous rolls, as they form, are severally and continuously drawn lengthwise of themselves into strands of yarn, means whereby said strands of material are compressed or condensed while being so drawn, and means for operating said rings, substantially as and for the purposes hereinbefore set forth. 3rd. In a machine for spinning or making yarn from fibrous materials, the combination with a plural number of series of doffer-rings for receiving fibrous materials in numerous narrow sections or subdivisions, of corresponding twisting and wipe rolls to accompany said rings respectively and to co-operate therewith to collect therefrom and form or roll up said sections or subdivisions of material severally into fibrous rolls and revolve said fibrous rolls, mechanism whereby said rotating fibrous rolls, as they form, are severally and continuously drawn lengthwise of themselves into strands of yarn, and means whereby said strands of material are compressed or condensed while being so drawn, and means for operating said rings and said twisting and wipe rolls, substantially as and for the purposes hereinbefore set forth. 4th. In a machine for spinning or making yarn from fibrous materials, the combination with a plural number of series of doffer-rings for receiving fibrous material in numerous narrow and separate sections or subdivisions, of corresponding individual doffing combs, mechanism to co-operate with such rings and combs to collect from said rings and form and roll up said sections or subdivisions of material severally into fibrous rolls and revolve said rolls, mechanism whereby said rotating fibrous rolls, as they form, are severally and continuously drawn lengthwise of themselves into strands of yarn, means whereby said strands of material are severally compressed or condensed while being so drawn, and means for operating said rings and combs, substantially as and for the purposes hereinbefore set forth. 5th. In the herein described machine for spinning or making yarn from fibrous materials, the combination of the doffer-rings for receiving the material in many or numerous narrow and separate sections or subdivisions, the twisting and wipe rolls for so operating with said doffer-rings respectively to collect therefrom and roll up and compress the said sections or subdivisions of material severally into fibrous rolls and revolve said fibrous rolls, the side-drawing mechanism for drawing said rotating fibrous rolls severally, as they form, lengthwise of themselves into strands of yarn, the condensing mechanism for compressing or condensing said strands of material severally while being so drawn, and the means for operating said rings, said twisting and wipe rolls and said mechanisms, substantially as and for the purposes hereinbefore set forth. 6th. In the herein described machine for spinning or making yarn from fibrous materials, the combination of the doffer-rings for receiving the material in many or numerous narrow and separate sections or subdivisions, the individual doffing combs for accompanying said rings and vibrating up and down across the surfaces thereof respectively, the twisting rolls for so operating with said rings and combs respectively to collect from said rings and roll up and compress said sections or sub-divisions of material severally into fibrous rolls and revolve said fibrous rolls, the side-drawing mechanism for drawing said rotating fibrous roll severally, as they form, lengthwise of themselves into strands of yarn, and condensing mechanism for compressing or condensing said strands of material while being so drawn, and means for operating said rings, combs, twisting rolls, and mechanisms, substantially as and for the purposes hereinbefore set forth.. 7th. In the herein described machine for spinning or making yarn from fibrous materials, the combination of the doffer-rings for receiving the material in many or numerous narrow and separate sections or subdivisions, the twisting and wipe rolls for so operating with said rings respectively to collect therefrom and roll up and compress the said sections or subdivisions of material into fibrous rolls and revolve said fibrous rolls, the winding mechanism for drawing said said rotating fibrous rolls severally, as they form, lengthwise of themselves into strands of yarn and winding said yarn, the condensing mechanism for compressing or condensing said strands of material severally while being so drawn, and the means for operating said rings, said twisting and wipe rolls and said mechanisms, substantially as and for the purposes hereinbefore set forth. 8th. In the herein described machine for spinning or making yarn from fibrous materials, the combination of the doffer-rings for receiving the material in many or numerous narrow and separate sections or subdivisions, the individual doffing combs accompanying said rings and vibrating up and down across the surfaces thereof respectively, the twisting rolls for accompanying with said rings and combs respectively to collect from said rings and roll up and compress said sections or subdivisions of material severally into fibrous rolls and to revolve said fibrous rolls, the winding mechanism for drawing said rotating fibrous rolls severally, as they form, lengthwise of themselves into strands of yarn and winding said yarn, the condensing mechanism for compressing or condensing said strands of material severally while being so drawn, and the means for operating said rings, combs, twisting rolls, and mechanisms, substantially as and for the purpose hereinbefore set forth. 9th. In a machine for spinning or making yarn from fibrous materials, the combination of a doffer for receiving the material, a twisting and wipe roll for co-operating with such doffer to collect therefrom and roll up and compress the material into a fibrous roll and revolve such fibrous roll, side-drawing mechanism for drawing such rotating fibrous roll as it forms, lengthwise of itself into yarn, condensing mechanism for compressing or condensing material while being so drawn, and means for operating said doffer and said twisting and wipe roll, substantially as and for the purpose hereinbefore set forth. 10th. In a machine for spinning or making yarn from fibrous materials, the combination of a doffer for receiving the material, a doffing comb accompanying said doffer and vibrating up and down across its surface, a twisting roll for co-operating with such doffer and comb to collect from the doffer and roll up and compress the material into a fibrous roll and revolve said fibrous roll, winding mechanism for drawing said rotating fibrous roll, as it forms, lengthwise of itself into yarn and winding said yarn, condensing mechanism for compressing or condensing said material while being so drawn, and means for operating said doffer, comb and twisting and wipe roll, substantially as and for the purposes hereinbefore set forth. 11th. In machinery for making yarn from fibrous material, the combination of means for carding the material, with cylinders clothed with numerous narrow rings of card clothing, on each at predetermined intervals apart, to sub-divide the carded material into numerous narrow and separate sections, and means for simultaneously drawing away from said rings respectively, sidewise thereof, the said sections of fibrous materials, and spinning the same into yarn, substantially as hereinbefore set forth. 12th. The combination of the ring-doffer, drawing mechanism and condensing straps located in or opposite to the intervals between the doffer-rings, with their meeting faces in a plane tangential or approximately so, to their respective doffer-rings, substantially as hereinbefore described with reference to figures 11 and 14 of the accompanying drawings.

No. 62,614. Liquid Cooking, Concentrating and Evaporating Apparatus. (*Appareil pour cuire concentrer et évaporer les liquides.*)

Edward Shaw, Broad Street, London, England, 9th February, 1899; 6 years. (Filed 20th October, 1898.)

Claim.—1st. Apparatus for cooking, concentrating and evaporating liquids comprising an externally heated tube, a chamber into which said tube discharges, means for removing vapour from said chamber and causing a low pressure therein and in the externally heated tube, and means for causing or permitting the removal of the treated liquid. 2nd. Apparatus for cooking, concentrating and evaporating liquids comprising an externally heated tube, a chamber into which said tube discharges and which is formed with a liquid

discharging aperture, means for removing vapour from said chamber and causing a low pressure therein and in the externally heated



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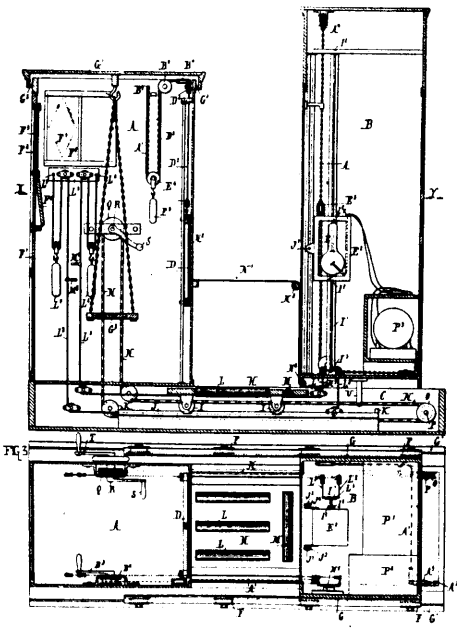
tube, and means for periodically causing an increased pressure in said chamber, as set forth. 3rd. Apparatus for cooking, concentrating and evaporating liquids comprising an externally heated tube, a chamber into which said tube discharges, and which is formed with a liquid discharging aperture, means for removing vapour from said chamber and causing a low pressure therein and in the externally heated tube, and a valve whereby communication between the chamber and the vapour removing means is periodically closed as set forth. 4th. Apparatus for cooking, concentrating and evaporating liquids comprising an externally heated tube, a chamber into which said tube discharges and which is formed with a liquid discharging aperture closed by an outwardly opening loaded valve, means for removing vapour from said chamber and causing a low pressure therein and in the externally heated tube, and means for periodically causing an increased pressure therein, as set forth. 5th. Apparatus for cooking, concentrating and evaporating liquids comprising an externally heated tube, a pump for feeding liquid thereto, a chamber into which said tube discharges and which is formed with a liquid discharging apertures, means for removing vapour from said chamber and causing a low pressure therein and in the externally heated tube, and a valve connected with said feed pump and by the closing of which the pressure in the chamber is periodically caused to increase as set forth. 6th. Apparatus for cooking, concentrating and evaporating liquids comprising an externally heated tube, a pump for feeding liquid thereto, a chamber into which said tube discharges and which is formed with a liquid discharging aperture, a vapour removing or air pump, a valve connected with the feed pump and periodically closing communication between the air pump and chamber, as set forth. 7th. Apparatus for cooking, concentrating and evaporating liquids comprising a tube, a collecting chamber into which said tube discharges and a steam chamber in which both tube and collecting chamber are contained, as set forth. 8th. Apparatus for cooking, concentrating and evaporating liquids comprising a tube, a collecting chamber and a steam chamber enclosing said tube and collecting chamber and consisting of a base plate to which said tube and collecting chamber are attached and a dome or cover detachably connected to said base-plate, as set forth. 9th. Apparatus for cooking, concentrating and evaporating liquids comprising a coiled tube and a collecting chamber communicating therewith and formed with a liquid discharging aperture, both said tube and chamber being contained within a steam-charged dome or cover, a liquid feeding pump, an air or vapour pump, a valve controlling communication between said chamber and the air or vapour pump and connected to mechanism driven by the feed pump whereby it is periodically closed, as set forth. 10th. Apparatus for cooking, concentrating and evaporating liquid, comprising a tank 1, feed pump 2, coil 3, steam chamber 4, collecting chamber 5 with liquid discharging aperture 10, vapour pipe 6 fitted with baffle 6^a and leading to a condenser 8 and an air pump 9, as set forth. 11th. Apparatus for cooking, concentrating and evaporating liquid, comprising a tank 1, a feed pump 2, coil 3, a collecting chamber 5 with valved liquid discharge aperture 10, a steam chamber 4 enclosing both coil 4 and chamber 5, a vapour pipe 6 fitted with baffle 6^a and leading to a jet condenser 7 arranged in the stand of the apparatus, an air pump 9, and a valve 7 that controls communication between chamber 5 and condenser 7 and is operated by the feed pump 2 so as to periodically close said communication, as set forth. 12th. Apparatus for cooking, concentrating and evaporating liquids, comprising a liquid feeding pump, an externally heated tube, a collecting chamber into which said tube discharges and which has a liquid discharging aperture, a vapour or air pump, a valve controlling communication between said collecting chamber and vapour or air pump, a rod connecting said valve to a lever provided on opposite sides of its fulcrum with a pin or abutment, a couple of wheels driven by said feed pump and each carrying a stud, the pins or abutments being arranged respectively in the paths of the said studs, which come successively in contact with their respective studs and intermittently rock the lever and open and close the valve, as and for the purpose set forth. 13th. Apparatus for cooking, concentrating and evaporating liquids comprising an externally heated tube, means for feeding liquid thereto, means for exhausting air or vapour therefrom and a valve controlling the passage of liquid from the feeding means to the cooking coil, said valve being so loaded as to open only when the pressure against it exceeds atmospheric pressure, as set forth. 14th. Apparatus for cooking, concentrating and evaporating liquids comprising a pump 2 with a valve 2^a, a cooking coil 3, a collecting chamber 5, and an air pump 9, as set forth.

No. 62,615. Paint Compound. (*Composé de peinture.*)

David Fletcher Lucas, Brooklyn, New York, U.S.A., 9th February, 1899; 6 years. (Filed 24th October, 1898.)

Claim.—1st. The herein described composition of matter, consisting of a base composed of coal tar, eighty gallons, rosin oil four gallons, kerosine four gallons, ochre eight pounds, and chloride of sodium eight pounds, with which is combined merged solutions of carbonate of soda, eight pounds, and sulphate of iron, eight pounds in boiling water, substantially as set forth. 2nd. The herein described composition of matter, consisting of a base composed of coal tar, eighty gallons, rosin oil four gallons, kerosene four gallons, ochre eight pounds, and chloride of sodium eight pounds, with which is combined merged solutions of carbonate of soda, eight pounds, and sulphate of iron, eight pounds in boiling water, and to which is added four pounds of litharage, substantially as set forth.

No. 62,616. Apparatus for Making Observations by Means of Roentgen or X-Rays. (*Appareil pour faire des observations au moyen de X-Rays.*)



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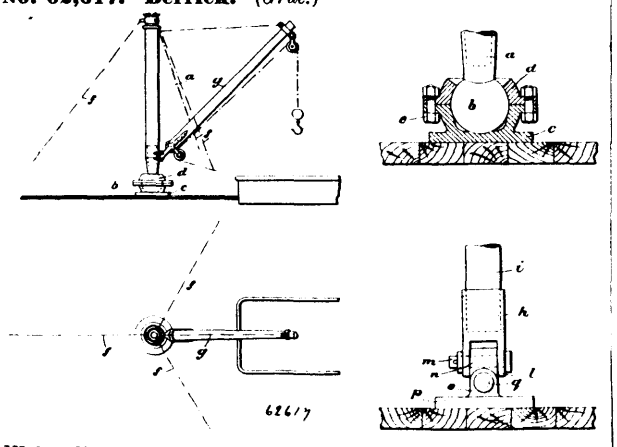
Jacques Wertheimer, Paris, France, 9th February, 1899; 6 years. (Filed 31st October, 1898.)

Claim.—1st. Apparatus for making observations and radiographs by means of Roentgen or X-rays, comprising two vertical casings mounted on the same base, one casing being movable longitudinally relatively to the other, which serves as an observing chamber and forms a dark chamber and contains a vertically adjustable screen, while the movable casing contains an adjustable vacuum or fluorescent tube projecting its rays on to the screen, said rays passing through the corresponding walls of said casings and through the object or persons placed between said walls on an adjustable platform in the base of the apparatus, or on a raised movable platform H^1 arranged at a suitable height between said casings and attached

on one side to the wall of the movable casing and on the other side to a fixed point on the base, and combined with transverse rollers H^4 H^5 carried on the movable casing and ensuring the horizontal position and uniform tension of the platform H^1 during the movements of the movable casing relatively to the stationary casing, substantially as described. 2nd. In apparatus of the character described, a chain A^1 connecting the frame containing the tube E to the screen D, with horizontal and vertical guide-rollers suitably arranged in the casings and base said chain being attached at its ends to fixed points as A^2, B^3, and provided with a balance-weight E^5, for maintaining a constant tension the frame of the tube E, being suspended by means of a loose roller E, on the chain A^1, in the movable casing while in the stationary casing the screen is connected to the same chain by a cord D^2, with a fixed point of attachment as D^3, by means of a roller D^1, said cord D^2, being secured at the other end to the chain A^1, following partaking in the movements of the latter produced by turning an operating pinion B^2, arranged in the stationary casing and provided with a crank-handle placed within reach of the observer for effecting the parallel rising or lowering of the screen and tube, substantially as described. 3rd. In apparatus of the character described a chain E, by means of which is effected the movement of the movable casing on the base, said chain being connected to the casing by a depending rod and passing over a roller arranged in the case at one end of the latter beneath the movable casing, then over vertical guide-pulleys in the base then upwards over an operating pinion as Q, in the stationary casing the rotation of which pinion can be effected by the operator by means of a handle S, within his reach or from outside by means of a second handle secured to the end of the spindle of the operating pinion projecting outside the casing, substantially as described. 4th. In apparatus of the character described for the purpose of obtaining an independent action of the chains for use in effecting the movement of the movable casing and of the vacuum tube and screen or either of them so as to avoid the operation of one of the parts affecting the other, the arrangement of a brake O^1, acting on the pinion B^2 and chain A^1, for moving the screen and the tube said brake O^1, allowing the pinion B^2, to be operated by its handle but preventing its rotation by the tension exercised on the chain A^1, by the action of the chain K N, for the purpose of ensuring the immobility of the screen and tube in their respective casings during the movement of the movable casing relatively to the stationary casing, substantially as described. 5th. In an apparatus of the character described in order to enable the inclination of the frame containing the vacuum tube means for guiding the frame comprising pins J^1, J^2, about which said frame can oscillate said oscillation being effected by means of a bar I^1, pivoted at each end and acting according to the direction in which it is desired to incline the tube, on a corresponding pin I^5, I^6, secured to the frame between which pins is arranged the operative rib of the bar I^1, which is operated from within the stationary casing by means of cords as L^1, L^2, with operating handles M^1, M^2, said cords being provided with balance weights L^6, L^7, which serve to ensure a constant tension on said cords during the stationary casing, substantially as described. 6th. In apparatus of the character described the arrangement in the movably casing D, in combination with a vacuum tube and means for supplying the electric current to the latter of a switch as R^5, operated for lighting or extinguishing the tube from within the stationary A, by means of cords as R^1, R^2, connected to said switch and provided with handles as H^3, H^4, the tension of said cords being maintained constant during the relative movement of the casings by means of balance-weights substantially as described. 7th. The combination and arrangements of parts constituting the complete apparatus for effecting observations or records by means of Roentgen or X-rays, substantially as described and illustrated in the accompanying drawings.

No. 62,617. Derrick. (*Grue.*)



Walter Ernest Hutchinson, 55 Poets Road, Canonbury, and Arthur Edward Newton, 16 Linthorpe Road, Stanford Hill, both in the County of London, England, 9th February, 1899; 6 years. (Filed 12th December, 1898.)

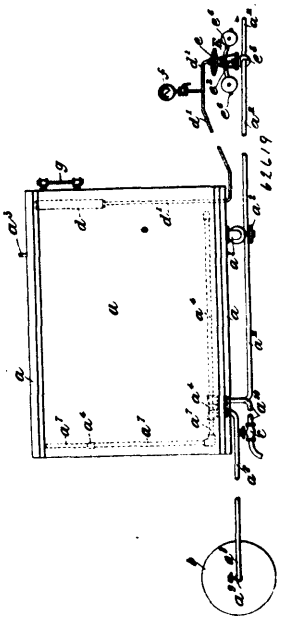
Claim.—1st. In a ship's derrick, a bracket secured to a mast or post and having a graduated bar or limb to which the chain or span is secured in any desired position, substantially as and for the purpose set forth. 2nd. The combination of a jib *a*, guys *h*, winch or capstan 1, and bracket *n*, for securing the back chain *d*, substantially as described with reference to figures 1, 2 and 3 of the drawings. 3rd. The combination with a derrick jib, of a mast or post bracket for securing the back chain in any desired position, guys for controlling the position of the jib and a compresser for securing the guys, the whole substantially as described. 4th. In derricks in which the load is caused to automatically swing in the desired direction by inclining the axis of rotation, a crane post having an universal joint and capable of being inclined at any angle by means of guy ropes, substantially as described for the purpose set forth. 5th. A derrick having a crane post terminating in a ball and socket joint, substantially as described and shown in figures 7 to 9 of the drawings. 6th. A derrick having a crane post terminating in an universal joint arranged and constructed substantially as described with reference to figure 10, of the drawings. 7th. The arrangement and construction of derricks, substantially as described with reference to the drawings.

No. 62,618. Artificial Fuel. (*Combustible artificiel.*)

Gardner Corning, and The Briquette Coal Company, both of New York City, New York, 13th February, 1899; 6 years. (Filed 18th October, 1898.)

Claim—1st. The herein described process of making artificial fuel in blocks, which consists in heating coal dust and bitumen to a high temperature and thoroughly intermixing them, then adding cream of lime to the highly heated intermixture and quickly stirring the same into the mass until vapourization of the water of the cream of lime commences, and then quickly compressing the mass into blocks. 2nd. The method of manufacturing artificial fuel in blocks which consists in separately heating coal dust, asphaltum, and a tapering agent of the asphaltum to high temperature, then thoroughly mixing the same while at such temperature, then adding thereto cream of lime and continuing the mixing until the vapourization of the water in the cream of lime commences, and then moulding the mass into blocks. 3rd. The herein described process of manufacturing artificial fuel in blocks, consisting in adding to asphaltum a petroleum by-product, heating both or about three hundred and twenty to three hundred and forty degrees Fahrenheit, heating coal dust to about three hundred degrees Fahrenheit, mixing all thoroughly together while thus heated, adding cream of lime and continuing the mixing operation until the water in the cream of lime begins to be vapourized, and then quickly moulding the mass under great pressure into blocks.

No. 62,619. Method of Preparing Insulating Material.
(*Méthode de préparer des matières isolantes.*)



Volenite Limited, 16 St. Helen's Place, and Frederick Lamplough, 5 Green Terrace, both in London, England, 13th February, 1899; 6 years. (Filed 12th September, 1898.)

Claim.—1st. In the manufacture of material to be used for insulating and other purposes, submitting vegetable fibre together with an oxidizable resin or resin oil or both, and a non-oxidizable oil as a suitable refined fish oil, to the action of a heat which is destructive

to the non-oxidizable oil, and to oxidation, as and for the purposes described. 2nd. The method of manufacturing material to be used for insulating and other purposes by submitting vegetable fibre in a suitably heated hermetically closed primary tank and in presence of oxidizable resins or the like and a proportion of non-oxidizable oil to a gradually increasing heat until all air, dampness and volatile matters are driven off, continuing the action of such heat upon the material until the vegetable fibre is changed into an homogeneous mass, and then discharging the fluid contents from the primary tank into a secondary or storage tank and oxidizing, pressing and drying the material, substantially as and for the purpose set forth. 3rd. The method of manufacturing material to be used for insulating and other purposes, which consists in first, placing vegetable fibrous material within a suitable heated hermetically closed primary tank; second, charging the said primary tank with oxidizable resins or the like and a proportion of non-oxidizable refined oil; third, gradually raising the temperature within the primary tank to slightly above the boiling point of water until all air and dampness are expelled from the materials under treatment and driven out from the primary tank; fourth, gradually raising the temperature within the primary tank until everything of a volatile nature has been distilled over and the desired temperatue reached; fifth, maintaining this high temperature until the vegetable fibre is changed into an homogeneous mass; sixth, opening communication between the primary tank and a secondary tank and admitting air under pressure to the primary tank to discharge the fluid contents from the latter into the secondary or storage tank; seventh, closing the communication between the two tanks; eighth, admitting air under pressure to the primary tank and constantly changing it for a few hours to oxidize the material and thereby produce a protective coat or skin to enable it to be handled; ninth, removing the material from the primary tank and submitting it to a further oxidizing and hardening process; tenth, subjecting the material to pressure to give it the required density; and eleventh, placing the material in a disicating chamber until the necessary hardness is reached, substantially as herein set forth. 4th. In apparatus employed in the production as hereinbefore described of material to be used for insulating and other purposes, the combination of two or more tanks connected together and usable as a primary and secondary or storage tanks, connections with valves between such tanks, means for supplying air under pressure to such tanks, a discharge aperture on each tank for air, moisture and volatile distillates, means for heating each tank and ensuring circulation of the liquid contents thereof, and means controlled by the temperature of the tanks for maintaining a constant temperature in same during the vulcanizing process, substantially as herein shown and described. 5th. The method and apparatus for saturating, vulcanizing and oxidizing vegetable fibrous materials in the production of material to be used for insulating and other purposes, substantially as herein set forth and as illustrated in the accompanying drawings. 6th. The improved product or material suitable for insulating and other purposes produced, substantially as hereinbefore described.

No. 62,620. Loom. (*Métier.*)

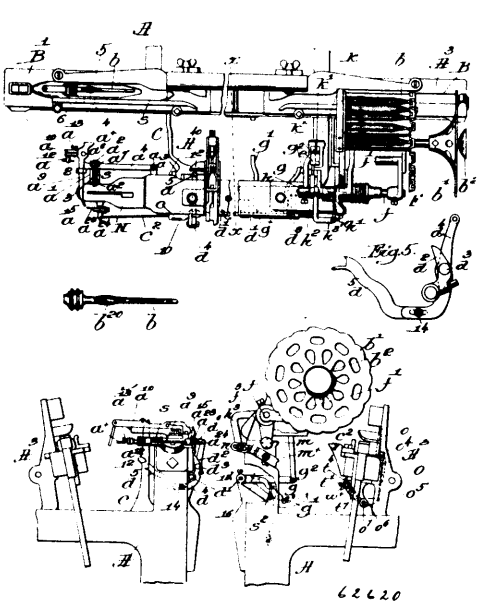


Fig. 5.

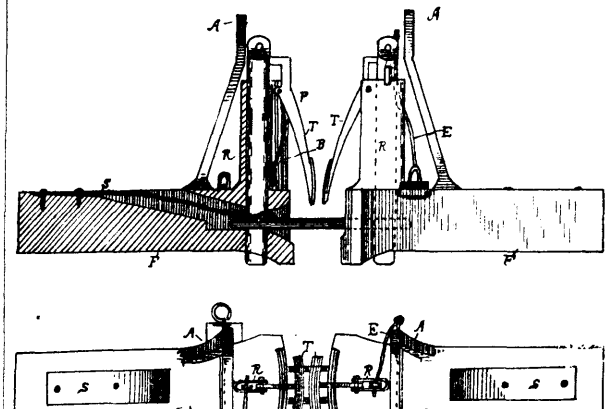
62620

The Draper Company, Portland, Maine, and James Henry Northrop, Hopedale, Massachusetts, U.S.A., 13th February, 1899: 6 years. (Filed 24th October, 1898.)

Claim.—1st. In a looom, a shuttle containing a supply of filling, filling-supplying mechanism, controlling means for said mechanism, actuated by engagement with the shuttle-body, and a filling-feeler to govern the operation of said controlling means to actuate the filling-supplying mechanism upon exhaustion of the filling in the shuttle to a predetermined extent, substantially as described. 2nd. In a loom, a shuttle containing a supply of filling, filling-supplying mechanism, controlling means for said mechanism, including an actuator, and a dagger to effect the operation of the filling-supplying mechanism, and a feeler to co-operate with the filling and permit movement of the actuator into position to be engaged and moved by a shuttle-body upon exhaustion of the filling therein to a predetermined point. 3rd. In a loom, a shuttle containing a supply of filling, a transferrer to transfer a fresh supply of filling to the shuttle, controlling means therefor including an actuator moved by engagement with the shuttle-body and a filling-feeler to govern the position of said actuator in accordance with the amount of filling in the shuttle, and means to prevent the operation of the transferrer by said controlling means when the shuttle is improperly positioned in the shuttle-box, substantially as described. 4th. In a loom, a shuttle having a slotted side and containing a supply of filling, filling-supplying mechanism, controlling means for said mechanism, actuated by engagement with the shuttle-body, and a feeler to enter the slot in the shuttle and co-operate with the filling, to thereby determine the operative movement of said means, substantially as described. 5th. In a looom, a shuttle having a slotted side and containing a supply of filling, filling-supplying mechanism located at one side of the loom, a filling-feeler pivotally mounted at the other side of the loom independently of the shuttle and adapted to enter the slot therein and co-operate with the filling, and an actuator controlled by said feeler and engaged and moved by the shuttle-body when the filling is exhausted to a predetermined extent, combined with connections between said actuator and the filling-supplying mechanism, to effect the operation thereof when the actuator is moved by the shuttle-body in the forward movement of the lay, substantially as described. 6th. In a loom, a shuttle having a slotted side and containing a supply of filling, filling-supplying mechanism, a swinging feeler-carrier, a connected filling-feeler and an actuator pivotally mounted thereon, said feeler permitting movement of the actuator into position to be engaged by the shuttle-body upon exhaustion of the filling to a predetermined extent, and operating connections between said actuator and the filling-supplying mechanism, forward movement of lay swinging the feller-carrier to effect the operation of said mechanism, substantially as described. 7th. In a loom, a shuttle having a slotted side and containing a supply of filling, filling-supplying mechanism, a swinging feeler-carrier, a connected filling-feeler and an actuator, pivotally mounted thereon, said feeler permitting movement of the actuator into position to be engaged by the shuttle-body upon exhaustion of the filling to a predetermined extent, and a dagger moved into operative position when the actuator is engaged by the shuttle-body, combined with means controlled by said dagger when in operative position to effect the operation of the filling-supplying mechanism, substantially as described. 8th. In a loom, a shuttle containing a supply of filling, filling-supplying mechanism, and controlling means for said mechanism, including a pivotally-mounted actuator operated by engagement with the shuttle-body on the forward beat of the lay, combined with a feeler connected rigidly with the actuator and co-operating with the filling to maintain the said actuator inoperative until the filling is exhausted to a predetermined extent, substantially as described. 9th. In a loom, a shuttle containing a supply of filling, filling-supplying mechanism, a spring-controlled feeler-carrier, a filling-feeler pivotally mounted thereon and having a dagger, the feeler normally retaining the dagger, and an actuator for the dagger operative by engagement with the shuttle-body upon exhaustion of the filling to a predetermined extent, to move the feeler-carrier against its spring, and connections between the dagger and filling-supplying mechanism, substantially as described. 10th. In a loom, a shuttle containing a supply of filling, filling-supplying mechanism, controlling means therefor, including an adjustable actuator operated by engagement with the shuttle-body, and a filling-feeler to govern said actuator and retain it inoperative until the filling has been exhausted to a predetermined extent, substantially as described. 11th. In a loom, a shuttle containing a supply of filling wound to form a preliminary annular bunch, filling-supplying mechanism, controlling means therefor, and a filling-feeler to govern the operation of said controlling means when the filling has been exhausted to expose the preliminary bunch to engagement by the feeler. 12th. In a loom, a shuttle containing a supply of filling, filling-supplying mechanism, controlling means therefor, and including a setting cam to position said means for operation, and a filling-feeler to govern the operation of said cam, and, through the controlling means, to actuate the filling-supplying mechanism upon exhaustion of the filling in the shuttle to a predetermined extent. 13th. In a loom, a shuttle containing a supply of filling, filling-supplying mechanism, controlling means therefor, including an actuator, a dagger to effect the operation of the filling-supplying mechanism, and a setting cam actuated by the dagger to position said controlling means for operation, combined with a feeler to co operate with the filling and permit operative movement of the actuator upon exhaustion of the filling therein to a predetermined extent. 14th. In a loom, a shuttle containing a supply of filling, filling-supplying mechanism, controlling means therefor including an actuator, a dagger to effect the operation of the filling-supplying mechanism, a sliding setting cam to position the controlling means for operation, and a vertically pivoted rocker-arm connected with

said cam and actuated by the dagger, combined with a feeler to co-operate with the filling and govern the operation of the actuater by or through engagement with the shuttle-body. 15th. In a loom, a shuttle containing a supply of filling, a transferrer to transfer a fresh supply of filling to the shuttle, controlling means therefor including a dagger having connected therewith an actuator, moved by engagement with the shuttle-body, and a filling-feeler, to govern the position of the actuator according to the amount of filling in the shuttle, a setting cam to position the controlling means for operation when the filling in the shuttle is exhausted to a predetermined extent, and a vertically pivoted, spring controlled blade connected with the cam and actuated by engagement with the dagger. 16th. In a loom, a shuttle containing a supply of filling, filling-supplying mechanism, controlling means therefor including a feeler-carrier, a dagger pivotally mounted thereon and having its inner end enlarged to form a feeler on one side of the pivot and split to form a bearing at the other side of the pivot, a threaded actuator mounted in said bearing, a clamp screw to close the bearing on said actuator when adjusted, and stops to limit swinging movement of the dagger relatively to the feeler, combined with a setting cam for said controlling means, moved by the dagger into operative position when the actuator is permitted by the feeler to engage the shuttle-body. 17th. In a loom, a shuttle containing a supply of filling, filling-supplying mechanism, controlling means therefor, including a feeler to co-operate with the filling in the shuttle, a dagger controlled as to its position by the feeler, and a rock shaft mounted in fixed bearings, a finger fast on said rock-shaft, a bent arm fulcrumed on the finger between its tip and the rock-shaft, a setting cam moved by or through the dagger to tip said arm on its fulcrum into operative position when the filling in the shuttle is exhausted to a predetermined extent, and a vibrator to engage said arm when in operative position and thereby swing the finger to turn the rock-shaft. 18th. In a loom, a shuttle having a slotted side and containing a supply of filling, filling-supplying mechanism located at one side of the loom, a filling-feeler pivotally mounted at the other side of the loom, and adapted to enter the slot in the shuttle and co-operate with the filling, and an actuator controlled by the feeler and operated by engagement with the shuttle-body, combined with an operating rock-shaft for said filling-supplying mechanism, means including a vibrator, to rock said shaft, and a setting cam for the said means, moved by or through the operation of the actuator when engaged by the shuttle-body. 19th. In a loom, a shuttle having a slotted side and containing a filling-carrier provided with filling wound to form a preliminary annular bunch, filling-supplying mechanism, a swinging feeler-carrier, a dagger pivotally mounted thereon and provided with a connected filling-feeler and an actuator, engagement of the latter by the shuttle-body when the feeler engages the annular bunch on the filling-carrier acting to swing the dagger into operative position and thereafter move it bodily with the feeler-carrier as the lay beats up, and operating connections, including a sliding setting cam, between the filling-supplying mechanism and the dagger, forward movement of the dagger when in operative position moving the setting cam. 20th. In a loom, a shuttle containing a supply of filling, filling-supplying mechanism, controlling means therefor including an actuator, a dagger to effect the operation of the filling-supplying mechanism, and a setting cam actuated by the dagger to position said controlling means, for operation, combined with a feeler to co-operate with the filling and permit engagement and movement of the actuator by the shuttle-body upon exhaustion of the filling therein to a predetermined extent. 21st. In a loom, a shuttle containing filling, filling-supplying mechanism, and controlling means therefor, including a setting member, and a device positioned according to the quantity of filling in the shuttle, to push the setting member into operative position upon exhaustion of the shuttle-contained filling to a predetermined point, and thereby render said filling-supplying mechanism operative to insert a fresh supply of filling into the shuttle. 22nd. In a loom, a shuttle containing filling, filling-supplying mechanism, and controlling means therefor, including a sliding setting member, and a disconnected device positioned according to the quantity of filling in the shuttle, to effect sliding movement of the setting member into operative position upon exhaustion of the shuttle-contained filling to a predetermined point and thereby render said filling-supplying mechanism operative. 23rd. In a loom, a shuttle adapted to carry a supply of filling, severing mechanism to sever the filling-thread when the filling has been exhausted to a predetermined extent, means operated by engagement with the shuttle-body in the forward beat of the lay, to actuate, and a filling-feeler co-operating with the filling and controlling the operation of said means, substantially as described. 24th. In a loom, a shuttle adapted to carry a supply of filling, severing mechanism to sever the filling-thread when the filling has been exhausted to a predetermined extent, means, including a dagger, operated by engagement with the shuttle-body in the movement of the lay, to actuate said mechanism, a rigidly-connected filling-feeler to move said dagger into operative position upon exhaustion of the filling to the predetermined extent, substantially as described. 25th. In a loom, a shuttle adapted to carry a supply of filling, severing mechanism to sever the filling-thread when the filling has been exhausted to a predetermined extent, filling-supplying mechanism to cause a new supply of filling to be placed in the shuttle when the former supply shall have been exhausted to the predetermined extent, means operated by engagement with the shuttle-body in the movement of the lay, to actuate said filling-supplying and serving mechanism, and a filling-feller co-operating with the filling, to control the operation of said means, substantially as described. 26th. In a loom, serving mechanism to server the filling, a rocker-arm having a lug and forming a part of said mechanism, and a dog provided with a spring-controlled latch, to engage the lug when moved in one direction and thereby operate said mechanism, and to snap over said lug on the return movement, combined with a dagger to at times move the dog, a feeler adapted to contact with the filling, and connections between said feeler and the dagger, to move the latter when a filling-thread is to be severed, substantially as described. 27th. In a loom, the lay, filling-severing mechanism carried thereby, including a blade or blades normally lying across the lay and a recess therein below the shuttle-path, and means to move said blade or blades upwardly into engagement with and to sever the filling-thread, substantially as described. 28th. In a loom, the lay, a slotted upright thereon, a pivotally-mounted blade normally lying across in a recess in the lay below the shuttle-path, and means to swing said blade upwardly to engage the filling-thread and sever the same between the blade and slotted upright, substantially as described. 29th. In a loom, the lay, filling-severing mechanism carried thereby, including a pivoted, spring-controlled blade normally lying across the lay below the shuttle-path, means to lift the blade against its spring to engage and sever the filling-thread, and a releasing device to permit the blade to return to normal position by the action of its controlling-spring, substantially as described. 30th. In a loom, the lay, filling-severing mechanism carried thereby, including a blade normally lying across the lay below the shuttle-path, means to move said blade upwardly and rear-wardly into engagement with and to sever the filling-thread, a feeler adapted to contact with the filling, and operating connections between said feeler and the blade-actuating means, substantially as described. 31st. In a loom, filling severing mechanism, including a rocker-arm having a lug, a rock-shaft moved in one direction by a spring, and a sleeve fast on said shaft and having an eccentrically mounted spring-controlled latch, to engage the lug when moved in one direction and thereby operate the said mechanism, and to snap over said lug on the return movement, combined with a second sleeve fast on a rock-shaft and provided with a dog, a dagger to at times engage the dog and rock, said shaft in opposition to its spring, a feeler adapted to contact with the filling, and connections between the feeler and dagger, to move the latter when a filling-thread is to be severed, said severing mechanism being laterally adjustable bodily relatively to the rock-shaft, independently of the sleeve having the dog. 32nd. In a loom, filling severing mechanism including a supporting bracket and an operating rock-shaft having a bearing on said bracket, combined with a second independent bearing for the rock-shaft, a dog fixed on the latter, a dagger to at times engage said dog and rock the shaft, a feeler adapted to contact with the filling, and connections between the feeler and dagger to operate the latter when a filling-thread is to be served, the filling severing mechanism being laterally adjustable bodily relatively to said rock-shaft and independently of the actuating dog thereon.

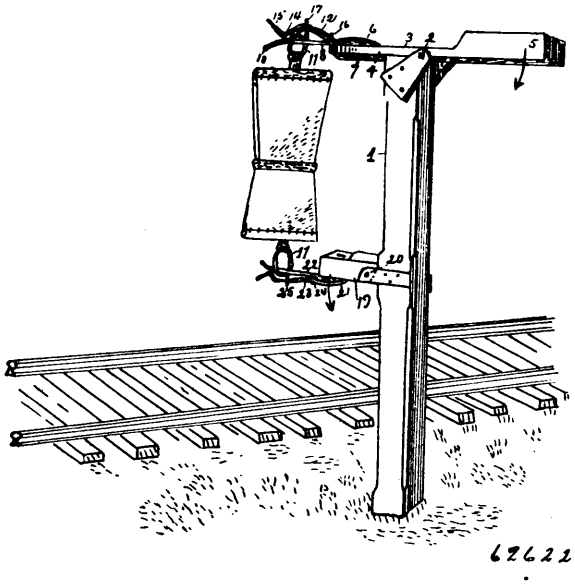
No. 62,621. Car Coupler. (*Attelage de chars.*)



James Swihart, Riota, Ohio, U.S.A., 13th February, 1899; 6 years. (Filed 16th January, 1899.)

Claim.—In a car coupler, the combination with the draw-heads having vertical casings rising therefrom, pins journalled in said casings, trips pivotally connected to the casing and having lugs adapted to register with recesses in the pins to hold said pins out of operative position, an elbow-lever passing through the eye of the pins and having a bent rod for operating the same from the side of the car, springs to normally hold the link in horizontal or operative position, means for adjusting the tension of said springs, and foot-pieces on the trips for automatically operating the same to uncouple the cars when brought in contact with each other.

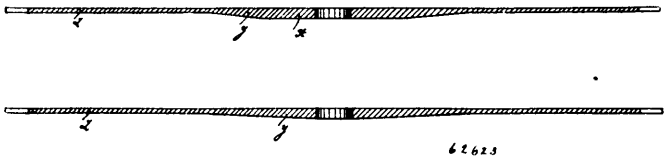
No. 62,622. Mail Bag Holder. (*Porte-sac postaux.*)



James Swihart, Riota, Ohio, U.S.A., 13th February, 1899; 6 years. (Filed 16th January, 1899.)

Claim.—1st. In a mail-bag crane, the combination with a post, of an arm hinged to said post, a plate or table secured to the outer end of said arm, a mail-bag-supporting finger pivoted near one end to said plate or table and lying flat thereon so as to turn freely, a spring-plate secured at one end to the finger and having its front end bent downward and outward to provide a shoulder and a flaring mouth, and a stop-pin secured to the finger behind the shoulder, said pin projecting up through an opening in the spring-plate. 2nd. In a mail-bag crane, the combination with a post, of a pair of swinging arms hinged to said post, one above the other, a circular plate or table secured to the outer end of each arm, a mail-bag-supporting finger pivoted intermediate its ends and resting flat upon each table, a spring-plate secured at one end to each supporting-finger and each plate having a shoulder near its front end which abuts against the face of the fingers, a stop-pin or lug behind each shoulder, and a tension-screw tapped through each spring-plate and supporting-finger, substantially as described. 3rd. In a mail-bag crane, the combination with a post, of a pair of swinging arms hinged to said post, one above the other, a plate or table secured to the outer end of each arm, a mail-bag-supporting finger pivoted intermediate its ends to each of said arms and tables and adapted to ride upon the latter, the outer end of each finger being slightly bent or flared, a spring-plate secured at one end of each finger, and each plate having its free end bent or flared opposite to the bend of the finger, and a shoulder near the end of each plate, a stop-pin carried by each finger behind the said shoulder and each pin projecting up through an opening in the spring-plate, and a tension-screw tapped through each plate and finger, as and for the purpose described.

No. 62,623. Circular Saw Blade. (*Lame de scie circulaire*)



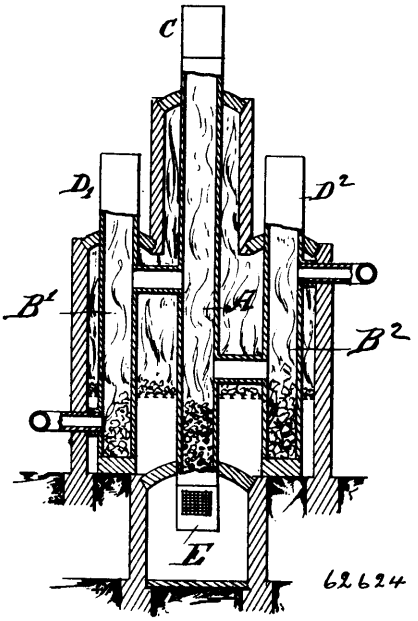
Hedley Oquist, Sörnäs, Findland, Russia, 13th February, 1899; 6 years. (Filed 23rd January, 1899.)

Claim.—1st. A circular saw blade having a part of even thickness next to the teeth and a thicker part next to the centre, substantially as set forth. 2nd. A circular saw blade having a part of even thickness next to the centre, next thereto a conical part whose thickness decreases toward the circumference, and another part of even thickness next to the teeth, substantially as set forth.

No. 62,624. Process and Apparatus for Splitting of Chemical Combinations and Manufacturing Objects from the Same. (*Procédé et appareil pour fendre des combinaisons chimiques et en fabriquer des objets.*)

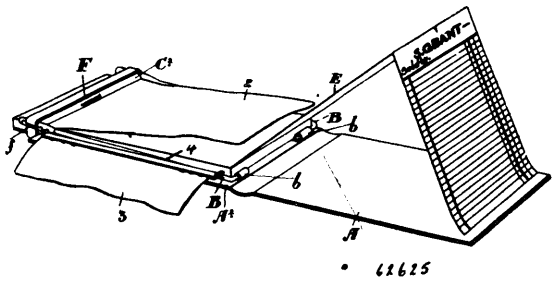
Hermann Niewerth, Berlin, Prussia, 13th February, 1899; 6 years. (Filed 6th April, 1898.)

Claim.—1st. The process of splitting chemical combinations, which consists in subjecting the material to be reduced to a to and



fro or pulsating current of a gas, whereby the latter is caused to continuously unite with an affinitive gas from the material being reduced. 2nd. The process of splitting chemical combinations, which consists in heating the material to be reduced, subjecting the same to a and fro or pulsating current of heated gas, whereby the latter is caused to continuously unite with an affinitive gas from the said material, and regenerating the combined gases into the reducing gas, under the influence of heat. 3rd. The process of making bars, rails, parts of machines, and other objects out of iron, cast iron, steel, pure iron or other metals or bodies, consisting in moulding from a mixture of ore, or ore with some other substitute body, and then reducing the so moulded object to metal. 4th. The process of making objects of an alloy of several metals or other bodies, which consists in mixing the different metal ores, or adding the metal as such to the iron ore, and then reducing the object to the metal alloy.

No. 62,625. Check Book. (*Carnet de chèques.*)

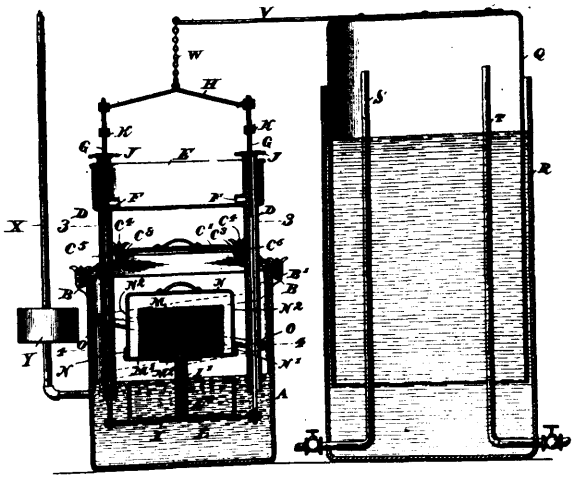


Isaac Moore, Toronto, Ontario, Canada, 13th February, 1899; 6 years. (Filed 3rd March, 1898.)

Claim.—1st. In a duplicating check book, the combination with the cover and leaves, of a spike designed to be inserted into the head of the leaves and extend through one or more such leaves, and means for holding such spike and the book in position, as and for the purpose specified. 2nd. In a duplicating check book, the combination with the cover and leaves, of an arm attached to the cover and provided with a carbon leaf holder and a spike depending from the carbon leaf holder, and spring means for holding the carbon leaf holder down, as and for the purpose specified. 3rd. In a duplicating check book, the combination with the cover and leaves, of an arm attached to the cover and provided with a carbon leaf holder and a spike depending from the carbon leaf holder, and an elastic band passing around the book and over the carbon leaf holder, as and for the purpose specified. 4th. In a duplicating check book, the combination with the cover and leaves, of an arm attached to the cover and provided with a carbon leaf holder and a spike depending from the carbon leaf holder, an elastic band passing around the book and over the carbon leaf holder and a loop in the ends of the arms in which the elastic band is connected to the book, as and for the purpose specified. 5th. In a duplicating check book, the combination with the cover and leaves, of the arms, carbon leaf holder

secured to the free end of the arms and connecting the same together, the opening in the bottom plate of the holder and the spike having a turned bent end designed to extend into one or more leaves of the book, as and for the purpose specified.

No. 62,626. Acetylene Gas Generator.
(Générateur à gaz acétylène.)



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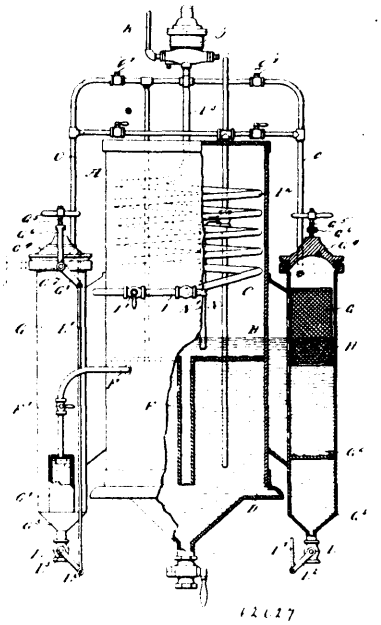
Benjamin F. Williams, Quanah, Texas, U.S.A., 13th February, 1899; 6 years. (Filed 19th February, 1898.)

Claim.—1st. In a gas generator, a generating chamber, a carbid holder therefor, and a pipe coiled within said chamber and having a T-outlet adapted to convey the gas from the chamber and return the condensations thereto, substantially as described. 2nd. A gas generator, comprising a chamber, a carbid holder therein, a support for said holder, and a catch-pan positioned beneath the carbid holder, substantially as described. 3rd. In a gas generator, the combination of a chamber, overflow pipes leading therefrom, supports movable within said pipes, a carbid holder supported thereby, a catch-basin mounted upon the upper ends of the pipes and with which the latter communicates, substantially as described. 4th. In a generator for acetylene gas, the combination of a generating chamber, a carbid holder therefor, a pipe communicating with the water in the chamber and with the exterior, and a receptacle positioned in said pipe and adapted by its position to regulate the amount of pressure within the chamber, substantially as described. 5th. In a gas generator, the combination of a generating chamber, a pipe coiled within the same and having a T-outlet, one end of which is in communication with the gasometer, the opposite end extending beneath the surface of the water within the chamber, a pipe communicating with generating chambers at a point below the surface of the water, and a receptacle within said pipe, substantially as described. 6th. A gas generator, comprising a chamber having slotted lugs at its top edge, a top provided with slotted lugs adapted to register with the slotted lugs of the chamber, and bolts provided with locking-nuts, said bolts pivoted to one of said members and adapted to swing into engagement with the slotted lugs, substantially as described. 7th. In a gas generator, the combination of a chamber, a tube extending therefrom, a screw-threaded rod movable within said tube, a carbid holder supported by said rod, and a hand-nut upon said rod and adapted to rest upon the tube, said nut effecting the movement of the rod, substantially as described. 8th. In a gas generator, the combination of a chamber, tubes leading therefrom, rods movable in said tubes, and a cross-piece connecting said rods, a post carried by said cross-piece, a pan having a socket fitting over said post, a carbid holder fitting upon said post and resting on the socket, substantially as described. 9th. In a gas generator, the combination of a chamber, a tube extending therefrom, a support movable in the tube, a perforated carbid holder removably carried by the support, a hood having egress openings and adapted to be positioned upon the carbid holder, substantially as described. 10th. In a gas generator, the combination of a chamber, a sectional top for the same, tubes carried by one of said sections and projecting from the chamber, rods movable in said tubes, a carbid holder removably supported by said rods and adapted to be withdrawn from the chamber by removing the inner section of the top, substantially as described.

No. 62,627. Acetylene Gas Generator. *(Générateur à gaz acétylène.)*

Charles Kelley, Passaic, New Jersey, U.S.A., 13th February, 1899; 6 years. (Filed 28th March, 1898.)

Claim.—1st. An acetylene gas apparatus, provided with a generator for containing the calcium carbide and having an inclined bottom, a settling chamber below the said generator, and a water-inlet chamber connected with a water supply and opening into the



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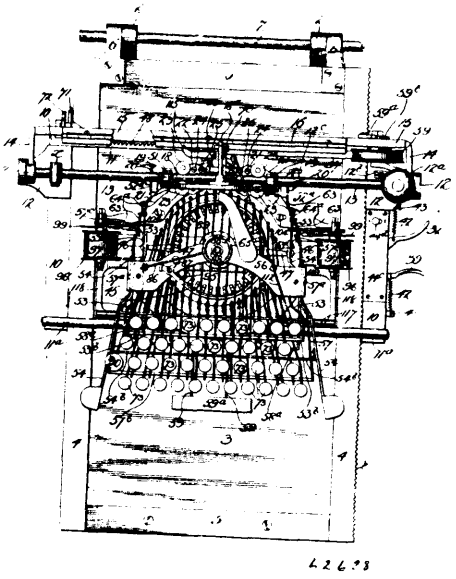
said generator directly above the inclined bottom thereof and into the said settling chamber, substantially as shown and described. 2nd. In an acetylene gas apparatus, a generator having a bottom inclined to one side, a settling chamber below the inclined bottom of the generator, and a water chamber arranged at one side of the generating and settling chambers and having its outer wall inclined downwardly, said water chamber being connected with a water supply and opening into the generating chamber directly above the inclined bottom thereof and into the settling chamber, substantially as and for the purpose set forth. 3rd. An acetylene gas apparatus provided with a generator for containing the calcium carbide and having an inclined bottom, a settling chamber for the hydrate of lime and into which discharges said inclined bottom, an outlet valve for the said settling chamber, a removable cover for the said generator, and means for connecting the said cover with the said outlet valve, to automatically open the latter upon opening the said cover to drain the water from the generator, substantially as shown and described. 4th. An acetylene gas apparatus, provided with a generator for containing the calcium carbide, an outlet valve for the hydrate of lime, and a cover for closing the generator and connected with the said outlet valve for opening the latter automatically upon removing the cover, substantially as shown and described. 5th. An acetylene gas apparatus, provided with a generator for containing the calcium carbide, an outlet valve for the hydrate of lime, a cover for closing the generator, and mounted on a pivoted yoke, and a connection between the said yoke and the said outlet for opening the later automatically upon swinging the yoke over and removing the cover from the generator, substantially as shown and described. 6th. An acetylene gas apparatus, provided with a generator adapted to receive the calcium carbide, a cover for the said generater, a screw-rod carrying the said cover, a pivoted yoke in which screws the said screw-rod, an outlet valve for the hydrate of lime for the said generator, and a connection between the said yoke and the said valve for opening the latter upon swinging the yoke over and removing the cover, and for closing the valve upon closing the generator with the cover, substantially as shown and described. 7th. In an acetylene gas apparatus, a generator having an inclined bottom, a settling chamber below the generator and receiving the hydrate of lime therefrom, an outlet-valve in the bottom of the settling-chamber and having an arm on its stem, a pivoted yoke at the top of the generator and provided with an arm at one side, a screw carried by the yoke, a cover carried by the screw, and a link connecting the said arms, substantially as shown and described. 8th. An acetylene gas apparatus, provided with a water tank having a diaphragm for forming two compartments in the tank, a water pipe extending from the diaphragm downward into the lower compartment, a vent pipe extending into the lower compartment, the lower end of said pipe being above the lower end of said diaphragm pipe, and a water-relief pipe leading from the said vent pipe into the upper compartment, for discharging water contained in the vent pipe back into the tank to free the vent pipe for the passage of air or gas, substantially as shown and described.

No. 62,628. Book Typewriting Machine.

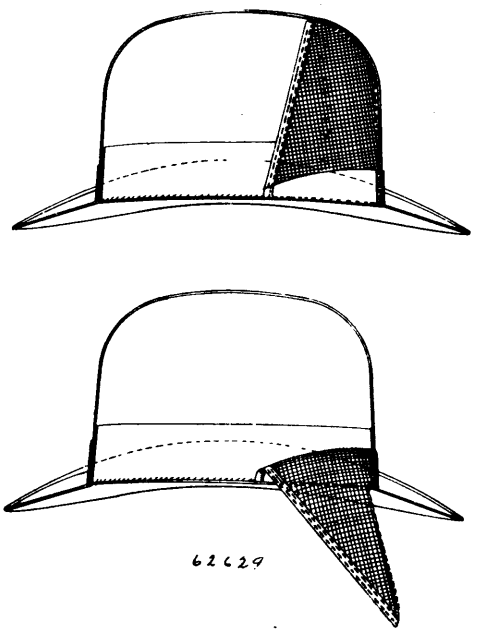
(*Clavigraphe pour livres.*)



George Crawford Elliott and Walter Platt Hatch, both of New York City, New York, U.S.A., 13th February, 1899; 6 years. (Filed 28th October, 1897.)

Claim.—1st. The combination with a platen, a support therefor, and an overhanging type carriage, of a clamping frame maintaining leaves or sheets in a smooth condition on the platen, substantially as set forth. 2nd. The combination with a platen, a support therefor, a clamping frame, and a hinge connection between said platen and clamping frame, of an overhanging type carriage, substantially as set forth. 3rd. The combination with a platen, a support therefor and a clamping frame, of an overhanging transversely moving type carriage and means for supporting said carriage in its transverse movement, substantially as set forth. 4th. The combination with a platen, a clamping frame, a sliding frame longitudinally movable thereon, of a transversely movable type carriage supported from said sliding frame, substantially as set forth. 5th. The combination of a platen, a clamping frame, a sliding frame and shaft supported therefrom, of a type carriage hinged to and slidable on said shaft, and provided with type striking downwardly upon said platen, substantially as set forth. 6th. The combination with a platen, and a clamping frame, of a horizontally adjustable support for and means pivotally connecting said platen and clamping frame with said support, substantially as set forth. 7th. The combination with a platen a clamping frame, a sliding frame and a type carriage above the same having type striking downwardly through the clamping frame upon the platen, of a horizontally adjustable support and means pivotally connecting the platen and clamping frame with said support, substantially as set forth. 8th. The combination with a typewriting machine, of an adjustable support comprising a rigid frame of two end and two side bars, a bracket or other base, links pivoted to said side bars and base and devices for locking said frame in its adjustments, substantially as set forth. 9th. The combination with the sliding frame and means for supporting the same, and an overhanging type carriage, of a guage bar hinged to the sliding frame, substantially as set forth. 10th. The combination with a type carriage, a platen below the same on which the type strike, a shaft to which said carriage is hinged, and a bar projecting from said shaft, of an escapement connection between the type carriage and said bar, substantially as set forth. 11th. The combination with a type carriage, a platen below the same on which the type strike, a shaft to which said carriage is hinged and a rack projecting from said shaft, of dogs on said carriage engaging said rack, substantially as described. 12th. The combination with a type carriage, a platen below the same on which the type strike, a shaft to which said carriage is hinged, a frame consisting of the arms 14, 14, and bar 15, rigidly secured to said shaft, and a rack on said frame, of feed dogs mounted on the type carriage and engaging said rack, substantially as set forth. 13th. The combination with a type carriage, a shaft to which said carriage is hinged, a bar projecting from said shaft, an escapement connection between the type carriage and said bar, of a weighted stop 69 maintaining said escapement in engagement when the carriage is swung out of its operative position for printing, substantially as set forth. 14th. The combination with a type carriage, a shaft upon which said carriage is hinged, a frame projected from said shaft, a rack secured to said frame, and dogs connecting said rack with the type carriage, of a guage plate on said frame and a pointer therefor on the type carriage, substantially as set forth. 15th. The combination with a clamping frame, provided with a rack, of a sliding frame mounted thereon and provided with a pawl and stop mechanism engaging said rack and both actuating the sliding frame on and locking it to the clamping frame, substantially as set forth. 16th. The combination with a type carriage, a sliding frame supporting a shaft upon which said carriage is hinged, a clamping frame upon which said sliding frame is mounted, of a rack on the clamping frame, and a pawl and stop mechanism on the sliding frame engaging said rack, substantially as set forth. 17th. The combination with a clamping frame, a rack in the side edge thereof, a sliding frame mounted thereon, a pawl 29 and stop 36 on said sliding frame engaging said rack, and actuating levers, one of which engages both the pawl and stop, of a type carriage supported over said clamping and sliding frames, substantially as set forth. 18th. The combination with the sliding frame and the platen, of a guage plate hinged to the sliding frame and lying flat upon the platen, substantially as set forth. 18th. The combination with a type carriage, a pivoting shaft therefor provided on its surface with a rack, of an adjustable stop at one end of said shaft and an adjustable alarm bell-support at its other end, substantially as set forth. 20th. The combination with a type carriage, the pivoting shaft therefor, the rack bar frame projecting from said shaft, of the sliding frame and the stop 72 secured thereto and adapted to limit the swinging of the type carriage, substantially as set forth. 21st. The combination with a type carriage, the rack bar 48, the dogs 46-49, the rock shaft supporting said dogs and the arms 63 on said rock shaft, of a spacing frame having levers, and means connecting said levers and arms, substantially as set forth. 22nd. The combination with a type carriage, the escapement for actuating the same, the rock-shaft 51 and the arms 63 of the spacing frame levers, means connecting said arms and levers, key levers above said frame and connecting rods or bars for the spacing frame lever in the path of the key levers, substantially as set forth. 23rd. The combination with a type carriage, the escapement feed thereof, a spacing frame and devices connecting said frame with said escapement, of a spacing bar frame provided with hook-arms adapted to engage and actuate the spacing frame, substantially as set forth. 24th. A spacing frame in combination with a spacing bar frame having hook-arms in the path of and engaging said spacing frame, substantially as set forth. 25th. In a type writing machine, the combination of a pivoted type bar, a type head pivoted on said bar and provided with two or more type, of a ring frame 45 above and in the path of said type bar and a depressible disc 89 above and normally out of the path of the type head, and the means for depressing said disc into engagement with the type head to shift said head on its axis, substantially as set forth. 26th. In a type writing machine, the combination with the frame, a series of type bars grouped around a central printing point and arranged to strike downwardly thereon, pivoted type heads carried by said bars and movable with relation to the same, and a plurality of types fixed to said heads, of a stop disc movable in the path of or free of said heads, a vertical rod connected to said disc and mounted in guides on the frame, a horizontal lever 86 connected with the upper end of said rod, and a key lever pivoted on the frame and connected to said lever 86, substantially as set forth. 27th. In a type writing machine, the combination with a series of type bars grouped around a central printing point and arranged to strike down thereat, pivoted type heads carried by said bars, a plurality of types carried by said heads, of a stop disc movable in the path of or free of said disc, a vertical shaft connected with said disc, a lever 86, a key lever connected with said lever 86, and a pivoted stop 95 for locking said disc in the path of the type heads, substantially as set forth. 28th. The combination with a type carriage, an escapement feed therefor, a rock shaft for actuating said escapement, and arms projecting from said rock shaft, of ink ribbon spools, levers 102 and devices connecting said levers with the spools and said rock shaft-arms, substantially as and for the purposes described. 29th. The combination with a type carriage, an escapement feed therefor, of ink ribbon spools, each of which is provided with racks engaged by a pair of pawls one of which is pivoted to a sliding plate 103 and the other to lever 102 connected with arms 63, substantially as set forth. 30th. A typewriting machine, having in combination a support for the sheet to be written upon, a ribbon arranged across said support, means for impressing said ribbon against the sheet, and the means for temporarily deflecting said ribbon to disclose the writing surface, substantially as set forth. 31st. A typewriting machine, having in combination a support for the sheet to be written upon, a ribbon arranged across said support, means for impressing said ribbon against the sheet, a deflectable loop or clasp embracing the ribbon to one side of the striking point of the impression means, and a key lever having operative connection with said clasp for lifting said loop or clasp, substantially as set forth. 32nd. The combination with a type carriage, a platen below the same, on which the type strike, a shaft to which said carriage is hinged, a rack bar projected from said shaft, and dogs on said carriage engaging the rack, of a lever 65 connected with said rack bar for lifting the latter out of engagement with the dogs, substantially as described.

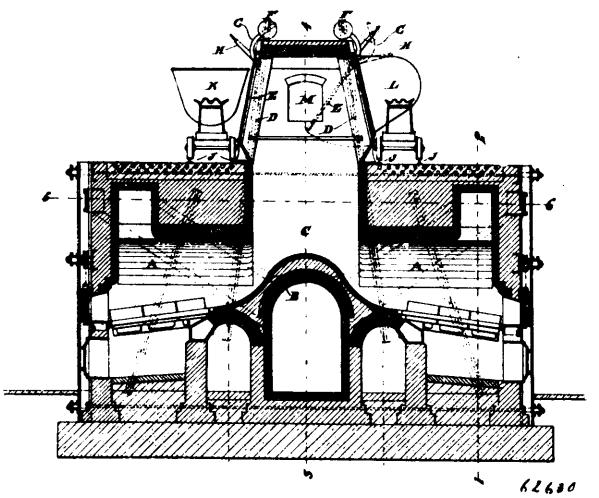
No. 62,629. Head Covering. (*Coiffure.*)



Nathaniel Jacobson, Manchester, England, 13th February, 1899; 6 years. (Filed 23rd January, 1899.)

Claim.—1st. The combination with a head covering, of a gauze or similar guard so mounted therein that it can be brought down in front of the face or raised up inside the said head covering as desired, substantially as hereinbefore described. 2nd. A gauze or similar guard, so formed that it can be applied to a head covering, and can be brought down in front of the face or raised up inside the said head covering as desired, substantially as hereinbefore described.

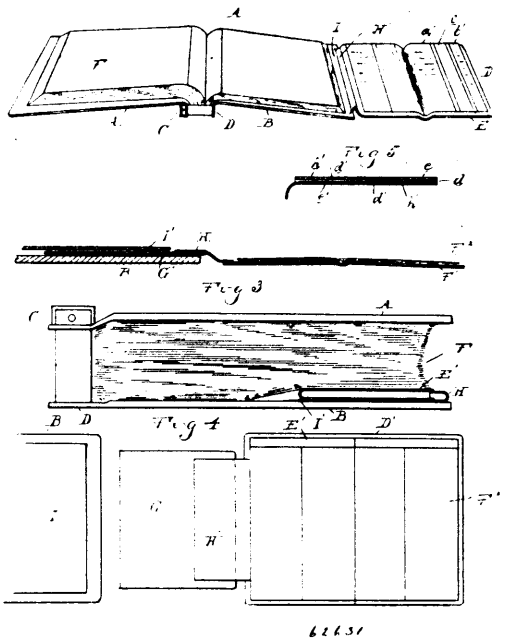
No. 62,630. Furnace for the Destruction of Town Refuse. (*Fournaise pour trépailles.*)



George Watson, Athenaeum Buildings, 9 Park Lane, Leeds, England, 13th February, 1899; 6 years. (Filed 23rd January, 1899.)

Claim.—1st. A furnace for the destruction of town refuse, constructed with a deck for bringing the refuse thereto in waggons or carts and a deck house with suitable openings, substantially as hereinbefore described. 2nd. A furnace for the destruction of town refuse, constructed with a deck for bringing the refuse thereto in waggons or carts and a deck house with suitable openings, and provided with suitable means for drawing air through the deck house to prevent effluvia escaping substantially as described. 3rd. The improved furnace for the destruction of town refuse, arranged and operating, substantially as described.

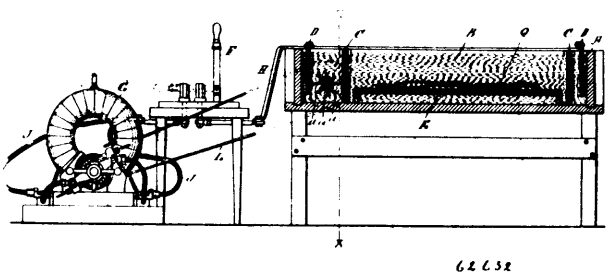
No. 62,631. Ledger. (*Grand-livre.*)



William N. Winfield, Detroit, Michigan, U.S.A., 13th February, 1899; 6 years. (Filed 9th November, 1898.)

Claim.—1st. In a loose leaf ledger, the combination of the upper and lower clamping plates, of extensible guide posts connecting the plates, a screw connection between the parts of one of the posts and a gear for turning said screw. 2nd. In a loose leaf ledger, the combination of the upper and lower clamping plates, of extensible posts connecting the two, a screw connection between the parts of said posts, and means for turning said screws simultaneously. 3rd. In a loose leaf ledger, the combination of the upper and lower clamping plates, of extensible posts connecting the two comprising two telescoping sections, a spindle in the larger section, with which the smaller section has a screw-threaded engagement and gearing for permitting the turning of the screws of both posts simultaneously. 4th. In a loose leaf ledger, the combination of two clamping plates, extensible posts connecting the two plates and comprising sections one secured to each plate and having a screw-thread engagement with each other, and gearing operatively connected to one section of each post for turning the same simultaneously. 5th. In a loose leaf ledger, the combination of two clamping plates, a casing on one plate, extensible posts connecting said clamping plates and comprising two telescoping sections having a screw-thread engagement, a gear on one section of each post within said casing, and means within said casing for simultaneously operating said gears.

No. 62,632. Tanning Process. (*Procédé de tannage.*)

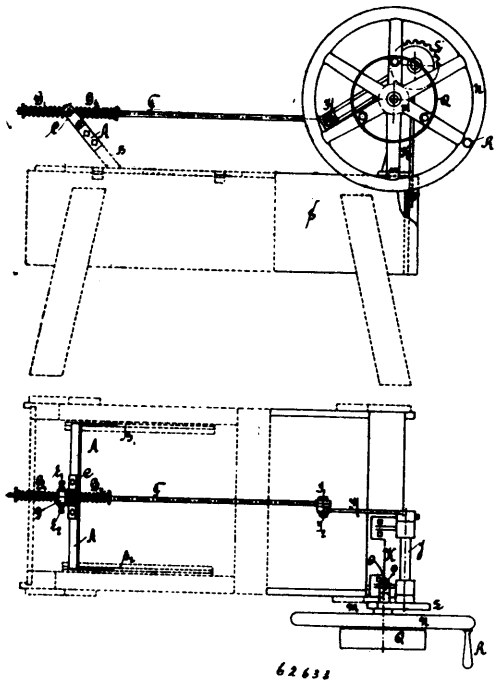


George Dexter Burton, Boston, Massachusetts, U.S.A., 13th February, 1899; 6 years. (Filed 7th June, 1898.)

Claim.—1st. The process of tanning and colouring hides or skins, which consists in placing the hides or skins in a tanning solution, passing an electric current through said solution containing the hides or skins, then adding colouring matter to said solution, and again passing the electric current therethrough. 2nd. The process of tanning and colouring hides or skins, which consists in placing the hides or skins in a tanning solution, passing an electric current through said solution containing said hides or skins, then adding colouring matter to said solution, again passing the electric current therethrough, and subjecting said solution to mechanical agitation during the tanning and colouring operation. 3rd. The process of tanning hides or skins, which consists in subjecting the hides or skins to the action of a solution containing tanning material, extraneous colouring matter and a dissolved solvend which adds density and

conductivity to the solution, and passing an electric current through said solution in which the hides or skins are placed.

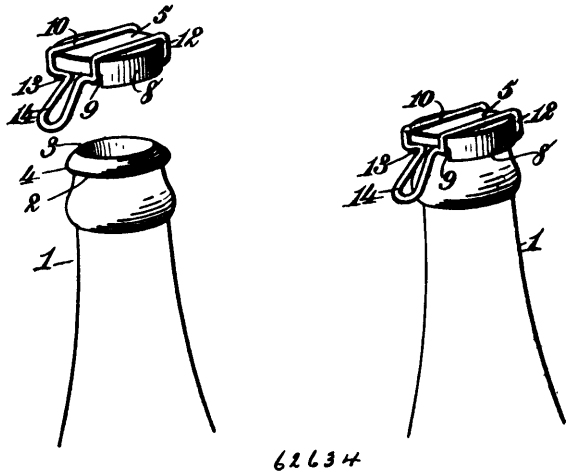
No. 62,633. Washing Machine. (*Machine à laver.*)



Samuel Mills Burnley, Brantford, Ontario, Canada, 13th February, 1899; 6 years. (Filed 11th January, 1899.)

Claim.—In a hand washing machine the flexible or pliant connection of the oscillating arms with a crank mechanism, all substantially as and for the purpose set forth.

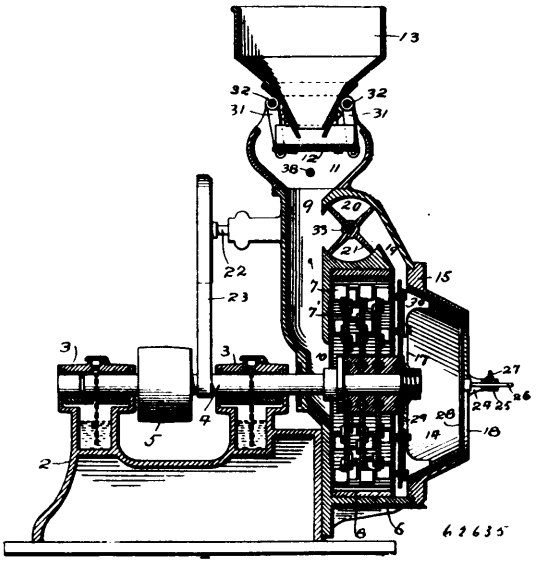
No. 62,634. Bottle Stopper. (*Bouchon de bouteille.*)



Frank Winder Waterman, Baltimore, Maryland, U.S.A., 13th February, 1899; 6 years. (Filed 20th October, 1898.)

Claim.—The combination with a bottle having an external annular groove in its mouth portion, of a sheet metal cap having a pendent rim with opposite recesses cut directly in its lower edge, and an electric wire bent to form two separated members lying over the top of the cap and having hooked extremities extending through one of said recesses into the annular groove, said two wire members having, at points opposite the hooked extremities, the portions 13 projecting towards each other into the annular groove through the other recess in the rim, and, respectively, bent down into the offsetting depending finger-piece 14, substantially as and for the purposes described.

No. 62,635. Grinding Mill. (*Moulin à moudre.*)

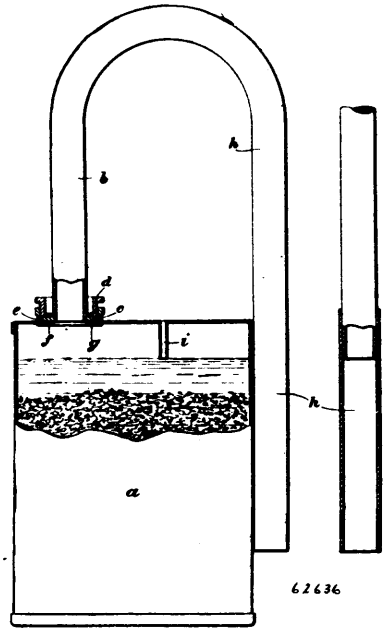


Joseph M. Schutz, Minneapolis, Minnesota, U.S.A., 13th February 1899; 6 years. (Filed 23rd January, 1899.)

Claim.—1st. The combination, with means for creating a rotating and axially moving current of air, and for confining said current of air, with an incline or deflector whereon said current impinges, and distinct means for creating a transverse current of air to resist the onward flow of the first-mentioned current, whereby the centrifugal force of the particles carried by the first-mentioned current of air is increased to ensure the backward deflection of the heavier particles upon said incline or deflector. 2nd. The combination, with the body or cylinder, of a conical deflector arranged at one end of said body or cylinder, and providing a free outlet therefrom, an inlet opening in the opposite end of said body or cylinder, means outside of said cone for creating a strong current of air through said body and outward through said cone, and means within said cone to limit and resist the volume and velocity of the air current passing through said body and cone, and means for re-grinding or conveying away the larger particles deflected backward into said body. 3rd. The combination, with the body or cylinder, of the conical deflector arranged at one end of said body or cylinder and providing a free outlet therefrom, an inlet opening in the opposite end of said body or cylinder, means outside of said cone for creating a strong current of air through said body and outward through said cone, and adjustable means within said cone to limit and resist the volume and velocity of the air current passing through said body and cone, and means for conveying away the larger particles deflected backward into said body. 4th. The combination, with a conical deflector, of means for creating a current of fluid longitudinally through said conical deflector, to impinge upon the surface thereof, and for rotating the body of fluid within said deflector, to limit both the volume and the velocity of said current within said conical deflector, and project the particles carried thereby against said deflector and thence backwardly against the longitudinal current. 5th. The combination, with a conical deflector, of the machine body, the rotary part arranged therein to advance the material, pulverize the same and create a current of fluid through said conical deflector, and distinct adjustable means within said conical deflector permitting the passage of fine material and returning the coarse material to said body regulating and limiting the onward and the rotary movements of said current within the conical deflector. 6th. The combination, with the body or casing, having a tapered interior peripheral wall, and having the central or axial inlet and outlet openings and also having a peripheral opening near said outlet opening, the cylinder or chamber into which said peripheral opening leads, and the rotating valve or elevator arranged in said cylinder or chamber and discharging through the sides thereof to return the material to the inlet opening of said body or casing, and a suitable breaking or crushing mechanism arranged within said body or casing and adapted to create a forcible fluid current through said body or casing. 7th. The combination, with the body or casing having inlet and outlet openings in its ends, of the rotary bearings or breakers arranged within said body or casing to pulverize the material and create an onward current of air or other fluid, the conical deflector arranged about said outlet opening, and the rotary wings arranged within said conical deflector. 8th. The combination, with the body or casing having inlet and outlet openings in its end, of the rotary beaters or breakers arranged within said body or casing for the purposes described, the conical deflector arranged at said outlet opening, the rotary wings arranged within said conical deflector to rotate with said beaters or breakers, for the purpose specified, and means for adjusting said wings towards and from the interior surface of said conical deflector.

9th. The combination, with a cylindrical pulverizer body and the rotary pulverizers, of the conical separator and the disc arranged within the end of said separator. 10th. The combination, with the pulverizer body, of the rotary pulverizer, the inlet trunk or opening, the conical separator into which the material and fluid from said body is discharged, while rotating at a high speed, and the adjustable disc provided in said conical separator, and means for adjusting and holding said disc. 11th. The combination, with the pulverizer body and the rotary pulverizers, of the inlet trunk, the conical separator, the by-pass or duct leading from said body to said trunk and opening from the body at a point between the body and said conical separator, and the disc 29 within the outer part of said conical separator.

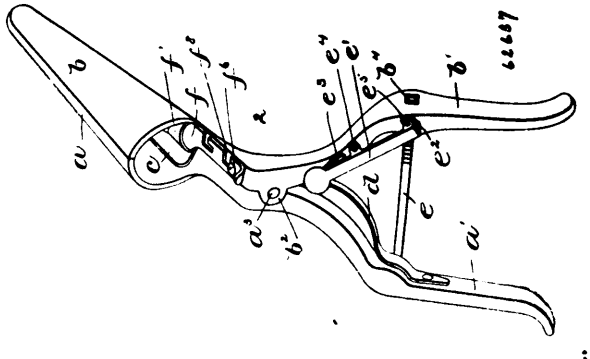
No. 62,636. Disinfectors for Automatically Delivering Disinfectant to a charge of Water. (*Appareil désinfectant.*)



James Luvian Wade, 28 West Kensington Gardens, 13th February, 1899; 6 years. (Filed 2nd August, 1898.)

Claim.—A disinfector consisting of a vessel, a syphon tube connected by its shorter arm to the top of the vessel, and a small air tube extending a short distance inwards from the top of the vessel, substantially as described.

No. 62,637. Endoscopic Instrument.
(*Instrument endoscopique.*)

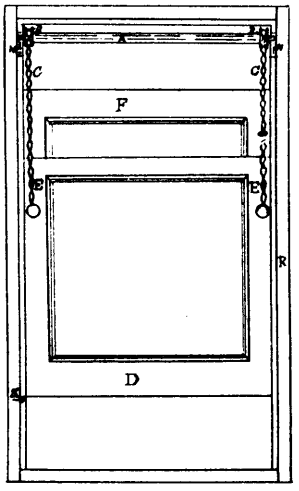


Thomas Smith Pitt, Boston, Mass., U.S.A., 13th February, 1899 6 years. (Filed June 14th, 1897.)

Claim.—1st. A light-holder or receptacle for the use on an endoscopic instrument, having a curved body portion to receive an incandescent, and a freely removable concavo-convex guard having inwardly turned edges fitting on said body portion and having one or more upwardly turned lugs which operate as reflectors to throw the light upward and forward. 2nd. A light-holder or receptacle for use on an endoscopic instrument having a curved body portion to receive an incandescent, and a concavo-convex guard fitting on said body portion and having a series of light emitting apertures and a reflector in the rear of each aperture to throw the light upward and forward. 3rd. A light-holder or receptacle for use on an endoscopic instrument, having a curved body portion to receive an incandescent, and a concavo-convex guard fitting on said body portion and having one or more reflectors bent up therefrom, and having one or more light emitting apertures. 4th. A detachable light-holder or receptacle for use on an endoscopic instrument comprising a concavo-convex body portion for receiving the incandescent, and having an extended shank with bayonet slots for attaching it in place, and a removable sliding cover formed with upwardly turned reflectors.

No. 62,638. Roller Sash Lifter.
(*Rouleau pour soulever les châssis.*)

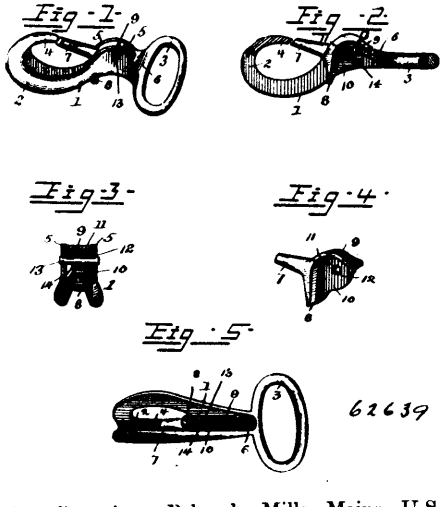
FIG. 1.



Robert Wasburn, Harriston, Ontario, Canada, 14th February, 1899; 6 years. (Filed 27th January, 1899.)

Claim.—1st. The roller A and pulleys B, B, combined, resting on bearings N, N, for the ends of the roller, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of roller A, with fixed pulleys B, B thereon, and resting on bearings N, N at the ends, substantially as and for the purpose hereinbefore set forth.

No. 62,639. Snap-Hook. (*Crochet à ressort.*)

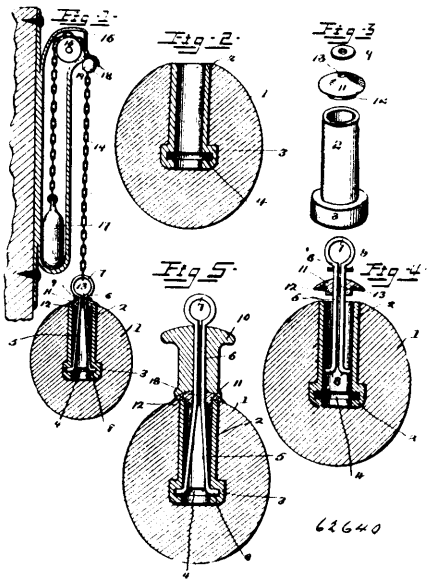


Everett Asa Cummings, Belgrade Mills, Maine, U.S.A., 14th February, 1898; 6 years. (Filed 25th January, 1899.)

Claim.—A snap-hook consisting of a body having a longitudinally-bifurcated hook member, a pair of pivot-ears in the rear of the hook member, and a shoulder at the rear of the space between said ears, a tongue 7 formed at one end with an approximately U-shaped fork registering between the pivot ears and provided with a web closing one side thereof, said fork essentially consisting of a curving flange

having a pendant operating-arm 8 projected, and exposed to the fingers through the bifurcation of the body, and a curved stop-arm member 9 conforming with the curvature of the pivot-ears and having its terminal projected beyond the web-plate to engage said shoulder of the body, a pivot-pin passing through the web-plate and pivot-ears, and a spring coiled on the pivot-pin and housed within the casing formed by the fork of the tongue, substantially as set forth.

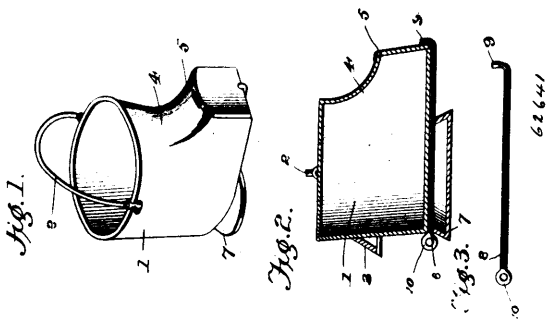
No. 62,640. Soap Hanger. (*Porte-savon.*)



Edmund Roenius, Grand Rapids, Wisconsin, U.S.A., 14th February, 1899; 6 years. (Filed 25th January, 1899.)

Claim.—1st. In a device of the class described, the combination, with supporting means, of a tube designed to be imbedded in the article to be suspended, forming an anchor to engage the same and provided with an interior shoulder, a catch having spring arms engaging the shoulder and connected with the supporting means, and a compressible elastic cap fitting over the outer end of the tube and engaging the catch, whereby the arms are maintained firmly in engagement with the said shoulder, substantially as described. 2nd. In a device of the class described, the combination with supporting means, of a tube designed to be imbedded in the article to be suspended, a catch connected with the supporting means and detachably engaging the tube, and an elastic compressible cap fitting over the outer end of the tube and engaging the catch, substantially as and for the purpose described. 3rd. In a device of the class described, the combination with supporting means, of a tube having its lower end enlarged and provided with an interior groove, a catch engaging the groove and connected with the supporting means and an elastic cap extending over and fitting within the outer end of the tube, said cap being capable of being compresed and of engaging the catch, substantially as and for the purpose described. 4th. In a device of the class described, the combination, with supporting means, of a tube designed to be imbedded in the article to be suspended, a catch engaging the tube and connected with the supporting means, an elastic compressible cap arranged at the outer end of the tube, and a knob or handle mounted on the outer portion of the catch, substantially as described.

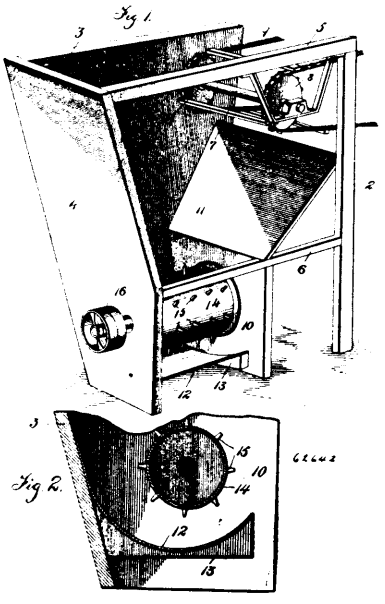
No. 62,641. Coal-Hod. (*Seau à charbon.*)



Frank Logan, Carleton, Sullivan, Maine, U.S.A., 14th February, 1899; 6 years. (Filed 25th January, 1899.)

Claim.—A coal-hod, having a forwardly projecting mouth or spout at the lower portion thereof, formed with a front forwardly inclined edge, said hod also having a lower flange with a central opening therethrough and a rear inclined wall, a door hinged at its upper edge to the upper wall surrounding said mouth, and a spring-rod rotatably mounted in said opening of the flange under the bottom of the hod, and having a front angularly-bent end to engage the lower edge of the door to hold it closed, and a rear looped end adapted to bear against the rear inclined wall of said flange to hold the rod in its adjusted position, substantially as described.

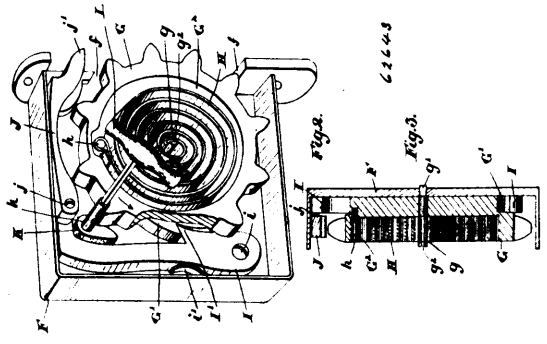
No. 62,642. Hay Shaker. (*Appareil à secouer le foin.*)



Harry O'Neill, Westmount, Quebec, Canada, 14th February, 1899; 6 years. (Filed 26th January, 1899.)

Claim.—1st. A baled hay-shaker, comprising a frame, a rotatable toothed cylinder mounted therein, and means for delivering the compressed hay to said shaker, substantially as described. 2nd. A baled hay-shaker, comprising a frame, a partially enclosed receptacle formed therein, a toothed cylinder rotatably mounted in said receptacle, and means for delivering the compressed hay to said cylinder, substantially as described. 3rd. A baled hay-shaker, comprising a frame, a partially enclosed receptacle formed therein, a semi-circular plate connected to said receptacle and forming the bottom thereof, a toothed cylinder rotatably mounted in said receptacle, the mounting of said cylinder being eccentric to said plate, and means for delivering the compressed hay to said shaker, substantially as described.

No. 62,643. Window Fastener and Support.
(*Arrêt et support de fenêtre.*)

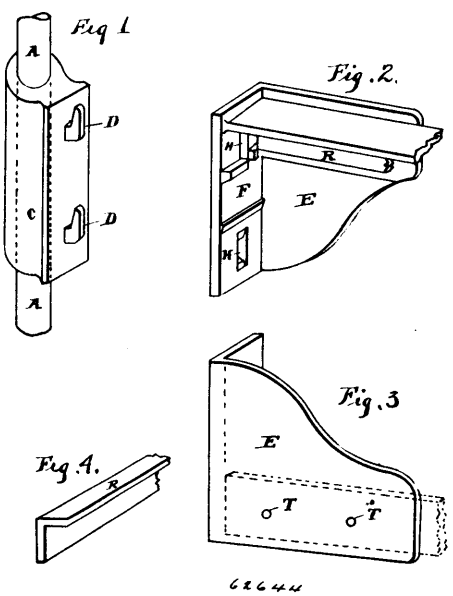


Charles Davis Cutts, Toronto, Ontario, Canada, 14th February, 1899; 6 years. (Filed 25th January, 1899.)

Claim.—1st. In a window support and fastener, the combination with a rack plate, of a gear meshing with such rack and co-acting means connected to the gear for locking such rack in any position to which the rack may be raised by same, as and for the purpose specified. 2nd. In a window support and fastener, the combination with the rack plate, of a gear meshing with such rack, and co-acting means connected to the gear for locking such rack in any position to which the rack may be raised by same and a roller suitably jour-

nalled in a spring plate attached to the opposite sash and designed to press against the frame adjacent thereto, as and for the purpose specified. 3rd. In a window support and fastener, the combination with the rack plate, of a gear meshing with such rack supported on a suitable spindle and having a recess and gear-wheel connected thereto or forming part of the same, a helical spring fitting in such recess and connected to a pin at one end attached to the gear and, at the other end to a spindle upon which such gear rotates and a dog adapted to co-act with such ratchet-wheel whereby such gear may be locked in any desired position in the rack and means for releasing such dog, as and for the purpose specified. 4th. In a window support and fastener, the combination with the rack plate, of a gear meshing with such rack supported on a suitable spindle and having a recess and gear pinion connected thereto and forming part of the same, a helical spring fitting in such recess and connected to a pin at one end attached to the gear and at the other end to a spindle upon which such gear rotates and a spring-pressed lever suitably pivoted in the casing and provided with a dog-shaped projection, a bolt pivotally connected to the upper end of the lever and means for tilting the lever on its pivot, so as to release the dog and throw out the bolt, as and for the purpose specified. 5th. In a window support and fastener, the combination with the rack plate, of a gear meshing with such rack supported on a suitable spindle and having a recess and gear pinion connected thereto and forming part of the same, a helical spring fitting in such recess and connected to a pin at one end attached to the gear and at the other end to a spindle upon which such gear rotates and a spring-pressed lever suitably pivoted in the casing and provided with a dog-shaped projection, a bolt pivotally connected to the upper end of the lever and a suitably pivoted key-arm provided with a laterally extending socket, and a key designed to fit in such socket, as and for the purpose specified.

No. 62,644. Metal Bedstead. (*Lit de fer.*)



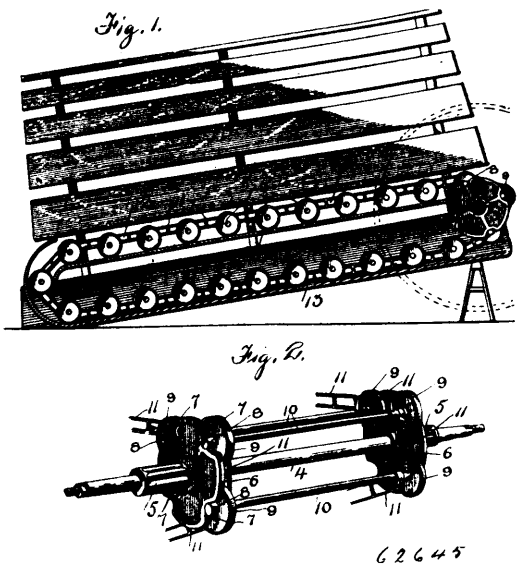
Charles F. Rood, Grand Rapids, Michigan, U.S.A., 14th February, 1899; 6 years. (Filed 25th January, 1899.)

Claim.—In a metallic bedstead, the combination with a metal post A, of a collar C secured to the post and having a vertical face provided with hooks or lugs D projecting therefrom, a reversible bed rail plate E having an angular extension F provided with a face corresponding to the face of the collar and constructed with openings H which receive the said hooks or lugs, and a side rail connected to one end of said bed rail plate and reversible therewith, substantially as and for the purpose described.

No. 62,645. Horse Power. (*Manège.*)

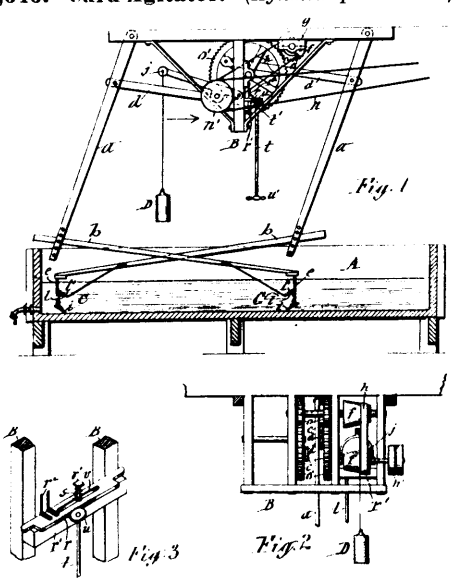
Charles Alfred R. Desjardins, St. André, Quebec, Canada, 14th February, 1899; 6 years. (Filed 24th January, 1899.)

Claim.—A horse power comprising a frame, a laterally extending shaft mounted at the front end of said frame, plates located on said shaft, said plates being provided with spaced recesses, and an endless band, formed of laterally extending shafts provided with wheels each wheel having a bearing and connecting links pivotally mounted on said shafts, said bearings being adapted to pass into said recesses and remain therein during the passage around the end of



the power, said bearings forming the sole support for said band during such passage, substantially as described.

No. 62,646. Curd Agitator. (*Agitateur pour cailles.*)

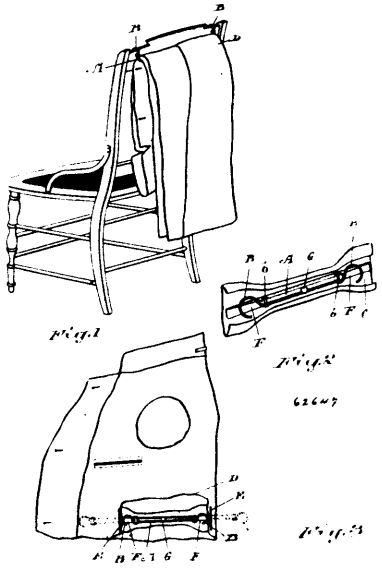


George Daniel Pohl, Vernon, New York, U.S.A., 14th February, 1899; 6 years. (Filed 24th January, 1899.)

Claim.—1st. In combination with the vat, pendent oscillatory levers, one over each end-portion of the vat, two rotary cranks, pitmen connecting said cranks with the aforesaid levers near the pivoted ends thereof to swing their free ends a distance exceeding half of the length of the vat, bars crossing each other over the vat and pivoted to the free ends of the aforesaid levers, and agitators connected to the free ends of said bars and dragged thereby to and from opposite ends of the vat, the aforesaid cranks being disposed less than 180° apart to cause the agitators to alternately approach and recede from each other, as set forth and shown. 2nd. In combination with the vat, a curd-agitator consisting of a horizontally reciprocating rack extending across the interior of the vat, paddles pivoted at one edge horizontally to the rack, and free at the opposite edge, and stops supporting the paddles normally inclined from the rack, as set forth. 3rd. The combination, with the vat of pendent oscillatory levers over the end portions of the vat, two cranks revolving about a common centre over the centre of the vat and having wrist-pins less than 180° apart, pitmen connecting the cranks with the aforesaid levers, bars pivoted to the lower ends of the levers and extending lengthwise of the vat, agitators extending across the

vat and dragged by the aforesaid bars back and forth in the vat from opposite ends to a point a short distance beyond the centre of the length of the vat and timed in their movements by the aforesaid cranks so as to cause them to approach and recede from each other, and each to follow the other part way as it recedes from the central portion of the vat, thereby thoroughly agitating the curd without danger of carrying it over the ends of the vat, substantially as set forth. 4th. In combination with the vat, curd-agitators and mechanisms actuating said agitators, two reversely disposed cone-pulleys, a driving-belt running on said pulleys and transmitting motion to the aforesaid actuating mechanism, a longitudinally movable rack provided with means for shifting the aforesaid belt, a pinion engaging said rack, and manually operated means for turning said pinion, as and for the purpose specified. 5th. In combination with the vat, curd-agitators and mechanisms actuating said agitators, a lever pivoted at one end to a stationary support and weighted at its free end, a cone-pulley pivoted to said lever, a reversely disposed cone-pulley journalled in fixed bearings, a driving-belt connecting said cone-pulleys, a longitudinally movable rack provided with means for shifting said belt, a pinion engaging said rack, and manually operated means for turning said pinion and thereby shift the aforesaid belt, substantially as set forth.

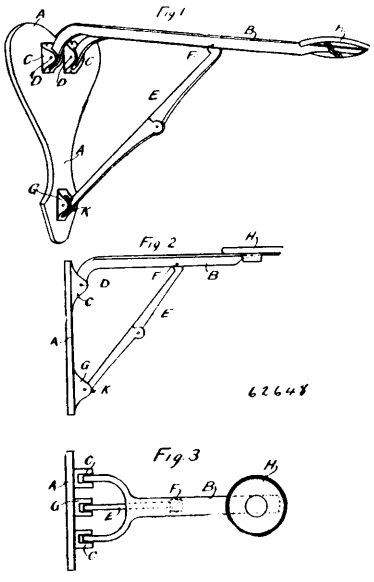
No. 62,647. Garment Holder. (*Porte-vêtement.*)



Frederick Curry Beal, Toronto, Ontario, Canada, 14th February 1899; 6 years. (Filed 25th January, 1899.)

Claim.—1st. A portable garment holder embracing in its construction a strap to sustain the garment, and hangers connected to the strap to detachably connect it to the support, substantially as specified. 2nd. A portable garment holder embracing in its construction an elastic strap attached to the inside of the garment, and hangers connected to the strap to detachably connect it to the support, substantially as specified. 3rd. A portable garment holder embracing in its construction an elastic strap attached to the inside of the garment, hangers connected to the strap to detachably connect it to the support, and stops to limit the stretch of the strap, substantially as specified. 4th. A garment holder embracing in its construction an open-ended sheath attached to the inside of the garment, an elastic strap contained within the sheath, and hangers connected to the ends of the strap to detachably connect it to the support, substantially as specified. 5th. A garment holder embracing in its construction an open-ended sheath attached to the inside of the garment, an elastic strap contained within the sheath, hangers connected to the ends of the strap to detachably connect it to the support, and flexible stops to limit the stretch of the elastic strap, substantially as specified. 6th. A portable garment holder embracing in its construction an open-ended sheath, an elastic strap detachably secured within the sheath, hangers connected to the ends of the strap and sheath to limit the stretch of the elastic strap, and means for attaching the sheath to the garment, substantially as specified. 7th. A portable garment holder embracing in its construction an open-ended sheath, an elastic strap detachably secured within the sheath, hangers connected to the ends of the strap and sheath to limit the stretch of the elastic strap, means for attaching the sheath to the garment, and a lining for the garment covering, the garment holder having slits opposed to the ends of the sheath, substantially as specified.

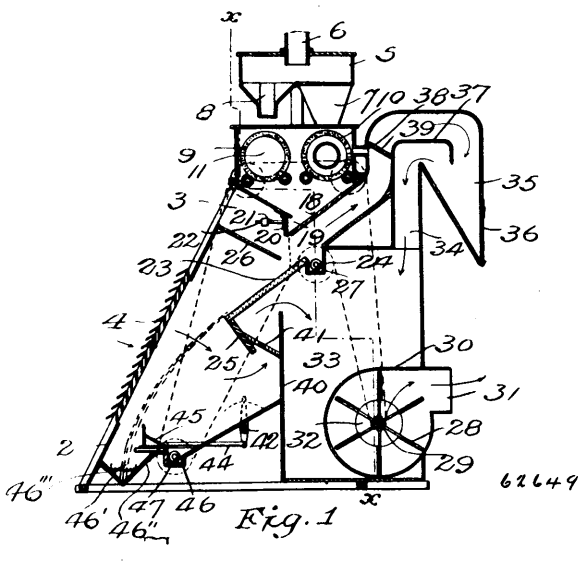
No. 62,648. Counter Stool. (*Tabouret de comptoir.*)



Alexander Norris Cameron, Perth, Ontario, Canada, 14th February, 1898; 6 years. (Filed 24th January, 1899.)

Claim.—A folding counter stool, comprising the piece A for attachment to the counter or other place desired, a bracket B connected to the piece A by means of the pins D D and the lugs C C, the seat H supported by the said bracket, the folding supporting piece E, and the piece of rubber K, substantially as described.

No. 62,649. Grain Cleaner. (*Séparateur à grain.*)

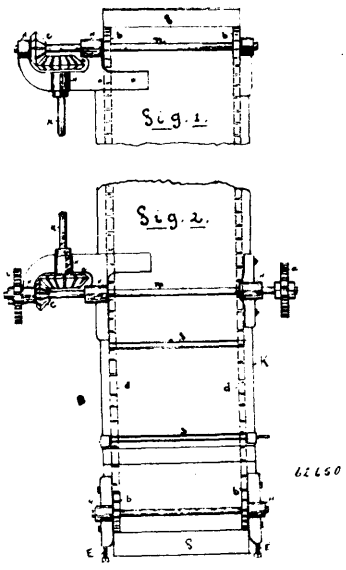


Seneca H. Tromanhauser, Minneapolis, Minnesota, U.S.A., 14th February, 1899; 6 years. (Filed 23rd January, 1899.)

Claim.—1st. A grain separator, comprising in combination, an inclined plate whereon static electricity is generated by the movement of the grain, and means for feeding grain or material in a thin sheet upon the upper end of said plate, substantially as described. 2nd. A grain separator, comprising in combination, an inclined plate whereon static electricity is generated by the movement of the grain means for feeding grain or material in a thin sheet upon the upper end of said plate, and means for creating a current of air transversely through the thin stream of grain as it falls on to said plate, substantially as described. 3rd. A grain separator, comprising in combination, a suitable frame or casing, an inclined plate arranged therein, means for feeding the grain or material in a thin sheet on to the upper end of said plate, means for creating a current of air transversely through the stream of grain falling upon the upper end of said plate, and means for creating a current of air through the

stream of grain as it falls from the lower end of said plate, substantially as described. 4th. A grain separator, comprising in combination, a suitable frame or casing, an inclined plate arranged therein, means for feeding the grain or material in a thin sheet on to the upper end of said plate and a conveyor provided near said plate to receive the particles separated from said stream by the current of air, substantially as described. 5th. A grain separator, comprising in combination, an inclined plate whereon static electricity is generated by the movement of the grain, means for feeding grain in a thin stream upon the upper end of said plate, a plate 26, an opening 3 provided in the front of the casing, an air trunk leading to the rear of the machine above said inclined plate and communicating with said opening, and means creating a current of air transversely through the stream of falling grain and through said air trunk, substantially as described. 6th. A grain separator, comprising in combination, an inclined glass plate, whereon static electricity is generated as described, and means for feeding grain or material in a thin sheet upon the upper end of said plate, substantially as described. 7th. A grain separator, comprising an inclined glass plate, whereon static electricity is generated, in combination with means for feeding the grain in a thin sheet on to the upper end of said plate, and a fan or suction device provided within said casing and communicating with the space beneath the lower end of said inclined plate and adapted to create a transverse current of air through an opening provided in the front casing and through the material as it falls from the lower end of said plate, substantially as described. 8th. A grain separator, comprising in combination, an inclined glass plate having a smooth upper surface, means for feeding the grain, seeds and material mixed therewith in a thin sheet on to the upper surface of said plate whereby the passage of the grain and other materials over the surface of said plate generates static electricity which tends to separate the lighter material by bringing it beneath the grain and closer to the surface of the plate, and suitable conveyors or receptacles beneath said plate to receive the grain and the lighter material separated therefrom, substantially as described. 9th. A grain separator, comprising an inclined plate whereon static electricity is generated, in combination with means for feeding the grain in a thin sheet on to the upper end of said plate, means for maintaining a current of air transversely through the stream of grain as it falls from the lower end of said plate, a conveyor provided beneath said plate to receive the lighter particles that are separated from the grain, a deflector, and means for moving the same toward or from the falling stream or grain, substantially as described. 10th. A grain separator, comprising an inclined plate, whereon static electricity is generated, in combination with means for feeding the grain in a thin sheet on to the upper end of said plate, a fan or suction device provided in said separator an expansion chamber communicating with said fan and with the space beneath said inclined plate, a blind provided in the front of the separator casing through which a current of air may be maintained across the stream of grain falling from said inclined plate, and a valve for closing the passage from said expansion chamber to the space beneath said plate, substantially as described. 11th, A grain separator, comprising a frame, a screen casing mounted in said reels being conical in form, a hopper having spouts to deliver grain to one end of said screens, the other end being open to permit the escape of straw and other large particles, friction devices for driving said reels, a hopper bottom for said screen casing, means for regulating the flow of grain therefrom, and an inclined plate whereon the grain is deposited as it falls from said screen casing, substantially as described. 12th. A grain separator, comprising a frame, a screen casing mounted thereon, rotating conical screens mounted in bearings in said screen casing, the larger end of one screen being opposite the smaller end of the other, the larger ends of both screens being open to permit the discharge of straw and other particles, spouts leading into the smaller ends of said screens from a suitable hopper, friction devices for operating said screen, and said screen casing having a hopper bottom to receive the grain from said screen, substantially as described. 13th. A grain separator, comprising a frame and casing, a screen casing mounted thereon, rotating screens arranged within said casing, said screens being conical in form, the larger end of one being opposite the smaller end of the other, the larger ends of both being open and each screen having a series of perforations diminishing in size from the smaller to the larger end, spouts leading into the smaller end of said screens from a suitable hopper, frictional devices for operating said screens, and a hopper device beneath said screens to receive the the grain therefrom, substantially as described. 14th. A grain separator, comprising a frame and casing, a screen casing mounted thereon, rotating screens arranged within said casing, said screens being conical in form, the larger end of one being opposite the smaller end of the other, the larger end of both being open and each screen having a series of perforations diminishing in size from the smaller to the larger end, spouts leading into the smaller end of said screens from a suitable hopper, frictional devices for operating said screens, a hopper device beneath said screens to receive the grain therefrom, means permitting the delivery of the grain from said hopper device in a thin stream, an air-trunk, means for maintaining a current of air through said air-trunk across the stream of grain, and an air passage connecting said air-trunk with said screen casing, substantially as described. 15th. A grain separator, comprising an inclined plate whereon static electricity is generated, in combination with means for feeding the grain in a thin sheet onto the upper end of said plate, a fan or suction device arranged within said separator, an expansion chamber communicating with said fan, an air-trunk leading from said expansion chamber to the space above said inclined plate and communicating with an opening through the front casing, whereby a current of air may be maintained across the stream of grain falling upon said plate, substantially as described.

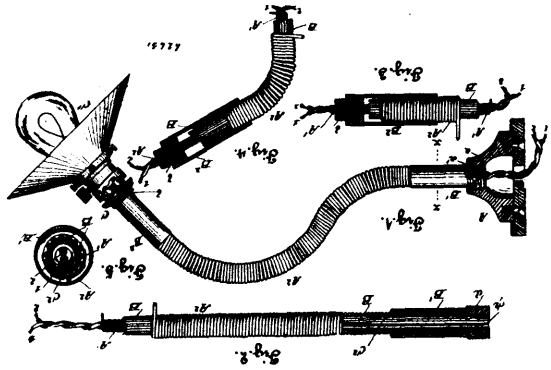
No. 62,650. Ensilage Carrier. (*Porte ensilage.*)



John Henry Ackert, Holyrood, Ontario, Canada, 14th February, 1899; 6 years. (Filed 20th January, 1899.)

Claim.—An ensilage carrier comprising the shafts M, N and X, and the gearing C, C, C, C, and sprocket-wheels A, A, all formed and arranged, as and for the purpose hereinbefore set out.

No. 62,651. Bracket. (*Console.*)

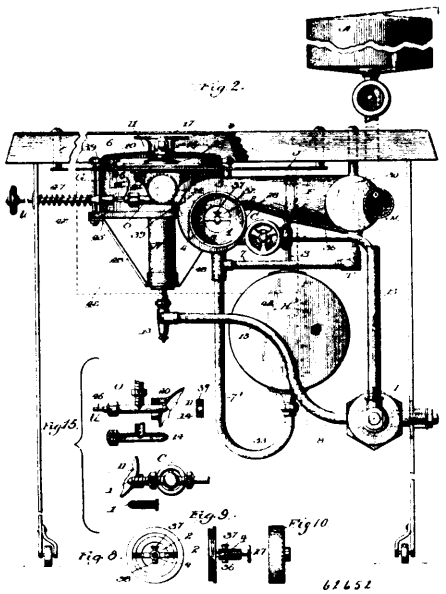


William Stanley Arnold, San Francisco, California, U.S.A., 14th February, 1899; 6 years. (Filed 16th January, 1899.)

Claim.—1st. A flexible support or bracket having an inner hollow core, an outer coiled metallic covering for said core, and a series of parallel strengthening wires or rods arranged between the core and the outer coil, said wires or rods being rigidly connected at one end to the core and outer coil but free thereof at their opposite ends whereby the same may give longitudinally as the bracket or support is turned or bent. 2nd. A flexible support or bracket having an inner core, an outer covering within which the same is inclosed, and a series of strengthening wires or rods arranged between the core and its covering, said wires or rods being secured to the core and outer covering at one end but left free at their opposite end whereby the same may have longitudinal play as the support or bracket is turned or bent. 3rd. A flexible support or bracket having an inner core, an outer covering therefor, a series of strengthening wires or rods arranged between the core and covering, a cap or ferrule for connecting the support or bracket to a suitable base and to which the core, covering and strengthening are rigidly secured at one end, and a cap or ferrule secured to the opposite end of the said covering and within which the free end of the core and strengthening wires or rods loosely lie, the core and wires or rods being permitted free longitudinal movement as the bracket or support is bent or turned. 4th. The combination with a flexible sup-

port or bracket of a series of strengthening wires or rods arranged therein and rigidly connected thereto at one end only whereby the same are permitted longitudinal movement as the support or bracket is bent or turned. 5th. The combination with a flexible support or bracket of a series of strengthening wires or rods arranged therein and rigidly connected thereto at one end only whereby the same are permitted longitudinal movement as the support or bracket is bent or turned, and of a supplemental rod arranged within the support or bracket at its lower end in order to prevent an abrupt bend being made at or near the base thereof.

No. 62,652. Vapour Generating and Heating Apparatus. (*Générateur et calorifère à vapeur.*)



Ethelbert S. Griffith, Toledo, Ohio, U.S.A., 14th February, 1899; 6 years. (Filed 13th December, 1898.)

Claim.—1st. The process of generating and supplying inflammable vapour under elastic tension, which consists in the initial step of agitating a liquid hydrocarbon and air, then igniting the resulting combustible pro luct, then vapourizing by said ignited product a second hydrocarbon liquid supply, then utilizing the vapourous product created for the purpose of maintaining, continuing, and increasing the agitation and ignition for heating and lighting, substantially as described. 2nd. An improvement in the means of generating and supplying inflammable vapour under elastic tension which consists in the combination with a liquid hydrocarbon supply of a chamber in which such liquid hydrocarbon and a current of atmospheric air are subjected to agitation to atomize the liquid, agitating means, a second liquid supply, means for vapourizing the liquid, a conductor for conducting a jet of the vapour from the vapourizing means to said agitating chamber, means for cutting off the liquid-supply to said chamber, means for conducting the said mingled air and vapourized product to a suitable consumer for heating or lighting, and said consumer, substantially as described. 3rd. In combination with a main liquid hydrocarbon supply and suitable conduits, a chamber provided with means for agitating the liquid received therein, means for introducing a current of air to said chamber, a burner to which the inflammable vapour is conducted and where it is ignited, a supplementary hydrocarbon liquid supply vessel fed from the main supply and heated by said ignited vapour, means for cutting off the liquid supply to said agitating chamber and a conduit for conducting the heated vapourized liquid from the vessel to the said agitating chamber and a conduit for conducting the heated vapourized liquid from said vessel to the said agitating chamber, from which the mixed heated and inflammable gas and outer air are carried to a burner by the same means, substantially as described. 4th. In combination with a hydrocarbon liquid container, a main burner and cone, a vapourizing fuel tube heated by said burner, conduits leading from said container to the upper end of the vapourizing tube, a commingling chamber, a main conduit provided with a cut-off and leading from said commingling chamber to the burner body, a smaller auxiliary cone, a pipe leading from the main conduit to the auxiliary cone, whereby when the main burner is extinguished by the operation of the cut-off, heat may be continued to vapourize the liquid in said conduits leading into the fuel tube, substantially as described. 5th. In combination with a vapour generator and burner, of a casing or chamber provided with an air-inlet and a vapour discharge orifice or conduit, a revoluble wheel provided with vanes and mounted within said casing or chamber, a liquid supply pipe terminating in the jet orifice within the casing in position to deliver a jet of liquid against the vanes of the wheel and cause its rotation, a liquid-receptacle and a conduit thereto from said chamber for receiving the excess of liquid fuel not vapourized by said wheel, whereby the accumulation of the liquid within the wheel chamber is prevented and the free and rapid circulation of the wheel is maintained by the impact of the jet, substantially as described. 6th. In a vapour generator and burner, the combination with the liquid supply and a conduit leading therefrom for supplying the liquid under pressure, of a receiver having an air inlet, a burner supplied from said receiver, two independent conduits having jet orifices and fed from said supply conduit, one of said jet conduits lying in close proximity to the burner whereby the liquid is volatilized, and a fan within the receiver for creating an elastic tension therein, said fan driven by the jet issuing from either or both of said orifices, substantially as described. 7th. In a vapour generator and burner, the combination with a liquid hydrocarbon supply and burner, of a receiver for supplying vapour to the burner, a fan motor in said receiver for creating an elastic tension therein, a conduit from the supply having a jet orifice discharging into the receiver, a drain pipe provided with a trap and leading from the receiver, a liquid receptacle into which said drain-pipe discharges, and a vapour escape or vent pipe leading from the top of the said liquid receptacle to a point in proximity to the said jet orifice, whereby gases generated in the liquid receptacle are carried into the receiver by the action of said motor, substantially as described. 8th. In a vapour generator and burner, the combination with the burner, of a receiver for supplying vapour thereto, a mechanical agitator within the receiver, a liquid hydrocarbon supply, a conduit having a jet orifice in close proximity to said burner for directing a jet of volatilized product into said receiver to drive said agitator, a non-conducting packing interposed between the walls of the jet orifice and the receiver, whereby the heat of the volatilzed liquid is maintained, and the liquid-supply confined to said receiver, substantially as described. 9th. A burner-cone having a raised dome-shaped under surface, a flaring upper termination and a suitable central opening forming an air passage, in combination with a plate to which the cone is secured having also a corresponding central opening, a fuel tube placed in said central air passage, a fuel-supply and a pipe connection with said supply and fuel tube, said tube having an opening and a heat conducting surface at its top, a vapour receiving chamber and a supply connection between said chamber and burner, substantially as described. 10th. In a vapour generator and burner, the combination with a burner and cone, a vapourizing-retort placed within and extending through said burner and cone, a fuel supply, a pipe connection with said supply and retort, said retort having an opening and a heat-conducting surface at its top, a vapour-receiver, a fan within said receiver, and a conduit leading from said heat-conducting surface to said receiver, said conduit provided with a valve-controlled discharge orifice terminating within said receiver, the said orifice discharging the vapourized product against said fan to impel it, substantially as described. 11th. The combination in a vapour generator and burner, of the burner having the circumferential outer wall, the cone having the under dome-shaped surface, a contracted neck and expanding top surface, the horizontal plate having a central opening through which the neck of the cone is passed, the lower end of said cone connected to the circumferential wall of the burner, whereby a burner-chamber is formed between the wall of the cone and the wall of the burner, a vapour receiving and distributing chamber, a conduit leading from said latter chamber to the burner chamber, said conduit provided with a sliding-gate opening into the burner-chamber on a line tangential with its wall whereby the current of vapour to the burner-chamber is first thrown to the periphery of the burner-cone, then to the central portion thereof, and its supply regulated and controlled, substantially as described. 12th. In a vapour generator and burner, the combination with a liquid hydrocarbon supply and a receiving chamber, of a pipe connection of said supply and said chamber, said pipe provided with a valve consisting of an outer inclosing shell having two threaded opposite end sections, an intermediate internally recessed chamber, a reciprocating valve key, inclased by said chamber, having a longitudinal bore and lateral side openings into said chamber and an imperforate inner end section, an apertured adjustable plug secured in said outer shell, said plug forming a seat to which the imperforate end section of the key may be forced on and off by the movement of said key and pipe connection and an intermediate or continuous flow of the liquid through said valve may be secured, substantially as described. 13th. In combination with the vapour receiving and agitating chamber, of a burner and cone, a conduit from said cone to said chamber and a valve in said conduit consisting of a separable stem composed of an outer round section and an inner square section engaging each other and a spring-coil on the outer section arranged to keep the two sections in engagement, substantially as described. 14th. In a vapour generator and burner, in combination with one or more burner-cones, impinging the flame surfaces consisting of one or more radial arms such as 15, additional heat-conducting surfaces, such as 17, fixed at and above the intersections of said radial arms with the said cones, substantially as described.

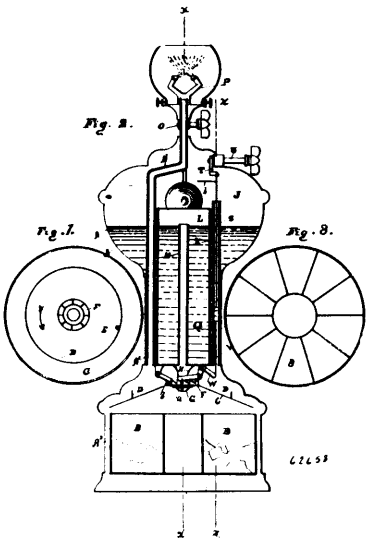
No. 62,653. Gas Generating Lamp.

(*Lampe génératrice à gaz.*)

John Sharpe, Ottawa, Ontario, Canada, 14th February, 1899; 6 years. (Filed 31st August, 1898.)

Claim.—1st. A gas-generating lamp, comprising a water reservoir, a gas generator divided into suitable compartments, a movable gas-

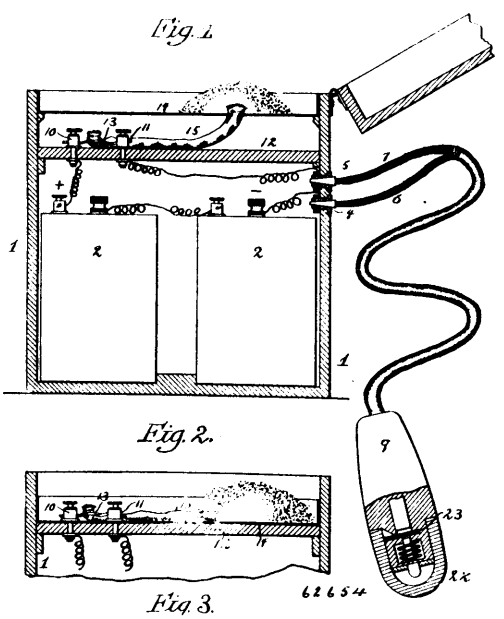
ometer or bell within the said lamp and serving as a cut-off to the water supply, a supplemental gas tube provided with a valve and



operated by the combined water and gas pressure, a revoluable water distributor below the said water reservoir and serving as a guide-way for conveying the water from the reservoir to the generating compartments, substantially as described. 2nd. In a gas generating lamp, a reservoir, a gasometer or bell within the said reservoir, a revoluable water distributor as a means for conveying the water from the reservoir, to each of the generating compartments, a ball cock valve, operated by the rise and fall of the water in the reservoir the said rise and fall being caused by the exerted gas pressure upon the water within the gasometer or bell, substantially as described. 3rd. In a gas-generating lamp, the combination of a water reservoir within the said lamp, a moveable gasometer or bell for storing the surplus gas, a gas tube, a supplemental gas tube and valve, a water pipe and plunger valve within the said pipe, a revoluble water distributor overhanging the generating compartments, as and for the purpose herein described. 4th. In combination with a gas-generating lamp a water reservoir, a movable bell, a tube centrally situated within the said bell, a thumb piece and water distributor with a bell crank, actuating pawl, and ratchet interposed between the said thumb piece and water distributer, with suitable supporting brackets for said water distributer, substantially as described.

No. 62,654. Flash Light Apparatus.

(*Appareil de lumière à éclat.*)



Simon Doran Alter and Lewis Torrence Young, both of Philadelphia, Pennsylvania, U.S.A., 14th February, 1899; 6 years. (Filed 24th October, 1898.)

Claim.—1st. A flash light apparatus in which are combined an electric igniter separated from and free from contact with the mass of flash powder, and a fuse connecting said electric igniting device with the powder, substantially as specified. 2nd. A flash light apparatus in which are combined an electric igniter separated from and free from contact with the mass of flash powder, and a non-explosive fuse connecting said electric igniting device with the powder, substantially as specified. 3rd. A flash light apparatus in which are combined an electric igniting device, a plate interposed between the same and the mass of flash powder and a fuse extending in both directions from said plate and connecting the electric igniting device with said mass of flash powder, substantially as specified. 4th. A flash light apparatus in which are combined an electric igniting device, a plate upon which the flash powder is deposited and which separates the flash powder from the igniting device and a fuse extending from the igniting device through an opening in said plate and the mass of flash powder deposited thereupon, substantially as specified. 5th. A push button for an electrically ignited flash light apparatus, said push button having a detachable plug of insulating material interposed between the fixed and movable terminals thereof, substantially as specified.

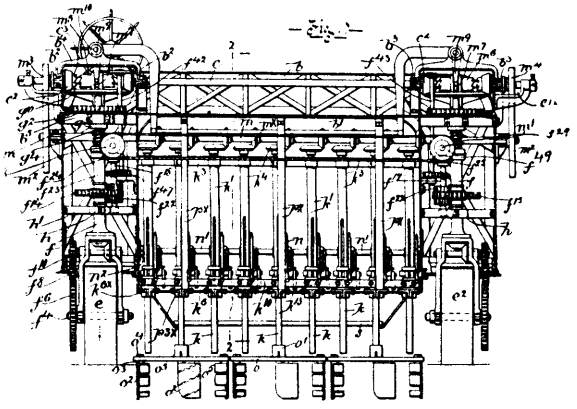
No. 62,655. Soap. (*Savon.*)

Ludwig Grote, 84 B. East India Dock Road, London, England, 14th February, 1899; 6 years. (Filed 28th May, 1898.)

Claim.—A process for the manufacture of soap, in which boiling is entirely dispensed with, characterized by the combination of three distinct operations, the first consisting in mixing twenty-five parts by weight of sugar, sugary syrup, molasses, treacle or other product or waste resulting from the manufacture of sugar, with fifty parts by weight of water, this mixture being left to stand until fermentation is set up, the second, in mixing intimately into the solution described in the first operation a quantity of potato flour or other starch flour in the proportion of four parts by weight of flour to twenty-eight parts of the solution described in the first operation, then in adding forty parts by weight of silicate of soda or soluble glass of 40° Baume 1 or 1·385 spec. gravity and thoroughly mixing the whole of these seventy-two parts, when these ingredients have become a perfectly homogeneous mass, in taking the half of it, viz: thirty-six parts by weight of caustic soda of 40° Baume 1, equal to 1·370 specific gravity and thoroughly stirring it in, when the solution begins to get warm and to thicken, in adding to it sixteen parts by weight of cocoa nut oil, cocoa nut fat, tallow or any other suitable oil or fatty substance and stirring it continuously until the process of saponification is complete and a uniform soapy mass is obtained, the third operation consisting in mixing the remaining thirty-six parts, viz:—the second half of the soultion described in the second operation with the soapy mass resulting therefrom thus forming the soap, substantially as and for the purpose hereinbefore set forth.

No. 62,656. Agricultural Implement.

(*Instrument aratoire.*)



Margaret Romaine and Caroline Rhoda Romaine, Executrices of the last will and testament of Robert Romaine, Ottawa, Ontario, Canada, 14th February, 1899; 6 years. (Filed 14th July, 1898.)

Claim.—1st. In apparatus for farm cultivation, a frame, a pair of vertical sleeves carried at each end of said frame, said sleeves having their lower ends forked, traction wheels mounted rigidly upon horizontal trunnions carried loosely at the lower ends of said forked ends of the sleeves, horizontal spindles mounted near the upper ends of said forks, a train of gears operatively connecting said trunnions and horizontal spindles, a bevel-gear mounted rigidly upon each of said horizontal spindles, vertical spindles extending upwardly through said sleeves, bevel-gears mounted rigidly upon the lower ends of said vertical spindles and adapted to intermesh with the above-mentioned bevel-gears, and means for rotating said vertical

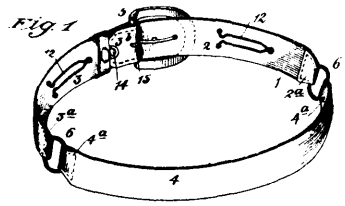
spindles, for the purpose set forth. 2nd. In apparatus for farm cultivation, a frame, a pair of vertical sleeves carried at each end of said frame, said sleeves having their lower ends forked, traction wheels mounted rigidly upon trunnions carried loosely at the lower ends of said forked ends of the sleeves, horizontal spindles mounted bear the upper ends of said forks, a train of gears carried by said fork and operatlvely connecting said trunnions and horizontal spindles together, a bevel-gear mounted rigidly upon each of said horizontal spindles, vertical spindles extending upwardly through said sleeves and through horizontal portions of the frame, bevel-gears mounted rigidly upon the lower ends of said vertical spindles and adapted to intermesh with the above mentioned bevel-gears, yielding resistances between the upper ends of said hollow spindles and said horizontal portions of the frame, means for rotating said sleeves, and means for rotating said vertical spindles, for the purpose set forth. 3rd. In apparatus for farm cultivation, a frame, a pair of vertical sleeves carried at each end of said frame, said sleeves having their lower ends forked, traction wheels mounted rigidly upon trunnions carried loosely at the lower ends of said forked ends of the sleeves, horizontal spindles mounted bear the upper ends of said forks, a train of gears carried by said fork and operatively connecting said trunnions and horizontal spindles together, a bevel-gear mounted rigidly upon each of said horizontal spindles, vertical spindles extending upwardly through said sleeves and through horizontal portions of the frame, bevel-gears mounted rigidly upon the lower ends of said vertical spindles and adapted to intermesh with the above mentioned bevel-gears, coiled springs between the upper ends of said hollow spindles and said horizontal portions of the frame, a pinion mounted rigidly upon each of said sleeves, a vertical spindle mounted in bearings carried by the frame adjacent to each of said sleeves, elongated gear-wheels mounted rigidly upon said last-mentioned spindles and adapted to intermesh with the pinions mounted upon said sleeves, bevel-gears mounted rigidly upon the upper ends of said last-mentioned spindles, horizontal shafts mounted respectively at opposite ends of the machine, bevel-gears mounted upon said horizontal shafts and adapted to intermesh with said last above mentioned bevel-gears, an operative connection between said horizontal shafts, means for rotating said horizontal shafts, and means for rotating said vertical spindle g, substantially as described and for the purpose set forth. 4th. In an apparatus for farm cultivation, a frame, a pair of vertical sleeves carried at each end of said frame, said sleeves having their lower ends forked, traction wheels mounted rigidly upon horizontal spindles carried loosely at the lower ends of said forked ends of the sleeves, pinions mounted rigidly upon said sleeves, a vertical spindle mounted adjacent to said hollow spindles, elongated gear-wheels mounted rigidly upon said last mentioned spindles and adapted to intermesh with the pinions mounted upon said sleeves, bevel-gears mounted rigidly upon the upper ends of said last mentioned spindles, horizontal shafts mounted respectively at opposite ends of the machine, bevel-gears mounted loosely upon said horizontal spindles and adapted to intermesh with said last above mentioned bevel-gears, an operative connection between said horizontal spindles, means for rotating said horizontal spindles, means for operatively connecting and disconnecting said bevel-gears to and from said hollow shafts, and means for rotating said wheels, substantially as and for the purpose set forth. 5th. In an apparatus for farm cultivation, a frame, a pair of vertical sleeves carried at each end of said frame, and adapted to yieldingly support same, said sleeves having their lower ends forked, traction wheels mounted at the lower ends of said forked ends of the sleeves, a pinion mounted rigidly upon each of said sleeves, vertical spindles mounted in bearings carried by the frame adjacent to each of said sleeves, an elongated gear-wheel mounted rigidly upon said vertical spindles and adapted to intermesh with the pinions mounted upon said sleeves, bevel-gears mounted rigidly upon the upper ends of said last mentioned spindles, a horizontal hollow shaft mounted at each end of the machine, spindles carried within said hollow shafts and adjustable longitudinally thereof, bevel-gears mounted upon said horizontal hollow shaft and formed with clutch faces and the teeth of these gears being adapted to intermesh with said last above mentioned bevel-gears, clutch blocks mounted loosely upon said hollow shafts adjacent to the clutch faces of said gears, an operative connection between said clutch blocks and internal spindles, an operative connection between said horizontal shafts, means for rotating said horizontal shafts, means for adjusting said internal spindles, vertical spindles mounted in bearings carried by the frame adjacent to said last mentioned vertical spindles and having their upper ends provided with hand-wheels, pinions mounted rigidly upon the other ends thereof and adapted to intermesh with a pinion mounted upon each end of said last above mentioned spindles, substantially as and for the purpose set forth. 6th. In apparatus for farm cultivation, a frame, means for propelling said frame, a series of adjustable spindles carried by said frame and adapted to carry tools to act upon the soil, means for individually and collectively adjusting said tools, with relation to the soil, and means for rotating said spindles. 7th. In apparatus for farm cultivation, a frame, means for propelling said frame, a series of rotatable spindles carried by said frame, and adapted to carry tools to act upon the soil, means for collectively adjusting said carrying spindles with relation to the soil, and means for rotating said spindles. 8th. In an apparatus for farm cultivation, a frame, means for propelling said frame, a series of rotatable spindles carried by said frame and adapted to carry tools to act upon the soil, means for individually and collectively adjusting said tool carrying spindles, with relation to the soil, and means for rotating said spindles. 9th. In apparatus for farm cultivation, a rotatable soil loosening tool consisting of a horizontal disc having downwardly projecting horizontally curved blades secured to the underside thereof and having a horizontally swinging connection therewith, and means for rotating said tool, substantially as described and for the purpose set forth. 10th. In apparatus for farm cultivation, a rotatable sail loosing and disintegrating tool consisting of a horizontal disc having downwardly projecting horizontally curved blades secured to the underside thereof and the forward ends of said blades having a horizontally swinging connection with said disc, and means for rotating said tool. 11th. In apparatus for farm cultivation, a rotatable soil loosening tool consisting of a horizontal disc, having downwardly projecting horizontally curved blades secured to the underside thereof and the forward ends of said blades having a horizontally swinging connection with said disc and said blades having diagonally arranged plates secured thereto, and means for rotating said tools substantially, as and for the the purpose set forth. 12th. In apparatus for farm cultivation, a frame, means for propelling said frame, a series of soil turning tools of double mould board form carried by said frame and adjustable to different depths with relation to the soil, and means for adjusting said tool, for the purpose set forth. 13th. In apparatus for farm cultivation, a frame of inverted U-shape, a pair of traction wheels carried at each end of said frame by the legs thereof, a series of vertical tool-carrying spindles carried intermediate of the legs of said U-shaped frame, a horizontal driving shaft carried upon and longitudinally of said frame, means for operatively connecting and disconecting said spindles and driving shaft, means for operatively connecting and disconnecting said traction wheels and driving shaft, for the purpose set forth. 14th. In apparatus for farm cultivation, a frame of inverted U-shape, a pair of traction wheels carried at each end of said frame by the legs thereof, a series of vertical tool carrying spindles carried intermediate of the legs of said U-shaped frame, a horizontal driving shaft carried upon said frame longitudinally thereof, means for operatively connecting and disconnecting said spindles and driving shaft, meaus for operatively connecting and disconnecting said traction wheels, and means for rotating said driving shaft, for the purpose set forth. 15th. In an apparatus for farm cultivation, a frame of inverted U-shape, a pair of trection wheels carried at each end of said frame by the legs thereof, a series of vertical tool-carrying spindles carried intermediate of the legs of said U-shaped frame, a horizontal driving shaft carried upon said frame and longitudinally thereof, means for operatively connecting and disconnecting said spindles and driving shaft, means for operatively connecting and disconnecting said traction wheels and driving shaft, means for reversing the direction of vertical rotation of said traction wheels, and means for rotating said driving shaft, for the purpose set forth. 16th. In apparatus for farm cultivation, a frame of inverted U-shape, a pair of traction wheels carried at each end of said frame by the legs thereof, a series of vertical tool-carrying spindles carried intermediate of the legs of said U-shaped frame, a horizontal driving shaft carried upon and longitudinally of said frame, means for operatively connecting and disconnecting said spindles and driving shaft, means for operatively connecting and disconnecting said traction wheels and driving shaft, means for horizontally adjusting said traction wheels, means for reversing the direction of vertical rotation of said traction wheels, and means for rotating said driving shaft, for the purpose set forth. 17th. In apparatus for farm cultivation, a frame, means for propelling said frame, a series of vertically adjustable tool-carrying spindles carried by said frame, a series of levers fulcrumed to the said frame and operatively connected to said spindles, a platform carried by said frame and adapted to afford a foot-board adjacent to said levers, a link having a lifting connection with each of said spindles, said spindles being free to be lifted independeutly of said link and means for raising said link, substantially as and for the purpose set forth. 18th. In apparatus for farm cultivation, a travelling frame, a series of vertical adjustable tool carrying spindles carried by said frame, a series of levers fulcrumed to the said frame and operatively connected to said spindles, a platform carried by said frame and adapted to afford a foot-board adjacent to said levers, a link having a lifting connection with such of said spindles, said spindles being free to be lifted independently of said link, and a detachable connection between said levers and said link, substantially as and for the purpose set forth.

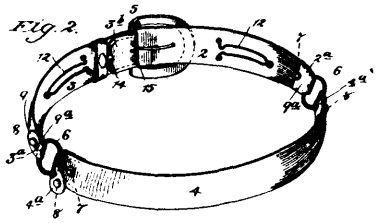
No. 62,657. Waist Belt. (*Ceinture.*)

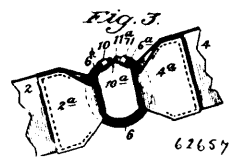
Henry Jacques Gaisman, New York City, New York, U.S.A., 16th February, 1899; 6 years. (Filed 2nd February, 1899.)

Claim.—1st. A belt composed of a plurality of strap-like parts, an elastic ring connecting the corresponding ends of adjacent parts together, and a fastener for connecting the end of the belt around a waist, substantially as described. 2nd. A belt composed of strap-like parts, elastic rings detachably connecting said strap-like parts together, and means for fastening the belt around a waist, substantially as described. 3rd. A belt composed of a plurality of strap

like parts, a ring or frame interposed between the ends of two straps, the ends of said straps having folds or bights in which the ring lies

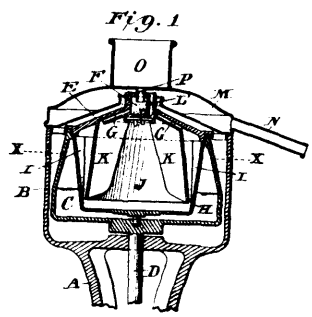


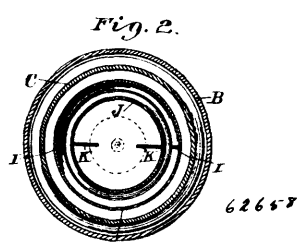




and detachable connections for connecting said ends with the body of the strap, substantially as described.

No. 62,658. Milk Clarifying Apparatus.
(*Appareil à clarifier le lait.*)

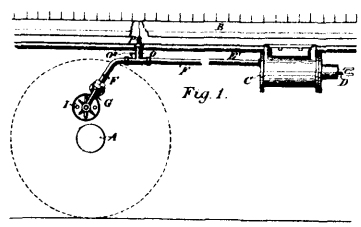


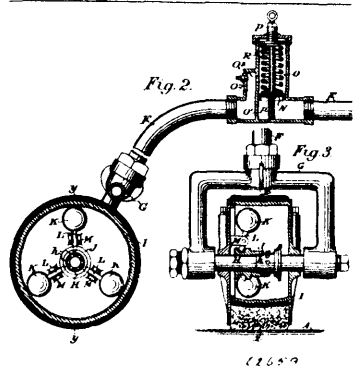


The Bergh Clarified Milk Company, Albany, assignee of Jerfferson L. Bergh, Cobleskill, both of New York, U.S.A., 16th February, 1899; 18 years. (Filed 13th December, 1898.)

Claim.—1st. The herein described process of clarifying milk consisting in first subjecting the milk within a closed vessel to a moderate centrifugal agitation sufficient to throw off the impurities but insufficient to entirely separate the milk from the cream, retaining the milk and cream together in the same vessel, and then recommingling the purified milk and cream by drawing them off together, substantially as described. 2nd. An apparatus for separating tangible impurities from milk, consisting of a revoluble shaft D, and an outer bowl C, secured to and revolving with said shaft, an intermediate bowl H, contained in said outer bowl and provided with wings I, an inverted inner bowl J, secured to a bonnet E, that forms a closure for the top of the outer bowl, a receptacle F, in the top of said bonnet, ducts G, leading from said receptacle, and a duct L^1, which forms an outlet for the commingled milk and cream, whereby the tangible impurities will be removed and the milk and cream be intimately commingled, as herein specified.

No. 62,659. Air-Brake Regulator.
(*Regulateur de frein à air.*)



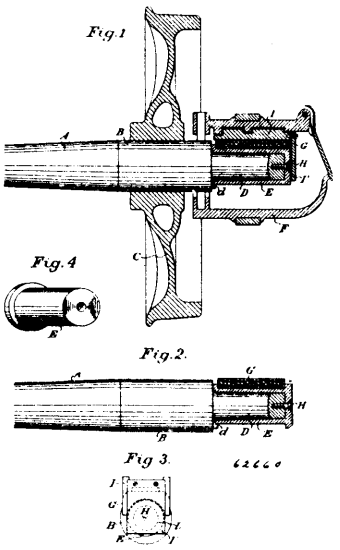


The Pacific Car Equipment Company, assignee of Alexander Carson Rumble, all of Oakland, California, U.S.A., 16th February, 1899; 6 years. (Filed 25th January, 1899.)

Claim.—1st. A regulator for air-brakes, consisting of a hollow axle having peripheral perforations, a pipe connecting said axle with the brake cylinder, a drum revolving upon the axle, a valve within the case slidable upon the axle adapted to close or open the perforations, and weights fulcrumed within the case engaging the valve, and a cylinder connecting with the first-named pipe with a piston movable therein, whereby the drum is forced into contact with the axle when the air is applied to the brake cylinder and removed therefrom when the pressure is reduced. 2nd. An air-brake regulating device, consisting of a pipe connecting with the brake cylinder, an axle supported at the outer end of the pipe, a substantially closed cylindrical drum journalled and turnable upon said axle, a valve slidable upon the axle within the drum, and ports in the axle which are opened or closed by the movements of the valve, lever arms engaging the valve and having weights at the outer end which act to close the valve when the drum is in rotation and to open it when the rotation ceases, a cylinder connected at right-angles with the pipe from the brake cylinder having a spring-pressed piston movable therein whereby the drum is normally retained out of contact with the axle and forced into contact with the axle when air is admitted to the brake cylinder to apply the brakes, and a passage controlled by said piston whereby communication is made directly between the brake cylinder and the axle ports within the drum. 3rd. An air-brake regulating device, consisting of an automatically operated valve, a passage connected with the air-brake cylinder or equivalent part receiving air under pressure when the brakes are applied, with openings which are controlled by said valve, and a device also actuated by variation of the air pressure in the brake cylinder, whereby the first-named valve is caused to operate. 4th. The combination with a substantially enclosed valve by which the air pressure in the brake cylinder is varied, and mechanism by which it is actuated, of a device also actuated by the varying pressure in the brake cylinder, whereby the actuating mechanism of the valve is controlled. 5th. The combination with an air-brake controiling mechanism of the character described, of a lifting and pressure retaining valve acting in unison therewith. 6th. An air-brake controlling mechanism, consisting of a revoluble drum with valve and actuating mechanism, a flexible support and connection with the air-brake cylinder, and a mechanism actuated by the varying pressure in the brake cylinder to move the drum into or out of contact with the car axle. 7th. In an air-brake controlling mechanism, a revoluble drum with contained valve and actuating mechanism, a flexible support therefor, and air connection with the brake cylinder, a cylinder interposed in the length of said air connection with a diaphragm which cuts off direct communication therethrough, a passage in said diaphragm out of the line of the air connection, and a spring-pressed plunger movable in the cylinder and normally closing the passage. 8th. In an air-brake controlling mechanism of the character described, an air connection between the brake cylinder and the controlling device, a cylinder interposed in the length of the air passage with a diaphragm by which direct passage of air is prevented, a plunger fitting the cylinder, a spring by which the plunger is held down in the cylinder, a passage connecting with the cylinder above the normal position of the plunger and leading to the

brake controlling mechanism, said passage being exposed and air connection established when air is admitted and the plunger forced back thereby. 9th. In an air-brake controlling mechanism of the character described, a spring-pressed plunger controlling the air connection between the brake cylinder and the brake controlling device, and movable against the pressure of the spring to open communication when air under pressure is admitted upon the opposite side, and a device whereby the tension of the spring is adjusted. 10th. In an air-brake controlling device, mechanism substantially as described, and mechanism by which it is thrown into or out of action by the application or release of the air pressure within the brake cylinder. 11th. In an air-brake controlling device, mechanism substantially as described, with means for throwing it into or out of action by the application or release of air pressure within the brake cylinder, and an automatically operating, lifting and pressure retaining valve connected therewith.

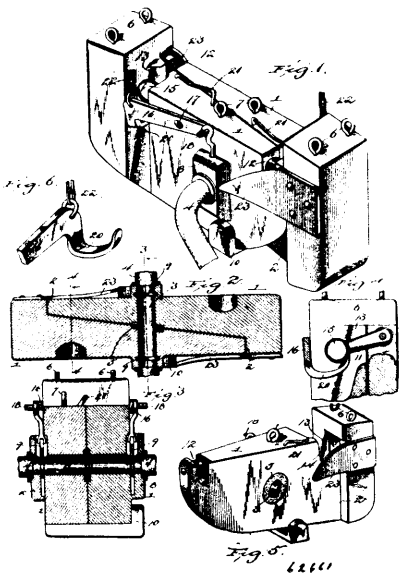
No. 62,660. Journal Box. (*Coussinet de tourillon.*)



The Pacific Car Equipment Company, assignee of Alexander Carson Rumble, all of Oakland, California, U.S.A., 16th February, 1899; 6 years. (Filed 25th January, 1899.)

Claim.—1st. Car axles having reduced ends with shoulders exterior to the enlarged portions upon which the wheels are fixed, in combination with sleeves or caps having a cylindrical exterior to fit the journal-box brasses, and an interior formation adapted to bind and be secured upon the axle ends by pressure. 2nd. Car axles having reduced ends with shoulders exterior to the enlarged portions upon which the wheels are fixed, in combination with sleeves or caps having an exterior adapted to bind and be locked by circumferential pressure upon the correspondingly shaped axle ends, cylindrical outer surfaces to fit the bearings, and flanges or collars formed on the inner ends and abutting against the axle shoulders, and flush therewith. 3rd. The combinatson with car axles having the outer ends smaller than the journal-boxes, with shoulders at the inner ends of the reduced portion, and wheels permanently fixed to the axles adjacent to said shoulders, of sleeves or caps having the interior formed to fit the axle ends and be secured thereon by circumferential pressure and to abut against the axle shoulders, and a cylindrical exterior adapted to fit the journal-boxes. 4th. Car axles having the outer ends smaller than the journal-box with shoulders and concave curved fillets at the inner ends of the reduced portion, wheels fixed to the enlarged parts of the axle adjacent to the shoulders, sleeves or caps having cylindrical exteriors to fit the journal-boxes and interiors formed to fit the axle ends, and curved fillets at the inner ends to abut and fit against the correspondingly shaped shoulders of the axle. 5th. A car axle having the ends which are coincident with the journal-boxes only, made smaller than said journal-boxes, with shoulders and curved fillets at the inner ends of the reduced portion, wheels fixed to the enlarged parts of the axle adjacent to the shoulders, in combination with sleeves or caps having the interior formed to fit the axle end, and continuing curves to fit and abut against the fillets and shoulders of the axle, a cylindrical exterior fitting the interior of the journal-boxes, and collars formed on the inner ends fitting between the inner ends of the journal-boxes and the axle shoulders. 6th. The combination in car axles of an essentially non-crystallizable body portion having a part upon which the wheels are fixed, exterior reduced ends having shoulders outside of the wheels and sleeves with hardened wearing surfaces fitted to journal-boxes, the interior of said sleeves removably fitted and secured to the reduced axle ends by circumferential pressure. 7th. A car axle with removable journal ends secured thereto by circumferential pressure, and having counter sunk centres made in the outer ends thereof. 8th. A compound car axle consisting of an iron main body with reduced shouldered ends and steel sleeves having a soft interior and a hardened exterior wearing surface and removably secured upon said ends by circumferential pressure abutting against the shoulders, having the peripheries fitted to corresponding journal-boxes and of a diameter not greater than the inner diameter of the wheels which are secured upon the axle.

No. 62,661. Air-Brake Hose Coupling.
(*Joint de frein à air.*)

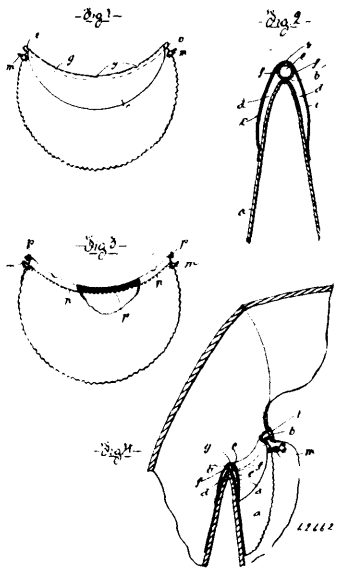


James Cadwell and Joseph S. Spangy, both of Wooddale, Pennsylvania, U.S.A., 16th February, 1899; 6 years. (Filed 25th January, 1899.)

Claim.—1st. An air-brake coupling, comprising two tapering or wedge-shaped coupler heads having registering air passages or openings and provided at the bottom with transversely disposed inwardly extending arms supporting the coupler heads and engaging the same, whereby the same heads are adapted to wedge themselves together, and means for locking the coupler heads in engagement, substantially as described. 2nd. An air-brake coupling, comprising the tapering or wedge-shaped coupler heads provided at the bottom with inwardly extending L-shaped supporting arms engaging the outer faces of the heads, and the transversely swinging links adapted to be swung into and out of engagement with the coupler heads, substantially as described. 3rd. An air-brake coupling, comprising coupler heads provided with transversely disposed links adapted to swing inward and outward and capable of locking them in engagement with each other, and the outwardly extending link guides arranged to engage the links and adapted to swing the same inward when the coupler heads come together, substantially as described. 4th. An air brake coupling, comprising tapering coupler heads having supporting arms arranged to interlock with each other, said coupler heads being provided at their inner portions with shoulders forming stops, transversely swinging links mounted on the coupler heads and adapted to engage the same when swung inward and to release the same when swung outward, and the link guide projecting from the said shoulders and having inclined edges adapted to swing the links inward, substantially as desebed. 5th. An air brake coupling comprising a coupler head having an air passage or opening and provided with a valve for closing the same, said coupler head being also provided with a recess adapted to be engaged by a link of a corresponding coupler head, and an uncoupling lever connected with the valve and arranged to extend into the said recess, whereby the link will be carried out of engagement with the same simultaneously with the closing of the valve, substantially as described. 6th. An air-brake coupling, comprising a coupler head having a recess to be engaged by a link and provided with an air passage or opening, a valve for closing the same, and a lever connected with the valve and provided with an arm extending into the said recess and adapted to lift the link out of engagement with the same, substantially as described. 7th. An air-brake coupling, comprising two coupler heads, a transversely disposed link mounted on one of the coupler heads and engaging the other, and an inclined guide arranged at the top of the same and adapted to be engaged by the link, whereby the same will be swung outward as the heads separate, substantially as described. 8th. An air brake coupling, comprising a coupler head provided at its outer side with

a recess adapted to be engaged by a transverse link, said head having an air passage, a valve for closing the latter, a lever fulcrumed between its ends and having one end connected with the valve, its other end being provided with an arm extending into the recess and adapted to lift a link out of engagement with the same, and means for operating the lever, substantially as described. 9th. An air-brake coupling, comprising a tapering or wedge-shaped coupler head having a shoulder at its inner end and provided with an air pipe, a supporting arm extending inward from the bottom of the coupler head, a link guide extending outward from the said shoulder, a swinging link disposed transversely of the head, a valve for closing the air passage or opening, and a lever connected with the valve and arranged to engage the link of a corresponding coupler head to effect the operation of the uncoupling, substantially as described.

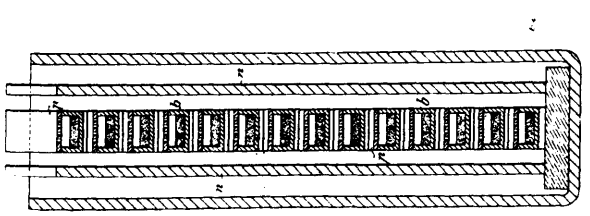
No. 62,662. Dress Shield. (*Protecteur de vêtements.*)



The Honorable Alfred A. Thibaudeau, assignee of de Lothbinière Macdonald, both of Montreal, Quebec, Canada, 16th February, 1898; 6 years. (Filed 5th October, 1898.)

Claim.—1st. A sleeve shield provided with an air passage or cushion, as and for the purpose set forth. 2nd. A sleeve shield constructed with air spaces or passages at or adjacent to its folded edge, as and for the purposes set forth. 3rd. A sleeve shield having a tubular portion at its folded edge, for the purpose set forth. 4th. A sleeve shield having a perforated tubular portion at its folded edge, for the purpose set forth. 5th. A sleeve shield having a perforated tube affording a central air space along its folded edge and flexible strips or walls extending from the tube to the sides of the shield to provide side air spaces, substantially as shown and described. 6th. A sleeve shield constructed with air spaces or passages at or adjacent to its folded edge and means of communication through the garment between said passages and the open air, substantially as described. 7th. The sleeve shield *a*, having perforated rubber tube *b* and rubber strip *c*, substantially as shown and described. 8th. A sleeve shield formed of a pair of crescent-shaped pieces of waterproof material connected together at their sides of greatest radius and having the balance of their peripheries serrated.

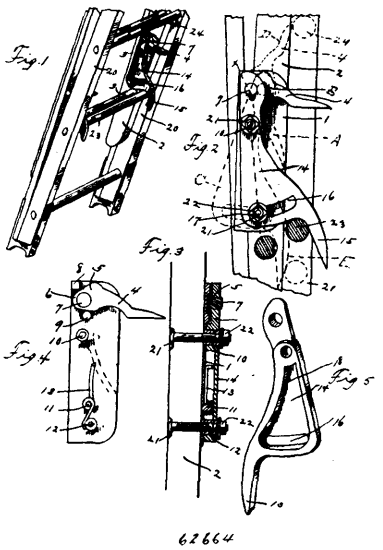
No. 62,663. Electrode for Secondary Batteries.
(*Electrode pour piles électrique.*)



Electricitäts Gesellshaft Triberg, assignee of Friedrich Whilhelm Schneider, all of Triberg, 16th February, 1899; 6 years. (Filed 9th January, 1897.)

Claim.—1st. A storage-plate consisting of tubes *a* or troughs, which are placed on top of each other in such a way that an empty space remains above the filling substance in the channels thereby formed into which the electrolyte enters through the side openings of each wall of the tubes or troughs. 2nd. A storage-plate consisting of two, in the whole or partly perforated plates a^1, connected by stays a^2, and made from insulating material, between which the metal troughs *b* are inserted, having in the inside strips or joined pieces *c* and containing the active substance, which troughs *b* serve as current-conductors. 3rd. A storage cell, the positive electrodes of which consist of tubes *a* respectively, troughs *b*, being horizontally placed one above the other, whereas the negative electrodes *n* are formed by plates or screens of any convenient construction.

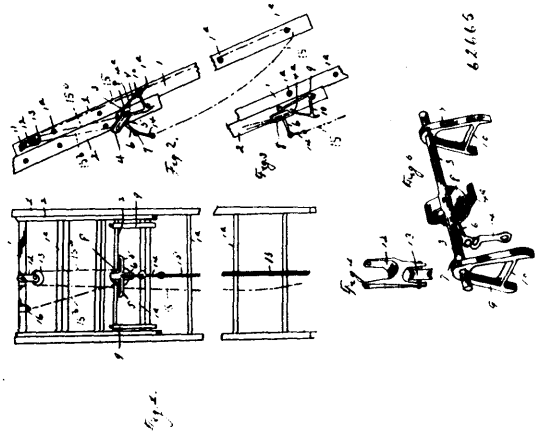
No. 62,664. Extension Ladder Lock.
(*Arrêt pour échelles à rallonge.*)



Frederic Scott Seagrave, Columbus, Ohio, U.S.A., 16th February, 1899; 6 years. (Filed 1st February, 1899.)

Claim.—In an automatic coupling or lock for extension-ladders, the combination with a base or back plate adapted to be secured to the inner side of an upper-ladder section, of a spring-actuated locking-arm fulcrumed in its upper portion to said plate, said locking-arm having a normally outwardly extending finger adapted to engage with the rung of the lower ladder section, a trip-lever having a cam-shaped head eccentrically fulcrumed to said locking-arm and lugs 8 and 9, projecting from said back plate whereby the contact of said trip-lever with the upper or lower side of a rung of the lower ladder results in the lower portion of the locking-arm being thrown inwardly in position to pass a rung, substantially as and for the porpose specified.

No. 62,665. Extension Ladder. (*Echelle à rallonge.*)



Frederic Scott Seagrave, Columbus, Ohio, U.S.A., 16th February, 1899; 6 years. (Filed 1st February, 1899.)

Claim.—1st. In a locking and hoisting apparatus for extension-ladders, the combination with the upper and lower ladder-sections

of a swinging lock-frame journalled between the side bars of one of said sections, said lock having its lower portion normally suspended out of the path of the rungs of the lower section, a pulley journalled from said lower section and a rope over said pulley, said rope having a connection with said lock whereby a downward pull on the lower portion of said rope results in a raising of one of said ladder-sections and a disengagement of the lock-arms with the rungs of the remaining section, substantially as and for the purpose specified. 2nd. In a combined hoisting and locking apparatus for extension-ladders, the combination with the ladder-sections 1 and 2, said section 2 having a sliding contact with said section 1 and a pulley journalled from the upper portion of said section 1, of a shaft journalled in said upper section, lock-arms carried on said shaft and adapted to engage two oppositely-located rungs of said sections, a pulley journalled on the rear side of said shaft and a rope connecting with the hanger of said pulley 8 at one end, said rope passing beneath the lower ladder-section, over the pulley 13 under the pulley 8 and having its upper end portion secured to the upper end of the lower ladder-section, substantially as and for the purpose specified. 3rd. In a combined hoisting and locking apparatus for extension-ladders, the combination with the ladder-sections 1 and 2, of a cross-piece in the upper portion of said section 1, a pulley-hanger depending therefrom, said pulley-hanger having its lower pulley-carrying portion turned at an angle with its upper attaching portion, a swinging lock journalled between the sides of said section 2, a pulley 8 journalled on said lock frame and a rope connected at one end with the hanger of said pulley 8, said rope extending downward and thence upward on the outer sides of the rungs of the lower ladder and passing over the pulley of the hanger 12 and thence beneath the pulley 8 and up to said cross-bar 11, substantially as and for the purpose specified.

No. 62,666. Spanner, (*Clef à vis.*)

FIG. 1.

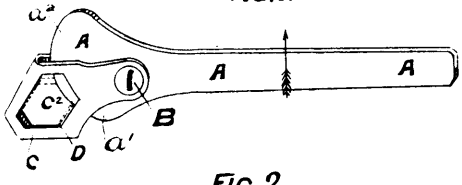


FIG. 2.

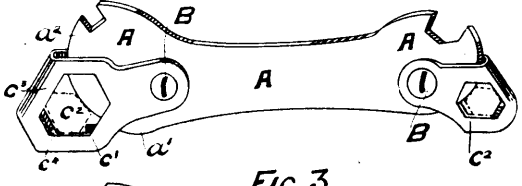
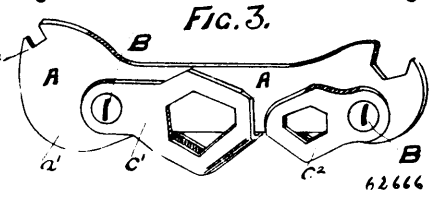


FIG. 3.



62666

John Edward Meredith, Woodcock Street, Birmingham, Warwick, England, 16th February, 1899; 6 years. (Filed 23rd November, 1898.)

Claim.—1st. In adjustable spanners the curve-shaped lever A, in combination with the loop or plate C pivoted thereon eccentrically to the curve, substantially as and for the purpose herein set forth and illustrated. 2nd. In adjustable spanners the curve-shaped lever A, in combination with double arms D^1, D^{11} pivoted thereon and having the outer fastening E, substantially as and for the purpose herein set forth and illustrated.

No. 62,667. Ore Crushing Apparatus.

(*Appareil à broyer le minerai.*)

John Colquhoun-Thomson, Walhalla, Victoria, Australia, 16th February, 1899; 6 years. (Filed 18th July, 1898.)

Claim.—1st. In an apparatus for the purpose specified, a rotational drum provided with an internal wearing surface, a solid back end, a grating discharge front and a feed pipe which enters through flanges at centre of grating in combination with a series of crushing rolls arranged within the drum on a suitable carrier which is rotated at a higher velocity than and in a direction reverse to said drum and said rolls being supported in such a manner that they are projected outwards by centrifugal force during their rotation, substantially as described and as shown in the drawings. 2nd. In an apparatus for the purpose specified, a series of crushing rolls as J arranged within a drum as A, the journals J^1 of said rolls being supported in the open ended bearings I^4 fitted in the carrier-pieces I and I^3 which are secured together by distance stays or bolts I^2, said carrier-piece I having a boss I^1 on it which is keyed on shaft B, all substantially as described and as shown in the drawings. 3rd. In an apparatus for the purpose specified, a rotational drum, as A, having wearing liners, as A^3, a grating discharge, as F, a feed pipe, as H, and a lip discharge, as G, said drum being mounted on a shaft, as B, and rollers, as C, combined with a series of crushing rolls, as J, carried in bearings on an annular carrier-piece, as I, I^1, I^2 and I^3, which is mounted on shaft B, and with a feed apparatus consisting of a casing having a revolving bucket-piece, as H^3, in it, which is rotated by the ratchet gear comprised of parts marked H^6 to H^8, and H^{10}, and *h* and h^1, operated by a pin, as H^9, on the drum A, substantially as described and as shown in the drawings. 4th. An apparatus for the purpose specified consisting of a rotational drum, as A, having a feed pipe, as H, leading to it a series of internal crushing rolls, as J, so assembled as that they are capable of being carried around at a greater velocity than the drum and so that the rolls may be projected outwards to upon the internal surface of drum, said drum having a current of air passed through it from a fan or air blower such as K, the crushed ores or materials being discharged through a grating forming the front of drum and projected over a classifier, as L, L^1, having adjustable sides, as L^2, substantially as described and as shown in the drawings.

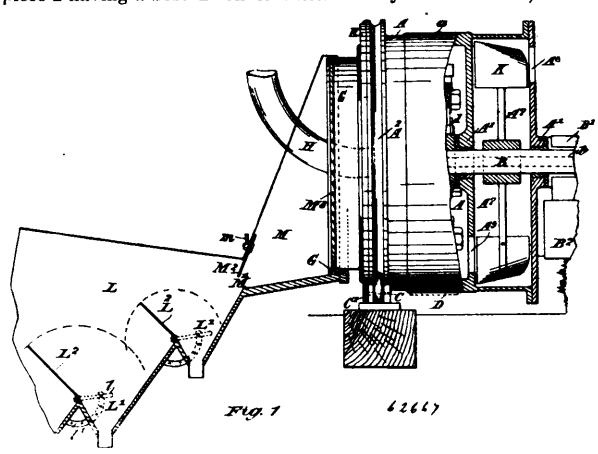


FIG. 1 62667

No. 62,668. Wrench. (*Clé à écrou.*)

Fig 1

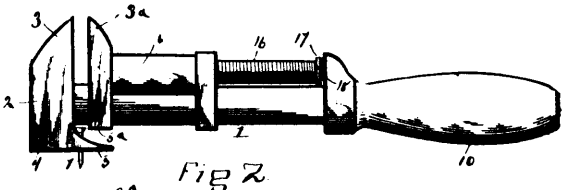


Fig 2

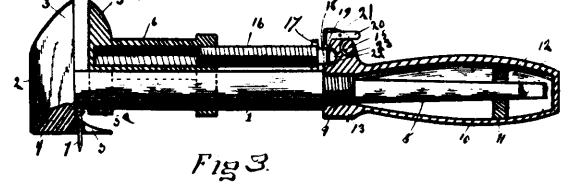
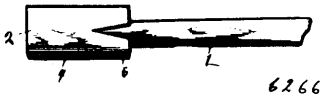


Fig 3.

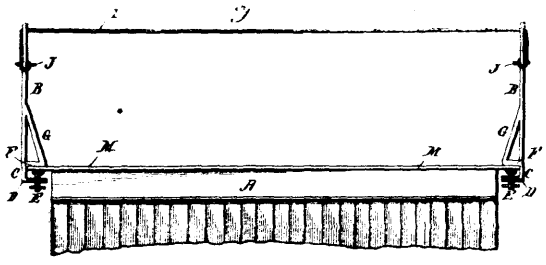


62668

Ole Evans, Kerkhoven, Minnesota, U.S.A., 16th February, 1899; 6 years. (Filed 1st February, 1899.)

Claim.—In combination tools, the combination of a wrench having a shank provided at one end with a fixed jaw and at the opposite end thereof with a screw-driver extension and a threaded boss at the inner end of the screw-driver, a sliding jaw movable on said shank, an adjusting screw having one end operating in a threaded opening in said sliding jaw and the opposite end thereof reduced and formed with a circumferential groove, and a removable handle designed to inclose the said screw-driver and formed with a threaded opening to engage the threaded boss thereon and a socket for the reception of the said reduced end of the adjusting-screw, and provided with a pin or fastening device connected with the handle and projecting into the groove in the reduced end of the adjusting-screw, substantially as described.

No. 62,669. Freight Car Guard.
(*Garde pour chars à marchandises.*)



62669

Paul Robins Tretheway, Muskoka Falls, Ontario, Canada, 16th February, 1899; 6 years. (Filed 1st February, 1899.)

Claim.—1st. A detachable guard for freight cars, consisting of standards, means for detachably securing the standards to the cars, and ropes or chains connected to them, substantially as shown. 2nd. A detachable guard for cars, the standards B provided with the inwardly turned ends D, projections F, and braces G, combined with the screw clamps E, the ropes or chains that pass through the upper ends of the standards, and the pins or cleats to which the ends of the ropes or chains are fastened, and by means of which they may be tightened, substantially as described.

No. 62,670. Baking Pan Device. (*Appareil de tourtière.*)

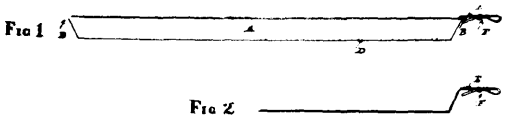


FIG 1

FIG 2

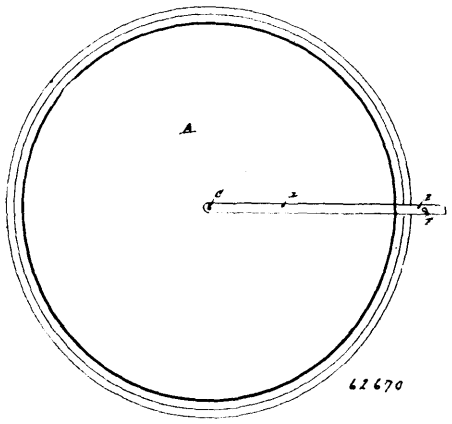


FIG 3

62670

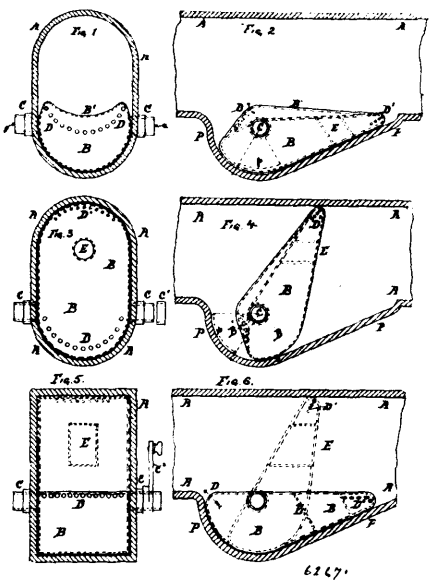
William Edwards, Detroit, Michigan, U.S.A., 16th February, 1899; 6 years. (Filed 1st February, 1899.)

Claim.—The combination of the knife or cutter D, with the cake tin A, substantially as and for the purpose hereinbefore set forth.

No. 62,671. Smoke Preventing Apparatus.
(*Appareil pour empecher la fumée.*)

Robert Henry Burns, New York City, New York, U.S.A., 16th February, 1899; 6 years. (Filed 31st January, 1899.)

Claim.—1st. In combination with a furnace or chimney flue, an inclosed chamber, the periphery of which is made to conform to the inner surface of said flue and make closed contact therewith, tubular inlet trunnions upon which said chamber revolves, and exit holes or perforations, as and for the purposes set forth. 2nd. In combination with a furnace or chimney flue, an inclosed revolving chamber adapted in shape to permit of a complete opening and closing of the flue, tubular trunnions upon which it revolves, exit holes or perforations in the walls of said chamber, and a ventilating passage through said chamber, substantially as and for the purpose set forth. 3rd. In combination with a furnace or chimney flue, and inclosed chamber, the periphery of which is made to conform to and make closed contact with the inner surface of said flue, tubular inlet trunnions upon which said chamber revolves, and exit holes or perforations located at the furnace end of said chamber, as and for the purposes set forth. 4th. In combination with a furnace or chimney flue an inclosed chamber, the periphery of which is made to conform to and make closed contact with the inner surface of said flue, tubular inlet trunnions upon which said chamber revolves, exit holes or per-



62671

forations in the walls of said chamber, a vent or passage through said chamber, and a pocket into which said chamber may revolve, as and for the purpose set forth.

No. 62,672. Door Closer. (*Fermeture de porte.*)

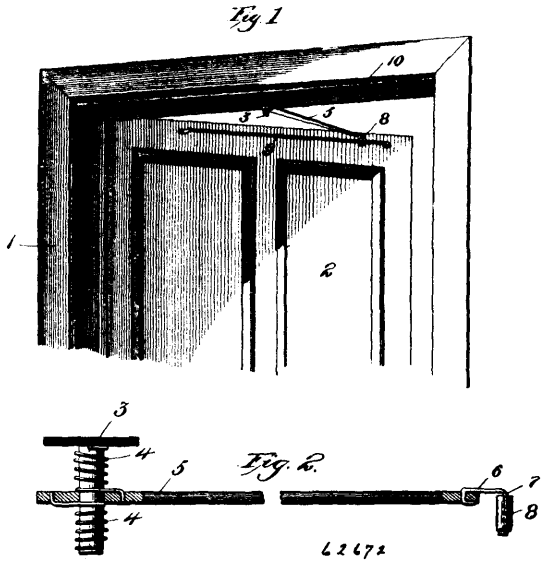


FIG 1

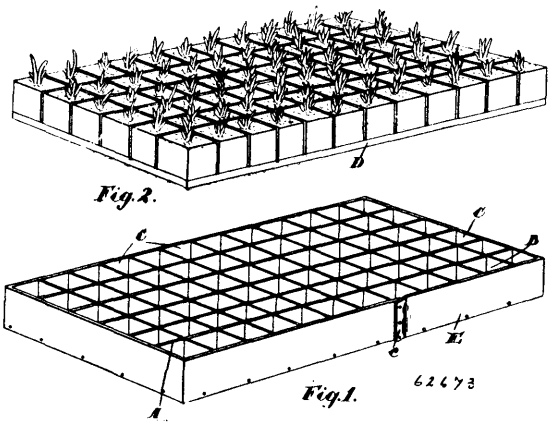
FIG 2

62672

Birdsill Gaspard Bishop, Wolfville, Nova Scotia, Canada, 16th February, 1899; 6 years. (Filed 31st January, 1899.)

Claim.—1st. A door closer comprising a support, an arm pivotally mounted thereon, springs connected to said standard and having an operative connection with said arm, said springs tending to move the arm in one direction, a roller mounted at the opposite end of said arm, a retaining bar secured to the door, whereby a movement of said door will cause said arm to move in one direction, said arm being automatically returned to its normal position by the action of said spring, substantially as described. 2nd. The combination with a door and its casing, of a standard secured on said casing, springs secured on standard, an arm pivotally mounted on said standard, said arm having an operative connection with said springs, said springs tending to normally move said arm in one direction, a roller pivotally mounted at the outer end of said arm, a retaining bar secured on the door, and a hook secured to said casing, said hook being adapted to retain said arm when said arm is out of engagement with said retaining rod.

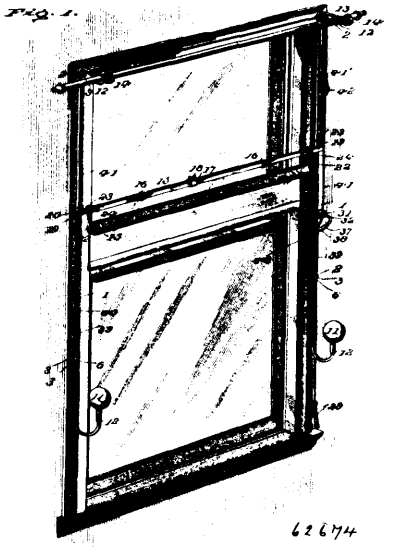
No. 62,673. Plant Box. (*Boite pour plantes.*)



Arthur Henry Ewing and Harry McNaughton, both of Berlin, Ontario, Canada, 16th February, 1899; 6 years. (Filed 30th January, 1899.)

Claim.—As a new article of manufacture, the board D having holes therein, the divisional strips A and B having the notches *a* and *b* respectively designed to straddle each other and form boxes for the reception of earth for the seedlings and rooted cuttings and the encompassing band secured to the board around its edge and holding the divisional strips in place, as and for the purpose specified.

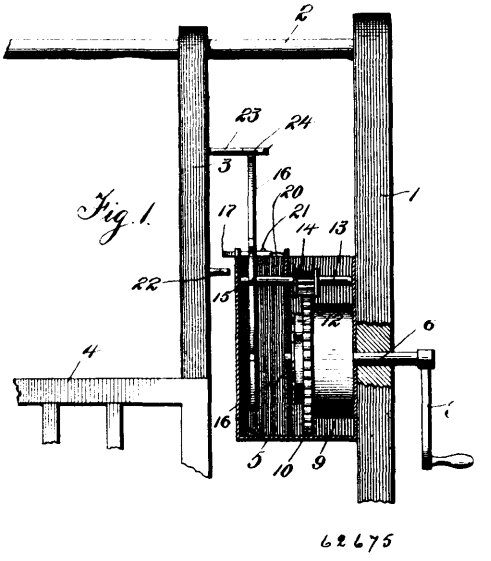
No. 62,674. Shade and Curtain Support.
(*Support d'abat-jour et rideau.*)



Charles S. Myers, Columbus, Ohio, U.S.A., 16th Februry, 1899; 6 years. (Filed 30th January, 1899.)

Claim.—1st. In a curtain fixture, the rods fixed to the window casings and bent at their upper ends to hold a curtain pole and at their lower ends to hold the free ends of the curtains, a curtain pole supported by said bent rods, and devices movably connected to said rods for supporting a shade-support, substantially as described. 2nd. In an adjustable shade and curtain pole supporting fixture, curtain pole supporting rods having angular portions in combination with separate detachable housings having each a vertical slot to receive an angular part of said rod and having a plate to close the slot, an adjustable shade holder, and brackets attached to the ends of said shade holder and having holes to receive said rods whereby the brackets are guided, substantially as described. 3rd. The pulleys having supporting brackets fixed to the window casings, the shade holder supporting cords, the shade holder comprising the lengthwise adjustable bars each having a cord-receiving bracket, the hangers adjustable on the shade holder to receive a shade roller, and the shade holder guiding rods, substantially as described. 4th. The curtain pole supporting rods, the pulleys fixed to the casing, the cord, the shade holder comprising the lengthwise adjustable bars, the adjustable hangers having their lower ends provided with bearings to receive the shade-roller journals, and cord-receiving brackets fixed to the rear side of the bars and loosely embracing the rods, substantially as described. 5th. The combination of a shade-holder, mechanism comprising pulleys and a cord for movably suspending the shade-holder, a fixed device comprising eccentrically pivoted discs, one of said discs having an arm loosely connected to the cord depending between the discs and pivoted to normally move by gravity to a cord-clamping position, said discs being rendered inoperative by pulling the cord in a straight line from its pulley support, the arm being held against the normal action of gravity by the cord held in such straight line, substantially as described. 6th. The combination of a shade-holder, mechanism comprising pulleys and a cord for movably suspending the shade-holder, a fixed device comprising discs, one of said discs having an arm loosely connected to the cord depending between the discs, and pivoted to normally move by gravity to a cord clamping position, said discs being adapted to be rendered inoperative by pulling the cord, and a weight attached to the cord above the clamp, substantially as described. 7th. In a cord gripping device, the gripping discs, the disc supporting plates, fixed to the casing and to each other and having a continuous straight passage between them and between the proximate edges of the clamping discs, said discs being eccentrically pivoted to freely take a cord clamping position by the action of gravity, a cord passing between the gripping edges of the discs, and an arm attached to one of said discs and loosely connected to the cord, all substantially as set forth, whereby the gravity of the discs may be overcome to release said cord. 8th. In combination, a shade-holder and shade, mechanism comprising pulleys and a cord for movably suspending the holder, an automatically acting clamp to directly hold the cord and immediately hold the shade, and a weight less than a counterbalance for the shade-holder and shade, said weight being attached to the cord above the clamp, substantially as described. 9th. In a cord gripping device, a pair of supporting plates, one of said plates having a bent portion 35, to constitute a stop, the discs pivoted eccentrically between the plates, one of the discs having a straight edge 36, to engage the stop and one having an arm loosely connected to a cord passing between the discs, said discs having proximate faces to bear oppositely on the cord and positively hold it, substantially as described.

No. 62,675. Cradle. (*Berceau.*)



Lewyn Frank Cutten, Boissevain, Manitoba, 16th February 1899; 6 years. (Filed 27th January, 1899.)

Claim.—1st. A self rocking cradle, comprising a frame, a cradle mounted to have an oscillatory movement on said frame, and means, operated by the movement of the cradle, for automatically imparting a movement to said cradle in one direction, substantially as described. 2nd. A self rocking cradle, comprising a frame, a cradle mounted to have an oscillatory movement on said frame, a disc, having a series of radially extending arms rotatively mounted on said frame, means for imparting a movement to said disc in one direction, a stop normally resting in the path of movement of said arms, and means, actuated by the movement of said cradle in one direction, for moving said stop out of the path of movement of said arms, whereby said cradle will be moved in one direction, and means for automatically returning said stop to its normal position, whereby said disc will receive an intermittent rotatory movement, substantially as described.

No. 62,676. Opera Chair. (*Fauteuil d'opéra.*)

Fig. 1.

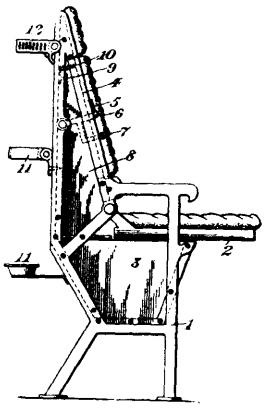
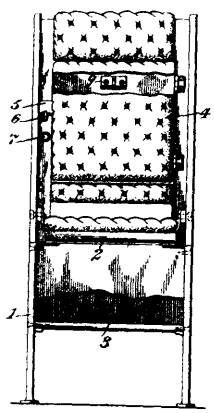


Fig. 2.



62676

Thomas Stewart Wells, Hartford, Connecticut, U.S.A., 16th February, 1899 ; 6 years. (Filed 27th January, 1899.)

Claim.—A chair comprising a frame consisting of two side pieces, a seat between said side pieces, a receptacle below said seat, said receptacle having and open upper end which is closed by said seat when the latter is in a horizontal position and open when said seat is raised, a receptacle in the back of said chair, the back piece of the chair hinged at one side and having a latch at its other side and serving to close the receptacle in the back of the chair, a catch on the chair to engage said latch and provided with a finger-button by means of which it can be operated, and a spring for opening said back.

No. 62,677. Lantern and Lamp. (*Lanterne et lampe.*)

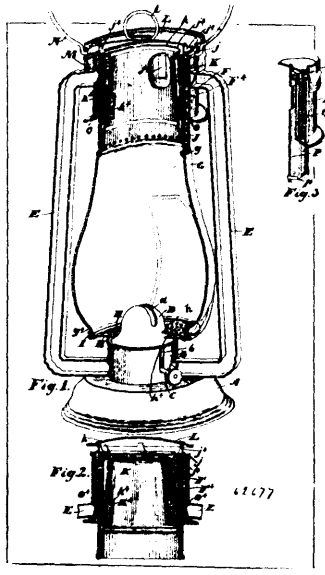


Fig. 3.

Fig. 1.

Fig. 2.

62677

John Henry Stone, Toronto, Ontario, Canada, 16th February, 1899 ; 6 years. (Filed 11th October, 1898.)

Claim.—1st. In a tubular lantern, the combination with the base or bowl, the collar, the burner provided with a suitable cap and fitting within such collar, of the globe and the bottom support therefor comprising a suitable ring flange and the concavo convex perforated plates arranged with their concave surfaces adjacent to each other on the inside and the undermost plate provided with larger perforations than the uppermost as and for the purpose specified. 2nd. In a tubular lantern the combination with the base or bowl, the collar, the burner the globe supported on the burner and the side air tubes connected to collar and leading to the burner, of the upper outer jacket to which the upper ends of the side air tubes are connected, the upper globe holder provided with the top openings and forming an annular air space between it and the jacket, the inner casing provided with the lower openings and suitably supported on the globe holder so as to leave an annular air space closed at the top and the cap located and leaving an annular air space above the closed top of the lower air chambers, as and for the purpose specified. 3rd. In a tubular lantern the combination with the base or bowl, the collar, the burner, the globe supported on the burner and the side air tubes connected to the collar and leading to the burner, of the upper outer jacket to which the upper ends of the side air tubes are connected, the upper globe holder provided with the top openings and forming an annular air space between it and the jacket, the inner casing provided with the lower openings and suitably supported on the globe holder so as to leave an annular air space closed at the top, the cap located and leaving an annular air space above the closed top of the lower air chambers and the bottom inclined projecting flanges connected to the bottom edge of the jacket and extending upwardly into proximity with the globe holder, as and for the purpose specified. 4th. In a tubular lantern the combination with the base or bowl, the collar, the burner, the globe supported on the burner and the side air tubes connected to the collar and leading to the burner, of the upper outer jacket to which the upper ends of the side air tubes are connected, the upper globe holder provided with the top openings and forming an annular air space between it and the jacket, the inner casing provided with the lower openings and suitably supported on the globe holder so as to leave an annular space above the closed top, the cap located and leaving an annular air space above the closed top of the lower air chamber, and the vertically disposed collar surrounding the space between the top plate of the chambers and the cap, as and for the purpose specified. 5th. In a tubular lantern, the combination with the jacket and tubes leading thereto, and the globe holder, of the bottom inclined projecting flange connected to the bottom edge of the jacket and extending upwardly past the level of the tubes into proximity with the globe holder and leaving a space between it and the tubes, as and for the purpose specified. 6th. In a tubular lantern, the combination with the upper globe holder, the jacket and the inner casing forming two annular chambers closed at the top and the cap located above the same, of the vertically disposed collar surrounding the space between the top plates of the chamber and the cap, as and for the purpose specified. 7th. In combination the base, the burner, the globe supported on the burner, the side tubes, the outer jacket provided with an annular ring at the top, the upper globe holder and the rod P connected at the bottom to the globe support and at the top connected to the jacket and a spiral spring surrounding the rod and located between the ring and bottom flange of the jacket, as and for the purpose specified. 8th. In a lantern or lamp, the burner comprising the bowl portion having the central diaphragm and perforated upper end and the wick tube extending through the diaphragm and the cap surmounting the bowl portion and the concavo-convex plates slotted to fit over the wick tube and having the concave portions adjacent the lower plate being provided with the major perforations and the upper with the minor perforations, as and for the purpose specified. 9th. The combination with the bowl portion and collar surrounding the same and having a depending circumferential flange, of the cap also having a depending flange fitting within the collar, as and for the purpose specified. 10th. The combination with the bowl portion and collar surrounding the same and having a depending circumferential flange, of the cap also having a depending flange fitting within the collar and the vertical projection on the flange fitting into a slot in the collar, as and for the purpose specified. 11th. The combination with the upper globe support and the jacket, of the rods connected at the bottom to the globe holder and at the top to the jacket and forming a guide to retain the globe holder in position as and for the purpose specified. 12th. The combination with the burner having a suitable bowl portion, of the collar to which the tubes are connected at the bottom, such collar extending upwardly and surrounding the full depth of the body of the burner and a suitable cone or cap interposed between the collar and the body of the burner, as and for the purpose specified. 13th. The combination with the upper globe holder adjustably held so as to release the globe, of the inner casing attached to or forming part of the globe holder and forming an annular space within the same, as and for the purpose specified.

No. 62,678. Electric Railway Rail Bond.

(*Assemblage de rails de chemin électrique.*)

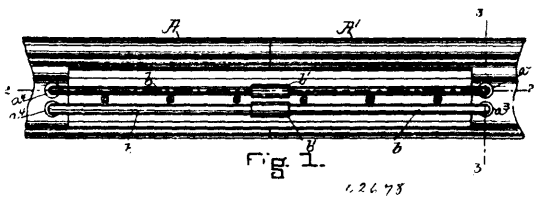


Fig. 1.

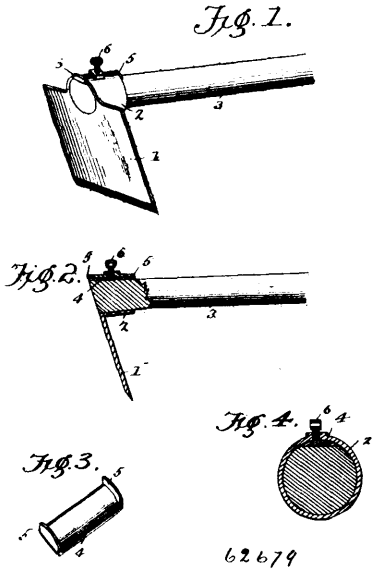
62678

Robert Calthrop Brown, Somerville, Massachusetts, U.S.A., 17th February, 1899 ; 6 years. (Filed 2nd April, 1896.)

Claim.—1st. The combination with the rails of an electric railway, of a rail bond comprising a hollow plug inserted through each of the rails to be connected, and a tie wire extended through said hollow plugs and joined together at its ends, substantially as described. 2nd. The combination with the rails of an electric railway, of a

rail bond comprising hollow tapering plugs inserted through the rails to be connected, a tie wire extended through said hollow plugs and soldered thereto, and a sleeve or tube into which the ends of the tie wire are inserted and soldered thereto, substantially as described.

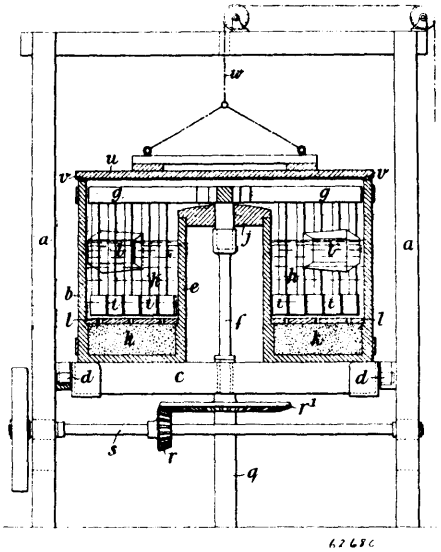
No. 62,679. Hoe. (*Houe.*)



Edwin Osbern Norwood, Macune, Texas, U.S.A., 17th February, 1899) 6 years. (Filed 3rd February, 1899.)

Claim.—The combination of a tool blade having an open-ended eye, extending rearwardly from the plane of the blade, and interiorly tapered toward its rear end, a handle tapered toward its grip end and removably fitted in said eye, the upper side of the handle, within the eye, being flattened, a follower or clamp-plate seated within the eye upon said flattened portion of the handle, said follower exceeding the eye in length and having upturned extremities arranged in contact with the opposite ends of the eye to prevent endwise displacement and allow adjustment of the follower toward and from the plane of the handle, to take up looseness of the latter in the eye, and a set-screw threaded in a socket in the upper side of the eye and impinging terminally upon the follower at an intermediate point, to maintain it in frictional contact with the handle, substantially as specified.

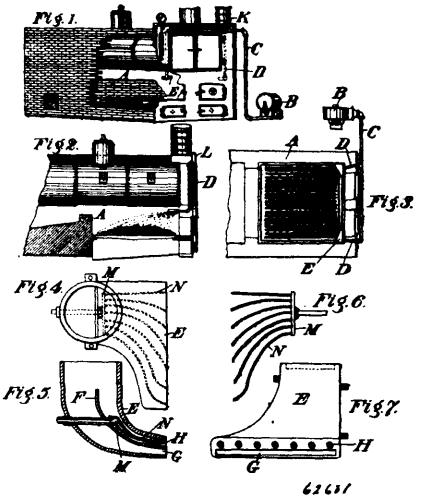
No. 62,680. Apparatus for Treating Metallic Ores.
(*Appareil pour le traitement de minerais métalliques.*)



Frederick Augustus Edwardes, London, England, 17th February, 1899; 6 years. (Filed 6th July, 1898.)

Claim.—1st. In apparatus for use in the treatment of metallic ores the combination with a vat for containing the ores to be treated and a stirrer moving in the said vat, of skimmers and for moving the said skimmers so that they will collect the solid materials rising to the surface of the liquid in the vat, substantially as described. 2nd. In apparatus for the treatment of metallic ores the combination with a vat having a stirrer and a skimmer working in the said vat, of a cover for hermetically closing the said vat, substantially as described. 3rd. In apparatus for the treatment of metallic ores, the combination of a vat having an annular space within it, a stirrer travelling round in the said annular space and a skimmer or skimmers attached to the said stirrer and moving therewith, substantially as described. 4th. In apparatus for use in the treatment of metallic ores the combination with an annular vat having a stirrer moving therein and skimmers attached to and moving with the said stirrer, of means for tipping the said vat for discharging the contents, substantially as described.

No. 62,681. Smoke Consumer. (*Fumivore.*)



John MacNaull Wilson, New York City, New York, U.S.A., 17th February, 1899; 6 years. (Filed 26th January, 1899.)

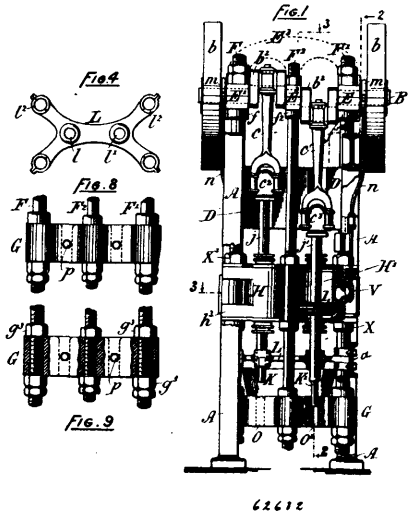
Claim.—1st. The method of preventing smoke from furnaces, which consists in introducing into the fire box above the fire box above the fire and so as to combine with the unconsumed products of combustion therein, a chemical re-agent which yields gases which are supporters of combustion, and air, as set forth. 2nd. The method of preventing smoke from furnaces, which consists in introducing into the fire box above the fire and so as to combine with the unconsumed products of combustion therein, a chemical re-agent in a finely divided condition, which yields gases which are supporters of combustion, and air, as set forth. 3rd. The method of preventing smoke from furnaces, which consists in introducing into the fire box above the fire and so as to combine with the unconsumed products of combustion therein, a chemical re-agent in the form of spray, which yields gases which are supporters of combustion, and air, as set forth. 4th. The method of preventing smoke from furnaces, which consists in introducing into the fire box above the fire and so as to combine with the unconsumed products of combustion therein, a solution of a chemical re-agent which yields gases which are supporters of combustion, and spraying said re-agent by a jet or blast of air within the fire box, as set forth. 5th. The method of preventing smoke from furnaces, which consists in distributing in the fire box above the fire and so as to combine with the unconsumed products of combustion therein, a finely divided chemical re-agent which yields gases which are supporters of combustion, by a jet or blast of hot air, as set forth. 6th. The method of preventing smoke from furnaces, which consists in introducing together into the fire box above the fire and so as to combine with the unconsumed products of combustion therein, a chemical re-agent which yields gases which are supporters of combustion and hot air, as set forth. 7th. The spraying nozzle herein described having the two compartments, the upper compartment opening into the furnace through a series of orifices in which the solution pipes terminate, as set forth. 8th. the spraying nozzle herein described having a wide orifice for the passage of air into the furnace and a series of orifices above the same in which terminate pipes conveying a solution from a suitable reservoir.

No. 62,682. Press. (*Presse.*)

Archibald Anderson Dickson, Toronto, Ontario, Canada, 17th February, 1899; 6 years. (Filed 1st February, 1899.)

Claim.—1st. In a press, the combination with a main frame for carrying the dead weight and staying the parts, of a main shaft having a crank and fly wheel, journals and bearings therefor independent of the main frame, a connecting rod and cross head in operative connection with the crank, a steam cylinder having its piston rod

projecting therefrom at both ends, one end of said piston rod being connected to the cross head, and the other end of said piston rod left



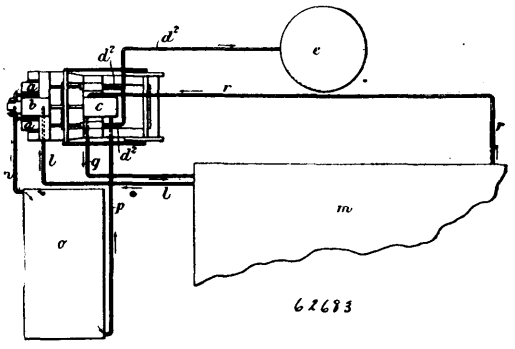
free to act as a former or male die, a die block having a forming tube or female die therein, and tie rods connecting the crank shaft bearings and the die block in such manner that each may afford support to the other in the line of working strain, substantially as and for the purpose set forth. 2nd. In a press, the combination with a main frame for carrying the dead weight and staying the parts, of a crank shaft provided with two cranks, journals and bearings therefor independent of the main frame, connecting rods and cross heads in operative connection with said cranks, guides for said cross heads, steam cylinders having their piston rods projecting therefrom at both ends, said piston rods forming connection with the cross heads at one end and terminating in formers or male dies at the other end, a die block having forming tubes or female dies therein, and tie rods connecting the crank shaft bearings and the die block so that each may afford support to the other in the line of working strain, said tie rods also intermediately supporting the steam cylinders and cross head guides, substantially as and for the purpose set forth. 3rd. In a press adapted to form a succession of blocks against a yielding resistance, the combination with a suitably journalled main shaft and means for imparting motion and power thereto, of formers or male dies in operative connection with said main shaft, a die block having forming tubes or female dies therein registering with said formers or male dies, tie rods between the main shaft journals and the die block arranged so that each shall support the other in the line of working strain, and means whereby the length of stroke between the male and female die members may be regulated, substantially as and for the purpose set forth. 4th. The combination with the formers or male dies, of the die block having forming tubes or female dies and an internal water channel in the body of the die block in close proximity to the forming tubes or female dies, and inlet and outlet connections therefor, substantially as and for the purpose specified. 5th. The combination of the die block G having female dies O, O^1, and water channel W therein, pipe connections therefor, the supporting frame L having flange l, and adjusting screws p, substantially as and for the purpose set forth. 6th. The combination with a piston rod having the collar *j* of the piston composed of the two pieces *h*, h^1, recessed at the centre to receive said collar, and the retaining bolts h^2, substantially as and for the purpose set forth. 7th. In combination with the forming tubes or female dies in the die block, the formers or male dies in connection with the free ends of the piston rod of the steam cylinders, for the purpose set forth. 8th. The formers or male dies at the free ends of the piston rods having interchangeable hardened tips, substantially as and for the purpose set forth.

No. 62,683. Refrigerating Machine. (*Machine réfrigerante.*)

Daniel McGill, Hull Road, Petone, Wellington, New Zealand, and Frederick William Tannett Walker, Huntstel, Leeds, England, 16th February, 1899; 6 years. (Filed 31st January, 1899.)

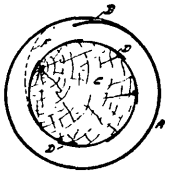
Claim.—1st. The combination of single acting compression, expansion and power cylinders with means for storing power, the arrangement being such that gas is compressed in the compression cylinder during the return stroke of the power cylinder by means of the expansion of gas in the expansion cylinder aided by the stored power. 2nd. In apparatus such as is referred to in claim 1, employing for the storage of power a hydraulic cylinder or cylinders in constant communication with an accumulator. 3rd. The combination of single acting compression and expansion cylinders, a single acting power cylinder or cylinders at the side of the compression cylinder, a hydraulic cylinder or cylinders in constant communication with an accumulator at the side of the expansion cylinder and a cross head between the com-

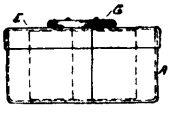
FIG 1.



pression and expansion cylinders to which the piston rods of all the cylinders are fixed. 4th. The combination with the subject matter of the preceding claims of valves in the pistons or cylinder ends or both of them. 5th. A single acting compression cylinder having its valves in its piston and end. 6th. A single acting expansion cylinder having its valves in its piston and end. 7th. In apparatus such as is referred to in the three preceding claims operating the valves in the piston from the connecting rod. 8th. Jacketting the expansion cylinder with the incoming compressed and cooled air. 9th. Jacketting the expansion cylinder with air from the cold storage chamber. 10th. Admitting moderately cold air into the expansion cylinder towards the end of its expansion stroke. 11th. Mixing at or near the expansion cylinder the expanded and extremely cold air with moderately cold air.

No. 62,684. Ticket Holder. (*Porte-billet.*)





Frank M. Simpson, Montreal, Quebec, Canada, 17th February, 1899; 6 years. (Filed 10th November, 1898.)

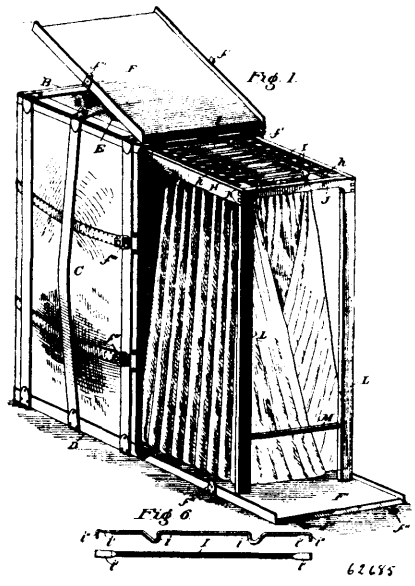
Claim.—1st. A rotary carrier having on its circumference separate pockets for each ticket, substantially as described. 2nd. The opening in the casing described situated in such relation to the rotary pockets that on these pockets being turned around the tickets are fed through said opening one at a time.

No. 62,685. Trunk. (*Coffre.*)

Seymour Wentworth Bonsall, New York City, New York, U.S.A., 17th February, 1899; 6 years. (Filed 9th May, 1898.)

Claim.—1st. In a trunk, a flat top, a flat bottom, one flat end, one rounded end and two rounded sides, substantially as described. 2nd. In a trunk, a flat top and bottom, one flat end, one rounded end and two rounded sides, in combination with a sliding hanger and devices adapted to suspend garments between said hanger and said flat end. 3rd. In a trunk, a slide adapted to move forward when the trunk is on one end, a prop at the forward end of said slide, and a cover flap hinged to said trunk at one end and adapted when open to afford a bearing for the lower extremity of said prop. 4th. In a wardrobe trunk, a sliding rack, a support for the same and rollers on said rack and support adapted to come in contact and thus limit outward movement of said rack. 5th. A hanger frame adapted to slide back and forth, said hanger frame comprising

bearing sides and intermediate supporting bars, in combination with hangers adapted to slide on said supporting bars. 6th. A



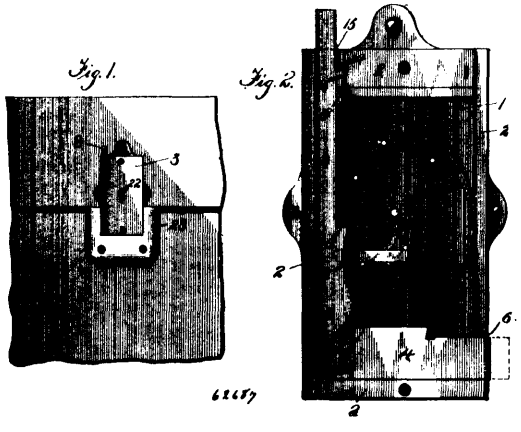
hanger frame adapted to slide back and forth, said hanger frame comprising bearing sides and intermediate supporting bars, in combination with hangers adapted to slide on said supporting bars and a prop for said frame attached to its outer end.

No. 62,686. Fluid Purification. (*Purification de fluides.*)

Emile Arthurstien, Brussels, Belgium, 17th February, 1899; 6 years. (Filed 14th June, 1898.)

Claim.—The use of oxygen compounds of chlorine, obtained by the decomposition of chlorates and especially peroxide of chlorine for the sterilization and purification of drinking water and beverages also of waste waters and like, and for the sterilization of various alimentary substances.

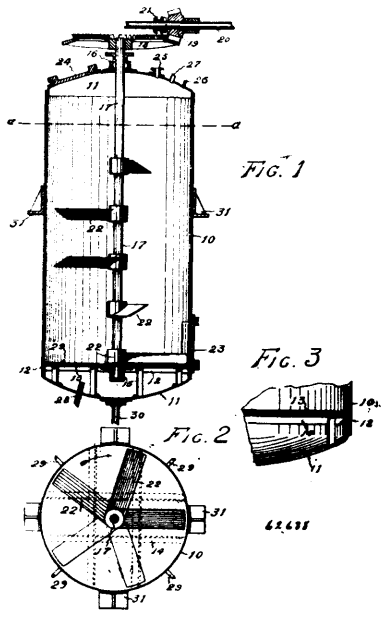
No. 62,687. Lock. (*Serrure.*)



Francis Gallant, Tignish, Prince Edward Island, Canada, 17th February, 1899; 6 years. (Filed 2nd February, 1899.)

Claim.—1st. A lock, comprising a locking bolt normally held in unlocked position, means independent of a key for moving said bolt to its locked position, and a key for releasing said locking means, whereby said bolt will be returned to its unlocked position, substantially as described. 2nd. A lock, comprising a locking bolt normally held in unlocked position, and means, independent of a key, for moving said bolt to its locking position, said means being released only by the insertion of a key, substantially as described. 3rd. A lock, comprising a locking bolt, normally held in unlocked position, a locking lever, mounted to move said locking bolt, said lever being normally in inoperative position and movable into operative position solely by the application of pressure from without, means for locking said lever in its operative position, and a key for releasing said locking means, substantially as described.

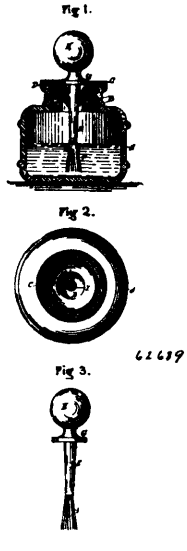
No. 62,688. Fish-Offal Digester.
(*Digesteur pour rebuts de poisson.*)



Thomas Herbert Wymonde, Vancouver, British Columbia, Canada, 17th February, 1899; 6 years. (Filed 18th October, 1898.)

Claim.—1st. A digester, consisting of a cylindrical closable body, having a foraminous bottom or grid arranged near the lower end thereof, a shaft supported on the grid and passing upward through a gland in the top end, agitating blades secured to said shaft, the same being arranged obliquely and extending radially to proximity with the inner shell of the closed vessel, and means for rotating the said shaft, as and for the purpose specified. 2nd. In combination with a closed vessel having a closable opening at the top and a like opening near its bottom, the latter opening being arranged above and in proximity to a grid, a shaft made to turn within the centre of the closed vessel, agitators arranged spirally on said shaft and projecting radially therefrom, as specified. 3rd. In a digester for extracting the oil and aqueous matters from fish or other offal, in combination with the closable vessel, the same being in cylindrical form, a shaft arranged to turn in the centre of same, agitator conveyers on said shaft, the blades thereof radiating towards the shell of the vessel, and made to lift the stuff upwards when turned in one direction and depress it when turned the other way, as and for the purposes specified.

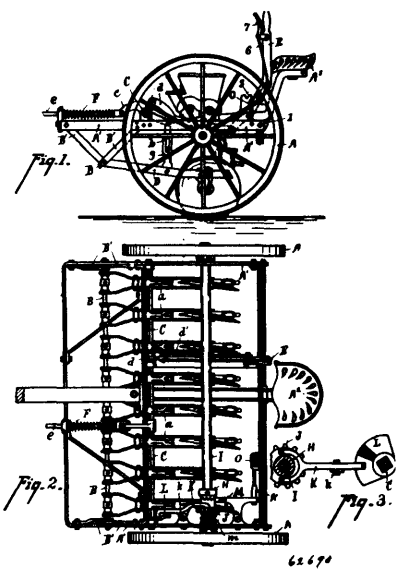
No. 62,689. Mucilage Bottle. (*Bouteille de mucilage.*)



George Robinson Warwick, Arthur F. Rutter and Charles Ernest Warwick, all of Toronto, Ontario, Canada, 20th February, 1899; 18 years. (Filed 27th October, 1898.)

Claim.—A closure for mucilage bottles, comprising an elastic tube or funnel open at its lower end and provided at its upper end with an annular flange resting on the top edge of the bottle neck, and a metallic cap or ring, the inner depending portion of which bears upon the inner portion of the elastic funnel while its outer edge is bent downwardly to engage the flange of the bottle neck to form an air-tight joint therewith, in combination with a brush provided with a tapering ferrule, and a handle and a disc or shield located between the ferrule and handle, and serving to close the upper end of the funnel.

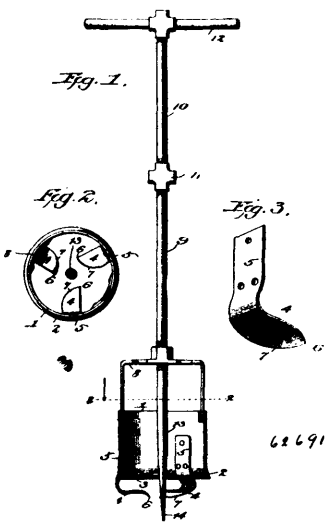
No. 62,690. Grain Drill. (*Semoir en ligne.*)



The Hoosier Drill Company, assignee of Sylvester H. Jones and James A. Carr, all of Richmond, Indiana, U.S.A., 20th February, 1899; 6 years. (Filed 23rd January, 1899.)

Claim.—1st. In a grain-drill, in combination with the drag-bars, the rock-shaft having crank connections with the drag-bar, and one or more compensating springs having a crank connection with said rock-shaft, substantially as specified. 2nd. In a grain-drill employing drag-bars having standard and crank connections with a rock-shaft, the combination with said rock-shaft, of a crank and a compensating spring, and an operating-lever also having crank connections with said rock-shaft, substantially as specified. 3rd. In a grain-drill, the combination of a rock-shaft, journalled on the frame thereof, a plurality of cranks fixed on said rock-shaft and each connected to one of the drag-bars, a hand-lever for rocking the rock-shaft, and a compensating spring arranged to aid in rocking the rock-shaft to raise and lower the drag-bars, substantially as described. 4th. In a grain-drill, in combination with a rock-shaft journalled upon the frame of the drill, a series of crank-arms connecting the drag-bars to said rock-shaft, a crank connecting said rock-shaft with a compensating spring F, an operating-lever having link connections with crank *d* of said rock-shaft, and locking mechanism applied to said operating-lever, for locking the controlling rock-shaft in different positions, substantially as specified. 5th. In combination with the axle of a grain-drill, a stationary clutch member mounted thereon, a movable clutch member carrying a transmitting gear loosely mounted on said axle, the retractile spring *m* coiled about said axle, the oscillating arm M and lever O, substantially as specified. 6th. In a grain-drill employing one or more furrow-opening discs, supported upon drag-bars, hangers provided with annular recesses and connected to said drag-bars, a sleeve-shaft provided with a head seating in and engaging the recess of one of said hangers, a sleeeve secured to said disc and journalling upon said sleeve-shaft and within the recesses of the hangers, substantially as specified. 7th. In a grain-drill, the combination with the disc-hangers, of the sleeve Q clamped between said hangers and provided at one end with a flange Q^1, said sleeve being provided on its periphery with a longitudinal groove U, and said flange having a perforation *v* opposite said groove, an oil-feed duct *w* formed in one of said hangers and registering at its lower end with the perforation *v*, a sleeve R journalled on the sleeve Q, and a disc fixed the sleeve R, substantially as described. 8th. In a grain-drill employing one or more furrow-opening discs supported upon drag-bars, hangers connected to said drag-bars, one of which is provided with an oil-passage *w* communicating with the passage *v* pierced through the flange Q^1 and communicating with a recess *u* formed in sleeve Q, substantially as specified.

No. 62,691. Earth Auger. (*Sonde à trépan.*)



David S. Hooper, assignee of Eli F. Isgrig, and Edward Phares, all of Pierre, South Dakota, U.S.A., 20th February, 1899; 6 years. (Filed 3rd February, 1899.)

Claim.—1st. An earth-auger comprising a hollow cylindrical bucket having its lower edge flared or expanded outwardly and constituting a reamer, and knives or cutters of substantially spiral-shape which have shanks connected to the inner walls of the bucket from which place they extend downwardly to a point below the flared edge of the bucket and then extend inwardly toward the centre thereof in a substantially horizontal manner, terminating in separated, downturned tips which constitute a hollow boring-point at the centre of the bucket below the latter, said knives lying within the circle defined by the flared edge and being adapted to cut the soil and elevate it into the bucket. 2nd. In an earth-auger, the combination with a cylindrical, hollow, bucket having an outwardly expanded or flared sharpened lower end constituting a reamer, of knives or cutters connected to the bucket which are of substantially spiral-shape and of general horizontal disposition with their free portions extending downwardly and thence inwardly in a horizontal plane from the walls of the bucket and terminating in separated downturned pointed tips which define a hollow boring point disposed centrally of the bucket, said knives lying within the circle defined by the flared end of the bucket, and a centering-rod, coinciding with the central axis of the bucket, having a pointed lower end extending between the tips of the knives and terminating below them.

No. 62,692. Method of Producing Indelible Designs upon Glass, Marble, Metal and similar Material. (*Méthode pour la production de dessins indélibiles sur verre, marble, etc.*)

Hardley Sephton & Co., Bridewater Glass Works, 42 Oxford Street, assignee of Rees Mills, 23 Eturia Street, Longsight, Lancaster, England, 20th February, 1899; 6 years. (Filed 14th July, 1898.)

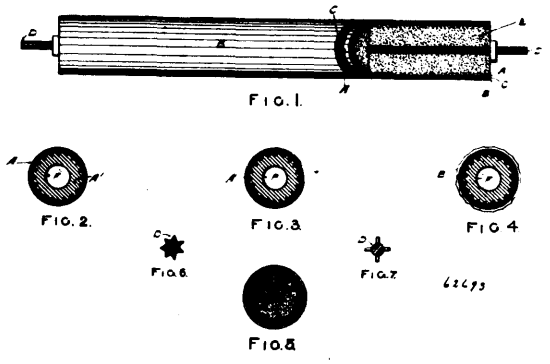
Claim.—1st. The improved process for producing indelible designs upon the surface of glass, marble, metal or other material in which the design is worked upon a pattern plate covered with acid resisting material, bitten in with acid, and treated with ammonium fluoride or sand blasted to produce a receptive surface, the resist material being then removed and the pattern plate sponged with glycerine, water or oil and inked with a fatty ink suitably coloured and rendered fluid by heat, the superfluous ink being removed by means of a heated inflexible metallic scraper and the design transferred to waxed or plain paper from which it is applied to the surface of the object to be decorated and thereupon etched, sand blasted, silvered or fired, substantially as described. 2nd. As means for producing a receptive surface for the glycerine oil or water used in sponging the pattern plate prior to inking same, the employment of ammonium fluoride to act upon the etched plate or sand-blasting the same, so as to enable the operator to transfer the inked design to the waxed paper cleanly and entirely, substantially as described.

No. 62,693. Roller for Printing Machines.
(*Rouleau pour machines à imprimer.*)

The Perfection Printing Roller Syndicate, 77 King Street, Manchester, assignee of Edwin Moreton, Reddish Road, Reddish, Stockport, both in the County of Lancaster, England, 20th February, 1899; 6 years. (Filed 7th November, 1898.)

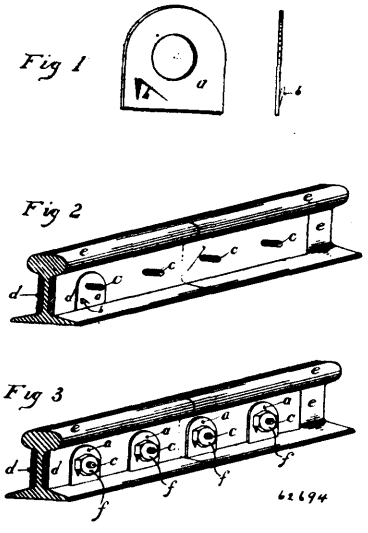
Claim.—1st. In a printer's inking roller or the like, the combination of super-imposed tubes or layers of india-rubber (or its substi-

tute), a textile insertion between said tubes or layers, flutings or roughenings on the inner tube, a spindle or stock passing through



said tubes, and gelatinous or like compound between the said tube and spindle or stock, substantially as set forth. 2nd. In a process for the production of a printer's inking roller or the like, applying a layer of rubber in a plastic state to a fluted or roughened mandril, covering such rubber with textile material, and fixing by adhesive solution, super-imposing a further layer of rubber and vulcanising into a composite mass, grinding the outer surface to an even circumference, removing the composite tubing from mandril, placing said tubing in a mould around a central stock or spindle, and moulding gelatinous compound between said tubing and stock and retaining the siad compound within the tube by means of a cap of metal or other material, as set forth. 3rd. Composite tubing as herein described, in combination with a roughened stock or spindle and gelatinous composition moulded between, substantially as and for the purposes hereinbefore set forth.

No. 62,694. Nut Lock. (*Arrête-écrou.*)



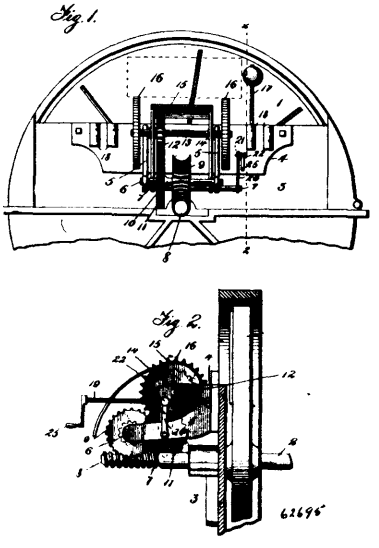
Edward Regan and Alexander Perley, Barnhill, both of St. John, New Brunswick, Canada, 20th February, 1899; 6 years. (Filed 2nd February, 1899.)

Claim.—In a nut lock, the combination with a bolt and nut, of a washer-plate which will not turn on the bolt and having one or more spring tongues in the body thereof to engage with the sides of the nut, all arranged substantially as shown and described.

No. 62,695. Bark Cutting Machine. (*Coupe-écorse.*)

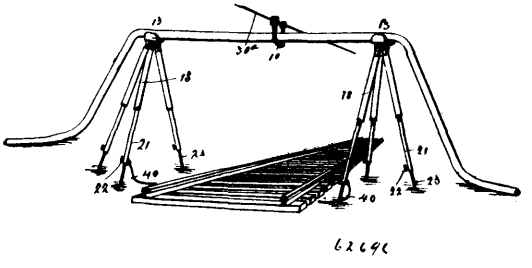
Samuel Wesley Butterfield, Three Rivers, Quebec, Canada, 20th February, 1899; 6 years. (Filed 17th December, 1898.)

Claim.—1st. A bark cutter, comprising a rotary cutter, a frame, a spur supporting frame pivotally connected to said frame, a series of spur-wheels pivotally mounted in said spur supporting frame, driving connections between said cutter and wheels, and means for adjustably moving said spur supporting frame on its pivot, whereby said spur-wheels will have a segmental movement toward and away from said cutters, substantially as described. 2nd. A bark cutter, comprising a rotary cutter, a frame, a spur supporting frame pivotally connected to said frame, a series of spur-wheels pivotally mounted in said frame, driving connections between said cutter and said wheels, and an adjusting screw, operatively connected to said frame and spur supporting frame, said screw being adapted to



adjustably move said spur supporting frame on its pivot, whereby said spur-wheels will have a segmental movement toward and away from said cutter, substantially as described.

No. 62,696. Fire Hose Support. (*Support de boyaux.*)

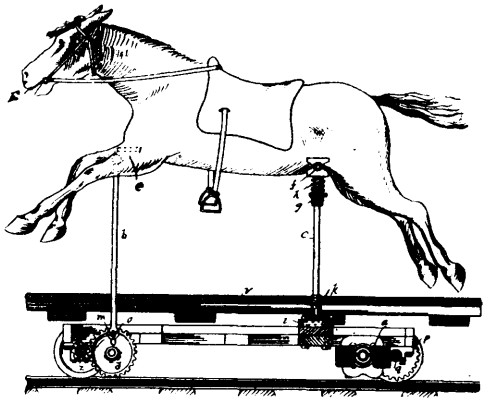


Harry Kingdom Martin, Montreal, Quebec, Canada, 20th February, 1899; 6 years. (Filed 4th August, 1898.)

Claim—1st. A fire hose support comprising an insulated hanging bracket of U-shape and having its ends formed with hooks offset on opposite sides of the bracket, as and for the purpose set forth. 2nd. A fire-hose support comprising a hanging bracket of U-shape and having its ends formed with hooks, 8, having downwardly-inclined bases 9 forming shoulders 10, the base of said bracket being flattened as at 11, and the whole inclosed in a rubber pipe 12. 3rd. A fire-hose support comprising a pair of tripods adapted to be located one on each side of an electric-railway line, and an insulated hanging bracket adapted to be suspended from the trolley-wire, for the purpose set forth. 4th. A tripod for the purpose set forth, comprising an insulated tray, extensible legs pivotally secured to the underside of said tray and each consisting of a pair of telescopically arranged tubular sections, the outer one being pivotally secured at its upper end to the tray and having the interior of its lower end chamfered, a spring-catch carried by the upper end of the inner tubular section and adapted to engage the shoulder formed by said chamfering, a spike carried by the lower end of said inner tubular section, and means for adjusting said spike into and out of said tubular section, substantially as described. 5th. A tripod, for the purpose set forth, comprising an insulated tray, extensible legs pivotally secured to the underside of said tray, a flexible measuring-cord carried by the lower end of one of said legs, and each leg consisting of a pair of telescopically-arranged tubular sections the outer one being pivotally secured at its upper end to the tray and having the interior of its lower end chamfered, a spring catch carried by the upper end of the inner tubular section and adapted to engage the shoulder formed by said chambering, a spike carried by the lower end of said inner tubular section, and means for adjusting said spike into and out of said tubular section, substantially as described. 6th. A fire-hose support comprising an insulated hanging bracket and a pair of tripods each consisting of a tray 13 insulated as at 16, tubular sections 18, pivotally connected to the underside of said tray and formed on the interior, their lower ends with shoulders 20, tubular sections 21 tcles oping into said first-mentioned tubular sections, a spring catch carried by the upper end of said tubular section 21, and adapted to engage said shoulders 20, said catch consisting of a carrying-block 25, a pair of fingers 27 formed with beveled projections 28 and

thumb-pieces 29 and a bow-spring 30, a spike 23 and set-screw 22, all arranged substantially as described and for the purpose set forth.

No. 62,697. Merry-go-round. *(Carrousel.)*



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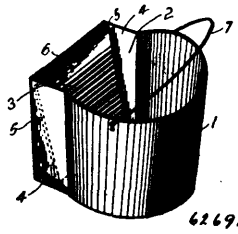
James Washington Daniels, Paterson, New Jersey, U.S.A., 20th February, 1899 ; 6 years. (Filed 9th August, 1897.)

Claim.—1st. In a carousal. a series of horses or other figures adapted for riding and mounted on suitable mechanisms carrying independent motors, said motors deriving their power from a common source and each provided with auxiliary propelling mechanism for increasing its speed at the will of the rider independently of the other mechanisms in the series, substantially as set forth. 2nd. In a race carousal, the truck having the standard *c* with the horse or other figure adapted to be used as a seat for a rider pivotally mounted upon said standard, in combination with the standard *b* pivotally attached to the forward end of said figure, and connected by its lower end to a crank pin mounted upon a gear wheel for connecting said gear wheel to the axle of the truck, and provided with mechanism to enable the rider to increase or decrease the speed of the truck independent of the primary moving mechanism, substantially as described. 3rd. In a race carousal, the combination of the truck having the electric motor attached to the rear axle, the figure or horse mounted on said truck with a circuit breaking mechanism or switch mounted in the mouth of said figure or horse, and adapted to be operated by means of the reins, substantially as described. 4th. In a race carousal, the combination with the truck of a rocking horse or other figure mounted thereon and adapted to propel said truck when a rocking motion is imparted to said horse, and provided with means to enable the rider to control the speed of said truck independently of the primary motive power normally propelling said truck as and for the purpose set forth. 5th. In a race carousal, the combination of a truck with a primary motive power attached thereto with an auxiliary motive power adapted to be operated by the rider to increase or decrease the speed of said truck independently of the primary motive power, substantially as described.

No. 62,698. Laundry Pail. *(Seau de buanderie.)*



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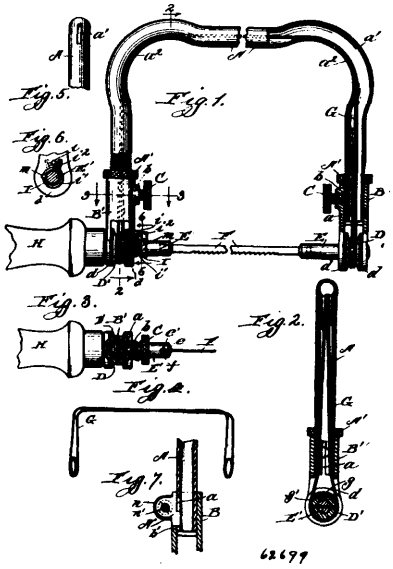
Magaret C. Auston, Toronto junction, Ontario, Canada, 20th February, 1899; 6 years. (Filed 2nd December, 1898.)

Claim.—A laundry pail comprising bail 7, body portion 1, having one side cut away, box 2 having sides 4 and back 6, permanently united to said body portion, a bottom common to the box and body portions, in combination with a wash board 3 set in slanting grooves 5 in the sides 4 of said box portion, substantially as and for the purpose hereinbefore set forth.

No. 62,699. Scroll Saw. *(Scie en archet.)*

Arthur Jones, Chicago, Illinois, U.S.A., 20th February, 1899; 6 years. (Filed 7th February, 1899.)

Claim.—1st. The combination with the frame, having slots in its curved portions and in each of its ends, of a socket piece secured on each end thereof and having an opening in its upper portion, a thumbscrew key secured in the opening of each of the socket pieces, the pulleys journalled in the said socket pieces, a saw-blade secured



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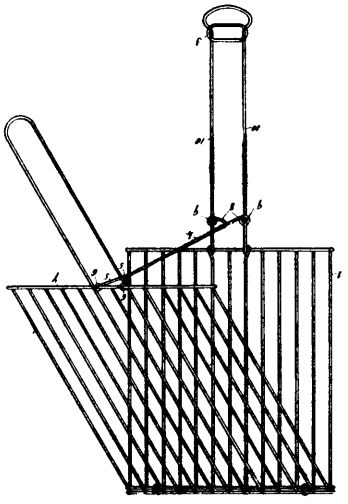
to the pulley shafts, a handle secured to one of the pulley shafts, and a cable connecting and encircling the pulleys and being supported by the frame, substantially as described. 2nd. The combination with the frame, provided with screw-threads and a slot in each of its ends, of a socket piece secured on each end of the frame and having an opening in its upper portion, a tension-nut located on the screw-threaded portions of the frame, a key secured in the opening of each of the socket pieces, the pulleys journalled in the said socket pieces, a saw-blade secured to the pulley shafts, a handle secured to one of the pulley shafts, and a cable connecting and encircling the pulley and being supported by the frame, substantially as described. 3rd. The combination with the frame, having each of its ends screw-threaded, and provided with a slot, of a socket piece secured on each end thereof and having an opening in its upper part, and one of said socket pieces having a projection in its lower portion, a tension-nut located on the screw-threaded portion of the frame, a key secured in the opening of each of the socket pieces, the pulleys journalled in the said socket pieces, a saw-blade secured to the pulley shafts, a handle secured to one of the pulley shafts, a locking collar mounted on one of said shafts and having a projection to contact with the projection on the socket piece, and a cable connecting and encircling the pulleys and being supported by the frame, substantially as described. 4th. The combination with the frame, of a socket piece located on each end thereof, one of said pieces having a projection on its lower portion, means to secure said socket pieces in position, the pulleys journalled in the socket pieces, a saw-blade secured to the pulley shafts, one of the pulley shafts being provided with a projection, a collar having a circumferential slot and a projection on its periphery mounted on the shaft having the said projection, a handle secured to one of the pulley shafts, and a cable connecting and encircling the pulleys and being supported by the frame, substantially as described. 5th. The combination of a piece having a projection on its lower portion, a shaft journalled in said piece near the projection thereof, and having a projection on its surface, a collar having a circumferential slot and provided with a projection on its periphery and mounted on the said shaft in such a manner that the projection on the shaft will travel in the slot of the collar, and the projection on the collar will contact with the projection on the said piece, substantially as described.

No. 62,700. Toaster and Broiler.
(Appareil à rôtir et gril.)

Fernando J. Keller, Rochester, New York City, New York, U.S.A., 20th February, 1899 ; 6 years. (Filed 6th February, 1899.)

Claim.—1st. A broiler or toaster, comprising two frames hinged together at one end, said frames being each provided with a projecting handle at the opposite end, and a spreader one end of which is hinged to the free end of one of said frames adjacent to the handle thereof, and the other end of which is adapted to slide on the handle of the other frame, substantially as shown and described. 2nd. A broiler or toaster, comprising two frames which are hinged together at one end, each of said frames being provided with a projecting handle at the opposite end, and a spreader, one end of which is hinged to the free end of one of said frames adjacent to the handle, and the other end of which is connected with and adapted to slide on the handle of the other frame, substantially as shown and described. 3rd. A broiler or toaster, comprising two frames which are hinged together at one end, and each of which is provided at its

free end with a projecting handle, and a spreader, one end of which is provided with a swinging connection with the free end of



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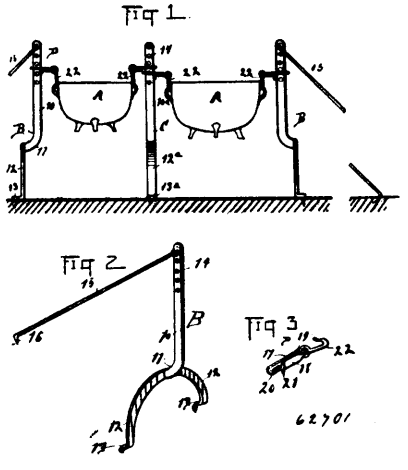
one of said frames, and the other end of which is connected with and adapted to slide on the handle of the other frame, substantially as shown and described. 4th. The combination with a toaster, broiler or the like having two pivoted frames provided with handles, of a bar having two arms at one end pivoted to the cross piece of one frame by eyes on the ends of said arms, and two arms at the other end of said bar having eyes through which the side pieces of the handle of the other frame slides, substantially as shown and described.

No. 62,701. Kettle Rack. (*Ratelier à chaudron.*)



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William C. Donica, Grayson, Indiana, U.S.A., 20th February, 1899; 6 years. (Filed 6th February, 1899.)

Claim.—A kettle-rack having two uprights, a brace pivoted to the upper portion of each upright and extending respectively outward and downward to engagement with the ground, and a clamp-hanger co-acting with each upright, the clamp-hangers each consisting in a strip of metal bent to form two parallel members, the end of one member having an eye receiving the standard and the end of the other member being bent perpendicularly to the first-named member so as to bear against a side edge of the standard, and a hook having an eye received between the members of said strip at the point of the bend therein, the hook being capable of engaging the bail of the kettle.

No. 62,702. Door or Window. (*Porte ou fenêtre.*)

Melville Bunker, Davenport, Iowa, U.S.A., 20th February, 1899; 6 years. (Filed 6th February, 1899.)

Claim.—1st. A vertically sliding window or door, piston rods which have their upper ends bearing against plates secured to said door or window, piston heads, cylinders in which the piston rods operate, a controlling valve, pipes connecting the valve and the cylinders, fluid supply and waste pipes, means for operating the valve consisting of a sliding shelf, and rods and segment, substantially as set forth. 2nd. A device for sliding windows or doors, consisting of cylinders, piston-rods supporting said windows or

Fig. 1

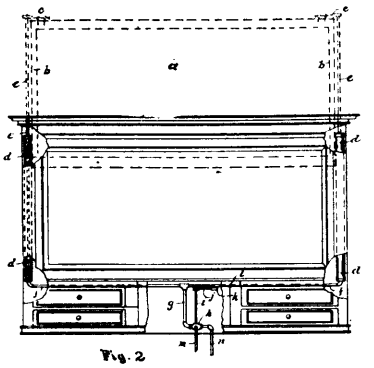

Fig. 2

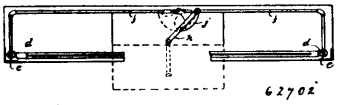

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Fig. 3

doors, arranged in said cylinders and carrying piston-heads, pipes communicating with said cylinders, and means for controlling the admission of fluid to said pipes and from thence to said cylinders, substantially as described. 3rd. In a display cabinet, means for sliding the window or door consisting of cylinders carrying piston rods supporting said window or door and adapted to be raised by fluid pressure, and to be lowered by the withdrawal of such pressure, and means for conducting the fluid to and away from said cylinders, as set forth. 4th. In a display cabinet, the combination of a vertically sliding window or door, piston rods supporting said window, piston-heads on said rods, cylinders containing said piston rods and heads, fluid supply pipes communicating with said cylinders, a valve for controlling the admission of fluid to said pipes, a valve for controlling the emission of fluid from said pipes, and means for controlling said valves whereby the opening of one valve will automatically close the other, substantially as set forth.

No. 62,703. Jar Closure. (*Fermeture de jarres.*)

Fig. 1.

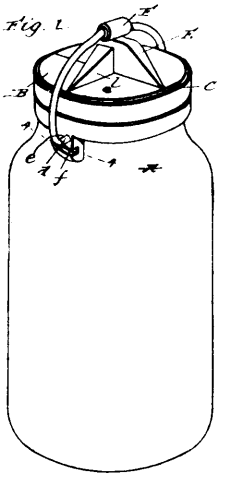
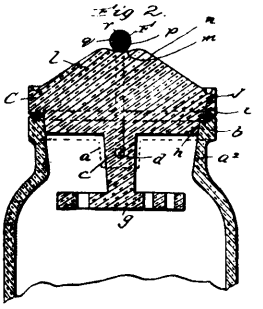


Fig. 2.



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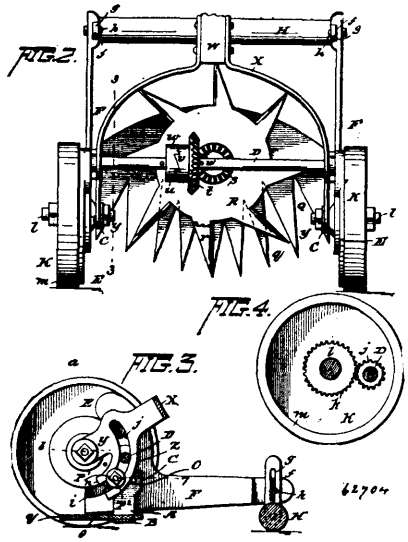
John H. Fowler, Huntingdon, Pennsylvania, U.S.A., 20th February, 1899; 6 years. (Filed 7th February, 1899.)

Claim.—1st. In a jar closure, the combination of a jar body having the flared mouth a^2, and also having the circular groove b of angular form in cross-section in its upper end, the one-piece cover having the central-depending portion E, the tapered portion h adapted to be formed in and tightly occupy the flared mouth of the body, and the shoulder i provided with a circular groove j of angular form in cross-section, the gasket or packing ring of angular form in cross-section interposed between the end of the body and the shoulder of the cover and seated in the grooves thereof, and suitable means for clamping the cover on the body, substantially as specified. 2nd. In a jar closure, the combination of a body having the jugs a, a^1 at diametrically opposite points and also having a socket c in one lug, and a socket e in the other lug and an inclined groove f extending

downwardly from the said socket to the side of the lug, a cover having a diametrically disposed raised portion E provided with a central depression *m* and inclined edges *n*, the removable clamping bow having the inwardly turned ends seated in the sockets *c*, *e* of the body, and also having the straight portion at its middle, and the fastening device comprising the metallic barrel loosely mounted on the straight portion of the bow and the rubber sleeve surrounding said barrel, as and for the purpose set forth.

No. 62,704. Mower. (*Faucheuse.*)



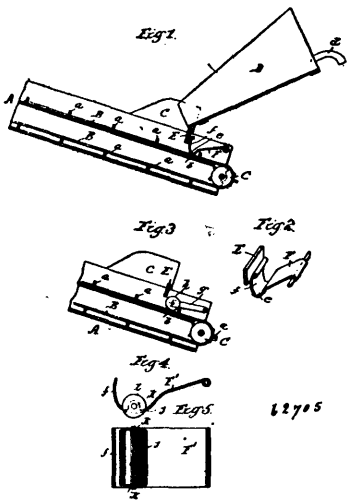
Ernest Albert Miller, Jackson, Michigan, U.S.A., 20th February, 1899; 6 years. (Filed 6th February, 1899.)

Claim.—1st. In a lawn mower of the character described, the combination of ground-wheels open at their inner sides and carrying drive gears, stationary discs arranged on the inner sides of the ground-wheels and carrying stub shafts on which said wheels are mounted, said discs being provided in their rear portions with segmental slots, a ground roller supported by the discs, a cutter-frame consisting of a cross-bar supported by vertical end hangers having horizontal slots, bolts projecting through the said horizontal slots and the segmental slots in the discs and adjustably securing the frame to said discs so that the front end thereof may be raised and lowered for high and low cut, a main shaft journalled at its ends in said hangers and having said ends projecting through the segmental slots in the discs and carrying pinions meshing with the gears on the ground-wheel, whereby the frame may be oscillated on the shaft or the shaft or frame simultaneously adjusted vertically by loosening said bolts, a fixed cutter on the cross-bar of the frame, a rotary cutter mounted thereon, and gearing for driving the rotary cutter from the shaft, substantially as described. 2nd. In a lawn mower of the character described, the combination of ground-wheels open at their inner sides and carrying drive gears, stationary discs arranged on the inner sides of the ground-wheels and carrying stub shafts on which said wheels are mounted, said discs being provided in their rear portions with segmental slots, a ground roller supported by the discs, a cutter-frame consisting of a cross-bar supported by vertical end hangers having horizontal slots, bolts projecting through the said horizontal slots and the segmental slots in the discs and adjustably securing the frame to said discs so that the front end thereof may be raised and lowered for high and low cut, a main shaft journalled at its ends in said hangers and having said ends projecting through the segmental slots in the discs and carrying pinions meshing with the gears on the ground-wheel, whereby the frame may be oscillated on the shaft or the shaft and frame simultaneously adjusted vertically by loosening said bolts, a fixed cutter on the cross-bar of the frame, a rotary cutter mounted thereon, gearing for driving the rotary cutter from the shaft, and a propelling handle having curved arms detachably connected at their front ends to the discs and provided in rear thereof with bifurcated segmental extensions straddling the shaft and clamped against the frame hangers by the said nuts which secure the latter, substantially as described.

No. 62,705. Corn Conveyor. (*Transport à blé d'inde.*)

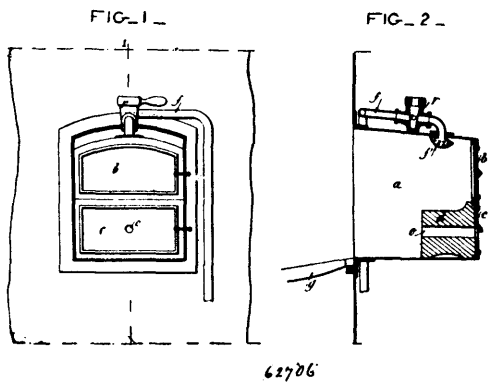
Frank Gahm, Ransom, Illinois, U.S.A., 20th February, 1899; 6 years. (Filed 6th February, 1899.)

Claim.—1st. The combination with a conveyor-belt having engaging devices on its surface, of a valve pivoted at one end above said belt and having a rounded portion at its forward end for engagement by said devices on the surface of the belt, substantially as and for the purpose specified. 2nd. The combination with a conveyor-belt having engaging devices on its surface, of a valve pivoted at one end above said belt and having a rounded portion for engagement by said devices on the belt, and an upwardly-projecting wall forward



of said rounded portion, substantially as and for the purpose specified. 3rd. In a conveying apparatus, the combination with a trough, a conveyor-belt with the trough, and engaging devices on the belt, of a valve pivoted above said conveyer-belt and having a rounded portion for engagement by said devices on the belt, and a guard forward of the valve to prevent the material on the belt from exerting a backward pressure on said valve, substantially as specified. 4th. The combination with a trough A, conveyer-belt B, and cross-strips *a* on said belt, of a valve F pivoted at one end to the sides of the trough A, and having at its forward end a curved portion for engagement by the strips *a*, and a guard E forward of the valve, substantially as and for the purpose specified. 5th. In a conveying apparatus, the combination with a trough and a conveyer-belt within the trough and having engaging devices on its surface, of a valve pivoted above said conveyer-belt and arranged to be engaged by said devices on the belt, and a guard forward of the valve to prevent the material on the belt from exerting a backward pressure on said valve, substantially as specified.

No. 62,706. Furnace Fuel Chamber.
(*Chambre à combustible pour fournaise.*)



Pierre Joachim Boimare, Paris, France, 20th February, 1899; 6 years. (Filed 6th December, 1898.)

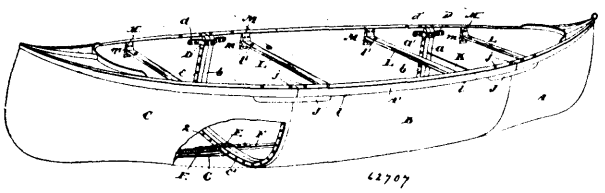
Claim.—1st. The method of charging fuel for furnace purposes, consisting in gradually heating the fuel, the fuel being moistened during the process of heating, and then passing the fuel into the fire-chamber, whereby the fuel will be distilled prior to its burning, substantially as described. 2nd. The combination with a furnace, of a chamber located contiguous to the fire-chamber, said chamber being adapted to receive the fuel prior to its passage to the fire-chamber, said fuel being gradually heated in said chamber, and a controllable moistening nozzle having its spraying opening located within said chamber, substantially as described.

No. 62,707. Canoe. (*Canot.*)

Walter Dean, Toronto, Ontario, Canada, 20th February, 1899; 6 years. (Filed 24th February, 1898.)

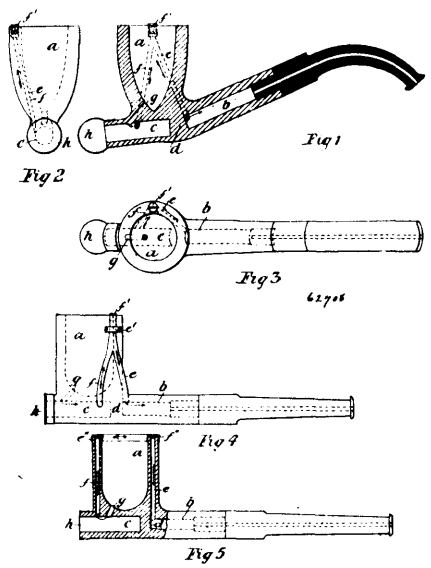
Claim.—1st. In a canoe, in combination, the sections having abutting edges and abutting ribs secured on the edges, means for securing

the ribs together so as to form a water tight joint, and spanning straps extending over the ribs and bolts for connecting such straps



to the ribs and to the planking or side of the canoe, as and for the purpose specified. 2nd. In a canoe, in combination, the sections having abutting edges and abutting ribs secured on the edges, means for securing the ribs together so as to form a water tight joint, a suitable gunwale separated at the sections, and bridging strips spanning the joint and secured to the bottom of the gunwale on the outside by suitable bolts, as and for the purpose specified. 4th. In a canoe, in combination, the sections having abutting edges and abutting ribs secured on the edges, means for securing the ribs together so as to form a water-tight joint, a suitable keelson separated at the joints, a suitable keel extending past the joints underneath the keelson, a suitable strap spanning the connecting ribs, and bolts extending through the keel, keelson, ribs and strap, as and for the purpose specified. 5th. In a canoe, the combination with the sides thereof, and supporting blocks provided with grooves, of the thwart provided with holes near the ends thereof, bolts extending through the sides of the canoe and ends of the thwarts and having a nut screwed on their inner ends in the holes in the thwarts, as and for the purpose specified.

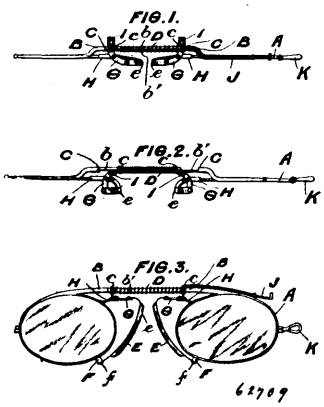
No. 62,708. Tobacco Pipe, Cigar, and Cigarette Holder.
(*Porte pipe à tabac, cigare et cigarette.*)



John Taylor, Tomago, New South Wales, Australia, 20th February, 1899; 6 years. (Filed 10th August, 1898.)

Claim.—1st. In a tobacco pipe, cigar or cigarette holder, a chamber or reservoir formed within the substance of the bowl below the cavity or receptacle for the tobacco, cigar or cigarette, said reservoir communicating with said cavity, but distinctly and absolutely separated from the bore of the stem, and a communicating passage between the upper part of said reservoir and the bore in the stem and rising above the line of said bore, substantially as set forth. 2nd. In a tobacco pipe, cigar or cigarette holder, a chamber or reservoir formed within the substance of the bowl below the cavity or receptacle for the tobacco, cigar or cigarette, said reservoir distinctly separated from the bore of the stem and having an opening provided with a removable stopper, a passage placing the lower part of said cavity into communication with the upper part of said reservoir and a circuitous continuous passage rising above and descending to the line of the bore of the stem and placing the upper part of said reservoir into communication with the bore of the stem, substantially as set forth. 3rd. In tobacco pipes, cigar and cigarette holders, a stop barrier or discontinuation of the bore of the stem at the end adjoining the bowl, a reservoir below the cavity of the bowl or receptacle for the tobacco, cigar or cigarette formed in the substance of said bowl, a passage connecting the upper part of said reservoir with the lower part of said cavity, and a circuitous continuous passage rising above and descending to the line of the bore of the stem and placing said bore into communication with the upper part of said reservoir, substantially as set forth. 4th. In tobacco pipes, the combination with the bowl and stem, of a stop barrier or discontinuation of the bore of the stem between the cavity of the bowl and said bore of the stem, a chamber or reservoir formed in the substance of the bowl below said cavity provided with a stoppered opening for discharge, a passage connecting the upper part of said reservoir with the lower part of said cavity and a circuitous continuous passage rising from the upper part of said reservoir and then descending again to the bore of the stem placing the two into communication, substantially as set forth.

No. 62,709. Pince-Nez.



William Salt, Marez-du-Jura, France, 20th February, 1899; 6 years. (Filed 22nd November, 1898.)

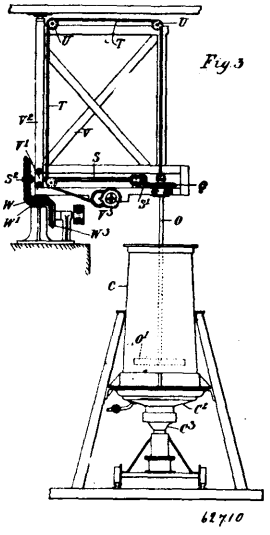
Claim.—1st. In a pince-nez of the type such as hereinbefore specified, means for separating the nose-pieces or plaquettes to a relatively great extent on the slight separation of the eye-rims consisting of lever pieces arranged and operating, substantially as described. 2nd. In a pince-nez of the type such as hereinbefore specified, means for separating the nose-pieces or plaquettes to a relatively great extent on the slight separation of the eye-rims consisting of lever pieces pivotally mounted upon the eye-rims or extensions thereof, one of each of whose extremities is pivoted to one of the nose-pieces or plaquettes while each of the other extremities is operated by the extremity of the respective associated arms constituting the bridge-piece, substantially as described. 3rd. In a pince-nez of the type such as hereinbefore specified, means for separating the nose-pieces or plaquettes to a relatively great extent on the slight separation of the eye-rims consisting of lever pieces pivotally mounted upon the eye-rims or extensions thereof one of each of whose extremities is pivoted to one of the nose-pieces or plaquettes, while each of the other extremities is operated by the extremity of the respective associated arms constituting the bridge-piece, one of the associated arms being provided with a tail-piece by means of which the rims may be separated substantially as hereinbefore described. 4th. In a pince-nez of the type hereinbefore specified, means for the separation of the nose-pieces or plaquettes on extension of the eye-rims consisting of lever pieces being pivotally mounted upon the eye-rims or extensions thereof, one of the extremities of each of such lever pieces being pivotally secured to the upper extremities of the nose-pieces or plaquettes provided of elastic metal or material whose respective lower extremities are secured in any suitable position on the eye-rim the opposite extremities of the lever pieces being slotted to receive projections from each of the associated arms, substantially as hereinbefore described.

No. 62,710. Liquid Separation. (*Séparation de liquides.*)

William Adolph Koneman and William Henry Hartley, both of London, England, 20th February, 1899; 6 years. (Filed 8th September, 1897.)

Claim—1st. The method of abstracting liquid from finely pulverized ore, ore slimes or other solids impervious to percolation with which the liquid is mixed which consists in subjecting the mixture to gaseous pressure in a receptacle having a removable filter bottom a removable top and an internal float giving free outlet below the filter bottom to that portion of the liquid which is forced through the filter bottom during the period of compacting the solids on the filter bottom pressing out and collecting the remaining liquid on top of the solids and abstracting it therefrom by means of the float, substantially as described. 2nd. The method of abstracting liquid from finely pulverized ore, ore slimes or other solids impervious to percolation with which the liquid is mixed, which consists in subjecting the mixture to gaseous pressure in a receptacle having a removable filter-bottom a removable top and an internal floating filter giving free outlet below the filter-bottom to that portion of the liquid which is forced through the filter-bottom during the period

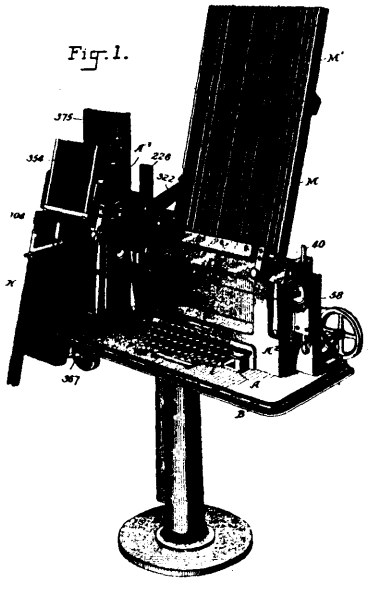
of compacting the solids or the filter-bottom, pressing out and collecting the remaining liquid on top of the solids and abstracting it



therefrom by means of the floating filter, substantially as described 3rd. The method of abstracting liquid from finely pulverized ore ore slimes or other solids impervious to gravity percolation with which the liquid is mixed which consists in subjecting the mixture to gaseous pressure in a receptacle having a closed top a filter-bottom and a vacuum chamber below and connected with said filter-bottom and subjecting it simultaneously to the action of a partial vacuum applied below the filter-bottom and abstracting the liquid which by the pressure acting on top of the charge and the vacuum acting below the charge is forced through the filter-bottom during the period of compacting the solids, substantially as described. 4th. The method of abstracting liquid from finely pulverized ore. ore slimes or other solids impervious to percolation with which the liquid is mixed which consists in subjecting the charge to gaseous pressure on its surface or top in a receptacle having a filter-bottom and simultaneously to the action of a vacuum suitably applied below the filter-bottom, abstracting the liquid thus forced through the filter-bottom during the period of compacting the solids collecting a portion of the liquid on top of the compacted solids and abstracting it therefrom, substantially as described. 5th. The method of abstracting liquid from finely divided ore or other solids mixed therewith and simultaneously separating the concentratable metal-bearing compounds from the ore which consists in subjecting the the charge to rotary agitation in its receptacle prior to the application of pressure thus causing grading of the charge and the gathering or collecting of the contrates on the removable filter bottom, then removing the liquid and finally removing the concentrates from the filter bottom, substantially as described. 6th. The method of removing finely divided ore or other solids from liquid mixed therewith which consists in subjecting the mixture to treatment in a receptacle having a removable filter bottom and above the filter bottom a set of removable supporting bars or other means to support and carry the compacted solids after the removal of the filter bottom compacting the solids by means of surface pressure above the charge or by means of vacuum action below the charge or by both removing the liquid by percolation or decantation or by both then removing the filter-bottom and finally controlling the discharge of the solids by removal of the supporting bars or similar means, substantially as described. 7th. The method of removing liquid from ore slimes or other solids impervious to gravity percolation and clarifying the liquid which consists in snbjecting the mixture to gaseous pressure in a receptacle having a filter bottom a removable top an internal surface float or filter and an auxiliary filter connected with the delivery pipe of the internal float or filter compacting the solids and collecting a portion of the liquid on top of the compacted solids then forcing the collected liquid through the surface float or filter and delivering the same by means of the internal gaseous pressure into and passing it through the auxiliary filter, substantially as described. 8th. In the separation of solids from very dilute mixtures with liquid such as sewage which consists in pumping or forcing such mixtures into a receptacle having a closed top and a vertically and laterally removable filter bottom so as to maintain fluid pressure in such receptacle with or without air cushion above the liquid and with or without internal floating filter action thus forcing the liquid through the filtering surface and gradually collecting the solids on the filter bottom. 9th. In the obtainment of a clear liquid from a mixture of slime bearing substance with such liquid, the combination of a vessel having a filter bottom with a surface filter and an auxiliary filter. 10th. In the separation of the solid and liquid constituents of slime bearing materials and the like the combination of a receptacle having a filter bottom a float or filter for abstracting liquid from the top thereof and a mechanical agitator capable of being raised and lowered with or without an auxiliary filter, substantially as described. 11th. In the separation of the solid and liquid constutients of slime bearing materials and the like the combination of a receptacle having a filter-bottom and an internal filter and a top adapted to house and carry the internal filter, substantially as described. 12th. In the separation of the solid and liquid constituents of slime bearing materials and the like, the combination of a receptacle having a filter-bottom, an internal float or filter, a top adapted to house and carry the internal float or filter, and provided with a central stuffing box through which the outlet or discharge pipe of such float or filter passes and suitable means for raising or lowering such float or filter, substantially as described. 13th. In the separation of the solid and liquid constituents of slime bearing materials and the like, receptacle having a removable filter-bottom and a movable perforated diaphragm or a series of movable supporting bars, substantially as and for the purpose described. 14th. In the separation of the solid and liquid constituents of slime bearing materials and the like, a stirrer arranged to rotate or to travel so as to plumb one or more tanks for the purpose described. 15th. In the separation of the solid and liquid constituents of slime bearing materials and the like, a filter having a slack filtering fabric for the purpose described. 16th. In the separation of the solid and liquid constituents of slime bearing materials and the like, a cased filter having a delivery pipe opening into the lower part of the case and a slack and weighted filtering fabric for the purpose described. 17th. In the separation of liquid and finely divided solids mixed with the same, the combination of the tank C, open at the top and bottom, a removable top C^{12}, a removable bottom C^2, and means for imparting to the said bottom for purposes of removal of the solids both vertical and lateral motion.

No. 62,711. Typesetting and Justifying Machine.

(Machine à composer et justifier.)

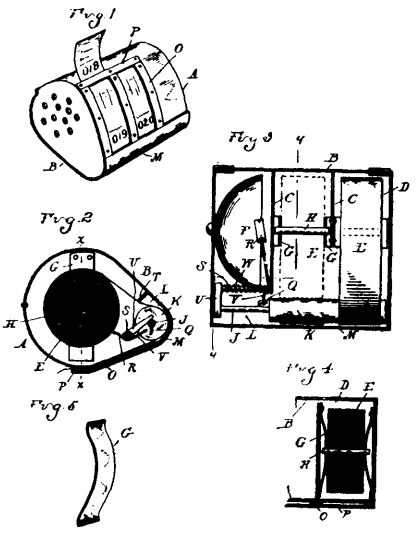


The Johnson Typesetter Company, Portland, U.S.A., assignee of Frank Amos Johnson, Philadelphia, Pennsylvania, 21st February, 1899; 6 years. (Filed 9th June, 1897.)

Claim.—1st. The method of producing justified lines of type, which consists in assembling the lines with temporary word spaces of arbitrary width, then measuring the line to determine the required width of justifying spaces, and finally cutting justifying spaces from a piece of suitable material, such as type metal, and inserting them in the line in lieu of the temporary spaces, substantially as described. 2nd. In a typesetting and justifying machine, the combination of means for assembling lines of type and temporary spaces, and means for cutting justifying word spaces from timber and inserting them in the lines in lieu of the temporary spaces, substantially as described. 3rd. In a typesetting and justifying machine, the combination of means for assembling lines of type and temporary spaces, means for feeding a strip of space timber to a gauge, and means for cutting justifying word spaces from said timber and inserting them in the lines in lieu of the temporary spaces, subtantially as described. 4th. In a typesetting machine, the key levers, the universal bar, the drive shaft 33, the escape shaft, the clutch, and the means for locking the key levers while the escape shaft is in motion, substantially as described. 5th. In a typesetting machine, the key levers, and the bar 9 for interlocking said levers, substantially as described. 6th. In a typesetting

machine, the key levers, the cam levers 14, and the push rods, substantially as described. 7th. In a typesetting machine, the two part push rods 15 15^a, in combination with the guide 19 and the shifting bar 25, substantially as described. 8th. In a typesetting machine, the key levers, the universal bar 4, the key for shifting from lower to upper case, and means for locking the universal bar and the key levers during the movement from lower to upper case, and vice versa, substantially as described. 9th. In a typesetting machine, the combination of the key levers, the universal bar, the type ejectors, and means for preventing a key from being operated until the previously indicated type has been ejected and its ejector returned to normal position, substantially as described. 10th. In a typesetting machine, the type ejectors 16, the ejector bar, and the front and rear stop bars for limiting the movement of the type ejectors, substantially as described. 11th. In a typesetting machine, the type ways, the vertically moving type carrying fingers, and means for reciprocating said fingers along the type way, consisting of the band 57 and sheaves, substantially as described. 12th. In a typesetting machine, the type ways having an assembling portion or stick, the type carrier for conveying type along the ways from the magazine to the stick, and means for moving said carrier positively past the magazine and yieldingly into the stick, substantially as described. 13th. In a typesetting machine, the assembling mechanism and type ways, combined with a movable inspecting stick, and means for transferring a line of type from the type ways to said inspecting stick, substantially as described. 14th. In a typesetting machine, the removable inspecting stick, and means for removing lines thereon for inspection, substantially as described. 15th. In a typesetting machine, the type ways having an assemblage portion or stick, the justifier type ways adjacent to said stick, and means for transferring an assembled line of type laterally from the stick to the justifier type ways, substantially as described. 16th. In a typesetting machine, the hinged transfer nick guide, means for moving said guide rearward, and the retaining nick guide for holding the type as the transfer nick guide moves forward, substantially as described. 17th. In a typesetting machine, the assembling typeways extending in front of the magazine and having an assemblage portion or stick, the vertically movable nick guide in front of the magazine, and vertically yielding nick guide over the stick, substantially as described. 18th. In a typesetting machine, the magazine having the stationary part M and the movable part M^1, substantially as described. 19th. In a typesetting machine, the means for loading the magazine consisting of the movable magazine section M^1 and the type trays 147 adapted to register therewith, substantially as described. 20th. In a typesetting machine, the stationary magazine section M combined with the movable section M^1 hinged and pivoted thereto, substantially as described. 21st. In mechanism for justifying a line of type and temporary spaces, the devices for compacting and measuring the line, the gauge controlled by the measuring devices, and the means for cutting justifying spaces and inserting them in the line in lieu of the temporary spaces, substantially as described. In justifying mechanism, the justifying lever, the fulcrum bars variably spaced along said lever, and means for rendering any one of said bars operative, the selected bar for any line depending upon the number of word spaces in the line, substantially as described. 23rd. In justifying mechanism, a gauge for determining the widths of justifying spaces, a justifying lever for setting the gauge, a device arranged to measure the line and operate the lever, and means for applying different fulcra to said lever, depending upon the number of spaces in the line, substantially as described. 24th. In justifying mechanism, the justifying lever having fulcra arranged at $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and other fractions of the length of the lever from one of its ends, substantially as described. 25th. In justifying mechanism, the justifying type ways, the measuring head for compacting and measuring a line, and the abutment adjustable to different lengths of lines, substantially as described. 26th. In justifying mechanism, the justifying lever, the fulcrum bars variably spaced along the lever, the interponent for raising the fulcrum bars and the space key and connections for setting the interponent, substantially as described. 27th. In justifying mechanism, the gauge, the wedges, for locking the gauge, and means for raising and dropping the wedges, substantially as described. 28th. In justifying mechanism, means for moving a line of tyye along the ways, and the parting fingers for intercepting and opening the line to admit justifying spaces, substantially as described. 29th. In justifying mechanism, the elevator for temporary spaces and trigger for bringing the elevator into action, substantially as described. 30th. In justifying mechanism, the clamp for normally holding the space timber, the trigger, and mechanism controlled by the trigger, for releasing the clamp from the space timber, substantially as described. 31st. In justifying mechanism, means for removing temporary spaces from a line and conveying them back to the space magazine of the assembling mechanism, substantially as described. 32nd. In justifying mechanism, the magazine 278, the elevator for injecting spaces into the magazine, and the parallel arms for periodically carrying said magazine from the elevator back to deposit the spaces in the magazine of the assembling mechanism, substantially as described. 33rd. In justifying mechanism, the follower head 182, the weight for moving the head to the left to convey the line through the respacing mechanism, and the means for temporarily relieving the pressure of the follower head upon the line, substantially as described. 34th. In justifying mechanism, the follower head 182, the weight 194 for moving said head in one direction the larger weight 197 for returning the head, and means for periodically raising the larger weight and locking it when raised, substantially as described. 35th. In justifying mechanism, the knife for cutting spaces, the justifying gauge, and means for feeding space timber to the knife, substantially as described. 36th. In a type justifying machine the sliding cutter block and the yoke 304 movable relatively to the cutter block, substantially as described. 37th. In justifying mechanism, the space timber magazine, and the means for ejecting remnants of space timber and supplying new pieces from the magazine to the respacing mechanism, substantially as described. 38th. In a type justifying machine, the timber carrying slide, the weight for feeding space timber to the knife, and means for raising and sustaining the weight while a new piece of timber is being connected to the slide, substantially as described. 39th. In a type setting and justifying machine, the automatic means for assembling lines of type in the galley, substantially as described. 40th. In a type setting and justifying machine, the means for transferring lines of type to the galley by hand, substantially as described. 41st. In a type setting machine, the mechanism for assembling type and temporary spaces into lines, substantially as described. 42nd. The mechanism for justifying lines of type and temporary spaces, substantially as described.

No. 62,612. Ticket Case. *Porte-billets.*



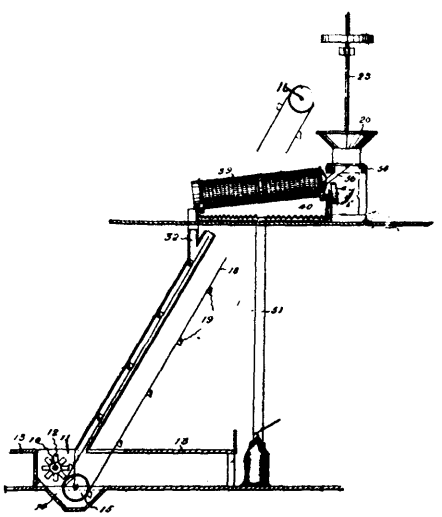
Nelson E. Springsteen and Strathearn Hendrie, Detroit, Michigan, U.S.A., 21st February, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. A ticket case comprising a casing and cover, partitions therein forming receptacles for the ticket rolls, a pin or shaft passing through the centre of the roll, and friction springs on the sides of each reeeptacle bearing against the sides of the roll and constituting bearings for the roll shaft to give tension to the unwinding. 2nd. A ticket case comprising a casing and cover, partitions therein forming receptaclet for the ticket rolls, a pin or shaft passing through the centre of a roll, friction springs on the sides of the receptacle bowed out at the middle to bear against the side of the roll, and a bell ringing mechanism adapted to be operated by the withdrawal of a ticket passing over the roll K. 3rd. A ticket case comprising a casing and cover, a receptacle for a ticket roll, friction devices for retarding the unwinding of the roll, a roll over which the ticket strip passes, and a bell ringing mechanism adapted to be operated by the roll upon the drawing thereover of a length of paper equal to the length of a ticket. 4th. A ticket case comprising a casing, a cover, and a ticket roll receptacle, a roll opposite the receptacle guides for the paper around the roll so as to lead the paper off from the wheel in a plane at an acute angle to the entering plane, and a bell ringing mechanism operated by the roll upon the drawing over the same a length of paper equal to the length of a ticket, and means for guiding said ticket strip and holding a portion thereof exposed whereby it can be engaged for the purpose of drawing the ticket strip out. 5th. In a ticket case, the combination of the casing, having a roll compartment and a trough shaped section I, a roll journalled in this section I, a cover having a hooked section adapted to enclose the roll K and to leave a guide way for the paper between, and guides on the casing for the edges of the strip beyond this guide under the hooked edge of the cover. 6th. In a ticket case, the combination of the casing having a ticket roll compartment therein and a trough shaped section, a roll journalled in this section I, a cover having a hooked section adapted to enclose said roll and leave a guide way for the ticket strip between, and the flange or bar T on the cover adapted to press the strip into contact with said roll, for the purpose described. 7th. A ticket case comprising a casing having a receptacle therein for a plurality of ticket

rolls, friction devices for retarding the unwinding of said rolls, a roll K over which the ticket strip is led, and a single bell ringing device adapted to be operated by the drawing over the roll a length of strip equal to one ticket. 8th. A ticket case comprising a casing having receptacles therein for a plurality of ticket rolls, friction devices for retarding the unwinding of said rolls, a roll K, over which the ticket strips are led, a longitudinal shaft J, to which said roll is secured, a bell adapted to be sounded by the turning of said shaft caused by the drawing over said roll K a length of strip equal to one ticket, and guides for holding strip so as to be unaffected by the turning of said wheels but allowing said strip to be free to engage with said wheels when drawn out from the case. 9th. A ticket case comprising a casing and cover, partitions therein forming receptacles for the ticket rolls, a pin or shaft passing through the centre of a roll, friction springs on the sides of the receptacle bowed out at the middle to bear against the sides of the roll, a bell ringing mechanism carried on the shaft S, comprising the lugs U and V on the shaft, said lug U overlapping the shaft J and being held in contact therewith by means of the spring W, and a finger Q on the shaft J adapted to operate the bell ringing mechanism upon the passing over the roll K a length of strip equal to a ticket.

No. 62,713. Apparatus for Treating Fish Offal.

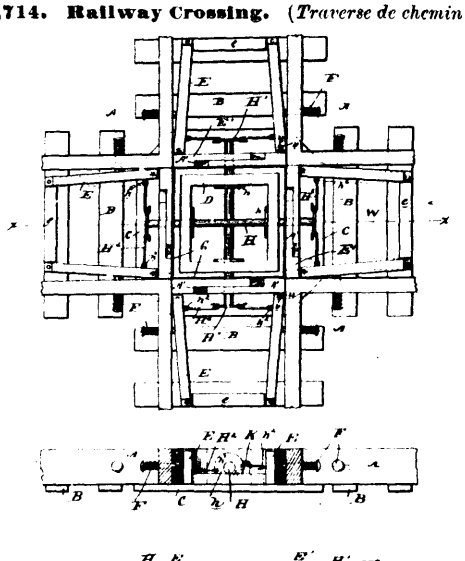
(*Appareil pour le traitment des rebuts de poisson.*)



Thomas Herbert Wymonde, assignee of Thomas Watts, both of Vancouver, British Columbia, Canada, 21st February, 1899; 6 years. (Filed 10th August, 1898.)

Claim.—1st. In a mill for taking guano from the residue of fish offal, the combination of a mixer and conveyer arranged in a trough, with means for passing the stuff so mixed to a pulverizer, and through a rotary sifter to a chute 51, substantially as and for the purposes specified. 2nd. In combination with an apparatus for reducing the residue of fish offal to guano, a mixer 10 journalled in a trough 11, mixing and conveying blades 12 secured in a spiral fashion along the shaft of said mixer, said blades being at such an angle that the material in the trough 11 will be driven forward, a well or recess 14 for receiving the material, means for conveying the same to a pulverizer arranged in a hopper or receptacle, means for passing the said material thence to a rotary sifter, and so repeating the operation until the whole is deposited into a receiving trough, and means for passing it to a chute 51, as specified. 3rd. A pulverizer for reducing the residue from fish offal, the same consisting of a hopper 20 having a vertical recessed bottom portion 25, laterally disposed pockets 31 therein, knife-bundles 32 securely fixed therein, the inner edges of which project within the inner edge of the vertical recess 25, a shaft 23 vertically journalled in a step 33 in the horizontal bottom of the hopper, a wheel 26 rigidly fixed to said shaft having recesses at intervals around its periphery and knife blades secured in such recesses, the edges of which pass in close proximity to the edges of the fixed knives 32 on their way round, and means for depositing the matters to be pulverized between the fixed and revolving knives, as specified. 4th. A machine for pulverizing fish offal residue, a vertically placed shaft 23 suitably journalled in a receptacle having a flared mouth, disintegrating knives 32 arranged in recesses in the walls of said receptacle, cutting members 27 arranged in pockets on the periphery of wheel 26 secured to such shaft, the bearing or rear sides of such knives or cutting members 32 and 27 being placed radial to the axis of the wheel 26, an opening 35 in the bottom of the receptacle, and means for sweeping the pulverized matter into such opening after it has passed through the knives, as set forth. 5th. An apparatus for pulverizing the residue from fish offal, consisting of a receptacle having a flared or hopper mouth, a shaft turning vertically therein, cutting devices arranged around the walls of the receptacle, and other cutting devices arranged on the drum of wheel 26, secured on the shaft 23, to pass in close proximity to the fixed cutters, a frustrum of a cone 24 secured on said shaft 23, on the upper side of the wheel 26 carrying the cutters, and a spirally formed depressing blade 37 on said cone, whereby the matters to be pulverized will be forced downward. 6th. In an apparatus for the purpose described, in combination with a rotary sifter 39 placed on an incline, means for depositing the matter to be sifted into same, a horizontal trough 40 for receiving the sifted matter, and oppositely arranged spiral conveyors made to turn in said trough, whereby the matter treated will be conveyed to the chute 51. 7th. A rotary sifter mounted on rollers 41 and 42, the rollers 41 being rigidly mounted on a shaft 43, and means for imparting rotary movement thereto, a support roller 45 journalled in a bracket which is rigidly fixed in proximity to the end of the said sifter, the said roller being arranged to bear against the ring 39b of the sifter, so that it will be retained in its proper position. 8th. In combination with a rotary sifter for the purpose described, a means for passing the matter to be sifted to the same, whence the sifted material will fall into a receiving trough 40, in which right and left spiral conveyors convey the sifted material to a duct 51, a chute 52 at the lower open end of the sifter which returns the unpulverized matter into the elevator mechanism to be returned to the pulverizer for further reduction. 9th. In an apparatus for disintegrating the residue from fish offal, in combination with a frame 53 having a passage through its centre, depending pins arranged in concentric rows on its under side, a vertical shaft passing through the said opening, a disc secured on the depending end of said shaft, the upper plane of said disc being in close proximity to the depending pins on the frame 33, pins secured to the upper plane of the said disc and made to pass between the depending ones, and means for supporting the shaft and for rotating the same. 10th. In an apparatus for disintegrating the residum from fish offal, in combination with a fixed frame 53, having an annular depending rim 55 arranged around an opening in its centre, a concentric rows within the rim 55, a shaft 43 journalled in suitable bearings and passing vertically through the opening in the frame 53, a disc 63 secured on the depending end of the shaft 23, upwardly projecting pins on the said disc and arranged in concentric rows between the rows of pins on the frame 53, and means for imparting rotary motion to said shaft.

No. 62,714. Railway Crossing. (*Traverse de chemin de fer.*)

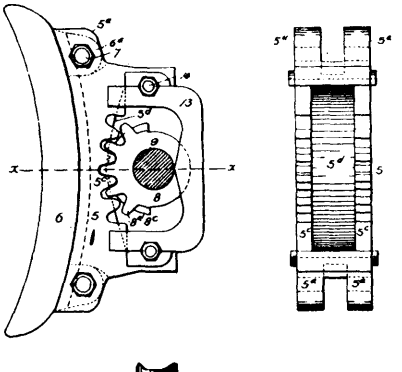


William P. S. Young and Louis F. Winkler, both of Leipsic, Ohio, U.S.A., 21st February, 1899; 6 years. (Filed 2nd February, 1899.)

Claim.—1st. In a railway crossing, the combination with the ordinary tracks, stub-rails pivoted near the ends of the respective tracks, lap portions extending from said stub rails in a line with the rails of the track running at substantially right-angles thereto, rods passing through the lap portions of the directly opposite rails, discs at the ends of said rods, and links connecting said rods with the stub rails, so that the directly opposite sets of stubs will be automatically operated upon the approach of a train on one set, and means for normaly retaining the stub rails spread apart, substantially as described. 2nd. In a railway crossing, the combination with the ordinary tracks, stub rails pivoted in said tracks, lap portions extending at substantially right-angles from said stub rails,

means for normally forcing the rails apart, and a rod rotatably mounted between opposite sets of stub rails, and connecting means between the rod and stub rails whereby one set of stub rails is operated upon the operation of the opposite set, substantially as described. 3rd. In a railway crossing, the combination with the ordinary tracks, stub rails pivoted in said tracks, lap portions extending from said rails in line with the track running at substantially right-angles to the stub rails, a base-plate having the cut-away portions in which the meeting portions of the track fit, and the slots in which said lap portions play, and means for operating the stub rails to automatically force the lap sections together, and means for normally holding the stub rails apart, substantially as described. In a railway crossing, the combination with the ordinary tracks of pivoted spring-retained stub rails, lap portions at substantially right-angles thereto, and a base, a stationary guard section B on said base, and slots therein in which the lap portions slide, and means connected with the stub rails bearing in the guard-section for operating the stub rails, substantially as described. 5th. In a railway crossing, the combination with the ordinary tracks, spring-retained stub rails pivoted near the ends of the respective tracks, a guard-section, and rods bearing in said guard-section and passing each other at right-angles therein, and link connections at the ends of said rods whereby one set of stub rails is operated upon the operation of the opposite set, substantially as described. 6th. In a railway crossing, the combination with the respective tracks, the guard-section, spring-retained stub rails, lap portions projecting from said rails in line with the track running at right-angles to the stub rails, and direct connection between the opposite sets of stub rails, comprising continuous rods having bearing in the guard section, and discs at the ends of said rods, links connecting said discs with the stubs, substantially as described. 7th. In a railway crossing, the combination with the ordinary tracks, the base, a guard-section secured to said base, stub rails situated at the ends of the respective tracks, and lap portions extending from said stub rails in a line with the track running at right-angles to said rails, guides on the base in which the lap rails slide, means for normally forcing said rails apart, and means mounted in the guard-section and connected with the rails whereby one set of stub rails is operated upon the operation of the opposite set, substantially as described. 8th. In a railway crossing, the combination with the track, of a base, a guard-section in the centre of the base, stub rails at the ends of the tracks, lap portions in line with the track running at right-angles to the stub rails, means for normally holding the stub rails separated, and means mounted in the guard-section and passing through the lap portions for automatically operating the opposite sets of stub rails upon the engagement of one set by wheels of a train, comprising the rods H, discs *h*, and links H[1] connecting the discs with the stub rails, substantially as described.

No. 62,715. Brake. (*Frein.*)



William Henry Sauvage, Lee A. Reynolds, Henry N. Wood and David M. Dearing, all of Denver, Colorado, U.S.A., 21st February, 1899; 6 years. (Filed 1st February, 1899.)

Claim.—1st. A brake comprising a shoe adapted to bear upon the surface of a wheel or like article, a curved or inclined rack formed on the rear side of the shoe, and means engaging said rack for forcing the shoe into operative engagement with the wheel by a wedging action, the curve or inclines of the rack serving to cause the bearing surface of the shoe to contact with the wheel. 2nd. A brake comprising a brake shoe provided with a curved or inclined rack formed on the rear side of the shoe, a pinion engaging said rack, and means for operating said pinion to force the shoe into operative position, the rear side of the shoe adjacent the rack, and the pinion adjacent its cogs being provided with plain surfaces whereby binding of the pinion in the rack when operating the shoe, is prevented. 3rd. A brake comprising a brake shoe provided with a curved or inclined rack on its rear side, a pinion to operate the rack, and means for operating the pinion, the pinion being provided with a plain surface adapted to bear on a similar surface on the shoe. 4th. A brake for the purpose described, comprising a shoe having a curved or inclined rack on its rear side, a pinion engaging said rack, a rock shaft on which the said pinion is mounted, means for actuating the rock shaft, and boxes in which the shaft is journalled, the said boxes being constructed to compensate for the wear of the operating parts. 5th. The combination with two or more cars, of brakes therefor, each of said brakes comprising a brake shoe having a curved or inclined rack on its rear side, and means engaging said rack to operate the shoe, a draw bar connecting the brakes on one car with the car ahead, and mechanism carried by the car for automatically moving the brakes on that car into operative position, the draw bar being so connected to the car as to release the brakes on the car behind, whereby when the car in front moves forward the brakes on every other car in the train are released and when the car in front slackens speed, the brakes on every other car are automatically moved into operative position. 6th. In a brake, the combination of a shoe having its front face curved to engage the wheel, its rear face being oppositely curved and provided with a cogged rack, a pinion engaging the rack and normally occupying a central position in the rack, whereby the turning of the pinion in either direction causes the shoe to wedge between the wheel and the pinion. 7th. In a brake, the combination of a shoe having its front face curved to engage the wheel to be acted upon, its rear face being oppositely curved and provided with a cogged rack, and a plain surface adjacent to the rack, and a pinion engaging the rack and having a plain surface engaging the plain surface of the shoe to prevent binding of the pinion in the rack, the shoe and pinion being normally or when the brake is released, so located that the turning of the pinion in either direction will cause the shoe to engage the wheel with a wedging action. 8th. In a brake, the combination with the brake shoes having their front faces shaped to fit the wheels to be acted on, and their rear faces oppositely curved and provided with racks and plain surfaces adjacent to the racks, pinions engaging the racks of the shoes and having their plain faces engaging the corresponding surfaces of the shoes to prevent binding of the racks and pinions, a rock shaft upon which the pinions are made fast, said shaft being provided with crank arms, rods connected with said crank arms, an equalizing bar connecting the rods, and suitable means connected with the equalizing bar for actuating the rock shaft and operating the brake shoes. 9th. In a brake, the combination of a wedge having its rear face curved oppositely from the curve of the wheel to which the brake is to be applied, the said rear face having a rack formed thereon and a plain surface adjacent the rack, a brake shoe detachably applied to the front part of the wedge, a pinion engaging the rack on the wedge and having a plain face co-operating with the corresponding face of the wedge, and means for operating the pinion in either direction, whereby the shoe is applied to the wheel by a wedging action, substantially as described. 10th. In a brake, the combination of a wedge having its rear face curved oppositely from the curve of the wheel to which the brake is to be applied, the said rear face having a rack formed thereon and a plain surface adjacent the rack, a brake shoe detachably applied to the front part of the wedge, a pinion engaging the rack on the wedge and having a plain face co-operating with the corresponding face of the wedge, a rock shaft on which the pinion is mounted, and a cover or shield detachably applied to the wedge and adapted to embrace the pinion from the rear and engage the shaft adjacent the pinion. 11th. A brake comprising a shoe adapted to bear on the surface of a wheel or like article, the said shoe being provided on its rear surface with a double inclined rack, the two inclines diverging rearwardly from a central point, and means engaging said rack for forcing the shoe into operative engagement with the wheel by a wedging action, the inclines of the rack serving to cause the bearing surface of the shoe to contact with the wheel.

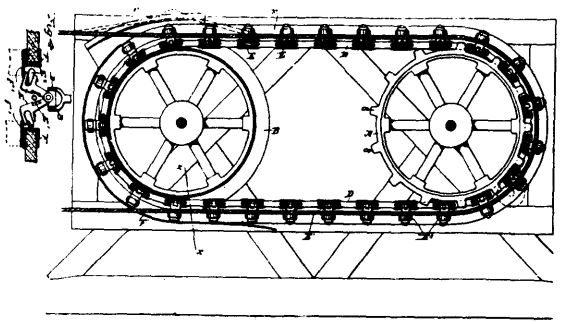
No. 62,716. Rope Grip and Propelling Device.

(*Agrippeur de cable et appareil de propulsion.*)

The Washburn and Moen Manufacturing Co., Worchester, Massachusetts, assignee of Henry M. Brittan, San Francisco, California, both in the U.S.A., 21st February, 1899; 6 years. (Filed 31st January, 1899.)

Claim.—1st. A rope gripping device, consisting of a link chain, wheels around which said chain passes and through which motion is conveyed to it, gripping jaws pivoted to the chain links and carried by them, said jaws diverging to admit the rope between them, and having internal discs adapted to grip the rope, antifrictional bearings upon the other ends of the grip jaws, ways or guides between which these jaws pass and by which they are forced toward each other to grip the cable, said ways being convergent at the point where the grip enters and divergent to allow the grips to open and the ropes to pass out therefrom. 2nd. A rope gripping and pro-

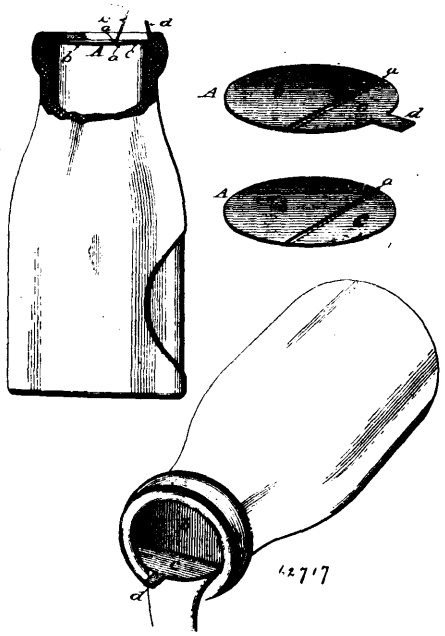
pelling device, consisting of an endless chain formed of links. wheels around which the chain passes and through which power is applied



62716

to drive it, gripping jaws fulcrumed to and carried by the chain links, said jaws diverging outwardly to admit the rope, antifrictional bearings upon the outer ends of the jaws and ways between which the jaws pass to close them against the rope, said ways converging at the point where the grips enter between them and diverging, allow the grips to open and the rope to escape at the point where it leaves them, and a device whereby the ways are adjusted to or from each other to increase the pressure upon the grips. 3rd. In a rope gripping and propelling apparatus, an endless chain, wheels around which it passes and through which motion is applied to propel it, grips fulcrumed in the chain links, and ways between which the grips pass whereby they are closed upon the rope after the latter has entered between them, and a guard or shield at the point where the rope enters the grip whereby any kink or enlargement is diverted and carried exterior to the gripping jaws. 4th. In a rope gripping apparatus, an endless chain, wheels around which it passes, and through which propulsive motion is applied, ways between which the grips pass, and are closed upon the rope ofter the latter has entered between them, and supplemental ways acting to separate the grips after they have left the main ways.

No. 62,717. Vessel Closure. (*Fermeture de vase.*)

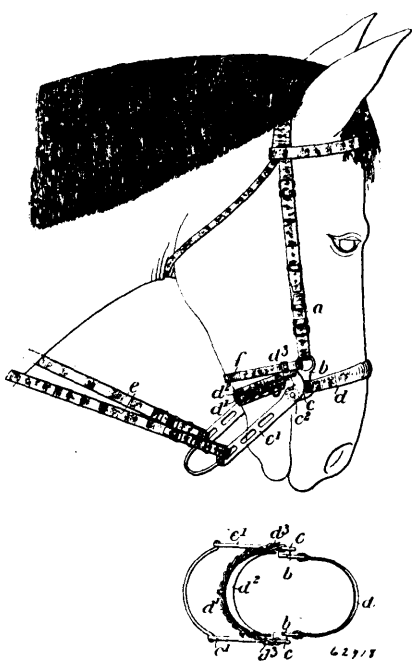


62717

William R. Macintosh, Buffalo, and Charles A. Lee, Canastota, both of New York, U.S.A., 21st February, 1899; 6 years. (Filed 17th January, 1899.)

Claim.—1st. A removable, flexible, plate-like stopple for vessels, adapted to be inserted and held in the orifice thereof, and scored so that a portion thereof may be turned up and down to open and close said orifice without displacing the stopple. 2nd. As a new article of manufacture, a seal, stopple or closure for vessels, consisting of a thin flexible plate of suitable material of a form to fit the orifice to be sealed or closed, and having a weakening line therein to facilitate and to locate the bending, folding, or movement of one portion relatively to the other, the movable section contacting with the wall of the orifice. 3rd. A removable, flexible, plate-like stopple for vessels adapted to be inserted into and held in the orifice thereof, and scored so that a portion thereof may be forced up and down to open and close said orifice without displacing the stopple, one section of the stopple being provided with a tab or handle by which to move it, the movable portion contacting with the wall of the orifice. 4th. A removable, flexible, plate-like stopple for vessels, adapted to be inserted into and held in the orifice thereof, and having its outer face scored, so that a portion of the stopple may be turned up and down to open and close said orifice without displacing the stopple. 5th. A removable, flexible, plate-like stopple for vessels, adapted to be inserted into and held in the orifice thereof, and having one face scored to enable one portion to be turned up and down relatively to the other. 6th. A removable, flexible, plate-like stopple for vessels adapted to be inserted into and held in the orifice thereof, and having both its faces scored, so that one portion may be turned up and down relatively to the other to open and close said orifice without displacing the stopple. 7th In combination with a vessel, a removable, flexible, plate-like stopple inserted and held in the orifice thereof, and scored or weakened to permit one portion to be raised from its seat while the other portion remains in position. 8th. In combination with a vessel, a removable, flexible, plate-like stopple inserted and held in the orifice thereof, and scored or weakened to permit one section to be withdrawn from its seat in said orifice without disturbing the other section, the movable section being provided with a tab or handle by which to withdraw it. 9th. A removable, flexible, plate-like stopple for vessels, adapted to be inserted into and held in the orifice thereof, and scored or weakened so as to part the same into two unequal portions, the lower of which serves to hold or retain the stopple, while the smaller section may be moved to open and close the vessel. 10th. In combination with a vessel, a removable, flexible, plate-like stopple, inserted and held in the orifice thereof and scored or weakened at one side of its centre to produce a retaining section *b* and a lid or cover section *c*, substantially as described and shown. 11th. The herein described stopple, seal, or closure for vessels, comprising a middle section *b* and two outer sections *c* provided with tabs or ears *d* and having weakening lines or scores along their lines of connection with the middle portion *b*, substantially as set forth.

No. 62,718. Means of Controlling and Driving Horses.
(*Moyen de controller et conduire les chevaux.*)

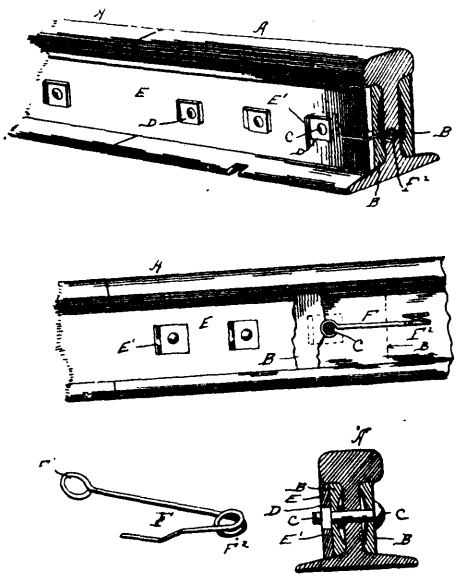


Edwin Robert Wethered, 18th Church Terrace, Lee, London, England, 22nd February, 1899; 6 years. (Filed 3rd February, 1899.)

Claim.—1st. The described means for controlling and driving horses, such means consisting in providing each cheek strap with a fulcrum plate to which is pivoted a lever having long and short arms, in securing the ends of the nose strap or band to the fulcrum plate, and the curb chain or strap to the short arms of the levers, and the reins to the log arms thereof, which are connected at their lower ends by a cross-bar, substantially as and for the purpose hereinbefore described. 2nd. A bridle having a nose strap, the two ends of which are secured respectively to metal fulcrum plates upon the ends of the cheek straps, the ends of the curb chain or strap being secured to the ends of short arms of levers pivoted to the said plates,

and the rein being attached to the ends of the long arms of the levers, which are connected at their lower ends, substantially as and for the purpose hereinbefore described. 3rd. The combination and arrangement of parts forming the improved bridle, hereinbefore described and illustrated in the accompanying drawing.

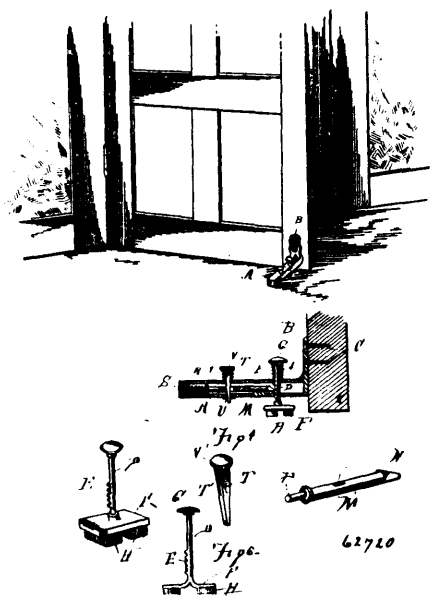
No. 62,719. Nut Plate Lock. (*Plaque d'arrête-écrou.*)



James M. Matter, Halifax, Pennsylvania, U.S.A., 22nd February, 1899; 6 years. (Filed 9th February, 1899.)

Claim.—In combination with the rails, angle fish-plates and retaining-bolts and nuts thereon, the nut-locking plates having rectangular-shaped apertures designed to fit over the said nuts and allow of a longitudinal movement to the said locking-plate, the resilient plate-retaining wires, each having an eye at one of its ends adapted to engage over a retaining-bolt, the shank portion of the wire being coiled and its free end bent at right angles in two directions and designed to engage over the outer face of the said nut-locking plate, and allowed a vertical play in the recessed portion of the fish-plate, substantially as shown and described.

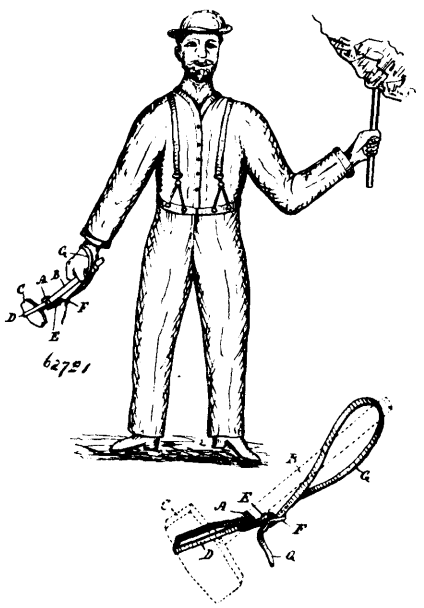
No. 62,720. Door Stop. (*Arrête porte.*)



Oliver Cromwell Conerly, Vanamaker, South Carolina, U.S.A., 22nd February, 1899; 6 years. (Filed 9th February, 1899.)

Claim.—1st. In a door-stop, the combination of a depressible plunger, a spring-held bolt adapted to engage the same and provided with a slot, and a depressible rod movable through said slot and having an inclined surface by means of which the bolt is retracted when said rod is depressed, substantially as set forth. 2nd. In a door-stop, the combination of a casing, a plunger movable vertically therethrough and provided with a ratchet and a screw-threaded upper end, said plunger adapted to engage the floor at its lower end, a spring coiled about the upper end of the plunger, a screw-threaded cap engaging the screw-threaded end of the plunger and adapted to vary the tension of the spring, a spring-actuated bolt movable longitudinally in the casing and adapted to engage the ratchet of the plunger, and means for retracting said bolt, substantially as set forth.

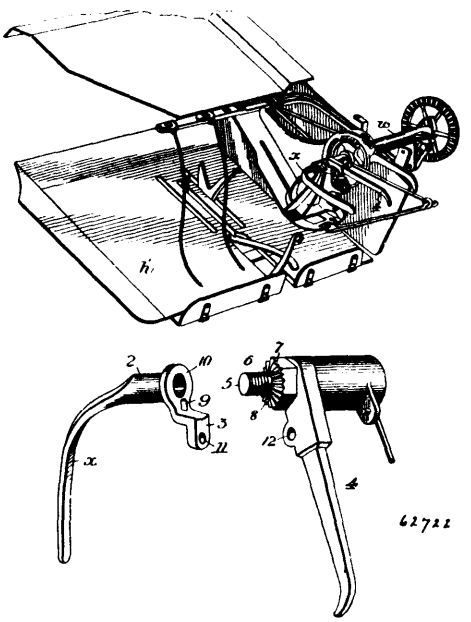
No. 62,721. Hammer Hand-Sling. (*Marteau.*)



Henry H. Schepers, Sandon, British Columbia, Canada, 22nd February, 1899; 6 years. (Filed 9th February, 1899.)

Claim.—A hammer hand-sling for retaining a hammer and relieving the hand at intervals from grasping the handle while striking an upward blow, comprising a U-shaped clutch to fit the hammer handle, a strap having the ends fastened to said clutch and forming a loop to receive the head of the hammer, a buckle connected to said clutch and a strap passing through said buckle and forming a loop to fit on the wrist of the user, substantially as set forth.

No. 62,722. Harvester. (*Moissonneuse.*)

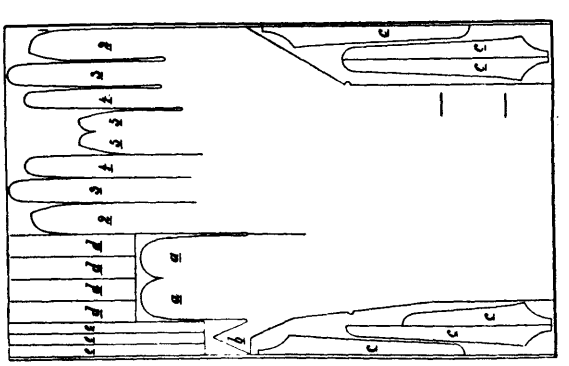


John Fletcher Steward, Chicago, Illinois, U.S.A., 22nd February, 1899; 6 years. (Filed 9th February, 1899.)

Claim.—1st. The combination with the upper roller of the lower elevator canvas, of a gear on the shaft of said roller, an idler gear

meshing therewith, a driving gear meshing with the idler gear, and a chain driven sprocket-wheel rigid with the driving gear. 2nd. The combination with the upper roller of the lower elevator canvas, of an auxiliary roller located stubbleward from and in substantially the horizontal plane of the elevator roller, a gear on the shaft of the elevator roller, a gear on the shaft of the auxiliary roller, a chain driven sprocket-wheel on the auxiliary roller shaft outside of its gear, and an idler gear meshing with both said roller gears. 3rd. The combination with the upper roller of the lower elevator canvas, of a gear on the shaft of said roller, an idler gear meshing therewith, a driving gear meshing with the idler gear, a chain driven sprocket-wheel rigid with the driving gear, and a shield covering said gear and sprocket-wheels. 4th. The combination with the upper roller of the lower elevator canvas, an auxiliary roller located stubbleward from and in substantially the horizontal plane of the elevator roller, and a head lifting and accelerating finger at the rear ends of the rollers. 5th. The combination with the upper roller of the lower elevator canvas, of a gear on the shaft of said roller, an idler gear meshing therewith, an auxiliary roller located stubbleward from and in substantially the horizontal plane of said elevator roller, a gear on the shaft of the auxiliary roller meshing with the gear of the auxiliary roller, a sprocket-wheel rigid with the auxiliary roller gear, a lifting and accelerating finger pivotally connected to the sprocket-wheel, and a link having a fixed pivot at one end, and connected at the other to the lower end of the finger. 6th. The combination of the lower elevator canvas, the extension board at rear edge thereof, the upper roller of said canvas, a gear on the rear end of said roller shaft, an auxiliary roller located stubbleward from and in substantially the horizontal plane of the elevator roller, a gear on the rear end of said roller shaft, an idler gear meshing with both the roller gears, a chain driven sprocket-wheel rigid with the gear of the auxiliary roller, the inclined deck leading to the binder, a shield fastened at one end to the aforesaid extension-board and extending over and above the gear and sprocket-wheels to the inclined deck, and a finger pivoted below the shield and driven by the sprocket-wheel, said finger reaching above the shield and operating to assist the heads of the grain over the highest point of the elevator. 7th. In a grain elevating and self-binding harvester, the combination with the rollers at the upper end of the elevator, the binding apparatus, the inclined deck leading from the elevator to the binder, a head lifting and accelerating finger at the apex of the elevator, and a discharge arm reaching rearward from the end of the overhead binder shaft, and acting more particularly on that part of the grain which is advanced by the accelerating finger. 8th. The combination with the overhead binder shaft having the usual ejectors for the body portion of the bundle, of an auxiliary discharge arm projecting rearwardly and curving laterally from the end of said binder shaft. 9th. The combination with the overhead binder shaft having the ejector 4, of an auxiliary discharge arm fitting on the end of the shaft and detachably secured to the ejector. 10th. The combination of the overhead binder shaft having a screw-threaded end, the ejector 4, locked to and upon said shaft by the nut 7, having the serrated face 8, and an auxiliary discharge arm fitting on the projecting end of the shaft and having a detent to engage the serrations of the nut, and adapted to be bolted to the ejector. 11th. The combination of the overhead binder shaft having the screw-threaded end 5, the ejector 4, locked to and upon said shaft by the nut 7, screwing upon the shaft, a curved auxiliary discharge arm x, having a tubular hub-like socket 2, fitting over the end of the shaft, a radial arm 3, projecting from the socket and adapted to be bolted to the ejector 4, serrations 8, on the outer face of the nut, and a detent 9, on the socket of the discharge arm adapted to interlock with the serrations of the nut.

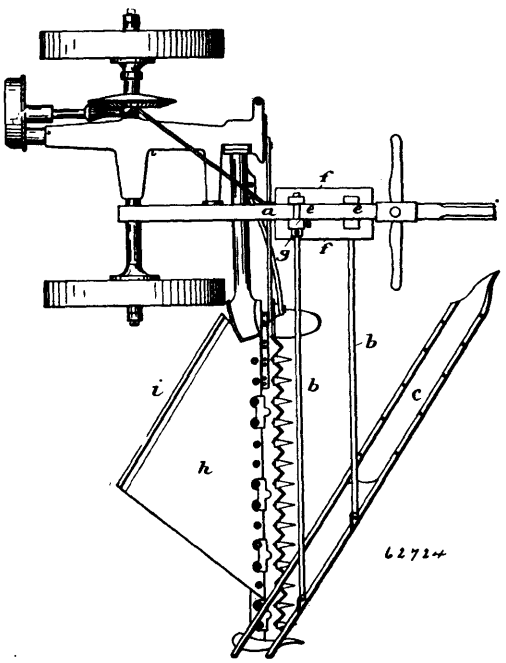
No. 62,723. Glove. (*Gant.*)



Johan Peter Möller, Pankow, near Berlin, German Empire, 22nd February, 1899; 6 years. (Filed 9th February, 1899.)

Claim.—1st. A process for the manufacture of gloves, characterized by the fact that all the parts of the glove, namely, the fingers, gusset strips, fork strips and strengthening pieces or strips, are punched out at one blow from a piece of leather that has been pulled into rectangular shape, constructed and arranged substantially as hereinbefore described. 2nd. A glove, made according to the process specified in claim 1, characterized by the fact that it has no seam below the fingers with the exception of the slip, constructed and arranged substantially as hereinbefore described. 3rd. A glove of the kind specified in claim 2, in which the gusset strip b has the form shown in figure 1, constructed and arranged substantially as hereinbefore described. 4th. A glove in which the thumb is made in one single piece with the other fingers, and in which a seam i-k runs along the closing slit, constructed and arranged substantially as hereinbefore described.

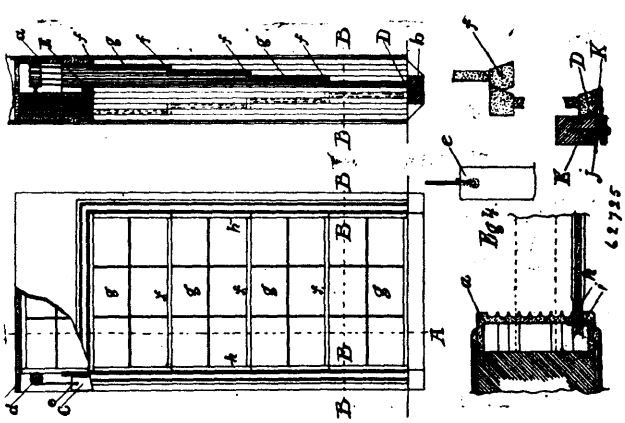
No. 62,724. Mowing Machine. (*Faucheuse.*)



Ernst Julius Zimmermann, Mittelbach, near Pilsnitz, Saxony, German Empire, 22nd February, 1899; 6 years. (Filed 8th February, 1899.)

Claim.—For attachment to grass-mowing machines to render them suitable for mowing cereals, a device in which a stalk-gathering, straightening and stretching board or plate, or the like, is arranged in front of and above the cutter-beam for drawing the cereal forward and to one side and stretching the stalks for the purpose of facilitating the cutting of the cereal and for laying the cut cereal in regular order, substantially as described and shown.

No. 62,725. Fire-Door or Shutter. (*Porte pour le feu.*)

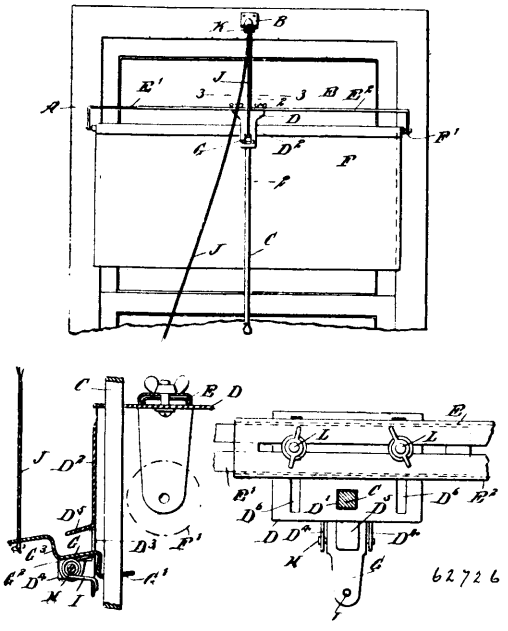


Charles Arnold Barber, Winnipeg, Manitoba, Canada, 22nd February, 1899; 6 years. (Filed 6th February, 1899.)

Claim.—1st. The combination in fire-doors or shutters, of fire-proof box-headed frames, with vertical sliding grooves or fluting, and weight or counter-balance boxes. 2nd. In fire-proof doors or shutters, the shutters so arranged in sections that they can be counter-balanced and act with safety and certainty, completely closing the opening with a dead-air chamber between the shutters. 3rd. The fastening of the weight cords, and the combination of the

bolts, and fusible blocks or plugs, and the guide-pulleys. 4th. The general construction of the fire-doors and shutters, as shown, all substantially as and for the purposes hereinbefore set forth.

No. 62,726. Curtain Holder. (*Porte-rideau.*)



Ulysses S. Parish and Flavel A. Rudolph, both of Carmi, Illinois, U.S.A., 22nd February, 1899; 6 years. (Filed 6th February, 1899.)

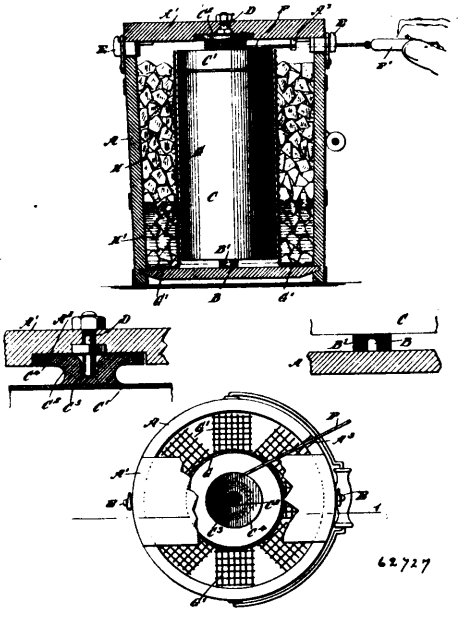
Claim.—1st. The combination with the rod depending from the window casing, of a support longitudinally adujstable thereon and provided with a horizontal plate formed with slots, an adjustable frame for the curtain roller, and fastening devices holding said frame in adjusted position, and adjustably connecting said frame with said horizontal plate, as and for the purpose set forth. 2nd. The combination with the rod attached to the window casing, and the support adjustable thereon, of the curtain frame made in two adjustable sections fitted to slide one upon the other and provided with coincident slots, and fastening devices in said slots and fastening said sections in adjusted position, the said devices adjustably attaching said curtain frame to said support, substantially as shown and described. 3rd. The combination with the rod depending from the top of the window casing, the support adjustable thereon and provided with the horizontal plate formed with transverse slots, a frame for the curtain roller, said frame being formed in sections fitted to slide one upon the other and provided with coincident slots, and bolts working in the slots of the horizontal plate and the frame sections, whereby the sections are adjusted relative to their distance from the rod and held adjusted to fit various sizes of curtain rollers, as and for the purpose set forth. 4th. In a curtain holder, the combination of a vertically extending supported rod, a support slidable vertically on the rod, a spring pressed locking catch pivotally mounted on the support and engaging with the rod to lock the support at various positions on the rod, a cord attached to said catch and serving to move the same against its spring and to permit the vertical movement of the support, and a frame carried on the support and having the curtain hung therefrom. 5th. The combination of a vertically extending rod, an L-shaped frame, one member of which is provided with an orifice slidably receiving the rod, and the other member of which is provided with an orifice bounded on one side by a lug, a locking catch pivotally mounted on said other member of the support and extending through the orifice therein and co-acting with the rod to lock the support with the rod, the locking catch being limited in its movement by the said lug, a spring pressing the locking catch, a cord attached to the locking catch, and a frame carried on the support and having the curtain hung therefrom.

No. 62,727. Ice Cream Freezer.

(*Appareil réfrigérant pour crémes.*)

Frederick P. Burr, Middletown, Connecticut. U.S.A., 22nd February, 1899; 6 years. (Filed 3rd February, 1899.)

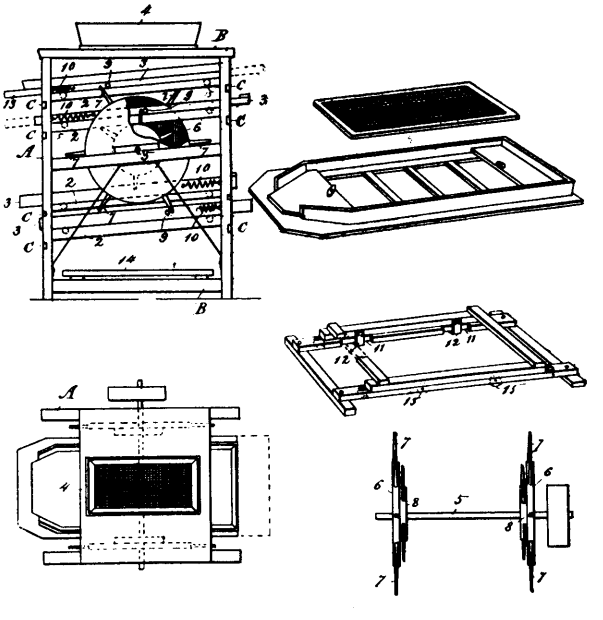
Claim.—1st. An ice cream freezer, comprising a vessel adapted to contain a freezing medium, a receptacle for containing the matter to be frozen and mounted to turn in said vessel, and means, substantially as described, for giving an alternate forward and backward motion to said receptacle, as set forth. 2nd. An an ice cream freezer, comprising a vessel for containing a freezing medium, a receptacle for containing the matter to be frozen and mounted to



turn in said vessel, the receptacle having a removable cover, a pulley on said cover, and a flexible strip winding on said pulley, for rotating the receptacle alternately in opposite directions. 3rd. An ice cream freezer, comprising a vessel for containing a freezing medium, a receptacle for containing the matter to be frozen and mounted to turn in said vessel, the receptacle having a removable cover, a pulley on said cover, a flexible strip winding on said pulley, for rotating the receptacle, and a guide on said vessel for the passage of said strip to the outside of the vessel, substantially as shown and described. 4th. An ice cream freezer, comprising a vessel adapted to contain a freezing medium, a receptacle for containing the matter to be frozen and mounted to turn in said vessel, means, substantially as described, for giving an alternate forward and backward motion to said receptacle, and a perforate guard surrounding said receptacle, to keep the solid parts of the freezing medium from contact with the receptacle, substantially as described.

No. 62,728. Gold Ore Washer.

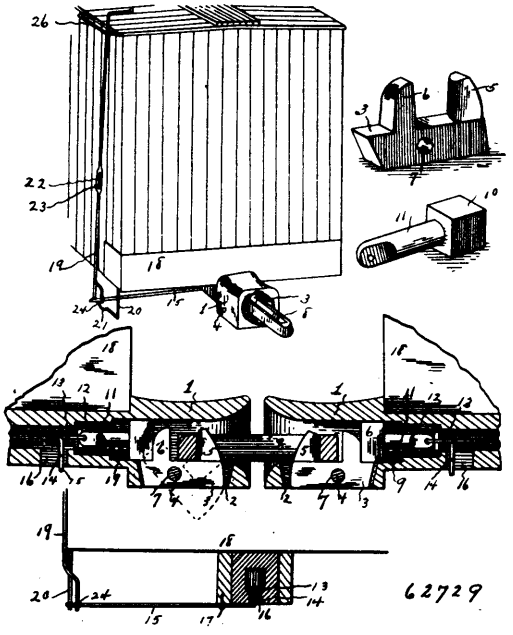
(*Machine à laver le minerai d'or.*)



Frederick Ortlieb, Lehigh, Choctaw Reservation, Indian Territory, U.S.A., 22nd February, 1899; 6 years. (Filed 10th December, 1898.)

Claim.—In a gold washing machine, the combination with a rectangular frame provided with stationary bed-frames, of an upper and lower shaker frame and two intermediate frames, each of said shaker-frames having projecting pins and spring connection with the rectangular frame, and being recessed to receive guiding stirrups or hangers, a transverse shaft mounted centrally in the rectangular frame and two wheels of different diameter mounted at each end of said shaft, and provided with radially projecting spurs, the spurs of the larger wheels alternating with those of the smaller wheels, and being so arranged that the spurs of the large wheels strike the pins of the upper and lower shaker frames, while the spurs of the smaller wheels strike the pins on the intermediate frames.

No. 62,729. Car Coupler. (*Attelage de chars.*)



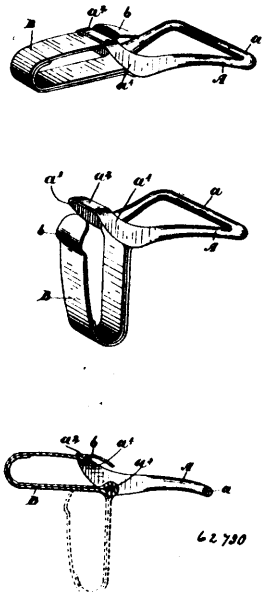
John H. Simco, McFall, Cherokee Nation, Indian Territory, U.S.A., 22nd February, 1899; 6 years. (Filed 9th February, 1899.)

Claim.—1st. In a car-coupling, the combination with a car, of a draw-head, a hook or catch pivotally mounted in the draw-head at the bottom thereof and having a recess at its rear portion, a sliding block mounted in rear of the hook or catch and arranged to engage the recess, a transverse lever fulcrumed between its ends on the car, arranged beneath the same and extending from one side thereof to the draw-head, the inner end of the lever being extended upward and connected with the sliding block, a spring for actuating the block, and the keeper depending from the car at one side thereof and provided at its bottom with a depending bond forming a shoulder arranged to be engaged by the outer portion of the transverse lever, substantially as described. 2nd. In a car-coupling, the combination with a car, of a draw-head, a pivoted hook or catch mounted in the draw-head at the bottom thereof, a sprring-actuated block located in rear of the hook or catch and adapted to engage the same, a trans verse fulcrumed on the car at the bottom thereof and connected at its inner end with the block, a keeper depending from the car and provided at its bottom with a shoulder arranged to be engaged by outer portion of the transverse lever, an upwardly-extending operating-lever arranged at one side of the car and provided between its ends with a longitudinal slot, the upper end of the lever being located at the top of the car and forming a handle and the lower end of the operating-lever being inwardly offset and connected with the transverse lever, and a pivot passing through the slot of the operating-lever and forming a fulcrum for the same, said operating lever being capable of a limited vertical movement to engage the transverse lever with and disengage it from the shoulder of the keeper, substantially as described.

No. 62,730. Snap Hook. (*Crochet à ressort.*)

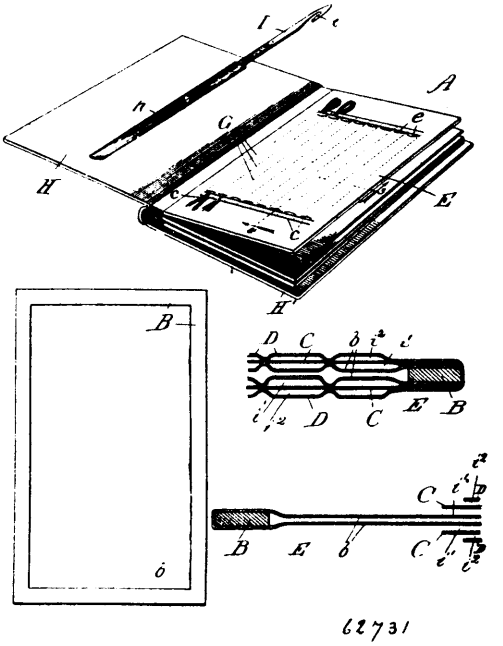
Thomas George Foster, Peterborough, Ontario, Canada, 22nd February, 1899; 6 years. (Filed 10th February, 1899.)

Claim.—1st. A snap hook comprising the shank having an open loop provided with a centre pin and a cross-bar connecting the two sides of the loop and a hook formed of a double leaf encompassing and pivoted upon the centre pin and having the free end extending underneath the cross-bar, as and for the purpose specified. 2nd. A snap hook comprising the shank having an open loop provided with a centre pin and a cross-bar connecting the two sides of the loop and a hook formed of a double leaf encompassing and pivoted upon the centre pin and having the free end extending underneath the cross-bar and an off-set or shoulder formed in the free end and



designed to engage with such cross-bar, as and for the purpose specified. 3rd. A snap hook comprising the shank provided with sides, a centre pin and a cross-bar as shown and a hook pivoted on the centre pin and having the free end extending underneath the cross-bar, as and for the purpose specified.

No. 62,731. Silk Skein Holder. (*Porte-écheveau de soie.*)



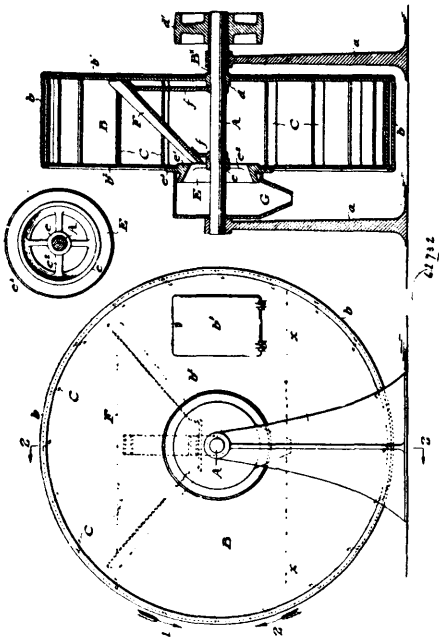
Jennie Williams Gleason, Chicago, Illinois, U.S.A., 22nd February, 1899; 6 years. (Filed 14th January, 1899.)

Claim.—1st. In a silk skein holder, the combination of a frame portion provided with a flexible or yielding cover, a primary sheet secured thereto at its lateral edges and at intermediate points so as to form two or more individual pockets or chambers, a second sheet secured over the primary sheet and to the frame at its lateral edges and intermediate points so as to form individual holding pockets in alignment with the first-named pockets, substantially as described. 2nd. In a silk skein holder, the combination of a frame portion combination of a frame portion composed of relatively rigid bars and provided with a flexible covering, a primary sheet secured thereto at its lateral edges and intermediate parallel points so as to form individual holding pockets or chambers, and a second sheet secured to the frame portion over the first-named sheet and at its lateral

edges and intermediate parallel points so as to form individual holding pockets in alignment with the first-named pockets, substantially as described. 3rd. In a silk skein holder, a book composed of two cover portions hinged together and at least two frames hinged thereto and composed of comparatively rigid bars provided with a flexible covering, a primary sheet secured thereto at its lateral edges and intermediate points or lines so as to form individual holding pockets, and a second sheet secured thereto and above the first-named sheet at its lateral edges and intermediate parallel points or lines so as to provide a second set of holding pockets in alignment with the first-named pockets, substantially as described.

No. 62,732. Concentrating Apparatus.

(Appareil à concentration.)



Samuel N. Lissan, Philadelphia, Pennsylvania, U.S.A., 22nd February, 1899; 6 years. (Filed 18th April, 1898.)

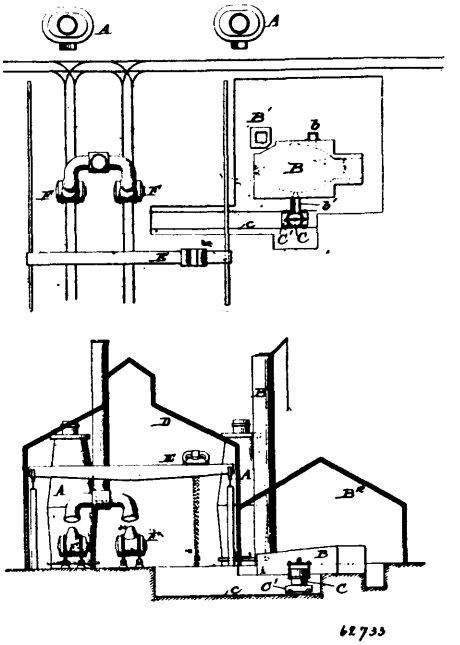
Claim.—1st. A concentrating apparatus, consisting of a revoluble receptacle, the inner face of which is provided with a series of inclined projections, and means for effecting the discharge of material from said device during its rotation, substantially as set forth. 2nd. A concentrating apparatus, consisting of a casing or hollow drum, a series of riffles mounted on the inner face of said casing or drum, and means for constantly withdrawing material from the interior of said casing during its rotation in a given direction, substantially as set forth. 3rd. A concentrating apparatus, comprising a hollow revoluble drum or casing, a series of inclined riffle-plates mounted upon the inner cylindric face of said drum, an opening in the side wall of said drum, and a delivery chute or conveyor fixedly mounted within said casing or drum and adapted to convey material to said opening, substantially as set forth. 4th. In a concentrating apparatus, in combination, a drum-shaped receptacle, a series of riffle-plates mounted upon the inner face of the cylindric wall of said receptacle and tangential with respect to its axis, and an inclined chute mounted within said receptacle and leading to a discharge opening in the side wall of said receptacle, substantially as set forth. 5th. In a concentrating apparatus, in combination, a fixed shaft, an annulus mounted upon said shaft, a drum-shaped receptacle mounted on said shaft, one end wall of which is provided with a central opening within which is entered the peripheral portion of the annulus, a series of inclined riffle-plates mounted upon the inner cylindric face of said receptacle, and an inclined chute mounted within said receptacle and supported upon said shaft with its lower end in line with the opening of said annulus, substantially as set forth.

No. 62,733. Copper Matte Treatment.

(Traitement de matte de cuivre.)

John Colquhoun, Clifton, Arizona, 22nd February, 1899; 6 years. (Filed 25th April, 1898.)

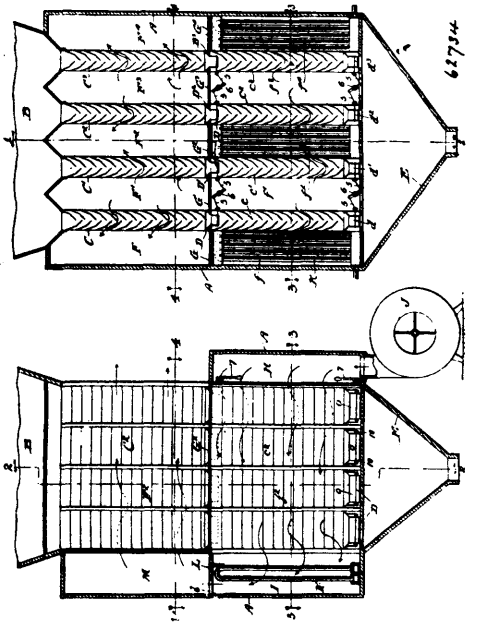
Claim.—1st. As an improvement in the art of reducing copper by the Bessemer process, drawing off the molten matte from the blast furnace, keeping it in a molten condition by an independent controllable source of heat, and altering its grade by the addition of suitable agents, substantially as described. 2nd. As an improvement in the art of reducing copper by the Bessemer process, storing matte in the reverberatory furnace, and adding slags from the converter in order to clean them, substantially as described. 3rd. In apparatus for reducing copper by the Bessemer process, the combination with a blast furnace and a converter, of a receptacle



for the matte from the blast furnace, and a separate furnace for maintaining and regulating the temperature of the contents of said receptacle, substantially as described. 4th. In apparatus for reducing copper by the Bessemer process, the combination with a blast furnace and a converter, of a reverberatory furnace to receive the molten matte from the blast furnace and store it until required by the converter, substantially as described.

No. 62,734. Grain Preparing Apparatus.

(Appareil pour la preparation du grain.)



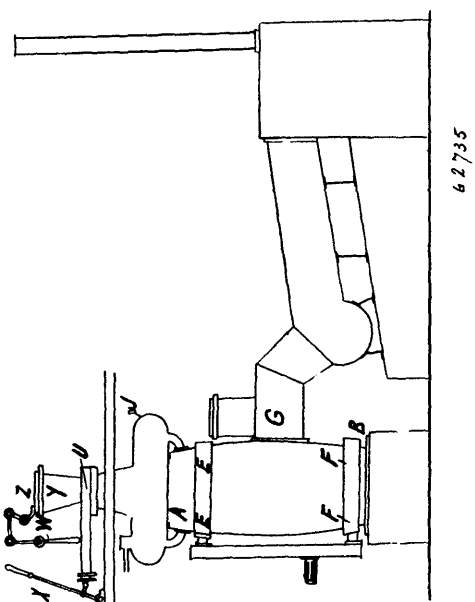
George H. Hess, jr., La Grange Park, Illinois, U.S.A., 22nd February, 1899; 6 years. (Filed 2nd February, 1899.)

Claim.—1st. In an apparatus for treating grain, the combination with a suitable shell or housing, of a plurality of upright grain racks disposed therein and dividing its interior into a plurality of supply and exhaust chambers or passages disposed upon opposite sides of said racks respectively, bulk-heads dividing said chamber or passages horizontally into separate compartments, means for causing a current of cool air to enter the supply chambers below the bulk-heads and pass thence through the racks and into the exhaust chambers upon the opposite sides thereof, means for causing the

same current of air to enter the supply chambers above the bulk-heads and pass thence through the racks and into the exhaust chambers at the opposite sides thereof, and means for heating the air after leaving the exhaust chambers below the bulk-heads and before entering the supply chambers above the bulk-heads, substantially as set forth. 2nd. In an apparatus for treating grain, the combination with a suitable shell or housing, of a plurality of upright grain racks disposed therein and dividing its interior into a plurality of supply and exhaust chambers or passages disposed upon opposite sides of the racks respectively, bulk-heads dividing said chambers or passages horizontally into separate compartments, valves disposed in the racks at about the level of the bulk heads and dividing each rack into a drying rack and a cooling rack, disposed the one above the other, valves at the bottom of the cooling racks, means for causing a current of cool air to enter the supply chamber at the side of each cooling rack, and pass thence through the cooling racks and into the exhaust chambers at the opposite sides thereof, and means for causing heated air to enter the supply chamer at one side of each of the drying racks, and pass thence through the drying racks and into the exhaust chambers at the opposite sides thereof, substantially as set forth. 3rd. In apparatus for treating grain, the combination with a suitable shell or housing, of a plurality of upright grain racks disposed therein and dividing its interior into a plurality of supply and exhaust chambers or passages, bulk heads dividing said chambers or passages horizontally into separate compartments, valves disposed in the grain racks at about the level of the bulk heads and dividing each rack into a drying rack and a cooling rack, disposed the one above the other, valves at the bottoms of the cooling racks, means for causing a current of cool air to enter the supply chamber at the side of each cooling rack and pass thence through the cooling racks and into the exhaust chambers at the opposite sides thereof, means for causing the same current of air to pass into the supply chamber at one side of each of the drying racks and thence through the drying racks and into the exhaust chambers at the opposite sides thereof, and means for heating the air after it leaves the exhaust chambers of the cooling racks and before it enters the supply chambers of the drying racks, substantially as set forth. 4th. In an apparatus for treating grain, the combination of a plurality of upright cooling racks having in their sides openings for the passage of air, a supply chamber disposed upon one side and an exhaust chamber disposed upon the opposite side of said racks, a chamber disposed at the ends of the racks and communicating with the supply chamber, means for discharging a current of cool air into the chamber last aforesaid, a chamber disposed at the opposite ends of the racks and communicating with the exhaust chamber, means for heating the air in the chamber last aforesaid, a drying rack, and means for causing the air to pass through the grain in the drying rack after it is heated as aforesaid, substantially as set forth. 5th. In an apparatus for treating grain, the combination with a suitable shell or housing, of a plurality of upright grain racks disposed therein and dividing its interior into a plurality of supply and exhaust chambers or passages, bulk heads dividing said chambers or passages horizontally into separate compartments, and means for causing a current of air to pass alternately through one of said compartments and then through the grain racks, whereby it is compelled to pass repeatedly through said racks, substantially as set forth. 6th. An apparatus for treating grain, having in combination, a plurality of upright cooling racks disposed side by side, supply and exhaust chambers disposed upon opposite sides, respectively, of the cooling racks, a chamber disposed at the ends of the cooling racks and communicating with the exhaust chambers aforesaid, means for heating the air in the chamber last aforesaid, a plurality of upright drying racks disposed side by side, supply and exhaust chambers or passages disposed upon opposite sides, respectively, of the drying racks, and an air chamber disposed at the ends of the drying racks and communicating with the supply chambers last aforesaid and with the air-heating chamber, substantially as set forth. 7th. In an apparatus for treating grain, the combination with a suitable shell or housing, of a plurality of drying and cooling racks having in their sides openings for the passage of air, the drying racks being disposed above the cooling racks, said racks being so disposed within the shell or housing as to divide it into a plurality of vertical passages, horizontal bulk-heads dividing said passages into a plurality of chambers F, F¹, etc., disposed at the sides of the drying racks, and a plurality of chambers *f*, *f*¹, etc., disposed at the sides of the cooling racks, valves for controlling the exits of the drying racks, valves for controlling the exits of the cooling racks, a chamber H, communicating with the alternate chambers of the group *f*, *f*¹, etc., a chamber I, communicating with the other alternate chambers of the group *f*, *f*¹, etc., and a chamber M, communicating with the chamber I, and with the alternate chambers of the group F, F¹, etc., substantially as set forth. 8th. In an apparatus for treating grain, the combination of an upright rack having in its sides openings for the passage of air, and means for causing a current of air to repeatedly pass through the rack from side to side thereof, first through one portion of the rack in one direction and then through another portion of the rack in the opposite direction, said means including a chamber disposed at the side of the rack and spanning the aforesaid portions thereof, substantially as set forth. 9th. In an apparatus for treating grain, the combination of an upright rack having in its sides openings for the passage of air, and means for causing a current of air to repeatedly pass through the rack from side to side thereof, first through one portion of the rack in one direction, and then through another portion of the rack in the opposite direction, and means including a chamber disposed at one side of the rack and spanning both of the aforesaid portions thereof, and two chambers disposed at the other side of the rack, and each spanning one of the aforesaid portions thereof, substantially as set forth. 10th. In an apparatus for treating grain, the combination of an upright rack having in its sides openings for the passage of air, and means for causing a current of air to repeatedly pass back and forth through the rack, from side to side thereof in opposite directions, said means including chambers disposed upon opposite sides of the racks, and bulk-heads arranged in the chambers alternately so as to divide them up into separate overlapping compartments, substantially as set forth. 11th. The combination of a hopper, a valve for controlling its exit, and means for supporting said valve so that it may slide back and forth across the exit of the hopper, the wall of the hopper at one side thereof being terminated a short distance above the valve, substantially as set forth. 12th. The combination with a hopper, of a slide-valve having grooves in its underside and brackets 9, secured to the hopper and having ways 10, occupying the grooves of the valve, substantially as set forth.

No. 62,735. Zinc Ore Dressing Process.

(*Procédé pour la fabrication de minerai de zinc.*)

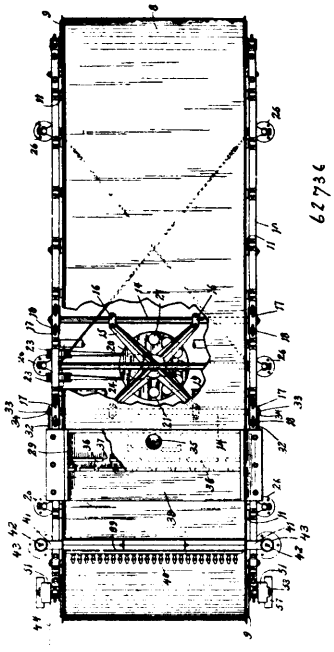


Amédée M. G. Sébillot, 60 Boulevard de Clichy, Paris, France, 22nd February, 1899; 6 years. (Filed 11th November, 1898.)

Claim.—1st. A method of manufacturing zinc in the metallic state with blast furnaces, by dressing either zinc ores, calamine, blende or mixed ores, the said method consisting of the disoxidation of the zinc oxide obtained by the calcined calamine, or of desulphuring the blende by iron in metallic or oxide state, or also by oxidized copper ores, and by the addition of carbon in both cases, serving as a reducing agent, the said process being effected in a hermetical double-blast furnace, the complete disoxidation of zinc being obtained by the passage of its vapours over incandescent coals before reaching the condenser, the said condenser being placed into a double-sloped flue maintaining the temperature above the fusion of zinc, to obtain this metal at the tap-hole, substantially as and for the purpose set forth. 2nd. The above-mentioned method and the arrangement of a furnace which is hermetically closed at the top and formed by a metallic casing, A, B, with water circulation supported by a brick-mass foundation, the said casing or jacket being provided with holes to introduce the air from the blast, these holes being arranged at the top and at the bottom of the furnace, and between which holes the gas-hole G is placed, this latter being furnished with water circulation tubes, H, H, H, forming a grating, another grating, G¹, in fire-bricks surrounding the space I, containing charcoal, which is supported by the cylinder J, substantially as described and for the purpose set forth. 3rd. In the above-mentioned furnace, the combination with two rows of blast-pipes, the upper of which, blowing air which passes through the matters from top to bottom, the lower one forcing the air to pass from bottom to top, and the two currents joining to make for the outlet-hole placed between these two rows of blast-pipes, substantially as and for the purpose set forth. 4th. Finally, the application of the above-mentioned process and apparatus for all zinc ores, calamine, blende and mixed ores and for the separation in general of fixed

and volatile metals in blast furnaces, substantially as described and for the purpose set forth.

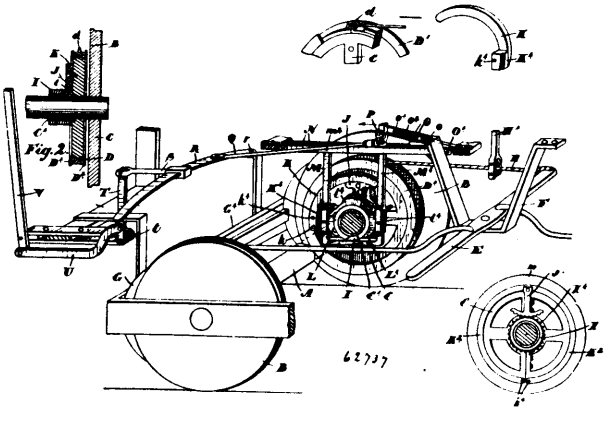
No. 62,736. Ore Concentrator. (*Concentrateur de minerai.*)



Allan G. Mather and Frederick T. Snyder, both of Milwaukee, Wisconsin, U.S.A., 22nd February, 1899; 6 years. (Filed 10th August, 1898.)

Claim.—1st. The combination of a frame, flexible supports connected at their upper ends to the frame, and at their lower ends to the flooring, and capable of yielding in all directions parallel to the frame, a concentrator vessel or surface mounted in the frame, mechanism for shaking the frame and concentrator vessel or surface, said shaking mechanism consisting of a gyrator mounted so as to move about an axis not passing through its centre of gravity, and means for adjusting the centre of rotation of the gyrator with respect to the concentrator surface. 2nd. The combination, with a frame, having opposite side pieces, rods connecting said side pieces, a spider provided with projecting legs adjustably mounted on the rods, a pin fixed in said spider, a shaking mechanism consisting of a gyrator mounted on the pin, so that the axis of the pin does not pass through the centre of gravity of the gyrator, and an ore concentrating vessel or surface mounted on the frame. 3rd. The combination of a frame, hangers on said frame, and longitudinally adjustable along the frame, rods connecting said hangers, a spider connected to the rods, a pin mounted in the spider, a shaking mechanism, consisting of the gyrator mounted on the pin, so that the axis of the pin does not pass through the centre of gravity of the gyrator, and an ore concentrating vessel or surface mounted on the frame. 4th. The combination, with a frame, rods extending transversely across said frame, and longitudinally adjustable thereon, a bearing provided with projecting legs mounted on the rods, so that said bearing may be adjustable transversely of the frame, a pin in the bearing, a shaking mechanism consisting of a gyrator mounted on the pin so that the axis of the pin does not pass through the centre of gravity of the gyrator, and an ore concentrating vessel or surface mounted on the frame. 5th. The combination of a frame, flexible supports connected at their upper ends to the frame and at their lower ends to the flooring, and capable of yielding in all directions parallel to the plane of the frame, said supports forming the sole means for supporting the frame, mechanism for shaking the frame, said shaking mechanism consisting of a gyrator mounted so as to move about an axis not passing through its centre of gravity, drums mounted in opposite ends of the frame, an endless belt passing around the drums, means for imparting a gyratory movement to the frame, a strap adapted to follow the longitudinal movement of the frame and to bend laterally with the sidewise movement of said frame, a retarding and resisting device at the lower end of the strap, and clutch mechanism between the upper end of the strap and the journal of the drum, whereby on the thrust of the frame in one direction the clutch mechanism is set so as to clutch the upper end of the strap to the journal of the drum and thereby cause a rotation of said drum in one direction, and on the reverse thrust of the frame to cause a disengagement of the clutch mechanism, whereby a reverse rotation of the drum is prevented. 6th. The combination, of a frame, flexible supports connected at their upper ends to the frame and at their lower ends to the flooring, and capable of yielding in all directions parallel to the plane of the frame, said supports forming the sole means for supporting the frame, mechanism for shaking the frame, said shaking mechanism consisting of a gyrator mounted so as to move about an axis not passing through its centre of gravity, drums mounted in the opposite ends of the frame, an endless belt passing around the drums, means for imparting a gyratory movement to the frame, a strap adapted to follow the longitudinal movement of the frame and to bend laterally with the sidewise movement of said frame, an adjustable retarding and resisting device at the lower end of the strap, and clutch mechanism between the upper end of the strap and the journal of the drum, whereby on the thrust of the frame in one direction the clutch mechanism is set so as to clutch the upper end of the strap to the journal of the drum and thereby cause a rotation of said drum in one direction, and on the reverse thrust of the frame to cause a disengagement of the clutch mechanism, whereby a reverse rotation of the drum is prevented. 7th. The combination of a frame, yielding flexible supports for said frame, drums mounted in opposite ends of the frame, an endless belt passing around the drums, means for imparting a gyratory movement to the frame, a flexible strap adapted to follow the longitudinal movement of the frame end and to bend laterally with the sidewise movement of said frame, a retarding and resisting device at the lower end of the strap, and clutch mechanism between the upper end of the strap and the journal of one of the drums, whereby on the forward thrust of the frame in one direction the clutch mechanism is set so as to clutch the upper end of the strap to the journal of the drum, and thereby cause a rotation of said drum in one direction, and on the rearward thrust of the frame, to cause the clutch mechanism to be disengaged, whereby a reverse rotation of the drum is prevented. 8th. The combination of a frame, flexible supports for said frame, drums mounted in opposite ends of the frame, an endless belt passing around the drum, means for imparting gyratory movement to the frame, a disc mounted fast on the journal of one of the drums, said disc provided with a series of projections, each projection having a curved or sloped peripheral surface which inclines inwardly towards the shoulder of the succeeding projection, a ring fitting around the disc, rollers in the spaces between the inner side of the ring and the inclined surfaces of the projections of the discs, a flexible strap adapted to follow the longitudinal movement of the frame, and to bend laterally with the sidewise movement of the frame, said strip connected at its upper end to the ring and also adapted to turn at said upper end on a pivot extending from the journal of the drum, and a retarding and resisting device at the lower end of the strap. 9th. The combination of a frame, flexible supports for said frame, drums mounted in opposite ends of the frame, an endless belt passing around the drums, means for imparting a gyratory movement to the frame, a flexible strap adapted to follow the longitudinal movement of the frame, and to bend laterally with the sidewise movement of the frame, said strap provided at its lower end with an enlongated slot, a standard adjacent to the lower slotted end of the strap, a pin passing through the elongated slot and entering the standard, and clutch mechanism between the upper end of the strap and the journal of one of the drums, whereby on the thrust of the frame in one direction, said clutch mechanism is set so as to clutch the upper end of the strap to the journal of the drum and thereby cause a rotation of said drum in one direction, and on the reverse thrust of the frame to cause the clutch mechanism to be disengaged, whereby a reverse rotation of the frame is prevented.

No. 62,737. Car Brake. (*Frein de chars.*)

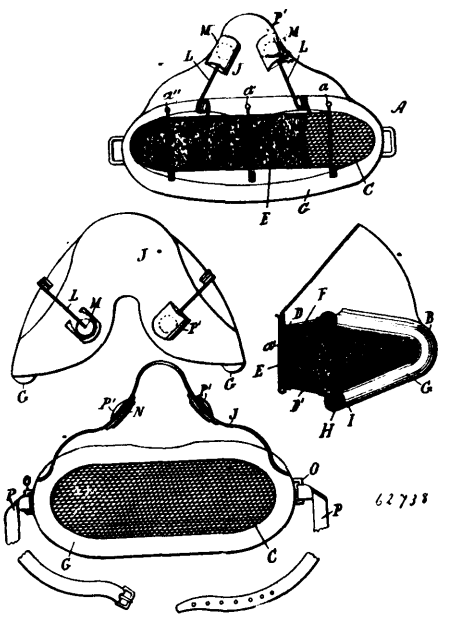


James Henry Keighley McCallum, Remigius Elmsly and William Henry Brouse, all of Toronto, Ontario, Canada, 23rd February, 1899; 6 years. (Filed 7th February, 1899.)

Claim.—1st. The combination with the brake shoes, brake lever and connecting rods, of the sheaf secured to the shaft and the strap loosely mounted on same, and the cable connecting the strap to the brake lever and means for throwing the strap into frictional connection with the sheaf as and for the purpose specified. 2nd. The

combination with the brake shoes, brake lever and connecting rods, of the sheaf secured to the shaft and the strap loosely mounted on same and the capable connecting the strap to the brake lever, the collar attached to or forming part of the sheaf, the loose collar mounted on same and provided with a recess, the rocking bar extending into such recess and the arc-shaped lever pivoted to the sheaf extending over the rocking arm and provided with a frictional contacting braking surface designed to come in contact with the strap and means for retarding the rotation of the loose collar as and for the purpose specified. 3rd. The combination with the brake shoes brake lever and connecting rods, of the sheaf secured to the shaft and strap loosely mounted on same and the cable connecting the strap to the brake lever, the collar attached to or forming part of the sheaf, the loose collar mounted on same and provided with a recess, the rocking bar extending into such recess and the arc-shaped lever pivoted to the sheaf extending over the rocking arm and provided with a brake shoe designed to come in contact with the strap and means for retarding the rotation of the loose collar as and for the purpose specified. 4th. The combination with the brake shoes, brake lever and connecting rods, of the sheaf secured to the shaft, and strap loosely mounted on same and the cable connecting the strap to the brake lever, the collar attached to or forming part of the sheaf, the loose collar mounted on same, the arc-shaped lever pivoted on the sheaf, provided with a frictional contacting surface, and designed to engage with the strap, and means connected to the loose collar for tilting the arc-shaped lever and means for retarding the rotation of the collar, as and for the purpose specified. 5th. The combination with the brake shoes, brake lever and connecting rods, of the sheaf secured to the shaft, and strap loosely mounted on same and the cable connecting the strap to the brake lever, the collar attached to or forming part of the sheaf, the loose collar mounted on same, the arch-shaped lever pivoted and the sheaf, provided with a frictional contacting surface, and designed to engage with the strap, means connected to the loose collar for tilting the arc-shaped lever, the shoes suitably supported in proximity to the loose collar, and means for throwing them against the said collar, as and for the purpose specified. 6th. The combination with the brake shoes, brake lever and connecting rods, of the sheaf secured to the shaft, and the strap loosely mounted on same and the cable connecting the strap to the brake lever, the collar attached to or forming part of the sheaf, the loose collar mounted on same, the arc-shaped lever pivoted on the sheaf, provided with a frictional contacting surface, and designed to engage with the strap, means connected to the loose collar for tilting the arc-shaped lever, the minor shoes, the hangers both pivotally connected to the shoes and one pivotally supported at the top, the bottom bar connecting both hangers at the bottom and means for drawing the hangers together to apply the shoes, as and for the purpose specified. 7th. The combination with the brake shoes, brake lever and connecting rods, of the sheaf secured to the shaft and strap loosely mounted on same and the cable connecting the strap to the brake lever, the collar attached to or forming part of the sheaf, the loose collar mounted on same, the arc-shaped lever pivoted on the sheaf, provided with a frictional contacting surface, and designed to engage with the strap, means connected to the loose collar for tilting the arc-shaped lever, the shoes, the hangers both pivotally connected to the shoes and one pivotally supported at the top, the bottom bar connecting both hangers at the bottom, means for drawing the hangers together to apply the shoes and a suitable spring actuated device for separating the hangers to release the shoes, as and for the purpose specified. 8th. The combination with the brake shoes, brake lever and connecting rods, of the sheaf secured to the shaft and strap loosely mounted on same and the cable connecting the strap to the brake lever, the collar attached to or forming part of the sheaf, the loose collar mounted on same, the arc-shaped lever pivoted on the sheaf, provided with a frictional contacting surface, and designed to engage with the strap, means connected to the loose collar for tilting the arc-shaped lever, the shoes, the hangers both pivotally connected to the shoes and one pivotally supported at the top, the bottom bar connecting both hangers at the bottom, and a solenoid and plunger acting in conjunction with the spring for controlling the movement of the loose hanger, as and for the purpose specified. 9th. The combination with the brake shoes, brake lever and connecting rods, of the sheaf secured to the shaft, and strap loosely mounted on same and the cable connecting the strap to the brake lever, the collar attached to or forming part of the sheaf, the loose collar mounted on same, the arc-shaped lever pivoted on the sheaf and provided with a frictional contacting surface and designed to engage with the strap, means connected to the loose collar for tilting the arc-shaped lever, means for retarding the rotation of the collar, the ratchet-wheel formed on the face of the strap, the pawl engaging therewith and means for releasing such pawl, as and for the purpose specified. 10th. The combination with the brake shoes, brake lever and connecting rods, of the sheaf secured to the shaft, and the strap loosely mounted on same and the cable connecting the strap to the brake lever, the collar attached to or forming part of the sheaf, the loose collar mounted on same, the arc-shaped lever pivoted on the sheaf provided with a frictional contact surface, and designed to engage with the strap, means connected to the loose collar for tilting the arc-shaped lever, the minor shoes, the hangers, the double bar forming a support for the pivoted hanger and a guide for the loose hanger, means for connecting the hangers at the bottom and means for drawing such hangers together to apply the brake, as and for the purpose specified.

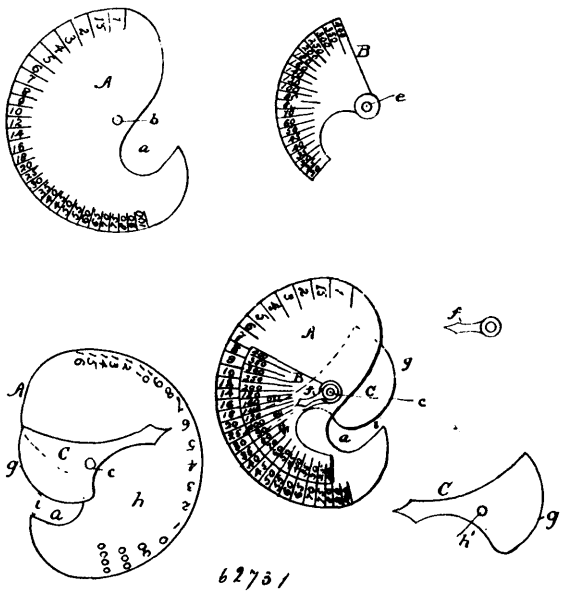
No. 62,738. Mouth and Nose Guard for Firemen, etc.
(Garde-bouche et nez pour pompiers.)



Adolph Theodore Praeckel and Augustus William Dolfini, both of New York City, New York, 23rd February, 1899; 6 years.
(Filed 1st February, 1899.)

Claim.—1st. A mouth and nose guard, consisting of an open frame, fitting around the mouth, covered with wire gauze, in front of which is a casing for carrying a sponge to the top of said casing to attach a sheet rubber flap held to cover the nose by spring support pads and having suspending straps for securing the structure, substantially as shown and described. 2nd. A mouth and nose guard, comprising a frame having overhanging lips with an opening in the upper lip opposite the nose, a wire gauze arranged in said frame opposite the mouth, a protecting caushion surrouunding the wire gauze, a piece of rubber or other suitable material secured to the upper portion of the frame to cover the lower portion of the nose, springs to compress the cloth to the sides of the nose, and a suspension device to secure the guard in the proper place on the face, substantially as shown and described.

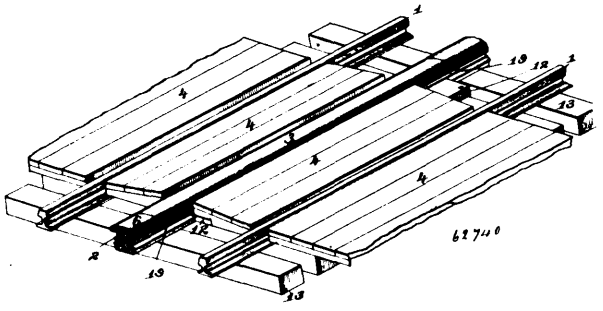
No. 62,739. Wireman's Gauge and Calculator.
(Jauge et calculateur.)



Herbert Lutz, Benjamin Harris and William Crombay Reid, all of Hamilton, Ontario, Canada, 23rd February, 1899; 6 years.
(Filed 27th October, 1898.)

Claim.—1st. A combined wireman's gauge and calculator, consisting of a plate upon the face of which is marked with a series of numbered spaces, indicating amperes, a smaller plate pivoted to the large one, having a series of marginal numbered spaces indicating running feet, and interior figures representing voltages, a pointer or indicator attached to the pivot pin to point to numbered voltages on the smaller plate, a corresponding pointer or gauge indicator attached to the rear or opposite end of the pivot pin, having its outer end formed eccentric shaped, a recess cut out of the rear side of the large plate for the eccentric to co-operate with to form a wire gauge, the size number of which is indicated by the said indicator pointing to marginal figures cut on the rear margin of the large plate, all constructed substantially as and for the purpose specified. 2nd. The combination of the plate A, provided with numbered marginal spaces indicating amperes, and a recess *a* cut out of it for one-half of a gauge, the plate B, hauing numbered marginal spaces indicating running feet, and also numbers engraved on the said plate indicating voltages, the two plates A and B being pivoted together, an indicator or pointer *f* attached to the pivot pin *c* to point to voltages, and a second indicator or pointer with an eccentric end attached to the pivot pin *c* on the under side of the plate A, and made to point correspondingly with the top pointer *f* to marginal figures on the rear side of the plate to give the desired number of wire, while the space *i* between the eccentric *g* and the point *h* on the recess *a* gives the standard gauge of wire required without calculation, substantially as and for the purpose specified.

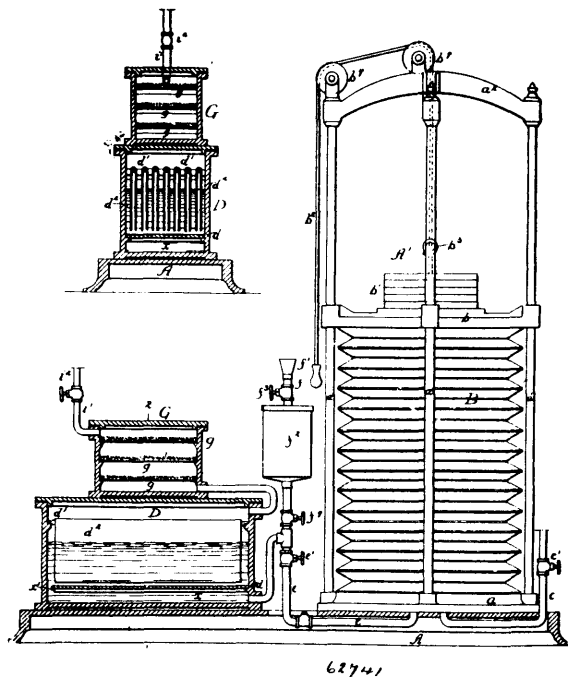
No. 62,740. Electric Railway. (*Chemin de fer électrique.*)



The Electric Third Rail and Signal Company, assigee of Benjamin Coplin Seaton, all of St. Louis, Missouri, U.S.A., 23rd February, 1899; 6 years. (Filed 2nd August, 1898.)

Claim.—1st. In an electric railway, a conductor located between strips of non-conducting material arranged one over the other, a base upon which the lower non-conducting strip rests, a cap or hood resting on the upper non-conducting strip, and bolts clamping said base, strips, conductor and hood together, substantially as set forth. 2nd. In an electric railway, a conductor having a horizontal web, a vertical flange and a horizontal flange, in combination with upper and lower strips of non-conducting material fitting against the web of the conductor, a base upon which the lower strip of non-conducting material, rests and a cap or hood filling on the upper strip of non-conducting material substantially as set forth 3rd. In an electric railway, the combination of a conductor located between a supporting base and a cap or hood adjustable bolts upon which said base rests, and slotted chairs receiving said bolts, substantially as set forth. 4th. In an electric railway, a conductor, a base supporting the conductor and a hood located over the conductor, said base being divided and provided with openings to receive low potential wires, substantially as set forth. 5th. In an electric railway, the combination of a base, a hood, and a conductor located between the base and hood, said conductor being formed to carry feed-in wires and having vertical parts 10 and horizontal parts 11, substantially as described. 6th. In an electric railway, the combination of a base, a hood, a conductor located between the base and hood and insulated therefrom, and a metallic strip 16 covering said hood for the purpose specified. 7th. In an electric railway, the combination with a conductor, a crossing consisting of channel bar sides that form a combination of said conductor, a cover or cap fitting over the channel bars, and a conduit located in the space formed by said channel bars and cap and insulated therefrom, and which serves to carry the feed-in wires of the said conductor, substantially as set forth. 8th. In an electric railway, the combination of a conductor carrying feed-in wires, a crossing located in a gap formed in the conductor, and which is provided with a conduct to carry said feed in wires, and blocks 19 of non-conducting material placed between the crossing and the ends of the conductor, substantially as set forth. 9th. In an electric railway, the combination of a conductor, having a hood or cover, and a crossing in a gap formed in the conductor, said crossing consisting of channel bars, a cap or cover located over the chanuel bars, a conduct located in the space formed by the channel bars and cap and which is designed to carry the feed in wires, the cap of said crossing having a metallic cover adapted to receive the ends of the hood or cover of said conductor, substantially as set forth.

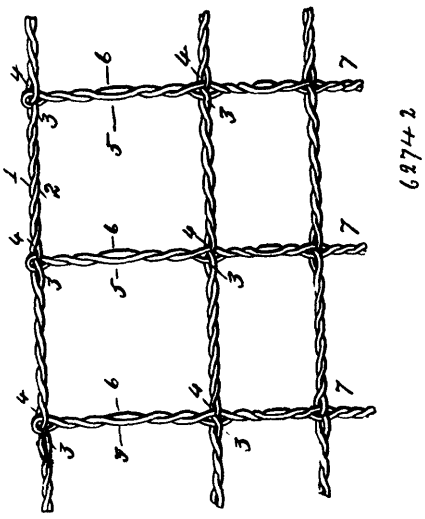
No. 62,741. Gas and Gas Generator.
(*Gaz et générateur à gaz.*)



Ferdinand Logan, Phœnixville, Thomas Leiper Hodge, Philadelphia, and Price Wetherill Janeway, Media, Pennsylvania, U.S.A., 23rd February, 1899; 6 years. (Filed 10th November, 1898.)

Claim.—1st. A gas made by the mixture of air with benzine or naptha and chloroform in or about the proportions named. 2nd. A gas made from a mixture of benzine or naptha, chloroform, collodion and oil of sassafras, in or about the proportions named. 3rd. A gas made of a mixture of air with benzine or naptha, chloroform and oil of sassafras, in or about the proportions named. 4th. The process herein described of manufacturing gas, said process consisting in making a carbureting compound of benzine or naptha, chloroform and collodion, removing the fibrous material from the compound thus formed and then passing through the compound air under pressure so that the air will be carbureted, substantially as described. 5th. The combination in a carbureter of a gas apparatus, of a casing having a horizontal partition arranged at a short distance above the bottom, an inlet for air entering the space under the partition, an opening in the partition communicating with the main chamber of the carbureter some distance from the air inlet, a series of absorbent sheets mounted in the chamber above the partition so that the air forced into the casing will pass through the liquid under the partition and up through the liquid in which the absorbent sheets are partially submerged, substantially as described. 6th. The combination in a carbureter, of the casing, an inlet at the bottom of the casing, an outlet at the top of the casing, a horizontal partition in the casing above the air inlet, a passage at the opposite end of the casing, a series of absorbent sheets suspended in the casing above the partition so that air forced into the casing will pass through the liquid under the partition to the opposite end of the casing then through the passage and through the liquid above the partition, substantially as described. 7th. The combination in a carbureter of a gas apparatus, of the casing, an air inlet at the bottom of the casing, an outlet at the top of the casing, a horizontal partition above the air inlet, a passage around said partition, a series of rods extending across the upper portion of the casing, and a series of sheets of absorbent material suspended from the rods, substantially as described. 8th. The combination in a gas apparatus, of a carbureter consisting of a casing having a horizontal partition directly above the bottom of the casing, absorbent material suspended within the casing above the partition, an air inlet pipe communicating with the space under the partition, an apparatus for forcing air into the carbureter at a given pressure, the carbureter having a passage around the partition so that the air will pass through the liquid under the partition, through the passage and through the liquid above the partition, a purifier, a pipe leading from the upper portion of the carbureter to the lower portion of the purifier, said purifier consisting of a casing having two or more detachable trays therein on which is placed purifying material, and an outlet pipe communicating with the upper portion of the purifier, substantially as described.

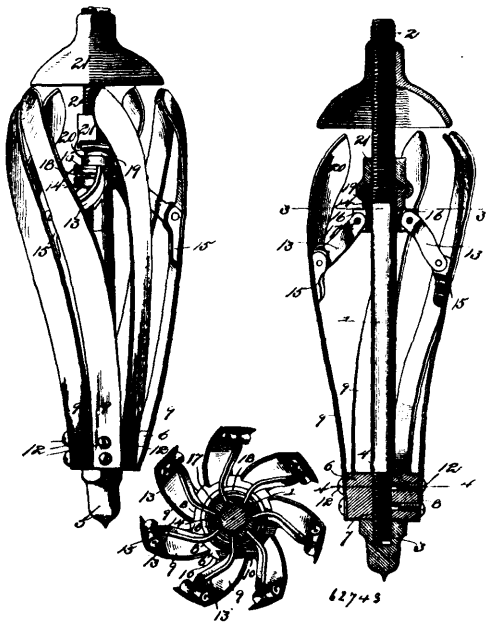
No. 62,742. Wire Fence. (*Clôture de fil de fer.*)



Stephen Henry Purdy and Raymond Barlow Carson, both of Lynn, Ontario, Canada, 23rd February, 1899; 6 years. (Filed 12th May, 1898.)

Claim.—A woven-wire fence, comprising a twisted horizontal cable provided at intervals with contiguous eyes 3, 4, the direction of the twist being reversed between each two pair of eyes, in combination with a series of twisted vertical cables interlocking with said eyes, and having the direction of their twist reversed between each two contiguous horizontal cables, substantially as shown and described.

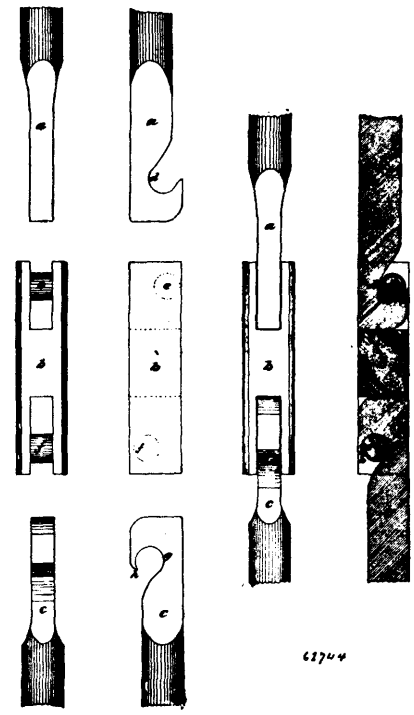
No. 62,743. Flue Cleaner. (*Nettoyeur de tubes.*)



The Werner-Schenck Company, assignee of Harry A. Ruggles, all of Milwaukee, Wisconsin, U.S.A., 23rd February, 1899; 6 years. (Filed 30th January, 1899.)

Claim.—1st. A device of the class described, comprising a central shaft provided at its outer end with a head having a series of peripheral blade-receiving faces, a series of longitudinal blades rigidly secured at their outer ends to the faces of the head, and means for spreading and contracting the inner portions of the blades, substantially as described. 2nd. A device of the class described, comprising a central shaft, a head arranged at the outer end of the shaft and provided with a series of converging peripheral faces arranged at an angle to the shaft, a series of longitudinal blades rigidly secured at their outer ends to the said faces, and means for adjusting the inner ends or portions of the blades, substantially as described. 3rd. A device of the class described, comprising a shaft, a head arranged on the shaft and provided with an annular series of flat peripheral faces converging towards the outer end of the shaft to form tapering intervening portions 10, said faces being arranged at an angle to the shaft to provide innerradial shoulders 11, the blades rigidly secured to the faces of the head and supported by the shoulders 11, said blades being provided at their outer sides with cutting edges, and means for adjusting the blades, substantially as described. 4th. A device of the class described, comprising a shaft, an annular series of longitudinal blades arranged at an angle to the shaft and curved laterally, said blades having their inner or rear ends curved inward, and means for supporting and for adjusting the blades, substantially as described. 5th. A device of the class described, comprising a shaft provided with inner and outer threaded portions, a threaded head arranged on the outer threaded portion of the shaft, a tapering cap-nut mounted on the shaft and engaging the head, longitudinal blades rigidly secured at their front ends to the head, a sliding sleeve mounted on the rear portion of the shaft and provided with an annular groove, a nut engaging the rear threaded portion of the shaft and provided with arms interlocked with the said groove, and the toggle-arms pivotally connected with the blades and similarly secured to the sleeve, substantially as described.

No. 62,744. Sucker Rod Coupler. (*Joint de tige de piston.*)



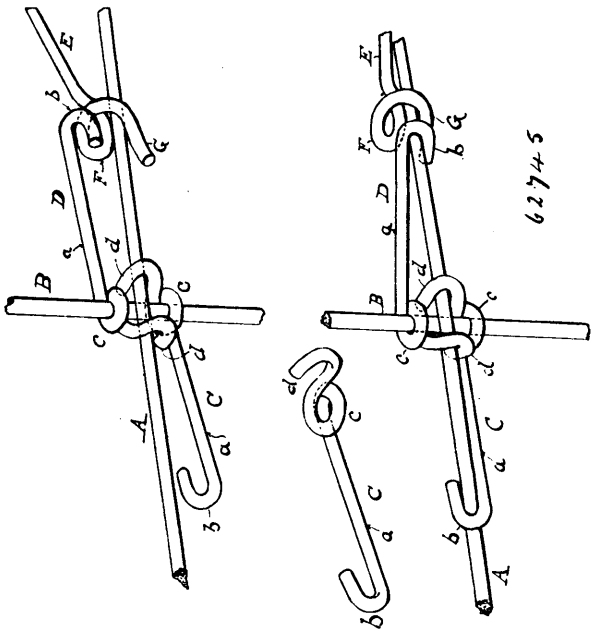
John Henry Byerlay, Petrolia, Ontario, Canada, 23rd February, 1899; 6 years. (Filed 23rd June, 1898.)

Claim.—1st. As a new and useful article of manufacture, a sucker rod coupler consisting of the hooks D and G, on the bars A and C, combined with the pivot book or tumbler B, as shown and described for the purpose set forth. 2nd. The combination of the bars or rods A and C, slightly flattened towards their lower and upper ends respectively, with the tumbler or pivot-block B, as shown and described in the drawing and specification, and for the uses and purposes therein set forth.

No. 62,745. Clamp for Fence Wires.
(*Crampon pour clôtures en fil de fer.*)

Samuel A. Nielson, Madison, Wisconsin, U.S.A., 23rd February, 1899; 6 years. (Filed 2nd November, 1897.)

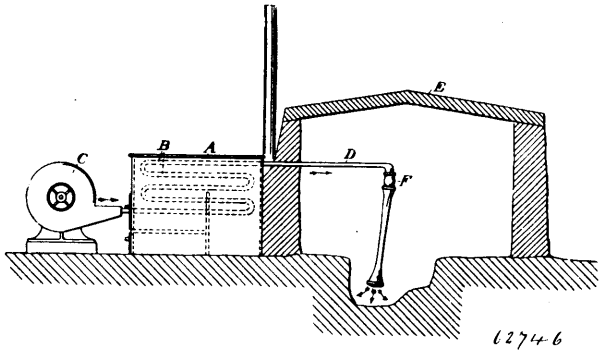
Claim.—A spring member for a wire-fastening device, comprising a wire having a coiled section, and hooked ends on opposite sides of



said coil said hooked ends standing at approximately right angles to one another, substantially as described.

No. 62,746. Earth Thawing Machine.

(*Appareil à dégeler la terre.*)



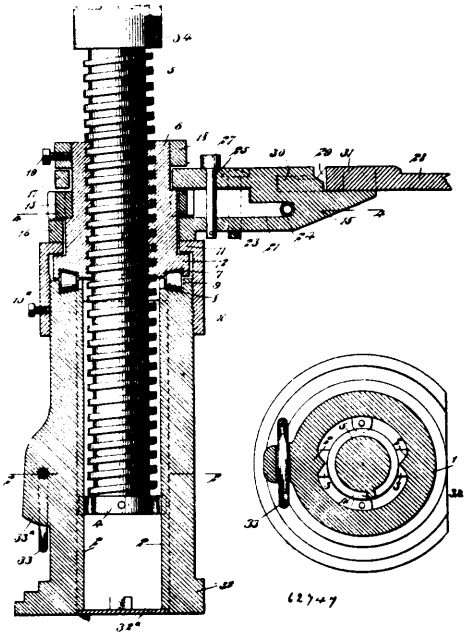
Benjamin F. Gilman, San Francisco, California, U.S.A., 23rd February, 1899; 6 years. (Filed 9th September, 1897.)

Claim.—In an apparatus of the character described, for thawing frozen earth or gravel in situ, a means for applying heat directly to the surface and maintaining it in contact therewith, consisting of a furnace, an air-forcing mechanism, a substantially tight working inclosure for the operators said inclosure surrounding the surface to be thawed, a pipe leading from the furnace into the inclosure for conducting the heat thereto, a jet-pipe within the inclosure having a horizontal series of jets or discharge-passages, and a flexible joint within the inclosure, connecting the conveying-pipe with the movable jet-pipe.

No. 62,747. Jack. (*Cric.*)

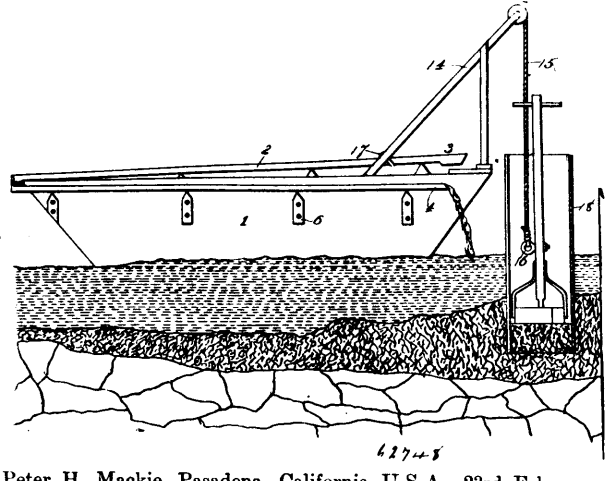
Charles W. Doane, Westlake, Lousiana, U.S.A., 23rd February 1899; 6 years. (Filed 10th February, 1899.)

Claim.—1st. A jack, comprising a hollow body portion, guides in said body portion, a screw movable relatively to the body portion, notched projections on the inner end of said screw engaging with the guides, an interiorly threaded sleeve or nut engaging with the screw, means for removably securing said sleeve or nut to the body portion, a ratchet ring removably connected to said sleeve or nut, a lever mounted to swing on the sleeve or nut, and a dog carried by said lever for engaging with the ratchet ring, substantially as specified. 2nd. A jack, comprising a hollow body portion, an interiorly threaded sleeve or nut mounted to rotate on the end of said body portion, roller bearings between said boby portion and the sleeve or nut, a screw engaging in said sleeve or nut, means for preventing a rotary movement of said screw relatively to the body portion, a ratchet ring removably connected to the sleeve or nut, a lever mounted to swing on said sleeve or nut, and a dog carried by the lever for engaging with the ratchet ring, substanially as specified.



3rd. A jack, comprising a tubular body portion, a screw movable vertically in said body portion, means for preventing the rotary movement of the screw relatively to the body portion, an interiorly threaded sleeve or nut engaging with the screw and mounted to rotate on the upper end of the body portion, a collar having a screw-thread engagement with the body portion and having an inwardly extended annular flange engaging with an outwardly extending flange of the sleeve or nut, a ratchet ring removably connected to the sleeve or nut, an operating lever having ring portions engaging around the sleeve or nut above and below the ratchet ring, a securing collar on the sleeve or nut above the lever, two oppositely extending dogs carried by the lever, and a shaft extended through the lever and having a cam portion for moving and holding either one of the dogs out of engagement with the ratchet ring, substantially as specified. 4th. A jack, comprising a hollow body portion and having a portion of its base cut-away, a screw guided vertically in said body portion, a ring on the body portion, an interiorly threaded sleeve or nut engaging with the screw at the end of the body portion, and means for operating said sleeve or nut, substantially as specified. 5th. In a jack, a body portion, a screw arranged to move therein, means for preventing a rotary movement of the screw with relation to the body portion, a sleeve or nut engaging with the screw at the end of the body portion, a ratchet ring having interior projections to engage in notches formed in the sleeve or nut, a lever mounted to swing on the sleeve or nut, and spring-pressed dogs carried by said lever for engaging with the ratchet rings, substantially as specified.

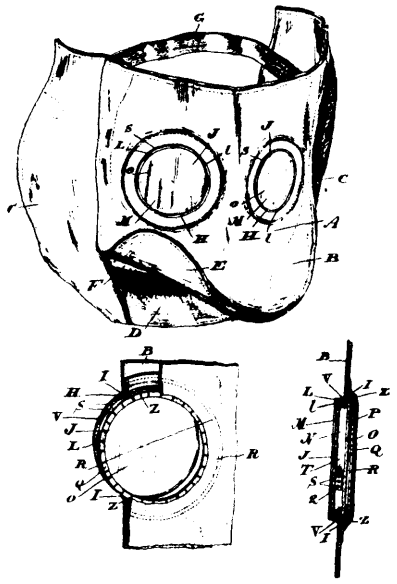
No. 62,748. Dredging Machine. (*Appareil à draguer.*)



Peter H. Mackie, Pasadena, California, U.S.A., 23rd February, 1899; 6 years. (Filed 19th December, 1898.)

Claim.—1st. The combination with a suitable float having an inclined sluice box att ched thereto and further provided with a hoisting derrick, of a dredging appliance, consisting of the operating shaft 7 and suitable means connected thereto for dislodging and gathering the earth as said shaft is rotated, substantially as specified and for the purpose set forth. 2nd. The herein described dredging appliance, consisting of a suitable float provided with an inclined sluice box around the sides thereof, a dredging appliance, consisting of the operating shaft 7 and pivoted buckets attached thereto and designed to loosen and receive the material upon which it is brought to bear, and suitable means erected upon said float for hoisting said dredging appliance and the material secured by it, substantially as specified and for the purpose set forth. 3rd. As an improvement in a dredging or miner's boat, the combination therewith of a sluice box attached to the sides thereof and disposed in an inclined manner, substantially as specified and for the purpose set forth. 4th. The herein described dredging appliance, consisting of the operating shaft, side arms or brackets attached to the lower end of said shaft, excavating buckets pivoted to said shaft and brackets so mounted in position that they will gather and retain the material upon which they are brought to bear, substantially as specified and for the purpose set forth. 5th. In a dredging appliance, an excavating bucket having a convex outer surface and a corresponding concave inner surface and a scooping or cutting blade attached to one side thereof, and suitable means for holding a pair of said buckets in their operative position, substantially as specified and for the purpose set forth. 6th. In a dredging appliace, a pair of buckets having a decreasing tapering bottom or body and a cutting blade or lip secured to the bottom edge thereof, and suitable means for pivotally holding a pair of said buckets in co-operative relationship with each other, substantially as specified and for the purpose set forth.

No. 62,749. Face and Eye Protector.
(*Protecteur pour le visage.*)

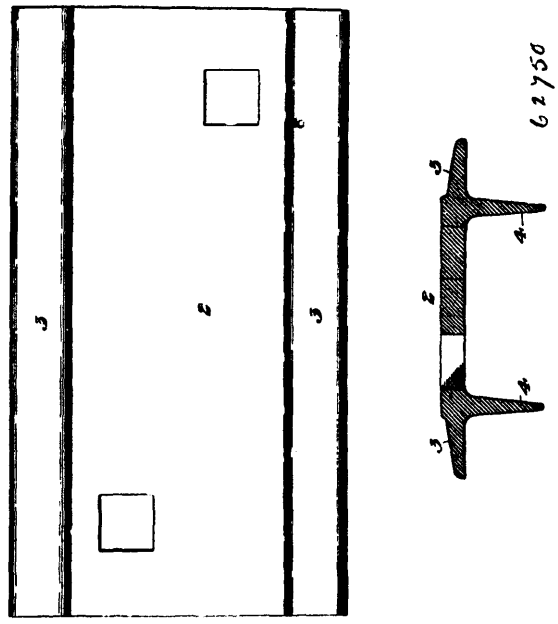


62749

Anslow Barrington Rudd and James Freed Gardiner, both of Perth, Ontario, Canada, 23rd February, 1899; 6 years. (Filed 10th February, 1899.)

Claim—1st. A combined face and eye protector, comprising a hood consisting of a front central portion whose lower end forms a flap which extends over a lower front opening, side wings secured to said central portion, a pocket for the chin, suitable band for securing said hood in place, eye holes in said central portion in which are secured transparent eye protectors, as set forth and for the purpose specified. 2nd. In a combined face and eye protector, the combination with a hood constructed as described, of an eye protector consisting of a main frame in which is supported a plurality of plates or discs of transparent material having intermediate ventilated air spaces, and means for securing the eye protectors in place, as set forth and for the purpose specified. 3rd. In a combined face and eye protector, the combination with the hood constructed as described, eye holes H, H, and wire rings I, I, of the eye protectors constructed as described, and provided with an outwardly extending peripheral annular flange on the main frame, and fastener Z, as set forth and for the purpose specified. 4th. In a combined face and eye protector, the combination with a hood constructed as described, of an eye protector comprising a main frame in which is supported a plurality of transparent discs held apart by rings so as to form intermediate air chambers, ventilating holes for such chambers, a ring and depending flange for keeping the said transparent discs in position, as set forth and for the purpose specified. 5th. The combination with the main frame *l*, ventilating holes S, S, therein, and depending flanges I and O, of the transparent discs, M and O, retaining ring P, air space T, ring M, and recesses 2, all arranged as set forth and for the purpose specified.

No. 62,750. Tie-Plate. (*Plaque de traverse.*)

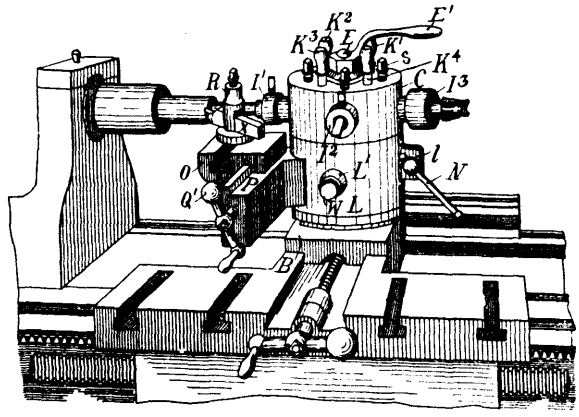


62750

Andrew Morrison, Pittsburg, Pennsylvania, U.S.A., 23rd February, 1899; 6 years. (Filed 10th February, 1899.)

Claim.—1st. A tie-plate, having extensions projecting from its side edges, said extension being thinner than the plate body, and arranged to lie upon the upper surface face of the tie and reduce the rocking action of the plate when in action, substantially as described. 2nd. A tie-plate, of substantially the same thickness throughout its body, having side extentions with inclined or bevelled upper faces, said extensions being arranged to lie upon the upper face of the tie and reduce the rocking action of the plate when in place, substantially as described. 3rd. A tie-plate having depending flanges and provided with thinner side extensions arranged to lie flat upon the upper face of the tie, and reduce the rocking action of plate when in place, substantially as described.

No. 62,751. Turret Head for Lathes.
(*Tête de tourelle pour tours.*)



62751

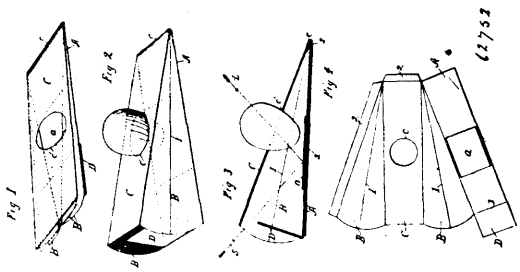
Frederick Schneider, Erie, Pennsylvania, U.S.A., 24th February, 1899; 6 years. (Filed 17th November, 1897.)

Claim.—1st. In a lathe turret, comprising a stationary socket, adapted to be secured to the bed of a lathe, a pivot bolt set in the centre of the socket, a turret head set concentrically on the socket and turnable on the pivot bolt, the combination with the turret, of

mechanism for adjusting and automatically locking the turret head in position on the socket, comprising a tapered locking pin set in a bushing sunk in the socket, a spiral spring set underneath the pin and pressing the pin upward, bushings set in the turret head, with conical recesses adapted to receive the tapered end of the locking pin, pins provided with push knobs on their upper ends, set in the turret head vertically above the bushings and adapted to dislodge the locking pin, when pushed downward, and spiral springs pressing the pins upward. 2nd. In a lathe turret, the combination with a stationary cylindrical socket, adapted to be secured to the bed of a lathe, of an auxiliary turret pivoted thereon and adapted to be rigidly secured to it, the auxiliary turret comprising a slide-way for a tool carriage, a feed screw for adjusting the tool carriage in position and for feeding it at right angle to the lathe spindle, and a thumb-screw for securing the tool carriage in adjusted position on the slide-way. 3rd. In a lathe turret, comprising a stationary cylindrical socket adapted to be secured to the bed of a lathe, and a turret head rotatably secured thereto, and a supplementary attachment comprising a swinging slideway with tool carriage and post movable thereon, the combination therewith of mechanism for automatically locking the supplementary slideway attachment to the socket in right position in relation to the spindle of the lathe, this locking mechanism comprising a bushing having a conical recess set in the socket, a tapered spring actuated locking pin sliding in a bearing and adapted to slip automatically in the conical recess, thereby fixing the slideway to the socket when the same is in exact right position in relation to the spindle of the lathe.

No. 62,752. Egg Tester and Advertising Device.

(Appareil d'annonce et à faire l'épreuve des œufs.)



George Walter Preston, Camden, New Jersey, U.S.A., 24th February, 1899 : 6 years. (Filed 21st November, 1898.)

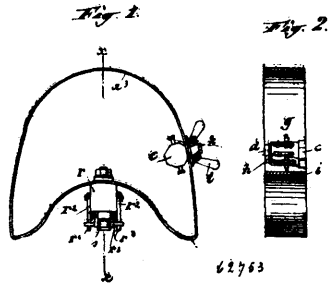
Claim.—1st. A combined egg tester and advertising device, embodying a hollow wedge shaped structure of paper or other suitable material, the upper face of said device being provided with a hole adapted to receive an egg, and a metallic plate located within said device adapted to reflect a ray of light passing through the egg to the line of sight, substantially as shown and described. 2nd. An egg tester and advertising device, embodying a collapsible wedge shaped box of paper or other suitable material having a hole in the upper face thereof adapted to receive an egg, and a metallic plate within said device adapted to reflect a ray of light passing through the egg to the line of sight, and means for preventing the collapse of the device, substantially as shown and described. 3rd. An egg tester and advertising device, embodying a wedge shaped box of paper or other suitable material, the side walls of which are adapted to fold inwardly, the top of said box having a hole therein adapted to receive an egg, a reflecting plate fixed upon the upper surface of the base of the said box and a flap upon the free end of said base adapted to be folded, the free end of said base adapted to be folded under said base when the box is folded, and to stand between the side walls when the box is open, thereby preventing said side walls from collapsing, substantially as shown and described. 4th. An egg tester and advertising device, embodying a golden wedge-shaped paper box having an opening in the top thereof and a reflector upon the base portion thereof, said top portion being adapted to be used as an advertising medium, substantially as shown and described.

No. 62,753. Leather Stamping Knife.

(Couteau à étamper en cuire.)

Aloys Pieper, Ludingshausen, Germany, 24th February, 1899; 6 years. (Filed 29th September, 1898.)

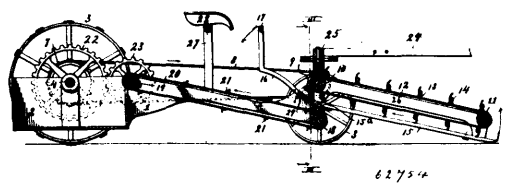
Claim.—1st. A stamping knife of the class described, for all industrial purposes, comprising a numbering punch, characterized by a metal punch a located and movable by a spring within a socket *b*, the lower side of said punch being turned towards the leather or other material to be worked, and provided with a number or other mark *d*, penetrating into the leather, and a knife cutting the leather, substantially as described and for the purpose set forth. 2nd. A stamping knife of the class described, comprising a numbering punch, said punch or the plate thereof being provided with a number or other mark made of metal, rubber or another material, substantially in connection with an arrangement, causing said punch to press on a pad supplied with colour when the knife is emptied, or said punch



being provided with any other automatic inking device to number the leather, linen, felt, plush or other substance to be cut of any shape or quality, substantially as described and for the purpose set forth. 3rd. A stamping knife of the class described, comprising a numbering punch provided with a number or other mark of metal, rubber or any other material, an automatic inking device for said punch, substantially in combination with a wheeled counting device, counting automatically the stamped pieces at each movement of the knife, substantially as described and for the purpose set forth.

No. 62,754. Stone Gathering Machine.

(Machine à ramasser des pierres.)

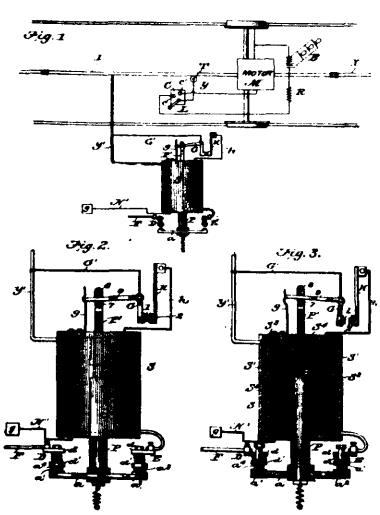


Daniel John Costley, Kansas City, Missouri, U.S.A., 24th February, 1899; 6 years. (Filed 27th August, 1898.)

Claim.—1st. In a stone gathering machine in combination a system of drive and driven sprocket wheels and sprocket chains, a system of front and back conveying aprons, apron rollers, apron slats, finger bars, spring fiingers and pivotal points for finger bars, extension of the side finger bars and a handle for raising and lowering the same, substantially as specified. 2nd. A stone gathering machine in combination the adjustability of the fingers, a system of apron slats, a large driving gear and a smaller driving gear for rear apron. 3rd. A stone gathering machine in combination, a tongue, an arched axle, a frame for forward apron and support for same and a finger bar bolt, substantially as specified.

No. 62,755. Etectric Railway System.

(Système de chemin de fer é'ectrique.)



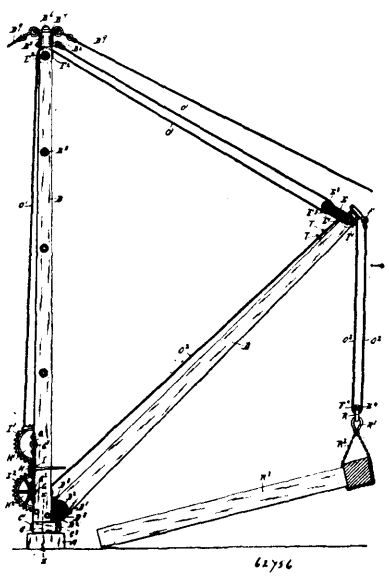
John McLeod Murphy, Torrington, Connecticut, U.S.A., 24th February, 1899; 6 years. (Filed 4th April, 1898.)

Claim.—1st. In an electric railway system, the combination with the sectional conductors, the car having a propelling motor, a

storage battery, and a trolley engaging the sectional conductor and the main or feed line, of an electro-magnetic switch mechanism having a low resistance coil in line with the sectional conductor and the main or feed line, a high resistance coil having a ground return and a lead joining with the low resistance coil, a circuit breaker in such lead, governed by the direct action of the opening and closing of the switch and arranged relatively with a movable part of such switch to be opened when the said movable part of the switch receives impulse through the main or feed line circuit, as set forth. 2nd. In an electric railway system of the class described, an electro-magnetic switch mechanism, comprising a magnet having an outer low resistance winding coil in line with the main or feed wire, and a sectional conductor, an inner or high resistance winding coil, having a ground return and a lead connected with the outer or low resistance winding coil, said magnet having a plunger armature, a circuit breaker in the high resistance coil lead, connecting with the plunger and adapted to be shifted by such plunger at the end of its forward or lift stroke, substantially as shown and described. 3rd. An electro magnetic switch mechanism of the character stated, comprising a magnet having independent inner and outer windings, the outer winding having a lead connected with the sectional conductor, the inner winding having a lead connected with such conductor and having a switch in such inner winding lead, the yielding contacts D and E connected respectively with the feeder wire and the outer winding, of the magnet and the plunger P, having a bridge piece to engage the contacts D and E and having means for breaking the switch in the inner winding lead, substantially as and for the purposes described. 4th. In an electro-magnetic switch of the character described, the combination with the inner and outer windings, the sectional conductor having leads connected with the inner and outer winding, the inner winding lead having a switch held to a closed position when the magnet is de-energized, and the contacts D and E connected respectively with the feeder wire, the outer winding of the magnet, said contacts having yielding engaging faces, of the vertically movable plunger P, having means for breaking the switch in the inner winding leads and having contacts to engage the yielding contacts D and E, all being arranged substantially as shown, whereby the circuit from the feeder wire will be closed to the magnet before the inner winding or local circuit is broken, and means carried on the car body for energizing the sectional conductor, substantially as shown and for the purposes described.

No. 62,756. Barn Raising Machine.

(*Machine à soulever les granges.*)



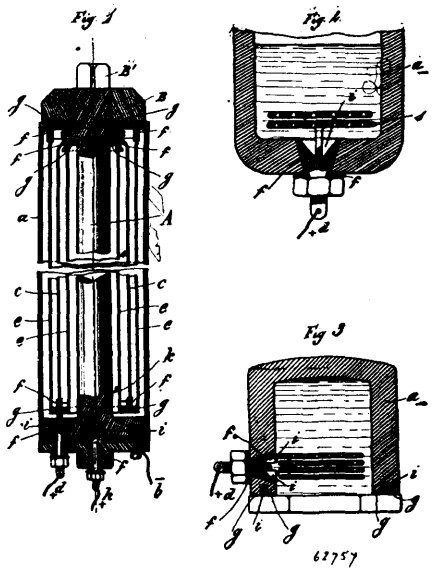
62756

George A Doan, Lobo, Ontario, Canada, 24th February, 1899; 6 years. (Filed 28th March, 1898.)

Claim.—1st. In a barn raising machine, the vertical post B, forked at its lower end, the block B^1, and the base C, in combination with the shaft H, having end play and carrying a toothed pinion, a shaft carrying a toothed wheel, and the stop block N, substantially as and for the purpose set forth. 2nd. In a barn raising machine, the vertical post B, forked at its lower end, the fork B^1, and the base C, in combination with a drum shaft, a rope drum mounted on said shaft, the friction band L^1, and the lever M^1, substantially as and for the purpose set forth. 3rd. In a barn raising machine, the vertical post B, forked at its lower end, the block B^1, and the base C, in combination with a shaft, provided with roller bearings, substantially as and for the purpose set forth. 4th. In a barn raising machine, the bed A, the axially rotating vertical post B, stayed in an upright position and forked at its lower end, the block B^1, the base C, the plate C^3, the bolts B^4, and B^6, the plate B^7, the stays B^9, the jib or boom D, and the plate D^3, in combination with the shafts G^1, G^2, and H, provided with roller bearings, the rope drums H^1, and H^2, the toothed wheels I^1, and I^2, the toothed pinions K^1, and K^2, the ropes O^1, and O^2, the link E, and pulleys F^1, F^2, F^3, and F^4, provided with roller bearings, the clevis R, and the tapered chain grip R^1, substantially as and for the purpose set forth.

No. 62,757. Electro-Chemical Explosive.

(*Explosif électro-chémique.*)

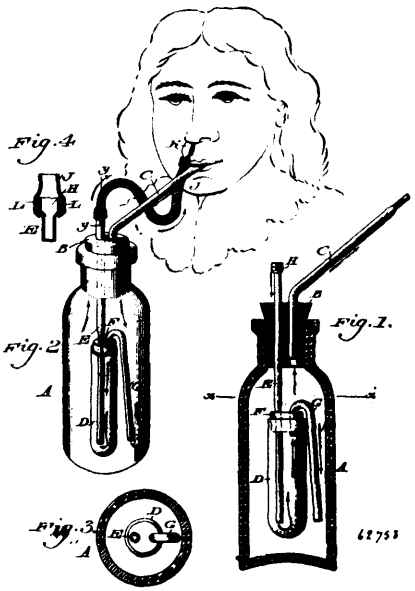


62757

Giovanni Cornara, Mantua, Italy, 24th February, 1899; 6 years. (Filed 5th January, 1898.)

Claim.—1st. An electro-chemical reservoir consisting of a closed receptacle within which the electrical energy is stored under the form and by the action of potential energy as a result of the previous electrolyte decomposition, effected within the receptacle itself, of a suitable electrolyte, thereby enabling the production of gaseous explosive mixtures under high pressure and capable of giving explosive results and likewise other mechanical thermic and other effects, as described. 2nd. An electro-mechanical explosive or bomb, consisting of a sealed receptacle having electrical energy stored therein under the form and by action of potential energy obtained by a prior electrolyte decomposition, and means for electrical explosion, as described.

No. 62,758. Inhaler. (*Inhalateur.*)



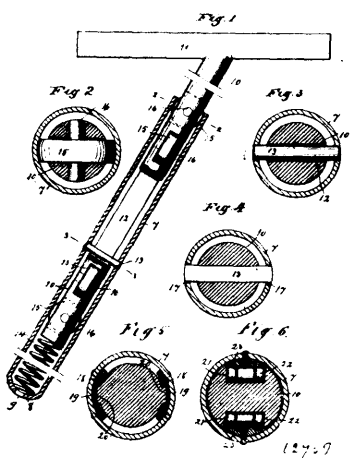
62758

James Monroe Munyon, Philadelphia, Pennsylvania, U.S.A., 24th February, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. A bottle with a stopper, a mouth piece in said stopper, a medicament vessel in said bottle, a stopper in said vessel, a tube in said stopper, forming a communication for the atmosphere with said vessel and providing the means for suspending the latter in bottle, and a pipe in the stopper of the medicament vessel in communication with the latter and said bottle. 3nd. A bottle, a stopper therein, a mouth piece in said stopper and an air-supply tube passing through said stopper into said bottle, in combination with a pipe having a noose piece, and means for connecting it with said air-supply tube. 3rd. A bottle and a mouth piece, and an air-supply tube connected with the stopper of said bottle, in combination with a flexible pipe having a nose piece at one end and a screw-threaded collar at the other end, said air supply tube having a screw threaded sleeve thereon for engagement with said pipe. 4th. A bottle, a mouth piece therefor leading thereinto, and a flexible pipe provided with a nose piece, said pipe having on its upper end a screw-threaded collar for connecting said flexible pipe therewith. 5th. A combined inhaler and nasal douche consisting of a bottle, with a stopper therein, a mouth piece in said stopper, a separate medicament vessel in said bottle, with a stopper therein a tube passing through both stoppers and respectively enter said vessel and open to the atmosphere, a goose neck fitted in the stopper of said vessel and opening into the latter and said bottle, and a flexible pipe connected with said tube and provided with a nose piece.

No. 62,759. Friction Roller Seat Post.

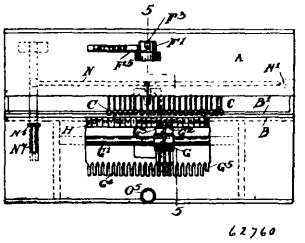
(*Poteau de siège à roulezu à friction.*)



Thomas William Bannerman, and Alexander Campbell Bannerman, both of Montreal, Quebec, Canada, 24th February, 1899; 6 years. (Filed April 21st, 1897.)

Claim.—1st. The herein described seat or saddle support for bicycles and similar vehicles, consisting of a tube which is adapted to be inserted into one of the upright tubes of the frame of the vehicle, said tube being open at its upper end provided with a spring in the bottom thereof, and a rod which is longitudinally movable therein, and supported by said spring, said rod being provided at its upper end with a cross head or seat attachment, and said rod being also less in diameter than said tube, and provided with a plurality of sets of anti-friction rollers which are mounted therein at right angles to each other, and which are adapted to bear upon the inner walls of said tube, and means for holding said rod in said tube, substantially as shown and described. 2nd. The herein described seat or saddle support for bicycles and similar vehicles, consisting of a tube which is adapted to be inserted into one of the upright rods of the frame of the vehicle, said tube being open at its upper end and provided with a spring in the bottom thereof, and a rod which is longitudinally movable therein, and supported by said spring, said rod being provided at its upper end with a cross head or seat attachment, and said rod being also less in diameter than said tube, and provided with a plurality of sets of anti-friction rollers which are mounted therein at right angles to each other, and which are adapted to bear upon the inner walls of said tube, and means for holding said rod in said tube, consisting of a slot formed in said rod, and a pin which passes therethrough and is secured in said tube, substantially as shown and described. 3rd. The herein described seat or saddle support for bicycles and similar vehicles, consisting of a tube which is adapted to be inserted into one of the upright tubes of the frame of the vehicle, said tube being open at its upper end and provided with a spring in the bottom thereof, and a rod which is longitudinally movable therein and supported by said spring, said rod being provided at its upper end with a cross head or seat attachment, and said rod being also less in diameter than said tube, and being vertically movable in said tube, and provided with means to prevent its removal therefrom, and a plurality of anti-friction rollers which are mounted in said rod and adapted to turn therein, and bear upon said tube, substantially as shown and described.

No. 62,760. Check Punch. (*Emporte-pièce de billets.*)

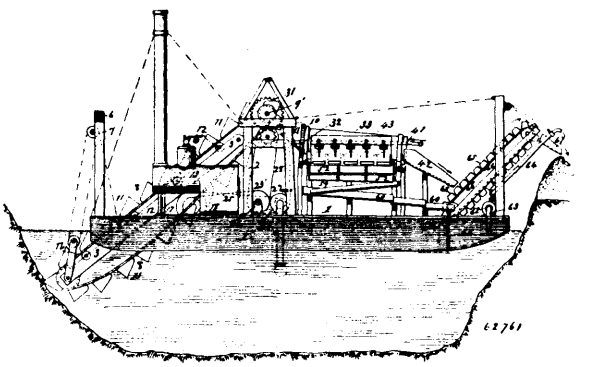


George O. Brosnaham, jr., Pensacola, Florida, U.S.A., 24th February, 1899; 6 years. (Filed 15th December, 1898.)

Claim.—1st. A check-punch comprising a carriage fitted to slide longitudinally, a set of perforating letter dies held on the said carriage, a set of perforating numeral-dies held on the said carriage, means for shifting the carriage, and a slidable anvil adapted to engage the corresponding die of either set of dies, substantially as shown and described. 2nd. A check-punch comprising a comprising a carriage fitted to slide longitudinally, a set of perforating letter-dies held on the said carriage, a set of perforating numeral-dies held on the said carriage, means for shifting the carriage, a slidable anvil adapted to engage the corresponding die of either set of dies, and means, substantially as described, for shifting the said anvil from one set of dies to the other, as set forth. 3rd. A check-punch comprising a carriage fitted to slide longitudinally, a lever for imparting longitudinal motion to the said carriage, a set of perforating letter-dies held on the said carriage, a set of perforating numeral-dies held on the said carriage, an anvil adjustably held to engage either set of dies, and means for connecting the said anvil with the said lever for shifting the carriage, substantially as shown and described. 4th. A check-punch comprising a carriage fitted to slide longitudinally, a lever for imparting longitudinal motion to the said carriage, a set of perforating letter-dies held on the said carriage, a set of perforating numeral-dies held on the said carriage, an anvil adjustably held to engage either set of dies, means for connecting the said anvil with the said lever for shifting the carriage, and a pair of feed-rollers for shifting the check step-by-step, one of the rollers being actuated from the mechanism connecting the said anvil with the said lever on the return stroke of the letter, substantially as shown and described. 5th. In a check-punch, the combination with two sets of dies of an anvil-lever adapted to swing, an anvil slidable on said lever, and a handled lever under the control of the operator and connected with the said anvil, to shift the latter from one set of dies to the other, as set forth.

No. 62,761. Gold-Saving Apparatus.

(*Appareil à recueillir l'or.*)



The Risdon Iron and Locomotive Works, assignee of Robert H. Postlethwaite, all of San Francisco, California, U.S.A., 27th February, 1899; 6 years. (Filed 13th June, 1898.)

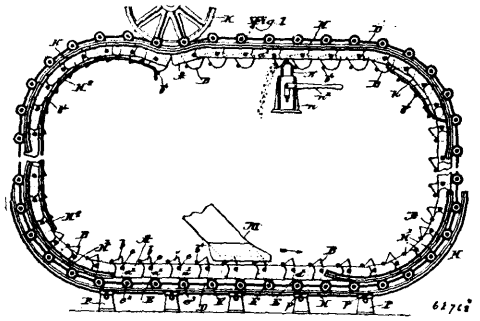
Claim.—1st. In a gold-saving apparatus, the combination with the inclined rotary grizzly, of the distributing box which receives the material escaping from the grizzly, a series of controlled escape-openings formed in the sides of said distributing box, an upper and lower separating table or platform arranged at an incline at each side of the said box, and of a longitudinal runway or gutter interposed between the upper and lower separating tables or platforms. 2nd. In a gold-saving apparatus, the combination with the rotary grizzly, of the distributing box, a distributing trough arranged between the said box and grizzly, a series of escape-openings formed in the sides of the distributing box, the sliding gates covering said escape-openings, devices for raising and lowering said gates, the inclined separating tables or platforms arranged at each side of the distributing box and of the runway which receives the waste material from the tables or platforms and conveys the same to the riffle runway. 3rd. In a gold-saving apparatus, the combination with the

distributor, of the inclined separating tables or platforms arranged at each side of the distributor, said tables or platforms consisting of a series of troughs or channels united together so as to form a table or platform with a series of distinct runways for the material from which the precious metal is to be extracted. 4th. In a gold-saving apparatus, the combination, with the ore or pulp distributor, of the upper and lower inclined separating tables or platforms arranged at each side of the ore or pulp distributor, each table or platform consisting of a series of parallel troughs or channels united together so as to form tables or platforms with a series of distinct runways for the material from which the precious metal is to be extracted, and of a longitudinal pocket or runway forming connection between the upper and lower tables or platforms. 5th. In a separating table or platform for gold-saving apparatus, the combination of a series of parallel troughs or channels located side by side so as to form distinct runways for the material from which the precious metal is to be extracted, of a blanket or layer of fibrous material located in each trough or runway, a layer of expanded material placed over the blanket or layer of fibrous material, the rods or strips for holding the said layers in position, and of the lock cams fulcrumed to the flanges of the troughs or channels, which cams hold the rods or strips firmly in place. 6th. In a separating table or platform, the combination with the removable blanket or layers of fibrous material, of an upper layer or plate of expanded metal, and of devices for securing the said layers to the tables or platforms. 7th. A separating table or platform for recovering precious metals, having its riffle plate or upper surface composed of a piece or layer of expanded metal. 8th. In a gold-dredging apparatus, the combination with the dredge boat, of a swinging ladder mounted at one end thereof, the endless carriers supported by said ladder, cutting or excavating buckets secured to or carried by said endless carrier, devices for raising and lowering the elevator, mechanism for driving the endless carriers, the inclined rotary grizzly, a trough or runway for conveying the excavated material from the excavating buckets to the grizzly, a force pump for supplying water into the grizzly to wash and separate the material fed therein, a series of separating plates or platforms arranged at an incline below the rotary grizzly, a sump or well formed in the dredge boat, the sluice way leading from the platform or tables to the sump or well, the discharge pipe for conveying the said material from the sump, a bucket elevator, mounted upon a movable ladder, for removing the heavier material, a runway for conveying the heavier material from the rotary grizzly, to the bucket elevator, and of devices for raising and lowering the elevator and the discharge pipe. 9th. In a gold-dredging apparatus, the combination with the dredge boat, of an inclined rotary grizzly, for separating the excavated material, a series of separating tables or platforms arranged at an incline beneath the grizzly, the sump or well formed in the dredge boat, the sluice ways leading from the separating tables or platforms to said sump or well, a suction pump for drawing the material from the sump or well, a discharge pipe connected to said pump by an universal joint, the bucket elevator working over a movable ladder, a runway for conveying the heavier material from the grizzly, to the bucket elevator, and of devices for raising and lowering the said ladder and discharge pipe. 10th. In a gold-dredging apparatus, the combination with the rotary grizzly, of the endless bucket elevator, the ladder over which the elevator works movably secured to the dredge boat, the runway for conveying the heavy material discharged from the grizzly, to the buckets of the elevator, and of devices for raising and lowering the elevator ladder. 11th. In a gold-dredging apparatus, the combination with the rotary grizzly, of a series of separating tables arranged below the rotary grizzly, devices for imparting motion to the grizzly, and of mechanism for raising the material to be worked and delivering the same to the rotary grizzly.

No. 62,762. Conveying Apparatus. (*Appareil à transport.*)

Peter Butler Bradley, Boston, Massachusetts, assignee of Edwin Stanton Decker, of Boston, aforesaid, both in the U.S.A., 27th February, 1899; 6 years. (Filed 6th February, 1899.)

Claim.—1st. In a conveyor, the combination with a pan conveying device, of a co-operating series of gravity buckets, substantially as described. 2nd. In a conveyor, the combination of pan and swinging members, co-operating to carry the load, substantially as described. 3rd. The combination in a conveyor, a series of gravity buckets, and a pan-conveying device, movable together and arranged respectively to carry the whole load, each at a different part of the run, substantially as described. 4th. In a conveyor, a pan conveying device, and a co-operating series of gravity buckets, movable with and arranged to receive the load from said pan conveying device, intermediate the points of loading and discharge of said conveyor, substantially as described. 5th. A conveyor comprising a pan conveying device and co-operating series of gravity buckets, adapted and arranged respectively, the former to receive the load primarily and to transfer it to the latter, and the latter to receive from said pan conveying device the load and carry it to a point of discharge, substantially as described. 6th. The combination in a conveyor, with a pan conveying device, of a series of gravity buckets carried by said pan and co-operating therewith to carry the load, substantially as described. 7th. The combination in a conveyor, with a pan conveying device, of a series of gravity buckets mounted pivotally thereon, substantially as described. 8th. The combination in a conveyor, with a pan conveying device, of a series of gravity buckets supported pivotally within, and from the sides of, said pan conveying device, substantially as described. 9th. Conveying apparatus



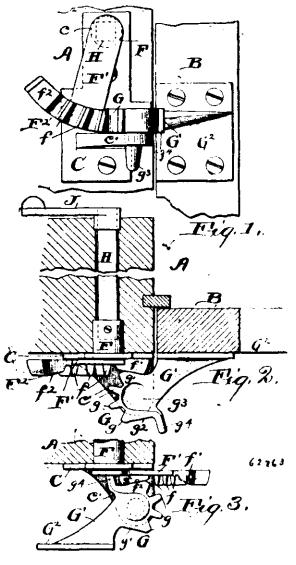
comprising an endless carrier provided with, and to operate, a pan conveying device combined with a series of gravity buckets, substantially as described. 10th. Conveying apparatus comprising an endless cable, provided with, and to operate, a pan conveying device combined with a series of gravity buckets, substantially as described. 11th. In a conveyor, a pan section provided with a co-operating gravity bucket, substantially as described. 12th. In a conveyor, an articulated pan conveying device having a plurality of elements or members, and gravity buckets co-operating with said members. 13th. In a conveyor, an articulated pan conveying device having a plurality of elements or members, and gravity buckets, one for and co-operating with each of said members. 14th. A conveyor member comprising a pan section, a gravity bucket thereon, rotatable about an axis near its mouth, said axis passing through the sides of said section at a region suitable to permit partial entry of said bucket therewithin, substantially as described. 15th. In a conveyor, a pan conveying device, combined with a gravity bucket, and means to cause presentation of said bucket in abormal position for loading and discharge, substantially as described. 16th. In a conveyor, a pan conveying device, combined with a gravity bucket so related and arranged with respect to said pan as to present a lip adjacent the bottom of said pan to receive the load therefrom, substantially as described. 17th. A conveyor member, comprising a pan section combined with a gravity bucket and having an attachment provided with guiding means, substantially as described. 18th. Conveying apparatus, comprising a combined pan and gravity bucket members, an endless carrier, directing devices, attachments intermediate said members and carrier, and guiding means for said members, co-operating with said directing devices, substantially as described. 19th. Conveying apparatus, comprising combined pan and gravity bucket members, an endless operating cable, directing rails and attachments intermediate said members and cable, and provided with guide wheels co-operating with said rails, substantially as described. 20th. A conveyor, comprising combined pan and gravity bucket members, directing devices therefor, and means to ensure freedom of said buckets to assume normal position upon change of direction of said conveyor, substantially as described. 21st. Conveying apparatus, comprising loading means, a pan conveying device, presented to be loaded therefrom at a lower portion of its run, gravity buckets movable with said pan and arranged with their mouths presented forwardly to receive the load shifting within said pan as it assumes an upright position, said buckets being free to assume a normal depending position as said pan doubles upon itself in passing to the upper horizontal portion of its run, and means to turn said buckets out of normal position to discharge the same, substantially as described.

No. 62,763. Shutter Worker. (*Mécanisme de volets*)

George W. Bingham, Syracuse, New York, and Edwin L. Thurston, Cleveland, Ohio, 27th February, 1899; 6 years. (Filed 6th February, 1899.)

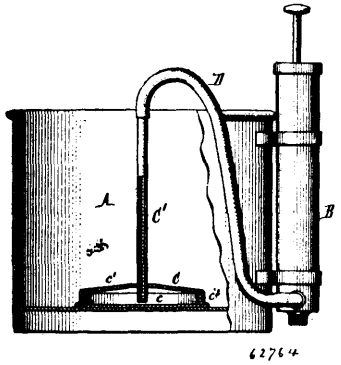
Claim.—1st. In a combined shutter worker and lock, the combination with the gear secured to the shutter, and a co-operating rack or gear movably supported on the window casing and capable of being operated from inside said casing, said gear and said rack having co-operating surfaces which engage with each other when the shutter is wholly open or closed, one or both of said surfaces being inclined whereby the shutter is locked in its open or closed position, substantially as shown and described. 2nd. In a shutter worker, the combination with the segmental gear secured to the shutter, and a rack co-operating with said segmental gear, said rack being located at the lower end of an arm whose upper end is connected with a suitable spindle which passes through and is pivotally supported by the window casing, and a lever secured to the inner end of said spindle, substantially as shown and described. 3rd. In a shutter worker, the combination of a plate adapted to be secured to the window casing and having a horizontal bracket with a vertical hole, an arm having a hub at its upper end which passes through a hole in said plate and into the window casing behind the plate and into the window casing behind the plate whereby said arm is pivoted to the window casing, a spindle passing through the casing and

engaging with said hub and having an operating lever arm on its inner end, and a rack formed in the lower end of said arm, with



a hinge leaf secured to the shutter having an integral pintle which enters the hole in said horizontal bracket and has a gear segment which is concentric with said pintle and is adapted to engage with the rack on the lower end of said operating arm, substantially as shown and described.

No. 62,764. Cream Separator. (*Séparateur de crême.*)



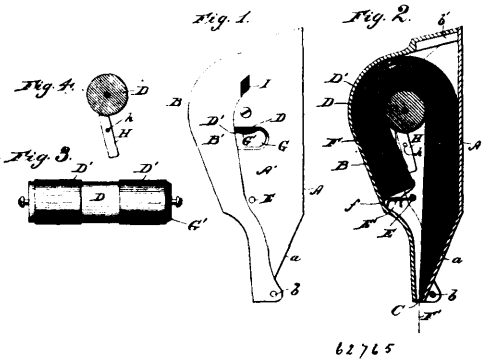
Charles Horatio Mitchell, Charles Burlingame Shafer, and Dwight Charles Mitchell, all of Gaspont, New York, U.S.A., 27th February, 1899; 6 years. (Filed 3rd February, 1899.)

Claim—1st. A cone or nozzle for a cream separator, comprising a body or lower portion provided with an upwardly extending wall and a perforated conical cover which is removably applied to said lower portion, substantially as set forth. 2nd. A cone or nozzle for a cream separator having a perforated top plate and an air supply tube passing centrally through said top plate and terminating near the bottom of the cone, substantially as set forth. 3rd. A cone or nozzle for a cream separator, comprising a body or lower portion having an upwardly extending wall, a perforated conical cover having a depending marginal flangewhich overlaps the wall of the body, and an air supply tube extending through the apex of the conical cover and terminating near the bottom of the cone, substantiallya ss et forth.

No. 62,765. Paper Serving Machine.
(*Machine pour l'alimentation du papier.*)

Charles Fisher and Herman Segnitz, both of Milwaukee, Wisconsin, U.S.A., 27th February, 1899; 6 years. (Filed 7th January, 1899.)

Claim.—1st. A paper serving machine comprising a suitable casing or frame, a serving roller journalled therein, and a retaining device or fastening for holding a package or bunch of sheets at one end or edge, constructed and arranged with reference to said roller and the point of discharge of the paper to hold the package in a curved position or form around or against said roller, substantially as and for the purposes set forth. 2nd. A paper serving machine comprising a casing having adelivery slot or aperture, a serving roller journalled in said casing, and as retaining device constructed and arranged with reference to said serving roller and



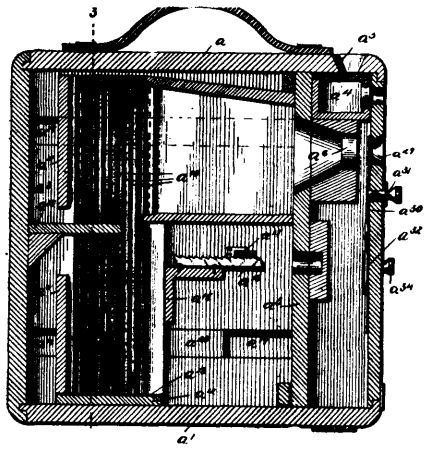
delivery slot to hold a bunch or package of sheets by one end or edge in a curved form around said roller with each inner sheet of the package projecting at the opposite end or edge from the retaining device beyond the next sheet, substantially as and for the purposes set forth. 3rd. A paper serving machine comprising a suitable casing provided with a discharge slot or aperture, a serving roller journalled in said casing above said discharge aperture, a retaining device or fastening constructed and arranged with reference to said serving roller so as to hold a package or bunch of sheets by one end or edge suspended in a curved form upon said roller in position to be advanced thereby through said discharge aperture, substantially as and for the purposes set forth. 4th. A paper serving machine comprising a suitable casing provided with a delivery slot or aperture, a serving roller journalled in said casing, and a retaining device or fastening constructed and arranged with reference to said roller and delivery aperture so as to hold a package or bunch of sheets by one end or edge in a curved form upon or against said roller with each inner sheet projecting at the end or edge opposite said retaining device beyond the next sheet, said casing having an inclined wall next to said delivery aperture serving to support and guide the free ends of the sheets thereto, substantially as and for the purposes set forth. 5th. A paper serving machine comprising a suitable casing or frame, a serving roller journalled therein and provided with a coating or covering of material affording frictional engagement with the paper, and a retaining device or fastening constructed and arranged to hold a package or bunch of sheets in a curved position to contact with said roller, whereby the withdrawal of the inner sheet causes the roller to advance the next sheet sufficiently to be readily grasped, substantially as and for the purposes set forth. 6th. A paper serving machine, comprising a casing provided with a delivery slot or aperture, a serving roller journalled in said casing, a retaining device or fastening constructed and arranged to hold a package or bunch of sheets by one end or edge in a curved position or form around said roller, and means for turning said roller manually for starting a sheet through said delivery aperture, substantially as and for the purposes set forth. 7th. A paper serving machine comprising a casing provided with a delivery slot or aperture, a serving roller journalled in said casing, and a retaining device or fastening constructed and arranged to hold a package or bunch of sheets by one end or edge in a curved position or form around said roller, said casing having an opening at the end of said roller arranged to expose to view the edges of a part or all of the sheets of paper thereon, substantially as and for the purposes set forth. 8th. A paper serving machine, comprising a suitable casing or frame, a serving roller journalled therein, a retaining device or fastening constructed and arranged to hold a package or bunch of sheets by one end or edge in a curved position or form around said roller, and a detent constructed and arranged to prevent the backward rotation of said roller, substantially as and for the purposes set forth.

No. 62,766. Camera. (*Camera.*)

Napoleon Emile Marchand, Montreal, Quebec, Canada, 27th February, 1899; 6 years. (Filed 12th April, 1898.)

Claim.—1st. The combination with a camera, having a sliding plate carriage, of a lever for moving said carriage forwardly, and a stop for holding said carriage against movement, when said carriage is in position ready for exposure, substantially as described. 2nd. The combination with a camera, having a sliding plate carriage, of a lever for moving said carriage forwardly, said lever having a movement into and out of operative connection with said carriage, substantially as described. 3rd. The combination with a camera, having a sliding carriage, said carriage having a rack, of a lever, adapted to contact with said rack to move said carriage forwardly, a slotted plate for limiting the movement of said lever, and a catch for holding said lever against movement when said carriage has reached its proper position for exposing the plates, substantially as described. 4th. The combination with a camera, having a sliding carriage, said carriage having a rack, of a lever, adapted to contact with said rack

to move said carriage forwardly, and a slotted plate for securing said lever in operative and inoperative contact with said rack, substan-



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tially as described. 5th. The combination with a camera, having a sliding carriage, said carriage having a rack, of a pivotally mounted lever, adapted to contact with said rack to move said carriage forwardly, a slotted plate for limiting the movement of said lever, and a catch for holding said lever against movement when said carriage has reached its proper position for exposing the plates, substantially as described. 6th. A magazine camera comprising a frame, a lens mounted therein, a holder slidably mounted in said frame, a rack secured to said holder, an operating plate pivotally mounted in said framework and adapted to engage with said rack to move said holder forwardly, said plate being held in fixed position during the period of exposure, and a rest fixedly secured to said frame and extending forwardly in the path of movement of said holder, substantially as described. 7th. A magazine camera comprising a frame, a lens mounted therein, a holder slidably mounted in said frame, a rack secured to said holder, an operating plate pivotally mounted in said framework and adapted to engage with said rack to move said holder forwardly, said plate being held in fixed position during the period of exposure, means for regulating the length of movement of said rack, and a fixedly secured to said frame and extending forwardly in the path of movement of said holder, substantially as described. 8th. A magazine camera comprising a frame, a lens mounted therein, a holder slidably mounted in said frame a rack secured to said holder, an operating plate pivotally mounted in said framework and adapted to engage with said rack to move said holder forwardly, means for limiting the movement of said rack, means for holding said rack in fixed position during the exposure, and a rest fixedly secured to said frame and extending forwardly in the path of movement of said holder, substantially as described. 9th. The combination with a camera of a holder slidably mounted therein, vertical slides formed in said holder and adapted to receive sensitive plates, means for retaining said plates in position for exposure, a removable plate secured to the bottom of said holder and adapted to receive said plates after exposure, substantially as described. 10th. The combination with a camera of a holder slidably mounted therein, vertical slides formed in said holder adapted to receive sensitive plates, a rest fixedly secured in said camera extending in the path of movement of said holder, said rest being adapted to retain said plates in position for exposure, and a removable plate secured to the bottom of said holder and adapted to receive said plates after exposure, substantially as described. 11th. The combination with a camera, having a frame, longitudinal slides formed in the sides thereof, of a sensitive plate, holder having slide blocks, said slide blocks being adapted to be slidable in said slides, and a lever for moving said holder longitudinally, substantially as described. 12th. A negative holder for magazine cameras, comprising a series of vertical slides slidably mounted on opposite sides of said camera, said slides extending from the top to the bottom thereof, connecting plates secured to the rear of said slide, and a plate removably connected to the bottom of said slides, said plate having a cushion-top face, substantially as described.

No. 62,767. Wrench. (*Clé à écrou.*)

James Charles Dority and Isaac Lewis, both of Toronto, Ontario, Canada, 27th February, 1899; 6 years. (Filed 23rd November, 1898.)

Claim.—1st. A wrench embracing in its construction a lever, provided at one end with an annular strap, a rotary spanner embraced by the strap, the side faces of which are flush with the side faces of the strap, a series of ratchet teeth formed in the middle of the perimeter of the spanner, and arranged to form a flange at such side thereof, an opening formed through the strap contiguous to the le er, and ratchet dogs pivoted in the opening to engage the ratchet teeth, substantially as specified. 2nd. A wrench embracing

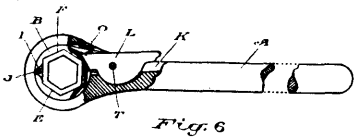

Fig. 6

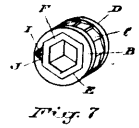

Fig. 7

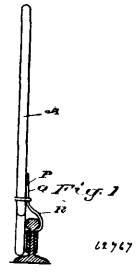

Fig. 1

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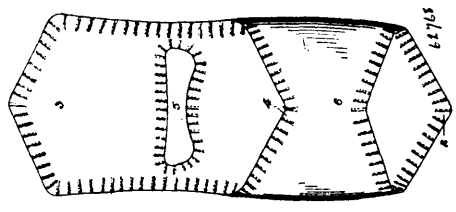
in its construction a lever, provided at one end with an annular strap, a rotary spanner embraced by the strap, the side faces of which are flush with the side faces of the strap, a series of ratchet teeth formed in the middle of the perimeter of the spanner and arranged to form a flange at each side thereof, an opening formed through the strap contiguous to the lever, ratchet dogs pivoted in the opening to engage the ratchet teeth, and springs to normally hold the points of the ratchet dogs in engagement with the ratchet teeth of the spanner, substantially as specified. 3rd. A wrench embracing in its construction a lever, provided at one end with an annular strap, a rotary spanner embraced by the strap, the side faces of which are flush with the side faces of the strap, a series of ratchet teeth formed in the middle of the perimeter of the spanner and arranged to form a flange at each side thereof, an opening formed through the strap contiguous to the lever, ratchet dogs pivoted in the opening to engage the ratchet teeth, and springs to normally hold the points of the ratchet dogs in engagement with the ratchet teeth of the spanner, a supplemental spanner to be fitted to the bore of the spanner, and a button pivoted to the spanner to hold the supplemental spanner in position, substantially as specified. 4th. A wrench embracing in its construction a lever, provided at one end with an annular strap, a rotary spanner embraced by the strap, the side faces of which are flush with the side faces of the strap, a series of ratchet teeth formed in the middle of the perimeter of the spanner and arranged to form a flange at each side thereof, an opening formed through the strap contiguous to the ever, ratchet dogs pivoted in the openings to engage the ratchet teeth, springs to normally hold the points of the ratchet dogs in engagement with the ratchet teeth of the spanner, a claw hinged to the lever, and a ring adapted to embrace the claw and lever and bind them together, substantially as specified. 5th. A wrench embracing in its construction a lever, provided at one end with an annular strap, a rotary spanner embraced by the strap, the side faces of which are flush with the side faces of the strap, a series of ratchet teeth formed in the middle of the perimeter of the spanner and arranged to form a flange at each side thereof, an opening formed through the strap contiguous to the lever, ratchet dogs pivoted in the opening to engage the ratchet teeth, springs to normally hold the points of the ratchet dogs in engagement with the ratchet teeth of the spanner, a supplemental spanner to be fitted to the bore of the spanner, a button pivoted to the spanner to hold the supplemental spanner in position, a claw hinged to the lever, and a ring adapted to embrace the claw and lever and bind them together, substantially as specified.

No. 62,768. Babies' Bands. (*Bandes pour bébés.*)



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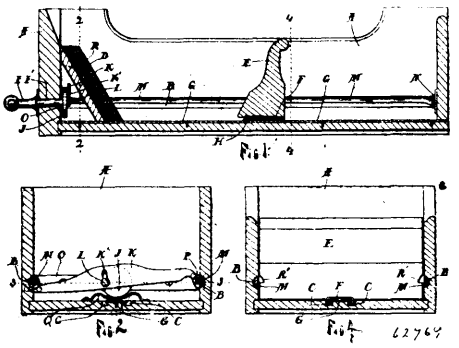
Annie Amelia Davies, St. Paul, Minnesota, U.S.A., 27th February, 1899; 6 years. (Filed 7th February, 1899.)

Claim.—1st. As an improved article of manufacture, a baby's band provided with a downwardly projecting front portion, and an upwardly extending flap to be passed over the shoulders and

attached to the back of the band. 2nd. As an improved article of manufacture, a baby's band provided with a downwardly projecting front portion 2, and a upwardly extending flap 3, perforated to admit the head, supported by the shoulders and then attached to the back of the band. 3rd. In a baby's band, the body portion A formed with flap 3, having the neck opening 5 formed between said flap and the front of the body portion A of the garment, said flap to be passed over the shoulders and attached to the back of said body, as and for the purpose described.

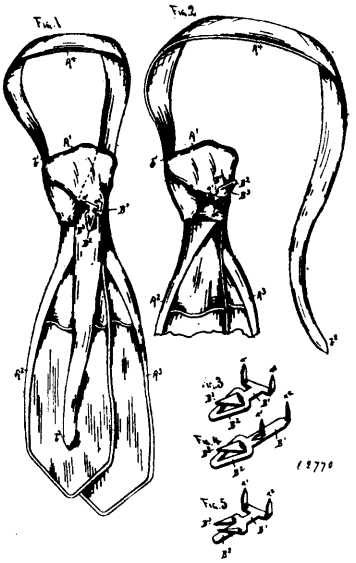
No. 62,769. File Case for Cards. (*File pour cartes.*)



Frank Mackey, Grand Rapids, Michigan, U.S.A., 27th February, 1899; 6 years. (Filed 25th November, 1898.)

Claim.—1st. In a case having longitudinal grooves in its sides, a series of cards in said case, rods pivoted in said case and adapted to be rotated to project from said grooves to engage said cards, and to lie within said grooves when said cards are released, substantially as described. 2nd. In a case having longitudinal grooves in its sides and a series of cards in said case, half-round rods pivoted to turn in said grooves and lying with their flat sides in the plane of the inner surfaces of the sides of the case when turned out of engagement with said cards and with said sides in a horizontal position when in engagement with the cards, substantially as described. 3rd. In a case having longitudinal half round grooves in its sides, half round rods pivoted to rotate in said grooves, the lines of the axes of the pivots of said rods being in the centres of the flat sides of the rods and in the planes of the inner surfaces of the sides of the case, substantially as described, whereby the convex sides of the rods move close to the concave surface of the grooves and the rods are held from springing out of line thereby. 4th. In combination with a case and a series of cards within the same, rods pivoted to the end walls of said case and extending along the side walls and adapted to engage and retain the cards, a crank arm secured to one of said rods and extending upward, a crank arm secured to the opposite rod and extending upward, a crank arm secured to the opposite rod and extending downward, a rod pivotally connecting said cranks, and means for moving said rod longitudinally, substantially as described. 5th. The combination of a case, a series of cards having notches in their ends, rods pivoted to the case and adapted to engage said notches, a crank arm on one of said rods extending upward, and a crank arm on the opposite rod extending downward, a rod pivotally connecting the outer ends of said cranks, a handle on the front of the case and having a stem passing through the same, a disc on the inner end of the stem, and a crank pin engaging a slot in said rod, substantially as described. 6th. In combination with a case, and a series of cards in the same, an inclined and adjustable follower in said case, a longitudinal strip secured to the middle of the bottom of the case, a clip secured to said follower to engage said strip, and a spring secured to said follower to raise the forward side of the same, whereby the angles of the clip engage the longitudinal strip and prevent the movement of the follower, substantially as described. 7th. In combination with a case having grooves in its bottom near the middle, a longitudinal strip secured to said case bottom between said grooves and projecting over the same, an inclined follower in said case, a clip secured to the bottom of said follower and having downwardly turned flanges to engage the edge of said strip, and downwardly and inwardly turned portions near the rear thereof to embrace said strip, and a spring secured to said clip to raise the front of said follower and engage the forward angle of the inwardly turned portion with the bottom of said strip, and the rear edge of the clip with the top of the same, substantially as described. 8th. The combination of a case having half round grooves in its sides and rectangular grooves in its bottom, a series of cards having notches in their ends, half round rods in the grooves in the sides of the case, an upwardly extending crank arm on the forward end of one of said rods, and a downwardly extending crank arm on the opposite rod, a rod having a vertical slot near its middle pivoted to the ends of said crank arms, a handle extending through the front of the case, a disc on the inner end of said handle, a crank pin on said disc engaging the slot in said rod, a friction spring engaging said disc, a longitudinal strip secured to the case bottom between the rectangular grooves, an inclined follower having notches in its ends, a clip secured to the bottom of said follower and engaging said strip, and a spring to raise the forward end of the follower, substantially as described.

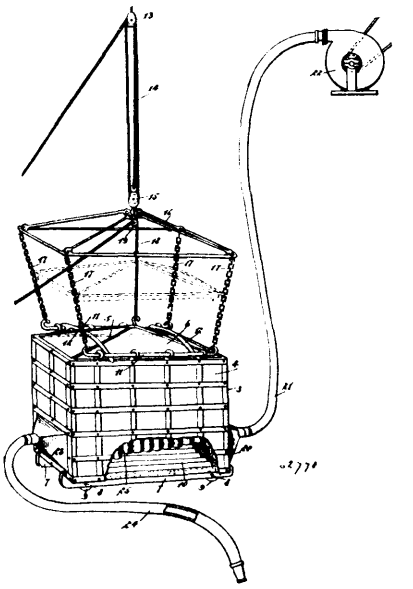
No. 62,770. Necktie Holding Pin.
(*Porte-épingle pour cravates.*)



Albert J. Keck, St. Paul, Minnesota, U.S.A., 27th February, 1899; 6 years. (Filed 20th December, 1897.)

Claim.—1st. As a new article of manufacture, a necktie holding pin, consisting of a body portion and clinching points, and a backwardly extending neck band holding point, all formed in one piece and adapted to be operated and applied, substantially as hereinafter shown and described. 2nd. In a necktie, a neckband holding pin mechanism consisting of a body portion flexibly secured to said head portion, a pin projecting at an angle from the body portion, so that when the body portion is closed down against the neckband portion of necktie, the pin will enter and hold said neckband in place, and said body portion will protect the fingers of the wearer in releasing the pin, substantially as set forth.

No. 62,771. Blow Furnace. (*Fournaise à soufflet,*)

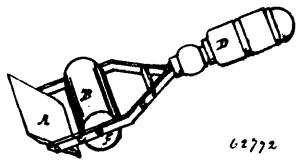


Azzeno Washington Reynolds, River Side, California, U.S.A., 27th February, 1899; 6 years. (Filed 19th March, 1898.)

Claim.—1st. The combination of a frame having a lid serving to close the same, rigging by which the frame may be raised and lowered, and a fire box in connection with the corners of the frame.

2nd the combination of a fire box, a rectangular frame above the fire box, connections between the angles of the frame and the fire box, and means for raising and lowering the frame. 3rd. The combination of a fire box, a cover for the fire box, a frame having connection with the fire box, means for raising and lowering the frame, and means for independently raising the cover, such means being sustained on the frame. 4th. The combination of a fire box, a cover for the fire box, rods secured oppositely to the upper side edges of the fire box, each rod having an eye in each end, arms mounted to swing on one of said rods and capable of engaging the other rod to hold the cover in place, a rectangular frame above the fire box, connections between the angles of said frame and the eyes of the rods, means for raising and lowering the frame, and means for raising and lowering the cover independently of the fire box, such means being sup ported on the frame. 5th. The combination of a fire box, a cover therefor, rods secured to the upper side edges of the fire box and arranged oppositely thereon, and arms swinging on one of said rods and capable of extending over the fire box and of engaging the other rod.

No. 62,772. Wall Scraper. (*Grattoir pour murs.*)



62772

Stephen Gillean, Amherstburg, Ontario, Canada, 27th February, 1899; 6 years. (Filed 20th May, 1898.)

Claim.—A knife A, rigidly mounted at the end of said bifurcated frame, and a roller B, pivoted behind said knife, substantially as described.

No. 62,773. Wire Spring Making Machine.
(*Machine à faire les ressorts de fil de fer.*)

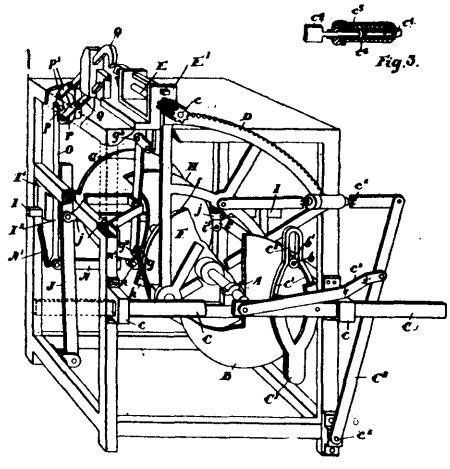


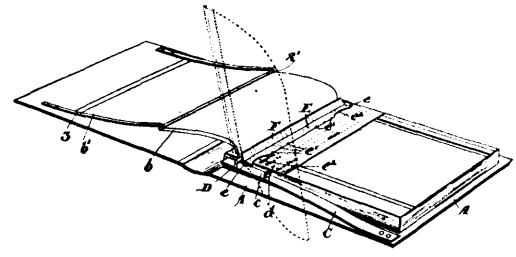
Fig. 3.

62773

John Drummond, Danville, Quebec, Canada, 27th February, 1899 6 years. (Filed 9th November, 1898.)

Claim.—1st. In a machine of the class described, the combination with the coiling spindle journalled in a suitable carriage as specified and provided with end pinion, of a segmental gear supported on an independent stud, the main shaft and disc secured thereto provided with a suitable roller on its face, the sliding bar supported in suitable ways, the double cam secured thereto and operative means connecting the double cam, the sliding bar and the segmental-wheel, as and for the purpose specified. 2nd. In a machine of the class described, the combination with the coiling spindle journalled in a suitable carriage as specified and provided with an end pinion, of a segmental gear supported on an independent stud, the main shaft and disc secured thereto, provided with a suitable roller on its face, the sliding bar supported in suitable ways, the double cam secured thereto and provided with vertical ends, a lever suitably pivoted in the frame, the link connecting it to the sliding bar and the link connecting it to the segmental-wheel, all arranged and operating as shown and for the purpose specified. 3rd. In a machine of the class described, the combination with the coiling spindle journalled in a suitable carriage, as specified, and provided with an end pinion, of the segmental gear supported on an independent stud, the main shaft and disc secured thereto, provided with a suitable roller on its face, the sliding bar supported in suitable ways, the double cam secured thereto and provided with vertical ends, a lever suitably pivoted in the frame, the link connecting it to the sliding bar and the link connecting it to the segmental wheel, and a double elastic cushion located intermediate of the length of the latter link, the parts being arranged and constructed as shown, and for the purpose specified. 4th. In a machine of the class described, the combination with a spring coiling spindle and carriage thereof, of the main shaft, the disc wheel secured thereto, provided with a face cam, a lever pivoted in the frame, a link connecting such lever to the bottom of the spring-winding spindle carriage, a roller suitably journalled on a pin at the bottom of the lever designed to co-act with a face cam on the disc-wheel and a spring holding such roller against the cam, as and for the purpose specified. 5th. In a machine of the class described, the combination with the die-case L, provided with a cross slot, of the links K provided at the outer end with the dies L^1, the lever J, the pin *k* extending through the slot in the lever J, the links K and a slot in the die-case L, and means operated from the main shaft for imparting a forward movement to the lever, as and for the purpose specified. 6th. In a machine of the class described, the combination with the die-case L provided with the cross slot, of the links K provided at the outer end with the dies L^1, the lever J, the pin *k* extending through the slot in the lever J, the links K, a slot in the die-case L, the main shaft, the disc secured thereto provided with a peripheral cam, the sliding bar suitably supported on the frame, a link connecting such bar to the lever J, the spring connected at one end to the sliding bar and the other to the frame, and the roller journalled on a pin on the sliding bar designed to co-act with the peripheral cam on the disc, as and for the purpose specified. 7th. The combination with the dies Q, of the disc P connected by the links p^1 to the dies Q, the rod O, and means operated from the main shaft for imparting a downward movement to the rod O, as and for the purpose specified. 8th. The combination with the dies Q, of the disc P connected by links p^1 to the dies Q, the rod O, the disc M secured to the shaft and provided with a peripheral cam *m*, and the rod N pivotally connected to the rod and provided with a roller designed to co-act with the cam, as specified. 9th. The combination with the dies Q, of the disc P connected by the links p^1 to the dies Q, the rod O, the disc M secured on the shaft and provided with a peripheral cam *m*, the lever N pivotally connected to the rod and provided with a roller designed to co-act with the cam M, and a spring for holding the roller on the peripheral face of the disc, as and for the purpose specified.

No. 62,774. Duplicating Check Book.
(*Livret de chèque multiple.*)



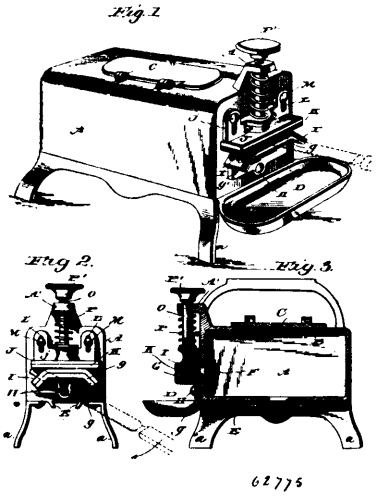
62774

Isaac Moore, Toronto, Ontario, Canada, 27th February, 1899: 6 years. (Filed 8th November, 1897.)

Claim.—1st. A black leaf holder for check books, comprising a spring rigidly secured to the cover of the book adjacent to the body of the leaves, a longitudinal gripping bar for one edge of the black leaf pivotally held in the free end or ends of the spring next the stub, and means for laterally swinging the bar on its pivot to throw the black leaf into or out of position, as and for the purpose specified. 2nd. A black leaf holder for check books, comprising a spring secured to the cover of the book adjacent to the body of the leaves, a longitudinal gripping bar for one edge of the black leaf pivotally held in the free end or ends of the spring next the stub, and a turned-up end on the bar whereby the said bar is swung to throw the black leaf into or out of position, as and for the purpose specified. 4th. In a device of the class described, the combination with the cover and book, of a flat spring secured to the cover adjacent to one edge of the book, the elongated eye on the free end of the spring, the L-shaped rod having the short end pivoted in the same and the long end designed to be swung across the book, and gripping bar attached to the long end of the rod and having the black leaf secured thereto, as and for the purpose specified. 4th. In a device of the class described, the combination with the cover and book, of a flat spring secured to the cover adjacent to one edge of the book, the elongated eye on the free end of the spring, the L-shaped rod having the short end thereof pivoted in the same and the long end designed to be swung across the book, the plate secured to the rod and having turned up ends, the gripping plate journalled in such ends and designed to be swung down, so that the ends come in con-

tact with the ends of the lower plate to grip the black leaf, as and for the purposes specified. 5th. In a device of the class described, the combination with the cover and book, of a flat spring secured to the cover adjacent to one edge of the book, the elongated eye on the free end of the spring, the L-shaped rod having the short end pivoted in the same and the long end designed to be swung across the book, the plate secured to the rod and having turned-up ends, the gripping plate journalled in such ends and designed to be swung down, so that the ends come in contact with the ends of the lower plate to grip the black leaf and the upwardly extending serrated teeth on the edge of the lower plate, as and for the purpose specified. 6th. In a device of the class described, the combination with the cover and book, of a flat spring secured to the cover adjacent to one edge of the book, the elongated eye on the free end of the spring, the L-shaped rod having the short end pivoted in the same and the long end designed to be swung across the book, the plate secured to the rod and having turned-up ends, the gripping plate journalled in such ends and designed to be swung down, so that the ends come in contact with the ends of the lower plate to grip the black leaf and the notches on the edge of the plate, as and for the purpose specified. 7th. A duplicating check book holder comprising a base plate, a gripping bar journalled therein and designed when turned to grip the edge of the black leaf and means for adjustably attaching the holder to the book, as and for the purpose specified. 8th. A duplicating check book holder comprising a base plate, a gripping bar journalled therein and designed when turned to grip the edge of the black leaf and a tension spring connected to the base plate at one end and to the book at the other, as and for the purpose specified. 9th. In a device of the class described, the combination with the cover and book, of a bar secured inside the front portion of the cover, spring arms connected at each end to the bar and rigidly connected to the book, the said bars being designed to extend across the stubs after they are swung back onto the front cover, as and for the purpose specified. 10th. The combination with the book, of a tablet pivotally swung in proximity to the leaves of the book and designed to be placed between the leaves, as and for the purpose specified. 11th. The combination with the book and cover, of a tablet having a rolled upper edge, a wire extending through same having U-shaped ends, and retaining sockets fastened to the cover to receive the ends of the wire, as and for the purpose specified. 12th. A duplicating check book holder comprising a retaining bar designed to hold one edge of the black leaf and a supporting means for such bar connected to the side of the book adjacent to the leaves, and a pivotal connection between the retaining bar and the supporting bar, as and for the purpose specified.

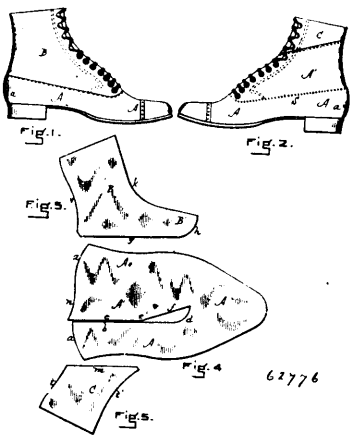
No. 62,775. Cutlery Scourer. (*Nettoyeur de coutellerie.*)



John G. Kerst, Springfield, Illinois, U.S.A., 27th February, 1899; 6 years. (Filed 1st February, 1899.)

Claim.—1st. A device for scouring cutlery, comprising a receptacle with an opening in one end, a rubber mounted on a pivot on said end and a spring-actuated vertically-movable rubber also mounted on said end and adapted for co-operation with the pivoted rubber, substantially as specified. 2nd. The combination with the receptacle with opening in one end, of a spring-pressed rubber on said end, and a pivotally mounted rubber on said end having its ends bevelled, substantially as and for the purpose specified. 3rd. The combination with the receptacle with opening in one end, and the spring-pressed vertically-movable rubber on said end, of means for guiding said rubber in a vertical path, and a rubber pivotally mounted on said end of the receptacle and having a bevelled end, substantially as and for the purpose specified. 4th. The herein described scouring device for cutlery, the same composed of a receptacle with opening in one end, a removable catch basin at said end extended beyond the same, a pivotally mounted rubber on said end above the catch basin, a vertically-movable rubber above the pivoted rubber, a spring acting on said rubber to force it downward, and means for guiding the rubber in its movements, substantially as specified.

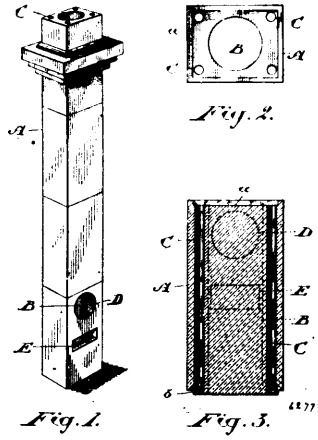
No. 62,776. Shoe. (*Chaussure.*)



George Fred Summers, Lynn, Massachusetts, U.S.A., 27th February, 1899; 6 years. (Filed 9th February, 1899.)

Claim.—1st. The herein described improvement in shoes, comprising the vamp or upper A, made in a single piece as described, and with its rear edges stitched together at *a*, the quarter A^1, integral with said vamp on one side, and a top piece or extension quarter stitched to the other side of the vamp and extending up opposite said integral quarter A^1, substantially as described. 2nd. The herein described improvement in shoes, comprising the vamp A, extended up at one side into the quarter A^1, and cut at its upper edges on the lines *f*, *d*, *b*, forward of the point e^1, whereby an approximately abtuse-angled triangle is formed, and a top piece or extension quarter stitched to the other side of the vamp and extending up from the edges *d*, *b*, opposite said integral quarter A^1, substantially as set forth. 3rd. The herein described improvement in shoes, comprising the vamp A, made in a single piece as described, the quarter A^1, integral with said vamp on one side, the upper edges of said vamp and quarter being cut on the lines *b*, *d*, *f*, and *e*, the quarter B, of substantially the shape shown and stitched to the edges *b*, *d*, of the vamp, and the extension quarter C, of substantially the shape shown and stitched to the edge *e*, of the quarter A^1, substantially as described.

No. 62,777. Chimney. (*Cheminée.*)

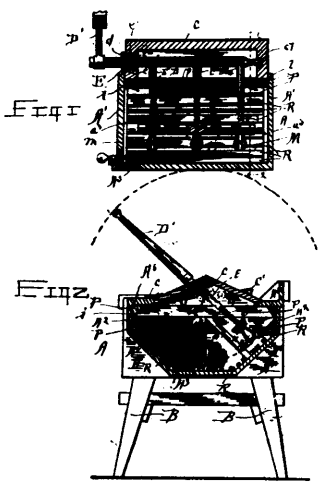


Richard Judson Doyle, Owen Sound, Ontario, Canada, 27th February, 1899; 6 years. (Filed 11th February, 1899.)

Claim.—1st. A chimney comprising a series of sections moulded of an homogeneous fire-proof material and cemented together, each section having a hole formed therein forming a portion of the smoke flue of the chimney, substantially as and for the purpose specified. 2nd. A chimney comprising a series of sections moulded of an homogeneous fire-proof material and cemented together, each section having a hole formed therein forming a portion of the smoke flue of the chimney, and one or more holes forming parts of ventilating flues extending from end to end of the chimney, substantially as and

for the purpose specified. 3rd. A chimney section moulded of an homogeneous fire-proof material and provided with a central smoke flue and one or more ventilating flues located around it, substantially as and for the purpose specified. 4th. A chimney section moulded of an homogeneous fire-proof material and provided with a central smoke flue and one or more ventilating flues located around it, and a stove pipe hole, substantially as and for the purpose specified. 5th. A chimney section moulded of an homogeneous fire-proof material and provided with a central smoke flue and one or more ventilating flues located around it, a stove pipe hole, and a clean-out hole, substantially as and for the purpose specified. 6th. A chimney section moulded of an homogeneous fire-proof material and provided with a central smoke flue and one or more ventilating flues located around it, and a projecting portion at one end adapted to enter a recess in another section, substantially as and for the purpose specified. 7th. A chimney section moulded of an homogeneous fire-proof material and provided with a central smoke flue and one or more ventilating flues located around it, a projecting portion at one end adapted to enter a recess in another section, and a recess at the other end adapted to receive a projection on the next section, substantially as and for the purpose specified.

No, 62,778. Washing Machine. (*Machine à laver.*)



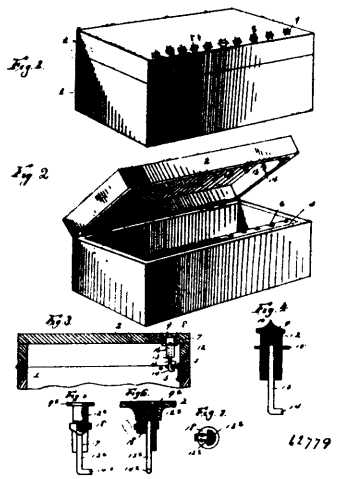
Solomon H. Everitt, McEwansville, Pennsylvania, U.S.A., 27th February, 1899; 6 years. (Filed 13th February, 1899)

Claim.—The improved washing machine herein described and shown, comprising a suds-box, a cover hinged thereto, a transverse rock-shaft having one end seated in a socket in one side of the cover and the other end projected through a bearing in the opposite side of the cover, a lever secured to the projecting end of the rockshaft, a series of rods formed integral with and depending from the rock-shaft, a transverse brace bar formed integral with the said rods between the lower ends of the same and the rock-shaft, a series of knobs fitted on the lower ends of the said rods, pins or screws removably securing said knobs to said rods, a transverse rubber-bar mounted loosely on the said rods and resting normally on the said knobs, and springs coiled around the said rods between the rubber-bar and the transverse brace-bar.

No. 62,779. Permutation Lock. (*Serrure à permutation.*)

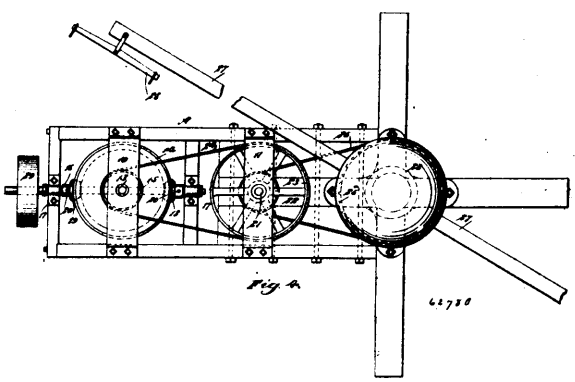
Charles J. Haggstrom, Warren, Pennsylvania, U.S.A., 27th February, 1899; 6 years. (Filed 13th February, 1899.)

Claim.—1st. The combination with a fixed locking-plate having a pluralty of notches or recesses, of a plurality of locks, each consisting of a button or head having a knife edge on its upper side, a tubular extension, and a shank removably secured in the tubular extension and provided with a hook, substantially as described. 2nd. The combination with a box-body, and a box-cover having a row of countersink orifices in its top wall, of a locking plate rigidly fixed in the box-body and constructed with a plurality of notches or recesses, and a plurality of permutation-locks, each composed of a button or head lying in one of the said countersunk portions, an extension working in one of said orifices, and a shank detachably secured to the said extension and provided with a hook, substantially as described. 3rd. The combination with a body-box, of a box-cover having a row of orifices in its top wall, each formed with a countersink at its outer portion, a locking-plate rigidly secured in the box-body and having a plurality of locking notches or recesses, and a series of locks carried by cover, each lock consisting of a button or head lying in one of the counter-sinks to be flush with the top surface of the cover, an extension projecting from the button or head and working in one of the orifices, and a shank detachably secured to the said extension and having a hook, substantially as described. 4th. The combination with a box-body, and a box-cover having a row of orifices in its top wall, each formed with a countersink at its outer portion, a locking-plate rigidly secured in the box-body and having a pluralty of locking notches or recesses, and



a series of locks carried by the cover, each lock consisting of a button or head lying in one of the countersinks to be flush with the top surface of the cover, an extension projecting from the button or head and working in one of the orifices, and a shank secured to the said extension and having a hook, substantially as described. 5th. The combination with a fixed locking-plate having a plurality of notches, of a series of permutation-locks, each consisting of a button or head having an extension, a shank detachably fitted in said extension and having a hook, a collar encircling said extension and shank, and a set-screw carried by the collar for clamping the hooked shank in any position to which it may be adjusted, substantially as described.

No. 62,780. Horse-Power. (*Moteur à cheval.*)



Thomas Russell, Spokane, Washington, U.S.A., 27th February, 1899; 6 years. (Filed 13th February, 1899.)

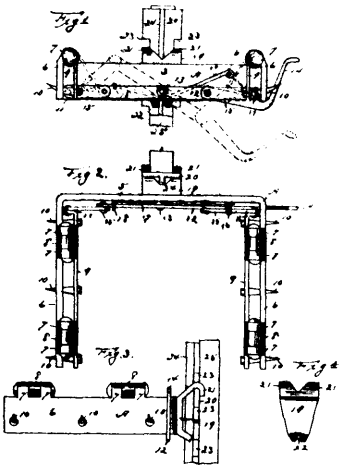
Claim.—1st. In a horse-power machine, the combination with a power shaft adapted to be driven by horse power, of a driving shaft, gearing driven from the driving shaft and arranged to drive the power shaft, and means for reversing the direction of rotation of the power shaft, substantially as described. 2nd. In a horse power machine, the combination with a capstan, a drive shaft driven from the capstan, a transmitting shaft driven from the power shaft, and a bevel gear carried by the transmitting shaft, of a power shaft, pinions located on said power shaft, both pinions being adapted to be fastened to the power shaft, one of the two pinions, however, being normally fast and the other loose on said shaft, and both pinions engaging with the said gear on the transmitting shaft, as described. 3rd. In a horse-power machine, the combination with a base, a capstan, a drive shaft, a belt connection between the capstan and drive shaft, a transmitting shaft, a belt connection between the drive and transmitting shafts, and a bevel gear secured upon the transmitting shaft, of a power shaft provided with a driving pulley, and bevel pinions mounted on the said power shaft, one pinion being loose on the shaft and the other fixed thereon, both pinions being arranged to mesh with the bevel gear carried by the transmitting shaft, as and for the purpose specified.

No. 62,781. Bag Holder. (*Accroche-sac.*)

Montague E. Perkins, Bristol, Connecticut, U.S.A., 27th February, 1899; 6 years. (Filed 13th February, 1899.)

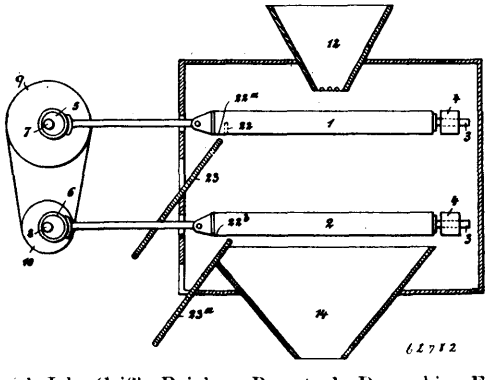
Claim.—1st. In a bag-holder, the frame consisting of a strap or plate like structure bent flatwise on two transverse lines and form-

ing when seen in edge view three sides of a right-angled figure, the sides 6, 6, of which are provided at their upper edge with hinge-lugs



and toward their lower edge with the stripper portion, in combination with the swinging wings pivoted to the hinge-lugs of said frame by their upper edge and carrying at their lower portion curved points that register with the openings therefor in the stripper portions of said sides, and means for operating said wings, substantially as described. 2nd. In a bag-holder, the combination of the frame having the back 5 and the two fixed sides 6, 6, the lower portions of which fixed sides serve as strippers, the swinging wings 9 pivoted by their upper edges to the said stripper sides and extending downwardly inside of the said stripper sides, the upwardly curved and outwardly projecting points mounted an said wings near their lower edge, and mechanism for swinging said wings to and from said stripper sides to project and withdraw the said points through said sides in a curved path, substantially as described. 3rd. In a bag holder, the combination of the bracket 19 having the pair of hooks 21 at its upper edge with a space between said hooks, and the rearwardly extended and slotted lower end, with the bracket plate of T-form in plan or end view, having its mid-rib adapted to be engaged by the slotted lower end of the said bracket and with the back or cross piece of the said T-shaped bracket piece having in its opposite edges the series of side notches for receiving the said hooks 21, substantially as described.

No. 62,782. Sifting Process. (*Tamis.*)



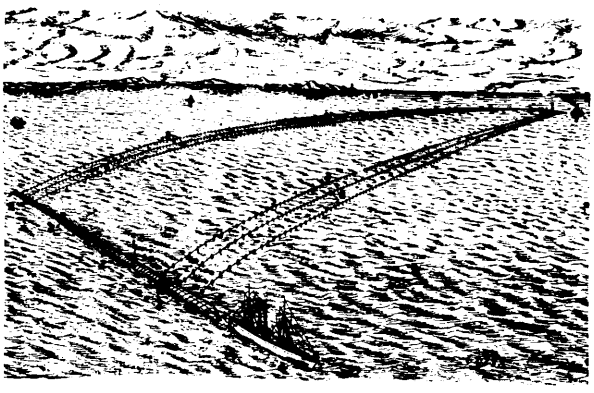
Frederick John Griffin Rainbow, Barnstaple, Devonshire, England, 27th February, 1899; 6 years. (Filed 13th February, 1899.)

Claim.—A process for sifting by means of flat sifters, characterized by the fact that a differential movement is imparted to sieve surfaces of varying mesh arranged one above the other, in such a manner that the upper and coarser sieve moves more slowly than the lower and finer sieve, whilst if necessary, the output of the sieve may be still further increased by means of regular recurring sharp shocks given to the sieve frames.

No. 62,783. Apparatus for Finding, Securing and Hoisting Submerged Bodies. (*Appareil pour chercher, assujetir et soulever les corps submergés.*)

Captain Maurice M. J. O. O'Connor, Inisfale Island, Drumshambo, Leitrim, Ireland, 27th February, 1899; 6 years. (Filed 7th June, 1898.)

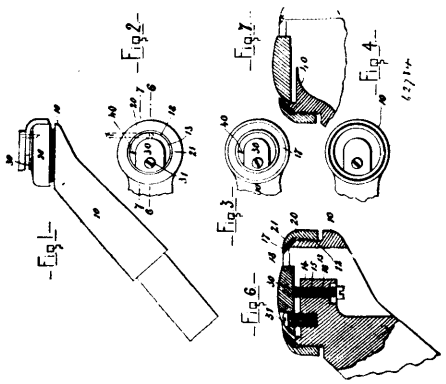
Claim.—1st. Apparatus whereby submerged ships or other bodies at any depth may be located, secured, raised, conveyed to any desired place and be there supported whilst being repaired or otherwise dealt with or else be discharged according to requirement, the



said apparatus comprising cylindrical or other vessels connected near to their ends by chains or other flexible connections, machinery carried by said cylindrical vessels and adapted to haul in said chains, and means for charging the vessels or parts thereof with air or water at will, all substantially as and for the purposes hereinbefore set forth. 2nd. Apparatus of the kind specified, comprising elongated vessels of such length and displacement that with their contained (or attached) machinery they can themselves float and also raise and support (in addition to their connecting gear) a ship or other body to be raised, supported and removed, flexible connections extending laterally between said vessels and whereby the latter can be drawn together sidewise and whereby a ship can be supported, hauling machinery carried by said vessels and controlled from the surface of the water and adapted to draw in flexible connections and simultaneously alter the positions of the flexible connections relatively to the ends of the vessels at the points where they enter the vessels in such a way as to force them to travel in an inward direction and away from both ends of the vessels, and means whereby water can be admitted to the interiors of the said elongated vessels and whereby water can afterwards be withdrawn from and air admitted to the interiors of said vessels, substantially as and for the purposes hereinbefore set forth. 3rd. Apparatus of the kind specified wherein the cylindrical or other shaped vessels are provided with arms or projections extending laterally therefrom and so arranged that when the apparatus is resting upon the bed of the sea they will rest on the said bed and thereby serve to steady the said vessels and prevent them from rolling or turning and will so maintain the chains or other flexible connections in their proper positions resting on the bed of the sea at the points where they enter the said vessels through the longitudinal slots or openings at the underside of the vessels, substantially as described. 4th. Apparatus of the kind specified in which two cylindrical or other shaped vessels connected by chains or other flexible connections are adapted when raised from the bed of the sea to be moved in a rotary sense so as to alter their displacement in the water and at the same time to raise the chains or other flexible connections from a position at the under side of the vessels and beneath the surface of the water to a position towards the upper side of the vessels and nearer to or above the surface of the water (carrying on them the ship they support), the said rotary motion of the said vessels being effected by means of arms or projections that are fixed to and extend from the exteriors of the said vessels and are moved downwards and towards one another by hauling upon chains or other flexible connections that are carried under the vessel from each side and are reeved over and around pulleys carried by the outer ends of the said arms or projections, substantially as herein described. 5th. Apparatus of the kind specified, wherein the chains or other flexible connections connecting the cylindrical or other vessels near to their ends are hauled in for the purpose hereinbefore set forth by a system of hydraulic rams located within the said vessels and controlled from above the surface of the water. 6th. Apparatus of the kind specified, wherein the chains or other flexible connections connecting the cylindrical or other versels near to their ends are hauled in, for the purposes hereinbefore set forth, by hauling in mechanism operated by electric motors enclosed in water tight casings and supplied with electric current from a dynamo carried by a boat or otherwise at the surface of the water. 7th. Apparatus of the kind specified, in which there is provided in connection with the chains or other flexible connections between the cylindrical or other vessels and the machinery for hauling in such connections, means whereby the said chains or other flexible connections are prevented from unwinding or slackening after they have been hauled in as far as circumstances will permit and are taking or supporting the weight of a ship or other body to be raised. 8th. Apparatus of the kind specified, wherein hydraulic rams or cylinders have connected with them a series of chain pul'eys around which the supporting chains or other flexible connections pass during and after being hauled in, as set forth. 9th. Apparatus of the kind specified,

in which the chains or other flexible connections between the cylindrical or other vessels are spaced and maintained apart in two groups near to the ends of the said vessels and are (*a*) hauled in by the action of sets of movable pulleys 14 that are forced away from sets of fixed pulleys 17 by hydraulic rams 12, or cylinders 34, operated by motors 31 located within the vessels and controlled from the surface of water (*b*) and are simultaneously forced to move from the points at which they first enter the vessels through the longitudinal slots or openings 23, and to travel in an inward direction away from the ends of the veesels by means of wheels or pulleys 21 over and partly around which the chains first pass after entering the vessels and which are connected with the longitudinally movable parts of the hydraulic apparatus. 10th. In apparatus of the kind specified, hydraulic hauling-in mechanism, comprising hydraulic cylinders and rams and means for supplying them with liquid under pressure, fixed and movable sets of pulleys, the movable set being carried by the movable part of the hydraulic apparatus, chains wheels carried by said movable part of the hydraulic apparatus, chains extending over and partly round said sets of pulleys and over and partly around the chain wheels, and means for preventing backward rotation of said chain wheels, substantially as described and shown. 11th. In apparatus of the kind specified, hydraulic hauling-in mechanism, comprising hydraulic cylinders and rams, and means for supplying them with liquid under pressure, fixed and movable sets of pulleys, the movable set being carried by the movable part of the hydraulic apparatus, chain-wheels carried by sai l movable part of the hydraulic apparatus and adapted to permit of the free passage over them of chains of smaller size and to gear with chains of larger size, chains extending over and partly round said sets of pulleys and over and partly around the chain-wheels, and having their central portions of greater size and strength than their remaining portions, and ratchet mechanism adapted to prevent backward rotation of said chain-wheels, substantially as described and shown. 12th. In apparatus of the kind described, hydraulic hauling-in mechanism, comprising hydraulic cylinders and rams, and means for supplying them with liquid under pressure, fixed and movable sets of pulleys, the movable set being carried by the movable part of the hydraulic apparatus, chain-wheels carried by said movable part of the hydraulic apparatus, chains extending over and partly round said sets of pulleys and over and partly round the chain-wheels, means for preventing backward rotation of said chain-wheels, and means, substantially as described and shown, for supporting the hydraulic rams as they leave their cylinders, as set forth. 13th. In apparatus of the kind herein referred to, means, substantially as hereinbefore described with reference to and shown in the drawings annexed, for admitting water to the interior of the cylindrical or other vessels for the purpose of causing them to sink, and whereby water can be afterwards withdrawn from and air admitted to the interiors of the said vessels in order to cause them to rise. 14th. In apparatus of the kind hereinbefore referred to, the combination with the chains or other flexible connections between the cylindrical or other vessels of readily detachable buoys that are spaced apart and connected together by rigid connections, substantially as hereinbefore described, for the purpose specified.

No. 62,784. Pegging Machine. (*Machine à cheviller.*)

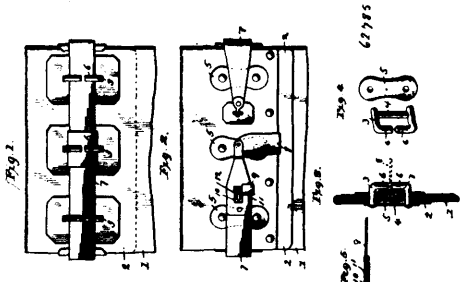


Elouild Duplessis, St. Hyacinthe, Quebec, Canada, 27th February, 1899; 6 years. (Filed 14th February, 1899.)

Claim.—1st. In a pegging-machine, a stationary cutter diagonally intersecting the path of the driven pegs in their travel with the work during the feeding thereof, and means for securing said cutter against displacement, for the purpose set forth. 2nd. In a pegging-machine, a stationary annular cutter consisting of a ring having its inner edge sharpened, said ring being rigidly mounted eccentrically of the point at which the pegs are driven, and means for securing said cutter against displacement. 3rd. In a pegging-machine, a horn or work support formed with an annular stationary part located eccentrically of the point at which the pegs are driven, a cutter consisting of a ring having its inner edge sharpened, and rigidly mounted upon said annular part concentrically thereof, and means for securing said cutter rigidly against displacement, substantially as described and for the purpose set forth. 4th. In a pegging-machine, a stationary cutter diagonally intersecting the path of the driven pegs in their travel with the work during their feeding thereof, means for securing said cutter against displacement, and a work supporting part free from said cutter and located adjacent to the cutting edge thereof, for the purpose set forth. 5th. In a pegging-machine, a stationary cutter diagonally intersecting the path of the driven pegs in their travel with the work during the feeding thereof, and means comprising a work supporting part for securing said cutter against displacement, for the purpose set forth. 6th. In a pegging-machine, a stationary cutter diagonally intersecting the path of the driven pegs in their travel with the work during the feeding thereof, means comprising a work supporting part for securing said cutter against displacement, and a work supporting part free from said cutter and located adjacent to the cutting edge thereof, for the purpose set forth. 7th. In a pegging-machine, a stationary cutter diagonally intersecting the path of the driven pegs in their travel with the work during the feeding thereof, means for securing said cutter against displacement, and a vertically adjustable work supporting part free from said cutter and located adjacent to the cutting edge thereof, for the purpose set forth. 8th. In a pegging-machine, a stationary cutter diagonally intersecting the path of the driven pegs in their travel with the work during the feeding thereof, means comprising a work supporting part for securing said cutter against displacement and a vertically adjustable work supporting part free from said cutter located adjacent to the cutting edge thereof, for the purpose set forth. 9th. In a pegging-machine, a horn or work support formed with an annular stationary part located eccentrically of the point at which the pegs are driven, a cutter, consisting of a ring having its inner edge sharpened, and rigidly mounted upon said annular part eccentrically thereof, means comprising a work supporting part for securing said cutter rigidly against displacement and a work supporting part located within and concentrically of said cutter, substantially as described and for the purpose set forth. 10th. In a pegging-machine, a horn or work support formed wlth an annular stationary part located eccentrically of the point at which the pegs are driven, a cutter consisting of a ring having its inner edge sharpened, and rigidly mounted upon said annular part concentrically thereof, means comprising a work supporting part for securing said cutter rigidly against displacement and a vertically adjustable work supporting part located within and concentrically of said cutter, substantially as described and for the purpose set forth. 11th. In a pegging-machine, a horn or work support formed with an annular stationary part, a cutter consisting of a ring having its inner edge sharpened, and rigidly mounted upon said annular part and concentrically thereof, and said annular part having its perimeter screw-threaded, a retaining sleeve having its upper edge diminished in interior diameter to bear upon said ring and having the interior of its lower portion screw-threaded to take in the screw-threads of said annular part, substantially as described and for the purpose set forth. 12th. In a pegging-machine, a horn or work support formed with an annular stationary part, a cutter consisting of a ring having its inner edge sharpened, and rigidly mounted upon said annular part and concentrically thereof and said annular part having its perimeter screw-threaded, a retaining sleeve having its upper edge diminished in interior diameter to bear upon said ring and having the interior of its lower portion screw-threaded to take into the screw threads of said annular part, a centre lineally extending arm formed on the interior of said annular part, a vertically adjustable screw carried by the inner end of said arm, an upwardly flared web connecting one side of said arm to the adjacent portion of said annular part, and a work supporting plate secured to said arm and resting upon said vertically adjustable screw, substantially as described and for the purpose set forth.

No. 62,785. Mail Sack Fastening.

(*Attache de sac de malles.*)

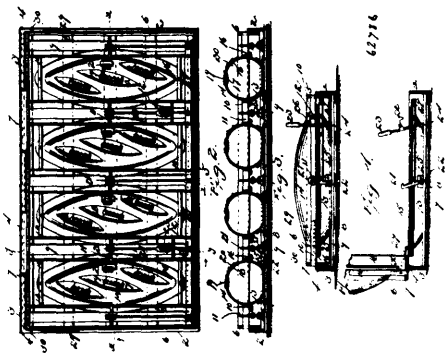


Alexander Braley, Langsville, Ohio, U. S. A., 27th February, 1899; 6 years. (Filed 16th February, 1899.)

Claim.—1st. The combination with a mail-sack, of strap loops or staples having their outer transverse bars divided centrally on their length, and a locking strap provided on its free end with a swiveling piece adapted to pass between the adjacent ends of the divided bars, substantially as described. 2nd. In a mail-sack, the combination with the folding flap thereof, of the locking-strap loops or staples

having the divided outer transverse bars, the locking-straps engaging said loops, and a swiveling thumb-piece or plate on the free end of said strap adapted to pass between the adjacent ends of the divided bar for drawing the strap under said bars, substantially as described.

No. 62,786. Baking-Pan. (*Casserole.*)



Gustav A. F. Mildt, Long Island City, New York, U.S.A., 27th February, 1899; 6 years. (Filed 16th February, 1899.)

Claim.—1st. A frame or rack comprising sections jointed to one another, and a series of pans, each pan comprising sections secured respectively to the frame-sections and having trough-shaped rims adapted to fit or engage one another for adjusting the pan sections, substantially as described. 2nd. A frame or rack comprising sections jointed to one another, and a pan comprising sections secured respectively to the frame-sections, one frame-section having a swinging hook and lever linked to one another, said lever being provided with a catch, and the other frame-section having braces for the engagement of the hook and catch, substantially as described. 3rd. The combination with a frame or rack comprising a lower section having an open framework bottom and an upper section hinged thereto, of a series of pans, each pan comprising a top and bottom, the bottoms of the pans being attached to the bottom frame-work of the lower section of the frame or rack and the tops to the upper section, a swinging hook carried by the lower section and arranged to engage the upper section to hold the pans closed, and a catch operating to hold said hook against accidental displacement, substantially as described.

TRADE-MARKS

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

6757. LOUIS AIMÉ BRAIS, (GLOVER AND BRAIS.) Montréal, Qué., Marque de Commerce Générale, 1 février, 1899.

6758. FOWLER BROTHERS, LIMITED, Liverpool, England. Flour, Meal and Maize, 2nd February, 1899.

6759. THE MECREDY MANUFACTURING SYNDICATE, LIMITED, No. 248 Gresham House, Old Broad Street, London, England, Desiccated Preserved Foods, 3rd February, 1899.

6760. H. E. BUCKLEN and COMPANY, Chicago, Illinois, U.S.A., A Medicine, 3rd February, 1899.

6761. ARCHIBALD LEITCH, ANGUS J. LEITCH and MALCOLM LEITCH, trading as LEITCH BROTHERS, Oak Lake, Man., Flour, Rolled Oats, Meals and Cereal Foods, 3rd February, 1899.

6762. THE LONDON COFFEE AND SPICE COMPANY, LIMITED, London, Ont. Baking Powder, Coffee, Spices, French Mustard, Dry Mustard, Cream of Tartar, Extracts, Borax, &c., 3rd February, 1899.

6763 NATIONAL FARMERS SUPPLY AGENCY, Toronto, Ont. Binder Twine, 6th February, 1899.

6764. JOHN MILLEN and SON, Montreal, Que. Bicycle Bells, 6th February, 1899.

6765. JONES BROTHERS and COMPANY, Toronto, Ont. Preparations for the Hair and Head, 6th February, 1899.

6766. DUNLAP and COMPANY, New York, N. Y.. U.S.A., Men's Boys' and Women's Hats and Caps, 6th February, 1899.

6767. SALIM ELIAS, New York, N.Y., U.S.A., Razors, 7th February, 1899.

6768. MANLIUS BULL, Winnipeg, Man. Soap, 8th February, 1899.

6769. JOHN S. PEARCE, London, Ont. Specialties for Poultrymen, Stockmen and Dairymen, 9th February, 1899.

6770. THE ROBERT SIMPSON COMPANY, LIMITED Toronto, Ont. Groceries, Provisions and Grocery Sundries, 9th February, 1899.

6771. MACDONALD AND ROBB, Valleyfield, Que. Flour, 10th February, 1899.

6772. THE FIRTH-STERLING STEEL COMPANY, Pittsburg, Pennsylvania, U.S.A. Steel or Steel combined with Iron, or Goods manufactured from either of them, 10th February, 1899.

6773. THOMAS M. MORGAN, Longue Pointe, Que. Cement, 10th February, 1899.

6774. THOMAS HENRY LAWRY, Hamilton, Ont. Provisions, 18th February, 1899.

6775. SHERMAN BROTHERS and COMPANY, Chicago, Illinois, U.S.A., Teas, 18th February, 1899.

6776. S. GREENSHIELDS, SON and COMPANY, Montreal, Que. Corsets, 20th February, 1899.

6777. THE RATHBUN COMPANY, Deseronto, Ont. Cement, 20th February, 1899.

6778. NORMAN SPENCELEY CROKER, Montreal, Que. Teas, 20th February, 1899.

6779. } UNION TOBACCO COMPANY OF AMERICA, New York, N.Y., U.S.A.,
6780. } Tobaccos, Cigars and Cigarettes, 20th February, 1899.

6781. } HARRY WILLIAM CROLLEY, Covington, Kentucky, U. S. A., A
6782. } Chemical Compound, 21st February, 1899.

6783. THE GAULT BROTHERS COMPANY, LIMITED, Montreal, Que. Shirts, Ties, Mufflers, Gloves, Mitts, Suspenders, and Haberdashery, (other than Hosiery and Underwear.) 22nd February, 1899.

6784. JAMES CARTER and COMPANY, also trading as CARTERS. High Holborn, London, England. Seeds for Agricultural and Horticultural purposes and Seeds for use as Food, 22nd February, 1899.

6785. SAUCIER et FRÈRE, Maskinongé, Qué. Cigares, 25 février, 1899.

6786. OSTERMOOR and COMPANY, New York N. Y., U.S.A., Prepared Cotton Sheets for filling Mattresses and the like, and other prepared Cotton, 28th February, 1899.

COPYRIGHTS

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

10417. THE STENOGRAPHER'S COMPANION. Volume I. No. 11. February, 1899. Robert Goltman, Montreal, Que., 1st February, 1899.

10418. BIRDS OF A FEATHER. (Anglo-American Unity.) (Lithograph) The Theatrical Mechanical Association, Toronto, Ont., 1st February, 1899.

10419. TO PEOPLE WHO DRINK. (Book.) The Grand Hotel Company of Caledonia Springs (Ltd.), Caledonia Springs, Ont., 2nd February, 1899.

10420. HE STANDS AT THE HELM. Poem by W. V. B. Thompson. Music by Frederick Locke Lawrence. Whaley, Royce & Co., Toronto, Ont., 6th February, 1899.

10421. MISSUS JAWG' AUGUSTUS LEE. (Coon Song.) Words and Music by Edward W. Miller. Whaley, Royce & Co., Toronto, Ont., 6th February, 1899.

10422. THE KEY TO FRENCH SOUNDS. By Charles T. DeBrisay, B. A., Toronto, Ont., 7th February, 1899.

10423. LULLABY. For Female Voices. Words and Music by Charles Edward Saunders, Ottawa, Ont., 7th February, 1899.

10424. NOTES DIVERSES SUR L'ELEVAGE DES POULES. J. A. Langlais et Fils, Québec, Qué., 8 février, 1899.

10425. THE CANADIAN MAGAZINE. (February, 1899.) The Ontario Publishing Co. (Ltd.), Toronto, Ont., 8th February, 1899.

10426. THE SPORTSMAN'S COMPANION. Showing the Haunts of Moose, Cariboo and Deer, also of the Salmon, Ouananiche and Trout, in the Province of Quebec, and How to reach them. By L. Z. Joncas and E. T. D. Chambers, Quebec, Que., 8th February, 1899.

10427. ANGLO-SAXON TEA GREETING, 1899. (Calendar.) H. N. Bate & Sons, Ottawa, Ont., 8th February, 1899.

10428. EDUCATIONAL REVIEW SUPPLEMENTARY READING: CANADIAN HISTORY. Number four, December, 1898. George U. Hay, St. John, N.B., 9th February, 1899.

10429. THE RED HEADED MAN. By Fergus Hume. Published in the Montreal Star. (Temporary Copyright.) The National Press Agency (Ltd.), London, England, 9th February, 1899.

10430. THE HOUSE BY THE LOCK. By Mrs. C. N. Williamson. Published in the "Montreal Star". (Temporary Copyright.) The National Press Agency (Ltd.), London, England, 9th February, 1899.

10431. MERCANTILE LAW AND BANK DIRECTORY, 1899. The Standard Mercantile Agency of Toronto (Ltd.), Toronto, Ont., 9th February, 1899.

10432. CATALOGUE B, BATHS, LAVATORIES, WATER CLOSETS AND SUNDRIES, 1898. Thomas Robertson and Company (Ltd.), Montreal, Que., 9th February, 1899.

10433. FEMME OU SABRE. (The Trail of the Sword.) Par Gilbert Parker. Traduit de l'Anglais par N. LeVasseur. Frank Carrel, Quebec, Que., 9th February, 1899.

10434. MIDSHIPMAN WILLIE. Words and Music by Daniel Kearney, Montreal, Que., 10th February, 1899.

10435. THE DELINEATOR. (A Journal of Fashion, Culture and Fine Arts.) (March, 1899.) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 13th February, 1899.

10436. THE GLASS OF FASHION UP TO DATE. (March, 1899.) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 13th February, 1899.

10437. METROPOLITAN FASHIONS. (March, 1899.) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 13th February, 1899.

10438. THE UNION JACK SOAP'S GREAT OFFER. (Circular.) The Grocers' Goods Manufacturing Company (Ltd.), Toronto, Ont., 14th February, 1899.

10439. THE UNION JACK SOAP'S GREAT OFFER—FLAG AND STAFF FREE. (Circular.) The Grocers' Goods Manufacturing Company (Ltd.), Toronto, Ont., 14th February, 1899.

10440. THE UNION JACK SOAP FLAG AND STAFF RECORD. (Circular.) The Grocers' Goods Manufacturing Company (Ltd.), Toronto, Ont., 14th February, 1899.

10441. JOHN BULL AND SONS. Song. Words by J. E. Caldwell. Music by C. J. A. Birkett. James Ernest Caldwell, City View, Ont., 14th February, 1899.

10442. PRICKED MUSIC CARD FOR CREWEL WORK. Evelyn Ashton Fletcher, Toronto, Ont., 17th February, 1899.

10443. BRIGGS' SYSTEM OF BOOK-KEEPING FOR DOCTORS. (Form.) F. W. Briggs, Montreal, Que., 17th February, 1899.

10444. A MANUAL OF THE MORE COMMON HERBACEOUS PLANTS OF QUEBEC AND ONTARIO. For use in connection with Groom's Botany. By D. P. Penhallow, B.Sc. The Copp, Clark Co. (Ltd.), Toronto, Ont., 20th February, 1899.

10445. BEDSIDE RECORDER. (Chart.) Florence M. Kelly, Summerside, P.E.I., 20th February, 1899.

10446. TEMPERATURE CHART. Florence M. Kelly, Summerside, P.E.I., 20th February, 1899.

10447. A MAN FROM THE DARK. By Mrs. C. N. Williamson. Published in the "Mercury," Guelph, Ont. (Temporary Copyright.) The National Press Agency (Ltd.), London, England, 20th February, 1899.

10448. BURNING BRIDGEWATER. (Photo.) H. O. Dodge, Bridgewater, N.S., 21st February, 1899.

10449. SPRING AND SUMMER CATALOGUE, 1899. (No. 42.) The T. Eaton Co. (Ltd.), Toronto, Ont., 22nd February, 1899.)

10450. OMDURMAN. (March.) By Mrs. James Orr, Vancouver, B.C., 24th February, 1899.

10451. LIGHT AND DARKNESS; OR, ALL ONE IN CHRIST JESUS. By Spes. Frank H. Dobbin, Peterborough, Ont., 24th February, 1899.

10452. L'ARCHÉOLOGIE. (Statuette.) Phillippe Hébert, Montréal, Qué., 25 février 1899.

10453. UNE MÉRE QUI DÉFEND SON ENFANT CONTRE LES ATTAQUES D'UN IROQUOIS. (Statuette.) Philippe Hébert, Montréal, Qué, 25 février 1899.

10454. LA VISION DU SAGAMO. (Statuette.) Philippe Hébert, Montréal, Que., 25th février, 1899.

10455. A PRACTICAL TREATISE ON THE FORECLOSURE OF MORTGAGES OF REALTY. By A. T. Hunter, LL.B. The Carswell Co. (Ltd.), Toronto, Ont., 25th February, 1899.

10456. GARDINER'S ADVERTISING LAMP SHADE (Business Guide.) Robert Martin Gardiner, Hamilton, Ont., 25th February, 1899.

10457. THE JOURNAL OF PSYCHOSOPHY. Volume I. Number 1, February, 1899. William Newton Barnhardt and Richard S. J. DeNiord, Toronto, Ont., 27th February, 1899.

10458. FRENCH LANGUAGE AND GRAMMAR. By J. M. Lanos. A & W. MacKinlay, St. John, N.B., 27th February, 1899.

10459. LOST TRACK OF A DAY. A Stricture on Seventh Day Teaching and Sabbath Desecration. By Robert Dezell, Owen Sound, Ont., 27th February, 1899.

10460. ST. JAMES' CHURCH MUST BE SAVED. (Sacred Song.) Words by Sarah E. Hendrick. Music by Rev. J. W. Wilkinson. James Wesley Wilkinson, Frankford, Ont., 28th February, 1899.

10461. THE MEDICAL ADVISER AND HYGIENE OF HEALTH. A complete Encyclopedia of Diseases and How to Cure Them. Julius McIntyre, Montreal, Que., 28th February, 1899.