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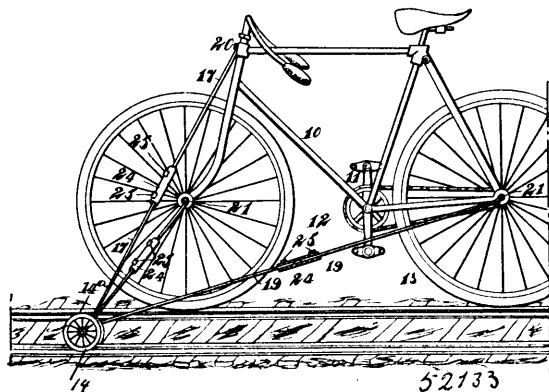
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INVENTIONS PATENTED.

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No. 52,133. Attachment for Bicycles.

(Attache de bicycles.)



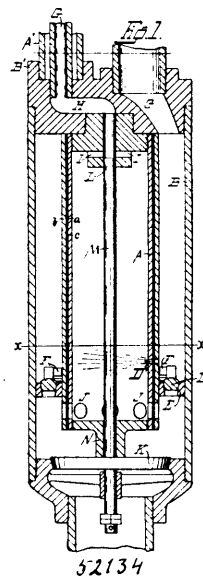
Charles Andrew Coey, Fairfield, Washington, U.S.A., 1st May, 1896; 6 years. (Filed 11th March, 1896.)

Claim.—1st. An attachment for bicycles, comprising a wheel having a concave rim, an axle upon which the wheel is mounted provided with three integral branches on one end, and three sectional and adjustable braces having hollow lower ends to receive the branches of the axle and to which they are adjustably and detachably secured, the other ends of the braces being adapted to be secured to the front and rear axle and the steering fork of a bicycle, substantially as herein shown and described. 2nd. An attachment for bicycles, comprising a wheel having a concave rim, an axle upon which the wheel is mounted provided with three integral branches, and three braces each formed of two parts adjustably connected together by tubular couplings, the ends of the lower sections being hollow to receive the branches of the axle, and to which they are detachably and adjustably secured, the upper ends of the braces being adapted to be secured to the front and rear axle and the steering fork of a bicycle, substantially as described.

No. 52,134. Steam Pump. (Pompe à vapeur.)

James B. Erwin, Milwaukee, Wisconsin, assignee of William Kirkwood, Chicago, Illinois, both in the U.S.A., 1st May, 1896; 6 years. (Filed 27th March, 1896.)

Claim.—1st. In a steam pump, the combination with a single vacuum chamber, having a steam inlet port, a valve controlling said port, and water controlling valve located at the opposite end of said chamber, and a connection between said valves, whereby the vacuum

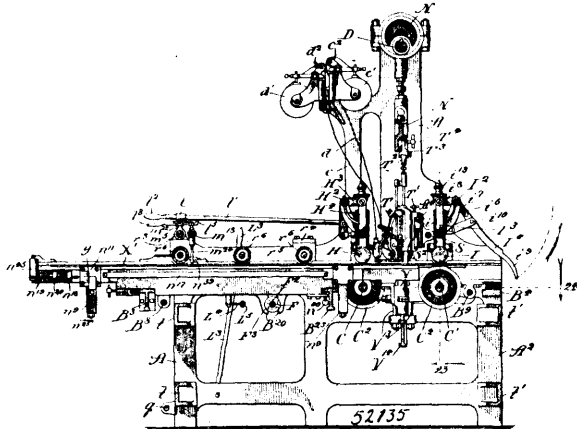


causes the movement of the second valve and thereby the first is actuated to cut off the steam, substantially as described. 2nd. In a steam pump, the combination within a single inclosure of a vacuum chamber provided at its upper end with a steam controlling valve, a water chamber communicating at its upper end with a water discharge pipe and at its lower end with the lower end of said vacuum chamber, a check valve located between said vacuum and water chambers and the inlet water supply duct, a valve rod communicating between said check valve and said steam valve, and a water discharge check valve located between said vacuum chamber and said water discharge pipe and adapted to permit the escape of water to and to prevent its return from said water discharge pipe, substantially as and for the purpose specified. 3rd. In a steam pump, the combination of a vacuum chamber provided at its upper end with a steam controlling valve; an exterior water chamber communicating at its upper end with the water discharge pipe and provided at its lower end with an inlet water controlling check valve; a valve rod communicating between said check valve and said steam valve; and a check valve located between said vacuum chamber and said water chamber and adapted to permit the escape of water to and to prevent its return from said water discharge pipe, substantially as and for the purpose specified. 4th. In a steam pump of the class described, the combination of a vacuum chamber provided at its upper end with a steam controlling valve, and an exterior inclosing chamber communicating at its upper end with the water discharge pipe and provided at its lower end with an inlet water controlling check valve, a valve rod communicating between said check valve and said steam valve, an annular valve seat surrounding the lower end of said vacuum chamber and the inclosing water chamber, an

annular valve inclosing said vacuum chamber against which it has guide bearings adapted to close said annular valve seat against the return of the water elevated, substantially as and for the purpose specified. 5th. In a steam pump, the combination within a single inclosure of a vacuum chamber open at its lower end for the reception of water and provided at its upper end with a steam controlling valve, a separate water chamber communicating between the inlet water duct and the lower end of said vacuum chamber, a water controlling check valve located between said inlet water duct and said water chamber, a valve rod communicating between said inlet water controlling valve and said steam valve, an outlet water duct communicating from said vacuum chamber with the water discharge pipe, an outlet check valve located in said outlet water duct or pipe, a water return spray duct communicating from said outlet water duct with the interior of said vacuum chamber, all substantially as and for the purpose specified. 6th. In a steam pump, the combination of a vacuum chamber provided at its upper end with a steam controlling valve, an inlet water duct or chamber, a water controlling valve located in said inlet duct or chamber, a connection communicating between said water and said steam controlling valve, a discharge duct or chamber communicating from said vacuum chamber to the place of discharge, provided with a valve to prevent the return of water, and a spray duct communicating from above the check valve in said outlet discharge duct or chamber, to said vacuum chamber, substantially as and for the purpose specified. 7th. In a steam pump, the combination of a single vacuum chamber having a steam port controlled by a reciprocating valve, a water controlling valve located at the opposite end of such chamber, a rod connecting said valves, and a reciprocating piston or float adapted to slide on said valve rod within said vacuum chamber, substantially as and for the purpose specified. 8th. In a steam pump, adapted to be submerged beneath the water to be elevated, the combination of a water discharge pipe communicating with the water discharge duct of said pump, a steam pipe communicating with the steam duct of said pump, and an exterior covering pipe secured to said pump upon the exterior of said steam pipe and adapted to shield said steam pipe from contact with the surrounding water, said pump being suspended in the water supply, by said steam and water pipes, all substantially as and for the purpose specified.

No. 52,135. Machine for Making Box Blanks.

(Machine pour faire les blancs de boîtes.)



William Healy, assignee of Jacob Uhri, both of Chicago, Illinois, U.S.A., 1st May, 1896; 6 years. (Filed 4th March, 1896.)

Claim.—1st. In a machine for forming blanks by tacking a sheet to cleats, the combination with intermittently actuated tacking-devices and with feed-mechanism alternating in its action with the tacking devices, to feed the sheet and cleats intermittently across the said devices, of skipper-mechanism operating at predetermined intervals, to produce an increase of the distance between points of tacking, substantially as described. 2nd. In a machine for forming blanks by tacking a sheet to cleats, the combination with intermittently actuated tacking devices and with feed-mechanism alternating in its action with the tacking devices, to feed the sheet and cleats intermittently across the said devices, of skipper mechanism at the said feed-mechanism, operating at predetermined intervals, in the passage of the sheet and cleats through the machine, to accelerate the feed and thereby produce an increase of the distance between points of tacking, substantially as described. 3rd. In a machine for forming blanks by tacking a sheet to cleats, the combination of guides for the cleats, intermittent feed-mechanism for advancing the cleats longitudinally in their guides, and with the sheet through the machine, comprising primary and secondary feed-rollers rotating normally at the same rate of speed, and intermittently actuated tacking devices adjacent to the path of each cleat, alternating in its action with the said feed-mechanism to fasten the sheet, by successive operations to the cleats, and skipper mechanism at the said secondary feed-rollers, operating at predetermined intervals, in the passage of the sheet and cleats through the

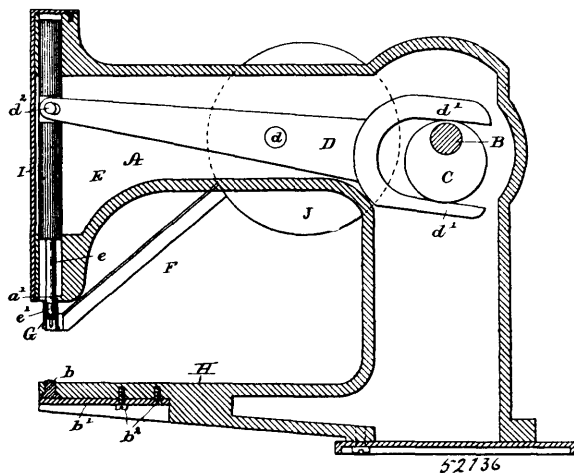
machine, to accelerate the said secondary feed-rollers and thereby produce an increase of the distance between points of tacking, substantially as described. 4th. In a machine for forming blanks by fastening a sheet to cleats, the combination of guides for the cleats, intermittent feed-mechanism, for advancing the cleats longitudinally in their guides and with the sheet through the machine, an intermittently actuated tacking-device adjacent to the path of each cleat, alternating in its action with said feed-mechanism to fasten the sheet, by successive operations to the cleats, and skipper mechanism actuated by the said feed-mechanism, at predetermined intervals, in the passage of the sheet and cleats through the machine to accelerate the said feed-mechanism and thereby produce an increase of the distance between points of tacking, substantially as described. 5th. In a machine for forming blanks by fastening a sheet to cleats, the combination of a drive-shaft, guides for the cleats, feed-mechanism, comprising feed-rollers, a ratchet-wheel geared to the same, and a primary ratchet-wheel engaging-pawl actuated from the drive-shaft to turn the said ratchet-wheel and feed-rollers intermittently to advance the cleats longitudinally in their guides and with the sheet through the machine, an intermittently actuated tacking device adjacent to the path of each cleat, alternating in its action with said feed-mechanism to fasten the sheet, by successive operations, to the cleats, and skipper mechanism comprising a secondary ratchet-wheel engaging-pawl actuated from the said drive-shaft and normally out of engagement with the said ratchet-wheel, and pawl-engaging means operating, at predetermined intervals, in the passage of the sheet and cleats through the machine, to move the said secondary pawl into engagement with the ratchet-wheel, and thereby accelerate the feed to produce an increase of the distance between points of tacking, substantially as described. 6th. In a machine for forming blanks by fastening a sheet to cleats, the combination with intermittently actuated tacking-devices and with feed-mechanism alternating in its action with the tacking-devices to feed the sheet and cleats intermittently across the said devices, of skipper-mechanism at the said feed-mechanism, operating, at intervals in the passage of the sheet and cleats through the machine, to accelerate the feed and thereby produce an increase of the distance between points of tacking, the said skipper-mechanism being adjustable to regulate the said intervals, substantially as described. 7th. In a machine for forming blanks by fastening a sheet to cleats, the combination of a drive-shaft, guides for the cleats, feed-mechanism, comprising feed-rollers, a ratchet-wheel geared to said feed-rollers, and primary pawl at the said ratchet-wheel actuated from the drive-shaft for moving the feed-rollers intermittently to advance the cleats longitudinally in their guides and with the sheet through the machine, an intermittently actuated tacking device adjacent to the path of each cleat, alternating in its action with said feed mechanism, to fasten the sheet, by successive operations, to the cleat, and skipper-mechanism comprising a secondary pawl actuated from the said drive-shaft and adjacent to but normally out of engagement with said ratchet-wheel, a tripping device movable under the influence of the feed-rollers, a stop in the path of said tripping device, and a connection between said tripping-device and secondary pawl, whereby in the engagement of the tripping-device with the said stop the said secondary pawl is moved to engage the said ratchet-wheel and thereby increase the movement of the feed-rollers and thus produce an increase of the distance between points of tacking, substantially as described. 8th. In a machine for forming blanks by fastening a sheet to cleats, the combination of a drive-shaft, guides for the cleats, feed-mechanism comprising feed-rollers, a ratchet-wheel geared to said feed-rollers, and a primary pawl at the said ratchet-wheel actuated from the drive shaft for moving the feed rollers intermittently to advance the cleats longitudinally in their guides and with the sheet through the machine, an intermittently actuated tacking device adjacent to the path of each cleat, alternating in its action with said feed mechanism, to fasten the sheet, by successive operations to the cleat, and skipper-mechanism comprising a secondary pawl actuated from the said drive-shaft and adjacent to but normally out of engagement with said ratchet-wheel, a tripping device movable under the influence of the feed-rollers, a scale along which said tripping-device moves, a stop adjustable along the said scale and in the path of said tripping device, and a connection between the said tripping-device and secondary pawl, whereby in the engagement of the tripping device with the said stop the said secondary pawl is moved to engage the said ratchet-wheel and thereby increase the movement of the feed-rollers and produce an increase of the distance between points of tacking substantially as described. 9th. In a machine for forming blanks by fastening a sheet to cleats, the combination of a drive pulley provided with a clutch member, a drive shaft provided with a clutch-member, shipping-mechanism for said clutch-members operating to throw them into and out of engagement, to throw the drive-shaft into and out of engagement with its driving-pulley, guides for the cleats, intermittent feed-mechanism, actuated from said drive-shaft for advancing the cleats longitudinally in their guides with the sheet through the machine, a tacking-device adjacent to the path of each cleat and operated intermittently from the said drive-shaft to alternate in its action with said feed-mechanism and fasten the sheet, by successive operations, to the cleats, skipper-mechanism, operating, at predetermined intervals, to produce an increase of the distance between points of tacking, and means actuated by the said feed-mechanism for moving the said

clutch shipping-mechanism to stop the machine, substantially as and for the purpose set forth. 10th. In a machine for forming blanks by fastening sheets and strengthening wires to reinforcing-cleats, the combination of guides for the cleats, intermittent feed-mechanism for advancing the cleats longitudinally in their guides and with a sheet through the machine, an intermittently actuated staple driver adjacent to the path of each cleat, alternating in its section with said feed-mechanism, to fasten the sheet and strengthening wires, by successive operations, to the cleats, means for guiding the strengthening wires with the sheet across the staple drivers, and skipper-mechanism operating, at predetermined intervals, in the passage of the sheet and cleats through the machine, to produce an increase of the distance between the points at which the staples are driven, substantially as described. 11th. In a machine for forming blanks by fastening sheets and strengthening wires to reinforcing-cleats, the combination of guides for the cleats, intermittent feed-mechanism for advancing the cleats longitudinally in their guides and with a sheet through the machine, an intermittently actuated staple driver adjacent to the path of each cleat, alternating in its action with said feed-mechanism, to fasten the sheet and strengthening wires, by successive operations, to the cleats, means for guiding the strengthening wires with the sheet across the staple drivers, skipper-mechanism operating, at predetermined intervals, in the passage of the sheet and cleats through the machine, to produce an increase of the distance between the points at which the staples are driven, and strengthening wire severing mechanism actuated from the said feed mechanism, to sever the strengthening wires when the sheet and cleats have passed the staple drivers, substantially as described. 12th. In a machine for forming blanks by fastening sheets and strengthening wires to reinforcing cleats, the combination of a drive shaft and a driver therefor, clutch mechanism between the said driver and shaft, clutch shipping mechanism, guides for the cleats, intermittent feed-mechanism actuated from the said drive shaft for advancing the cleats longitudinally in their guides and with a sheet through the machine, an intermittently actuated staple driver adjacent to the path of each cleat, operated from the said drive shaft and alternating in its action with said feed-mechanism to fasten the sheet and strengthening wires by successive operations, to the cleats at intervals in the direction longitudinally of the cleat, means for guiding strengthening wires with the sheet across the staple drivers, skipper mechanism operating at predetermined intervals in the passage of the sheet and cleats through the machine, to produce an increase of the distance between points at which staples are driven, and means, actuated from the said feed-mechanism, for moving the said clutch-shipping mechanism to stop the machine when the cleats and sheet have passed the staple drivers, substantially as described. 13th. In a machine for forming blanks by fastening a sheet to cleats, the combination of guides for the cleats, intermittent feed-mechanism for advancing the cleats longitudinally in their guides and with the sheet through the machine, comprising primary and secondary feed-rollers rotating normally at the same rate of speed, an intermittently actuated tacking device adjacent to the path of each cleat, alternating in its action with said feed-mechanism to fasten the sheet, by successive operations, to the cleats, and means for increasing the movement of the primary feed-rollers to hasten the movement of the sheet and cleats toward the tacking devices, substantially as described. 14th. In a machine for forming blanks by fastening a sheet to cleats, the combination of laterally adjustable guides for the cleats, intermittent feed-mechanism for advancing the cleats longitudinally in their guides and with the sheet through the machine, the said feed-mechanism being formed with feed-rollers extending cross-wise of the machine in the plane above the said guides and feed-wheels journaled in the said guides, an intermittently-actuated tacking device supported adjacent to the path of each cleat and laterally adjustable on its support and alternating in its action with the said feed-mechanism to fasten the sheet, by successive operations, to the cleats, substantially as described. 15th. In a machine for forming blanks by fastening a sheet to cleats, the combination of a main drive-shaft, guides for the cleats, intermittent feed-mechanism, for advancing the cleats longitudinally in their guides, and with the sheet through the machine, comprising primary and secondary feed-rollers rotating normally at the same rate of speed, an intermittently actuated tacking device adjacent to the path of each cleat, alternating in its action with said feed-mechanism, to fasten the sheet, by successive operations, to the cleats, a secondary drive-shaft actuated from the main drive-shaft and to which the primary feed-rollers are geared, and means for increasing the movement of the primary feed-rollers, to hasten the movement of the sheet and cleats toward the tacking-devices, comprising speed-gear mechanism actuated from the main drive-shaft and with which the said secondary drive-shaft may be thrown into and out of engagement at will, substantially as described. 16th. In a machine for forming blanks by fastening a sheet to cleats, the combination of a main drive-shaft, guides for the cleats, intermittent feed-mechanism, for advancing the cleats longitudinally in their guides, and with the sheet through the machine, comprising primary and secondary feed-rollers rotating normally at the same rate of speed, an intermittently actuated tacking device adjacent to the path of each cleat, alternating in its action with said feed-mechanism, to fasten the sheet, by successive operations, to the cleats, a secondary drive-shaft actuated from the main drive-shaft and to which the primary feed-rollers are geared, and means for rotating the

said secondary drive-shaft independently of the main drive-shaft, comprising pawl and ratchet mechanism at the secondary drive-shaft, and an operating handle therefor, substantially as and for the purpose set forth. 17th. In a machine for forming blanks by fastening a sheet to cleats, the combination with the guides for the cleats and intermittent tacking device of intermittent feed-mechanism for advancing the cleats longitudinally in their guides and with the sheet through the machine, comprising a series of upper and lower feed-rollers, movable stops at the said guides adjacent to the first upper feed-roller, and means for raising the said first feed-roller, and lowering the said stops into the paths of the cleats and sheet, substantially as and for the purpose set forth. 18th. In a machine for forming blanks by fastening a sheet to cleats, the combination with the guides for the cleats and intermittent tacking devices at said guides, of intermittent feed-mechanism for advancing the cleats longitudinally in their guides and with the sheet through the machine, comprising a series of upper and lower feed-rollers, between the forward end of the guides and tacking devices and lever mechanism operative at will to raise the first upper feed-roller and the upper feed-roller adjacent to said tacking devices, substantially as and for the purpose set forth. 19th. In a machine for forming blanks by tacking a sheet to cleats, the combination with the intermittently actuated tacking devices, of guides for the cleats, yielding guides for the edges of the sheet and intermittently actuated feed-mechanism for advancing the cleats and sheet in their guides longitudinally across the said tacking devices, the said feed-mechanism alternating in its action with the said tacking devices, substantially as described. 20th. In a machine for forming blanks by fastening a sheet to cleats, the combination with intermittently actuated tacking devices, of outer and intermediate guides for the cleats, yielding guides for the edges of the sheet on the said outer cleat guides, and intermittently actuated feed-mechanism for advancing the sheet and cleats in their guides longitudinally across the said tacking devices, the said feed-mechanism alternating in its action with the said tacking devices, substantially as described. 21st. In a machine for forming blanks by fastening a sheet to cleats, the combination with intermittently actuated tacking devices, of guides for the cleats, yielding guides for the edges of the sheet, overlapping guides for the edge portions of the sheet and feed-mechanism for advancing the sheet and cleats in their guides longitudinally across the said tacking devices, the said feed-mechanism alternating in its action with the said tacking devices, substantially as described.

No. 51,136. Rivet-Setting Machine.

(Machine à poser les rivets.)



Herbert Sumner Crombie, Waltham, Massachusetts, U. S. A., 1st May, 1896; 6 years. (Filed 16th March, 1896.)

Claim.—1st. In a rivet-setting machine, a thimble or friction device for the riveting bar, constructed with vertical slots to produce the friction, and a horizontal slot and vertical slot adapted to the entering of the rivet, and a shoulder to support the entering rivet, substantially as described and shown. 2nd. In a rivet-setting machine in combination with a riveting bar having one end constructed to operate as a die, a thimble or friction device constructed with slots to produce the friction, and another slot to admit the rivet, and a shoulder to support the entering rivet, substantially as described and shown. 3rd. In a rivet-setting machine, the combination of a riveting bar provided with a riveting die of less diameter and a shoulder so formed above said die, with a thimble or friction device carried by the riveting bar, and slotted to receive the rivet from the raceway and having an inner shoulder to permit the descent of the riveting bar through said thimble sufficiently to compress said rivet in the material, substantially as described and shown. 4th. In a rivet-setting machine, the combination of the riveting bar E, having the cam c, the shank c, and the die c', with the thimble G, having the vertical friction slots g, and the horizontal slot g', and the

shoulder g^2 , all substantially as described and shown. 5th. In a rivet-setting machine provided with apparatus for operating a riveting bar, and for supplying rivets to be fixed in position by said bar, the combination of a riveting bar having a die of less diameter at one end, with a thimble or friction clutch of such diameter as to retain its hold upon the bar, and having an enlarged base as a presser-foot upon the material to be rivetted, and its lower half expandible to permit the descent of the rivet, and its upper half expandible by the riveting bar, all substantially as described and shown.

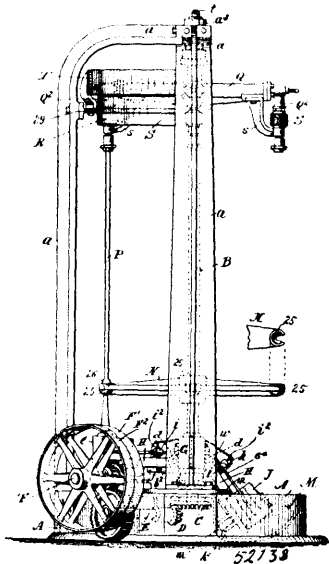
No. 52,137. Culinary Implement. (Ustensil de cuisine.)



David Ward, Armprior, Ontario, Canada, 1st May, 1896; 6 years, (Filed 19th March, 1896.)

Claim.—As an article of manufacture, a culinary implement comprising a handle A, having a head B, in which are placed nails the heads of which project from the surface for manipulating a cleaning cloth, as and for the purpose hereinbefore set forth.

No. 52,138. Machine for Blowing Glass. (Machine pour souffler le verre.)



Michael Joseph Owens and Edward Drummond Libbey, both of Toledo, Ohio, U.S.A., 1st May, 1896; 6 years. (Filed 14th March, 1896.)

Claim.—1st. In an automatic machine for blowing glass, an air-conduit, a sectional mould, a removable blow-pipe, means for supporting the blow-pipe in operative relation to the air-conduit and to the mould, and means for automatically closing said mould after

the introduction of the blow-pipe in its support, and for automatically opening the mould prior to the removal of said blow-pipe. 2nd. In an automatic machine for blowing glass, an air-conduit, a sectional mould, a removable blow-pipe, means for supporting the blow-pipe in operative relation to the air-conduit and to the mould, means for automatically closing said mould after the introduction of the blow-pipe in its support, and for automatically opening the mould prior to the removal of said blow-pipe, and means for cooling the mould while open. 3rd. In an automatic glass-blowing machine, a sectional mould, an air-conduit, a removable blow-pipe, a support by which the removable blow-pipe may be temporarily sustained in connection with the air-conduit and in operative relation to the mould, means for automatically opening and closing the mould, and means for imparting, with respect to the blow-pipe and mould, a rotational movement of the one relative to the other. 4th. In a glass-blowing machine, in combination, a mould and a mould-carrier, means for imparting movements to the carrier, an air-conduit that is movable in unison with the mould and a removable blow-pipe which may be temporarily placed in connection with the air-conduit and in co-operative proximity to the mould, for the purpose substantially as set forth. 5th. In a glass-blowing machine, a mould-carrier with the mould thereon, and an air-supplying conduit, both movable, and having means for imparting travelling movements thereto in unison, a removable blow-pipe, and means comprised in said machine for affording a support for the blow-pipe whereby one end thereof may be in communication with the air-supplying conduit and the other in co-operative proximity to the mould, substantially as described. 6th. In a glass blowing machine, the combination with the vertical rotatable shaft having at its bottom a revoluble mould-carrier with the mould thereon, having at its top an air-conduit which is revoluble in conjunction with the mould-carrier, and having an intermediate part, supported by, and revoluble by reason of the rotation of the shaft, for affording a temporary support for the blow-pipe whereby the top thereof may be in connection with said conduit, and the bottom in operative proximity to the mould, substantially as described. 7th. In a glass-blowing machine, in combination, a mould-carrier, and a sectional opening and closing mould thereon, means for imparting movements to the carrier, an air-conduit that is movable in unison with the mould, a removable blow-pipe which may be temporarily placed in connection with the air-conduit and in co-operative proximity to the mould, and mechanism for periodically and automatically opening and closing the mould sections, substantially as described. 8th. In a glass-blowing machine, in combination, a mould and a mould-carrier, means for imparting movements to the carrier, an air-conduit that is movable in unison with the mould, a removable blow-pipe which may be temporarily placed in connection with the air-conduit and in co-operative proximity to the mould, a valve in said conduit and means for automatically and periodically operating the valve, substantially as described. 9th. In a glass-blowing machine, in combination, a mould and a mould-carrier, means for imparting a travelling movement to the carrier, an air-conduit that is movable in unison with the mould, a blow-pipe which may be placed in connection with the air conduit and in co-operative proximity to the mould, and means for imparting a rotary movement to the blow-pipe, substantially as and for the purpose set forth. 10th. In a glass-blowing machine, in combination, a mould and a mould-carrier, means for propelling the carrier to which the carrier is articulated whereby it may have a vertical swinging movement, a basin for a cooling liquid in the course of travel of the carrier, an air-conduit that is movable in unison with the mould, and a removable blow-pipe which may be temporarily placed in connection with the air-conduit, and in co-operative proximity to the mould, for the purposes substantially as set forth. 11th. In a glass-blowing machine, in combination, a sectional mould and a mould-carrier, means for propelling the carrier to which the carrier is articulated whereby it may have a vertical swinging movement to descend into the basin, a basin for a cooling liquid in the course of travel of the carrier, an air-conduit that is movable in unison with the travel of the mould, a removable blow-pipe which may be temporarily placed in connection with the air-conduit, and in co-operative proximity to the mould, and means for automatically opening the mould sections as they approach the basin for the purposes substantially as set forth. 12th. In a glass-blowing machine, in combination, the base A, the central vertical rotatable shaft having connected thereto near its bottom a revoluble mould-carrier with a mould thereon, having at its top an air-conduit which is revoluble in conjunction with the mould carrier and having an intermediate horizontally extended part for affording a temporary support for the blow-pipe whereby the top thereof may be in connection with said air-conduit and the bottom in operative proximity to the mould, a gear C on said vertical shaft, the horizontal counter-shaft E, geared to the lower end of the vertical shaft, the driving-shaft F, and gearing connecting it with the counter-shaft, substantially as described. 13th. In a glass-blowing machine, the combination with the base having the track m , of the vertical shaft B, connected to and radially extended from the shaft and having a friction roll which runs on the track, the mould mounted on the carrier, a radial air conduit carried by an extended from the upper part of the shaft and means for supporting, removably, a blow-pipe in connection with the said conduit and in proximity to the mould, substantially as described. 14th. In a glass-blowing machine, the combination with the base having the basin M, therein, and the track m , which runs around the top of the base and

has its course continued in the basin, of the vertical shaft B, hinged-connected to, and radially extended from, the shaft and having a running bearing on said track, a mould mounted on the carrier and means for turning said shaft, substantially as described. 15th. In a glass-blowing machine, in combination, the rotary shaft, the carrier having a mould thereon, connected to and outwardly extended from a member of the shaft, and having a slide movably guided thereon which is provided with a projection or roller, a rib-like part along which the said projection runs for a portion of its course whereby the slide is outwardly maintained, and a cam in engagement with which the roller at another part of its course runs for forcing the slide inwardly and connections between the slide and mould sections whereby the outward and inward movements of the slide close and open the sectional mould, substantially as described. 16th. In a glass-blowing machine, in combination, the base A, the shaft B, the collar G, fixed on the shaft having the ear-lugs d, the mould-carriers H, H, with bifurcated inner ends hinged to the ear-lugs d, and having the slide-ways g, the slide-block L on each of the carriers having combined therewith the stud h, roller j, and the angularly arranged arms i, i, clamped on the upper end of the stud above the slide-block, by the nut, i², the mould sections c, c, hinged on the mould-carriers, each having the outwardly extending lug c², and the connecting-rods, e⁴, all substantially as described and shown. 17th. In a glass-blowing machine, in combination, a mould-carrier and mould, and an air-conduit both revoluble, means for affording a support for a blow-pipe in connection with the conduit and in proximity to the mould, a valve for closing said conduit having a spring for forcing its stem outwardly, for closing, and the semi-circular rib T, into impingement with which the revolubly carried valve-stem is periodically moved, substantially as described. 18th. In a glass-blowing machine, in combination a mould and mould-carrier, means for imparting revoluble movements to the carrier, and an air-conduit that is movable in unison with the mould, a removable blow-pipe which may be placed in connection with the air-conduit and in co-operative proximity to the mould, a depending tubular part Q³, rotatably mounted upon the revolubly, carried air-conduit to form a continuation thereof, and the part which receives the engagement therewith of the upper end of blow-pipe, a wheel or roller secured on said depending tubular the rotatable part, and the arc-shaped fixture S, on which the said wheel runs during a portion of the revoluble movement of the mould-carrier and air-conduit, substantially as described. 19th. In a glass-blowing machine, the combination with the mould-carrier and the air-conduit Q horizontally thereabove, and means for revolubly moving both in unison, of the depending rotary tubular continuation of the conduit Q, having its lower end constructed for the engagement therewith of the upper end of a blow-pipe, substantially as and for the purposes set forth. 20th. In a glass-blowing machine, the combination with the base having the upstanding hub h, with the outstanding arc-formed flange b², and the eccentrically arranged cam-rib n, of the mould-carriers having the slide L, with the rollers j, the sectional moulds hinged together and mounted on the mould-carriers, and means intervening between the slides and mould sections actuated by the movements of the slide for opening and closing the mould sections, substantially as described. 21st. In a glass-blowing machine, the combination with the revolubly movable mould-carrier and air-conduit thereabove, having the valves v², and the valve-stem v, with the spring v², applied thereto for forcing it outwardly to close the valve, of the semi-circular fixture T, and the set-screw applied for holding the valve-stem open, substantially as described. 22nd. In a glass-blowing machine, the combination with the base, formed with the basin, of the revolubly-movable mould-carriers and hinged moulds thereon, the mould-car being jointed to the support which revolubly propels it, whereby it may descend into the basin, means for opening the moulds prior to such descent, springs for exerting a pressure to restrain the open moulds from closing while in their lowered positions, and means for closing the moulds after ascending from within the basin, substantially as described. 23rd. In a machine for blowing glass, one or more moulds each consisting of hinged sections, a base on which said moulds may move, having a depression in a portion of its surface in which said moulds fall in succession when moved as aforesaid, means for moving said moulds on said base, and for causing the same, severally, to open and close automatically while descending into and rising out of said depression, combined and operating substantially as set forth.

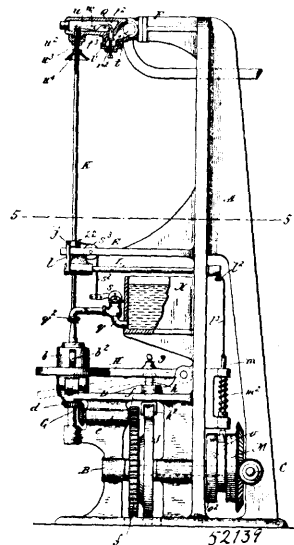
No. 52,139. Machine for Blowing Glass.

(Machine pour souffler le verre.)

Michael Joseph Owens and Edward Drummond Libbey, both of Toledo, Ohio, U.S.A., 1st May, 1896; 6 years. (Filed 14th March, 1896.)

Claim.—1st. In a glass-blowing machine, the combination with the rotatable mould-support and means for rotating it, of the mould sections pivotally mounted on the mould-support to turn in unison therewith, the movable yoke H, loosely embracing the mould sections and independently of which said mould sections revolve without obstruction by the yoke, and means for imparting the reciprocatory movements to said yoke, substantially as described. 2nd. In a glass-blowing machine, the combination with a mould-support which is rotatable in a fixed plane, and having pivoted thereto, the mould sections b, b, which are provided with the outwardly ex-

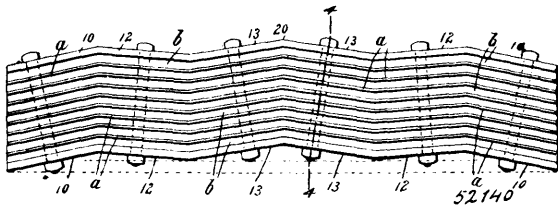
tending weight wings b², b², and which turn in unison with said support, of the yoke H, pivoted to the frame of the machine and having its extremity loosely embracing said sections and independently of which said mould-sections revolve without obstruction



by the yoke, and a mechanism for imparting the reciprocatory movements to said yoke, for operating, by its impingement thereupon, the mould-sections, substantially as described. 3rd. In a glass-blowing machine, the combination, with the mould-support, having the mould-sections pivoted thereon, a removable blow-pipe and a blow-pipe support, of the yoke for closing said sections, the liquid reservoir and a conduit, having one or more sprinklers connected with said reservoir, which are directed towards the positions of the opened mould-sections, a valve in said conduit, mechanism for operating the yoke to close the mould-sections, and a mechanism for operating the sprinkler valves having a part thereof adjacent the blow-support, and adapted on the removal of the blow-pipe support, and adapted on the removal of the blow-pipe to have, by said pipe, valve-operating movements imparted thereto, substantially as described. 4th. In a glass-blowing machine, the combination, with the rotary mould-support and the mould sections pivotally mounted thereon, of the yoke H, the shaft B, having the cam J thereon, and having driving connections with the rotary mould-support, the bar h, having an engagement with the cam and engaging the yoke, and means for intermittently rotating said shaft B, substantially as and for the purposes set forth. 5th. In a glass-blowing machine, the combination, with the support and the mould-sections pivoted thereon, of the yoke co-acting with the said sections to close them and to permit them to open, the rotary cam J, and the movable bar h, actuated by said cam, and in turn imparting a movement to the yoke, substantially as described. 6th. In a glass-blowing machine, the combination, with the support and the mould-sections pivoted thereon, of the yoke co-acting with said sections to close them, and having the screw abutment g, adjustably mounted thereon, the cam J, and the bar h, having the roller h², adapted to co-act with said abutment, substantially as described. 7th. In a glass-blowing machine, the combination, with the mould-support, mould sections pivoted thereon, the movable yoke H, co-acting therewith, the blow-pipe support and an air-conduit, of the removable blow-pipe adapted to be placed in connection with the air-conduit, and to be sustained by such support with its end in proximity to the mould mechanism for intermittently operating said yoke, and controlling devices therefor having connections which are adapted to be operated by the blow-pipe as the same is brought to its operative position in the machine, substantially as described. 8th. In a glass-blowing machine, the combination with the bracket or support E, having the recess t, the necked or shouldered blow-pipe adapted for engagement in said recess and the rotatable mould support having the sectional separable mould mounted thereon, of a power transmitting shaft B, which mediately imparts the rotation to the said support for the sectional mould, a driving wheel for, and loose upon, said shaft B, and a clutch whereby the driving wheel may be thrown into connection with a wheel which is fast on said shaft, the movable clutch-restraining member, a dog mounted adjacent said recess and actuated by the blow-pipe when placed in the said recess, and connections between said dog and said clutch-restraining member, substantially as and for the purpose set forth. 9th. In a glass-blowing machine, the combination with the recessed support E, and the clutch-restraining member m, having the spring m², of the dog j, having the pin and slot connection on the said support, the rock-shaft L, having the arms l, l², one of which is engaged by said dog and the other connected to said bar m, substantially as

described. 10th. In a glass-blowing machine, the combination with a support or holder for a removable blow-pipe, the removable blow-pipe and the separable mould sections, of a reservoir and a conduit having a sprinkler and a valve, the dog adapted to be tripped on the removal from the machine of the blow-pipe and connected to the said valve, substantially as described. 11th. In a glass-blowing machine, the combination with an air-conduit having a movable tubular continuation which is provided at its end with a socket for receiving the end of a blow-pipe, of a valve for normally closing the said conduit against the passages of air therethrough, and a lever engaged by said movable tube, and engaging the valve, substantially as described. 12th. In a glass-blowing machine in combination, a support for a removable blow-pipe, an air-supplying apparatus a sectional mould which is adapted to be closed about the gathering end of the blow-pipe and to be opened, means for automatically effecting the closing and afterwards the opening of the mould-sections, and means for imparting to them, while they are closed, rotary movements about the axis of the blow-pipe, substantially as described. 13th. In a glass-blowing machine, in combination, a support for a removable blow-pipe, an air-supplying apparatus, a sectional mold which is adapted to be closed about the gathering end of the blow-pipe end to be operated, means for automatically effecting the closing and afterwards the opening of the mould-sections, means for imparting to them, while they are closed, rotary movements about the axis of the blow-pipe, and means for causing a sprinkling of the mold-sections while they are opened leaving their paste-lined surfaces exposed, substantially as described.

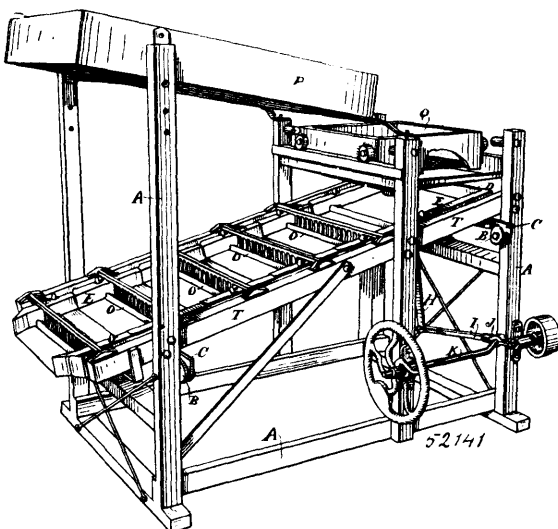
No. 52,140. Bed-Plate for Paper Pulp-Engines.
(*Plaque de fondation pour machines à pulpe.*)



Fred E. Maxfield, Holyoke, and Elyn W. Lovejoy, Lowell, both in Massachusetts, U.S.A., 1st May, 1896; 6 years. (Filed 14th March, 1896.)

Claim.—In a bed-plate for a pulp-engine, a series of metallic knives arranged and held immovably relative to each other in parallelism with their edges upward, and each comprising from its end to its middle several portions which are angular the one to the next, and all to the general longitudinal dimension of the bed-plate, as follows: the end portions 10, 10, inclining towards the middle, portions 13, 13, also inclining rearwardly and meeting at the middle, rearwardly and the portions 12, 12, intermediate between and joining the said end and middle portions, inclining towards the middle, forwardly, substantially as described and shown and for the purpose set forth.

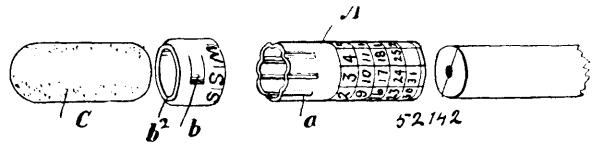
No. 52,141. Apparatus for Separating and Saving Gold. (*Séparateur de minerais.*)



Joseph Mait, Oakland, California, U.S.A., 1st May, 1896; 6 years. (Filed 16th March, 1896.)

Claim.—An apparatus for settling and saving gold consisting of an inclined table having grooves or depressions made transversely at intervals between the upper and lower end, mechanism by which the table is oscillated from side to side, and at the same time given a vertical bumping movement, and stationary blades or spoons supported above the depressions and dipping into them to agitate the material as it flows through them.

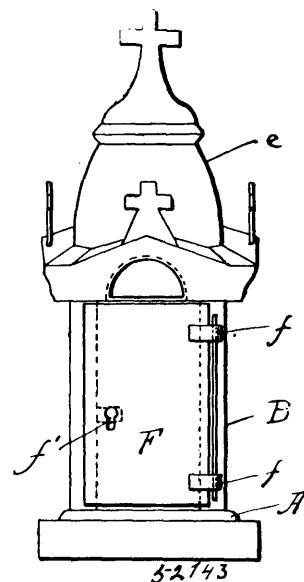
No. 52,142. Calendar for Pencils, etc.
(*Calendrier pour crayons, porte-plumes, etc.*)



George Washington Johnson, Toronto, Ontario, Canada, 1st May, 1896; 6 years. (Filed 16th March, 1896.)

Claim.—1st. The combination with the barrel of a pencil or penholder or similar article having the dates of the months indited in columns thereon and longitudinal open-ended depressions in one end of the barrel, of a ring having indited upon it letters representing the days of the week and a lip formed in such ring, which is designed to be adjusted to bring such lip into the desired longitudinal open ended recess in the barrel, as and for the purpose specified. 2nd. The combination with the barrel of a pencil or penholder or similar article having the dates of the months indited in columns thereon and longitudinal open-ended depressions in one end of the barrel, of a ring having indited upon it letters representing the days of the week, and a spring lip stamped out of the ring and having an inwardly extending portion, the said ring being designed to be rotated over the longitudinal open-ended recesses to bring the spring lip into the desired position, as and for the purpose specified. 3rd. In a pencil in combination the barrel, the longitudinal recesses, the ring, the lip in the ring and the cylindrical rubber designed to fit within the barrel and be held therein by the recesses or depressions, the bulge portion of the rubber forming an outer stop for the ring, as and for the purpose specified.

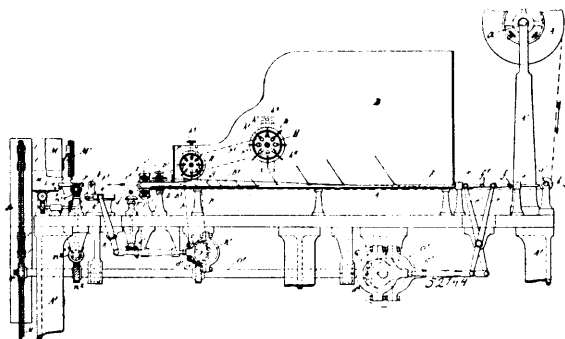
No. 52,143. Funeral Monument. (Monument.)



Emery Côté, St. Césaire, Quebec, Canada, 1st May, 1896; 6 years (Filed 12th March, 1896.)

Claim.—1st. In a funeral monument, the combination, with a base, of posts secured to the base, sides of transparent material, a cap above the said sides, and bolts securing the cap to the base, substantially as set forth. 2nd. In a funeral monument, the combination, with a base, of posts secured to the base, sides of transparent material, a back hinged to one of the said posts and provided with a display plate in front and means for securing it in position when closed, a cap above the said sides and back, and bolts securing the cap to the base, substantially as set forth.

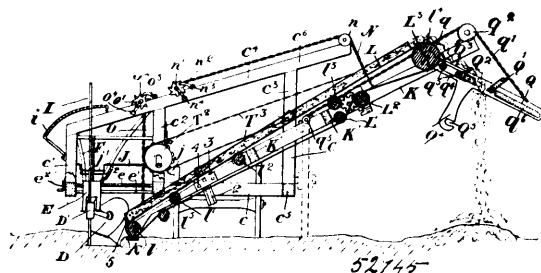
No. 52,144. Cigarette Making Machine.
(*Machine à cigarettes.*)



Jules Amédée Allagnon and Gaston Jules Allagnon, both of Vitry-sur-Seine, France, 1st May, 1896; 6 years. (Filed 16th March, 1896.)

Claim.—1st. The combination, with the hopper B, of the needle forks F, F', and the regulating wheels H, H', and means for operating the same, substantially as and for the purpose set forth. 2nd. The combination, with means for supplying tobacco and a paper strip for surrounding the same, of the willing wheels and forming tubes for the formation and compression of folds upon the edges of the paper strip for the attachment of the same, in the manner described. 3rd. The combination, with means for manufacturing and feeding a roll of tobacco in a tube, of scissors for cutting same into lengths, adapted to be moved parallel and at equal velocity with the table, and means for giving reciprocating movement to the scissors, for the purpose described. 4th. The receiver M, for the cut-off cigarettes in combination with means for moving same to and fro and lowering same at each stroke, for the purpose set forth. 5th. The combination, in one machine of a plurality of working sets for the manufacture of cigarettes, means for simultaneously operating all such sets, a receiver for the cigarettes and means for laterally moving said receiver step by step for an amount equivalent to the distance separating said sets and for returning said receiver rapidly in the reverse direction and lowering same, for the purpose set forth. 6th. A cigarette of which the wrapper has two longitudinal seams or joins produced by the folding and compression of the edges of paper strips and without adhesive material.

No. 52,145. Road Grading Machine.
(*Appareil de régalage des rues.*)



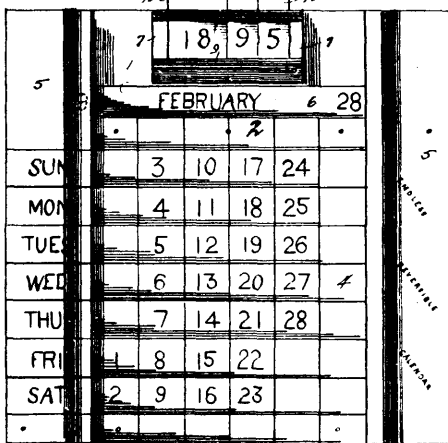
Alexander Barhite, Toronto, Ontario, Canada, 1st May, 1896; 6 years. (Filed 11th March, 1896.)

Claim.—1st. In a road grading machine, the combination with a wheeled carriage carrying a frame, of a plough adjustably mounted on said frame, a transverse inclined conveyor upon which the plough deposits the earth, having at its upper end with an adjustable discharge chute, substantially as described. 2nd. In a road-grading machine, the combination with a wheeled carriage carrying a frame, of a plough adjustably mounted on said frame, a transverse inclined endless conveyor adjustably secured within said frame upon which the plough deposits the earth having at its upper end with a downwardly inclined discharge chute adjustably connected to said frame and conveyor, and means for holding said chute in its adjusted position, substantially as described. 3rd. In a road-grading machine, the combination with a wheeled carriage carrying a frame, of a plough adjustably mounted on said frame, a transverse inclined conveyor upon the lower end of which the plough deposits the earth, a protecting cross-bar beneath the lower end of the conveyor and an adjustable discharge chute at the upper end of the conveyor as and for the purpose specified. 4th. In a road-grading machine, the combination with a wheeled carriage carrying a frame, of a plough adjustably mounted on said frame, a transverse inclined conveyor upon the lower end of which the plough deposits the earth, a protecting cross-bar beneath the lower end of the conveyor, a clearing scoop secured to the frame in front of the cross bar and an adjustable discharge

chute at the upper end of the conveyer, as and for the purpose specified. 5th. The combination with a wheeled carriage carrying a frame, of a plough adjustably mounted on said frame and a forked clasp which is supported on the frame and straddles the plough, as and for the purpose specified. 6th. The combination with a wheeled carriage carrying a frame, of a plough adjustably mounted on said frame, a forked clasp designed to straddle the plough-beam, a plain supporting rod and a threaded supporting rod and means for turning the latter rod to adjust the clasp laterally, as and for the purpose specified. 7th. The combination with a wheeled carriage carrying a frame, of a plough the beam of which is provided with a supplemental bar, a chain connecting the supplemental bar to a supporting spindle, which is provided with a ratchet-wheel, co-acting dog and crank handle, as and for the purpose specified. 8th. The combination with a wheeled carriage carrying a frame, of a plough adjustably mounted on the frame and provided with the usual whiffletrees, jaw and clevis and connecting link, and the co-acting curved springs secured to the frame and extending in front of the clevis, as and for the purpose specified. 9th. The combination with a wheeled carriage carrying a frame, of a plough adjustably mounted on the said frame and spring bar connected to the rear of the plough-beam and of the frame, as and for the purpose specified. 10th. The combination with a wheeled carriage carrying a frame, of a plough adjustably mounted on the said frame, and a spring bar connected to the rear of the plough-beam and of the frame and a quadrant secured in the frame and designed to hold the top of the spring bar into any position to which it may be swung, as and for the purpose specified. 11th. The combination with a wheeled carriage carrying a frame, of a plough adjustably mounted on the said frame, spring bar connected to the rear of the plough-beam and of the frame, a rod extending forwardly from the L-shaped end of the spring bar and a crank shaft provided with a crank and swinging link designed to co-act with the rod and a crank handle for turning the crank shaft, as and for the purpose specified. 12th. In a road-grading machine, the combination with a wheeled carriage carrying a frame, of a plough adjustably mounted on said frame, a transverse endless inclined conveyor supported on rollers in suitable side boards and supporting side chains extending from the side boards over supporting spindles provided with means for winding and holding the chain as and for the purpose specified. 13th. In a road-grading machine, the combination with a wheeled carriage carrying a frame, of a plough adjustably mounted on said frame, a transverse endless inclined conveyor supported on rollers in suitable side boards, means for supporting the conveyor frame, and inclined guide-ways at the sides of the main frame and pins on the side bars of the conveyor frame extending into the guide ways as and for the purpose specified. 14th. In a machine of the class described the combination with the conveyor frame and endless conveyor belt supported on suitable rollers and the rack for supporting the journals of one roller held in suitable guide-ways and co-acting pinions and dog operated as shown and for the purpose specified. 15th. In a machine of the class described the combination with a wheeled carriage carrying frame, of a plough adjustably supported on said frame, a transverse endless conveyor supported on rollers and means connecting the rear wheel to the enlarged upper roller for driving the conveyor belt as and for the purpose specified. 16th. In a machine of the class described the combination with a wheeled carriage carrying a frame, of a plough adjustably supported on said frame, a transverse endless conveyor supported on rollers, a bevel gear-wheel secured on the inside of one rear wheel, a bevel pinion meshing therewith mounted on the end of a shaft suitably journaled in the frame, a sprocket-wheel on the end of the shaft and chain connecting such sprocket-wheel to a sprocket-wheel on the end of the spindle of the upper roller of the conveyor as and for the purpose specified. 17th. In a machine of the class described the combination with a wheeled carriage carrying a frame, of a plough adjustably supported on said frame, a transverse endless conveyor supported on rollers, a bevel gear-wheel secured on the inside of one rear wheel, a bevel pinion meshing therewith mounted on the end of a shaft suitably journaled in the frame a sprocket-wheel on the other end of the shaft and chain connecting such sprocket-wheel to a sprocket wheel on the end of the spindle of the upper roller of the conveyor, a sleeve secured on the shaft of the bevel pinion and having a pin extending outwardly therefrom and a lever having a slot fitting over the pin and designed to be operated as and for the purpose specified. 18th. In a machine of the class described the combination with the endless conveyor suitably supported, of a scraper arranged in proximity to the discharging roller as and for the purpose specified. 19th. In a machine of the class described the combination with the endless conveyor suitably supported, of a discharging chute having a discharge opening provided with a hinged cover, as and for the purpose specified. 20th. In a machine of the class described, the combination with the endless conveyor suitably supported, of a discharging chute and a supplemental endless conveyor in proximity to the discharging roller, as and for the purposes specified. 21st. In a machine of the class described, the combination with the endless conveyor suitably supported, of a discharging chute and a chain-support for such chute, as described. 22nd. In a machine of the class described, the combination, with the endless conveyor suitably supported, of a discharging chute and supplemental arms for the chute, secured at right angles thereto and supplemental braces for holding the chute in an alternate position, as and for the purpose specified. 23rd. In a machine of the class described, the

combination, with the endless conveyer suitably supported, of a discharging chute and a supplemental endless conveyer in proximity to the discharging roller and a scraper for such conveyer, as and for the purpose specified. 24th. In a road-grading machine, the combination, with a wheeled carriage carrying a frame, of a plough adjustably mounted on said frame, a transverse inclined conveyer upon which the plough deposits the earth, and a retaining plate extending across from side board to side board above the bottom roller, as and for the purpose specified. 25th. In a machine of the class described, the combination, with the endless conveyer and frame and clearing scoop secured in front of the bottom roller on the frame, of the upright *c*², having a downward extension, as shown and for the purpose specified.

No. 52,146. Calendar. (Calendrier.)

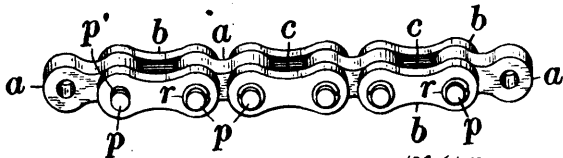


52146

Amos S. Walmer, Palmyra, Pennsylvania, U.S.A., 1st May, 1896; 6 years. (Filed 12th March, 1896.)

Claim.—A perpetual calendar, having a back provided upon its front and rear faces with vertical guides which are set out from the plane of the back, a vertical column of characters indicating the days of the week permanently arranged upon one of the front vertical guides, a series of horizontal separate day slats corresponding in number with the days of the week, and each bearing a plurality of numerals representing days of the month, a plurality of said slats being inscribed upon both sides and adapted to be reversed when the number of days of the current month exceeds twenty-eight, a series of month slats adapted to be arranged when not in use in the said guides at the rear side of the back, said month slats being inscribed upon both sides and one of them being adapted for arrangement above the plane of the column week characters on the front side of the back, pockets arranged respectively upon the front and rear sides of the back, and a series of separate year slats having numerals adapted to be arranged in a vertical position in either of said pockets, the exposed numerals of the year slats in the front pocket being designed to indicate the current year, substantially as specified.

No. 52,147. Sprocket-Chain. (Chaîne dentée.)



52147

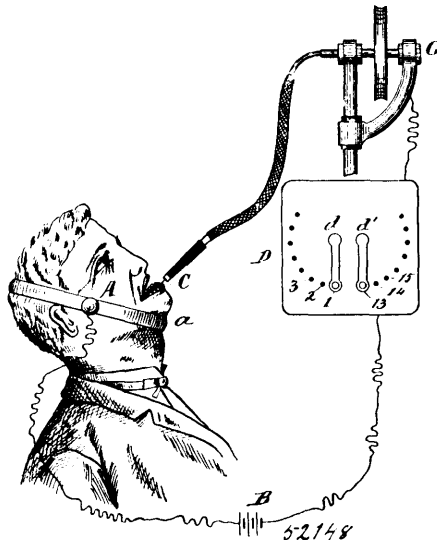
Benjamin Franklyn Sparr, Newark, New Jersey, U.S.A., 1st May, 1896; 6 years. (Filed 12th March, 1896.)

Claim.—1st. In a sprocket-chain formed of series of links with overlapped ends pivoted together, the combination, with the pivotal pins for said links provided at one end with peripheral grooves, of spring clips applied to said pins within said grooves and adapted to grasp the same, as and for the purpose set forth. 2nd. The sprocket-chain formed of a series of central links *a*, series of lateral links *b*, pivoted pins *p*, with annular peripheral grooves *p*¹, and split rings *r*, applied to said pins within the grooves *p*¹, as herein shown and described.

No. 52,148. Process of and Apparatus for Obtunding the Sensory Nerves of a Tooth during the Excavation of a Cavity therein. (Appareil dentaire électrique.)

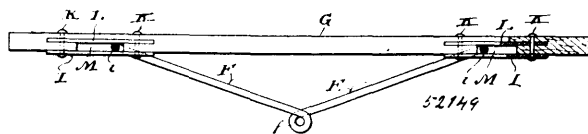
William Perry Horton, jr. and Ansel B. Jones, both of Cleveland, Ohio, U.S.A., 1st May, 1896; 6 years. (Filed 14th March, 1896.)

Claim.—1st. The herein described process of obtunding the sensory nerves of a tooth during the excavation of a dental cavity therein, which consists in (1) applying to that side of the patient's face on which the tooth is located, an electrode which is connected with one pole of an electrical generator, (2) connecting the excavating instrument with the other pole of said generator, and (3) varying the



current outside the body of the patient, substantially as and for the purpose specified. 2nd. The herein described process of obtunding dental nerves during the excavation of a tooth, which consists in (1) applying to that side of the patient's face on which the tooth to be excavated is located, an electrode which is connected with the negative pole of a galvanic battery, (2) connecting the excavating instrument with the positive pole of said battery, and (3) varying the resistance in the circuit outside of the patient during the progress of the excavating operation, substantially as and for the purpose specified. 3rd. In an apparatus for excavating dental cavities and simultaneously obtunding the sensory nerves which are being affected by the operation, the combination of an electrical generator, an electrode connected with one pole of said electric generator, and means for securing the same against the patient's face, with the revolving burr of a dental engine having an insulating hand-piece, suitable electrical connections between said burr and the other pole of said generator, and mechanism connected in the circuit for varying resistance in the circuit by small increments, substantially as and for the purpose specified.

No. 52,149. Vehicle Spring. (Ressort de voitures.)



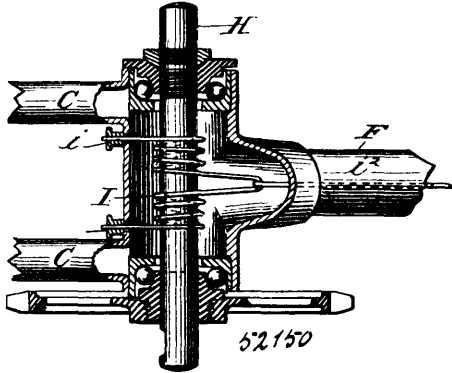
52149

Robert Thompson Lombard and William Jay Hopkins, both of Racine, Wisconsin, U.S.A., 4th May, 1896; 6 years. (Filed 4th April, 1896.)

Claim.—1st. A vehicle-spring, comprising arc-shaped bearings rising upwardly and outwardly from the centre, two pairs of spring-leaves or rods pivotally attached at a common centre to said bearings below the lowest bearing line of said arcs, and normally in contact with some portion of said arc-shaped bearings, and terminating in outer transverse ends, and a beam or board loosely connected at its ends to said outer transverse ends of the spring leaves or rods for affording play thereto, substantially as set forth. 2nd. A vehicle-spring, comprising two pairs of arc-shaped bearing plates connected together so as to straddle and rest upon a bolster, and rising upwardly and outwardly from a lowest point at the centre thereof, two pairs of spring leaves or rods pivotally attached at a common centre to said bearing-plates at the centres thereof, and normally in contact with some portion of said arc-shaped bearing plates and terminating in outer transverse ends, and a beam or board provided with slots or loops for the reception of the said transverse ends of the said spring leaves or rods, substantially as set forth. 3rd. A vehicle-spring, comprising two pairs of arc-shaped bearing plates, each pair rising upwardly and outwardly from a lowest point at the centre thereof and connected together so as to straddle and rest upon a bolster, two pairs of spring leaves or rods pivotally attached at a common centre to bolts projecting from the described centres of the

said plates, and normally in contact with some portion of the said bearing-plates, and each pair of said spring leaves or rods being transversely united at the outer end, and a beam or board having slots or loops at each end for receiving and affording play to the said transverse outer ends of the said spring leaves or rods, substantially as set forth. 4th. A vehicle-spring, comprising a bolster, arch-shaped bearings rising upwardly and outwardly from the centre of the bolster, two pairs of spring leaves or rods pivotally attached to a common centre below the upper face of the bolster and normally in contact with some portion of the said arc-shaped bearings, each pair of said spring leaves or rods being transversely united at the outer end, and a beam or board having slots or loops at each end for receiving and affording play to the said transverse outer ends of the said spring leaves or rods, substantially as set forth.

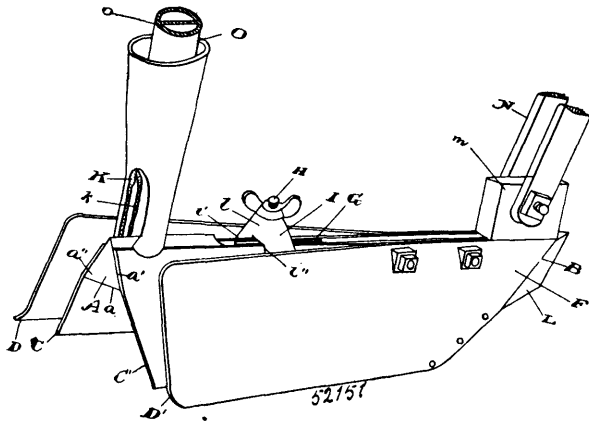
No. 52,150. Brake. (Frein.)



Edward Spencer Hall, New York, State of New York, U.S.A., 4th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. A brake for a bicycle consisting of a wire or band, applied directly and coiled upon the pedal or crank-shaft in a direction corresponding with the motion of the same, and within the tube joining the journals of said crank-shaft and suitably secured at one of its ends, in combination with means for drawing the coil and thereby tightening the same upon the shaft. 2nd. A brake for a bicycle consisting of a wire, cord or band applied directly and coiled upon the pedal or crank-shaft in a direction corresponding with the motion of the same, and within the tube joining the journals of said shaft and suitably secured at one end and provided at its other end with connections to the hand of the rider, whereby the same may be drawn and tightened, in combination with the rear wheel of the bicycle, and a sprocket-chain connecting the axle of the same with the crank or pedal axle, substantially as described.

No. 52,151. Seed-Drill. (Semoir en ligne.)

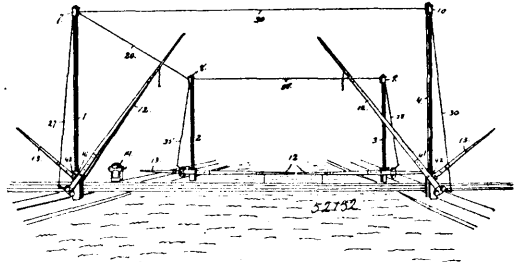


William Lowery Marshall, Port Perry, Ontario, Canada, 4th May, 1896; 6 years. (Filed 27th January, 1896.)

Claim.—1st. A shoe for a seed-drill consisting of a cutting flange, and a drill opener located on the outer side of the cutting flange, for the purpose set forth. 2nd. A shoe for a seed-drill consisting of two upwardly converging cutting flanges, a grain pipe located above the angle formed by the said flanges, and two drill openers located one on the outer side of each of the cutting flanges, for the purpose set forth. 3rd. A shoe for a seed-drill consisting of a substantially triangular ridge-board, a cutting flange depending below the base from each side of the ridge-board, a drill opener secured to each side of the ridge-board, substantially as specified. 4th. A shoe for a

seed-drill consisting of a substantially triangular ridge-board, a cutting flange depending below the base from each side of the ridge-board, and a drill opener secured to each side of the ridge-board, and a grain pipe located above the top of the ridge-board, substantially as specified. 5th. A shoe for a seed-drill consisting of a substantially triangular ridge-board, a cutting flange depending below the base from each side of the ridge-board, a drill opener secured to each side of the ridge-board, and a bifurcated wedge to expand the furrow openers, substantially as specified. 6th. A shoe for a seed-drill consisting of a substantially triangular ridge-board, a cutting flange depending below the base from each side of the ridge-board, a drill opener secured to each side of the ridge-board, a bifurcated wedge to expand the furrow openers, and a grain pipe located above the top of the ridge-board, substantially as specified. 7th. A shoe for a seed-drill consisting of a substantially triangular ridge-board, a cutting flange depending below the base from each side of the ridge-board, a drill opener secured to each side of the ridge-board, a bifurcated wedge to expand the furrow openers, a grain pipe located above the top of the ridge-board, and means for adjusting the bifurcated wedge along the top of the ridge-board, substantially as specified. 8th. A shoe for a seed-drill consisting of a substantially triangular shaped ridge-board, a longitudinal slot formed vertically through the ridge-board, a head for the ridge-board, cutting flanges depending from each side of the ridge-board, two furrow openers located one at each side of the ridge-board and secured at the top of their front ends thereto, a bifurcated wedge located on the top of the ridge-board, one fork projecting down each side thereof, a bolt passing through said slot and through the body of the wedge to allow of the longitudinal movement of the said wedge to increase or diminish the expansion of the furrow openers, and a substantially V-shaped point for the head of the ridge-board, as and for the purpose specified. 9th. A shoe for a seed-drill consisting of a substantially triangular shaped ridge-board, a longitudinal slot formed vertically through the ridge-board, a head for the ridge-board, cutting flanges depending from each side of the ridge-board, two furrow openers located one at each side of the ridge-board and secured at the top of their front ends thereto, a bifurcated wedge located on the top of the ridge-board, one fork projecting down each side thereof, a bolt passing through said slot and through the body of the wedge to allow of the longitudinal movement of the said wedge to increase or diminish the expansion of the furrow openers, and a substantially V-shaped point for the head of the ridge-board, the lower front edge of the point slightly rounded, the lower front edge of the cutting flanges and drill openers rounded and closed, and a grain pipe mounted on the top of the ridge-board, substantially as specified. 10th. In a shoe for a seed-drill the combination of a grain scatterer, and means for simultaneously opening and seeding two drills, substantially as specified.

No. 52,152. Railway Gate. (Barrière de chemin de fer.)

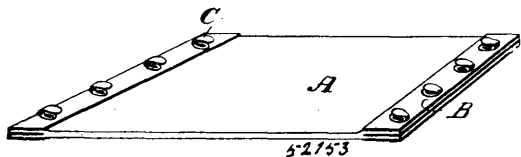


John Nelson Goltra, Buffalo, New York, U.S.A., 4th May, 1896; 6 years. (Filed 27th March, 1896.)

Claim.—1st. In a railway-gate consisting essentially of four columns or standards, having pivoted near their lower ends, obstructing arms arranged to raise and lower by the operation of a windlass to which they are connected, substantially as shown. 2nd. The herein-described railway-gate consisting essentially of the columns 1, 2, 3 and 4, having the pulley casings 7, 8, 9 and 10 secured to their upper ends respectively, and having the obstructing arms 12 and 13, pivoted near their lower ends, the arms 12 being weighted at their inner ends and connected to the arms 13, by the toothed segments 41 and 42, the whole arranged to be operated by the windlass 14, and its flexible connections 19 and 20 which pass over the pulleys 25 and 26 and subdivide into the connections 27, 30, 35 and 38, passing over the pulleys in the casings 7, 8, 9 and 10 and secured to the balance weight on the obstructing arms 12, substantially as shown and described. 3rd. The herein-described railway-gate consisting essentially of the columns 1, 2, 3 and 4, having the pulley casings 7, 8, 9 and 10 secured to their upper ends respectively, and having the obstructing arms 12 pivoted near their lower ends, the whole arranged to be operated by the windlass 14, and its flexible connections 19 and 20, which pass over the pulleys 25 and 26, and subdivide into the connections 27, 30, 35 and 38, passing over the pulleys in the casing 7, 8, 9 and 10, and secured to the balance weight of the obstructing arms 12, substantially as shown and described.

No. 52,153. Pneumatic Tire Puncture Band.

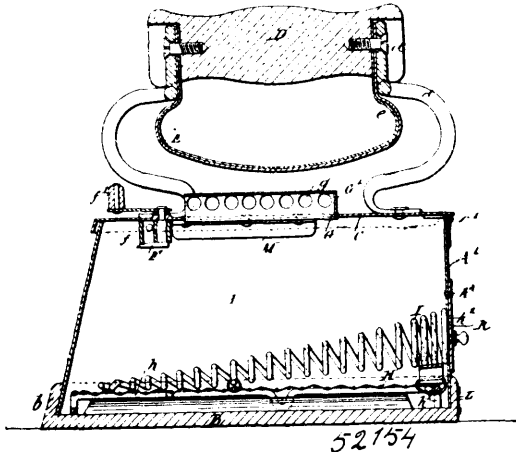
(Bande pour réparer les bandages pneumatiques.)



David W. Noyes, Boston, Massachusetts, U.S.A., 4th May, 1896; 6 years. (Filed 28th March, 1896.)

Claim.—The band of rubber, or other elastic substance, rectangular in shape and varying in length and width with the variations in the sizes of tires of bicycles and other vehicles, reinforced across each end by a transverse strip of non-elastic, flexible material, in combination with two series of lacing hooks, one set in each of said reinforced ends, with open sides facing outward, and a lacing cord for connecting said two series of hooks and binding said band around the punctured tire to cover and close the puncture, all constructed, arranged and operating substantially as described.

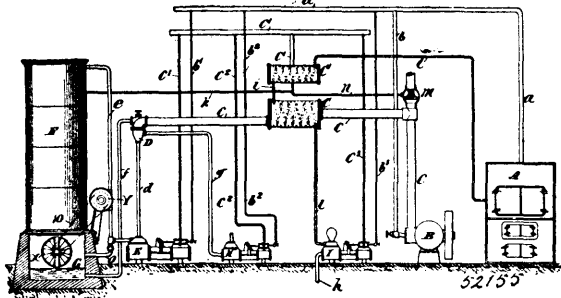
No. 52,154. Box-Iron. (Boîte de fer à repasser.)



Frances Eliza Hunter, North Fitzroy, Victoria, Australia, 4th May, 1896; 6 years. (Filed 31st March, 1896.)

Claim.—1st. A box-iron having its body made of sheet metal and its bottom of cast iron, the latter having upwardly projecting flanges around its edge to which said body is attached, substantially as herein described. 2nd. In a box-iron, a tapering spiral wire flue (such as I) constructed and arranged substantially as herein described. 3rd. In a box-iron, a vent formed by a slot in or about the centre of the lid or cover and provided with a perforated cap or cover substantially as herein described.

No. 52,155. Self-Cooling Condenser. (Condenseur.)

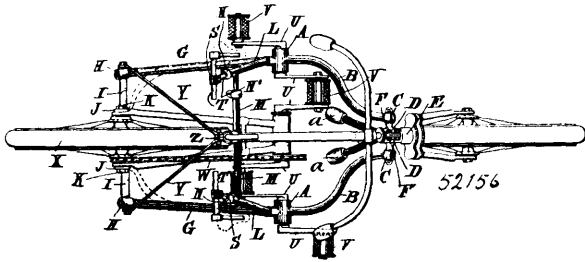


Henry R. Worthington, Elizabeth, New Jersey, assignee of Louis Ross Algebe, New York, State of New York, both in the U.S.A., 4th May, 1896; 6 years. (Filed 4th April, 1896.)

Claim.—1st. An apparatus of the class described having a series of layers, each layer consisting of tubular bodies placed side by side with their walls extending transversely to the layer and forming distributing surfaces and spaces between them extending through the layer, whereby the subdivision of fluid passing through the spaces is secured, substantially as described. 2nd. An apparatus of the class described having a series of layers, each layer consisting of tubular bodies placed side by side with their walls extending transversely to the layer and

forming distributing surfaces and spaces between them extending through the layer and with surface contact between the bodies of each layer, the spaces through each layer being opposite the walls of the next layer whereby the subdivision of fluid passing through the spaces is secured, substantially as described. 3rd. An apparatus of the class described having a series of layers, each layer consisting of tubular bodies having longitudinal cross-walls or projections dividing their interior space, said bodies being placed side by side with their walls extending transversely to the layer, the spaces through each layer being opposite the walls of the next layer whereby the subdivision of fluid passing through the spaces is secured, substantially as described. 4th. An apparatus of the class described having a filling consisting of a series of layers, each layer consisting of tubular bodies placed side by side with their walls vertical and forming distributing surfaces and spaces between them, extending through the layer, the layers being piled one upon the other and each layer being arranged to subdivide the sheets of liquid received from the next layer above, substantially as described. 5th. The combination with a structure having a series of layers, each layer consisting of tubular bodies placed side by side with their walls extending transversely to the layers and forming distributing surfaces and spaces between them extending through the layer, the spaces through each layer being opposite the walls of the next layer whereby the subdivision of fluid passing through the spaces is secured, of means for supplying liquid at the top of the structure and a current of air transversely to the layers, substantially as described. 6th. The combination with a structure having a filling consisting of a series of layers, each layer consisting of tubular bodies placed side by side with their walls vertical and forming distributing surfaces and spaces between them extending through the layer, the layers being piled one upon the other and each layer being arranged to subdivide the sheets of liquid received from the next layer above, of means for supplying liquid at the top of the structure and a current of air transversely to the layers, substantially as described. 7th. The combination with apparatus constructed to secure contact of water with a current of air, a motor for delivering the water to the tower, and a fan for producing the air current, of a fan-actuating water-motor controlled by the water delivering motor, substantially as described. 8th. The combination with the cooling tower, fan and motor for circulating the water to be cooled, of a fan-actuating motor operated by a column of water moved by said water circulating motor, substantially as described. 9th. In a self-cooling condenser, the combination with the cooling tower, fan and condensing chamber, of a fan actuating water-motor for operating said fan placed on the water circulating connections, substantially as described. 10th. In a self-cooling condenser, the combination with the cooling tower and fan, of an aspirating condensing chamber, a fan actuating water-motor, and connections for the condensing water from the reservoir through the water motor to the condensing chamber, substantially as described. 11th. In a self-cooling condenser, the combination with a cooling tower and a pump for raising the water, of an aspirating condenser, and an air-pump connected with said condenser, substantially as described. 12th. The combination with an aspirating condenser and water supply, of a pump for raising the discharge water from said condenser, said condenser being elevated above the water supply and pump to utilize the condenser vacuum in raising the water from the supply, whereby the discharge water passes from the condenser to the pump under a head and the pump under a head and the pump is assisted, substantially as described. 13th. The combination with an aspirating condenser and water supply, of a pump for raising the discharge water from said condenser, said condenser being elevated above the water supply and pump to utilize the condenser vacuum in raising the water from the supply, whereby the discharge water passes from the condenser to the pump under a head and the pump under a head and the pump is thus assisted, substantially as described. 14th. In a self-cooling condenser, the combination with a cooling tower and a pump for raising the water, of an aspirating condenser connected with the pump and elevated above the water supply and pump to utilize the condenser vacuum in raising the water, whereby the water passes from the condenser to the pump under a head and the pump is thus assisted, substantially as described. 15th. In a self-cooling condenser, the combination with a cooling tower, and a pump for raising the water to be cooled, of an aspirating condenser connected with the pump and elevated above the water supply and pump to utilize the condenser vacuum in raising the water, whereby the water passes from the condenser to the pump under a head and the pump is thus assisted, and an air-pump connected with said condenser, substantially as described. 16th. In a vacuum steam system employing one or more auxiliary engines, the combination with the boiler and a self-cooling condenser, of means for heating the feed water on its way to the boiler by the exhaust steam from both the main steam apparatus and the auxiliary engine or engines and for adding water condensed from the exhaust steam to a water supply within the system, substantially as described. 17th. In a vacuum steam system employing one or more auxiliary engines, the combination with the boiler and a self-cooling condenser, of a main heater for heating the feed water by the exhaust steam from the main steam apparatus on its way to the condenser, a supplementary heater for heating the feed water by the exhaust steam from the auxiliary engine or engines, and connections for adding the water condensed from the exhaust steam of the auxiliary engine or engines to the water for condensation, substantially as described.

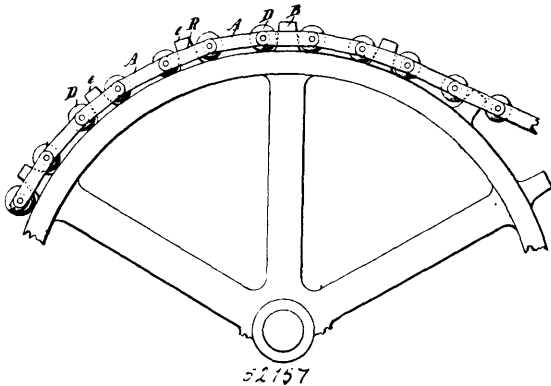
No. 52,156. Bicycle. (Bicycle.)



Romeo Grilli, 15 Sumsciaia, Charkoff, Russia, 4th May, 1896; 6 years. (Filed 31st March, 1896.)

Claim.—Affixing side bars B, B, G, G reaching from the axial line of rear driving wheel, to the front frame tube E, with intervening sockets A, A, uprights L, L, N, N', for carrying L pins, and connected by a cross-bar M, these being so arranged and applied to an ordinary safety rear driving bicycle in two distinct sections affixable to the main frame so that the two riders sitting abreast on either side of the bicycle main frame may operate separate pedals for separate or conjoint propulsion of the ordinary chain gear as and in the manner specified with reference to the annexed drawing.

No. 52,157. Sprocket Chain. (Chaîne dentée.)



The Fanning Ball Bearing Chain Company, assignee of Charles Edward Fanning, both of Keokuk, Iowa, U.S.A., 4th May, 1896; 6 years. (Filed 28th March, 1896.)

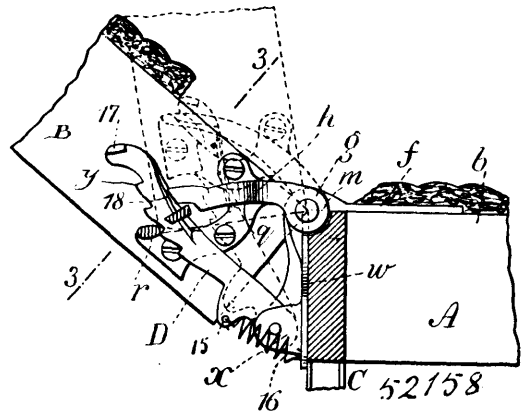
Claim.—1st. A sprocket-chain, comprising pintles provided with shoulders, links abutting against said shoulders, and balls loosely mounted on the pintles between the links, substantially as described. 2nd. A sprocket-chain, comprising pintles, links connected by said pintles, balls loosely mounted on the pintles between the links and sleeves, entering the balls and links and surrounding the pintles, substantially as described. 3rd. A sprocket chain, comprising pintles, outer links therein, inner links spaced from the pintles, balls loosely mounted on the pintles between the inner links and sleeves extending into the bores of the balls, and of the inner links, said sleeves having flanges between the balls and inner links, substantially as described. 4th. As a new article of manufacture, a sprocket-chain comprising sets of alternately long and short links, pintles uniting the overlapping ends of the links, and balls mounted to rotate on the pintles, the balls and their pintles being in pairs and the balls of each pair being spaced a less distance than the space separating the pairs, whereby sprocket teeth entering between the balls of each pair will contact therewith and move the same on their axes, substantially as and for the purpose specified. 5th. As a new article of manufacture, a sprocket chain comprising links, pintles uniting the links, balls surrounding the pintles between the links and flanged sleeves fitting reduced ends of the pintles and entering the bores of the balls and the flanges of the sleeves abutting the inner surfaces of the links adjacent thereto, substantially as and for the purpose described. 6th. As a new article of manufacture, a sprocket-chain comprising links, pintles uniting the links, balls having bores through which the pintles pass, and flanged sleeves fitting the pintles at their ends, the sleeves entering the bores of the balls and the flanges of the sleeves abutting the inner surfaces of the links adjacent thereto, substantially as described.

No. 52,158. Couch. (Lit.)

Edmund Everett Peck, Brooklyn, New York, U.S.A., 4th May, 1896; 6 years. (Filed 1st April, 1896.)

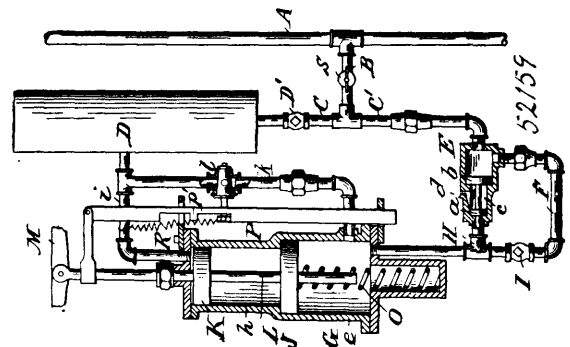
Claim.—1st. An automatic, adjusting and locking mechanism for couch heads which comprises a spring-tensioned rack pivotally connected to the couch body, a projection on the couch-head engaging said rack, a cam on said head, and a cam-track on said rack in posi-

tion to engage said cam after the rack teeth have passed said projection and hold the rack out of engagement with said projection



during the lowering of the head. 2nd. An automatic locking mechanism for the adjustable heads of couches which comprises an off-set on the couch head, a cam on the inner face of said off-set, a tooth or projection below said cam, a pivoted spring-tensioned rack bar arranged to click on said tooth, a cam-track on said rack-bar for engaging said cam during the downward movement of the couch head and a projection on the bar for engaging a stop on the off-set. 3rd. In a couch of the class described, a head hinged thereto to swing vertically, the hinge leaf on said head being provided with an off-set, a tooth in the lower end of said off-set, a cam on the inner face of the off-set, and a stop lug in combination with a spring-pulled rack-bar pivoted to the hinge-leaf on the couch body and engaging the off-set, a projection on said bar for engaging said stop, a cam-track on the side of the bar for riding the off-set cam during the downward movement of said head. 4th. The combination with the couch body and head of the hinge leaf *f*, having the extension *w*, secured to said body, the rack *D*, pivoted to said extension and provided with the cam-track 18, a stop finger 17, a spring tensioning said bar vertically and laterally, the hinge leaf *b*, on the head provided with the off-set *g*, tooth *r*, and cam *v* arranged to operate, substantially as specified.

No. 52,159. Air-Brake. (Frein atmosphérique.)

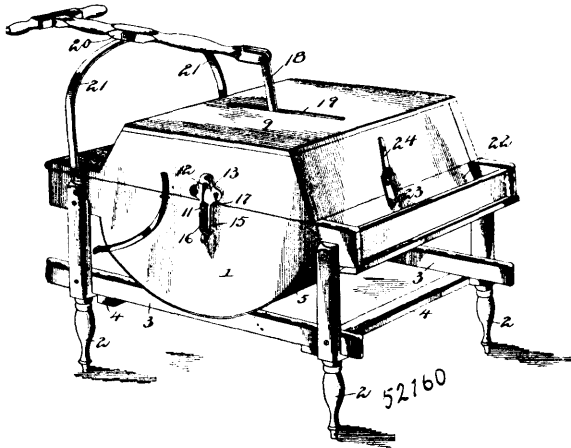


William K. Omick, Pontiac, Michigan, U.S.A., George P. Mogann, Alexander Fraser, both of Toronto, Ontario, Canada, and William Duffus, Pontiac, aforesaid, 5th May, 1896; 6 years. (Filed 2nd April, 1896.)

Claim.—1st. In an air-brake apparatus, the combination of the train pipe, a reservoir, a branch pipe between the same and the train pipe, a brake cylinder having pistons of different area, a pipe connection between one end of the cylinder and the reservoir, a direct connection between the other end of the cylinder and the train pipe, and an exhaust valve in the last-named connection adapted to be opened automatically, substantially as described. 2nd. In an air-brake apparatus, the combination of the train pipe, the reservoir, the cylinder, the piston rod having pistons of different area, connections to opposite ends of the cylinder from the reservoir and train pipe respectively, a valve casing in the train pipe connection, a valve therein having heads of different area, subjected to the train pipe a cylinder pressure respectively, an interposed check valve, and an exhaust port controlled by the movement of the valve, substantially as described. 3rd. In an air brake apparatus, the combination of the train pipe, cylinder having ends of different area, reservoir pistons and connections as described, of a by-pass between the reservoir and the large end of the cylinder, a self-closing valve therein and a trip for temporarily opening the valve in the releasing movement of the piston, substantially as described. 4th. In an air-brake apparatus, the combination of the train pipe, cylinder, reservoir, pistons and connections as described, of the by-pass *k*, a valve therein having self

closing devices, a bar connected to the piston, having a tripping lug therein, an operating lever for the valve and a pivoted pawl thereon in the path of the lug, substantially as described.

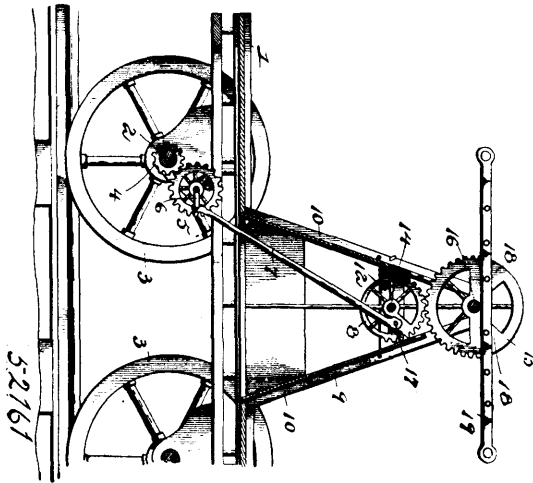
No. 52,160. Washing-Machine. (Machine à laver.)



James H. Lamson, Streator, and William A. Bass, Pow Pow, both of Illinois, U.S.A., 5th May, 1896; 6 years. (Filed 2nd April, 1896.)

Claim.—In a washing-machine, the combination of a washing-machine body, a hinged cover, bearing-brackets secured to the cover at the sides thereof comprising a plate having a vertical bearing-opening a flange 14 surrounding the bearing opening and arranged at the inner side of the plate, and a depending rigid arm 15 formed integral with the plate and provided at its lower end with an outwardly extending lug, the journals arranged in the bearing-openings and provided at their outer ends with upwardly extending lugs and having at their inner ends arms 10, an oscillating rubber secured to the arms 10 and carried by the cover and adapted to be swung backward with the same, and the spiral springs provided at their ends with loops receiving the journals and the outwardly extending lugs of the arms 15, substantially as and for the purpose described.

No. 52,161. Hand-Car. (Char à bras.)

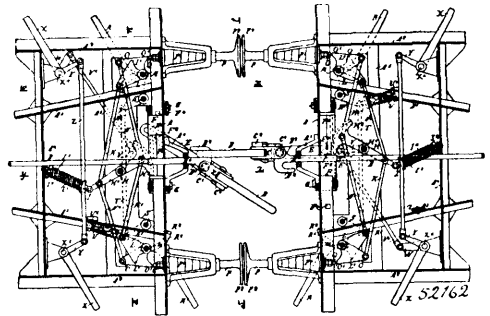


William H. Saladee and George P. Parks, both of Bedford, Indiana, U.S.A., 5th May, 1896; 6 years. (Filed 4th April, 1896.)

Claim.—In a hand-car, the combination with a frame and car-wheels supporting the frame, of a supporting frame mounted on the hand-car frame and provided at its corners with posts, bearings at the upper ends of the posts and located at the sides of the supporting-frame, a lower segmental gear-wheel journaled in the supporting frame, a transverse shaft mounted in the sectional bearings, and an upper segmental gear-wheel mounted on the said shaft and meshing with the lower segmental gear-wheel, an operating handle provided with a central opening receiving the upper segmental gear-wheel and secured to the same, said operating lever being provided with a removable section 21, recessed intermediate of its ends and co-operating with a similar recessed-portion of the body of the lever to form the opening thereof and having its ends secured to the body of the lever, a pitman connected with the lower segmental gear-wheel,

and gearing for connecting the lower end of the pitman with the car-wheels for rotating the same, substantially as described.

No. 52,162. Car-Coupler. (Attelage de chars.)



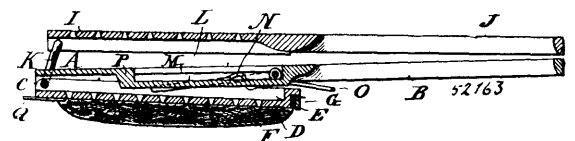
Julius Wagner, Aschersleben, and Franz Jordan, Cöthén in Anhalt, both in Germany, 5th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. In a car-coupling, the combination with a draw-bar, and a loop hinged thereto and swinging round an axis for engaging a hook and having an arm, of a carriage moving to and fro at the car frame for turning said loop by means of its arm, substantially as set forth. 2nd. In a car-coupling, the combination with a draw-bar, and a loop attached thereto and swinging round a vertical axis for engaging a hook and having an arm, of a carriage moving to and fro at the car frame for turning said loop by means of its arm, substantially as set forth. 3rd. In a car-coupling, the combination with a draw-bar, and a loop hinged thereto and swinging round for engaging a hook and having an arm, of a carriage moving to and fro at the car frame for turning said loop by means of its arm, substantially as set forth. 4th. In a car-coupling, the combination with a draw-bar having a hook and an eye, of a loop hinged to said eye and swinging round a vertical axis for engaging a hook and having an arm, and a carriage moving to and fro at the car frame for turning said loop by means of its arm, substantially as set forth. 5th. In a car-coupling, the combination with a draw-bar having a hook and an eye, of a loop hinged to said eye and swinging both round a vertical and round a horizontal axis and arranged for engaging an opposite hook and having an arm, and a carriage moving to and fro at the car frame for turning said loop by means of its arm, substantially as set forth. 6th. In a car-coupling, the combination with a draw-bar having a hook and an eye, of a knuckle hinged to said eye and swinging round a vertical axis, a loop hinged to said knuckle and swinging round a horizontal axis and arranged for engaging an opposite hook and having an arm, a slotted spring hinged to the arm of said loop, means for adjusting said loop in its horizontal position, and a carriage moving to and fro at the bottom face of the car frame and having a pin for engaging in the slot of said slotted spring and thereby turning said loop round the vertical axis of said knuckle, substantially as set forth. 7th. In a car-coupling, the combination with a carriage moving to and fro at the bottom face of the car frame and having a pin, of a draw-bar having a hook and an eye, a knuckle hinged to said eye and swinging round a vertical axis, a loop hinged to said knuckle and swinging round a horizontal axis and arranged for engaging an opposite hook and having an arm, a slotted spring hinged to the arm of said loop and bearing against said carriage, whereby said loop is held in the proper horizontal position, while said pin of said carriage engages in the slot of said slotted spring for turning said loop round the vertical axis of said knuckle, and means for adjusting said loop in its horizontal position, substantially as set forth. 8th. In a car-coupling, the combination with a carriage moving to and fro at the bottom face of the car frame and having a pin, of a draw-bar having a hook and an eye, a knuckle hinged to said eye and swinging round a vertical axis, a loop hinged to said knuckle and swinging round a horizontal axis and arranged for engaging an opposite hook, a slotted spring hinged to said loop and bearing from below against said carriage, and means for adjusting said slotted spring, whereby said loop is held in the proper horizontal position, while said pin of said carriage engages in the slot of said slotted spring for turning said loop round the vertical axis of said knuckle, substantially as set forth. 9th. In a car-coupling, the combination with a carriage moving to and fro at the bottom face of the car frame and having a pin, of a draw-bar having a hook and an eye, a knuckle hinged to said eye and swinging round a vertical axis, a loop hinged to said knuckle and swinging round a horizontal axis and arranged for engaging an opposite hook and having an arm, a slotted spring hinged to the arm of said loop and bearing from below against said carriage, and an adjusting screw spindle arranged in said loop arm and bearing against said slotted spring, whereby said loop is held in the proper horizontal position, while said pin of said carriage engages in the slot of said slotted spring for turning said loop round the vertical axis of said knuckle, substantially as set

forth. 10th. In a car-coupling, the combination with a draw-bar having a hook and an eye, of a loop hinged to said eye and swinging round a vertical axis and arranged for engaging an opposite hook, an adjustable slotted arm attached to said loop, a carriage moving to and fro, and pressed by said adjustable slotted arm from below against the bottom face of the car frame and having a pin engaging in the slot of said slotted arm for turning said loop, a rack attached to said carriage, a central lever located at the car frame, and having two arms, the one of which is formed as a toothed sector meshing with said rack, a plunger linked to the other arm of said central lever, and a spiral spring swinging round a vertical axis and pressing said plunger outwards, so that said central lever and through the parts connected thereto said loop is held in either of two extreme positions, substantially as set forth. 11th. In a car coupling, the combination, with a draw-bar B, having an eye B³, and a hook B², to be engaged by an opposite loop, of a loop D, hinged to said eye B³, and swinging round a vertical axis C¹, for engaging an opposite hook, a central lever H¹, located at the car frame and pressed by a pivoted spiral spring I¹, into either of two extreme positions, means for imparting the motions of said central lever H¹, to said loop D, a vertical shaft M, sliding up and down and having a fast bell-crank O, and a loose bell-crank L, the points O¹ and L¹ of which are formed to be struck by the back end Q, of a buffer rod P, means for raising and lowering said shaft M, whereby said points O¹ and L¹ are brought alternately before the buffer rod end Q, and rods K, N, connecting said bell-cranks O, L, with the two arms of said central lever H¹, so that on the buffer-rod P, being pushed in its end Q, strikes against either said point O¹, or said point L¹, and throws said bell-cranks into their opposite extreme positions, when said loop D will either close or swing open, substantially as set forth. 12th. In a car coupling, the combination, with a draw-bar B, of a loop D, hinged thereto, and swinging round a vertical axis C¹, a central lever H¹, located at the car frame and pressed by a pivoted spiral spring I¹, into either of two extreme positions, means for imparting the motions of said central lever H¹, to said loop D, a vertical shaft M, sliding up and down and having a fast bell-crank O, and a loose bell-crank L, the points O¹ and L¹, of which are formed to be struck by the back end Q, of a buffer rod P, rods K, N, connecting said bell-cranks O, L, with the two arms of said central lever H¹, a handle R, located on one side of the car end and having an arm R³, pressed by a pivoted spiral spring V, into either of two extreme positions, and sector R¹, with a sloping face attached to said lever R, and placed under said shaft M, for raising and lowering same, whereby said points O¹ and L¹, of said bell-cranks are brought alternately before the buffer rod end Q, substantially as set forth. 13th. In a car coupling, the combination with a draw-bar B, of a loop D hinged thereto and swinging round a vertical axis C¹, a central lever H¹ located at the car frame and pressed by a pivoted spiral spring I¹ into either of two extreme positions, means for imparting the motions of said central lever H¹ to said loop D, a vertical shaft M sliding up and down and having two bell-cranks O, L, arranged to alternately assume extreme positions opposed to each other, the points O¹ and L¹ of said bell-cranks being formed to be struck by a buffer rod end Q, means for raising and lowering said shaft M, rods K, N, connecting said bell-cranks O, L, with the two arms of said central lever H¹, a lever V attached to the shaft of said central lever H¹, a handle X located at one side of the car end and fixed to a vertical shaft X¹, a lever W fastened to said shaft X¹, and a rod V¹ connecting said lever W with said lever V, substantially as set forth. 14th. In a car-coupling, the combination with a draw-bar B, of a loop D hinged thereto and swinging round a vertical axis C¹, a central lever H¹ located at the car frame and pressed by a pivoted spiral spring I¹ into either of two extreme positions, means for imparting the motions of said central lever H¹ to said loop D, a vertical shaft M sliding up and down and having two bell-cranks O, L, arranged to alternately assume extreme positions opposed to each other, the points O¹ and L¹ of said bell-cranks being formed to be struck by a buffer rod end Q, rods K, N, connecting said bell-cranks O, L, with the two arms of said central lever H¹, a handle R located at one side of the car end having an arm R³ pressed by a pivoted spiral spring V into either of two extreme positions, a sector R¹ with a sloping face attached to said lever R and placed under said shaft M for raising and lowering same, a handle X located at one side of the car end and fixed to a vertical shaft X¹, a lever W fastened thereto, and a rod V¹ connecting said lever W with said lever V, substantially as set forth. 15th. In a car-coupling, the combination with a draw-bar B having an eye B³ and a hook B² to be engaged by an opposite loop, of a loop D hinged to said eye B³ and swinging round a vertical axis C¹ for an engaging opposite hook, a central lever H¹ located at the car frame and pressed by a pivoted spiral spring I¹ into either of two extreme positions, means for imparting the motions of said central lever H¹ to said loop D, two vertical shafts M, M, sliding up and down and having each a fast bell-crank O and a loose bell-crank L, the points O¹ and L¹ of which are formed to be struck by the back ends Q, Q, of the buffer rods P, P, means for raising and lowering said shafts M, M, simultaneously, whereby said points O¹, O¹, and L¹, L¹, are brought alternately before the buffer rod ends Q, Q, and rods K, N, K¹, N¹ connecting said bell-cranks O, L, on every shaft M with the two arms of said central lever H¹, so that on the buffer rods P, P, being pushed in their ends Q, Q, strike against either said points O¹, O¹, or said points L¹, L¹, and throw said bell-cranks into their opposite extreme positions, when said loop D will either close or swing

open, substantially as set forth. 16th. In a car-coupling, the combination with a draw-bar B, of a loop D hinged thereto and swinging round a vertical axis C¹, a central lever H¹, located at the car frame and pressed by a pivoted spiral spring I¹ into either of two extreme positions, means for imparting the motions of said central lever H¹ to said loop D, two vertical shafts M, M, sliding up and down and having each a fast bell-crank O, and a loose bell-crank L, the points O¹, and L¹, of which are formed to be struck by the back ends Q, Q, of the buffer rods P, P, rods K, N, K¹, N¹, connecting said bell-cranks O, L, on every shaft M, with the two arms of said central lever H¹, two handles R, R, looked on both sides at the car end and having arms R³, R³, pressed by a pivoted spiral spring V, into either of two extreme positions, a rod T, connecting said arms R³, R³, and two sectors R¹, R¹, with sloping faces attached to said levers R, R, and placed under said shafts M, M, for raising and lowering them simultaneously, whereby said points O¹, O¹, and L¹, L¹, of said bell-cranks are brought alternately before the buffer rod ends Q, Q, substantially as set forth. 17th. In a car coupling, the combination with a draw-bar B, of a loop D hinged thereto, and swinging round a vertical axis C¹, a central lever H¹, located at the car frame and pressed by a pivoted spiral spring I¹, into either of two extreme positions, means for imparting the motions of said central lever H¹ to said loop D, two vertical shafts M, M, sliding up and down and having each two bell-cranks O, L, arranged to alternately assume extreme positions opposed to each other, the points O¹, and L¹, of said bell-cranks being formed to be struck by the buffer rod ends Q, Q, means for raising and lowering said shafts M, M, simultaneously, rods K, N, K¹, N¹, connecting said bell-cranks O, L, on every shaft M, with the two arms of said central lever H¹, a lever V attached to the shaft of said central lever H¹, two handles X, X, located on both sides at the car end and fixed to vertical shafts X¹, X¹, two levers Y, Y, fixed thereto, a rod Z connecting said levers Y, Y, a lever W fastened on one of said shafts X¹, X¹, and a rod V¹ connecting said lever W, with said lever V, substantially as set forth. 18th. In a car-coupling, the combination with a draw-bar B, of a loop D hinged thereto, and swinging round a vertical axis C¹, a central lever H¹, located at the car frame and pressed by a pivoted spiral spring I¹, into either of two extreme positions, means for imparting the motions of said central lever H¹ to said loop D, two vertical shafts M, M, sliding up and down and having each two bell-cranks O, L, arranged to alternately assume extreme positions opposed to each other, the points O¹, and L¹, of said bell-cranks being formed to be struck by the buffer rod ends Q, Q, rods K, N, K¹, N¹, connecting said bell-cranks O, L, on every shaft M with the two arms of said central lever H¹, two handles R, R located on both sides at the car end and having arms R³, R³, pressed by a pivoted spiral spring V, into either of two extreme positions, a rod T connecting said arms R³, R³, two sectors R¹, R¹, with sloping faces attached to said levers R, R, and placed under said shafts M, M, for raising and lowering them simultaneously, two handles X, X, located on both sides at the car end and fixed to vertical shafts X¹, X¹, two levers Y, Y, fixed thereto, a rod Z connecting said levers Y, Y, a lever W fastened on one of said shafts X¹, X¹, and a lever V attached to the shaft of said central lever H¹, and a rod V¹ connecting said lever W with said lever V, substantially as set forth.

No. 52,163. Kettle Cleaner. (*Nettoyeur de chaudrons.*)



Ella G. De Lancy, Conway, North Dakota, U.S.A., 5th May, 1896; 6 years. (Filed 2nd April, 1896.)

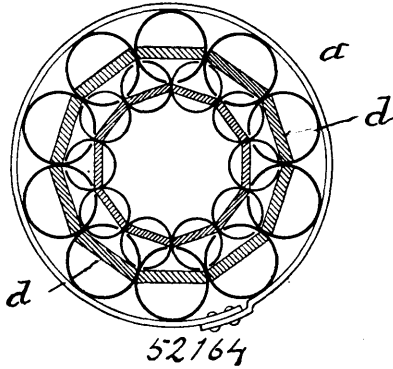
Claim.—1st. In a kettle cleaner, the combination of the supporting plate or frame having a handle, the perforated cloth plate pivoted thereto, adapted to be turned substantially parallel with or at an angle to the supporting frame, and means for holding it in its adjusted position. 2nd. In a kettle cleaner, the combination of the supporting plate or frame having a handle, the perforated cloth plate pivoted thereto, a bail connected to the cloth plate and slidingly engaging with the supporting plate, and a spring catch to hold the cloth plate when adjusted at an angle to the supporting plate. 3rd. In a kettle cleaner, the combination of the supporting plate or frame having a handle, a perforated cloth holding plate thereon, and a perforated wringer or drying plate supported by a link connection with the frame for the purpose described. 4th. In a kettle cleaner, the combination of the supporting frame or plate, a cloth holding plate, a wringer or drying plate, and a scraper plate, the parts being arranged as and for the purpose described.

No. 52,164. System of Flooring, Walling, etc.

(*Système de plancher et de murage.*)

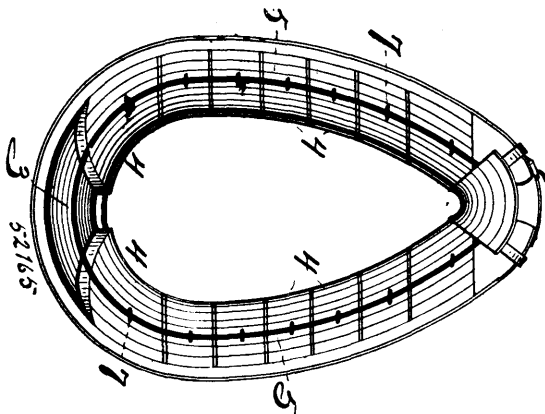
Edward Lloyd Peace, Harwarth-on-Tees, England, 5th May, 1896; 6 years. (Filed 2nd April, 1896.)

Claim.—1st. A structural arrangement consisting of a series of tubular vessels each having a longitudinal slot running lengthwise



of the tube, into which a second tube with a like longitudinal slot is inserted edgewise, and in its turn similarly receives a third tube, and so on the whole series of tubes being mutually interlocked, substantially as and for the purposes described. 2nd. A structural arrangement consisting of a series of longitudinally slotted and mutually interlocked tubes in combination with a hard setting material charged therewith, substantially as and for the purpose as hereinbefore described. 3rd. A structural arrangement consisting of a series of longitudinally slotted and interlocked tubes in combination with internal stiffeners extending across the full width of the tube, substantially as and for the purpose as hereinbefore described. 4th. In the system of construction of floors, walls, roofs, or the like structural parts as covered by the three previous claims, the modification that instead of single slotted tubes interlocking with each other are used a series of tubular vessels, substantially of the form illustrated in the drawings hereto annexed, which tubular vessels are connected together in rows or are otherwise arranged to be used as beam like elements of strength in combination with cement, concrete or the equivalents of these, substantially in the manner and for the purpose as hereinbefore described and illustrated by way of example in the several figures of the accompanying drawings. 5th. A construction more especially applicable to large roofs characterized by an upper and under series of tubular vessels of the forms illustrated in the drawings hereto annexed, which tubular vessels are connected together serpentine fashion along overlapping edges, substantially in the manner as hereinbefore described and illustrated in the accompanying drawings. 6th. A construction of floors, walls, roofs or the like structural parts, characterized by a series of tubular vessels of the forms illustrated in the drawings hereto annexed, which tubular vessels are furnished with lugs or ears, and are thereby secured to joists, beams or flooring boards, substantially as hereinbefore specified and illustrated by the way of example in the accompanying drawings. 7th. A construction of floors, walls, roofs, or the like structural parts characterized by a series of tubular vessels of the forms illustrated in the drawings, or other equivalent forms, which tubular vessels are interlocked tongue and groove fashion with flooring boards, cement, or with one another as hereinbefore described. 8th. The use of tubular vessels for the construction of staircases, substantially in the manner as hereinbefore described and illustrated.

No. 52,165. Horse Collar. (Collier de cheval.)



Oscar James Westfall, Fairmount, New York, U.S.A., 5th May, 1896; 6 years. (Filed 2nd April, 1896.)

Claim.—A horse-collar comprising a body, pad-sections placed thereon, bolts through the ends of said sections and through said body and retaining wires with which said bolts engage.

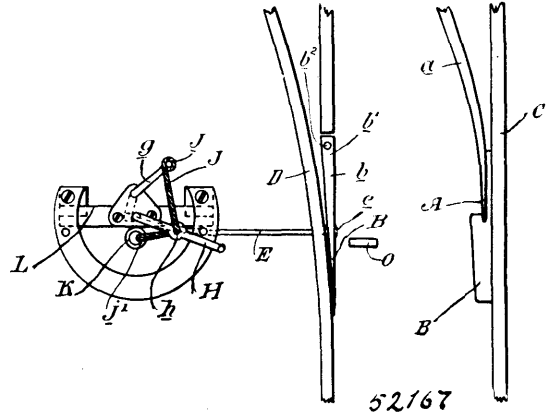
No. 52,166. Frog for Railway Track. (Traverse de rail de chemin de fer.)



Uldarique Gilbeault, St. Isidore Junction, Quebec, Canada, 5th May, 1896; 6 years. (Filed 4th April, 1896.)

Claim.—In a frog the combination with a movable tongue having its heel suitably pivoted and its point pivoted to a lever of the first order which has its other extremity pivoted to the point of another movable tongue placed in the throat of the frog which also has its heel suitably pivoted, the ordinary wings A, A¹ and the tracks I and J, substantially as described and for the purposes set forth.

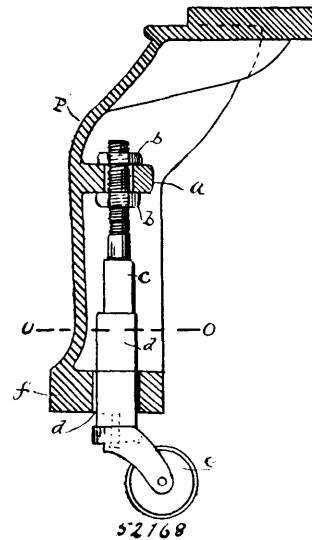
No. 52,167. Split Switch. (Aiguille de chemin de fer.)



Uldarique Gilbeault, St. Isidore Junction, Quebec, Canada, 5th May, 1896; 6 years. (Filed 4th April, 1896.)

Claim.—In a split switch the combination of one movable rail with the rod E, shaft g¹ having the cranks G and g, rope J, lever H, spring K, and a suitable switch stand, substantially as described and for the purposes set forth.

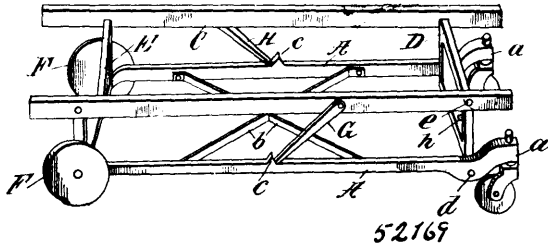
No. 52,168. Stove-leg. (Pattes de poêles.)



Jasper A. Partridge, Saylesville, Rhode Island, U.S.A., 5th May, 1896; 6 years. (Filed 4th April, 1896.)

Claim.—1st. A stove-leg having a perforated lug a projecting inwardly therefrom, and a bolt c fitting said perforation and adjustable therein by means of nuts, said bolt projecting downward through the bottom of the leg substantially as shown. 2nd. A stove-leg having a perforated lug projecting inwardly therefrom, and having also a flat foot with a square opening therein; a bolt having a square shank sliding in said square opening, the upper portion of said bolt passing through the perforation in said lug, and adjustable therein by means of the nuts b b¹, all in combination with a caster c, substantially as shown.

No. 52,169. Stove Truck. (*Camion pour poêles.*)



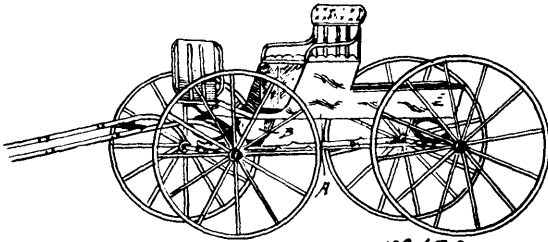
52169

Leon O. Wiswell, Albany, New York, U.S.A., 5th May, 1896; 6 years. (Filed 4th April, 1896.)

Claim.—1st. In a stove truck, a removable combined tongue and lever, consisting of a handle, with hook J, at its outer end and iron bar i, secured to the opposite end of said handle in such manner as to form a shoulder K, in combination with the front link D, provided with a space in said link into which the handle may be inserted to raise and lower said link and perforation h, all combined as and for the purposes shown. 2nd. A stove truck, consisting of a front and rear crank, both pivoted at their upper opposite corners to rails C, the front crank pivoted at its lower opposite corner into the side bars A, and the rear crank terminating in an axle at its lower side upon which revolve the rear wheels of said truck, side bars A, pivoted at their rear ends to the axle of the rear wheels and curved upward at their front ends, caster wheels B, pivoted in the front end of the rail A, and the catches H and G, adapted to engage stops in rails A, all combined as and for the purpose shown. 3rd. A stove truck, consisting of links D and E, the link D, provided with the perforation h, the rails C, base bars A, rear wheels F, caster wheels B, and handle I, with hooks J, and i, and shoulder K, all combined to operate substantially as described and shown.

No. 52,170. Heater for Vehicles.

(*Appareil de chauffage pour voitures.*)



52170

Thomas H. C. Beall, Cicero, Indiana, U.S.A., 5th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. The combination, in a heating device for vehicles, of a casing secured to the underside of the floor of the vehicle, a heater proper mounted in the lower portion of said casing and supported by a flange thereon on a flange on said casing, and a two-part spring bar hinged at one end to one side of said casing and adapted to engage at its other end with a catch on the opposite side of said casing, one of its parts passing on each side of the flue of said heater and formed to bear, when closed down, firmly upon the top thereof, whereby the said heater is firmly but removably held to its seat, substantially as set forth. 2nd. The combination, in a heating device for vehicles, of a casing, a heater proper secured therein, a flue extending upwardly from the burner of said heater, a deflecting plate extending across and secured to the top of said flue, which is provided with perforations in its sides under said deflecting plate, and spring catches which engage with the deflecting plate, whereby said flue is removably but firmly held in place, substantially as set forth. 3rd. The combination, in a heating device for vehicles, of the outer casing secured to the under side of the floor of the vehicle, a perforated cover over the space inclosed by said casing, a lamp or heater proper mounted in the bottom of said casing, spring catches whereby said lamp or heater is held firmly, a flue or chimney on said lamp or heater, a deflecting plate secured on the upper end of said flue or chimney, which flue or chimney has radial perforations below said deflecting plate, supporting brackets on the interior surface of said casing for said deflecting plate and spring catches u, secured to said interior casing and engaging with and holding said deflecting plate on to said brackets, the whole being constructed, arranged and operating as and for the purpose set forth.

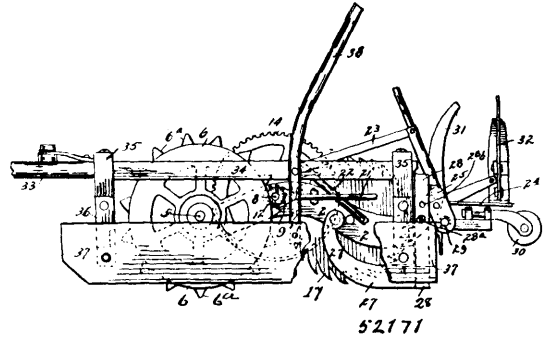
No. 52,171. Ice Harvesting Machine.

(*Machine pour scier la glace.*)

David B. Arnold, Terre Haute, Indiana, U.S.A., 5th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—In an ice harvesting machine, the combination with supporting wheels having cog-wheels thereon, of a frame having its for-

ward end supported by the said supporting wheels, curved runners having their forward ends pivoted to the middle portion of the

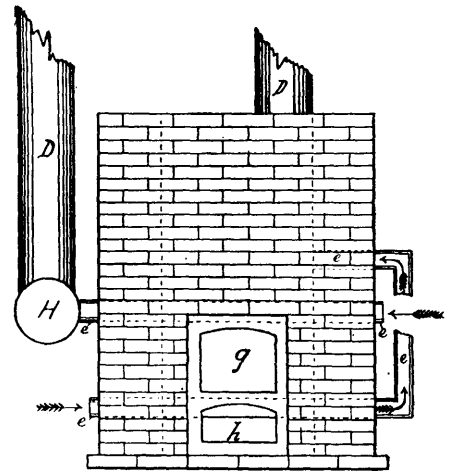


52171

ward end supported by the said supporting wheels, curved runners and adjustably connected to the rear end of the frame, a shaft mounted in the said frame, pinions longitudinally movable upon the shaft and provided with cams upon their outside faces, and adapted to engage the gear-wheel, pins upon the shaft adapted to engage the cams upon the pinions upon a rotation in one direction and to move the pinions longitudinally upon the shaft upon a rotation in the opposite direction, springs tending to throw the pinions into engagement with the pins and cog wheels, means for moving the pins against the springs, saws mounted in the frame in the rear of the wheels and driven by the shaft, curved followers behind the saws and running in the cuts made thereby, a rocking shaft provided with a castor-wheel, mounted in the rear of the frame, a tongue and extension pivoted to the frame above the supporting wheels, and vertically-adjustable guides carried by the said extension, substantially as described.

No. 52,172. Domestic Heating Furnace.

(*Fournaise de chauffage.*)

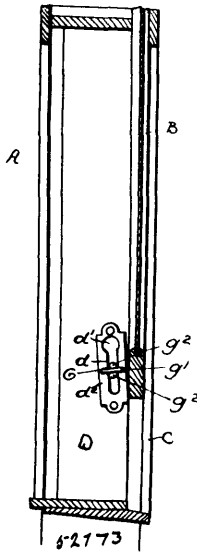


52172

John Jamieson, Truro, Nova Scotia, 5th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. A domestic heating furnace of the class herein described having air passages leading from one side of the furnace through the fire pot or fire chamber to the opposite side of the furnace, and thence to a hot air receptacle, substantially as and for the purpose hereinbefore set forth. 2nd. In a domestic heating furnace of the class herein described, a fire pot or fire chamber, with ducts passing through it for the purpose of receiving heating and conducting air, substantially as and for the purpose hereinbefore described and set forth. 3rd. In a domestic heating furnace, the combination of the air passages e, e, e, e, e, e, e, e, e, e, e, e, e, e, e, e, e, e, with the fire pot or fire chamber F, the ash pit E, and the hot air receptacles H, and G, substantially as and for the purpose hereinbefore described and set forth. 4th. In a domestic heating furnace, the combination of the air passages e, e, e, e, e, e, e, e, e, e, e, e, e, e, e, e, with the fire pot or fire chamber F, the ash pit E, the coal grate o, the coverings n, and i, and the hot air receptacles H, and G, substantially as and for the purpose hereinbefore set forth and described.

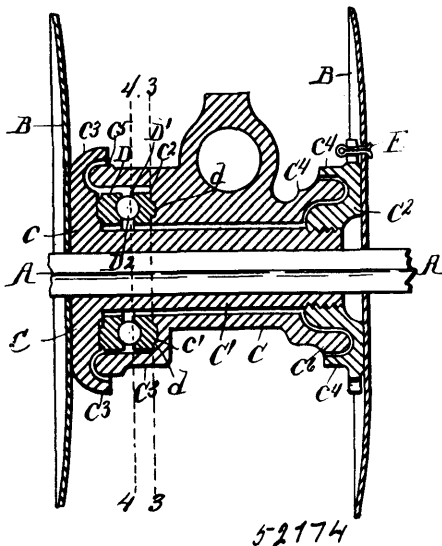
No. 52,173. Sash Holder. (*Arrête-croisée.*)



Lewis A. Heimzerling, Seattle, Washington, U.S.A., 5th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—In a sash holder, the combination with the window sash and frame, of the casing side *D*, the fixed bar *E* between the frame and side *D* and having a series of inclined teeth *e* on its outer edge, the locking bar *f* normally resting against the sash and having a series of inclined teeth *F* on its inner edge, inclining in a direction opposite the inclination of the teeth *e*, the raising and locking device *g* pivotally secured to the locking bar and projecting through an opening in the side *e* and adapted to work vertically in said opening, its central portion being provided with laterally extending ribs, a thumb disc beyond the ribs, and a plate on the side arranged at an incline and formed with an elongated opening and a circular opening above the elongated opening in which the rib portion of the locking device works, substantially as described.

No. 52,174. Ball Bearing. (*Coussinet à boule.*)

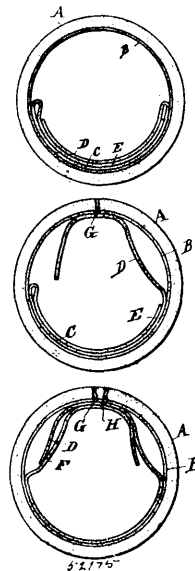


The American Harrow Company, assignee of Elijah A. Ovenshire, both of Detroit, Michigan U.S.A., 5th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. In a ball bearing for disc harrows and analogous devices, the combination of an axle, a skein, a hub located about said skein, and balls located between the skein and hub at one end thereof arranged to receive the end strain, substantially as set forth. 2nd. In a ball bearing for disc harrows and analogous devices, the combination of an axle, a skein, a hub located about said skein, rings

D *D*¹ located about one end of the skein between the skein and hub, and balls located between said rings, to receive the end strain, substantially as set forth. 3rd. A ball bearing for disc harrows and analogous devices having in combination an axle, a skein, a nut or washer engaged upon one end of the skein, a hub *C* located about said skein, rings *D*, *D*¹ located in vertical planes about the skein, between the hub and the skein, one of said rings having a fixed engagement with the hub and the other ring having a fixed engagement with the skein, and balls between the adjacent faces of said rings to receive the end strain, substantially as set forth. 4th. A ball bearing for disc harrows and analogous devices having in combination an axle, a skein, a nut or washer engaged upon one end of the skein, a hub *C* located about said skein, rings *D*, *D*¹ located in vertical planes about the skein between the hub and the skein, one of said rings having a fixed engagement with the hub and the other ring having a fixed engagement with the skein, and balls between the adjacent faces of said rings to receive the end strain, said nut or washer having an adjustable engagement with the skein and with an adjacent disc, substantially as set forth. 5th. A ball bearing for disc harrows and analogous devices having in combination an axle, a skein, a nut or washer engaged upon one end of the skein, a hub *C* located about said skein, rings *D*, *D*¹ located about the skein between the hub and the skein, one of said rings having a fixed engagement with the hub and the other ring having a fixed engagement with the skein, and balls between the adjacent faces of said rings to receive the end strain, said nut or washer having an adjustable engagement with the skein and with an adjacent disc, substantially as set forth. 6th. A ball bearing for disc harrows and analogous devices having in combination an axle, a skein, a nut or washer engaged upon one end of the skein, a hub *C* located about said skein, rings *D*, *D*¹ located about the skein between the hub and the skein, one of said rings having a fixed engagement with the hub and the other ring having a fixed engagement with the skein, and balls between the adjacent faces of said rings to receive the end strain, said nut or washer having an adjustable engagement with the skein and with an adjacent disc, and said skein and washer each provided with a protecting flange projecting inwardly over the adjacent extremity of the hub, substantially as set forth. 7th. A ball bearing for disc harrows and analogous devices having in combination an axle, a skein, a nut or washer engaged upon one end of the skein, a hub *C* located about said skein, rings *D*, *D*¹ located about the skein between the hub and the skein, one of said rings having a fixed engagement with the hub and the other ring having a fixed engagement with the skein, and balls between the adjacent faces of said rings to receive the end strain, said nut or washer having an adjustable engagement with the skein and with an adjacent disc, and said skein and washer each provided with a protecting flange projecting inwardly over the adjacent extremity of the hub, substantially as set forth.

No. 52,175. Pneumatic Tire. (*Bondage pneumatique.*)



Fred W. Morgan and Rufus Wright, assignees of Charles G. Page, all of Chicago, Illinois, U.S.A., 5th May, 1896; 6 years. (Filed 8th April, 1896.)

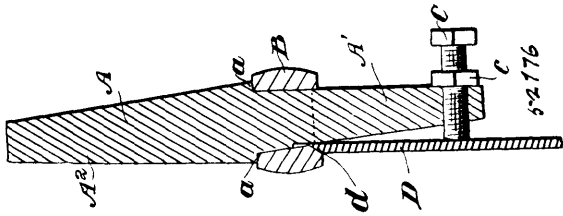
Claim.—1st. A pneumatic tire having plies with longitudinally arranged free edge portions adapted for service in closing punctures, substantially as set forth. 2nd. The combination with a pneumatic tire of plies *D* and *E* each held along one longitudinal edge portion and free along its opposite longitudinal edge portion. 3rd. In a pneumatic tire, the plies *D* and *E* formed of one piece. 4th. In a pneumatic tire, the plies *D* and *E* united by a base strip *C*. 5th. The within described patching means vulcanized in a flattened condition, and arranged within a pneumatic tire, substantially as set forth.

No. 52,176. Saw Set. (*Fer à contourner.*)

Robert Dillon, assignee of Carpus French, both of Oshawa, Ontario, Canada, 5th May, 1896; 6 years. (Filed 8th April, 1896.)

Claim.—1st. In a saw set, the combination with the body *A*, having the lower tapered portions *A*¹, and an angular recess in one of the tapered sides of the lower portion having the lower side or face at an obtuse angle to the inclined side, of the block *B*, provided with a notch *b*, and having the lower edge extending downwardly beyond

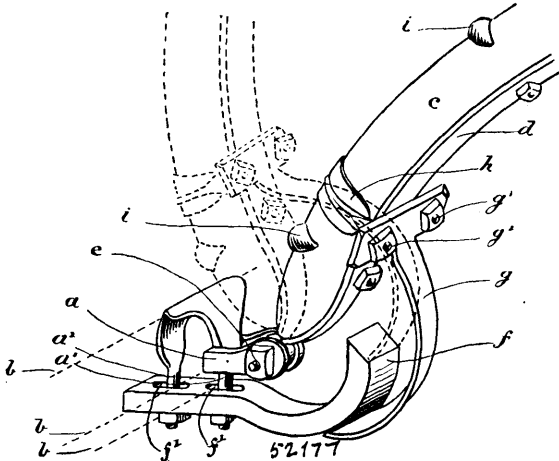
the lower edge of the angular recess, as and for the purpose specified. 2nd. In a saw set, the combination with the body A, having the lower



tapered portion A¹, and an angular recess in one of the tapered sides of the lower portion having the lower side or face at an obtuse angle to the inclined side, of the block B, provided with a notch b, and having the lower edge extending downwardly beyond the lower edge of the angular recess, and a set screw C extending through the tapered sides of the lower portion A¹, designed to abut the saw blade, as and for the purpose specified.

No. 52,177. Anti-Rattler and Shaft-Holder.

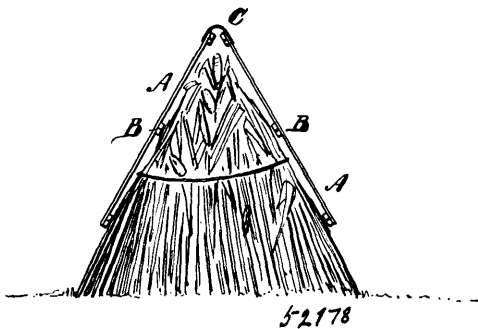
(Tuteur de limonière et compensateur combinés.)



Alexander M. Stewart, Winnipeg, Manitoba, 5th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. In an anti-rattler and shaft-holder, the slotted and curved bar f, and the curved spring g, substantially as and for the purpose above set forth. 2nd. In an anti-rattler and shaft-holder, the slotted curved bar f, and the curved spring g, in combination with the shackle a, shaft c, under plate d, hinged at e, substantially as and for the purpose above set forth.

No. 52,178. Shock-Cover. (Couverture pour tas de gerbes.)



Hiram Walker, Isle aux Peches, Ontario, Canada, 5th May, 1896; 6 years. (Filed 7th April, 1896.)

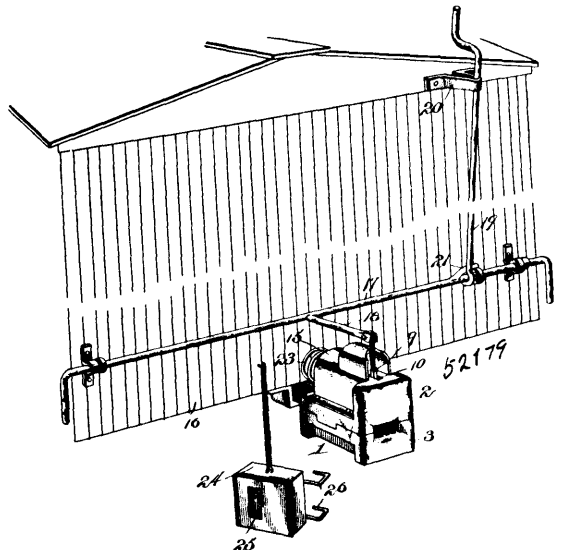
Claim.—The herein described shock-cover consisting of two sheets of wood veneer hinged together end to end, stiffened by battens transversely riveted thereto, and having projecting ends scarfed to interlock with similar projections on other covers, and the whole coated with a waterproof material, substantially as described.

No. 52,179. Car-Coupling. (Attelage de chars.)

Theodor Hagen, Tripoli, Iowa, U.S.A., 5th May, 1896; 6 years. (Filed 7th April, 1896.)

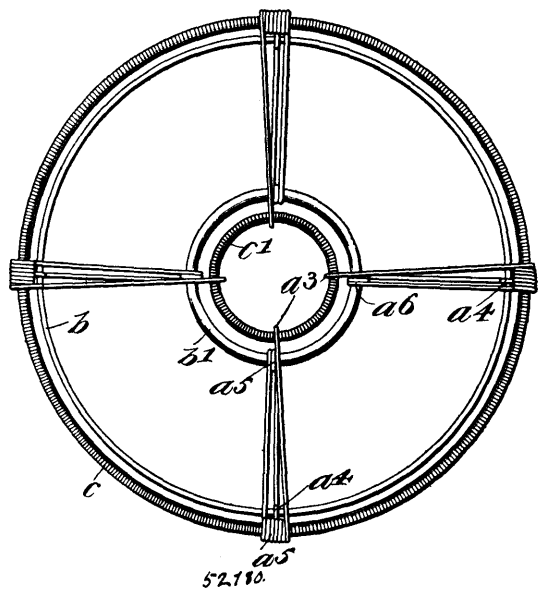
Claim.—1st. In a car-coupling, the combination of a draw-head, a link, means for engaging the link, and a pair of longitudinally-disposed link-holding bars located within the draw-head at opposite sides thereof, independently hinged at their inner ends to the same

and having their front ends curved upward, said link-holding bars being adapted to engage yieldingly the upper face of the link and capa-



ble of independent movement, substantially as described. 2nd. In a car-coupling, the combination of a draw-head means for engaging a link, longitudinally-disposed link-holding bars independently hinged at their inner ends to the draw-head, and having their outer ends curved upward, and provided at their sides with depending flanges, and springs for forcing the bars downward into engagement with the link, substantially as described. 3rd. In a car-coupling, the combination with a car, of a draw-head mounted on the car, and provided in advance of the same with a shoulder or enlargement, a spring arranged at the top of the draw-head, and interposed between the car and the enlargement, a vertically movable coupling pin, having a longitudinal slot, a pivot passing through the slot hinging the coupling-pin to the draw-head, a spring connected with the coupling-pin and the draw-head and arranged in rear of the former, and the casing mounted on the draw-head, and forming a housing for the said springs, substantially as described. 4th. In a car-coupling, the combination of a draw-head, an elongated link, and a spacing block arranged in advance of the draw-head, and provided with a link opening, and having supporting devices detachably engaging the draw-head, substantially as described. 5th. In a car-coupling, the combination with a draw-head, and an elongated link, of a spacing-bar arranged on the link in advance of the draw-head, shortening the same and provided at opposite sides with hooks detachably engaging the draw-head at the front thereof and suspending the block from the top of the same, substantially as and for the purpose described.

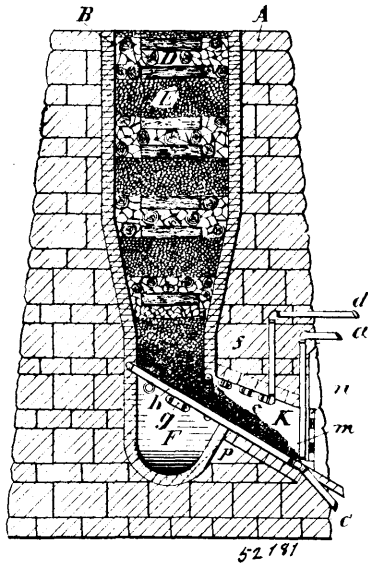
No. 52,180. Cushion. (Coussin.)



William Vagler, Somerville, Massachusetts, U.S.A., 1896; 6 years. (Filed 12th August, 1895.)

Claim.—1st. A seat or cushion composed of a series of spring wires, flexible supporting means to which the upper end of each spring wire is connected, a coil located between the ends of each of said spring wires and forming the edge of said seat or cushion, a flexible support to which said spring wires are connected located in the said coil of each spring wire and adapted to yield under the action of weight upon said seat or cushion, and a support to which the lower end of each spring wire is connected. 2nd. A seat or cushion composed of a series of spring wires each coiled to form the edge of the seat or cushion and arranged in rows, a flexible support for each row to which the upper end of each spring wire of the same row is connected, a flexible support for each row located in the said bend of each spring wire, a support to which the lower end of each spring wire is connected, and flexible connections between the flexible supports to which the upper ends of the said spring wires are connected. 3rd. In a seat or cushion, a series of spring wires coiled between the ends thereof to form the edge of said seat or cushion and arranged in opposite rows, an elastic support for each row to which the upper ends of the spring wires of the same row are connected, a support for each row located in the said coils of the said spring wires, a support to which the lower ends of the said spring wires are connected, and flexible connections between the elastic supports to which the upper ends of the said spring wires of the opposite rows are connected. 4th. A seat or cushion, composed of a series of spring wires, a coiled wire spring support to which the upper end of each spring wire is connected, a coil located between the ends of each of said spring wires and forming the edge of said seat or cushion, a coiled wire spring support to which said spring wires are connected located in the coil of each spring wire and adapted to yield under the action of weight upon said seat or cushion, and a support to which another coil arranged on each spring wire is connected. 5th. A seat or cushion composed of a series of three-armed springs, each containing between its end spring coils, and a supporting frame for said three-armed springs comprising rigid rods and coiled springs which are extended through said spring coils.

No. 52,181. Smelter for Fusing Mineral Ores. (*Fondeur pour la fusion des minerais.*)



Charles Bishop, Tacoma, Washington, U.S.A., 6th May, 1896; 6 years. (Filed 27th March, 1896.)

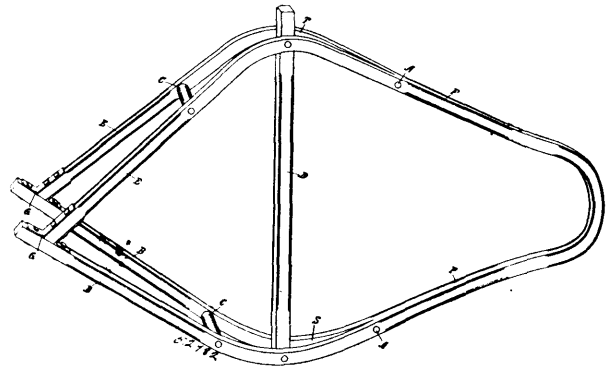
Claim.—1st. A furnace containing a combination of pipes forming an upper sloping grate *b*, having an inlet pipe *a*, and outlet pipe *c*, all substantially described. 2nd. The cooler and outlet *K*, from smelter *C*, its pipes *e*, above and grate *b*, at bottom with pipes *f*, at its sides, all substantially as set forth. 3rd. Its basin *F*, with an offset *p*, having a channel *i*, an outlet at the bottom, all substantially described. 4th. A cooler and outlet *L*, from basin *F*, with a sloping grate *i*, at the bottom with pipes *h*, at its sides and top, all substantially as set forth.

No. 52,182. Bicycle Frame. (*Cadre de bicycless.*)

John P. McCloskey, Sarnia, Ontario, Canada; 6th May, 1896; 6 years. (Filed 19th March, 1896.)

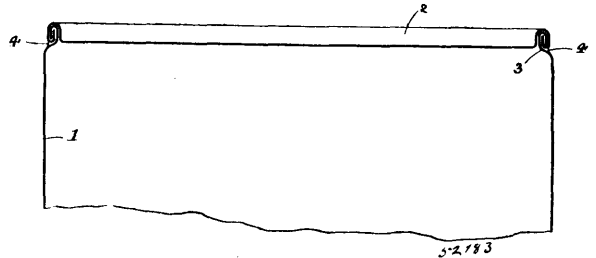
Claim.—1st. A frame *F*, for bicycles and the like, formed of wood or other equivalent material, and in one piece, and with the bifurcated ends *B*, and *E*, substantially as and for the purpose set forth. 2nd. A frame *F*, for bicycles and the like, formed of wood or other equivalent material, and in one piece, and with the bifurcated ends *B*, and *E*, in combination with the bolts *A*, or their equivalent, substantially as and for the purpose set forth. 3rd. A

frame *F*, for bicycles and the like, formed of wood or other equivalent material, and in one piece, and with the bifurcated ends *B*,



and *E*, in combination with the stay or brace *D*, substantially as and for the purpose set forth. 4th. A frame *F*, for bicycles and the like, formed of wood or other equivalent material, and in one piece, and with the bifurcated ends *B*, and *E*, in combination with the stay or brace *D*, and bolts *A*, or their equivalent, substantially as and for the purpose set forth. 5th. A frame *F*, for bicycles and the like, formed of wood or other equivalent material, and in one piece of the shape shown, and with bifurcated ends *B*, and *E*, in combination with the stay or brace *D*, bolts *A*, or their equivalent, and the blocks *C*, substantially as and for the purpose set forth.

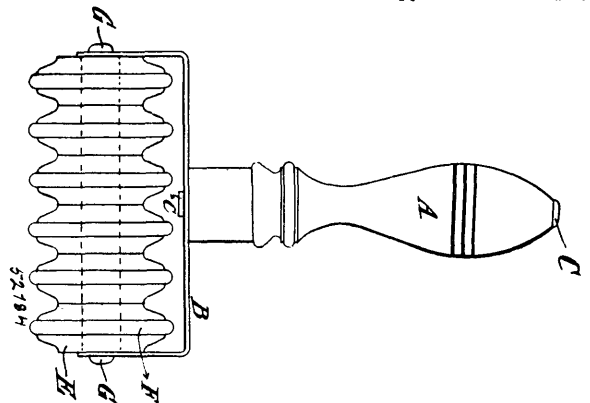
No. 52,183. Can. (*Boîte métallique.*)



William Arthur Read, Liverpool, England, 6th May, 1896; 6 years. (Filed 11th December, 1894.)

Claim.—1st. The improved can in which the ends are jointed to the body of the can by double-lapped seams the outer surfaces of which are flush with the said body, substantially as described and illustrated. 2nd. The improved can in which the ends are jointed to the body of the can by double-lapped seams, the end edges of the body being reduced in diameter to form shoulders between which and the turned over parts of the ends a bead of solder is run, the said turned-over portions of the ends being flush with the surface of the can, substantially as described and illustrated. 3rd. In cans, the combination of the ends 2 and the body 1 of the can, having its end edges worked abruptly inwardly and jointed to the ends by double-lapped joints, and having shoulders 3, to which the solder 4 to close the joint is applied, substantially as described and illustrated.

No. 52,184. Massage Appliance. (*Appareil de massage.*)

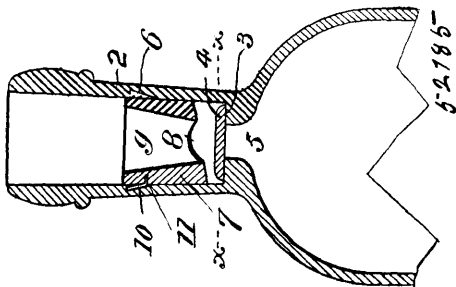


William Douglas, Toronto, Ontario, Canada, 6th May, 1896; 6 years. (Filed 12th March, 1896.)

Claim.—The combination of a series of wheels, each independent of the other, bevelled towards the outer rim in the shape of a com-

pound curve, around the centre rim of each of which is a groove into which is fitted a rubber buffer, the whole series of wheels set on a coiled wire spring axle and fitted into a suitable handle.

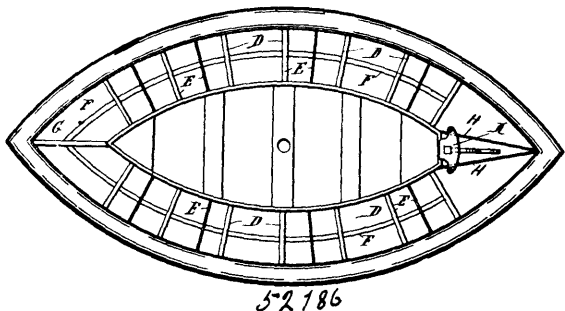
No. 52,185. Non-Refillable Bottle. (*Appareil pour empêcher le remplissage des bouteilles.*)



John Louis Wolf, New York, State of New York, U.S.A., 6th May, 1896; 6 years. (Filed 25th November, 1895.)

Claim.—1st. The combination with a bottle, and the neck of which is provided with an annular ledge shoulder formed at or near the bottom thereof and an automatic valve adapted to be seated thereon and to close the passage into the bottle, of a non-removable plug or attachment located in said neck above the valve and at a short distance therefrom, and provided with a central bore or passage, the lower end walls of which are cut away so as to form passages communicating with the central bore when the valve is seated on the lower end of the plug, said plug and neck being provided with means for securing the plug within the neck, and said valve being adapted to be seated on the lower end of the plug when the bottle is inverted, substantially as shown and described. 2nd. The combination with the neck of a bottle, having an annular ledge or projection formed at or near the bottom thereon, of an automatic valve to be seated thereon, and to close the passage therethrough into the bottle, a non-removable plug or attachment secured within said neck at a short distance above said valve on which the valve is also adapted to be seated when the bottle is inverted, said plug being provided with a central bore or passage and the lower end thereof being cut off at an angle or inclination to the central line or axis of the plug or attachment, and the walls of said lower end being also cut away to form passages communicating with said central bore when the valve is seated on the lower end of the plug, substantially as shown and described. 3rd. The combination with the neck of a bottle, the inner walls of which are slightly inclined inwardly and downwardly and provided with an annular inwardly directed ledge or shoulder at or near the bottom thereof adapted to receive an automatic valve thereon, said inner walls of the neck being also provided at a predetermined distance above said ledge or shoulder with an annular recess or cavity formed therein, of a tubular attachment or plug, the walls of which are adapted to fit within the neck of the bottle, said plug being provided with springs secured thereto and extending outwardly therefrom and adapted to enter said recess or cavity and prevent the removal of the plug, the lower end of the walls of said plug or attachment being also cut away forming passages communicating with the central bore thereof when the valve is seated on said lower end of the plug, and a valve normally seated on the annular ledge or shoulder and adapted to be seated on the lower end of the plug when the bottle is inverted, substantially as shown and described.

No. 52,186. Life Boat. (*Bateau de sauvetage.*)

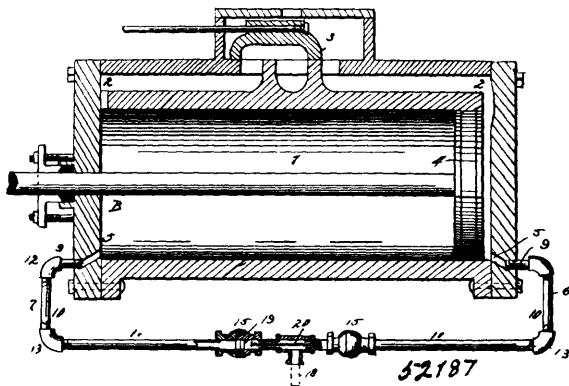


Algernon Lawson Hassard Short, Tarborough, North Carolina, and Paul Dinkelspiel, New York, State of New York, both in the U.S.A., 6th May, 1896; 6 years. (Filed 3rd October 1895.)

Claim.—1st. A life boat provided with an attachment or frame, which surrounds the same, and is supported in connection therewith, at about the water line thereof, and said frame being composed of light material, and adapted to support a boat and prevent its being overturned, and to serve as a guard therefore, substantially as shown and described. 2nd. The combination with a life boat, of an at-

tachment consisting of a frame which surrounds the boat, said frame being composed of a casing which is filled in with cork or other light material, said frame being also supported and connected with the boat by means of strips which pass beneath the boat, and through the keel thereof, and rods which are secured to the top of the boat, substantially as shown and described. 3rd. The combination with a life boat, of an attachment consisting of a frame which surrounds the boat, said frame being composed of a casing which is filled in with cork or other light material, said frame being also supported and connected with the boat by means of strips which pass beneath the boat, and through the keel thereof, and rods which are secured to the top of the boat, said strips being bound together by means of other strips arranged transversely thereof, and which meet at the bow of the boat, substantially as shown and described. 4th. The combination with a life boat, of a frame which is elliptical in form and pointed at each end, and which surrounds said boat, and is supported at a distance therefrom, by means of strips which are connected therewith, and which are passed beneath the boat and through the keel thereof, and by rods which are connected with the boat, said frame being provided with a central core with which said strips and rods are connected, and said frame being filled in with light material, such as cork and similar substances, substantially as shown and described. 5th. The combination with a life boat, of a frame which surrounds the same, and which is connected therewith, and supported at a distance therefrom, and on the line with the water line of said boat, said frame being hollow and filled in with cork or similar material, substantially as shown and described.

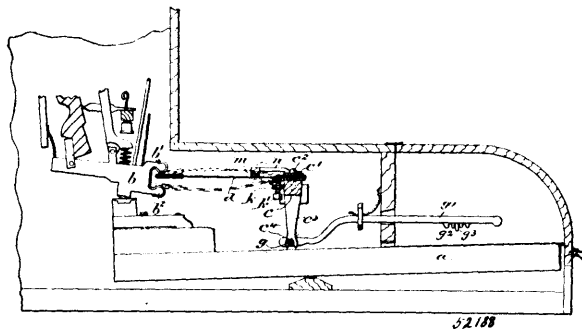
No. 52,187. Valve. (*Soupepe.*)



James C. Getty, Indiana, Pennsylvania, U.S.A., 6th May, 1896; 6 years. (Filed 30th March, 1896.)

Claim.—The combination, with an engine cylinder, of pipes connected at the ends thereof, valve-casings secured to the free ends of said pipes, short pipes secured to the inner ends of the valve casings, a T-joint connecting the inner ends of the short pipe valves located in said valve-casings and having a notched periphery adapted to abut against the valve seats in said casings and close the exit through the valves, said valves being provided with sockets and with laterally-projecting arms to slide on the valve seats, and a rod engaged in said sockets and connecting valves so that the valves will be actuated in unison, substantially as described.

No. 52,188. Pianoforte. (*Piano.*)

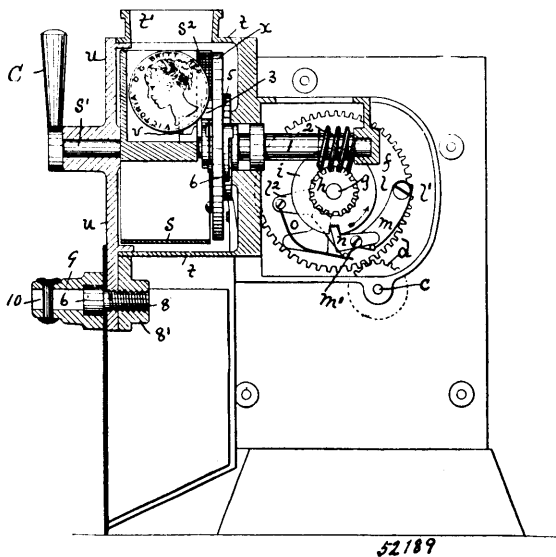


Roland M. Squire, Montreal, Quebec, Canada, 6th May, 1896; 6 years. (Filed 27th September, 1895.)

Claim.—1st. In a pianoforte, an adjustable yielding resistance device adapted upon adjustment to act upon the hammer-actuating mechanism of such pianoforte, to either increase or diminish the resistance of touch. 2nd. In a pianoforte, the combination with the keys and the hammer-actuating mechanism thereof, the latter having two bearing-points, of an adjustable yielding-resistance device adapted upon adjustment to bear upon either of such bearing-points according as it is required to either diminish or increase the resist-

ance of touch and means for adjusting such resistance device. 3rd. In a pianoforte, the combination with the keys and the hammer-actuating mechanism thereof, the latter having two bearing-points, of an adjustable yielding-resistance device adapted upon adjustment to either bear upon either of such bearing-points or remain neutral thereof and means for adjusting such resistance device, for the purpose set forth. 4th. In combination, with the actuating mechanism of each hammer of a pianoforte and two bearing-points, in close proximity to each other, upon such actuating mechanism of a series of resilient strips carried by a rotatable bar or sill, each one of such series of resilient strips adapted to either bear upon either of such bearing-points or remain neutral thereof and means for partially rotating such bar or sill, for the purpose set forth. 5th. In combination, with the actuating mechanism of each hammer of a pianoforte and two bearing-points upon such actuating mechanism, of a series of resilient strips carried by a rotatable bar or sill, each one of such series of resilient strips adapted to either bear upon either of such bearing-points or remain neutral thereof, adjusting-screws mounted in a position to be adjusted to bear upon such resilient strips, and means for partially rotating such bar or sill, for the purpose set forth. 6th. In combination, with the keys and the rocker of the hammer-actuating mechanism of a pianoforte, such rocker having two projections, of a series of resilient strips carried by a rotatable bar or sill and each one of such series of resilient strips adapted to either bear upon either of the projections of the rocker of said hammer actuating mechanism or remain neutral thereof, with means for increasing the pressure of such strips in one direction only and for partially rotating such bar or sill, for the purpose set forth. 7th. In combination, with the keys *a*, and the rocker *b*, of the hammer-actuating mechanism of a pianoforte, such rocker having two projections *b*¹, *b*², of a series of resilient strips *c* carried by a rotatable bar or sill *c*, having downward projections *c*³, with slot *c*⁴, and each one of such series of resilient strips adapted to either bear upon either of the projections *b*¹, *b*² of the rocker of said hammer-actuating mechanism or remain neutral thereof a bar *m*, rigidly secured to sill *c*, by bracket *n*, and a sliding rod *g*¹, with pin projection *g*, and a spring *h*, all for the purpose set forth.

No. 52,189. Coin Operated Gas Meter.
(*Gazomètre actionné par une pièce de monnaie.*)

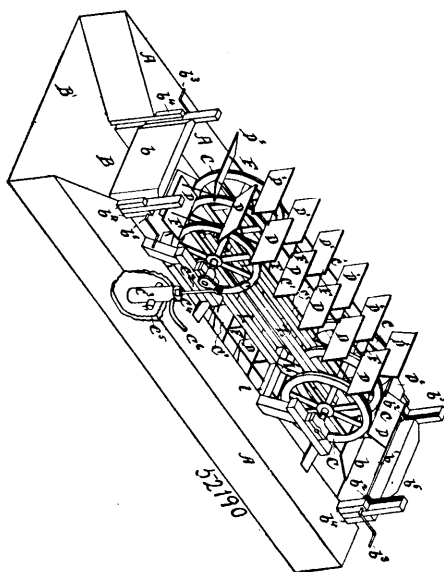


Daniel Orme, Oldham, England, 6th May, 1896; 6 years. (Filed 19th July, 1894.)

Claim.—1st. In meters for supplying predetermined quantities of gas in exchange for inserted coins or tokens the employment of an internal rack to engage with the edge of the coin or token as it is carried round by the coin cylinder so as to prevent the coin or token and cylinder from being returned before delivery of the coin or token substantially as described and shown. 2nd. In meters of the indicated nature the employment of an adjustable stop in connection with the coin receiving mechanism whereby the quantity of gas to be delivered in exchange for a coin or token can be varied at pleasure in accordance with the local or current price of gas substantially as hereinbefore described and shown. 3rd. In a gas meter of the indicated nature the disc *x*, carrying an adjustable stop in combination with a ratchet-wheel and pawls for effecting the rotation of the actuating shaft *l* in one direction only whereby the stop disc and measuring pointer are rotated in advance of the pawls which overtake and engage with the disc and arrest the working of the matter substantially as described and shown. 4th. The escapement disc *i* fixed upon the spindle *g*, in combination with the toothed or recessed disc *k*, pawl holder *l*, and pawls *m, n*, for the purposes and substantially as described and shown. 5th. In prepayment gas meters actuated

through the agency of an inserted coin or token and provided with means for varying the quantity of gas to be delivered in exchange for such coin or token the employment of a revolving dial plate marked with numeral numerals indicating cubic feet of gas and a pointer operated by the coin receiving mechanism the said dial and pointer serving to show the consumer the quantity of gas paid for and still unconsumed substantially as described and shown. 6th. In a coin freed or prepayment gas meter of the indicated nature, closing and opening the valve which governs the supply of gas by means of a positively acting two-way cam or its equivalent, which both closes and opens the valve in the manner and substantially as hereinbefore described and shown. 7th. In combination with the cam closing and spring opening devices the valve, which governs the supply of gas to coin freed or prepayment gas meter of the indicated nature, or the valve seating of the said valve formed of soft metal or substance for the purpose and substantially as described. 8th. In a prepayment or coin freed gas meter of the indicated nature closing the gas supply valve by means of a cam or inclined face or its equivalent and opening the valve by means of a spring substantially as described and shown. 9th. In a prepayment or coin freed gas meter of the indicated nature and having the supply valve or its seating made of soft metal or substance, closing the said valve by means of a cam or inclined face or its equivalent and opening the valve by means of a spring substantially as described and shown. 10th. The employment of interchangeable plates or stops for varying the quantity of gas delivered in exchange for a fixed coin or token substantially as described and as illustrated.

No. 52,190. Current Motor. (Moteur à eau.)



John W. Cover, Everett, Washington, U.S.A., 6th May, 1896; 6 years. (Filed 11th December, 1894.)

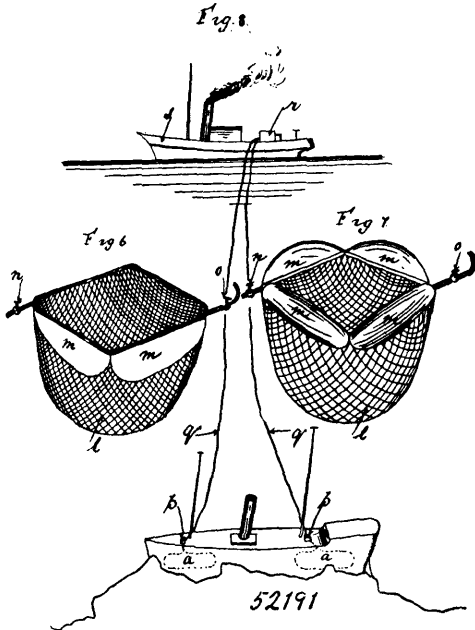
Claim.—1st. In a current motor, the combination, with a sluiceway for carrying the water, of double sets of wheels placed over and across said sluiceway, endless conveyors passing about the same, and two or more series of buckets attached to said conveyors, the buckets of each series being so placed on the conveyors as to alternate with the buckets in the adjacent series, substantially as shown and described. 2nd. In a current motor, the combination, with a sluiceway, two sets of wheels placed over said sluiceway with their shafts extending across the same, and endless conveyors with buckets attached extending about said wheels, of beams extending across said sluiceway just inside the wheels and beams supported thereby longitudinally the sluiceway, and carrying bearings for the centre of the wheel-shafts, substantially as shown and described. 3rd. In a current motor, the combination, with a floating sluiceway, having converging sides at its forward end, a gate whereby it may be closed a set of wheels near each end having their shafts extending across the sluiceway, endless conveyors passing over the same, and buckets attached to said conveyors, of beams extending across the sluiceway inside the wheels, and longitudinal beams supported thereon, and supporting bearings for the centre of the wheel-shafts, substantially as shown and described.

No. 52,191. Apparatus for Raising Sunken Vessels.
(*Appareil pour remettre à flot les vaisseaux coulés.*)

Alfred Leech, Harringay Park, London, England, 6th May, 1896; years. (Filed 6th March, 1895.)

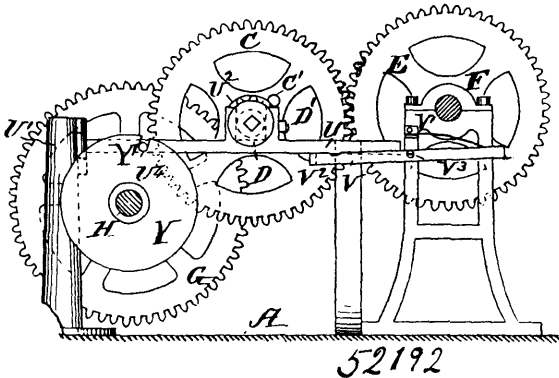
Claim.—1st. In means for raising sunken vessels and ships, and also for preventing the sinking of same, the employment of air bags

or inflators placed at suitable parts of the interior of the vessel or ship, and inflated when desired by means of air or gas which may



be stored in reservoirs, and a valve for preventing the collapsing of the inflators or loss of air or gas in the event of leakage. 2nd. In means for raising articles from sunken ships, a receptacle or carrier having inflatable and deflatable air bags or inflators, in communication with a supply of air or gas, and having taps for regulating the admission and exit of the air or gas to and from the said air bags or inflators.

No. 52,192. Manufacture of Mouth Pieces for Cigarettes, etc. (Fabrication de porte-cigarettes, etc.)

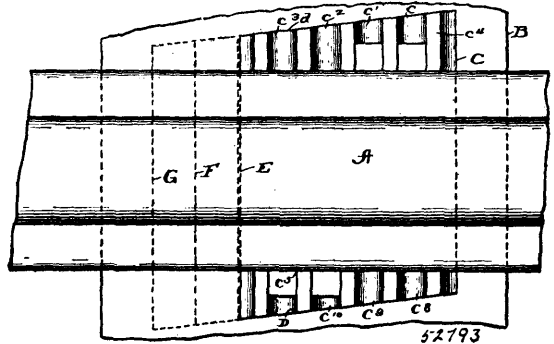


Joseph Samuel Beeman, Camberwell, Australia, 6th May, 1896; 6 years. (Filed 6th May, 1895.)

Claim.—1st. In combination the mandrel, the main shaft B, the operating shaft H, means operated from said shaft H, for acting on the paper blank connections from the constantly operating shaft to both the mandrel shaft and the operating shaft, a clutch controlling the said connections, means for throwing the said clutch into operation and holding the same in engagement and for automatically releasing the same to stop the mandrel and the operating shaft when the machine has completed one movement, substantially as described. 2nd. In combination, the mandrel, the means for acting on the blank while on the mandrel, the operating shaft with connections controlling said means, a driving shaft B, a clutch, the connections from said main shaft to the mandrel, and to the operating shaft controlled by said clutch, the starting arm controlling the clutch and the disc Y, having the notch for controlling the starting arm, substantially as described. 3rd. In combination, the mandrel, the operating shaft, means for pressing and pasting the blanks, the connections from the operating shaft to said means, the constantly operating shaft connections therefrom to the operating shaft and to the mandrel, the clutch for controlling the said connections and the operation of the mandrel, the stripper arms and the reciprocating starting-rod T, carrying the same, means for holding the rod in moved position and arranged to be tripped when the machine has completed one movement, said rod carrying the strippers, substantially as described. 4th. In combination, the mandrel, means for

operating upon the blank, the pasting funnel with means for raising and lowering the same, and the clearer blade M', with means for automatically depressing the same when the funnel is raised, substantially as described. 5th. In combination, the mandrel with means for operating upon the blank, the paste reservoir, the paste funnel the valve, the valve lever means for rising and lowering the paste funnel, means for operating the valve lever from the rising movement of the funnel and the clearer M', arranged to enter the discharge mouth of the funnel when the same is raised, substantially as described.

No. 52,193. Tie-Plate. (Plaque de traverse.)

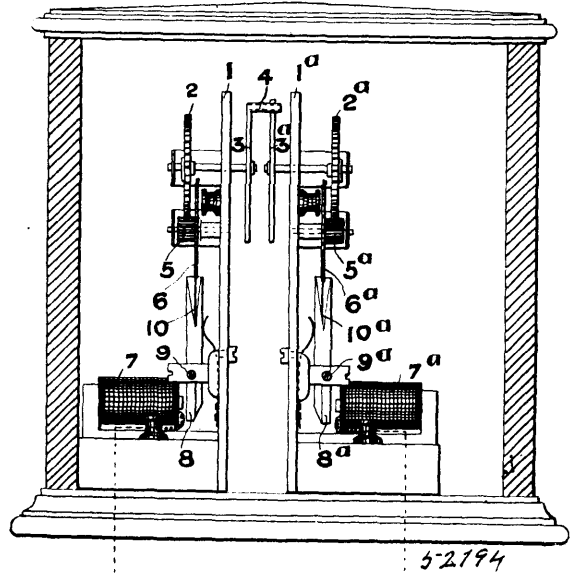


Benjamin Wolhaupter, Chicago, Illinois, U.S.A., 6th May, 1896; 6 years. (Filed 9th May, 1895.)

Claim.—1st. A railway tie plate having its body corrugated as shown, substantially as described. 2nd. A railway tie-plate having its body corrugated as shown with the corrugations on one side sharpened, substantially as described. 3rd. A railway tie-plate having one or both ends bevelled transversely of the body of the plate as shown, substantially as described.

No. 52,194. Block Signalling on Railways.

(Signal électrique pour chemins de fer.)



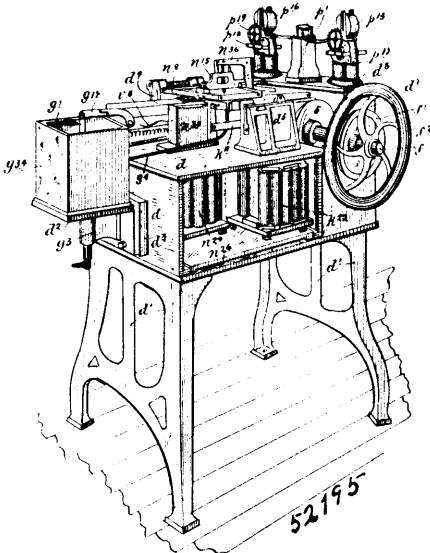
John George Dixon, Huddersfield, England, 6th May, 1896; 6 years. (Filed 4th November, 1895.)

Claim.—1st. In a block system, the combination, with a signal at A, and a contact maker connected to the rails adjacent thereto, of a signal at B, and a second contact maker connected to the rails adjacent thereto, electro-magnets 7, a battery, and wires 14 operatively connected together and to the circuit maker at A, electro-magnets 7^a, a battery, and wires 16 operatively connected together and to the circuit maker at B, a revoluble contact maker formed of two parts such as 3, 3^a, similar driving mechanisms connecting the said parts with the electro-magnets 7 and 7^a respectively, and a battery 17, and wires 18 connected to the said revoluble contact maker and with the said signal at A, said devices operating to cause a current of electricity to pass through the wire 18 when the electro-magnets 7 and 7^a have been energized successively for the same number of times by the passage of the wheels of a train over the said circuit makers pertaining to the said electro-magnets, substantially as set forth. 2nd. In a block system, the combination with a

signal at A, and a treadle connected to the rails adjacent thereto, of a signal at B, and a second treadle 12 connected to the rails adjacent thereto, electro-magnets 7, battery 13, and wires 14 operatively connected together and to the treadle 11, electro-magnets 7^a, battery 15, and wires 16 operatively connected together and to the treadle 12, a revoluble contact maker formed of two parts such as 3, 3^a, similar driving mechanisms connecting the said parts with the electro-magnets 7 and 7^a respectively, and a battery 17, and wires 18 connected to the said revoluble contact maker and with the signal at A, said devices operating to cause a current of electricity to pass through the wire 18, when the electro-magnets 7 and 7^a, have been energized for the same number of times by the passage of the wheels of a train over the said treadle 11 and 12, substantially as set forth.

No. 52,195. Type-Casting and Setting-Machine.

(*Machine pour mouler et placer les caractères.*)



The Goodson Type Casting and Setting Machine Company, assignee of George A. Goodson, both of Minneapolis, Minnesota, U.S.A., 7th May, 1896; 6 years. (Filed 3rd July, 1895.)

Claim.—1st. The combination with a type-writing mechanism, of a strip puncturing mechanism for the simultaneous production of a type written proof and a punctured representative strip of the composition. 2nd. The combination with two sets of punches representing factors of an aggregate of combinations, of a key-board, and connections from said key-board grouped, on a bi-factored principle, corresponding to and for the operation of said two sets of punches, substantially as described. 3rd. The combination with a strip-supporting and strip feeding mechanism, of two sets of punches, for puncturing said strip, representing factors of an aggregate of combinations, a key-board, separate connections from all the keys of said key-board, grouped, on a bi-factored principle, corresponding to and for the operation of said two sets of punches, and a connection common to all the keys for controlling said strip feeding mechanism, substantially as described. 4th. The combination with the two sets of punch magnets and the feed magnets, as described, of a key-board and circuit connections, controlled thereby, for said magnets, comprising a pair of branch wires for each key with all like branches, or the whole key-board, grouped on a bi-factored principle, and connected by grouped wires with the corresponding members of said punch magnets, as described, wires from the spacing key of the key-board to one of said punch magnets, and a common return wire from all said punch magnets through said feed magnet, substantially as described. 5th. The combination with the punch magnets, of the character keys and the electric connections therefrom to said magnets, grouped on a bi-factored principle, for making the working holes in the strip, of the word space keys and connections to one of said magnets, for making the word space holes on said strip, the trip key and contact with connections to one of said punch magnets, for making the trip hole, and the feed magnet on the common return wire from all of said punch magnets, substantially as described. 6th. The combination with a type-writing mechanism equipped with a differential letter space indicator and having certain of its character keys marked also with justification numbers, of a strip puncturing mechanism controlled from the type-writing mechanism, whereby the same keys may be used to make holes representing characters or justification numbers and there may be simultaneously produced a type-written proof of the composition and a punctured strip representing the characters and word spaces and the justification numbers or amount

of space requiring distribution to justify the corresponding lines of type, substantially as described. 7th. A positive feed mechanism for a strip of material comprising a pair of co-operating needles which alternately penetrate the strip, the penetration of the one needle taking place when the strip is held stationary by the other needle and one of which needles has a limited movement in the direction of the strip's travel, whereby, an exact feed is insured to the strip, substantially as described. 8th. The combination with strip supporting devices, of a feeding thrust-bar subject to the action of a magnet in one direction, and of a retracting spring in the other direction, circuit connections for energizing said magnet, at the proper time, to reciprocate said bar, a pair of feed needles carried by said bar, one of which is fixed thereto, and the other of which is pivoted to the bar, a pair of cam-lugs for rocking the pivoted needle at the opposite limits of the thrust-bar's stroke, and a spring catch for yieldingly holding the pivoted needle at the opposite limits of its rocking motion, substantially as described. 9th. The combination, with the strip-supporting devices of the feed-needles alternately engageable with the strip, and one of which has a limited movement in the direction of the strip's travel to feed the strip, and a dash-pot applied to retard the action of said feeding member of said needles, to avoid tearing the strip, substantially as described. 10th. The combination, with strip-feeding devices, of a strip-supplying or receiving device, and electric connections for controlling the operation of said supplying or receiving device, which connections are automatically controllable by the strip itself to always maintain a limited slack section of the strip, upon which the feeding devices may act, to propel the same without any strain beyond the weight of the slack section of the strip, substantially as described. 11th. The combination, with the strip-feeding devices, of the pair of strip-holding spools, on opposite sides of the feeding devices, for unwinding and winding up the strip, the pair of electric motors for said spools, and circuit connections for both of said motors controlled by the strip itself to unwind and wind up the strip as required, to maintain a slack section subject to the feeding devices, substantially as described. 12th. The combination, with a mould, of a melting pot for containing the material to be cast, a tube leading from said melting pot to said mould, means for controlling the discharge of molten material into the mould, and connections for applying an electric current to heat said material, while in transmission through said tube to said mould, substantially as described. 13th. The combination, with a mould, of a melting pot for containing a supply of molten metal, a tube leading from said melting pot to said mould, and electric connections applied to close both the tube and the molten metal therein into an electric circuit, substantially as and for the purpose set forth. 14th. The combination, with a stereotyping mould, of a melting pot for containing a supply of molten metal, a tube leading from said melting pot to said mould, means for controlling the discharge of molten material into the mould and connections for applying an electric current to heat said metal while in transmission through said tube, said electric connections being so arranged that the current will be conducted to the very outlet tip of the tube at the mouth of the mould, but will be returned without passing through the mould, whereby the metal may be delivered to the mould throat at any desired exact temperature, and the mould itself will be unaffected by the heat from the melting pot or tube, substantially as described. 15th. The combination, with a mould, of a vessel for containing the material to be cast, a force pump in said vessel, a tube leading from said vessel to said mould, and connections for applying an electric current to heat said material to be cast, while in transmission through said tube, substantially as described. 16th. In a machine for casting type, the combination with a type body mould, of a plate having on its face and rigid therewith a font of matrices arranged in rows in two directions, for alignment of any matrix with the throat of said type body mould, by a two-way movement of the said block. 17th. The combination with a type body mould, of a matrix-plate containing a complete font of matrices rigid with said plate, which matrices are separated from each other and are justified into corresponding positions of uniform sized spaces on said plate, by intervening walls of the said plate, which walls are of uniform width bodywise and of varying widths runningwise of the matrices of type, whereby the said plate may be brought to the casting position by uniform steps of movement, substantially as described. 18th. The method of producing an integral font matrix-plate, for use on a type casting machine, which consists in setting up into a form a complete font of printer's type in the desired arrangement, and then immersing the said form itself in an electro plating bath to obtain therefrom an electro-matrix plate by the electro depositing process, substantially as described. 19th. The method of producing an integral font matrix-plate, for use on a type casting machine, which consists in setting up into a form a complete font of printer's type in the desired arrangement, then immersing the said form itself in an electro-plating bath to form thereon an electro-matrix plate by the electro depositing process, and finally in separating the plate from the form, by picking the type therefrom, separately, substantially as and for the purposes set forth. 20th. The method of producing the integral font matrix block, herein described, for use on type casting machines, which consist first, in setting up into a form a complete font of printer's type, second, in separating and justifying the said type into corresponding positions of uniform sized spaces runningwise, by truncated or faceless type ground down below type body height, and in separating and justifying the said type,

bodywise, by rules also ground down below type-body height, third, in producing from said form an electro-matrix plate by the electro depositing process, in which step the type are picked from the plate, separately, and finally, backing the said electro-matrix plate with metal suitable for body, substantially as described. 21st. The combination with a type body mould, of the two-way movable matrix block, containing the complete font of matrices arranged in rows in two directions, for selection by the two-way movement of the block, and arranged also in rows in one direction, with reference to the running width of face, and with all the said matrices justified into corresponding positions of uniform sized spaces on said block by intervening walls of uniform width bodywise and of varying width runnigwise of the said matrices, all substantially as and for the purpose set forth. 22nd. The combination with the type body mould, of the integral font two-way movable matrix-block, having the matrices on its face and the centring holes on its back, the transversely movable centring and clamping pin, and a pressure applying device applicable to said pin and co-operating therewith, to centre the matrix block and clamp the same to the type body mould in casting position, substantially as described. 23rd. The combination with the type body mould, having a type nick rib, of the integral font two-way movable matrix block having the matrices on its face and the centering surfaces on its back, the centering pin engageable with said surfaces, and a combined clamping and lifting device, for operating said pin to center the block and clamp the same in casting position, and for lifting the block away from the type after the cast, substantially as and for the purpose set forth. 24th. The combination, with a carriage, of a font of dies movable with and crosswise of said carriage, for the selection of the dies, and a bell-crank lever, having its elbow pivoted to said carriage and one of its arms connected to said font of dies, whereby both movements may be imparted to said font by a thrusting movement imparted to the other arm of said bell-crank, substantially as described. 25th. The combination, with a matrix block carriage, of an integral font matrix block mounted on and movable crosswise of said carriage, and having its matrices arranged in rows in two directions, for selection by said two-way movement of the block, a bell-crank lever having its elbow pivoted to said carriage with one of its arms connected to said block, an impelling spring and a cam-wheel, with a two-way cam surface operative on the other arm of said bell-crank to effect both movements of said block and restrict the spring to a timed action, substantially as described. 26th. The combination, with a type-body mould, having a throat plunger under tension to assume an extreme position, of a series of stops for variably intercepting the plunger to fix the mould throat for the different running widths of type body, substantially as described. 27th. The combination, with a type body mould having a throat plunger under tension to assume an extreme position, of a series of stops for variably intercepting said mould plunger, magnets for operating said stops and electric connections for said magnets, substantially as described. 28th. The combination, with the type body mould, having the throat plunger under tension of the two-way movable matrix block, under tension and having its matrices arranged as described, and three sets of intercepting stops for positioning said parts, two sets of which co-operate to intercept the block for the selection of the matrix, and the third set of which intercept said plunger to fix the running width of the mould throat, substantially as described. 29th. The combination, with the type body mould, having the throat plunger under tension, of the two-way movable matrix block, under tension, having the matrices arranged in rows in two directions, and also grouped into rows in one direction, according to running width of face, of the three sets of intercepting stops, two for positioning the matrix block, and the third for positioning the mould plunger, and common connections for controlling the row-selecting members of the matrix stops and the corresponding mould stops, substantially as described. 30th. The combination, with a variable type body mould, of a two-way movable font of matrices arranged in rows in two directions, and also arranged in rows of one direction, according to running width of face, two sets of electric devices for intercepting said block to select a matrix, and electric devices for varying said mould, connected up in series with the electric devices controlling the row selecting movements of said font, substantially as described. 31st. The combination, with the type body mould, having its throat plunger under tension, as described, of the two-way movable integral font matrix block with matrices arranged into rows in two directions and grouped according to running width of face, the two sets of stops for positioning the matrix block, the sets of stops for positioning the mould plunger, the representative controlling strip, magnets for operating said stops, and circuit connections for the same, including thrust-pins co-operating with said representative strip, substantially as described. 32nd. In a type casting machine, the combination with the relatively fixed type body mould section, of the shifting type body mould section, having the throat channel fitted with the plunger, under tension to assume its outermost position, stops for variably intercepting said plunger, and co-operating mould shifting and plunger thrusting devices, substantially as described. 33rd. The combination with the shifting section of the type body mould, of the movable casting nipple and the mould shifting devices provided with means for clamping said nipple against the mouth of the mould when the mould is thrown to casting position, substantially as described. 34th. The combination with the type body mould, of

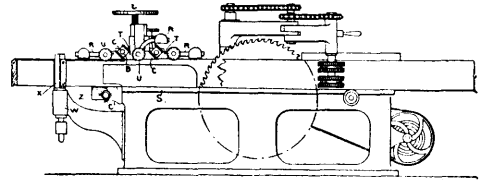
the integral font matrix block, having the matrices and the centreing surfaces arranged as described, the centering pin engageable with said surfaces to centre the block and clamp the same against the face of the mould, the casting nipple movable against the back of the mould, and pressure applying devices co-operating to clamp the said matrix block and said casting nipple to the mould, while the cast is being made, substantially as described. 35th. The type body mould, comprising a relatively fixed section and a two-part shifting section embracing a throat plunger, means for loosely holding the two parts of said shifting section and said plunger together, at all times, except when in the casting position, and means for tightly clamping the same together and to the fixed mould section when in the casting position, substantially as described. 36th. The combination with the mould, of the pivoted frame carrying the matrix block carriage and centreing pin, and the swivelled plunger co-operating with said parts and adapted to be thrown to one side to afford clearance for the same in their pivotal movements, substantially as described. 37th. The combination with a type body mould, of a casting pot and a casting nipple movable independently of the casting pot, for registration with the mould throat at the time of the cast, and separation therefrom immediately after the cast is made, substantially as described. 38th. The combination with the type body mould, of the casting nipple movable independently of the casting pot, normally under strain to move away from the mould, and cam controlled devices for moving said nipple into registration with said mould throat, at the time of the cast, and for releasing the same, to permit the nipple to move away from the mould, immediately after the cast is taken, substantially as described. 39th. The combination of the movable matrix block having the centreing surfaces, the centering pin engageable with said surfaces to centre the said block in casting position, the movable plunger, for applying pressure to said pin provided with a passage through which works the head of said pin and provided with a stiff spring, for applying the pressure from the plunger to said pin, with freedom for a yielding action when necessary, substantially as described. 40th. The combination with variable word spacing devices of operating connections for the same composed of main and branch members and a justifier adapted to be set to throw the proper branch or branches into operative relation with the main at the word spaces, for justifying the line, substantially as described. 41st. The combination with variable spacing devices, of motors for controlling the same, motive force conductors for said motors comprising main and branch members and a justifier adapted to be set to throw the proper branch or branches into operative relation with the proper main or mains, for justifying the line, substantially as described. 42nd. The combination with electrically controlled spacing devices, the circuit connections for the same composed of one or more main leads and a series of branch leads corresponding to the varieties of spacing, and a justifier adapted to be set to throw the proper branch leads into operative relation with the proper main leads, for rendering available the proper circuit connections to control the spacing devices so as to justify the line, substantially as described. 43rd. The combination with electrically controlled word spacing devices, of circuit connections for the same, composed of one or more main leads and one or more series of branch leads corresponding to the varieties of word spacing, and a justifier adapted to be set to throw the proper branch lead or leads into operative relation with the proper main lead or leads and having one element which travels for establishing the circuit connections through the set leads, at word spaces, in the proper succession, substantially as described. 44th. The combination with electrically controlled word spacing devices, of a justifier for controlling the same, comprising combination contact blocks one of which has a series of branch lead contacts, corresponding to the different amounts of word space, which blocks are capable of being set for any required combination of contacts, and a main lead contact having a travelling movement over the said contacts of said blocks, for establishing the proper circuit connections in the proper order, substantially as described. 45th. The combination with the representative strip r , of the type body mould, the matrix block movable in two directions, to bring its quad surface into casting position at word spaces, the combination contact block r^{11} with the series of branch lead contacts r^{14} , the two contact blocks r^{11} r^{12} with the contacts r^9 r^{10} , capable of being set as described, the main lead travelling contact r^3 , the escapement and escapement magnet for said travelling contact, and circuit connections to said escapement magnet, under the control of said strip, for operating said escapement and travelling contact, substantially as described. 46th. The combination with variable spacing devices, of main and branch operating connections for the same, a justifier for establishing the proper operative relation between said connections, comprising elements certain of which are movable to permit the said elements to be properly set relative to each other, and a series of stops for variably intercepting said movable element or elements to properly set the same, substantially as described. 47th. The combination with variable spacing devices, of main and branch operating connections for the same, a justifier for establishing the proper operative relation between said connections, comprising elements certain of which are movable and subject to springs, for permitting the justifier elements to properly set relative to each other, a setting device for throwing said movable element or elements to initial position, a series of stops for variably intercepting said movable element or elements to properly set the same, and an escape-

ment for rendering said set elements active at word spaces, substantially as described. 48th. The combination with variable spacing devices, of main and branch operating connections for the same, a justifier, for establishing the proper operative relation between said connections, comprising elements certain of which are movable to permit the justifier elements to be properly set relative to each other, a series of magnet controlled stops for variably intercepting said movable element or elements to properly set the same, a representative controlling strip, and circuit connections for said stop magnets controlled by said strip to set said justifier, substantially as described. 49th. The combination with the justifier combination contact members, requiring to be set relative to each other, for rendering available the proper combinations, of springs applied to such of the same as require to be intercepted, magnet controlled stops for intercepting said parts, to properly set the same, a power actuated device for throwing said parts to initial position and putting the same under tension from said springs, a magnet controlling said setting device, a representative strip containing setting holes and circuit connections for said magnets, controlled by said strip, for setting the justifier, substantially as described. 50th. The combination with the representative controlling strip, of the two-way movable matrix block, the type body mould with its throat plunger under tension, the two sets of stops for positioning said matrix block, the set of stops for positioning the mould plunger, magnets for operating said stops, a justifier comprising elements adapted to be set to render the proper connections to said mould magnets available, and a magnet controlled escapement, for rendering said connections active, at word spaces, and circuit connections for all of said magnets operative under the control of said strip, substantially as and for the purpose set forth. 51st. In a type casting and setting machine, the combination with the two-way movable matrix block and a type body mould having a throat plunger, under tension, of two sets of stops, for positioning said matrix block, a set of stops for positioning said mould plunger, a justifier for controlling said mould plunger at word spaces, stops for setting said justifier, magnets for controlling all of the said sets of stops, a representative controlling strip having working holes and justifier setting holes, circuit connections for co-operation with said strip and magnets, including two sets of branches, one for the working and the other for the setting circuit, and a two-way switch, for converting the working into the setting circuit or *vice versa*, substantially as described, whereby the same thrust pins and positions on *b* the strip are made to answer for controlling both the working and the setting circuit, substantially as described. 52nd. The combination with mechanism, for the production of printing surfaces, of a representative strip and cooperating connections for controlling said mechanism including two or more branch sets of connections, for controlling parts doing different kinds of work, and an automatic switch, also controlled by the strip, for throwing said branch sets of connections into action, in the proper order, substantially as described. 53rd. The combination with the representative strip *c*, having the working circuit holes, setting circuit holes and trip circuit holes, as described, of the working circuit connections, setting circuit connections and trip or switch circuit connections, for co-operation therewith, as described, and the two way switch, controlled by said trip circuit to convert the working into the setting circuit, substantially as and for the purposes set forth. 54th. The combination, with a type-body mould, having a delivery channel for the cast and ejected type, of an abutment plunger, under tension, and working in the said channel, for holding the said type on their feet, substantially as described. 55th. The combination, with a type-body mould, of a delivery channel, for receiving the ejected type, provided with a lock rib in one of its walls, for engaging behind the ejected type when tapped down in the channel, and an abutment plunger seated in said channel and under tension, to assume an innermost position, for holding the said type on their feet against the said lock rib, substantially as described. 56th. The combination, with the type-body mould, of a delivery channel, for receiving the ejected type and a line delivery service, comprising a movable slide, seated in the side of said channel, and provided with a spring-catch at its inner end, which is normally clear from the type, and a fixed cam-surface, for co-operation with said catch, when the slide is moved, to force the catch into engagement with the rear surface of the innermost type, substantially as and for the purpose set forth. 57th. The combination, with the type-body mould having a delivery channel, provided with a lock-rib of an abutment plunger seated in said channel and under tension, to assume an innermost position against the outermost type, for holding the type at their feet, and a line delivery device, comprising a slide working in a seat opening from the side of said channel, and provided on its inner end with a spring-catch which normally stands clear from the type, and a cam-surface in the wall of said channel, for co-operation with said catch, when the said slide is moved outward, to force the catch into engagement with the back surface of the innermost type, substantially as described. 58th. A machine organized for casting and setting type, comprising a constantly running shaft, cams, &c., for the application of power, the variable type-body mould, the two-way movable matrix block, the sets of stops and stop-magnets, for positioning the mould-plunger and matrix-block, the representative controlling strip, electric connections for said magnets, under the control of said strip, the melting pot located remote from said mould, and the electrically heated tube, for conducting the metal from said melting pot to said mould, substantially as described. 59th. The machine organized for casting and setting

type into justified lines, comprising a constantly running shaft, cams, &c., for the application of power, the variable type-body mould, the two-way movable matrix-block, the justifier, the sets of stops and stop-magnets, for positioning the mould-plunger, matrix-block and the parts of said justifier, the escapement controlled contact and magnet, for rendering the justifier active at word spaces, the melting pot located remote from said mould, the electrically heated tube, for conducting the metal from said melting pot to said mould, the representative controlling strip, and the electric connections for all of the said magnets, under the control of said strip, all arranged and operating, substantially as and for the purposes set forth. 60th. A machine organized for casting and setting type, comprising a constantly running shaft, cams, &c., for the application of power, the variable type-body mould, the two-way movable matrix-block, the sets of stops and stop magnets, for positioning the mould-plunger and the matrix-block, the representative controlling strip, the electric connections for said magnets, under the control of said strip, and a melting pot, for supplying metal to said mould, substantially as described. 61st. A machine organized for casting and setting type into justified lines, comprising a constantly running shaft, cams, &c., for the application of power, the variable type-body mould, the two-way movable matrix-block, the justifier, the several sets of stops and stop magnets for positioning the mould plunger, matrix-block, and the parts of said justifier, the escapement magnet, for rendering the justifier active at word spaces, the two-way switch and its trip magnet, the representative controlling strip, the electric connections for all of said magnets, under the control of said strip, arranged into the working, setting and trip circuits, as described, and a melting pot, for supplying metal to said mould, substantially as described. 62nd. In the type casting and setting machine, substantially as described, the combination with the representative controlling strip and the several sets of circuit connections controlled thereby, distinguished as the working circuit, setting circuit, &c., of the spring and the constantly running rotary cam, for operating the pump plunger, a pump-latch or lock normally in position to render the pump plunger inactive, and an electric trip, for said latch, located in said working circuit only, substantially as described, whereby the pump cannot act except when a cast is required.

No. 52,196. Wood Working Machine.

(Machine à travailler le bois.)

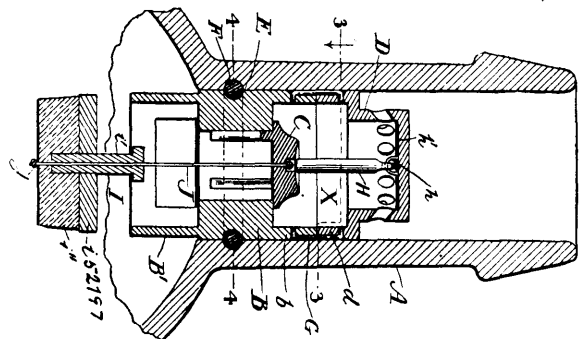


52196

William Tickle, Liverpool, England. 7th May, 1896; 6 years. (Filed 28th November, 1895.)

Claim.—1st. In a saw frame or bench providing in combination therewith a series of cutters at the back of the saw or of the saw teeth, whereby boards are not merely sawn from the timber but can be either on top or bottom or both tongued, grooved, moulded, planed, rabbeted, or the burred or frayed edges smoothed off in one operation, substantially as described. 2nd. The combination with a saw frame, a cutter arranged at one side or both sides of the board or plank being cut, whereby at the same time that the boards are being sawn, they can be planed or moulded as desired. 3rd. In combination with a saw bench, one or more cutters C, C', and a side cutter X, substantially as described. 4th. In combination with a saw bench, the cutters C and weighted rollers U, substantially as and for the purpose described.

No. 52,197 Bottle Stopper. (Bouchon de bouteille.)

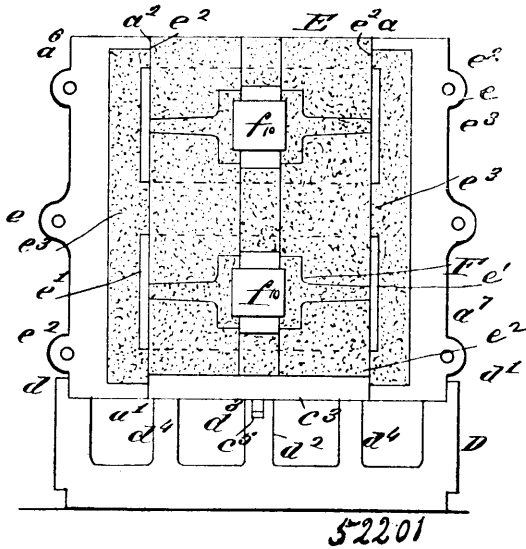


Frank J. Robinson, Chicago, Illinois, U. S. A., 7th May, 1896; 6 years. (Filed 23rd November, 1895.)

Claim.—1st. The combination of a bottle having within its neck a circumferential groove, and a stopper having a corresponding

extending through the core. 2nd. A nozzle having a bell-shaped mouth and a movable core in the mouth, forming an annular pressure controlled spraying orifice between said mouth and core, and a jet orifice extending through the core, and valvular means for directing the stream independently through said spraying orifice or through said jet orifice. 3rd. A nozzle having a bell-shaped mouth and a conic core revolvable on a fixed longitudinal axis of the nozzle, forming an annular spraying orifice between said mouth and core, said core having spiral grooves in its surface, substantially as and for the purpose described. 4th. In a nozzle, the combination of a suitable body, a bell-shaped mouth on said body, a movable core in the mouth forming an annular pressure controlled spraying orifice between said mouth and core, a longitudinal passage in the body communicating with said annular spraying orifice, a central jet orifice opening through the said core and having an independent longitudinal passage through the said body, an opening in said body adapted for connection to a suitable source of supply, and a valve adapted to connect said source of supply opening with either of said independent longitudinal passages, or to cut off both. 5th. The combination of a tubular outer spraying nozzle having a bell-shaped mouth, a tubular inner jet nozzle concentric with said outer nozzle, and a spraying core in said mouth supported by said inner nozzle, substantially as described. 6th. A rotary plug valve having a stem and opposed cone bearings of less diameter than the valve, one of which bearings consist of a tapering bearing shoulder around the stem, and a longitudinally adjustable bearing sleeve having a correspondingly tapered bearing surface surrounding the stem. 7th. A rotary plug valve having a stem, a conic bearing shoulder around the stem, a sleeve nut surrounding the stem and having a correspondingly conic bearing face serving both as a centre device and a packing gland, and an opposed cone bearing suitably located in the axis of the plug. 8th. In combination, a nozzle having a bell-shaped mouth, a movable core forming in the mouth an annular pressure controlled spraying orifice, an independent jet orifice extending through the core, and a spring adapted to press the core inward toward the said mouth for the purpose described.

No. 52,201. Manufacture of Cast Metal Wheels, etc. (Fabrication de roue en métal fondu.)

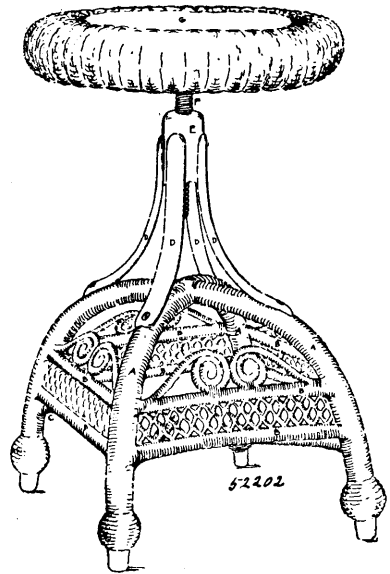


Abner D. Thomas, assignee of Daniel M. Springer, both of Little Rock, Arkansas, U.S.A., 7th May, 1896; 6 years. (Filed 23rd December, 1895.)

Claim.—1st. In an apparatus for making pulleys, wheels and other cast-circular articles, the combination of the flask-parts and the core-box, said parts and box jointly have concentric portions, whose centre coincides with that of the casting made therein. 2nd. The herein described flask-part having the curved flanges a, a' , and the sand receptacle a^3 , substantially as described. 3rd. The combination of the flask-parts each having the curved flanges a, a' , the receptacle a^3 , and the flanges a^2, a^1 , substantially as described. 4th. The combination of the flask-parts having the curved flanges, and the core-box, said core-box having the curved inner-face, substantially as described. 5th. The combination of the flask-parts and the base-plate, said base-plate having the guide flanges, substantially as described. 6th. The combination of the base-plate, flanged at its sides and grooved centrally, with the flask-parts and the plates c^2 , substantially as described. 7th. The combination of the base plate grooved centrally as described and the plates c^3 , substantially as described. 8th. The combination of the core-box shell, the bottom plate and the plate c^2 having the print, said parts being separate from each other, substantially as described. 9th. In combination

with the flask-part having the curved flanges a, a' , the roller F , substantially as described. 10th. In the herein described apparatus, for making pulleys, wheels, and other cast-circular articles, the core-box having the centrally-arranged prints, as set forth. 11th. The combination of the flask-part having the curved flanges and the sand receptacle and the roller having a band or bands loose thereon, substantially as described. 12th. The herein described mode of manufacturing pulleys, wheels and other cast-circular articles, the same consisting in forming the mould for the outer face of the rim of the pulley, etc., in an outer flask, and the inner-portion of said rim and pulley, etc., in a core, and then arranging said outer flask and said inner core concentrically and then casting the same. 13th. The combination of the flask portion of the mould and the core-portion of the mould, said portions being arranged concentrically, and inclosing between them the chamber for forming the rim-portion of the pulley, etc., substantially as described. 14th. The herein described process of forming a cavity in which to cast the rim of a circular article, in a sand mould, by means of a roller, substantially as described. 15th. The herein described apparatus for making moulds for pulleys and other cast-circular articles, consisting in combination of the outer flask-parts, the inner flask-part, the support for the central mould sections, and the base-plate, said flask-parts and support being adapted to be assembled concentrically upon the base-plate. 16th. The combination of the base-plate flanged at its sides and grooved centrally with the outer flask-parts and the support for the central portion of the mould provided with a lug.

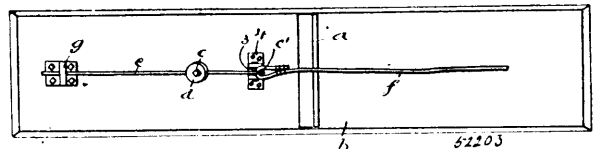
No. 52,202. Piano Stool. (Tabouret de piano.)



Herbert Martin, Toronto, Ontario, Canada, 7th May, 1896; 6 years. (Filed 3rd February, 1896.)

Claim.—1st. The combined bent wood arched base covered with cane joined by wood covered with cane as aforesaid and secured by braces, substantially as described. 2nd. The lower casting with four legs made to rest on the arches of the base, substantially as described.

No. 52,203. Strength Testing Apparatus. (Appareil pour faire l'épreuve de la force.)

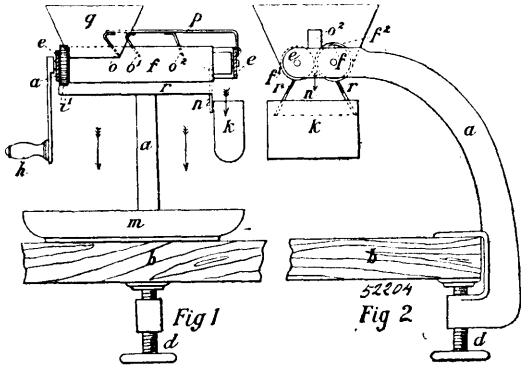


John Currie, Montreal, Quebec, Canada, 7th May, 1896; 6 years. (Filed 13th January, 1896.)

Claim.—1st. A strength testing apparatus comprising a suitable base, a cleat or foot rest, a yielding resistance such as the weighted lever, and a pulling rope connected with same, for the purpose set forth. 2nd. A strength testing apparatus comprising a suitable base, a cleat or foot rest, a variable yielding resistance such as the lever with adjustable weight, and a pulling rope connected with the yielding resistance, for the purpose set forth. 3rd. A strength testing apparatus comprising a suitable base, a cleat or foot rest, a double-armed lever, having a short arm fulcrumed to the base and a long arm extending horizontally, an adjustable weight carried by the long arm, and a pulling rope connected with the short arm, for

the purpose set forth. 4th. A strength testing apparatus comprising a suitable base, a cleat or foot rest, a double-armed lever having a short arm fulcrumed to the base and a long arm extending horizontally and marked with a suitable scale, an adjustable weight carried by the long arm, a pulling rope connected with the short arm, and a guide stop secured to the base and straddling the long arm, for the purpose set forth.

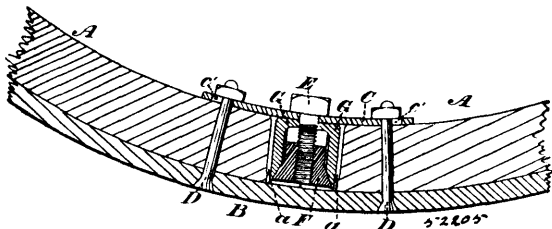
No. 52,204. Raisin Seeding Machine.
(Machine à égrener le raisin.)



Charles Bristow, City of Wellington, New Zealand, 7th May, 1896; 6 years. (Filed 23rd January, 1896.)

Claim.—1st. In a raisin seeding machine the rollers f , and f' , having a spiral f^2 , for the purpose of squeezing the seeds from the raisins, depositing the raisins in a receptacle m , and the seeds in receptacle k , substantially as set forth. 2nd. In a raisin seeding machine the rollers f , and f' , having toothed wheels i , and i' , and a handle h , for revolving the same. 3rd. In a raisin seeding machine the rollers f , and f' , combined with spring teeth such as o , substantially as set forth. 4th. In a raisin seeding machine, the frame a , carrying rollers f , and f' , wheels i , and i' , handle h , hopper g , and receptacle k , substantially as set forth. 5th. In a raisin seeding machine the frame a , carrying rollers f , and f' , one or both of which are fitted with spirals such as f^2 , driven by wheels i , and i' , and handle h , and having scrapers and any number of spring teeth or brushes such as o , substantially as set forth.

No. 52,205. Vehicle Wheel and Device for Expanding the Fellys. (Roue de voiture et appareil à élargir les jantes.)

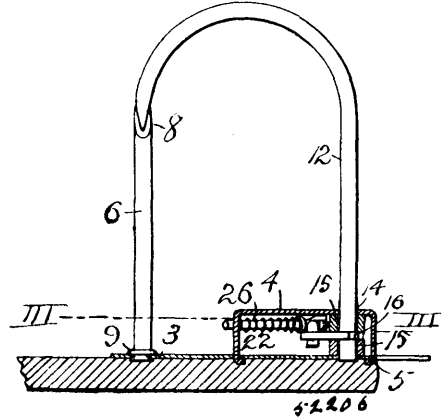


Alphonse Charbonneau, assignee of Charles Hoffman, both of Spokane, Washington, U.S.A., 7th May, 1896; 6 years. (Filed 3rd January, 1896.)

Claim.—1st. In a felly expander, the combination, with the felly, of a pair of divergently angled plates mounted between the felly ends, a wedge-block placed between the inclined faces of the said plates, a screw engaging medially or directly with said wedge block, and a bearing for the head of said screw, whereby the plates may be spread or contracted without changing the longitudinal position of the screw, as described. 2nd. In a felly expander, the combination, with the felly, of a pair of divergently angled plates abutting on the ends of the felly, a doubly angled block mounted between them, a screw engaging with said block medially or directly, and a clip adapted to cover the gap in the felly and serve as a washer for the head of the screw. 3rd. In a felly expander, the combination, with the felly, of a pair of divergently angled plates abutting on the ends of the felly correspondingly angled wedge block mounted between them, and having a hole through it to receive loosely a bolt or screw, and a seat in the large end for a nut, a bolt having a bearing for its head and a nut seated in the larger end of said wedge block, substantially as and for the purpose set forth. 4th. In a felly expander, the combination, with the felly, of the plates G , G , having lateral flanges G^1 , G^1 , G^1 , G^1 , with angled faces between them, the wedge block F , having flanges F^1 , F^1 , forming a seat for a nut, the bolt E , and the nut E^1 , substantially as and for the purpose set forth. 5th. In a felly expander, the combination of the felly and inclined plates, abutting thereon, provided with a groove across the abutting face, pins lying partly in said groove, and partly imbedded in the ends of the felly, and means, substantially as described, for spreading said

plates to expand the felly. 6th. In a felly expander, the combination of the felly A , the clip C , adapted to close the gap between the ends of the felly, and having slotted holes for bolts D , D , the bolts D , D , the inclined plates G , G , the interposed wedge block F , the nut E^1 , seated at the larger end thereof, and the bolt or screw E substantially as and for the purpose set forth.

No. 52,206. Letter File. (Serre-papier.)

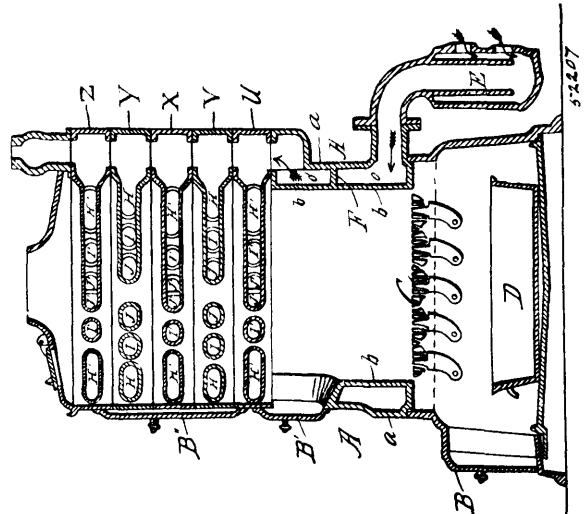


William Otterbein Gottwals, Ottawa, Ontario, Canada, assignee of Frederick L. Ellis, Milldale, Connecticut, U.S.A., 7th May, 1896; 6 years. (Filed 25th March, 1895.)

Claim.—1st. In a letter or bill file provided with paper holding arches, the combination with the movable arch-members of connections whereby they are maintained in parallelism during their oscillation, and a spring actuated controlling device connected with the arches and shifted therewith to opposite sides of its line of greatest resistance for holding said members in either their open or closed position, substantially as set forth. 2nd. The combination of the movable arch-members, connections whereby they are maintained in parallelism, and a controlling device adapted to be shifted in position by the said connections whereby its direction of operation is changed and said arch-members held in either their open or closed position, substantially as set forth. 3rd. The combination of the movable arch-members, crank arms on the same extending parallel and in the same direction, a connecting rod between said arms, and a controlling spring connected with said rod, substantially as set forth. 4th. The combination of the movable arch-members, crank arms and a rod connecting said members, and a spring actuated thrust device connected with said rod, substantially as set forth. 5th. The combination of the movable arch-members, cranks and a rod connecting the same, said rod being formed with a bend or recess, and a spring actuated thrust device engaging said recess and adapted to be changed in direction by the movement of the rod, substantially as set forth. 6th. The combination with the movable arch-members, their connecting rod, and the spring, of the thrust pin formed with a collar and bifurcated end, substantially as set forth.

No. 52,207. Hot Water Furnace.

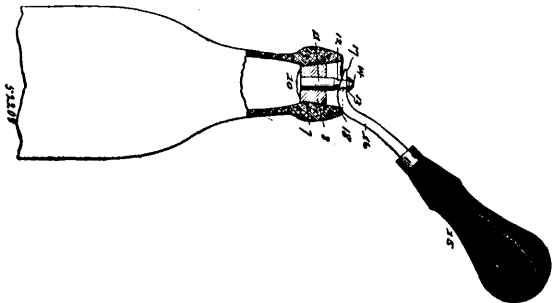
(Fournaise à eau chaude.)



E. A. Manny & Co. assignee of E. A. Manny, all of Beauharnois (Quebec, Canada, 7th May, 1896; 6 years. (Déposé le 18 février 1896.)

Résumé—Une section de fournaise formée de deux cylindres creux *k l*, communiquant avec des compartiments circulaires *h, i, j* ayant en coupe la forme elliptique et munis de projections *i et h* formant supports, chacun de ces compartiments venant aboutir à un espace commun divisé en deux par une cloison verticale *f* allant du centre de la dite section vers sa circonférence.

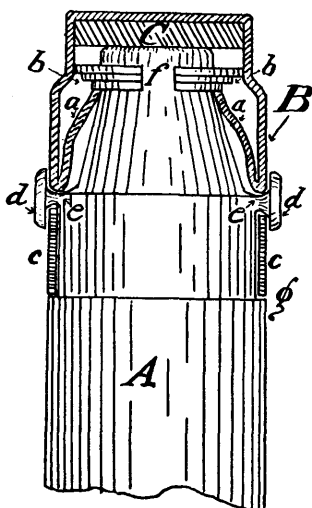
No. 52,208. Bottle Stopper. (Bouchon de bouteille.)



Clifton Hadley Davis, Chicago, Illinois, U.S.A., 7th May, 1896; 6 years. (Filed 5th February, 1896.)

Claim.—1st. A bottle stopper having a body composed of substantially pure, soft or compressible rubber of slightly conical form tapering downwardly with a central aperture and a lifting pin passing through such aperture and having a disc or enlargement on its lower end to prevent its separation upwardly and having its extremity projected above the upper surface of the stopper and provided with a head whereby it may be withdrawn, substantially as described. 2nd. A bottle stopper having a body portion composed of substantially pure homogeneous soft rubber of tapering form, its height being slightly less than its shortest diameter, combined with a lifting pin passing through a central aperture in said stopper and provided with an enlargement at its lower end and with a head at its upper end, substantially as described. The combination with a bottle having in its neck a contracted portion or choke, of a stopper therefor, said stopper comprising a substantially pure soft rubber body having a central opening and a lifting pin passing through said opening and having a disc to prevent its withdrawal therefrom and a head to facilitate the removal of the stopper and the body of the stopper being less in height than the distance from the mouth of the bottle neck to the contracted portion whereby the stopper may be inserted so that its lower end shall pass below the contracted portion while the pin projects into the plane of the mouth in a position convenient for withdrawal, substantially as described. 4th. A bottle stopper comprising a soft rubber body and having a central vertical aperture, and a lifting pin of greater length than said aperture and adapted to be inserted therethrough from the bottom upwardly, said pin having a disc or enlargement upon its lower end and a groove in its extended portion whereby to provide a head having a peripheral bearing flange or shoulder of a diameter not exceeding that of the body of the pin, substantially as described.

No. 52,209. Bottle Stopper. (Bouchon de bouteille.)

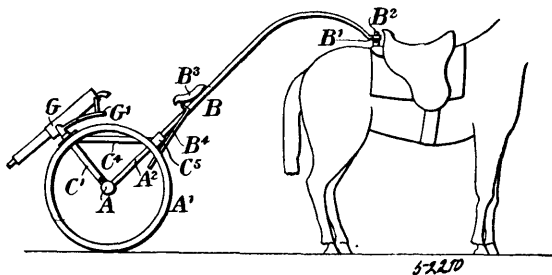


52209

Chauncey Cicero Brown, Marquette, Michican, U.S.A., 7th May, 1896; 6 years. (Filed 20th February, 1896.)

Claim.—1st. In a bottle-neck, cap and automatic sealer; the combination with cylindrical vessel A provided with shoulder *g*, necks *e, e*, and knobs *d, d*, and shoulders *b, b*, with recesses *f, f*, substantially as shown and described. 2nd. In a bottle-neck, cap and automatic sealer; the combination with cylindrical cover B, provided with slits *c, c*, and springs *a, a*, all substantially as shown and described. 3rd. In a bottle-neck, cap and automatic sealer; the combination with cylindrical vessel A, provided with shoulder *g*, necks *e, e*, and knobs *d, d*, and shoulders *b, b*, with recesses *f, f*, in connection with cylindrical vessel cover B, provided with slits *c, c*, and springs *a, a*, in connection with pad C, all substantially as shown and described.

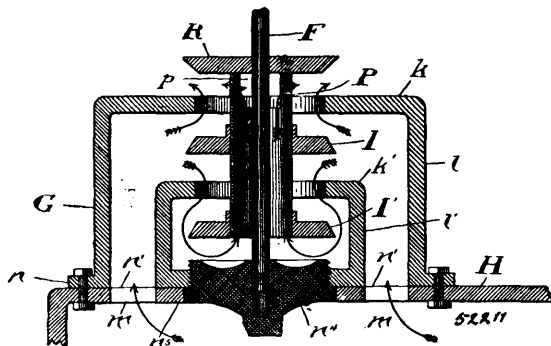
No. 52,210. Gun Carriage. (Châssis de canon.)



The Right Honourable Douglas Mackinnon Bailie Hamilton Cochrane, Earl of Dundonald, 34 Portland Square, London, England, 7th May, 1896; 6 years. (Filed 22nd February, 1896.)

Claim.—1st. A carriage for a quick-firing gun consisting of a pyramidal framing attached to the axle of a pair of road wheels, and to a vertically curved pole having its front end adapted to be attached to a saddle on a horse or other draught animal substantially as described. 2nd. In constructing the pyramidal framing the combination of the axle A, the diagonal stays *A², A³*, rigidly attached to the axle, the diagonal stays *C¹, C²*, hinged to the axle, and the double tube *C³, C⁴*, adapted to slide through the eye *C⁵*, substantially as described. 3rd. For laterally levelling and training the gun and adjusting its elevation the combination of the arm L, its guide *L¹* and clamp *L²*, the axis *H³*, disc frame H and frame *G¹*, screwed stem *G²*, and hand wheel *G³*, substantially as described. 4th. In combination with the disc frame H, the ring *H¹* and its two pairs *K, K¹*, of arms adapted to carry ammunition boxes *K², K³*, substantially as and for the purpose set forth. 5th. For shielding the gunner, the combination of the plate 5, attached to the frame, the plated ammunition boxes *K², K³*, hung on the arms *K, K¹*, and the plated ammunition boxes *A⁴* hung on the axle, substantially as described. 6th. The traction arrangement, consisting of the vertically curved pole attached to the framing, the saddle on the draught animal and means of engaging the pole thereto substantially as described. 7th. For seating the gunner and supporting the pole when the gun is served, the combination of the spring carried saddle *B*, and arms *B⁴*, substantially as described.

No. 52,211. Gas Controller. (Contrôleur de gaz.)

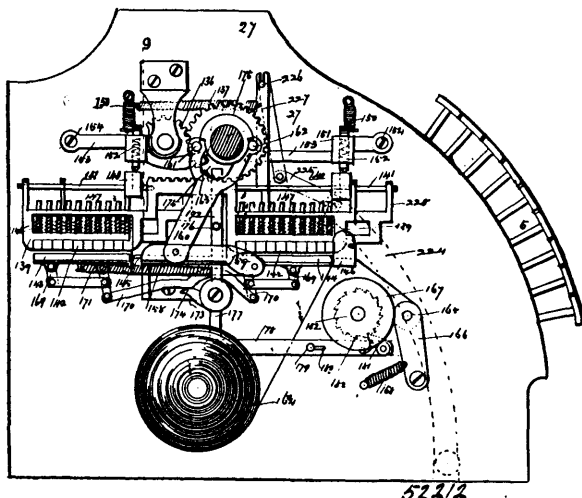


Ernest Brownhill, New York, State of New York, U.S.A., 7th May, 1896; 6 years. (Filed 16th February, 1896.)

Claim.—1st. In a gas-controlling device, the combination with the shell A, having inlet and outlet ports and a partition H, provided with apertures *m, m*, of the valve box G, presenting the closed passages *l, l*, communicating with the apertures *m, m*, said valve box having an inner chamber and central perforations in the top of the valve box and inner chamber constituting valve seats, and affording the sole means of communication between the inlet and outlet ports, the valve stem F, the tube P, having slots *p*, cut therein, the valves *I, I¹*, attached to said tube and adapted to seat in the valve seats respectively, and a float C, supported on said stem and receiving the pressure of gas after it emerges from the valve box and the cut-off valve R, substantially as described. 2nd. In a gas-controlling de-

vice, the combination, with the shell A, partition H, having the ports *m*, and central opening *n*⁶, and plug *n*⁴, recessed, as described, of the valve box G, having passages *l*, and inner chamber *g*, with a screw-threaded opening to receive the plug *n*⁴, central aperture in the top of the valve box G, and inner chamber *g*, affording valve seats, a float C, annular mercury cup B, valve stem F, supported at its lower end in the plug *n*⁴, the tube P, having slots *p*, cut therein and attached to the said stem, the valves I, I', attached to said tube, adapted to seat in the valve seats respectively, and the cut-off valve R, the parts being arranged substantially as described and for the purpose specified.

No. 52,212. Cash Register. (Registre de monnaie.)



David MacLaren, assignee of John Sharp and Jose Alexander Banfield, both of Ottawa, Ontario, Canada, 7th May, 1896; 6 years. (Filed 17th February, 1896.)

Claim.—1st. In a combined cash indicator, register and recorder, a series of banks of operating keys, a rock lever for each bank of keys and adapted to be operated by each of the several keys in a bank, rotary registering mechanism and capable of registering from the unit of the lowest value upward indefinitely to higher values, a recording mechanism comprising settable printing devices, a main rotary shaft and gearing interposed between the rock levers which are operated by the keys and the said registering mechanism, deriving ultimate motion for the operation of the registers from the rotation of the said main shaft, an indicator mechanism deriving a primary motion from the first movement of the rock lever and an ultimate motion, to expose the indicator, from the rotation of the main shaft, a train of mechanism interposed between the printing mechanism and the main shaft, and deriving motion from the latter, and serving to select the printing mechanism in accordance with the keys depressed in the several banks, and to impress the thus selected printing mechanism upon a suitable band, strip or ribbon, the ultimate movements of the registering mechanism, the indicators and the recording mechanism being effected essentially simultaneously and by the same single rotation of the main shaft, substantially as described. 2nd. In a combined cash register, indicator and recorder, a registering mechanism capable of registering from the unit of the lowest value upward indefinitely to the highest values, an indicator mechanism for exhibiting the value registered and a recording mechanism capable of permanently inscribing the individual transactions indicated, combined with a prime mover which includes a bank of keys or other selective mechanism, and a movable device such as a rock lever, acted upon by the individual selecting devices, a main shaft, and means to rotate it, and a series of movement-transmitting mediums interposed between the prime mover, the main shaft and the registering indicating and recording mechanisms, which are preliminarily set by the prime mover, and are thereafter and simultaneously given an ultimate movement which effects the movement of the three sets of mechanisms by the rotation of the main shaft, substantially as described. 3rd. The combination with a bank of depressible keys having key rods provided with laterally projecting pins, a rock lever arranged in the path of movement of the said pins, a toothed segmental lever with which the said rock lever is connected, a registering mechanism comprising rotary digit wheels and pinions connected therewith, and idler pinion for each wheel interposed between the respective pinions and segmental toothed levers, a slide upon which the segmental toothed lever is carried a main shaft and means upon said shaft to raise said lever into engagement with the idler pinions, and a rocking mechanism for such segmental lever actuated by the rotation of the said main shaft to move said segmental lever and thereby rotate the idler pinions, substantially as described. 4th. A bank of depressible keys having key rods provided with laterally projecting pins, means for transmitting the motion of the depressed keys to a distant part, such as a rock lever, a slide carrying a locking tooth, a main shaft,

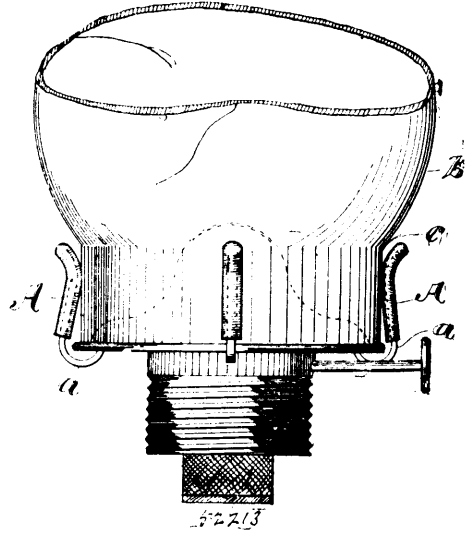
means interposed between the main shaft and the slide for placing the locking tooth in position, a series of indicator tablets, and tablet selecting devices actuated by the slide actuating mechanism and simultaneously with the movement of the slide, and means actuated by the main shaft to raise the indicator selecting device and the indicator tablet to expose the latter to view, substantially as described. 5th. A series of indicator tablets, a settable selecting device, a slide upon which it is mounted, a second slide with which the first named slide is yieldingly connected and having a locking tooth to engage the selecting device and hold it in given position, a main shaft, a cam on said main shaft, acting upon the second slide to disconnect its locking tooth from the selecting device, and adapted upon the further rotation of the said main shaft to release the second slide and thereby permit the engagement of its locking tooth with the selecting device after the said selecting device has been placed in position for use, and thereafter to raise both slides together with the selecting device and elevate the indicator tablet into view, substantially as described. 6th. The combination of a prime mover, a secondary mover such as a rotary shaft, a registering mechanism and an indicating mechanism, a toothed segment interposed between the prime mover and the registering mechanism, a slide upon which the toothed segment is mounted, a main shaft embraced by said slide, a cam on the main shaft co-operating periodically with said slide to lift it in order to bring the toothed segment into mesh with the registering mechanism, a vibrating three-armed lever pivoted to the slide with one of its arms connected to the toothed segment, another of its arms extending into the path of movement of an indicator selecting device and its third arm arranged in the path of movement of a cam on the main shaft, the said selecting device, a locking tooth for said selecting device operated to lock the said selecting device in the position to which it was moved by the three-armed lever, and a cam on the main shaft to elevate said selecting device to expose the selected indicator to view, substantially as described. 7th. In a cash indicator, the combination with the indicator tablets and means to move them into position and to release them, of a locking mechanism comprising a locking slide provided with a spring for normally projecting the same into engagement with the said tablets and a releasing device for said locking slide, substantially as described. 8th. In a cash indicator, a series of tablets arranged in pairs in a supporting frame, guides in said supporting frame to receive and space said tablets, the said tablets having one edge provided with a pair of notches, parallel locking slides arranged upon the said supporting frame and normally engaging one or the other of the notches in the tablets, and means to release the said tablets from the engagement of the said locking slides, substantially as described. 9th. In a cash register, a series of rotary registering wheels each capable of independent movement and all of successive or progressive movement so as to carry from one representing a low value to another representing a higher value combined with a prime mover, a rotary shaft serving as an ultimate mover and a carrying mechanism for the wheels, comprising a ratchet connected with the wheels, a pawl for such ratchet, a pawl carrier, a tripping device co-operating with such pawl carrier, means to actuate such tripping device as its appropriate wheel completes a revolution and a cam on the main shaft to restore the tripping pawl carrier to normal and thereby actuate the registering wheel of next higher value, substantially as described. 10th. In a cash register, a series of rotary registering wheels successively representing units of increasing values and connected to turn progressively, combined with a prime mover, a secondary and ultimate mover including a rotary main shaft, pinions connected with the registering wheels and periodically active gearing interposed between the main shaft and the pinions of the registering wheels, and including idler pinions an auxiliary tooth or lug on the idler pinions, and a carrying mechanism comprising a pawl carrier, a pawl thereon, a tripping lever pivoted to the pawl carrier and having its nose extended into the path of movement of the auxiliary tooth or lug on the idler pinion to be engaged thereby at each complete revolution of such idler pinion, and means to restore the pawl carrier to normal, substantially as described. 11th. In a cash register, the combination of a series of rotary registering devices, and means to rotate them, of a carrying device, consisting of a pawl carrier, a spring pawl thereon which is normally in engagement with the registering mechanism, a tripping device co-operating with the said pawl carrier to effect, periodically a change of engagement of the pawl with the registering mechanism, means to actuate the device to this end, and means to restore the pawl carrier to normal, and thereby cause it to actuate the registering device, substantially as described. 12th. The combination with series of depressible keys of a pivoted detent for the said depressed keys, and a releasing device for the said detent actuated by any suitable mechanism, such for instance, as a cam upon a main shaft, substantially as described. 13th. In an apparatus of the class described having a series of banks of depressible keys and a prime mover connected therewith of a series of type frames, and types in said frames representing the keys and other arbitrary marks, an ultimate mover, and means interposed between it and the said frame to impart to all of said frames simultaneously a primary movement to bring into printing position such arbitrary marks, which may be the dollar sign and the zeros, and other means actuated by the rotation of the shaft to advance the frames so as to present in printing position the types corresponding with the keys depressed, and other

means also actuated by the rotation of the said shaft to cause the type so set to be impressed, substantially as described. 14th. In an apparatus of the class described, having a series of banks of depressible keys, a prime mover, a main shaft and a recording apparatus deriving motion from the main shaft under the control of the keys depressed and comprising a fugitive record slip and a permanent record slip and suitable means to advance them then after the making of each successive record, and a printing mechanism for recording the transactions and any other facts in connection therewith, and including a series of duplicate type frames each containing a duplicate set of types, means to impart an initial movement to all of said type frames simultaneously, and means, deriving motion from the main shaft for setting the type frames in accordance with the keys depressed, and means to impress the types so set upon the respective record medium, substantially as described. 15th. In a machine of the class described a series of banks of keys, and a recording mechanism controlled by the operation of the said keys, the recording mechanism comprising a series of type frames containing types, and one of the banks of keys containing two sets of keys, between which and the series of type frames is interposed a double or two-fold selecting mechanism either or both portions of which double or two-fold selecting mechanism may be operated at any given time for the purpose of selecting and assigning to position the type frames containing the type which it is desired to impress, substantially as described. 16th. In a machine of the class described, a recording apparatus comprising a series of type frames each comprising a skeleton frame adapted to be moved longitudinally to present a selected type in position for printing, and a series of type arranged individually in said frame and capable of individual movement, and a plunger for depressing the selected type to make an impression, the said plunger comprising a head, and an active portion such head and active portion having an interposed yielding member or cushion, substantially as described. 17th. In a machine of the class described, a recording mechanism comprising a series of type frames containing type, a toothed rack for each frame, a main shaft, pinions on the said main shaft in mesh with the respective toothed racks of the type frames, means to rotate the said pinions to effect a selection of the type frames and the type in said frames, a platen and a plunger also operated from the said main shaft to depress the selected type to cause the same to print upon the subjacent surface, substantially as described. 18th. In a machine of the class described, a recording apparatus comprising a type frame, containing suitable type, a series of depressible keys, a lever actuated by said keys, and a connection between said lever and the said type frame whereby the type frame is put in position for use in printing from one or more of its type, substantially as described. 19th. In a machine of the class described, a permanent record strip fed from a roll to a receiver upon which the record as made is stored and an intermittently rotated motor roll for rotating the storing roll, substantially as described. 20th. In a machine of the class described, containing a printing mechanism of substantially the character described, by which a continuous slip may be printed in sections which are successively fed beyond the printing mechanism, combined with the shears arranged just beyond the printing mechanism and comprising a fixed blade and a pivoted blade, and a connection between said pivoted blade and a source of power, whereby the said pivoted blade is caused to rise and descend at predetermined intervals and sever the printed card or ticket or check from the slip, substantially as described. 21st. In a machine of the class described, a recording mechanism comprising a feeding device which includes an intermittently rotating printing cylinder adapted to print upon the back of the slip, ticket or check, substantially as described. 22nd. In a machine of the class described, a printing mechanism comprising a dating and numbering device arranged in and carried by a reciprocating head, a fixed platen beneath said head, a main shaft and means interposed between the main shaft and the said reciprocating head to effect the downward or printing movement of the said head, substantially as described. 23rd. In a machine of the class described, a printing mechanism comprising a dating and numbering device arranged in and carried by a reciprocating head, a fixed platen beneath said head, a main shaft, a wiper cam on said main shaft and a lever interposed between said cam and the said reciprocating head, to effect the printing movement of the head, substantially as described. 24th. In a machine of the class described, the combination, with a dating and numbering apparatus, of an inking mechanism comprising an inking pad, an elbow lever in which said pad is pivoted, a reciprocating yoke to which said elbow lever is pivoted, a main shaft, and a cam on said main shaft co-operating with said yoke to move it beneath and from under the said printing device, the elbow lever coming in contact with the printing device as the yoke is moved beneath it, add thereby lifting the inking pad into contact with the printing surface and ensuring the inking of the same, substantially as described. 25th. In a cash register, indicator and recorder, the combination of an indicating mechanism, a registering mechanism and a recording mechanism, the said registering mechanism comprising gearing by which it is rotated and means to shift the said gearing to thereby throw the registering mechanism out of operation, substantially as described. 26th. In a cash register, indicator and recorder, the combination of the registering mechanism, which includes gearing by which the registering mechanism is rotated, the said gearing having the capacity of being shifted into and out of operative position relatively to the registering device, an indicating mechanism

and a recording mechanism, and a series of banks of keys, by operation of which a prime movement is instituted with relation to these several mechanisms, a shifting mechanism for the registering mechanism and means to operate said shifting mechanism interposed between said gearing and some of the keys, substantially as described.

No. 52,213. Lamp Chimney Holder.

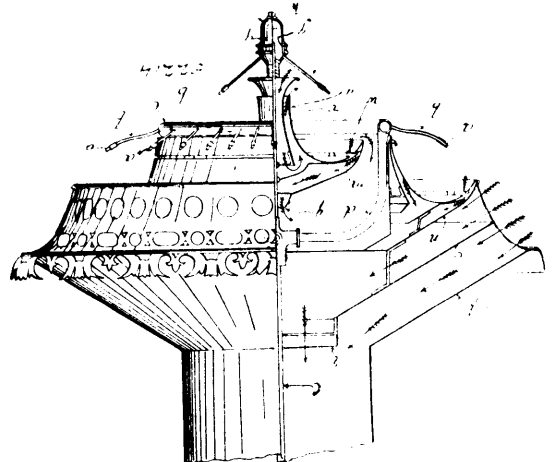
(Porte-cheminée de lampe.)



William G. Trothewey, Vancouver, and Lemuel G. Munn, New Westminster, both in British Columbia, Canada, 8th May, 1896; 6 years. (Filed 28th February, 1896.)

Claim.—1st. In lamp chimney holders, rubber caps or tubes made to encircle the fingers of a lamp burner and engage the periphery of a lamp chimney, substantially as and for the purposes set forth. 2nd. In lamp chimney holders, the application of vulcanized rubber, or other material, and made to form a cushion of engagement between lamp burner fingers or arms and the smooth base of a lamp chimney, substantially as and for the purposes set forth.

No. 52,214. Gas Lamp. (Lampe à gaz.)

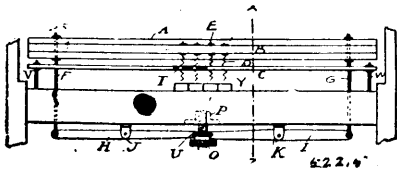


Walter John Thomas, Denmark Hill, Surrey, England, 8th May, 1896; 6 years. (Filed 26th August, 1895.)

Claim.—1st. In gas lamps of the class herein described in combination, one or more domes or reflectors which are heated by the flame of corresponding gas jets, baffle plates placed over apertures in said dome or reflector, cones forming passages or flues for the exits of fumes and gases, cones forming passages or flues for the entrance of cold or heated air to the flames or jets, a chamber having a baffle plate or plates for preventing the passage of solid matter to the burners or jets substantially as herein described and illustrated. 2nd. In domes or reflectors for gas lamps, a covering or casing upon said dome forming a chamber or receptacle for air which when the lamp is in use prevents the sudden and unequal cooling of said dome or reflector, substantially as described and illustrated herein.

No. 52,215. Touch-Regulating Device for Pianos.

(Appareil à régler la touche pour pianos.)



George H. Arthur, Terre Haute, Indiana, U.S.A., 8th May, 1896; 6 years. (Filed 25th February, 1896.)

Claim.—1st. In a touch-regulating device for pianos, consisting essentially of a vertically adjustable horizontal rail carrying spiral springs adapted to engage with the keys of a piano, the combination with said rail and springs of means for individually adjusting said springs, substantially as described. 2nd. In a touch-regulating device for pianos, consisting essentially of a vertically adjustable horizontal rail carrying spiral springs adapted to engage with the keys of a piano, the combination with said rail and springs of a bushed guide for the support of said springs, substantially as described. 3rd. In a touch-regulating device for pianos, the combination with a vertically adjustable rail carrying springs adapted to engage with the keys of a piano, of the supporting rods F and G, the levers H and I, the forked lever L, the movable screw O and the fixed nut P, substantially as described.

No. 52,216. Wheelwright Machine.

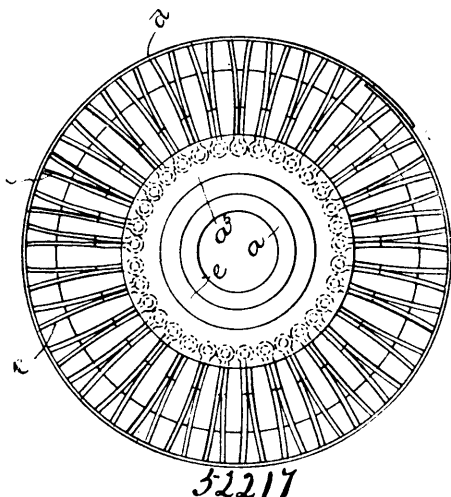
(Machine pour charrons.)



Seth Chapman Doane, Englewood, Illinois, U.S.A., 8th May, 1896; 6 years. (Filed 26th February, 1896.)

Claim.—1st. In an axle-gauge, the combination of a gauge-bar having a ball formed on its end, a rest constructed to set on one of spindles of an axle and formed with a socket bearing to take the ball of the gauge-bar, a sliding-rest on the gauge-bar, a pointer-bar pivotally supported in the first-named rest, and a scale supported on the gauge-bar to indicate the direction of the spindle. 2nd. In an axle-gauge, the combination with a gauge-bar formed with a ball on the end thereof having a vertical projected bearing-pin, a rest constructed to set on one of the spindles of an axle and formed with a socket to take the ball of the gauge-bar and an opening to receive the vertical pin of the ball, a pointer having a bearing on the pin of the ball of the gauge-bar, a scale-plate arranged on the gauge-bar, and a sliding rest on the gauge-bar, as and for the purpose specified.

No. 52,217. Buffing Appliance. (Appareil de choc.)

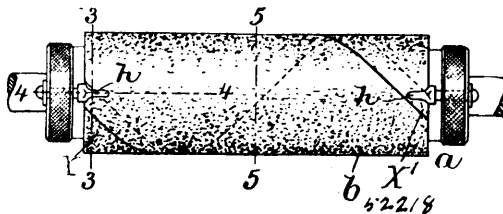


George H. P. Flagg, trustee, Boston, assignee of Harold Arthur Webster, Haverhill, both in Massachusetts, U.S.A., 8th May, 1896; 6 years. (Filed 18th March, 1896.)

Claim.—1st. An appliance of the character specified, comprising a rotary holder having clamping members, and a working tube of flexible material engaged at one end with said clamping members and projecting therefrom, its other end being free to yield toward the axis of the holder. 2nd. An appliance of the character specified, comprising a rotary holder, a yielding cushion surrounding the same, and clamping members engaged with the holder at one end

of the cushion and adapted to grasp one end of a working tube or cover applied to said cushion, the other end of the cushion projecting unobstructedly outward from the holder, whereby the cover is yieldingly supported at a sufficient distance from the holder to prevent contact of the work with the holder. 3rd. An appliance of the character specified, comprising a rotary holder, a yielding cushion surrounding the same, clamping members engaged with the holder at one end of the cushion, and a working cover composed of a strip engaged at one edge with the clamping members and held thereby about the cushion, with one end overlapping the other, the other end of the cushion being practically unobstructed, so that it yieldingly supports the free edge of the cover and permits the latter to yield toward the holder without contact of the work therewith. 4th. An appliance of the character specified, comprising a rotary holder, a cushion composed of a series of limp sections in position to radiate from the holder when acted on by centrifugal force, clamping devices positively connected with the holder at one end of said cushion and adapted to grasp one end of a flexible cover placed on said cushion, the other end of the cover and the corresponding end of the cushion being unobstructed, so that they can yield freely and conform to the work pressed against said cover without permitting contact of the work with the holder. 5th. An appliance of the character specified, comprising a rotary holder, a yielding cushion surrounding the same and presenting a laterally curved or rounded periphery, clamping members engaged with the holder at one end of the cushion and having jaws which are bevelled or inclined, the other end of said cushion being practically unobstructed, and a cover which is moulded to conform to the lateral curvature of the cushion and the inclination of the clamping jaws. 6th. An appliance of the character specified, comprising a hub or tube adapted to be engaged with a driving-shaft, and provided at one end with a clamp member, a sleeve loose upon said hub and provided with a complementary clamp member, a cushion surrounding said sleeve at one side of the clamp, and means for relatively adjusting the hub and sleeve to open and close the clamp. 7th. An appliance of the character specified, comprising a hub or tube adapted to be engaged with a driving shaft and provided at one end with a clamp member, a sleeve loose upon said hub and provided at one end with a flange forming a complementary clamp member, and at the other end with an adjustable flange, said flanges having recesses in their proximate sides, a series of limp arms or flaps having rods at their inner edges engaged with said recesses, and means for adjusting the hub and collar relatively to each other.

No. 52,218. Buffing Appliance. (Appareil de choc.)



George H. P. Flagg, trustee, Boston, assignee of Harold Arthur Webster, Haverhill, both in Massachusetts, U.S.A., 8th May 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. An appliance of the character specified, comprising a yielding-surfaced rotary roll, a flexible cover substantially rhomboidal form wrapped about said roll, one of the edges of said cover overlapping the other and said edges extending helically from one end of the roll to the other, clamping fingers projecting over the ends of the overlapping portions of the cover and movable toward and from the axis of the roll, so that they may sink with the corresponding portions of the cover into the yielding surface of the roll, and means for adjusting and holding said clamping fingers. 2nd. A buffing or polishing appliance of the character specified, comprising a rotary hub or shaft, a series of limp sections in position to radiate therefrom when acted on by centrifugal force, said sections collectively constituting a normally limp cushion or pad adapted to be made operative by centrifugal force, and clamping devices positively connected with the hub or shaft at the ends of said cushion and adapted to grasp the ends of a flexible cover placed on said cushion, whereby the cover is secured to and caused to rotate with the hub or shaft. 3rd. A buffing or polishing appliance comprising a rotary hub or shaft, a centrifugally maintained cushion thereon, collars secured to the hub or shaft at the ends of said cushion, and clamping fingers arranged to co-operate with said collars in grasping the ends of a flexible cover placed on the cushion. 4th. A buffing or polishing appliance comprising a rotary hub or shaft, a centrifugally maintained cushion thereon, collars secured to the hub or shaft at the ends of said cushion, clamping fingers arranged to co-operate with said collars in grasping the ends of a flexible cover placed on the cushion, and collars rotatively connected with said hub or shaft and provided with cams engaged with said clamping fingers. 5th. A buffing or polishing appliance comprising a rotary hub or shaft, slotted collars affixed thereto, rods extending lengthwise of the hub and having their ends inserted in the slots of said collars, flanged sleeves removably secured to the hub and formed to project over said

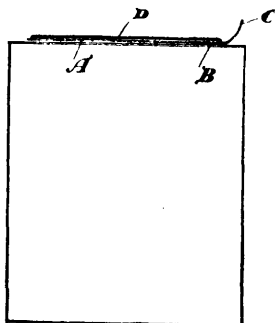
collars to confine the rods therein, and limp strips or sections folded upon said rods and radiating from the hub. 6th. A buffing or polishing appliance of the character specified, comprising a rotary hub or shaft, a suitable yielding cushion, flanges or collars of yielding material such as felt secured to the hub at opposite ends of said cushion, clamping fingers arranged to bear on the peripheries of said yielding collars, and means for adjusting said fingers, the fingers sinking into the yielding collars when adjusted inwardly.

No. 52,219. Method of Producing the Paste for Electric Accumulators. (*Pâte pour accumulateur électrique.*)

Richard Linde, Berlin, Prussia, Germany, 8th May, 1896; 6 years. (Filed 11th March, 1896.)

Claim.—1st. In a filling paste for electric accumulators the combination of the lead oxides with bodies of the family of bitter principles for the purpose set forth. 2nd. In a filling paste for electric accumulators the combination of the lead oxides with aloine, for the purpose set forth.

No. 52,220. The Mode of Sealing and Opening Tin Cans or Boxes. (*Mode de sceller et ouvrir les boîtes métalliques.*)

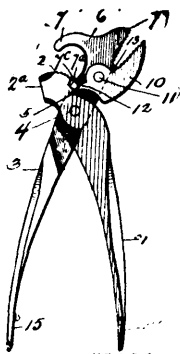


52220

Peter Joseph Taeger and Oliver Asselin, both of Ottawa, Ontario, Canada, 8th May, 1896; 6 years. (Filed 30th March, 1896.)

Claim.—Coiled wire A, and end C in combination with edge of opening B, and cover D, substantially as and for the purpose herebefore set forth.

No. 52,221. Combination Tool. (*Outil à combinaison.*)

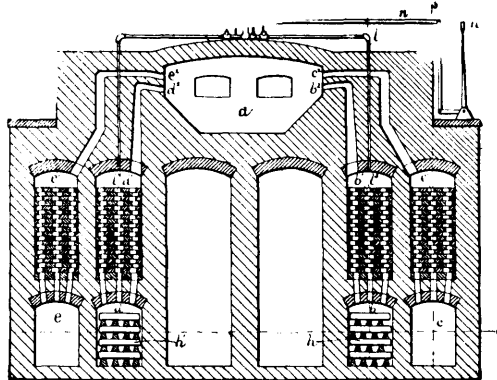


52221

William Thompson, Fremont, Ohio, U.S.A., 8th May, 1896; 6 years. (Filed 16th March, 1896.)

Claim.—1st. In a wrench, the combination with a body having an overhanging curved lip forming a seat and a stationary jaw, a pivotal handle having a rounded serrated upper end, said handle having a recess formed therein to form a shoulder and a supplemental jaw actuated thereby, substantially as described. 2nd. In a wrench, the combination with the body having an overhanging curved lip forming a seat and a stationary jaw, a C-shaped recess below the seat, a pivotal handle having a rounded serrated upper end and a recess coinciding with the recess of the body, to form a wire cutter, said handle being further cut away to form a shoulder, a supplemental jaw having a lug which abuts against the shoulder, and diagonal shoulders on the pivotal and stationary sections forming a wrench, as and for the purpose described.

No. 52,222. Regenerative Furnace. (*Fournaise régénératrice.*)



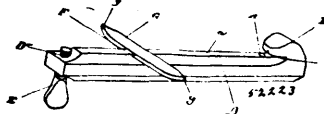
52222

Samuel M. Trapp, Tacoma, Washington, U.S.A., 8th May, 1896; 6 years. (Filed 16th March, 1896.)

Claim.—1st. In a regenerating or smelting furnace, the combination or smelting pit, or super-heating chambers filled with a checker-work of refractory material situated one on each end or side thereof, a flue leading from each of said chambers, each of said flues being filled with a lattice-work of pig iron, and each of said chambers and flues being used alternately as the passage for the waste products of combustion, each of said flues being alternately in communication with a source of steam supply, and each of said chambers being alternately in communication with a source of oil supply, the gate and valve mechanism for alternately sealing or opening one or the other of said flues and chambers and for opening or closing the steam and oil ducts leading thereto, all for the purpose of being continuously in alternate operation, and thus utilize the waste products of combustion in the manufacture of a highly combustible gas continuously within the furnace, all substantially as described and for the purposes specified. 2nd. The process of the continuous manufacture of a highly combustible gas within a smelting furnace, by means of a chamber filled with a checker-work of refractory material and a flue filled with a lattice-work of pig iron, one of each being located at each end or side thereof and alternately used as the passage of the waste products of combustion, and being alternately in communication, the flue with a source of steam supply and the chamber with a source of oil supply and by means of the reversing gear, gates and valves put in operation for the purpose of smelting ores and refining and separating metals, all substantially as described and set forth.

No. 52,223. Saw-set and Gauge.

(*Outil pour donner la voie et jauger les scies.*)



52223

George Hope, Shrigley, Ontario, Canada, 8th May, 1896; 6 years. (Filed 12th March, 1896.)

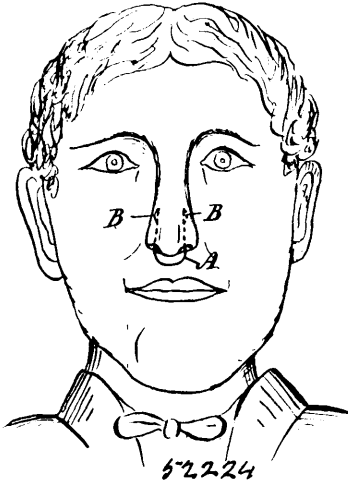
Claim.—1st. A combined saw-set and gauge consisting of a tool, comprised of a metallic bar having a flattened face, an enlarged head for the metallic bar overhanging the flattened face, a groove formed in the head in continuation of and at an angle to the flattened face, and a thumb-screw passing through the opposite end of the said bar, substantially as specified. A combined saw-set and gauge consisting of a tool, comprised of a metallic bar having a flattened face, an enlarged head for the metallic bar overhanging the flattened face, a groove formed in the head in continuation of and at an angle to the flattened face, a thumb-screw passing through the opposite end of the said bar, and a gauge extending laterally across the flattened face of the said bar, substantially as specified. 3rd. A combined saw-set and gauge consisting of a tool, comprised of a metallic bar having a flattened face, an enlarged head for the metallic bar overhanging the flattened face, a groove formed in the head in continuation of and at an angle to the flattened face, a thumb-screw passing through the opposite end of the said bar, each end of the said bar converging to a point, and the points bent into the same plane as the flattened face, substantially as specified.

No. 52,224. Inspirator. (*Inspirateur.*)

George B. Farmer, Perth, Ontario, Canada, 8th May, 1896; 6 years. (Filed 16th March, 1896.)

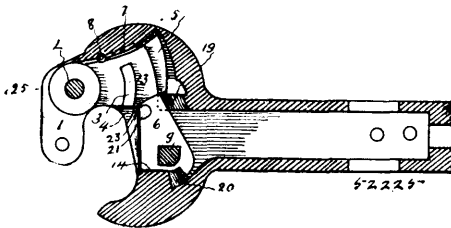
Claim.—1st. A nasal inspirator, comprising a body A, of suitable length and of any spring or flexible material, provided at the ends with a pad or tip B, so that the body A may be bent to allow

the pads to be inserted in the nostrils with sufficient resiliency to prevent the sides of the nostrils from obstructing the nasal passage.



2nd. A nasal inspirator, to prevent collapsing or falling of the fleshy part of the nostrils, comprising two pads or tips B, B, connected by a flexible body A, whereby the resiliency of said body when bent to U-form will keep the pads from dropping out when placed in the nostrils and prevent the sides of the nostrils from falling in, as set forth. 3rd. The combination with a human nose, of an inspirator, comprising a spring body A, having a pad B, at the ends, and bent to U-form, a pad inserted in each nostril, as and for the purpose set forth.

No. 52,225. Car Coupler. (Attelage de chars.)



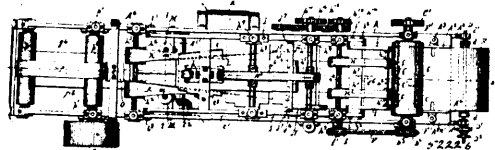
The Moomaw Car Coupler Company, assignee of Henry Moomaw, both of Salem, Virginia, U.S.A., 8th May, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. In a car coupling, the combination of a draw-head, a locking jaw pivoted therein and provided with a supporting flange at its inner end, a locking-block extending across the mouth of the draw-head and abutting against the inner arm of the locking-jaw, and means for lifting and rotating the locking-block sufficiently to permit it to rest upon said supporting flange when the locking-jaw is open, substantially as described. 2nd. In a car coupling, the combination of a draw-head, a coupling-jaw pivoted therein, a locking-block in the mouth of the draw-head, a vertically movable pivotal pin supported in the draw-head and rigidly carrying the locking-block, and an inclined way in the upper part of the draw-head, in front of said pivotal pin, and adapted to rotate the block when the same is raised, substantially as described. 3rd. In a car coupling, the combination of a draw-head, a coupling-jaw, a locking-block engaging the same, a vertical pin carrying the locking-block, said pin extending down through the draw-head and the locking-block and tapered upward where it passes through the block, a flanged sleeve I, I, supported in the lower opening in the draw-head and surrounding the lower part of the pin, a device for attaching the sleeve to the pin, and means for lifting and rotating the locking-block and pin, substantially as described. 4th. In a car coupling, the combination of a draw-head, a coupling jaw pivoted therein, a locking-block engaging the coupling-jaw, a vertical pivotal pin supported in the draw-head and carrying the locking-block, the pin and block being bodily movable vertically and rotatively, and an inclined way carried by the draw-head and adapted to rotate the block and pin when the same are lifted, substantially as described. 5th. In a car coupling, the combination of a draw-head, a coupling-jaw pivoted therein, a locking-block in the mouth of the draw-head and abutting against the coupling-jaw, a vertical pin carrying the locking-block, means for rotating the pin from the car, and an inclined way adapted to engage the block and lift it when it is rotated through the medium of the pin, substantially as described. 6th. In a car coupling, the combination of a draw-head, a coupling-jaw therein, a locking-block in the mouth of the draw-head, a vertical pin passing through the draw-head and carrying the block, and an inclined

way adapted to lift the block bodily when the pin is rotated, substantially as described. 7th. In a car coupling, the combination of a draw-head, a coupling-jaw therein, a locking-block in the mouth of the draw-head, a vertical pin carrying the locking-block, means for rotating the pin, and a pair of oppositely inclined ways in the draw-head adapted to engage the locking-block and lift the same when the pin is rotated, as and for the purpose described. 8th. In a car coupling, the combination of a draw-head, a coupling-jaw therein, a vertically movable and rotatable locking block in the mouth of the draw-head, a vertical pin carrying the locking-block and being vertically movable and rotatable therewith, and means in the mouth of the draw-head adapted to engage the locking-block and rotate and lift the same when the pin is lifted or rotated, as and for the purpose described.

No. 52,226. Paper Box Machine.

(Machine à faire des boîtes en papier.)



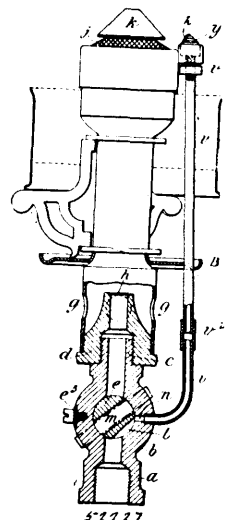
Arthur B. Cowles, Rochester, New York, U.S.A., 8th May, 1896 6 years. (Filed 16th March, 1896.)

Claim.—1st. In combination, a supporting frame, a pair of rollers journaled in the frame and provided with cutting and scoring knives, a pair of arms projecting from the frame and formed with open slots, a stationary adjusting nut removably supported in the slot in one of said arms, a spindle having one extremity removably supported in the slot in the other arm and its opposite extremity screw threaded and engaged with said stationary nut and projecting beyond the same, and a stop nut arranged upon the projecting extremity of said spindle and movable into engagement with the adjusting nut, substantially as set forth. 2nd. In combination, a pair of rollers provided with cutting and scoring knives, a stationary support for the article passed between said rollers arranged at one side of the rollers in proximity thereto, a pair of separated feeding belts for supporting and feeding said articles arranged at the other side of the rollers and having their ends adjacent to said rollers arranged in close proximity thereto, and a second feeding belt for supporting and feeding said articles formed of less width than the articles and extending beyond the former belt and having one end arranged between the former belts, substantially as set forth. 3rd. In combination, a pair of rollers provided with cutting and scoring knives, a support for the article passed between said rollers arranged at one side of the rollers in proximity thereto, a pair of separated feeding belts for said articles arranged at the other side of the rollers and having their engaging faces movable at a greater speed than the periphery of the rollers, and a second feeding belt for said articles extending beyond the former belt and having one end arranged between the former belts, substantially as described. 4th. In combination, a pair of rollers provided with cutting and scoring knives, a feed for engaging the under sides of the articles passed between the rollers, a frame arranged above said feed and having its extremity nearest the rollers movable toward and away from the former feed and its opposite extremity hinged, a movable arm projecting from the frame toward the rollers having its free end movable up and down, means for holding said arm in its adjusted position, and a feed supported by said frame and movable arm for engaging the upper sides of the articles passed between the rollers, substantially as described. 5th. In combination, a pair of rollers provided with cutting and scoring knives, a support for the article passed between said rollers arranged at one side of the rollers in proximity thereto, a pair of separated feeding belts for said articles arranged at the other side of the rollers, a second feeding belt extending beyond the former belts and disposed in a plane interposed between the planes of the former belts, a frame arranged above said feeding belts and having its extremity nearest the rollers movable toward and away from said belts and its opposite extremity hinged, a pair of separated belts supported by the hinged frame and arranged above the former separated belts, a second belt supported by said frame and extending beyond the feeding belts supported by the frame and arranged above the corresponding belt beneath said frame, and a vertically adjustable roller in proximity to said pair of rollers for supporting the adjacent ends of the separated belts supported by said frame, substantially as and for the purpose set forth. 6th. In combination, a pair of rollers provided with cutting and scoring knives, a feed for engaging corresponding faces of the articles passed between the rollers, a second feed for engaging the opposite faces of said articles, a frame for supporting the second feed having its extremity nearest the rollers movable toward and away from the former feed and having its opposite extremity hinged, and pressure rollers supported by the frame for engaging the adjacent faces of the articles passed between said feeds, substantially as and for the purpose described. 7th. In combination, a pair of rollers provided with cutting and scoring knives, a feed for engaging corresponding faces of the articles passed between the rollers, a movable frame arranged above said feed, a second feed supported by the

frame for engaging the opposite faces of the articles, and pressure rollers supported by the frame for engaging the adjacent faces of the articles passed between said feeds, substantially as and for the purpose specified. 8th. The herein described feeding mechanism, the same consisting of a feed for engaging the under faces of the passing articles, a frame having one extremity hinged and its opposite extremity arranged above said feed and movable toward and away from the same, a movable arm projecting from said opposite extremity of the frame, means for holding said arm in its adjusted position, and a feed supported by said frame and movable arm for engaging the opposite sides of the passing articles, substantially as and for the purpose set forth. 9th. The combination of a feed for the articles to be folded, a supporting frame, having one extremity hinged and its opposite extremity arranged above said feed and movable toward and away from the same, and a stationary folder for engaging the articles to be folded fixed to the supporting frame and consisting of opposite sections detachably secured to each other and adjustable toward and away from each other, substantially as and for the purpose described. 10th. The combination of a feed for the articles to be folded, a supporting frame, having one extremity hinged and its opposite extremity arranged above said feed and movable toward and away from the same, and a stationary folder for engaging the articles to be folded fixed to the supporting frame and consisting of opposite sections detachably secured to the main frame of the machine and adjustable toward and away from the other, substantially as and for the purpose described. 11th. The combination of a feeding belt for the articles to be formed of less width than said articles, whereby the edges of the articles project beyond the feeding belt, a folder arranged above the feeding belt for engaging the articles to be folded and twisted, belts arranged at opposite sides of the feeding belt and having their adjacent edges separated a greater distance than the width of said feeding belt and disposed in proximity to its longitudinal edges for engaging the projecting edges of the articles and lapping said edges upon the adjacent portions of said articles, substantially as and for the purpose described. 12th. The combination of a feeding belt for the articles to be folded, formed of less width than said articles, whereby the edges of the articles project beyond the feeding belt, a folder arranged above the feeding belt for engaging the articles to be folded and provided with a central aperture, a pressure roller projecting through the aperture in the folder for engaging said articles, and separated twisted belts arranged at opposite sides of said feeding belt and folder, and having their adjacent edges separated a greater distance than the width of said feeding belt and disposed in proximity to its longitudinal edges for engaging the projecting edges of the articles and lapping said edges upon the adjacent portions of said articles, substantially as and for the purpose specified. 13th. The combination with a feed for the articles to be folded, of a folder arranged above the feed for engaging the central portions of the articles to be folded, twisted belts arranged at opposite sides of the folder for engaging the projecting edges of said articles and lapping said edges upon the adjacent portions of the articles, and rotary discs having their axes arranged at opposite sides of the folder and the twisted belts, and their engaging faces arranged at an angle with the engaging face of the folder and engaged with the upper faces of the twisted belts for holding the same in operative position to lap said edges upon the folder, substantially as and for the purpose specified. 14th. The combination of a feed for the articles to be folded formed of less width than said articles, whereby the edges of the articles project beyond the feed, a folder arranged above the feed for engaging the articles to be folded, separated twisted belts arranged at opposite sides of the folder for engaging and elevating the projecting edges of said articles and lapping the edges upon the adjacent portions of the articles, and rotary discs having their axes arranged at opposite sides of the feed and the twisted belts, and their engaging faces arranged at dissimilar angles with the engaging face of said folder and engaged with the upper faces of the twisted belts for holding the same in operative position to lap said edges upon the adjacent portions of said articles, substantially as set forth. 15th. The combination of a feed for the articles to be folded, of a folder arranged above the feed for engaging the articles to be folded and consisting of opposite sections adjustable toward and away from each other, separated twisted belts arranged at opposite sides of the folder for engaging the projecting edges of the articles and lapping said edges upon the adjacent portions of the articles, rotary discs having their axes arranged at opposite sides of the twisted belts and their engaging faces arranged at an angle with the engaging face of the folder and engaged with the upper faces of the twisted belts for holding the same in operative position to lap said edges upon the folder, substantially as and for the purpose described. 16th. The combination with a feed for the articles to be folded, of a folder arranged above the feed for engaging the articles being folded and consisting of opposite sections detachably secured to each other and adjustable toward and away from each other, separated twisted belts arranged at opposite sides of the folder for engaging the projecting edges of said articles and lapping the edges upon the adjacent portions of the articles, and rotary discs having their axes arranged at opposite sides of the feed and the twisted belts, and their engaging faces arranged at dissimilar angles with the engaging face of said folder and engaged with the upper faces of the twisted belts for holding the same in operative position to lap said edges upon the adjacent portions of said articles, substantially as and for the pur-

pose set forth. 17th. The combination of a drum, a series of pulleys arranged concentric with a portion of the drum, a feeding belt passed around the drum for feeding the articles between said drum and pulleys, an endless auxiliary feeding belt passed around the pulleys and having its inner portion arranged concentric with the drum and engaged with the adjacent faces of the pulleys and its outer portion engaged with the outer faces of the pulleys, and adjusters for forcing said pulleys toward the drum and thereby squeezing the articles interposed between said feeding belts, substantially as specified. 18th. The combination with a feeding belt and a folder for the articles to be folded, of a drum over which said belt is passed, separated twisted belts arranged at one side of the drum at opposite sides of the feeding belt for engaging the projecting edges of said articles and lapping said edges upon the adjacent portions of said articles, a series of pulleys arranged concentric with a portion of the drum, and an auxiliary feeding belt passed around said pulleys, substantially as and for the purpose set forth. 19th. The combination with a feeding belt for the articles to be folded, a drum over which the belt is passed, a folder arranged at one side of the drum above the feeding belt for engaging the central portions of the articles to be folded, twisted belts arranged at one side of the drum at opposite sides of the feeding belt for engaging the projection edges of said articles and lapping said edges upon the adjacent portions of the articles, rotary discs having their axes arranged at opposite sides of the folder and the twisted belts and having their engaging faces arranged at an angle with the engaging face of the folder and engaged with the upper faces of the twisted belts for holding the same in operative position to lap said edges upon the folder, a pair of pulleys p^2 g^3 arranged above and below the feeding belt in close proximity to the drum, an endless auxiliary feeding belt having its opposite ends passed around said pulleys and its inner face arranged concentric with the drum, and pressure pulleys interposed between the former pulleys and the opposite portions of the latter belt and having their opposite faces engaged with the adjacent faces of the latter belt, substantially as described. 20th. The combination of a feeding belt for the articles to be folded, a drum over which the belt is passed, a folder arranged above the feeding belt at one side of the drum for engaging the articles to be folded and provided with a central aperture, a pressure roller projecting through the aperture for engaging said articles, separated twisted belts arranged at one side of the drum at opposite sides of the feeding belt for engaging the projecting edges of said articles and lapping said edges upon the adjacent portions of said articles, a series of pulleys arranged concentric with a portion of the drum, and an auxiliary feeding belt passing around said pulleys, substantially as described. 21st. The combination of a drum, a series of pulleys arranged concentric with a portion of the drum, a main feeding belt passed around the drum for feeding the articles between said drum and pulleys, and endless auxiliary feeding belt passed around the pulleys and having its inner portion arranged concentric with the drum and engaged with the adjacent faces of the pulleys and its outer portion engaged with the outer faces of the pulleys, adjusters for forcing said pulleys toward the drum and thereby squeezing the articles interposed between said feeding belts, and an auxiliary feed supported beneath the main feeding belt and the discharge end of the auxiliary feeding belt and arranged at substantially right angles with the main feeding belt, substantially as specified.

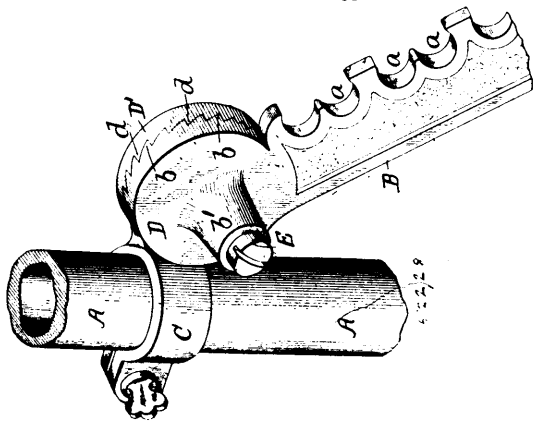
No. 52,227. Apparatus for Supplying Gas to Atmospheric or other Burners. (Appareil pour fournir le gaz aux brûleurs atmosphériques ou autres.)



John Frederick Duke, of 160 Rosendale Road, Dulwich, England,
8th May, 1896; 6 years. (Filed 17th March, 1896.)

Claim.—1st. In a tap for supplying gas to burners, the combination with the main gas way, of a small gas way in the plug and a small gas way in the shell of the tap and communicating with a pilot jet whereby when the plug is turned a short distance from its closed position, gas flows through the said small gas ways and thence to the pilot jet but not to the burner and when the plug is turned a further distance, gas flows to the burner proper and when the plug is fully turned off there is no flow of gas either to the pilot jet or to the burner proper, substantially as and for the purpose set forth. 2nd. The combination with a gas burner having a pilot jet, of an automatic gas igniter in a position for igniting the gas issuing from said jet, a tap having a small gas way and a main way for respectively supplying gas, first to the pilot jet and then to the burner, and a bye-pass pipe communicating between said small gas way and the pilot jet, whereby when the plug of the tap is turned a short distance from its closed position gas flows to the pilot jet and becomes ignited by the automatic igniter, and when the plug is then turned a further distance, gas flows to the main burner and becomes ignited by the flame of the pilot jet, substantially as set forth. 3rd. The combination with a tap adapted to screw upon a supply pipe and to have an atmospheric burner fitted thereto and having a main gas way supplying the burner and a smaller gas way supplying a pilot jet, of a bye-pass pipe connected at one end to said small gas way, a pilot jet connected to the other end of said bye-pass pipe, and an automatic igniter carried by said bye-pass pipe near the pilot jet, substantially as set forth. 4th. In a tap for supplying gas to burners, a plug having a main gas way *m*, and a small gas way *l*, a shell having a small gas way *l*, *n*, which at a certain point in the movement of the plug comes into coincidence with the said gas way *l*, and a spring stop for the plug when said gas ways *l* and *n* come into coincidence, substantially as and for the purpose set forth.

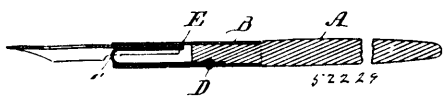
No. 52,228. Show Fixture. (Appareil de montre.)



Edward Leger, Chicago, Illinois, U.S.A., 9th May, 1896; 6 years (Filed 18th March, 1896.)

Claim.—1st. In a show-fixture arm, the combination with a disc-plate, provided with ratchet-teeth on one side and a projecting sleeve-part on the other, of a companion disc-plate, provided with ratchet-teeth on its inner or joining face, an axial pivot-bolt, having a threaded connection with one of said plates and passing loosely through the other, and a spring, coiled around said bolt in the sleeve-extension thereof and adapted to automatically retain said disc-plates in a locked position and yield against a pressure to permit of their being disengaged, substantially as described. 2nd. In a show-fixture arm, the combination with an adjustable arm, provided on one end with a ratchet-plate, of a clamping-band, provided with a companion ratchet-plate, an axial pivot-bolt inserted loosely through one of said plates and having a threaded connection with the other, and a spring, coiled on said bolt and adapted to automatically retain said plates in an engaged yielding position, substantially as described. 3rd. In a show-fixture arm, the combination with an adjustable arm, provided with a ratchet-plate having a sleeve-extension, of a clamping-band, provided with a companion ratchet-plate, an axial-bolt, inserted loosely through the sleeve-plate and having a threaded connection with the other, and a spring, inclosed in the sleeve-chamber and adapted to automatically retain said ratchet-plates in an engaged position and yield against a disengaging pressure, substantially as described.

No. 52,229. Pen Holder. (Porte-plume.)



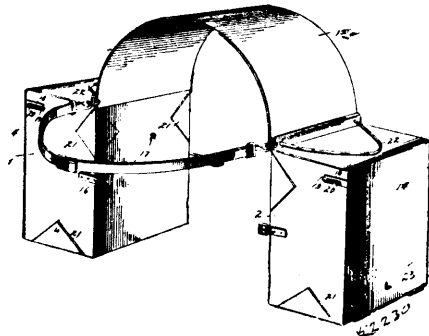
Samuel Bromley, Pembroke, Ontario, Canada, 9th May, 1896; 6 years. (Filed 18th March, 1896.)

Claim.—1st. In a pen holder, the combination with the handle A, having a tube or ferrule B, of the spring C, inserted in said tube or

ferrule, the inner end of said spring yielding to pressure of the pen in writing, as set forth. 2nd. A pen holder provided with a spring C, within the ferrule or tubular end B, to hold the pen frictionally, said spring yielding at the inner end when pressure is put upon the point of the pen in writing, as set forth. 3rd. A pen holder, comprising a handle A, having a tube or ferrule B, and a spring C, inserted in said tube, to yield to the neel of the pen, and operating as set forth.

No. 52,230. Medicine-case and Saddle-bag. (Boîte à médicaments et sacs de selle.)

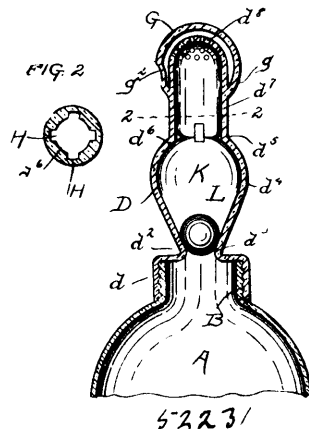
(Boîte à médicaments et sacs de selle.)



James Edward Smoot, Concord, North Carolina, U.S.A., 9th May, 1896; 6 years. (Filed 19th March, 1896.)

Claim.—1st. The combination with a case open at its front side and top, and a front hinged at its lower end to the bottom of the case and adapted to be secured when closed, of leaves and partitions hinged to the bottom of the case, and having at their tops and intermediate of their ends, flanges, the upper flanges unitedly forming a closure for the top end of the case, and curtains secured to the upper flanges and adapted to hang in front of the said leaves, substantially as set forth for the purpose described. 2nd. The herein-specified combined saddle-bags and hand-case, comprising two similarly-formed cases open at their front sides and tops, and each provided with a carrying handle, a band connecting the two cases, curtains secured to the top edges of the backs and extending over the top ends and down in front of the cases, fronts and leaves hinged to the bottom of the cases, and having inwardly-extending flanges at their bottoms, tops, and at intermediate points, the top flanges unitedly forming a closure for the upper ends of the cases, racks located upon the inner sides of the partitions, and curtains secured to the upper ends of the fronts and partitions and constructed to close the open sides thereof, substantially as set forth for the purpose described.

No. 52,231. Bottle, etc. (Bouteille, etc.)

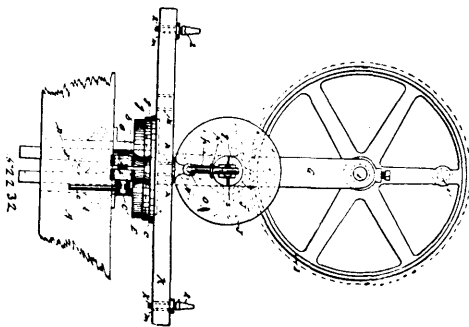


Johannes Meyer, Brooklyn, New York, U.S.A., 9th May, 1896; 6 years. (Filed 19th March, 1896.)

Claim.—1st. A bottle or other vessel provided with a neck attachment having an automatic valve and which is so constructed and arranged that when the bottle or vessel has been filled, and the neck attachment applied, the bottle or vessel may be emptied of its contents, but cannot be refilled, said attachment and said valve being constructed, combined and operating as herein described and shown. 2nd. A bottle or other vessel, provided with a neck attachment having an automatic valve and which is so constructed and arranged that when the bottle or vessel has been filled and the

neck attachment applied, the bottle or vessel may be emptied of its contents, but cannot be refilled, said valve being hollow, and said attachment being provided with a plate or partition and having a tube which projects thereinto, and said attachment being so constructed as described and shown. 3rd. A neck attachment for bottles and other vessels, consisting of a base portion which is adapted to be secured in the neck of the bottle, and which is provided with a valve seat immediately above said base portion, and means for limiting the movement of said valve, and said valve being provided with a perforated cover, and with a cap cover or tube secured thereover, through which the contents of the vessel may be discharged, substantially as shown and described. 4th. A bottle or other vessel provided with a neck, having a cup-shaped enlargement at the upper end thereof, and attachment secured thereto, a hollow valve placed in said cup-shaped enlargement, a perforated plate or partition placed in said attachment, and provided centrally with an open tube which extends downwardly into said valve, said valve being also provided with a depending portion which extends downwardly into the neck, and said attachment being provided with a nozzle or tube, substantially as shown and described.

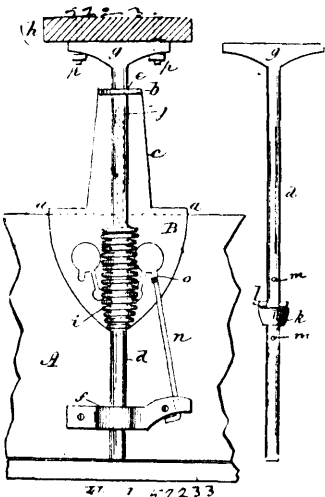
No. 52,232. Grinding Machine. (Machine à aiguiser.)



Horace A. Hayward, Londonderry, Vermont, U.S.A., 9th May, 1896; 6 years. (Filed 26th March, 1896.)

Claim.—1st. In a grinding-machine, the combination, with the grinding wheel, and means for supporting and revolving it, of the vertically-adjustable disc C and the table secured to it, and a support for a guard provided with lugs and with a stem journaled in the table, and a horizontally-slidable bar journaled in the said lugs and having a stationary arm at one end provided with a collar, and a slidable arm at the other end provided with a recess, substantially as set forth. 2nd. In a grinding-machine, the combination, with the bracket B, provided with a vertical guide at its rear, of the vertically-adjustable disc provided with a stem journaled in a boss at the front of the said bracket, a vertically-adjustable bracket provided with a slide engaging with the said guide, and a horizontal disc at its top, the standard for supporting the grinding-wheel and its driving mechanism, provided with a recessed base revoluble upon the last said disc, clamping devices for securing all the said adjustable parts, substantially as set forth,

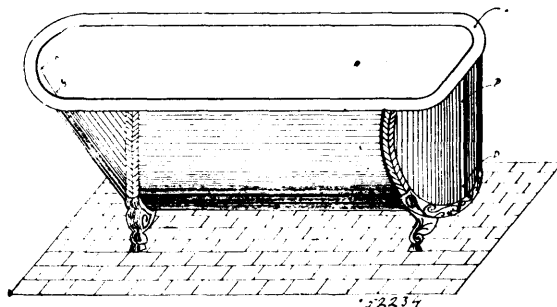
No. 52,233. Wagon. (Wagon.)



William K. Loft, Luscarora, Ontario, Canada, 9th May, 1896; 6 years. (Filed 25th March, 1896.)

Claim.—1st. In combination with a wagon, a bracket provided with hook clips to hang on the top of a wagon-box, an upward extension piece terminating in a right-angled projection, a T-shaped seat rod made to pass through said projection, and through a socket guard attached to the wagon-box, a spiral spring made to surround the seat rod, and formed cup-shaped at the bottom, the top of the spring attached to the upward extension of the bracket to hold it, a washer placed on the seat rod in the bottom of the spring and a pin passed through the rod above the washer to keep it down to the base of the coiled spring, a seat board attached to the T-head of the rod and a stay-rod connecting the bracket with a socket guard attached to the wagon-box, substantially as and for the purpose specified. 2nd. A bracket as B, formed with lugs a, to hang on a wagon-box A, and constructed with an upward extension c, terminating in a right-angled projection b, a T-headed seat rod d made to pass through an opening c, in the said projection b, and through the socket guard f, a coiled spring i, made to surround the rod d, held down by a washer k, on the rod, and pin l, through the rod above the washer, the top end of the spring secured to the extension c, of the bracket B, a seat board h, bolted to the head g, of the rod d, and a safety-rod n, attached to the bracket B, and to the socket guard f, or its equivalent, to hold the bracket down to its proper place, all substantially as and for the purpose specified.

No. 52,234. Process of Making Flexible Metallic Baths. (Procédé pour la fabrication de bain en métal flexible.)



James L. Hutcheson, Toronto, Ontario, Canada, 9th May, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. As an improved article of manufacture, a bath composed of one sheet of copper, steel or any other flexible metal cut in the manner shown. 2nd. As an improved article of manufacture, a bath composed of one sheet of copper, steel or other flexible metal with a double lock seam running down centre of head of bath intersecting a lower single lock cross-seam at head as in the manner shown. 3rd. As an improved article of manufacture a bath composed of copper, steel or other flexible metal with a double lock seam running down centre of foot end of bath intersecting a lower single cross-seam at foot of bath, as in the manner shown.

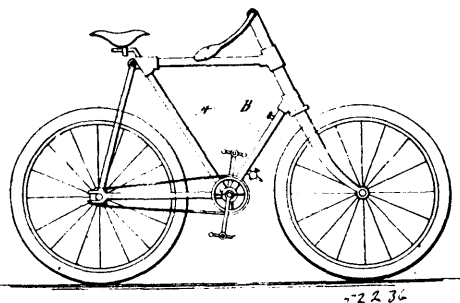
No. 52,235. Shirt Making System.

(Fabrication de chemise.)

Max Louis Schloman, Montreal, Quebec, Canada, 9th May, 1896; 6 years. (Filed 27th March, 1896.)

Claim.—1st. As a new article of manufacture, a shirt previously made of unbleached cotton devoid of sizing and calendering and subsequently bleached, for the purpose set forth. 2nd. In the manufacture of articles such as shirts and the like, first making the article from the unbleached goods, then bleaching the completed article, as set forth.

No. 52,236. Bicycle Attachment. (Attache de bicyclette.)

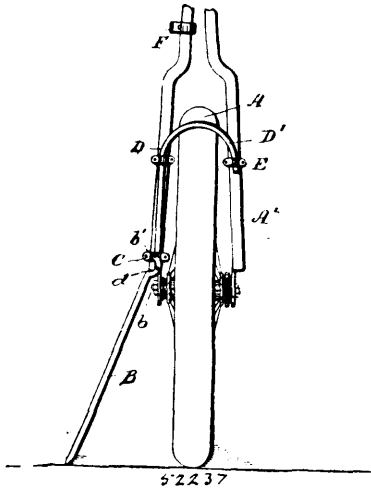


George Washington Aldrich, Brooklyn, New York, U.S.A., 1896 6 years. (Filed 30th March, 1896.)

Claim.—1st. The combination with the frame of a bicycle of similar vehicle of an oil reservoir which is formed in, or comprises a part of the tubular rods of the frame, substantially as shown and

described. 2nd. The combination with the frame of a bicycle or other vehicle, of an oil reservoir which is formed in, or comprises a part of one of the tubular rods of the frame, said tubular rod being provided with a filling orifice on its upper end, and having a removable cap or cover, and a discharge nozzle at its lower end, substantially as shown and described.

No. 52,237. Bicycle Support. (*Support de bicyclette.*)

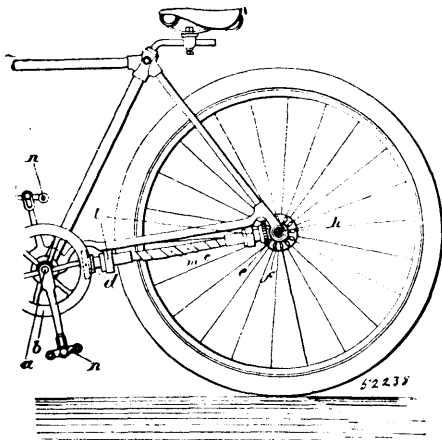


William K. Andrews, Mill Village, Pennsylvania, U.S.A., 11th May, 1896; 6 years. (Filed 31st March, 1896.)

Claim.—1st. A combined bicycle support and brake, substantially as specified. 2nd. A combined bicycle brake and support, pivotally connected together for automatic locking, substantially as specified. 3rd. The combination with a pivoted support, of slidingly mounted wheel-brake pivotally connected therewith, substantially as specified. 4th. The combination with a slidingly mounted wheel-brake, of a support pivotally mounted at one end and having an arc-shaped portion pivotally connected with the brake, substantially as specified. 5th. The combination with a slidingly mounted wheel-brake, of a support pivotally mounted at one end and having an arc-shaped portion pivotally connected with the brake, and a spring clamp for holding the support in its closed position, substantially as specified. 6th. The combination with a slidingly mounted wheel-brake, of a support pivotally mounted at one end and having an arc-shaped portion pivotally connected with the brake, and a spring clamp for holding the support in its closed position, the said brake having a curved portion to impinge against the periphery of the wheel, substantially as specified.

No. 52,238. Driving Mechanism for Cycles.

(*Mécanisme d'impulsion pour cyclettes.*)

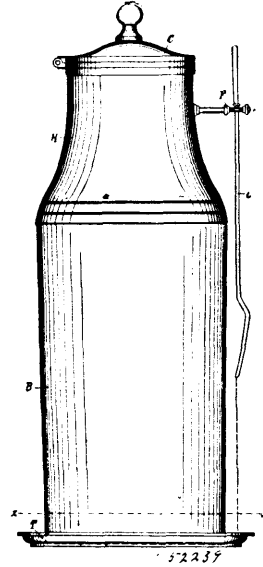


Carl Voss and Georg Sauer, both of Minden, Prussia, Germany, 11th May, 1896; 6 years. (Filed 2nd April, 1896.)

Claim.—1st. Cycle-driving mechanism comprising a roller-wheel arranged on the pedal-crank shaft and provided with lightly rotatable and cylindrically, conically or spherically turned rollers, said roller-wheel gearing with a toothed wheel *d*, on a shaft *c*, intermediate of the pedal-crank shaft and the driving wheel and a toothed wheel *e*, on shaft *c*, that gears with a roller-wheel *f*, on said driving wheel,

substantially as and for the purpose hereinbefore set forth. 2nd. Cycle-driving mechanism of the kind characterized in claim 1, in which, for the purpose of obviating dead-points, the shaft *c*, is divided and the two parts connected by a spring *m*, substantially as and for the purpose hereinbefore set forth. 3rd. A driving gear for cycles, of the kind specified in claim 1, with bevel wheels *b*¹, *a*¹, *c*¹, *f*¹, and a hollow intermediate shaft *c*¹, which is slipped over a stay *u*, of the cycle frame, and is mounted on balls on the said stay, substantially as and for the purpose hereinbefore set forth.

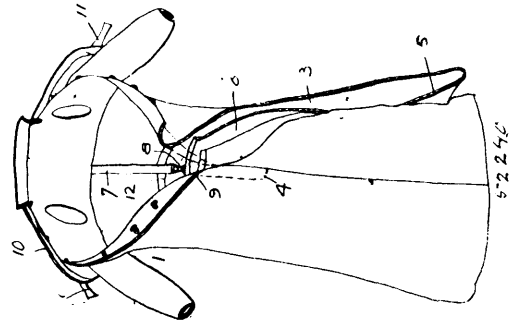
No. 52,239. Interchangeable Hood and Drip Tray for Bottles. (*Capuchon pour bouteilles.*)



Fred T. Trebilcock, London, and Carl A. Badstedo, Toronto, both in Ontario, Canada, 11th May, 1896; 6 years.

Claim.—1st. An interchangeable hood, provided with a resilient yielding device or devices or material, for the purpose of permitting the one hood to be transferred from one bottle, jar or the like, and adapted to another of the same or a different size, substantially as and for the purpose set forth. 2nd. An interchangeable hood, and a resilient yielding device or devices or material, in combination with a bottle, jar or the like, for the purpose of permitting the one hood to be transferred from one bottle, jar or the like, and adapted to another of the same or a different size, substantially as and for the purpose set forth. 3rd. An interchangeable drip tray provided with a resilient yielding device or devices or material, for the purpose of permitting the one drip tray to be transferred from one bottle, jar or the like, and adapted to another of the same or a different size, substantially as and for the purpose set forth. 4th. An interchangeable drip tray, and a resilient yielding device or devices or material in combination with a bottle, jar or the like, for the purpose of permitting the one drip tray to be transferred from one bottle, jar or the like, and adapted to another of the same or a different size, substantially as and for the purposes set forth.

No. 52,240. Garment Protector. (*Protecteur de vêtement.*)

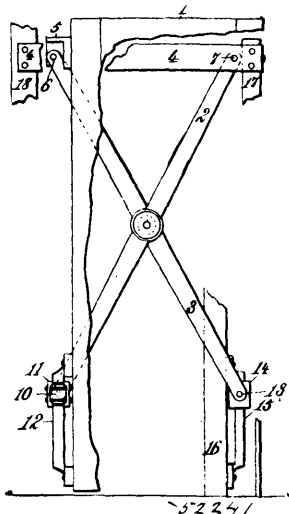


Mary J. Foxworthy, Lincoln, Nebraska, U.S.A., 11th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—A garment protector, comprising a body 1, skirt 2, having an inner fold 5, and leggings 3, forming a continuation of said skirt, a short skirt 6, secured at its lower edge to the skirt 2, and leggings 3, and a strap 7, secured to the back of the body upon the inside and detachably connected at its lower end to the waist-band of the skirt 6, substantially as described.

No. 52,241. Device for Hauging Sliding Doors.

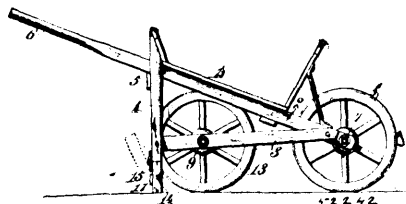
(*Ferrure de porte glissante.*)



Jean Marie Titrent, Chicago, Illinois, U.S.A., 11th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. The combination with a sliding door, of the horizontal rail 4, provided at its upper edge with a laterally projecting flange, the bracket 5, secured to the rear upper edge of the door and projecting laterally over said rail and vertically to one side thereof, the crossed levers 2 and 3 centrally pivoted together, the guide bars 12 and 15 respectively secured to and projecting from the lower rear edge of the door and the door casing, and the slides 11 and 14 embracing and adapted to slide on said guide bars, the lower ends of the said crossed levers being pivotally secured to said slides, and the upper end of one of them being pivoted to the rail 4, and the upper end of the other to the overhanging bracket 5, substantially as described. 2nd. The combination with a sliding door, of the horizontal rail 4, provided at its upper edge with a laterally projecting flange, the bracket 5 secured to the rear upper edge of the door and projecting laterally over said rail and vertically to one side thereof, the crossed levers 2 and 3 centrally pivoted together, the guide bars 12 and 13 respectively secured to and projecting from the lower rear edge of the door and the door casing, and the slides 11 and 14 embracing and adapted to slide on said guide bars, each of said slides being approximately U-shaped in cross-section and carrying a yielding shoe 22 having an elastic bearing on the guide bar, substantially as described.

No. 52,242. Wheel-Barrow. (*Brouette.*)

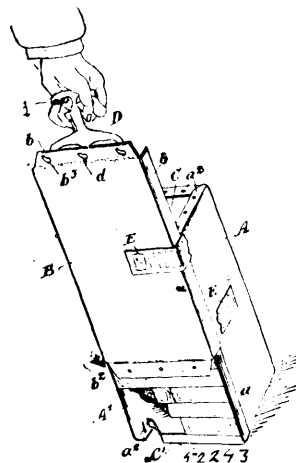


William Paul Carmichael, Savannah, Georgia, U.S.A., 11th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. A wheel-barrow, consisting of a body, a leg-frame, a frame supporting the body, a front wheel and a rear wheel of substantially uniform diameter journaled on the supporting frame at the longitudinal centre thereof, and a self-folding, spring-impelled foot-piece connected with the lower end of the leg-frame and automatically folded upwardly by the spring action when the barrow is moved forward, substantially as described. 2nd. A wheel-barrow, consisting of a body, inclined side sills extended into rigid handle-bars, a pendent leg-frame, longitudinal side bars or beams connected at their front ends to the side sills, and at their rear ends to the leg-frame, an axle mounted in the lower ends of the side sills and carrying a single central wheel, an axle mounted in the side bars or beams and provided with a wheel mounted near the centre of the barrow-body and of a diameter substantially the same as the diameter of the front wheel, and a self-folding, spring-impelled foot-piece connected with the lower end of the leg-frame and automatically folded upwardly by the spring action when the barrow is moved forward, substantially as described. 3rd. A wheel-barrow, consisting of a body, a leg-frame, a frame supporting the body, a front wheel and a rear wheel journaled on the supporting frame approximately at the longitudinal centre thereof, a foldable foot-piece, and spring hinges connecting the foldable foot-piece with

the lower end of the leg-frame, said spring hinges serving to automatically fold the foot-piece upwardly whenever the barrow is moved forward, substantially as described.

No. 52,243. Canister for Tobacco. (*Boîte à tabac.*)

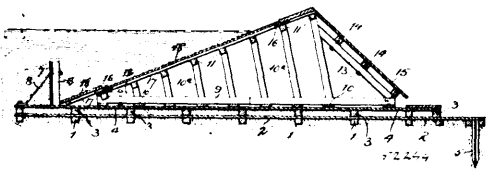


Archibald Grant Snowdon, Montreal, Quebec, Canada, 11th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. In a canister formed of suitable material, the combination with the sides and ends, of a front having a retaining sliding connection between its side edges and the front edges of the sides, as and for the purpose specified. 2nd. In a canister formed of suitable material, the combination with the sides and ends, of a front having a retaining sliding connection between its side edges and the front edges of the sides and a seal secured to and passing around the front and side, as and for the purpose specified. 3rd. In a canister formed of suitable material, the combination with the sides and ends, of a front having a retaining sliding connection between its side edges and the front edges of the sides, a seal secured to and passing around the front and sides, and the end flaps turned down over the ends, as and for the purpose specified. 4th. In a canister, in combination with the ends and sides suitably secured thereto, the backwardly turned flaps on the front edges of the sides, the front, the interlocking flaps at the sides of the front extending into the grooves between the flaps of the sides and the sides and designed to have free longitudinal movement therein to break the seal when the end flaps are straightened out, as and for the purpose specified. 5th. In combination, the sides and ends, the front having an interlocking sliding connection to the sides, the end flaps designed to be straightened out and holes or openings in the end flaps, as and for the purpose specified.

No. 52,244. Gravity Dam for Impounding Water.

(*Digue pour arrêter un cours d'eau.*)



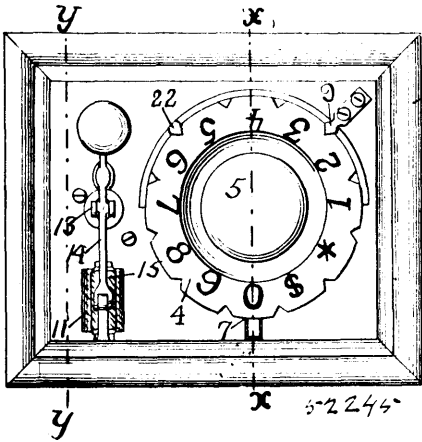
Samuel D. Phillips, La Fayette, Indiana, assignee of Edwin R. Beardsley, Waldron, Illinois, both in the U.S.A., 11th May, 1896; 6 years. (Filed 12th March, 1896.)

Claim.—1st. The combination in a dam structure of a cover-planking spaced apart or formed with openings as described, and batten boards or planking laid upon said cover-planking over said spaces or openings, said openings adapted for the purpose of causing a gravity pressure of water to be thrown upon said batten boards to hold them firmly against said cover-planking, and to prevent them from being lifted or floated therefrom by the buoyant effort of said water, substantially as specified. 2nd. In a dam structure, the combination of a foundation-mat formed or composed and laid as described, and provided with a breast work erected thereon and rigidly secured to said mat, and a dam superstructure built as described, to rest upon said foundation-mat, and adapted to be held thereon to resist and sustain the lateral pressure of the impounded water by the gravity or weight of said impounded water supported upon said superstructure, substantially as specified.

No. 52,245. Device for Protecting and Cancelling Checks, etc. (*Appareil pour annuler et protéger les chèques, etc.*)

The Peebe Check Protector Company, assignee of Gaylord W. Beebe, both of Minneapolis, Minnesota, U.S.A., 11th May, 1896; 6 years. (Filed 17th March, 1896.)

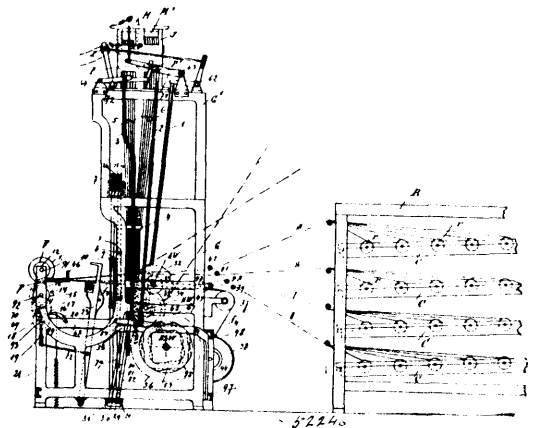
Claim.—1st. A machine or device for protecting, cancelling dating, or otherwise marking, checks, notes, drafts, or other instru-



ments, comprising a suitable base, a vertically movable die-plate arranged thereon, dies arranged upon said die-plate, the faces of said dies being provided with a character or characters formed of serrated outlines, a plate upon said base provided with indentations corresponding to and coinciding with the serrations upon said die, and means for inking said dies, substantially as described. 2nd. In a device for protecting, cancelling or dating checks, bonds, notes, or other instruments, the combination of a suitable base, a revolving vertically movable disc arranged thereon, dies arranged upon and under the surface of said dies, the faces of said dies being provided with a character or characters formed by serrated outlines, a plate upon said base over which said dies pass as the disc revolves, said plate being provided with indentations corresponding to and coinciding with the serrations upon said dies, and means for inking said dies, substantially as described. 3rd. A device for marking checks or other papers, comprising a male die, formed of a series of points, arranged in the outline of a suitable character, a female die consisting of a corresponding series of indentations arranged to coincide with the points or serrations forming the male die, means for inking said dies, and means for forcing one of said dies against the other, whereby any interposed paper will be depressed, broken and the ink forced into the fibres forming the body of the paper. 4th. The combination in a device of the class described, of a suitable base, a revolving vertically movable disc arranged thereon, dies arranged upon the under surface of the said disc, the faces of said dies being provided with a character or characters formed by serrated outlines, a plate upon said base over which said dies pass as the disc revolves, said plate being provided with indentations corresponding to and coinciding with the serrations upon said dies, and means for inking said dies, substantially as described. 5th. The combination, in a device of the class described of a base, a revolving vertically movable disc thereon, a plate carrying male dies removably secured to the under surface of said disc, the faces of said dies provided with a character or characters formed by bevelled points, a female die removably and adjustably secured to said base and over which said male dies pass as the disc is revolved, said female die being provided with indentations corresponding to and coinciding with the points upon faces of said male dies and means for inking said male dies, substantially as described. 6th. The combination, in a device of the class described of a base, a revolving vertically movable disc thereon, a plate carrying dies removably secured to the under surface of said disc, the faces of said dies provided with characters formed by bevelled points, a female die removably and adjustably secured to said base and over which the male dies pass as the disc is revolved, said plate or female die being provided with indentations corresponding to and coinciding with the bevelled points upon the faces of the male dies, means for holding a paper and for automatically moving it over said female die after each impression of the male die, and means for inking said die, substantially as described. 7th. The combination, in a device of the class described of a vertically movable revolving disc thereon, said disc being provided with characters arranged at intervals upon its upper surface near the circumference, and with notches in its periphery to engage a spring upon the base, and electrotype band removably arranged beneath said disc and carrying male dies provided with characters corresponding respectively to those upon the upper surface of said disc, said characters being formed by bevelled points upon the faces of said dies, a female die removably and adjustably arranged upon said base over which said dies pass as they revolve, said female die being provided with indentations corresponding to and coinciding with the points upon the faces of said dies, and means for inking said dies substantially as described. 8th. The combination, in a device of the class described of a base, a revolving vertically movable disc, thereon, a plate carrying dies removably secured to the under surface of said disc the faces of said dies being provided with a character or characters formed by

bevelled points, a female die or plate removably and adjustably secured to said base and over which said dies pass as the disc is revolved, said plate being provided with indentations corresponding to and coinciding with the bevelled points upon the faces of said disc, rollers 11 and 15 upon said base and between which the paper is held, a ratchet mechanism for turning said roller 11 and moving the paper forward as it is stamped, and means for inking said dies, substantially as described. 9th. The combination, in a device of the class described of a base, provided with a vertical opening in its top, a rod 3 to slide in said opening and carrying a disc 4, dies upon said disc provided with characters formed by bevelled points, the points thereof corresponding to and coinciding with indentations provided in a female die upon said base, a bar 18, a screw 20, supporting said bar, a spring 21, a shaft 10, a ratchet upon said shaft to be engaged by a spring upon said bar, a roller 11 upon said shaft and provided with an annual groove, a second roller arranged to press upon said roller 11, and ink pad upon said base beneath said dies, substantially as described. 10th. The combination, in a device of the class described of a base, provided with a vertical opening in its top, and a rod 3 to slide in said opening and carrying a disc 4, dies upon said disc provided with characters formed by serrated outlines, the serrations thereof, corresponding to and coinciding with indentations provided in a plate upon said base, a bar 18 having one end pivotally secured to said base, the other end upwardly turned, a screw 20 engaging said rod 3 and supporting said bar, a shaft 10, a ratchet upon said shaft, having a flange engaged by the turned up end of said bar 18, a spring 21, a spring 19 upon said bar and engaging the teeth of said ratchet, a detent upon spring 19, a roller 11 upon said shaft and provided with an annular groove, a pivoted roller arranged to press upon said roller 11, a pin 23 and a semi-circular inking pad upon said base beneath said dies, substantially as described. 11th. The combination, in a device of the class described of a base, provided with a vertical opening in its top, a rod 3 to slide in said opening and carrying a disc 4, dies upon said disc provided with characters formed by serrated outlines, the serrations thereof corresponding to and coinciding with indentations provided in a plate upon said base, a bar 18 having one end pivotally secured to said base and the other upwardly turned, a screw 20 engaging said rod 3 and supporting said bar, a shaft 10, a ratchet upon said shaft, having a flange engaged by the turned up end of said bar 18, a spring 21, a spring 19 upon said bar and engaging the teeth of said ratchet, a detent spring 19, a roller 11 upon said shaft and provided with an annular groove, a standard 13 upon said base, a key 14 pivotally supported by said standard, a pivoted roller 15, a spring 16, a pin 23 and a semi-circular inking pad upon said base beneath said dies, substantially as described. 12. In a device of the class described, the combination with the base, of the female die arranged upon the same and provided with a series of indentations, the male dies supported above said base and provided with a series of serrations or points arranged to coincide with the indentations in the surface of said female die, whereby a check or note placed between said dies will be indented or abraded when said dies are forced together, and means for inking said points or serrations to smear the bottom and sides of said indentations during the process of forming the same, substantially as described.

No. 52,246. Process of and Apparatus for Producing Fancy Coloured Jacquard Double Plush.
(Procédé et appareil pour la production de pluche Jacquard de fantaisie colorée.)

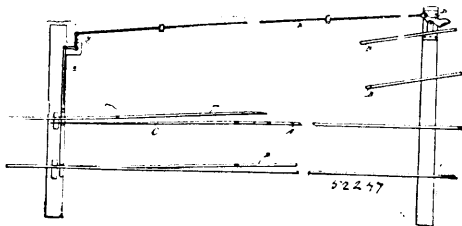


Kunstwerber Claviez & Co., assignee of Emil Claviez, both of Leipzig, Germany, 11th May, 1896; 6 years. (Filed 3rd March, 1896.)

Claim.—1st. A process for the production of coloured fancy Jacquard double-plush, characterized by the threads of the upper goods being worked separately from the threads of the under goods during the process of weaving, so that the formation of the pile takes place by a Jacquard machine in such manner that after the groundwork has been inserted into the upper and lower goods, the pile of the under goods is formed by aid of the pile threads of the

upper goods, or reversed, the pile of the upper goods by aid of the pile threads of the lower goods, so that a coloured fancy double plush is produced in which the colours of the one plush unite with the pile threads of the other plush, consequently the centre pile, and therefore the entire figure in plush of the under goods, is formed by a separate motion from the upper goods, and the threads of the upper goods unite reciprocally with those of the lower goods for the formation of the correct figure intended, so that for example the upper goods also contain the colours of the lower goods, and the reverse figure of the under goods is contained in the upper goods. 2nd. For carrying out a process such as specified, a loom characterized by the combination of a driving appliance for the lay, and of a cutting implement, in such a manner that during the revolution of the main shaft the lay strikes the goods twice for one pick, so that, on the one hand, at the first stroke of the lay the pick is delivered, whereupon the Jacquard machine and the shafts pass into a position of rest, and, on the other hand, at the second stroke of the lay, the two goods are drawn apart, and consequently the pile formed, and then the upper and lower plush is simultaneously carried to the goods beam by means of the regulator, whereupon the cutting asunder of the double plush is effected during the winding up by means of a new cutting tool. 3rd. In a loom of the kind specified, an operating device for the lay, characterized by the arrangement of a bell crank lever 100, seated on the picker shaft S, S, W, and which stand in combination with the bent-up main shaft H, W, by means of links 99, and with the lay 23 by means of rod *i*, so that the same is driven from the main shaft H, W, and the shuttle blow results from a star-wheel *s*, seated upon the picker shaft S, S, W, and the motion is transmitted by means of suitable intermediate parts to the beaters S. 4th. In a loom of the kind specified, a cutting appliance consisting in a one-armed lever *b*, sliding in a cam V and seated on a shaft *t*, which lever sets swinging a toothed segment 101, which segment, by aid of a series of toothed wheels turns backwards and forwards a rope drum 103, so as to move to the right and left the knife 107, fixed on the rope and sliding in suitable grooves, for the object of effecting a separation of both the plush fabrics at a suitable place, and in which by means of slits the stroke of the knife can be increased or diminished according to the width of the goods to be produced, and according to the sizes of both the mitre wheels and dependent upon any desired number of picks, any desired number of movements of the knife can be made.

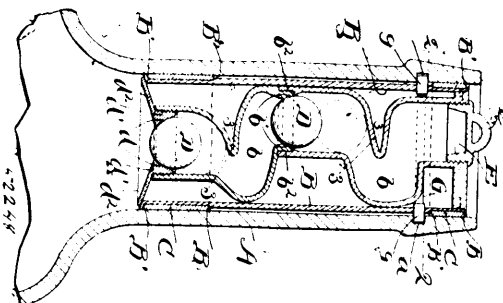
No. 42,247. Derailing Frog. (Aiguille de croisement.)



Owen J. Travis and Reuben A. Dugan, both of Joliet, Illinois, U.S.A., 11th May, 1896; 6 years. (Filed 26th March, 1896.)

Claim.—The combination of a railway rail, a tie or sleeper, a stand comprising a base plate connected to the tie or sleeper and arranged beneath the rail, an upper plate connected to the rail, and a filling block secured between the base and upper plates, and a derailing frog or device fulcrumed between the plates of the stand and having a shoulder adapted to bear against one side of the rail and also having a portion adapted to rest over the rail and provided with an oblique flange or rib, substantially and for the purpose set forth.

No. 52,248. Bottle Stopper. (Bouchon de bouteille.)



Arnold Stern, Bernhard Stern and Mathias J. Hinkel, all of Cleveland, Ohio, U.S.A., 11th May, 1896; 6 years. (Filed 30th March, 1896.)

Claim—1st. A bottle-stopper comprising a tube, two annular corks confined upon opposite ends, respectively, and externally of said tube, a valved sinuous passage-way formed internally and longitudinally of the stopper, and the removable plug or cover closing the upper or outer end of said passage-way, substantially as shown, for

the purpose specified. 2nd. A bottle-stopper comprising a tube B, any suitable number of annular corks C embracing said tube, a sinuous passage-way *b*, formed internally and longitudinally of the stopper, the removal plug or cover closing the upper or outer end of said passage-way, the valve-seats formed upon the surrounding wall of said passage-way, two ball-valves located a suitable distance within said passage-way and substantially as shown, for the purpose specified. 3rd. A bottle-stopper comprising a tube B, any suitable number of corks C embracing said tube, upper and lower internal tubes suitably shaped to form the sinuous passage-way *b* through the stopper, a removable plug or cover closing the upper or outer end of said passage-way, two valve-seats formed upon opposite ends, respectively, of the lower internal tube, and the two ball-valves D D, all arranged and operating substantially as shown, for the purpose specified. 4th. A bottle-stopper comprising a tube B, any suitable number of corks, C embracing said tube, the two internal tubes suitably secured in place and suitably shaped to form the sinuous passage-way *b*, a removable plug or cover closing the upper end of the upper internal tube, the two ball-valves D D, the seats for one of said valves formed upon the upper end of the lower internal tube, a ring or bushing *d*, secured to the lower end of the lower internal tube, the seat for the lower valve formed upon said ring, and said ring having an external flange overlapping the lower end of said lower tube, substantially as shown, for the purpose specified. 5th. A bottle-stopper comprising a tube B, any suitable number of corks C embracing said tube, the upper and lower internal tubes forming a passage-way *b*, and suitably secured in place, the removal plug or cover closing the upper end of the upper internal tube, the valve-seats formed upon the upper and lower ends of the lower internal tube, the two valves D D, all arranged substantially as indicated, and the upper internal tube having a portion of it between its ends overhanging the upper valve, and the lower internal tube having a portion of it between its ends overlapping the lower valve, substantially as shown, for the purpose specified. 6th. A bottle-stopper comprising a tube B, any suitable number of corks embracing said tube, a sinuous passage-way *b*, formed internally and longitudinally of the stopper, a removable plug or cover closing the upper end of said passage-way, two valves arranged within said passage-way a suitable distance apart, seats for said valves formed upon the surrounding wall of the passage-way, and said passage-way, a suitable distance above each valve-seat, being ovalar or elliptical in cross-section, and each of said elliptical or ovalar portions having its major diameter considerably larger than the diameter of the valve next below, and having its minor diameter smaller than the valve's diameter, and the capacity of the passage-way at the lower valve-seat being less than at any point between said seat and its outer extremity, substantially as shown, for the purpose specified. 7th. A bottle-stopper comprising a tube B, any suitable number of corks C embracing said tube, a valved sinuous passage-way internally and longitudinally of the stopper, a removable plug or cover closing the upper or outer end of said passage-way, and a spring G extending partially round the surrounding wall of said passage-way and terminating, at each end, in a head extending through the aforesaid tube, substantially as shown, for the purpose specified. 8th. The combination with the bottle-neck provided internally with an annular groove or recess *a*, the tube B within said neck, any suitable number of corks confined between said tube and the neck's internal surface, a valved sinuous passage-way formed internally and longitudinally of said tube, a removable plug or cover closing the upper or outer end of said passage-way, and the spring G arranged inside of the aforesaid tube, and extending partially round the surrounding wall of the aforesaid passage-way and terminating, at each end, in a head extending laterally through the adjacent side of the aforesaid tube into the aforesaid groove or recess, substantially as shown, for the purpose specified.

No. 52,249. Rolling Pin. (Rouleau.)

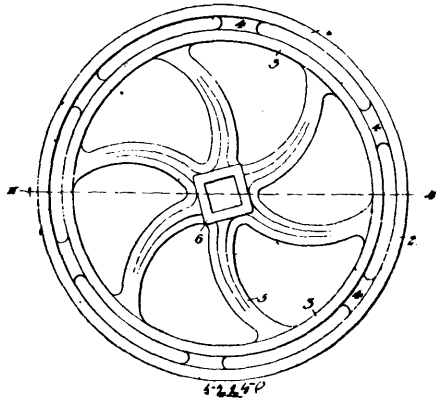


Frank E. Wolff, George Finrock and William Pratt, all of Chicago, Illinois, U.S.A., 13th May, 1896; 6 years. Filed 17th April, 1896.

Claim—1st. The combination with a rolling-pin, of a graduated journal, and a gage wheel or ring fitted to the graduated journal, substantially as and for the purposes described. 2nd. The combination with a rolling-pin, of conical or tapered, graduated journals at the ends of the body, and gages applied to corresponding graduations of the journals and adopted to be fitted to other graduations of said journals, for the purposes described, substantially as set forth. 3rd. The combination with cylindrical body, of the spindles, the handles sleeved thereon, the graduated conical journals between said body and the handles, and gage wheels or rings fitted to the graduated journals, substantially as and for the purposes described. 4th. The combination with a cylindrical body and a handle, of an adjustable graduated journal, and a gage wheel or ring, substantially as described. 5th. The combination with a cylindrical body, and a handle of a slidable graduated journal, a gage wheel, and a locking device for holding the journal in position, substantially as and for the purposes described. 6th. The combination with a cylindrical

body, a spindle, and a handle, of an adjustable graduated journal slidably fitted to the spindle between the handle and body, a gage wheel or ring, and a locking contrivance for holding the graduated journal to the handle, substantially as described. 7th. The combination with a body, and a spindle, of a slotted recessed handle, a graduated journal slidably on the spindle, a gage wheel, and a spring locking device engaging with the journal and with the slotted handle, substantially as and for the purposes described. 8th. The combination with a body and a spindle of a handle having the slot f and notches f^2 , the graduated journal, a gage wheel, and a spring retainer which is connected with the journal and provided with an arm g^1 , which is adapted to the notches f^2 , substantially as and for the purposes described.

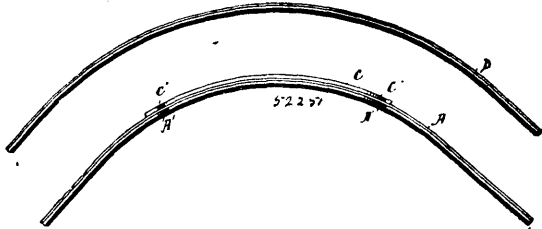
No. 52,250. Wheel. (Roue.)



The National Malleable Casting Company, assignee of Clinton Arthur Tower, both of Cleveland, Ohio, U.S.A., 13th May, 1896; 6 years (Filed 14th April, 1896.)

Claim.—A wheel having main spokes, and two concentric rims, to the inner one of which the main spokes are integrally cast, said rims being connected at intervals by integral webs situate respectively between the ends of the main spokes and not directly opposite thereto, substantially as described.

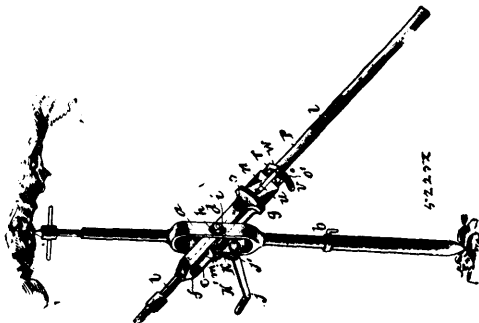
No. 52,251. Guard Rail. (Contre-rail.)



Robert B. Poole, Utica, New York, U.S.A., 13th May, 1896; 6 years. (Filed 22nd April, 1896.)

Claim.—1st. The combination of a flanged wheel, and a guard rail having balls projecting from its side face, substantially as set forth. 2nd. The combination of a flanged wheel, a tread rail, and a guard rail having a series of balls projecting from its side face, substantially as set forth. 3rd. A guard rail having a slotted opening in its side face, containing a row of balls projecting beyond the side face, substantially as set forth.

No. 52,252. Drill. (Foret.)

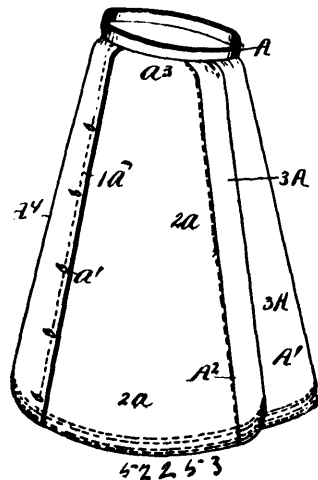


William J. Peace and John A. Harth, both of Clinton, Indiana, U.S.A., 13th May, 1896; 6 years. (Filed 22nd April, 1896.)

Claim.—1st. In a drill, the combination of a support, the feed screw, nuts movable into and out of engagement with the screw,

sliding wedges controlling and moving said nuts, and a swinging slotted keeper controlling said wedges, substantially as described. 2nd. In a drill, the combination of a support, a nut block, a feed screw, nuts in the block movable into and out of mesh with the screw, the double sliding wedge in the block having parallel flanges in guides in the block and inclined flanges confined in guides in the nuts, and a swinging keeper at the exterior of the nut block provided with a slotted bar confined to the wedge to move or lock the same, substantially as described. 3rd. In a drill, the combination of a support, a feed screw, a nut block having radial ways, the nut sections arranged to slide in said ways to and from the screw, the transverse parallel ways within the block beside said nut sections, the transverse inclined slide ways in the nut sections, and the slide confined to move in and guided by said block slide ways and having the inclined ribs in said inclined ways of the nut sections to operate substantially as described. 4th. The combination in a drill, of a support, a screw feed, a nut block through which the screw passes and having the radial openings, the transverse parallel ways at each side of an opening, the radially movable nut sections in said openings, each nut section having a transverse side inclined groove, and the slide at the exterior of the block having the two legs extending into said slide ways beside the sections and provided with parallel ribs in said parallel ways and with inclined flanges fitted in said inclined grooves of the nut sections, substantially as described.

No. 52,253. Bicycle Garment. (Vêtement de bicyclette.)



Mrs. Alice M. McCauley and Levi J. Lennox, both of Detroit, Michigan, U.S.A., 13th May, 1896; 6 years. (Filed 10th April, 1896.)

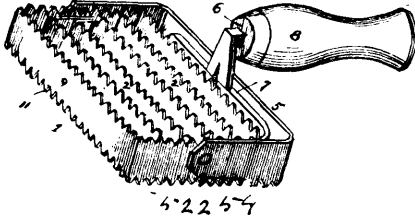
Claim.—1st. A combined street and bicycle garment, consisting of a body portion and of wide or full leg portions connected thereto, combined with a detachable apron portion applied to the garment in front and secured at its lateral edges to the outer sides of the body and leg portions, substantially as described. 2nd. A combined street and bicycle garment, consisting of a body portion and of wide or full leg portions connected thereto, combined with a detachable apron portion applied to the garment in front and secured at its lateral edges to the outer edges of the body and a leg portion, said leg portions at their lower extremities provided with means for drawing up the fullness thereof at the bottom of the leg portions, substantially as described. 3rd. A combined street and bicycle garment, consisting of a body portion and wide or full leg portions connected thereto, the body and leg portions being provided with a row of suitable fastenings down their outer sides, combined with a detachable apron portion that is applied to the garment in front, and provided along its two outer edges with fastenings to engage with the fastenings at the outer sides of the body and leg portions, substantially as shown. 4th. A combined street and bicycle garment, consisting of a body portion and wide or full leg portions connected thereto, the body and leg portions being provided with a row of suitable fastenings down their outer sides, and the leg portions with suitable fastenings down their inner sides that are adapted to engage with each other for the purpose of closing the garment from behind, combined with a detachable apron portion that is applied to the garment in front, and provided along its two outer edges with fastenings to engage with the fastenings at the outer sides of the body and leg portions, substantially as shown.

No. 52,254. Curry-comb. (Etrille.)

John Carden, Carpenteria, California, U.S.A., 13th May, 1896; 6 years. (Filed 16th April, 1896.)

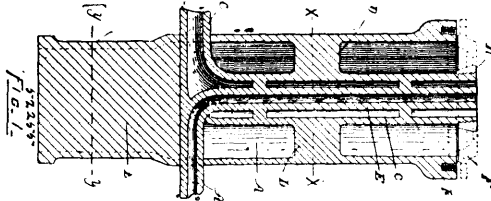
Claim.—1st. A curry-comb, comprising a body portion formed from a strip or ribbon of metal toothed on both edges and wound upon itself from the centre outward to form a series of parallel bars, the ends of the folds overlapping and provided with registering

openings, a yoke toothed on one edge and having its end portions formed with openings, fastenings passing through the openings in



the ends of the yoke and the folds of the comb body to secure all the folds and the yoke together and forming pivots for the comb body to turn upon, a handle attached to the yoke, and means for securing the comb body in either of its working positions, substantially as set forth. 2nd. As an improved article of manufacture, a curry-comb, comprising a comb body and a yoke formed from a strip or ribbon of metal, the yoke strip being toothed on one edge and the comb body strip toothed on both edges and folded upon itself from the centre outward to form a series of approximately parallel bars, fastenings pivotally connecting the ends of the yoke with the comb body and serving to secure the folds, a handle attached to the yoke and provided with a threaded opening, and a fastening screw passing through said threaded opening and adapted to engage with a corresponding opening in the side bars of the comb body to hold the latter in the located position, substantially as set forth.

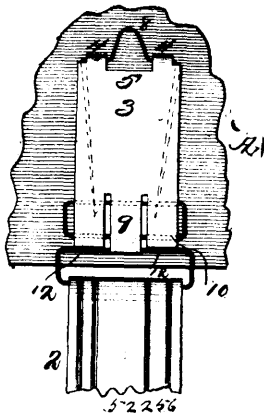
No. 52,255. Combined Exhaust, Blower, and Air-brake Exhaust Pipe for Locomotive Engines. (*Tuyau d'émission de la vapeur, etc., pour machines locomotives.*)



William E. Borbridge, Ottawa, Ontario, Canada, 13th May, 1896; 6 years. (Filed 16th April, 1896.)

Claim.—1st. In a locomotive engine, the herein described arrangement of the blower, or draft-starting, and exhaust pipes, in which the exhaust pipe of the air-brake is placed centrally in the main exhaust pipe of the locomotive engine, and the blower or draft-starting steam pipe is placed centrally in the exhaust pipe of the air-brake, substantially as shown and described. 2nd. The combination in a locomotive engine of the main exhaust pipe, with the draft-starting and air-brake exhaust pipes placed centrally therein, a nozzle plate secured to the main exhaust pipe, and an expanding ring screwed on the top end of the air-brake exhaust pipe, substantially as herein shown and described.

No. 52,256. Hose-supporter. (*Support de boyau.*)



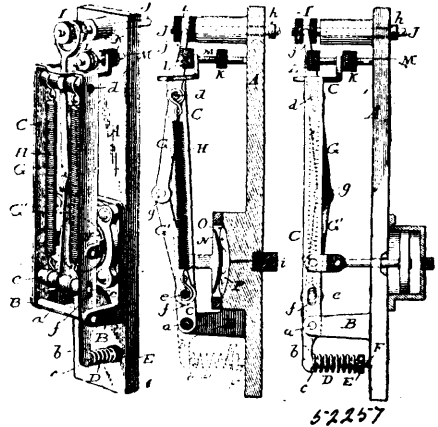
Leonard Guy Abbot, Syracuse, New York, U.S.A., 13th May, 1895; 6 years. (Filed 16th April, 1896.)

Claim.—1st. The combination with a body having journalled bearings formed at each end, of a pin journalled in one end and a presser

bar journalled in the other end to engage with said pin, and having a loop to which a tape can be connected. 2nd. The combination with a body, a pin journalled in bearings at one end and having an extension between said bearings adapted to engage with said body when swung outwardly of a presser bar journalled in bearings upon the other end, of said body and having a loop to receive a tape and a cross bar bearing upon said pin, and a spring created by slitting said body and with which the presser bar engages. 3rd. The combination with a body and a U-shaped pin journalled upon one end thereof and having an extension adapted to engage with said body between said journal bearings, when said pin is opened, of a presser bar comprising a loop to receive a tape, inwardly projecting arms journalled upon the other end of said body, and a cross bar connected to said arms and bearing upon said pin, and a spring between slits in said body engaging with the presser bar to hold the cross bar thereof in contact with said pin.

No. 52,257. Mechanical Movement.

(*Mouvement mécanique.*)



Warren S. Johnson, Milwaukee, Wisconsin, U.S.A., 13th May, 1896; 6 years. (Filed 18th April, 1896.)

Claim.—1st. A mechanical movement comprising the following elements in combination, a swinging frame, means for moving said frame, a toggle carried by said frame and having one member pivoted and the other arranged to slide therein, a device to be moved, a connection between the toggle and said device, and a spring connected with and serving to bow the toggle. 2nd. In combination with a movable device as J, provided with stops to determine its range of movement, mechanism for imparting a sudden movement thereto in opposite directions, consisting of a swinging frame, means for moving said frame, a toggle having one member pivotally attached to and the other arranged to slide in said frame, a spring connected with and tending to bow the toggle, and a connection between the toggle and the device to be moved, substantially as set forth. 3rd. In combination with a movable device as J, having a restricted range of movement, mechanism for moving the same suddenly in one and the other direction, consisting of a swinging frame, a motor for moving said frame, a toggle having one of its members pivoted in said frame and connected with the part to be moved, and having its other member arranged to slide in the swinging frame, and a spring connected with and serving to bow the toggle. 4th. In combination with a member having a restricted range of movement, as J, and with a prime motor as N, O, P, a translating device interposed between the member to be moved and the motor, and comprising a swinging frame C, a toggle G, G¹, carried therein by pivotal connection and sliding connection e, a yoke j, extending from the toggle to the member to be moved, and a spring H, connected with and serving to bow the toggle when its three pivots are thrown out of alignment. 5th. In combination with a member as J, having a restricted range of movement, a swinging frame C, stops to limit the play of said frame, a motor for moving said frame in one direction, a spring for returning said frame, a toggle carried by said frame and having its members respectively connected therewith by pivotal and by sliding connections, a spring acting upon and serving to bow the toggle, and a connection between the toggle and the member to be moved.

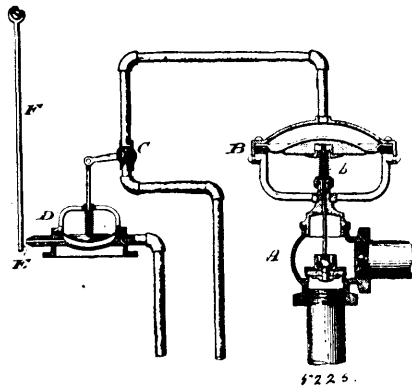
No. 52,258. Heat Regulating Apparatus.

(*Régulateur de chaleur.*)

Warren S. Johnson, Milwaukee, Wisconsin, U.S.A., 13th May, 1895; 6 years. (Filed 18th April, 1896.)

Claim.—1st. In a valve or damper controlling apparatus, the combination of a primary, a secondary, and a tertiary valve, fluid pressure motors for actuating the primary and secondary valves, and a thermostatic motor for actuating the tertiary valve, the primary valve serving to regulate the heat supply, the secondary valves serving to control the delivery and release of fluid pressure to and

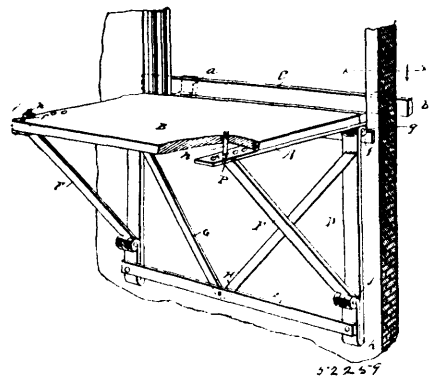
from the primary valve motor, and the tertiary valve serving to open and close an outlet of the fluid pressure motor of the secondary valve



main heat controlling valve or damper, a primary fluid pressure motor connected therewith, a secondary valve controlling the supply and thereby to control the fluid pressure of the secondary valve motor. 2nd. In heat regulating apparatus the combination of a and release of fluid pressure to and from said motor, a secondary fluid pressure motor connected with said secondary valve, a tertiary valve controlling the release of fluid pressure from the secondary motor, and a thermostat arranged to actuate said tertiary valve, the main valve being arranged to close when the tertiary valve opens and *vice versa*, substantially as and for the purposes set forth. 3rd. In combination with a main heat controlling valve or damper, a fluid pressure motor for actuating said valve or damper, a second valve controlling said fluid pressure motor, a second fluid pressure motor controlling said second valve, and a thermostat controlling the relative supply and waste of fluid in the second fluid pressure motor. 4th. In combination with a valve or like device, and with a slowly acting motor having a movable member, a pivoted frame or lever connected with the movable member of said motor, a toggle joint carried by said frame and connected with the valve or like device, and a spring tending to carry the members of the toggle joint out of line with each other, substantially as and for the purpose set forth. 5th. In combination with a valve or like device, and with a slowly acting motor having a movable member, a pivoted frame or lever connected with the movable member of said motor, stops to limit the play of said frame, a toggle joint carried by said frame and connected with the valve or like device, and a spring, tending to carry the members of the toggle joint out of line with each other, whereby the initial action of the motor is caused to move the frame and to shift the toggle from one to the other side of its central line, without affecting the valve, and the spring is caused thereupon to throw the valve instantaneously its entire distance regardless of the continuing movement of the motor and frame. 6th. In combination with valve C and fluid pressure motor D, swinging frame O, toggle joint o^1 pivotally connected with frame O, and having an extension beyond its pivot to engage the stem of valve C, and a spring o^2 connected at one end with the toggle joint and at the other end with frame O, all substantially as described. 7th. In heat regulating apparatus the combination with a main heat controlling valve or damper, and a fluid pressure motor connected therewith, of a thermostatic fluid pressure controlling instrument governing the operation of said motor, and comprising a supply and waste valve, a secondary fluid pressure motor connected therewith having a constant fluid pressure supply connection and an outlet of larger area, a valve controlling said outlet, and a thermal expansion strip arranged to actuate said valve, substantially as and for the purposes set forth. 8th. In heat regulating apparatus the combination with a main heat controlling valve or damper, and a fluid pressure motor connected therewith, of thermostatic fluid pressure controlling mechanism governing the operation of said motor and comprising a supply and waste valve, a secondary fluid pressure motor connected therewith having an outlet, and a fluid supply connection provided with a regulating valve, a valve controlling said outlet and a thermostat arranged to actuate said outlet valve, substantially as and for the purposes set forth. 9th. In heat regulating apparatus, the combination of a movable block or lever; an indicator arm connected with and serving to move said block; a scale over which the indicator moves; a stud pivotally connected with the movable block; a screw for adjusting said stud relatively to the block; and a thermostatic bar or strip carried by the stud; the screw serving to adjust the thermostatic bar or strip relatively to the indicator arm, and the indicator arm serving to adjust said bar or strip relatively to the scale, substantially as explained. 10th. In heat regulating apparatus the combination with a heat controlling valve or damper, and a fluid pressure motor connected therewith, of a thermostatic fluid pressure controlling instrument comprising a suitable base and cover, a supply and waste valve, a secondary fluid

pressure motor connected therewith, a lever pivoted to said base, a thermal expansion strip pivotally connected with said lever and provided with a valve which controls the operation of the secondary motor, a cam engaging with said lever and provided with a key stem accessible through an opening in the cover, a scale exposed through an opening in the cover, an index connected with said cam, and arranged to indicate upon said scale the degree of temperature at which the instrument is set to open or close said thermostatic valve, an arm or plate attached to the pivotal connection of the expansion strip, and a screw arranged to turn the same and to adjust the thermostatic valve with reference to its seat, substantially as and for the purposes set forth. 11th. In heat regulating apparatus, the combination with a source of fluid pressure, of an automatic governor for regulating such pressure, a fluid pressure motor connected with said source of fluid pressure by a restricted passage and having a relief opening of normally greater area than its inlet, a valve controlling said relief opening, a thermostatic motor for operating said relief valve, a main valve or damper, and intermediate mechanism whereby said main valve or damper is operated and controlled through said fluid pressure motor. 11th. In heat regulating apparatus the combination of a motor for producing fluid pressure, and automatic governor for controlling said motor or pressure, an expansion chamber subject to the action of the fluid pressure produced by said motor, a restricted opening between said chamber and said fluid pressure motor, a relief opening from said expansion chamber having a greater normal opening than said inlet opening, a valve controlling said relief opening, a thermal motor for operating said relief valve, a main valve and intermediate mechanism between said expansion chamber and said main valve, whereby said main valve is operated through the movements of said expansion chamber, substantially as and for the purposes set forth. 13th. In heat regulating apparatus the combination with a main heat controlling valve or damper, and a source of fluid pressure supply, of a fluid pressure motor governing the operation of said main valve or damper, and having a constantly open restricted passage communicating with said source of fluid pressure supply, and an outlet or relief passage of greater area, a filter between said restricted supply opening and the source of fluid pressure, a relief valve controlling said outlet, and a thermal motor for operating said relief valve, substantially as and for the purposes set forth.

No. 52,259. Window Shelf. (Tablette de fenêtre.)



Levi A. Pendleton, Randolph, Maine, U.S.A., 13th May, 1896; 6 years. (Filed 18th April, 1896.)

Claim.—1st. The shelf-supporting bracket comprising the shelf-supporting arms, having a hole in their under sides adjacent to their outer ends, the holder bar secured to the inner ends of said arms and adapted to engage the inner side of a window casing, bars at D, hinged to the under sides of the shelf-supporting arms and depending therefrom, and the props hinged at one end to the bars D, and having their opposite ends adapted to engage the holes in the under sides of the shelf-supporting arms, substantially as specified. 2nd. The shelf-supporting bracket, comprising the two shelf-supporting arms, having a hole at or near their outer ends, and their inner ends turned upwardly, the holder bar secured to said upwardly turned ends and having its ends extended laterally therefrom, the bars D, hinged to the under sides of the shelf-supporting arms and having their opposite ends turned upon themselves, the props having their upper ends reduced to enter the holes in the shelf-supporting arms, and their opposite ends hinged to the lower ends of the bars D, and the brace E, connecting the lower ends of said bars D, substantially as specified.

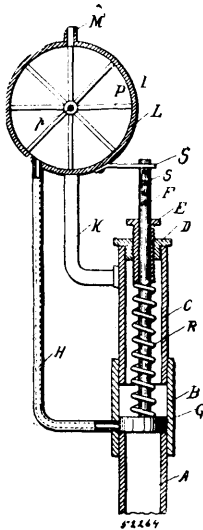
No. 52,260. Stove. (Poêle.)

Joseph Wilfred Chapleau and Godefroi Chapleau, both of Montreal, Quebec, Canada, 13th May, 1896; 6 years. (Filed 4th April, 1896.)

up one or more of the other pipes by the accumulated pressure below such caisson, thereby providing for the removal of the earthy materials as required beneath any portion of such caisson without requiring air pressure or air locks, substantially as set forth. 2nd. A caisson having downwardly projecting edges and a closed deck adapted to receive the foundation of a building or other structure, in combination with numerous water pipes passing through such deck and opening near the under side of such deck, such pipes being adapted to pass and direct water through the earthy materials to commingle with the same and to discharge the same upwardly through other of such pipes, substantially as set forth. 3rd. The method herein specified of forming foundations for buildings and other structures, consisting in removing the earthy materials from beneath the caisson by the circulation of water, and then filling in the space below the deck of the caisson by cementing material introduced through pipes, substantially as set forth. 4th. A caisson having a deck and a downwardly projecting edge made of a metallic framework and a substantially vertical exterior skin and an inclined interior skin below the deck and one or more doors in the inclined part of the interior skin and hinged at their upper edges so as to be capable of being opened downwardly at their lower edges near the cutting edge of the caisson to give access from between the skins to any obstruction which may be encountered by the caisson as it sinks, substantially as set forth.

No. 52,264. Alarm for Steam Boilers.

(Indicateur d'eau à sifflet.)



Daniel C. McAulay, Port Morien, Nova Scotia, Canada, 13th May, 1896; 6 years. (Filed 21st April, 1896.)

Claim.—1st. In a steam boiler alarm, the combination with a spring-pressed piston-valve connected to the boiler, of a rotary motor, a steam supply-pipe connected to the motor and admitting steam to it when the said piston-valve is raised, a tooth on the motor shaft, and a bell provided with a spring-pressed trip-hammer operated by the said tooth, substantially as set forth. 2nd. In a steam boiler alarm, the combination, with a pipe A having a socket B at its upper end, of a pipe C secured to the said socket and provided with a cap, a plug screwed in the cap, a rod slidable in the said plug and provided with a piston-valve at its lower end normally closing the pipe A, a spring interposed between the said piston-valve and plug, a rotary motor, a bell sounded by the said motor, and a steam supply pipe connecting the motor with the pipe A when the said piston-valve is raised, substantially as set forth. 3rd. In a steam boiler alarm, the combination, with a bell, of a rotary motor provided with arms and a central shaft having a shoulder *p*¹ inside the motor casing, a screw bearing against the other end of the motor shaft and operating to press the shoulder against the casing, thereby preventing the steam from leaking out around the shaft, a tooth secured on the projecting end of the shaft, and a spring-pressed trip-hammer arranged in the path of the said tooth and operating to ring the bell as long as the motor is in motion, substantially as set forth.

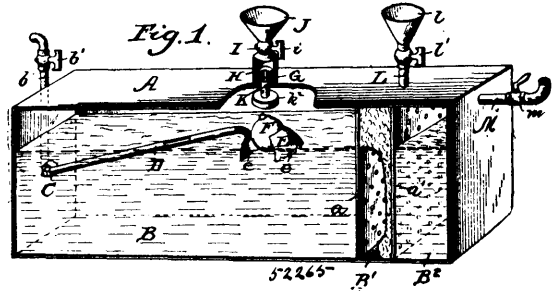
No. 52,265. Gas Enriching Apparatus.

(Appareil à enrichir le gaz.)

George G. Schroeder, Washington, Columbia, U.S.A., 13th May, 1896; 6 years. (Filed 13th April, 1896.)

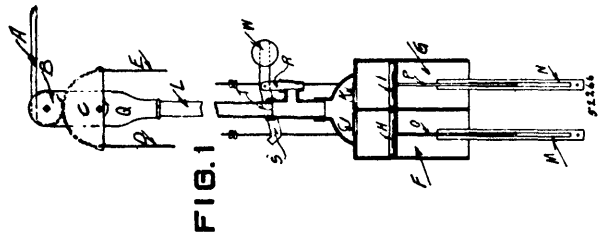
Claim.—1st. In a gas enricher, the combination with the oil compartment, of a vertically swinging gas supply pipe entering said compartment, a deflecting plate and a float secured to the free end of said pipe, and an oil feeding valve communicating with said com-

partment and located in the path of movement of the swinging gas supply pipe, whereby the feed of oil is cut off when the com-



partment contains the desired quantity, substantially as described. 2nd. In a gas enricher, the combination with the casing divided by vertical perforated partitions into an oil receiving chamber, an oil delivering chamber and a purifying chamber situated between the oil receiving and delivering chambers, of means for delivering a purifying agent to the purifying chamber, a vertically swinging gas supply pipe entering the oil receiving chamber, and an oil feed valve communicating with said chamber and located in the path of movement of the swinging gas supply pipe, substantially as described for the purpose set forth. 3rd. In a gas enricher, the combination with the tank, the vertically swinging tube therein adapted to receive gas from any proper source of supply, and the concave depending plate attached to a proper float and receiving gas near its upper edge from the upper end of said swinging tube, of the automatically closing oil feeding device essentially composed of a vertical nipple rising from the top of the tank at a proper point, the perforated tube, movable vertically in said nipple, flanged around its upper end to prevent its falling through said nipple, and having a closed lower end against which the top of the float impinges when the tank has a sufficient quantity of oil, thereby stopping the inflow of oil through the perforations in said tube by moving them upward against the inside of the nipple, substantially as specified. 4th. In a gas enricher, the combination with the receiving tank, the feed pipe opening into the one end of the receiving tank, the movable gas pipe, free at its inner end and pivoted at its outer end to a suitable coupling piece secured to the inner surface of the outer end of the feed tank, and having communication through said coupling piece with the feed pipe and the float, substantially as described, secured to the inner end of the movable gas pipe, of the oil feeding device composed of the nipple G, tube H having a suitable stop-cock and feeding funnel at its upper end, and the perforated tube provided with the flange *k* at its upper end and the disc *k*² at its lower end, all constructed and arranged substantially as shown and described for the purposes specified. 5th. In a gas enricher, the combination with the casing, the gas delivery pipe secured to the outside of the casing, the vertically swinging gas delivery pipe, pivoted at its outer end to a bracket secured to the inner side of the end of the casing and communicating through said bracket with the outside delivery pipe and the float attached to the inner free end of the swinging delivery pipe and composed of the hollow sphere F and hemispherical deflecting plate E notched at *e, e*, in its edge and opening near its connection with the sphere F into the gas delivery pipe, of the automatic feed device consisting of the tube H and attached funnel and stop-cock, the tubular nipple secured within the tube H and the perforated tubular piece K provided with the upper and lower flanges *k, k*² respectively, and with the perforations *k*¹, *k*¹, substantially as specified.

No. 52,266. Force Pump. (Pompe foulante.)

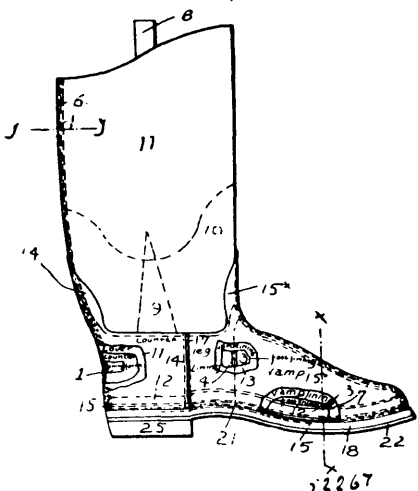


William Edward McCall, Peterborough, Ontario, Canada, 13th May, 1896; 6 years. (Filed 16th April, 1896.)

Claim.—1st. The combination of the arm A, with the pinion B, segment of cog-wheel C, rods D and E, in such a manner as to produce a means of operating the moving valves H and I, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the cylinders F and G, with slides M and N, the valves H and I, and J, and K, in such a manner as to produce a means of forcing water through the discharge pipe L, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of the arm B,

plug R, weight W, and rod D, in such a manner as to produce a means of emptying water in the discharge pipe L, and preventing same from freezing in cold weather, substantially as and for the purpose hereinbefore set forth.

No. 52,267. Rubber Boot. (*Chaussure en caoutchouc.*)

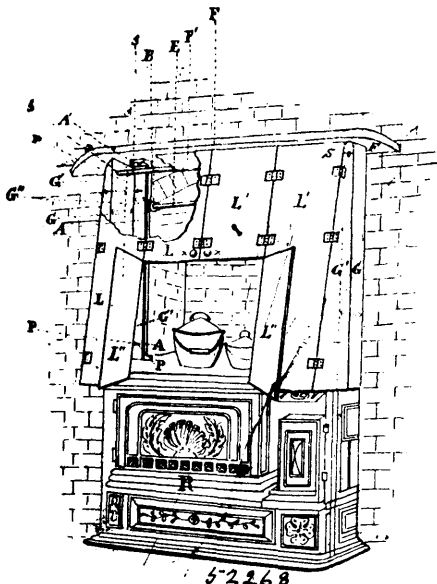


Samuel James Harris, Millville, Massachusetts, U.S.A., 13th May, 1896; 6 years. (Filed 22nd April, 1896.)

Claim.—1st. A rubber boot, having an insole, a middle sole cemented to said insole, and formed of canvas or cloth saturated with a rubber solution, this sole being of sufficient thickness to fill the hollow of the insole and render the bottom flat, a rubber sole cemented to the middle sole and made-up of an upper and a lower section of rubber and an intermediate portion of canvas saturated with a rubber compound, the whole being cemented and rolled, or pressed, together, and a leather sole stitched to a welt of said rubber sole, except at the heel portion which is stitched through the said sole to the inside of the boot, substantially as specified. 2nd. As a new article of manufacture, a rubber boot having the strip 12 running continuously around the bottom thereof underneath the vamp and counters and lapped at its lower edge upon the insole, a middle sole of canvas saturated with rubber cement and coated with a rubber compound, a rubber sole built up of an upper and lower thickness of rubber and an intermediate thickness of rubber saturated canvas, the three thicknesses being cemented and rolled together, said rubber sole having an edge extension beyond the boot, a leather sole stitched to said extension and a leather heel, substantially as specified.

No. 52,268. Ventilating Device for Cooking Stoves and Ranges. (*Appareil de ventilation pour poêles de cuisine.*)

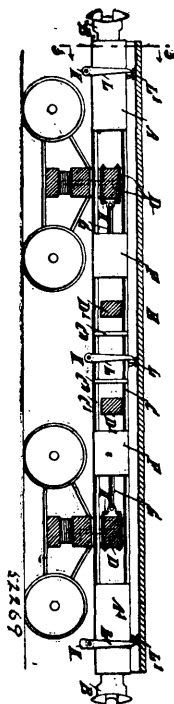
Fig. 1



Edward Bookhout, Cranford, New Jersey, U.S.A., 15th May, 1896; 6 years. (Filed 16th April, 1896.)

Claim.—1st. The combination, with the cooking range, of a ventilating attachment, the inclosure of which is partly formed by sides or walls G, G¹, starting from the face of the chimney breast or other wall or partial inclosure over the top of a range, said walls G, G¹ projecting out near or beyond the front edge of the range top, said walls, G, G¹, being divided vertically into two members G, G¹, one of these members fitted to move edgewise, against the other, for the purpose of adjustment to the different sizes of ranges, with means to fasten the same when adjusted, substantially as herein described. 2nd. The combination, with a cooking range, of a ventilating attachment, comprising sides or walls G, G¹, standing one at each side of range top, starting from frame posts, A A, on the face of chimney breast, or other partial inclosure or wall over the top of a range, said sides or walls, G, G¹, projecting at their lower ends, out near or beyond the front edge of range top, doors L, L, L¹, L¹, opening outward, hinged to the sloping sides or walls G¹, and the whole surmounted by a roof F, forming a shelf, with the flange F¹ at its lower side, through which flange and the two sides G, G¹, the rod or bolt S passes and binds the whole together, substantially as described. 3rd. The combination, with a cooking range, of a ventilating attachment, said attachment made adjustable to ranges of different lengths, by means of flanges G¹¹, upon the edges of the side walls G, G¹, contiguous to the frame posts A A, to which they are bolted, as herein set forth. 4th. The combination, with a range, of a ventilating attachment, said attachment completing the inclosure of all of the stove holes in top of the range, and held in its place by means of frame posts A A, against the chimney breast or other wall or inclosure over a part of the top of a range, said frame posts A A, each furnished with an adjustable bracket B, B¹, as described, and the threaded rod E, with its binding nut e, or their equivalent, for forcing the brackets B and B¹ in their places, as and for the purposes herein set forth.

No. 52,269. Railroad Car. (*Char de chemin de fer.*)

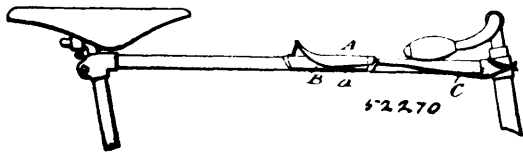


John Shaw, Woodburn, Oregon, U.S.A., 15th May, 1896; 6 years. (Filed 3rd February, 1896.)

Claim.—1st. A railroad car, provided with a frame mounted to slide longitudinally on the under side of the car, and formed at its ends with draw-heads containing the draw-bars, casings held on the said frame, rods connected with a fixed portion of the car, and springs coiled on the said rods within the said casings, substantially as shown and described. 2nd. A railroad car, provided with a frame mounted to slide longitudinally on the under side of the car, and formed at its ends with draw-heads containing the draw-bars, casings held on the said frame, rods connected with a fixed portion of the car, spring coiled on the said rods within the said casings, and washers held on said rods, to engage the ends of the springs, substantially as shown and described. 3rd. A railroad car, provided with a draw frame having casings, each provided with lugs, washers held in the said casing and one resting on said lugs, a rod engaging said washers and connected with the car body, and a spring in said rod between said washers, substantially as shown and described. 4th. A railroad car having a frame extending longitudinally beneath it, a draw-head at each end of the frame, a beam extending transversely

through the frame and rigid on the car, a rod carried by the beam, two washers held on the frame and having limited movement, a rod connected with the beam and passed through the washers, and a spring interposed between the washers, substantially as described. 5th. The combination with a car, of a frame extending longitudinally beneath the same, a draw-head connected to each end of the frame, a beam passed transversely through the frame and rigid with the car, and a cushioned connection between the beam and frame, substantially as described. 6th. The combination with a car, of a frame longitudinally movable beneath the car, a draw-head at each end of the frame, and U-shaped hangers pivotally mounted on the car and embracing the frame, substantially as described. 7th. A railroad car, provided with a longitudinally extending draw frame comprising longitudinal rods having fixed collars, and draw-heads engaged by said rods and abutting against said collars, said draw-heads being held in position by nuts screwing on said rods, substantially as shown and described. 8th. A railroad car, provided with a longitudinally extending draw frame, comprising longitudinal rods, and ties for connecting the rods with each other, said ties abutting against fixed collars on said rods, substantially as shown and described. 9th. A railroad car, provided with a longitudinally extending draw frame comprising longitudinal rods, ties for connecting the rods with each other, said ties abutting against fixed collars on said rods, and bolts for securing said ties to said collars, substantially as shown and described. 10th. A railroad car, provided with a longitudinally extending draw frame comprising sets of upper and lower tubes, a block formed with longitudinal seats for part of the said rods, and clamping bolts connecting diagonal tubes with each other and passing through said block, substantially as shown and described. 11th. A railroad car, provided with a longitudinally extending frame comprising longitudinal rods having fixed collars, a spring casing formed with longitudinal seats at its corners for said rods or tubes, and means for fastening said collars and spring frame together, substantially as shown and described.

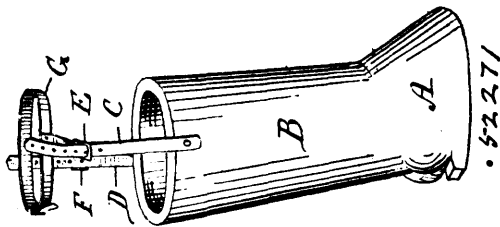
No. 52,270. Child's Seat for Bicycles.
(*Siège d'enfant pour bicycles.*)



William George Bristow, Medicine Lodge, Kansas, U.S.A., 15th May, 1896; 6 years. (Filed 14th April, 1896.)

Claim.—1st. A child's seat for bicycles, &c., consisting of a seat portion, and a spring base attached thereto beneath the same, and adapted to partially surround and loosely clasp the bar of a bicycle frame, and maintain the seat in close relation to said bar and practically in the same horizontal plane therewith, substantially as described. 2nd. In a child's seat for bicycles, &c., the combination of a seat body and a spring base fastened to the under side thereof, the said seat body having its front end curved to conform to and partially surround the upper surface of said base and the top of a bicycle bar, when mounted thereon, substantially as described. 3rd. In a child's seat for bicycles, &c., the combination with the seat body, and its base adapted to be readily mounted upon and loosely embrace the bar of a bicycle frame, of retaining straps or ties attached to the seat and connecting the same with the frame of the bicycle to maintain the seat in position upon the bar, and prevent backward movement thereof while in use by a child, substantially as described.

No. 52,271. Horse Boot. (*Botte de cheval.*)



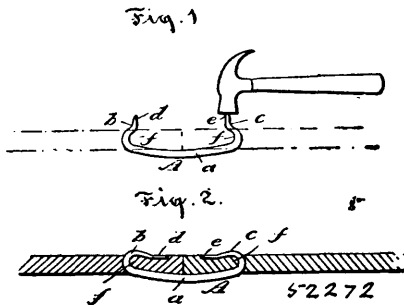
William Cain, Perth, Ontario, Canada, 15th May, 1896; 6 years. (Filed 14th April, 1896.)

Claim.—1st. As an improved article of manufacture, a horse boot comprising a foot A, and leg B, of indurated fibre or fibrous composition, moulded entire, as set forth. 2nd. A horse boot having a foot A, leg B, and straps C, D, as set forth.

No. 52,272. Belt Fastener. (*Attache pour courroies.*)

Harry Herbert Jones, Lancaster, New Hampshire, U.S.A., 15th May, 1896; 6 years. (Filed 15th April, 1896.)

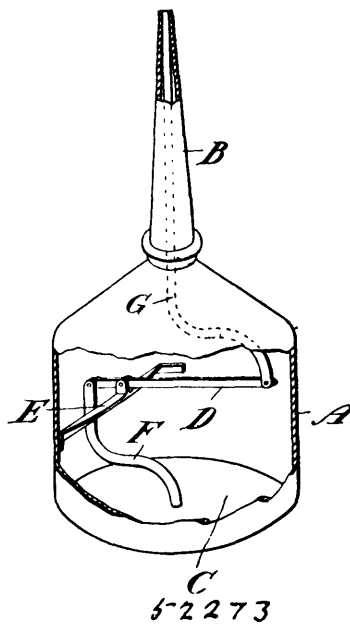
Claim.—A belt fastener made from a length or bar of metal which has its ends curved upward and inward, forming recesses *ff*, and



then extending outwardly, forming the clinchable prongs *d, e*, said prongs lying in planes within the extremities of the bar to which said prongs are joined by off-set necks *b, c*, substantially as and for the purpose described.

No. 52,273. Oil-Can. (*Bidon à huile.*)

Fig. 1



Fredrick John Marolf, Rock Rapids, Iowa, U.S.A., 15th May, 1896; 6 years. (Filed 15th April, 1896.)

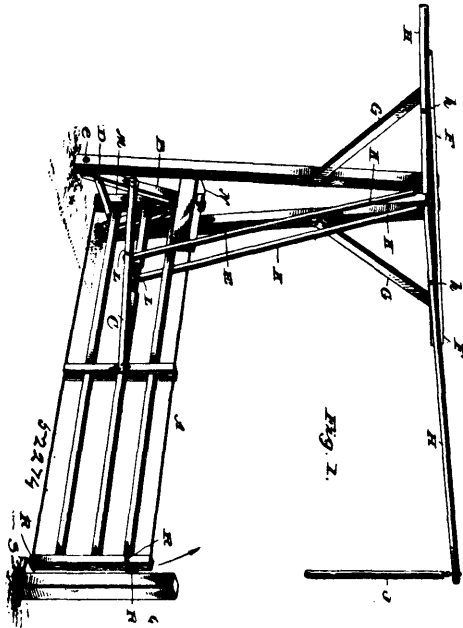
Claim.—In an oil-can having a spring bottom, the combination of the levers *H* and *D* parallel with each other and with the said bottom, and mounted near one end, a rod connecting the short arm of lever *H*, with the long arm of lever *D*, a rod connecting the short arm of lever *D*, with the central portion of the spring bottom, and a plunger having connection with the long arm of the lever *H*, substantially as shown for the purpose described.

No. 52,274. Tilting Gate. (*Barrrière à bascule.*)

Henry Hodel, Congerville, Illinois, U.S.A., 15th May, 1896; 6 years. (Filed 16th April, 1896.)

Claim.—1st. In combination with a tilting gate pivoted to upright posts, a balancing member, carried on the upper end of the rear upright strip of the gate, one end of which member is designed to rest on the ground, when the gate is raised to form a support therefor, and means for raising the gate, substantially as shown and described. 2nd. In a tilting gate the combination with the upright posts, of the gate proper having inclined strips *B* secured at the rear end thereof, the lower end of which are pivoted to the said posts, of the balancing member carried at the upper end of the gate, and having its centre in the same plane with the pivotal pins on which the gate tilts, and suitable levers for operating the gate substantially as shown and described. 3rd. In a tilting gate, the combination with the upright posts connected together at their upper ends with a cross-beam, of a gate having inclined braces *B* secured at their upper ends to the upper end of the rear vertical

strip of the gate, their lower ends pivoted to the said posts, the braces C connecting the said inclined strips B to the middle portion



of the gate, of the levers K pivoted to the braces C at their lower ends, and their upper ends connected by double-eye bolts to a lever carried by the cross beam, substantially as shown and described. 4th. In combination with a tilting gate, mounted as described between two vertical posts, of the post Q, having the guide pins R, outwardly inclined, and the block S upon which the free end of the gate is adapted to rest, and the guide pins carried thereon, substantially as shown and described.

No. 52,275. Baby Carriage Brake.
(Frein pour voitures d'enfants.)

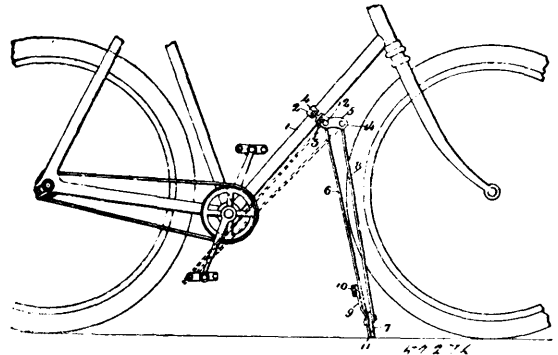


Austin G. Mackenzie, Wellsville, and John S. Hollingshead, Tiltonville, both of Ohio, U.S.A., 15th May, 1896; 6 years. (Filed 16th April, 1896.)

Claim.—1st. The combination with the main frame and axles, of the handle and push-bars, the rock-shaft, the bracket upon the rear axle, the lever pivoted in said bracket, the spring attached to said bracket and bearing upon said lever, the rod or link connecting the lower end of the lever with the rock-shaft, the hand-lever on handle-bar, the rod connecting the hand-lever with the upper end of lever on rear axle, and a clevis or ring on the handle bar, substantially as shown and described. 2nd. In a carriage brake mechanism as described, the combination with the main frame A, and the rear axle, of the rock-shaft C, having brake portions, journaled on the main frame, and having a crank member, the bracket F secured to the rear axle, the lever E journaled in such bracket, the spring device X, the rod connecting the lower end of lever E with the crank of the brake-shaft, the pivoted crank-lever J, on the handle-bar and connection between the said lever and the upper end of the lever E, all arranged substantially as shown and for the purposes described. 3rd. In a brake mechanism as described, the combination with the main frame, the handle-bar, and the rear axle of the brake shaft C, having brake portions at the ends and a central crank portion, the spring actuated lever devices, E, F, the crank-lever J, pivoted on

the handle-bar, the connecting rods D and H, joining the crank-shaft C and lever J, respectively to the lever E, and the clevis I, secured to the handle bar, all arranged substantially as shown and for the purposes described.

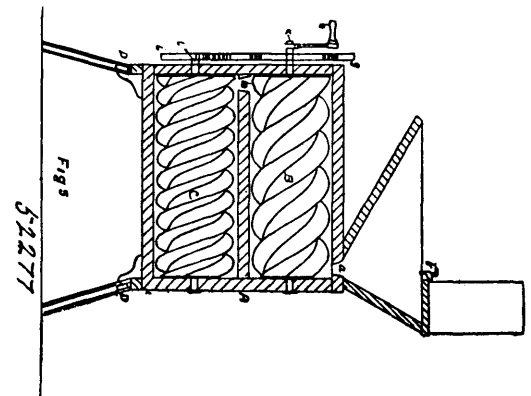
No. 52,276. Bicycle Support. (Support pour bicycles.)



John Jay McKanna, Houston, and Conrad Lindstrom, El Camps, both in the State of Texas, U.S.A., 15th May, 1896; 6 years. (Filed 11th April, 1896.)

Claim.—1st. In a bicycle support, a suitable support adapted to be swung from the frame of the machine, a supporting base forming a part of said support, means for expanding said base for one position of the support and permitting said expanded base to come in contact with the ground, and for contracting or folding said base when the support is swung out of contact with the ground, and holding the support in proximity to the frame, substantially as set forth. 2nd. In a bicycle support, a suitable support adapted to be secured to the frame of the machine and swung substantially in the plane in which the frame is disposed, an expanding and contracting base forming a part of said support, said base having arms adapted to open and close in a plane substantially at right angles to the plane of the swing of the support, and suitable means for positively controlling the folding and closing of said arms, and swinging the support in proximity to or against the frame, substantially as set forth. 3rd. In a bicycle support, a suitable rod adapted to be pivotally secured to the machine frame, oppositely extending arms pivoted at the base of the rod, controlling bars pivotally secured to the basal arms, a common pivot for said controlling bars at the opposite end of said bars, said pivot being independent of the pivot of the rod, and a resilient spring having its ends secured pivotally to the basal arms at points suitably removed from the pivotal connections between said arms and the rod, substantially as set forth. 4th. In a bicycle support, a suitable clamp adapted to be secured to the frame of the machine, a fork forming a part of said clamp, a rod having an adjustable pivotal point at the base of the fork, controlling bars having a common adjustable pivotal point at the free end of the fork, an expanded base forming a part of the rod, supporting arms pivoted to said base and being pivotally connected to the lower ends of the controlling bars, a resilient spring having a central loop or coil, and having its ends secured to the supporting arms at their rear, or at points opposite the pivotal connections of the same with the controlling bars, the parts operating substantially as and for the purpose set forth.

No. 52,277. Machine for Pickling Wheat and other Grains. (Appareil à nettoyer le grain pour l'ensemencement.)



Robert Davidson, North Cypress, Manitoba, Canada 15th May, 1896; 6 years. (Filed 30th March, 1896.)

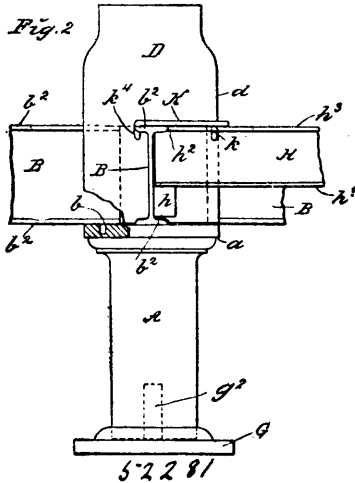
Claim.—The combination of the bluestone tank, grain hopper and worm-screws, substantially as and for the purpose hereinbefore set forth.

rock-shaft journaled opposite the same, a battery supported below the rock-shaft, a sliding bar supported at the side of each piece composing the battery, a trip-arm extending from the front end of each bar into the path of the trigger of the adjacent piece, connections between the rear ends of the sliding bars and the rock-shaft, and means for operating said shaft, substantially as specified.

Remaining claims to be published subsequently.

No. 52,281. Method of Constructing Buildings.

(Construction d'édifices.)

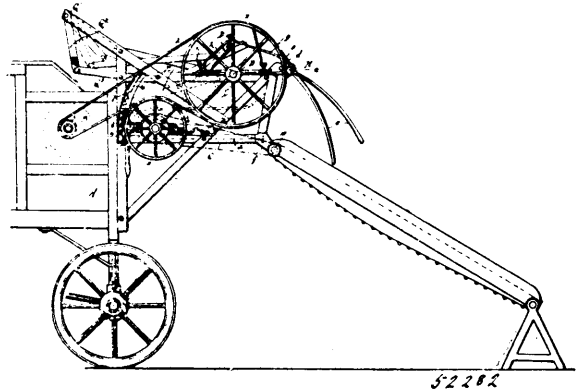


James Thompson, Wilson, New York, State of New York, U.S.A., 15th May, 1896; 6 years. (Filed 13th April, 1896.)

Claim.—1st. The herein described method for connecting the columns or pillars and the main beams or girders of an iron or steel frame for buildings, which consists in placing said beams or girders upon one column and providing the lower end of the column, which is adapted to be placed thereon, with vertical slots into which said beams or girders pass, and by means of which said parts are interlocked and securely held together, said beams or girders being also provided with vertical heads which interlock with the end of the column which is placed thereon or thereover, substantially as shown and described. 2nd. An iron or steel frame for buildings, comprising a column or support, a number of beams or girders mounted thereon, and another column adapted to be placed thereon, which is provided with vertical slots in its lower end into which said beams or girders pass, and the lower column or support being provided with a vertical extension which extends into a corresponding opening in the bottom of the upper column, substantially as shown and described. 3rd. An iron or steel frame for buildings, comprising a column or support, a number of beams or girders mounted thereon, and another column adapted to be placed thereon, which is provided with vertical slots in its lower end into which said beams or girders pass, and the lower column or support being provided with a vertical extension which extends into a corresponding opening in the bottom of the upper column, and said beams or girders being also provided with means by which they are held in position, substantially as shown and described. 4th. An iron or steel frame for buildings, comprising a base column or support, a number of beams or girders placed thereon, and another column adapted to be placed thereon, which is provided with vertical slots or openings into which said beams or girders pass, and means for connecting said columns, substantially as shown and described. 5th. An iron or steel frame for buildings, comprising a base column or support, a number of beams or girders placed thereon, and another column adapted to be placed thereon, which is provided with vertical slots or openings into which said beams or girders pass, and means for connecting said columns, and said beams or girders being provided with flanges which are cut away at the points where they are connected with said columns so that they may enter said slots or openings, substantially as shown and described. 6th. The herein described means for connecting the supplemental cross beams or girders with the main beams or girders of an iron or steel frame for buildings, which consists in a tie or lock which is adapted to be placed cross-wise of the main beam or girder, and which is provided with lugs or projections adapted to enter corresponding holes or apertures formed in the top flanges of the supplemental beams or girders substantially as shown and described. 7th. The herein described means for connecting the supplemental cross-beams or girders with the main beams or girders of an iron or steel frame for buildings, which consists in a tie or lock which is adapted to be placed cross-wise of the main beam or girder, and which is provided with lugs or projections adapted to

enter corresponding holes or apertures formed in the top flanges of the supplemental beams or girders, said tie or lock being also provided with means by which it is connected with the main beams or girder and being detachable therefrom, substantially as shown and described.

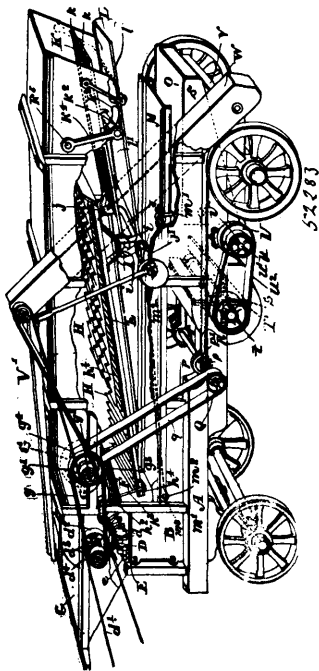
No. 52,282. Band Cutter and Feeder for Threshing Machines. (*Coupe-hart et alimentateur pour machines à battre.*)



John E. Sponseller, Fort Apache, Arizona, U.S.A., 15th May, 1896; 6 years. (Filed 11th April, 1896.)

Claim.—1st. In a band cutter and feeder, the combination with a crank-shaft, knife bars connected therewith and knives or fingers secured to said bars and depending therefrom, of oscillatory heads, fingers projecting from said heads and adapted to feed the grain under the knife bars, spring arms projecting from said heads and connections between said spring-arms and the crank-shaft, substantially as set forth. 2nd. In a band cutter and feeder, the combination with a suitable feeding conveyer, of a rock-shaft having cranks thereon upon which it is supported, fingers connected with this shaft, means for rocking these fingers thereon, and an adjustment for turning the rock-shaft on its bearings and setting it in different positions relative to its bearings, substantially as set forth. 3rd. In a band cutter and feeder, the combination with a main rotary crank-shaft, and a rock-shaft having cranks thereon by which it is supported on the body of the machine, of fingers mounted loosely on the rock-shaft, means extending from these fingers to the cranks of the main crank-shaft for rocking these fingers and an adjustment for turning the rock-shaft in its bearings and setting it in different positions relative to its bearings, substantially as set forth. 4th. In a band cutter and feeder, the combination with a crank-shaft, bars connected therewith, and fingers or knives depending from said bars, of vibratory fingers adapted to feed the grain under said first-mentioned fingers, connections between said vibratory fingers and the crank-shaft, and means for adjusting said vibratory fingers whereby to cause them to operate in a higher or lower plane, substantially as set forth. 5th. In a band cutter and feeder, the combination with means for cutting the bands on the bundles of grain, of a crank-shaft heads mounted on said crank-shaft, fingers projecting from said heads and adapted to be vibrated whereby to feed grain to the band cutters, a lever secured to the crank-shaft whereby to turn it and adjust the fingers to cause them to operate in a higher or lower plane, and means for locking said lever, substantially as set forth. 6th. In a band cutter and feeder, the combination with a frame, a platform and a crank-shaft mounted on the frame, of a series of bars pivotally connected at their forward ends to said crank-shaft, fingers or knives secured to said bars, timbers projecting from the frame, a shaft at the free ends of said timbers, arms pivotally connected to said shaft, and rods pivotally connected at one end to said arms and at their other ends secured to the finger or knife bars at points in proximity to the forward ends of the latter, substantially as set forth. 7th. In a band cutter and feeder, the combination with a frame, of a crank-shaft mounted therein, finger bars connected with the crank-shaft, fingers secured to said bars, a pulley secured to the crank-shaft, a belt passing over said pulley, means for transmitting motion to said belt, a pivoted arm, a pulley carried by said pivoted arm and adapted to bear against the belt, means for locking said pivoted arm at any desired adjustment, a conveyer, a pulley carried thereby, a small pulley adapted to rotate with the pulley on the pivoted arm and a strap connecting said small pulley and the pulley on the conveyer, whereby to transmit motion to the latter, when in its normal adjustment and stop it when the belt which the pulley tightens is loosened, substantially as set forth. 8th. The combination with two shafts, pulleys thereon, a belt passing around said pulleys, a conveyer shaft, and a pulley thereon, of a pivoted arm carrying a pulley for tightening the belt and also one over which a strap from the conveyer shaft pulley passes said arm adapted to be swung to simultaneously tighten or loosen both the belt and strap, substantially as set forth.

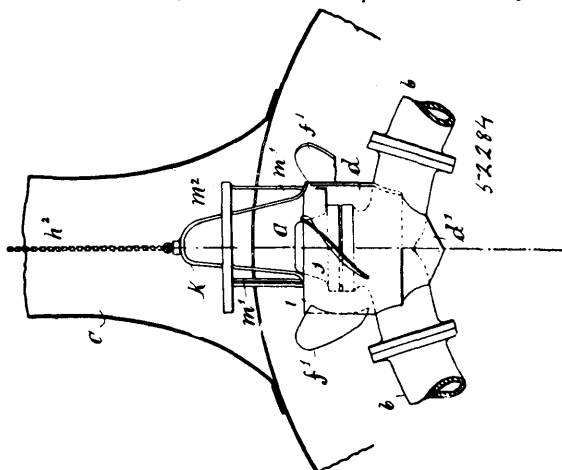
No. 52,283. Threshing Machine. (Machine à battre.)



John Goodison and George Strangway, both of Sarnia, Ontario Canada, 15th May, 1896; 6 years. (Filed 11th April, 1896.)

Claim.—1st. In a threshing machine, the combination with the crank-shaft J suitably driven, of the decks H, K, L, and M supported on suitable hangers and pitmans connecting them to the crank of the shaft J, as and for the purpose specified. 2nd. In a threshing machine, the combination with the deck H, and stirrup braces supporting it on the bearings of the crank-shaft, of the slatted deck K, having one end extending underneath the deck H, and connected by suitable pitmans to the shaft J, and the deck L and pitman connecting it to the opposite cranks of the shaft J, the said deck L being a plain deck and extending outwardly beyond the slatted deck K, as and for the purpose specified. 3rd. In a threshing machine, the combination with the deck H, and stirrup braces supporting it on the bearing of the crank-shaft, of the slatted deck K, having one end extending underneath the deck H, and supported by the rod k^2 extending through the slots K^3 , and pivoted hangers k^4 , and the deck L, supported on suitable hangers and pitman connecting it to the opposite cranks of the shaft J, the said deck L being a plain deck and extending outwardly beyond the slatted deck K, as and for the purpose specified. 4th. In a machine of the class described and in combination with the decks, the shaft B, eccentrics p^1 , shoe S, and pitmans R connecting the sections to the shoe, all arranged as and for the purpose specified.

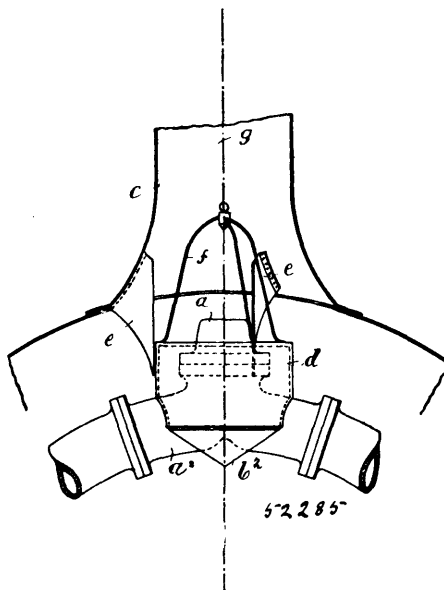
No. 52,284. Combined Draught Regulator for Locomotive Engines. (Régulateur du tirage et arrête-étincelle combinés pour locomotives.)



Robert Deissler, Treptow, Prussia, Germany, 15th May, 1896; 6 years. (Filed 11th April, 1896.)

Claim.—1st. In a locomotive engine, the combination with the blast nozzle, of a movable inclined wing or wings situated near to said nozzle, and arranged similar to a part or parts of the plane of a screw, for the purpose as hereinbefore set forth. 2nd. In a locomotive engine, the combination with the blast nozzle, of a movable inclined wing or wings situated near to said nozzle below the plane of the opening of the same, and arranged similar to a part or parts of the plane of a screw, substantially as and for the purpose hereinbefore set forth. 3rd. In a locomotive engine, the combination with the blast nozzle, of a slide surrounding said nozzle, and adapted to be moved in a vertical direction, an inclined wing or wings situated near to said slide, and arranged similar to a part or parts of the plane of a screw, and a guide or guides for the said slides, substantially as and for the purpose hereinbefore set forth. 4th. In a locomotive engine, the combination with the blast nozzle, of a slide surrounding said nozzle, and adapted to be moved in a vertical direction, an inclined wing or wings attached to said slide, and arranged similar to a part or parts of the plane of a screw, and a guide or guides for the said slide, substantially as and for the purpose hereinbefore set forth.

No. 52,285. Combined Spark Arrester and Draught Regulator for Locomotive Engines. (Régulateur du tirage et arrête-étincelle combinés pour locomotives.)



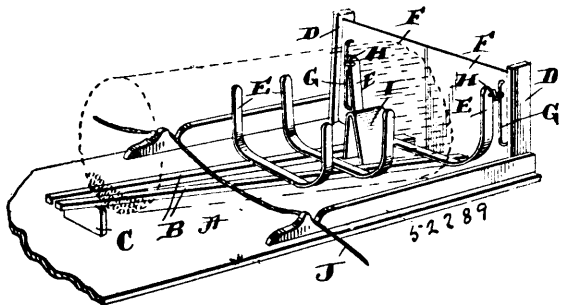
Robert Deissler, Treptow, Prussia, Germany, 15th May, 1896; 6 years. (Filed 11th April, 1896.)

Claim.—1st. In a locomotive engine, the combination with the chimney and the blast-nozzle, of a fixed body surrounding said nozzle, and arranged so as to leave an annular space between itself and said chimney; said body being adapted to deflect the fire-gases to said space, and a vertical slide encompassing the said body, and adapted to narrow the said space, substantially as and for the purpose hereinbefore set forth. 2nd. In a locomotive engine, the combination with the chimney, and the blast-nozzle, of a fixed body surrounding said nozzle, and having a diameter at least equal to that of the narrowest horizontal section of said chimney, said body being arranged so as to leave an annular space between itself and the said chimney, and being adapted to deflect the fire-gases to said space, and a vertical slide encompassing the said body, and adapted to narrow the said space, substantially as and for the purpose hereinbefore set forth. 3rd. In a locomotive engine, the combination with the chimney, and the blast-nozzle, of a fixed body surrounding said nozzle, and arranged so as to leave an annular space between itself and said chimney, said body being reduced towards its lower end, and adapted to deflect the fire-gases to said space, and a vertical slide encompassing the said body, and adapted to narrow the said space, substantially as and for the purpose hereinbefore set forth. 4th. In a locomotive engine, the combination with the chimney, and the blast-nozzle, of a fixed body surrounding said nozzle, and arranged so as to leave an annular space between itself and said chimney, said body having a deepened bottom terminating into an edge or point, and being adapted to deflect the fire-gases to said space, and a vertical slide encompassing the said body, and adapted to narrow the said space, substantially as and for the purpose hereinbefore set forth. 5th. In a locomotive engine, the combination with the chimney, and the blast-nozzle, of a fixed body surrounding said nozzle, and arranged so as to leave an annular space between itself and said chimney, said body having its upper end situated in or below the plane of the opening of the said nozzle, and being adapted to deflect with its lower end the fire-gases to said space, and a vertical slide

truck, a portable sand hopper suspended from said truck or trolley, and a blast nozzle connected with said hopper and provided with a transparent guard, substantially as set forth. 4th. In a sand blast apparatus, a blast nozzle provided with a transparent guard for protecting the operator, substantially as set forth. 5th. In a sand blast apparatus, a blast nozzle provided with a contractible transparent sand guard, substantially as set forth. 6th. In a sand blast apparatus, a blast nozzle provided at its delivery end with a guard consisting of a volute supporting spring and a flexible transparent covering, substantially as set forth.

No. 52,289. Corn-Shocker.

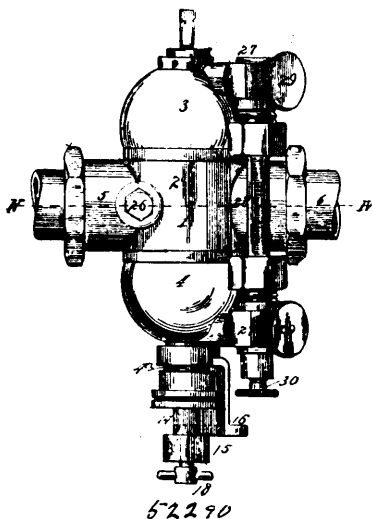
(Appareil pour mettre le blé-d'inde en tas.)



Jacob A. Shimp, Ridgeville, Illinois, U.S.A., 16th May, 1896; 6 years. (Filed 8th April, 1896.)

Claim.—The combination of a support, an upwardly swinging shock former, gates forming an abutment therefor, hinged to the support loops secured to the gates, and link connections between the said loops and the said hinged shock former, substantially as shown and described.

No. 52,290. Lubricator. (Graisseur.)

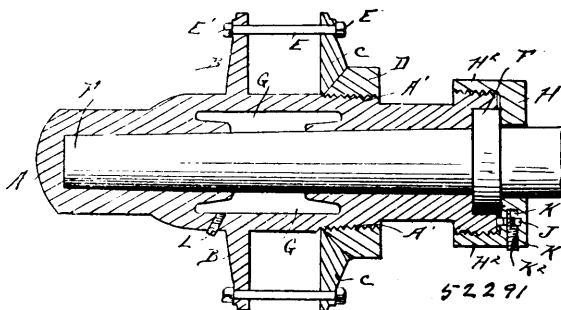


James H. Smith, Belleville, Illinois, U.S.A., 16th May, 1896; 6 years. (Filed 9th April, 1896.)

Claim.—1st. The combination of an oil vessel, a steam passage through said vessel, a valve controlling said passage, and an independent valve arranged tangentially to the steam-passage and in the same plane as the latter and forming communication between the interior of said oil vessel and said steam passage, said independent valve permitting a constant suction and passage of vapour and an independent regulation of the flow of the oil, substantially as described. 2nd. In a lubricator, the combination of an oil vessel, a steam passage through said vessel, a valve controlling said passage, a valve forming communication between the interior of said oil vessel and said steam passage, and a check valve opening from said steam passage into the interior of said oil vessel, said check valve permitting of a flow of pressure to said oil vessel for the purpose of avoiding vacuum therein, substantially as described. 3rd. In a lubricator, the combination of an oil vessel, a steam passage through said vessel, perforated flanges 8 on the interior of said vessel, a bushing seated within said flanges, a valve in said bushing arranged to register with said steam passage, and a valve forming communication between the interior of said oil vessel and said steam passage, substantially as described. 4th. In a lubricator, the combination of an oil vessel, a steam passage through said vessel, perforated flanges 8 on the interior of said vessel, a bushing

seated within said flanges, a valve in said bushing arranged to register with said steam passage, a valve forming communication between the interior of said oil vessel and said steam passage, and a check valve opening from said steam passage into the interior of said oil vessel, substantially as described. 5th. In a lubricator, the combination of an oil vessel, a steam passage-way through said vessel, a valve arranged to control said passage-way, said valve being provided with an opening capable of registration with said passage-way, an independent valve arranged to control an opening from said oil vessel into said passage-way, whereby a constant flow of oil is induced to flow from said vessel into said steam passage-way, substantially as set forth.

No. 52,291. Hub for Vehicles. (Moyeu pour roues.)

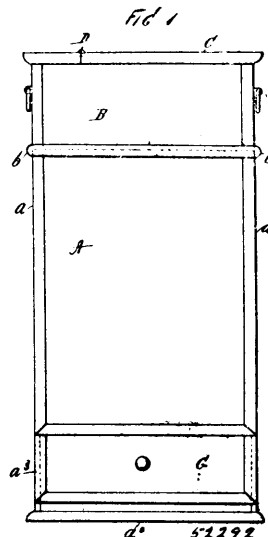


Martin Luther Killam, Malone, New York, U.S.A., 16th May 1896; 6 years. (Filed 9th April, 1896.)

Claim.—1st. A hub for waggons and other vehicles, comprising a tubular body closed at the forward end and open at the rear, and having flanges upon the exterior thereof to secure the spokes, teeth or serrations formed on the rear edge of the hub, a nut mounted upon the axle and screwed upon the hub, a spring secured at one extremity to the under side of the nut and free at the other whereby it engages with the teeth upon the hub, and a screw mounted in the nut and reduced at the end to form an eccentric portion engaging the spring to release the same, substantially as shown and described. 2nd. A nut adapted to be screwed upon the hub or other body, a plate spring secured at one extremity to the under side of the nut and free at the other whereby it may engage with a serrated surface, and a screw mounted in the nut and reduced at the end to form an eccentric portion resting beneath the spring, whereby the turning of the screw releases the spring, substantially as shown and described.

No. 52,292. Box or Receptacle for Coal, Wood, etc.

(Boîte ou receptacle pour bois, charbon, etc.)

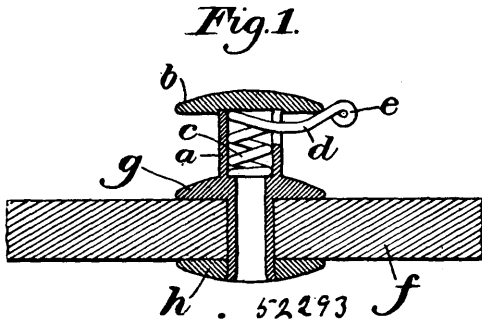


Henry Kenne and Edward Rebenkian, both of Brooklyn, New York, U.S.A., 16th May, 1896; 6 years. (Filed 9th April, 1896.)

Claim.—1st. A box or casing, for the purpose herein described, said box or casing being composed of a main part, which is open at the top and the front of which is provided with a downwardly and backwardly inclined plate or shield, and with a door at the lower end thereof, and a supplemental box or casing which is adapted to be placed over the open top of the main box or casing and which is provided with a hinged cover, substantially as shown and described. 2nd. A box or casing for the purpose herein described, comprising a main part, or which is rectangular in cross section, and the sides

thereof at the lower ends being outwardly inclined, and the front being provided with a backwardly inclined plate or shield below which is formed a transverse opening in which is placed a door, and a supplemental box or casing which is adapted to be placed over the open top of the main box, or casing, and which is provided with a hinged cover, substantially as shown and described. 3rd. A box or casing for the purpose herein described, comprising a main part, which is rectangular in cross section, and the front of which terminates below the bottom whereby a transverse opening and said front being provided at its lower end with a backwardly and downwardly inclined shield or plate and a supplemental box or casing which is placed over the open top of the main box or casing, and which is provided with a hinged cover, substantially as shown and described.)

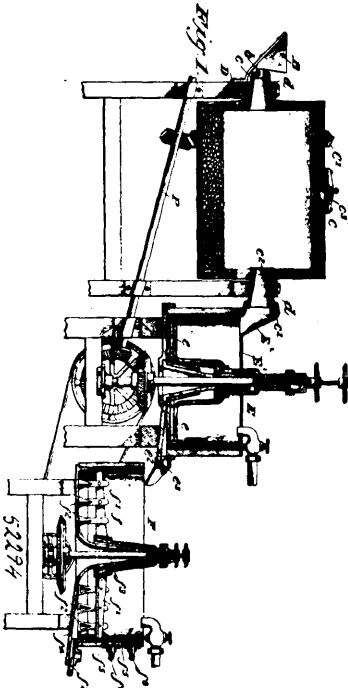
No. 52,293. Lace Fastener. (*Attache de lacets.*)



Julius Strassburger, Allegheny, Pennsylvania, U.S.A., 16th May, 1896; 6 years. (Filed 10th April, 1896.)

Claim.—1st. A lace-fastener having a hollow shank, and a spring-finger, the body of the finger being coiled in the recess of the shank, substantially as described. 2nd. A lace-fastener consisting of a button, a spring coiled in the recess of the shank, and a finger extending radially from the coil and toward the periphery of the button, substantially as described. 3rd. A lace-fastener having a hollow slotted shank and a spring-finger having an end fixed in the hollow shank and projecting through the slot therein, substantially as described.

No. 52,294. Process of and Apparatus for Extracting Gold from Ore. (*Procédé et appareil pour extraire l'or des minerais.*)



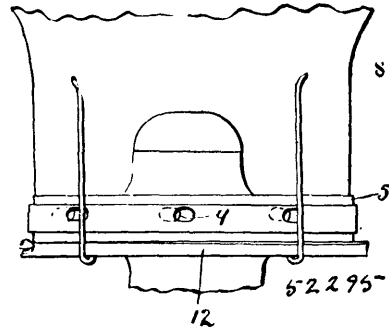
John Glenville Murphy, Middletown, Connecticut, and James Edgar Smith, Washington, Columbia, both in the U.S.A., 16th May, 1896; 6 years. (Filed 18th April, 1896.)

Claim.—1st. In an apparatus for separating gold from its ores, the combination with a pulverizing cylinder, revolving on hollow trunnions both flared in the same direction, of a hopper having an inclined chute fitting within the inner periphery of the outer end of one trunnion, and a covered amalgamating pan having an inclined

chute embracing the outer periphery of the outer flaring end of the other trunnion, substantially as and for the purpose set forth. 2nd. The process of separating gold from its ores, which consists essentially in reducing, without compressive grinding, hammering, pounding, or the like, the entire mass of ore equally to an impalpable powder by gentle attrition of the mass in a gradually fed revolving cylinder, whence only the thoroughly pulverized materials are permitted to escape by overflow as an impalpable powder, delivering said powder to mercury in an amalgamating pan to which water is admitted only in quantity sufficient to form a paste, and not enough to produce a flow of the pulp, and, finally, when the amalgamating action upon the ore has been completed, washing the pulp into a settler where the amalgam settles from the diluted mass while the impurities are drawn off. 3rd. The process of separating gold from its ores, which consists essentially in reducing the ores to an impalpable powder fly gentle attrition in a revolving cylinder from which only the thoroughly pulverized materials are permitted to escape by overflow into an amalgamating pan, amalgamating the pulverized materials within the said pan with a quantity of water neither increased nor diminished during the process of amalgamation, and, finally, when the amalgamating action upon the ore has been completed, washing and diluting the pulp into a settler where the amalgam and impurities are separated.

No. 52,295. Attachment to Lamp Burner.

(*Attache de bec de lampe.*)



Walter Tylee Ross, Montreal, Quebec, Canada, 16th May, 1896; 6 years. (Filed 11th December, 1895.)

Claim.—1st. In a lamp, the combination with the burner and the chimney or the like thereof, of an air supplying device located intermediate of such burner and chimney, for the purpose set forth. 2nd. In a lamp, the combination with the burner and the chimney or the like thereof, of an air supplying device consisting of a ring having openings there through, located intermediate of such burner and chimney for the purpose set forth. 3rd. In a lamp, the combination with the burner and the chimney or the like thereof, of an air supplying device consisting of a ring provided with flanges at its upper and lower edges, and such rings having openings therethrough located intermediate of such burner and chimney, for the purpose set forth. 4th. A lamp ventilator consisting of a ring cut away in part to provide air inlets and interspersed between the burner proper and the chimney for the purpose set forth. 5th. A lamp ventilator consisting of a perforated ring extending above the usual ventilated surface of the burner proper and supporting the chimney for the purpose set forth. 6th. In a lamp, the combination with the burner and the chimney, or the like thereof, of an air supplying device consisting of a ring provided with flanges at its upper and lower edges, and such ring having openings therethrough, a second ring having openings therethrough adapted to be carried by such first mentioned ring, located intermediate of such burner and chimney for the purpose set forth.

No. 52,296. Combined Support and Keeper for Bicycles.

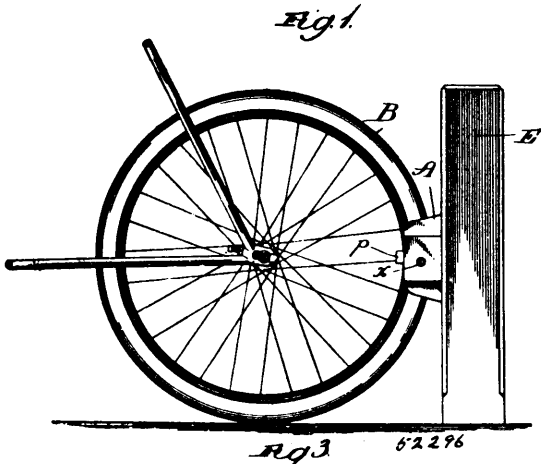
(*Support, etc., pour bicycles.*)

Oscar Moore Shannon, Riverside, Illinois, U.S.A., 16th May, 1896; 6 years. (Filed 14th November, 1895.)

Claim.—1st. As a new article of manufacture, a combined support and keeper for a bicycle, comprising a case provided with a recess affording a seat for a bicycle-wheel, sockets on the convex wall of the recess, a lock in the case at one side of the recess, provided with a spring-catch and a reciprocable bolt, both operated by a single key for the lock, a swinging bolt hinged at one end to the case at the opposite side of said recess and adjustable to span said recess and engage said catch, a separable back for the case, provided with lugs for engaging said sockets, and upon which the case is adjustable from either end, the back being secured by said reciprocable bolt and affording the means for fastening the device to a stable object, substantially as described. 2nd. As a new article of manufacture, a combined support and keeper for a bicycle, comprising a case A, provided with a recess r, having sockets n, on the convex side of its wall, a lock in the case at one side of the recess, provided with a spring-catch and a reciprocable bolt r, a spring-controlled swinging bolt p, hinged at one side to the case at the opposite side of said recess and

adjustable to span said recess and engage said catch, a back for the case provided with openings n^2 and n^1 and with lugs n and n^1 for

communication with the said boiler, to circulate the heating medium around the cylinders and the engines, substantially as shown and

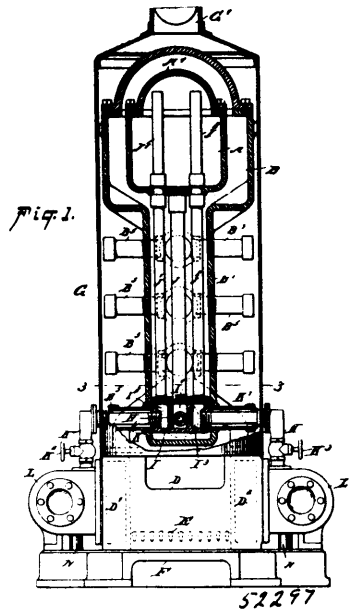


engaging said sockets, the back being secured at one of its openings n^1 by said reciprocable bolt and affording the means for fastening the device to a stable object, substantially as described. 3rd. As a new article of manufacture, a combined support and keeper for a bicycle, comprising a case provided with a recess affording a seat for a bicycle-wheel, and provided with a separable back by which the device is secured to a stable object, a swinging bolt hinged at one end to the case at one side of the recess, and a lock in the case at the opposite side of the recess, comprising a case C, containing a spring-controlled reciprocable plate l , provided with a recess l^1 , and carrying studs l^2 and l^3 , a spring-controlled plate k , pivoted on said plate l and having a slot k^2 , through which the stud l^3 projects, and a catch k^3 to be engaged by the catch on the free end of said engaging bolt and provided with a bevelled edge x^1 , spring controlled tumblers provided on the plate k , and having slots q^1 , through which said stud l^2 extends, a spring-controlled reciprocable plate f having a recess f^1 , and carrying a bolt v , to engage said back, and a key-guard m^2 having a slotted extension m^3 and a slotted key-arbor m^1 between the plates l and f , substantially as and for the purpose set forth. 4th. As a new article of manufacture, a combined support and keeper for a bicycle, comprising a case provided with a recess affording a seat for a bicycle-wheel, and provided with a separable back by which the device is secured to a stable object, a swinging bolt hinged at one end to the case at one side of the recess and a lock in the case at the opposite side of the recess, comprising a case C, containing a spring-controlled reciprocable plate l , provided with a recess l^1 , and carrying studs l^2 and l^3 , a spring-controlled plate k pivoted on said plate l , and having a slot k^2 through which the stud l^3 projects, and a catch k^3 to be engaged by the catch on the free end of said swinging-bolt and provided with a bevelled edge x^1 , spring-controlled tumblers provided on the plate k and having slots q^1 through which said stud l^2 extends, a spring-controlled reciprocable plate f having a recess f^1 , and carrying a bolt v to engage said back, a guard-plate c for the plate f , and a key-guard m^2 having a slotted extension m^3 , and a slotted key-arbor m^1 between the plates l and f , substantially as and for the purpose set forth.

No. 52,297. Apparatus for Generating and Applying Vapours. (*Appareil pour la génération et application de vapeurs.*)

Oreon Staples Rhodes, East Stroudsburg, Pennsylvania, U.S.A., 16th May, 1896; 6 years. (Filed 16th November, 1896.)

Claim.—1st. An apparatus for the generation of vapours, consisting of a closed receptacle containing the chemical to be vaporized, a closed boiler surrounding said receptacle for containing the heating medium, a shell surrounding the boiler for directing the products of combustion thereto, a furnace located beneath all of said parts and having compartments in its side walls, engines attached to said side walls and having jackets communicating with the compartments and wholly within the heating surface of the furnace, substantially as shown and described. 2nd. An apparatus for generating vapours, comprising a closed receptacle adapted to contain the chemical to be vaporized to form the motive agent, a boiler surrounding the said receptacle, and adapted to contain the heating medium for heating the receptacle and the chemical contained therein, a furnace supporting the said boiler and heating the same, an engine cylinder located at each side of and against the wall of the furnace and the vapour pipes leading through the boiler, substantially as shown and described. 3rd. An apparatus for generating vapours, comprising a closed receptacle adapted to contain the chemical to be vaporized to form the motive agent, a boiler surrounding the said receptacle, and adapted to contain the heating medium for heating the receptacle and the chemical contained therein and comprising vertical legs united by horizontal tubular arms, a furnace supporting the said boiler and heating the same, and engines formed with jackets in



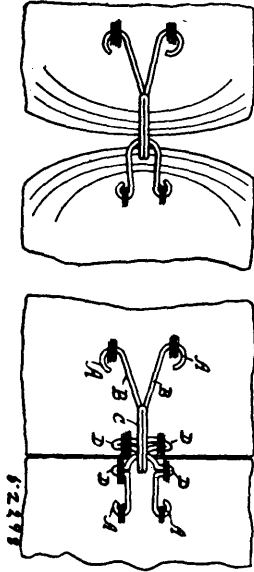
described. 4th. An apparatus for generating vapours, comprising a closed receptacle adapted to contain the chemical to be vaporized to form the motive agent, a boiler surrounding the said receptacle, and adapted to contain the heating medium for heating the receptacle and the chemical contained therein, a feed pipe leading through a portion of the boiler and discharging into the lower portion of the receptacle for the motive agent material, engines formed with jackets, and adapted to be driven by the vapour generated in the said receptacle, vapour pipes extended through the lower wall of the vapour receptacle from a point near its top, and chambers forming the walls for the furnace and in communication with the cylinder jackets and with the said boiler, substantially as shown and described. 5th. An apparatus for generating vapours, comprising a boiler having legs connected with each other by horizontal arms having tubes closed at their outer ends, a receptacle set in the said boiler, an inlet pipe connected with the said receptacle and extending into one of the said legs, a box contained in the said leg and formed with compartments or chambers into one of which leads the said supply pipe, and outlet pipes leading from the said receptacle into the other chambers in the box, substantially as shown and described. 6th. An apparatus for generating vapours, comprising a boiler having legs connected with each other by horizontal arms having tubes closed at their outer ends, a receptacle set in the said boiler, an inlet pipe connected with the said receptacle and extending into one of the said legs, a box contained in the said leg and formed with compartments or chambers into one of which leads the said supply pipe, outlet pipes leading from the said receptacle into the other chamber in the box, and engine supply pipes leading from the last mentioned chambers, to carry the vapours to the engine cylinders, substantially as shown and described. 7th. An apparatus for generating vapours, comprising a boiler having legs connected with each other by horizontal arms having tubes closed at their outer ends, a receptacle set in the said boiler, an inlet pipe connected with the said receptacle and extending into one of the said legs, a box contained in the said leg and formed with compartments or chambers, into one of which leads the said supply pipe, outlet pipes leading from the said receptacle into the other chambers in the box, and engine supply pipes leading from the last mentioned chambers, to carry the vapours to the engine cylinders, the said cylinder supply pipes extending through some of the tubes at the lower end of the boiler, substantially as shown and described.

No. 52,298. Hook and Eye. (*Crochet et œillet.*)

Katharine Stephens Bort, Chicago, Illinois, U.S.A., 16th May, 1896; 6 years. (Filed 6th September, 1895.)

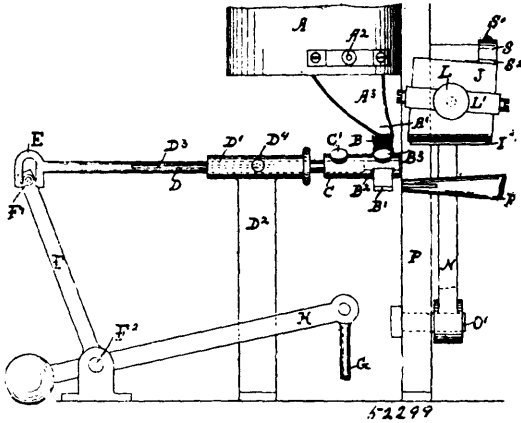
Claim.—1st. The herein described hook or eye, consisting of a single piece of metal of the proper form, having loops at the rear part for attachment to the garment, and having near the front part lateral T-shaped arms extending substantially at right angles from the body of the hook or eye so that the thread may be passed through the fabric and over said arms in such manner as to firmly bind them to the garment and prevent any movement of the device upon the fabric, substantially as and for the purposes set forth. 2nd. The herein described hook or eye, consisting of a single piece of metal of the proper form, having loops at the rear part for attaching to the garment, and having near the front part arms extending from the body of the hook or eye in a forwardly bending curve,

substantially as and for the purpose set forth. 3rd. The herein described hook or eye, consisting of a single piece of metal of proper



orm provided with means at the rear end for attaching to the garment, and having near the front part arms extending from the body of the hood or eye so that the thread may be passed through the fabric and over said arms in such a manner as to firmly bind them to the garment and prevent any movement of the device upon the fabric.

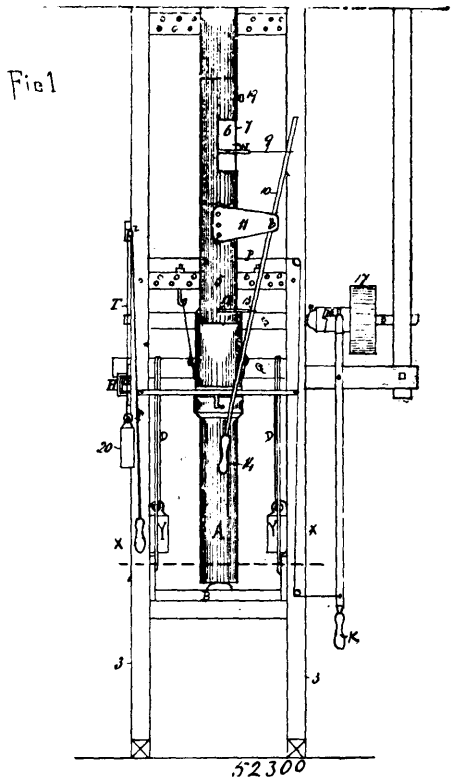
No. 52,299. Apparatus used in the Manufacture of Mouth-pieces for Cigarettes, etc. (*Appareil en usage dans la fabrication des portes-cigarettes.*)



Joseph Samuel Beeman, Camberwell, Victoria, 18th May, 1896; 6 years. (Filed 4th December, 1895.)

Claim.—1st. In pasting and fastening mouth-pieces, the combination with an intermittently-acting conveying distributor and appliances for supplying an adhesive medium to said distributor, of a paster adapted to receive an intermittent supply of adhesive material from said distributor, and mechanism for alternately moving said distributor to and from the source of adhesive medium and the paster, substantially as set forth. 2nd. The combination with an intermittently conveying distributor and appliances for supplying said distributor with paste or water, of a mandrel to receive the paper, a paster adapted to intermittently abstract a supply of paste or water from the conveying distributor, and mechanism for intermittently transferring the paste or water to the paper on the mandrel, substantially as set forth. 3rd. The combination with the conveying distributor B, and appliances for supplying said distributor with paste or water, of a flannel strip as L, carried by an oscillating and radially moving frame, and a mandrel as R, substantially as set forth. 4th. The combination with a conveying distributor as B, and appliances for supplying said distributor with paste or water, of lever N, O, sleeve K', plates J, K, hinged piece L' and screw L, substantially as set forth. 5th. The combination with the conveying distributor as B, and appliances for supplying said distributor with paste or water, of the sleeve K', plate K, spring S, and the regulating screw S', substantially as set forth.

No. 52,300. Bag Filler. (*Machine à emplir les sacs.*)



Robert Ord Campbell, Victoria, British Columbia, Canada, 18th May, 1896; 6 years. (Filed 26th November, 1895.)

Claim.—In a bag filling machine, the combination of the rising and falling table B, suspended by counterbalance weights Y, Y, and provided with a brake lever H to hold the table at its lowest position to sustain the bag empty, the feed tubes 5, 6, sliding one within the other and provided with sliding valves W 12, connected to a hand oscillating lever 10, and discharging into a guide box 4, having an attached filling cylinder or tube A, and a packing weight E, raised by a counterbalance weight I, and pulled down by a cord N, winding on a roller or spool S, connected by a clutch M, to the power shaft, substantially as set forth.

No. 52,301. Bale Label. (*Etiquette de ballots.*)

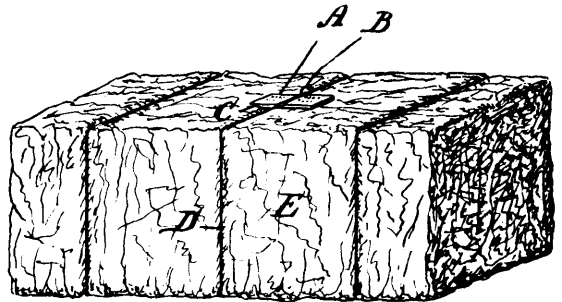


Fig. 2.

John Hanigan, Malmaison, Quebec, Canada, 18th May, 1896; 6 years. (Filed 7th December, 1895.)

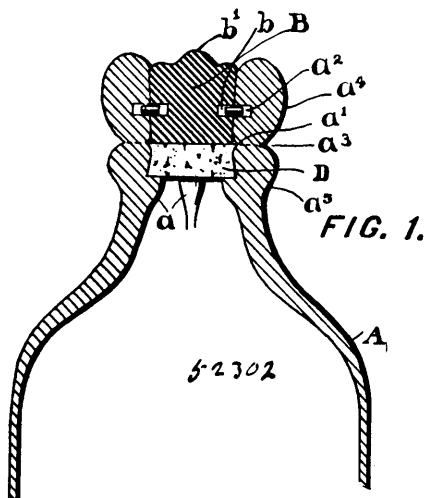
Claim.—1st. As an improved article of manufacture, an oblong flat wooden label having a groove B, transversely across the face and a bevelled end C, as set forth. 2nd. As an improved article of manufacture, a label for bales, comprising an oblong strip of wood having a groove transversely across its face and a bevelled end, said face printed or stamped, as and for the purposes set forth.

No. 52,302. Nonrefillable Bottle.

(*Appareil pour empêcher le remplissage des bouteilles.*)

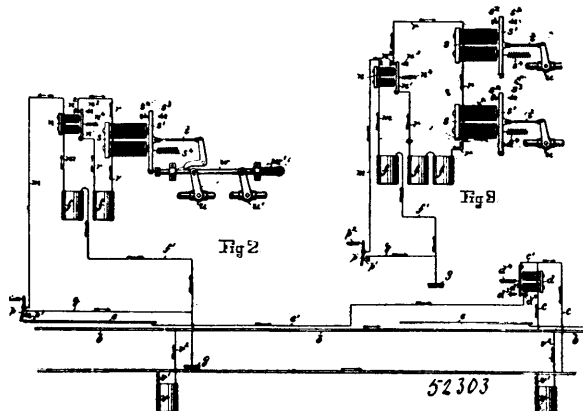
Joseph Stretch and Eliakim Stretch, both of East Orange, New Jersey, U.S.A., 18th May, 1896; 6 years. (Filed 16th December, 1895.)

Claim.—1st. A non-refillable bottle A upon the interior of the neck of which are shoulders a, and above these shoulders an annular



recess a¹, the sides of which are oblique, and above this recess a¹, and near the mouth of the bottle the depression a², the sides of which are at right angles to the neck of the bottle, in combination with the annular groove a³, outside of the neck of the bottle and the annular enlargements a² and a³, substantially as set forth. 2nd. A non-refillable bottle A upon the interior of the neck of which are shoulders a, and above these shoulders an annular recess a¹, the sides of which are oblique, and above this recess a¹, and near the mouth of the bottle the depression a², the sides of which are at right angles to the neck of the bottle, with the annular groove a³, outside of the neck of the bottle and the annular enlargements a², a³, in combination with the stopper B, having the annular groove b, and upwardly extending central conical projection b¹, and the locking device C set in said groove b, with the cork D, and cutting device E set in a wire holder, substantially as set forth. 3rd. With a bottle that cannot be filled and stoppered as originally filled and stoppered, a cutting device composed of a steel or hard metal wheel, journaled in a metal frame and secured to the bottle by wires twisted around the neck of the bottle, which cutting device is operated by being revolved by being carried around the neck of the bottle thereby cutting the exterior of the bottle and causing it to break easily, smoothly, and without splintering of the glass.

No. 52,303. Electric Safety Appliance for Railroads.
(Appareil électrique de sûreté pour chemins de fer.)



Edward Levi Orcutt, Somerville, Massachusetts, U.S.A., 18th May, 1896; 6 years. (Filed 17th December, 1895.)

Claim.—1st. In an electric safety appliance for railroads, the combination with a track-circuit formed in part of the rails of the track and a parallel or actuating-circuit so arranged that the charging or breaking of one of said circuits will close or break the other and a contact plate in each circuit, of a source of electricity, a closed track-circuit charging-circuit, a closed parallel or actuating circuit-charging circuit, and a closed train-controlling circuit on the train, switching or looping brushes in the track-circuit charging-circuit, and in the parallel or actuating-circuit charging-circuit, to engage respectively the contact plates in the track-circuit and parallel or actuating circuit, to loop the latter circuit into the former when said brushes engage said plates and mechanism, substantially as described, operated by the breaking of either of said circuits to stop the train, for the purpose set forth. 2nd. In an

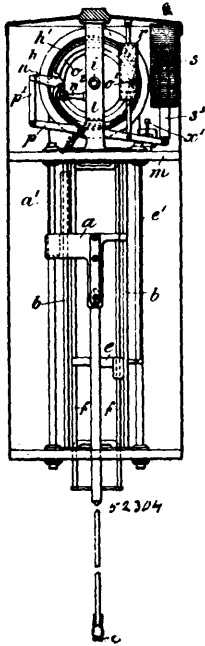
electric safety appliance for railroads, a track mechanism consisting of a track-circuit formed in part of the rails of the track, an electric-magnet contained in said circuit, a parallel or actuating-circuit, the armature of said electro-magnet contained in the latter circuit-breaking or closing the circuit by its movements and a contact plate in the parallel or actuating-circuit, combined with mechanism carried on the train, consisting of a suitable source of electricity for the circuits contained therein, a closed circuit for the contact plate in the track mechanism, a switching or looping brush and electro-magnet in said closed circuit, a closed train-controlling circuit, an electro-magnet and the armature of the electro-magnet in the other closed circuit on the train contained in the train-controlling circuit and mechanism substantially as described, operated by the movements of the armature of the electro-magnet in the train-controlling circuit to automatically govern or control the movements of the train, for the purpose set forth. 3rd. In an electric safety appliance for railroads, a track-mechanism consisting of an open track-circuit, an electro-magnet contained in said circuit, an open parallel or actuating-circuit, the armature of the electro-magnet contained in the latter circuit breaking or closing the circuit by its movements, both of said circuits being formed in part of the rails of the track, and a contact plate in each of said circuits, combined with a train mechanism consisting of a suitable source of electricity for the circuits contained therein, a closed track-circuit charging-circuit, a closed parallel or actuating-circuit charging-circuit, a switching or looping brush to engage their respective contact plates in the track mechanism and an electro-magnet contained in each of said closed circuits, a closed train-controlling circuit, an electro-magnet and the armatures of the electro-magnets in both charging-circuits contained in the train-controlling-circuit, and mechanism substantially as described, operated by the movements of the armature of the electro-magnet in the train-controlling-circuit to govern or control the movements of the train, for the purpose set forth. 4th. In an electric safety appliance for railroads, the combination of a track mechanism consisting of electric circuits, said circuits being composed in part of the rails of the track and contact plates, a train mechanism consisting of a plurality of closed circuits, switching or looping brushes to loop the track circuits into the train circuits and mechanism operated by the breaking of either or all of the circuits to automatically stop the train, for the purpose set forth. 5th. In an electric safety appliance for railroads, the combination of a track mechanism consisting of a track circuit composed in part of the two parallel lines of the rails of the track and including an electro-magnet, a parallel or actuating circuit controlled by the action of said electro-magnet, and a contact plate in the parallel circuit, a closed circuit on the train having switching brush to engage said plate, an electro-magnet in said closed circuit and mechanism controlled by said electro-magnet to automatically stop the train when said closed circuit is broken, for the purpose set forth. 6th. In an electric safety appliance for railroads, the combination of a track mechanism having a contact plate substantially as described, two closed circuits on the train, a switching or looping brush in one train circuit to engage the contact plate in the track mechanism, an electro-magnet in the closed circuit, which has the switching or looping brush, the armature of said electro-magnet forming a part of the other closed circuit on the train, an electro-magnet in the second train circuit, and mechanism connected to and operated by the armature of the electro-magnet in said second circuit to cause the stopping of the train by the breaking of either of the circuits on the train, for the purpose set forth. 7th. In electric safety appliance for railroads, the combination with the incomplete track circuit composed in part of the rails having an electro-magnet included therein, a second circuit parallel with the track circuit controlled by the magnet in the track circuit and contact plates in said circuit, of closed circuits upon the train controlling the movements of the train, said circuits having looping brushes included therein to engage the contact plates in the track mechanism, to loop the track mechanism into the train circuits, the closed circuits on the train being controlled by the track mechanism substantially as described. 8th. In an electric safety appliance for railroads, the combination of closed circuits carried on the train operating when broken to stop the train and looping brushes included in said circuits substantially as described, an incomplete circuit composed in part of two parallel lines of the rails of the track, and including an electro-magnet, a contact plate in said incomplete circuit, a second contact plate, connecting mechanism between the electro-magnet and the second contact plate, the looping brushes on the train adapted to engage the contact plates in the track mechanism whereby the train circuits are controlled by the electro-magnet in the track circuit, for the purpose set forth. 9th. In an electric safety appliance for railroads, the combination with a closed circuit carried on the train, operating when broken to stop the train, and a looping brush included in the train circuit, of a track mechanism consisting of a track circuit composed in part of two parallel lines of the rails of the track and including an electro-magnet, a parallel or actuating circuit, including the armature of the electro-magnet, in the track circuit, and a contact plate, the looping brush engaging the contact plate to loop the track mechanism into the train circuit whereby the train circuit is controlled by the electro-magnet in the track circuit, for the purpose set forth. 10th. In an electric safety appliance for railroads, the combination with a plurality of closed circuits carried on the train operating to stop the train by the breaking of any or all of said circuits, and a looping brush included in one of these train cir-

circuits, of a track mechanism consisting of a track circuit composed in part of the two parallel lines of the rails of the track and including an electro-magnet, a parallel or actuating circuit including the armature of the electro-magnet in the track circuit and a contact plate, the looping brush engaging the contact plate to loop the track mechanism into the train circuits whereby the circuits on the train are controlled by the electro-magnet in the track circuit, for the purpose set forth. 11th. In an electric safety appliance for railroads, the combination with a track circuit formed in part of the rails of the track and a parallel or actuating circuit so arranged that the charging or breaking of one of said circuits will close or break the other and a contact plate in each circuit, of a source of electricity, a closed track circuit charging-circuit, a closed parallel or actuating circuit charging-circuit, and a plurality of closed train controlling circuits on the train, switching or looping brushes in the track-circuit charging-circuit, and in the parallel or actuating circuit charging-circuit to engage respectively the contact plates in the track circuit and parallel and actuating circuit to loop the latter circuits into the former when said brushes engage said plates, and mechanism substantially as described operated by the breaking of either of said circuits to stop the train, for the purpose set forth. 12th. In an electric safety appliance for railroads, a track circuit composed in part of two parallel rails of the track, a contact plate in said circuit, combined with a closed circuit on the train, and a switching or looping brush in the train circuit to engage the contact plate and loop the track circuit into the train circuit, for the purpose set forth.

No. 52,304. Electric Arc Lamp.

(Lampe électrique à arc.)

FIG 1

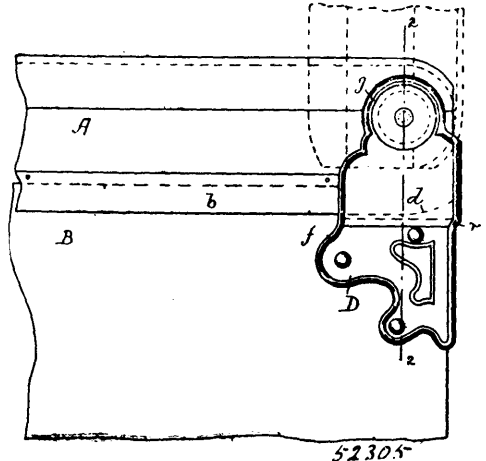


The Davy Electrical Construction Company, assignee of William James Davy, both of London, England, 18th May, 1896; 6 years. (Filed 27th December, 1895.)

Claim.—1st. In electric arc lamps the friction device for controlling the motion of the carbon holder consisting of a friction surface geared to and moving with the carbon holder, a carrier adapted to be rotated round the axis of the friction surface, a brake shoe mounted on the carrier in close proximity to the friction surface, a lever adapted to move the brake shoe into contact with the friction surface and then to rotate bodily with its fulcrum about the axis of the said friction surface, and a means for determining the position of the brake lever according to the resistance of the arc. 2nd. In electric arc lamps the friction device for controlling the motion of the carbon holder consisting of a friction surface geared to and moving with the carbon holder, a split ring mounted in close proximity to the said surface, a cam lever pivoted to one end of the split ring and adapted to act on the other end to cause the ring to grip the surface and then move with it, and a means for operating the cam lever according to the resistance of the arc. 4th. In electric arc lamps the

friction device for controlling the motion of the carbon holder consisting of a friction surface geared to and moving with the carbon holder, a brake lever with brake shoe in close proximity to the friction surface and pivoted eccentrically to the friction surface, a lever twisted concentrically to the friction surface and carrying the brake lever pivot, and a means for determining the position of the brake lever according to the resistance of the arc. 5th. In electric arc lamps the friction device for controlling the motion of the carbon holder consisting of a friction surface geared to and moving with the carbon holder, brake shoes adapted to act in opposite directions on the said surface to grip it and then to rotate with it, a lever cam adapted to approach or recede the brake shoes in respect to one another to cause them to grip on the surface, and a means for actuating the lever cam according to the resistance of the arc. 6th. A cut out for an arc lamp consisting of a contact piece adapted to make contact to short circuit the lamp and its own operating mechanism when the arc becomes abnormally long, and a latch lever carrying a contact piece adapted when the lamp has been short circuited as above to fall under and make contact with the first contact piece to continue the short circuiting until a current is again established through the lamp. 7th. A cut out for an arc lamp consisting of a weighted contact piece, a shunt solenoid and core adapted to raise the moving contact piece, a second contact piece fixed in the path of the moving contact piece, a series magnet and armature, a latch lever connected to the armature and forming a third contact piece tending to fall under and make contact with the moving contact piece and hold it in its raised position; the first contact piece being connected through a resistance to one terminal of the lamp and the other two to the other terminal.

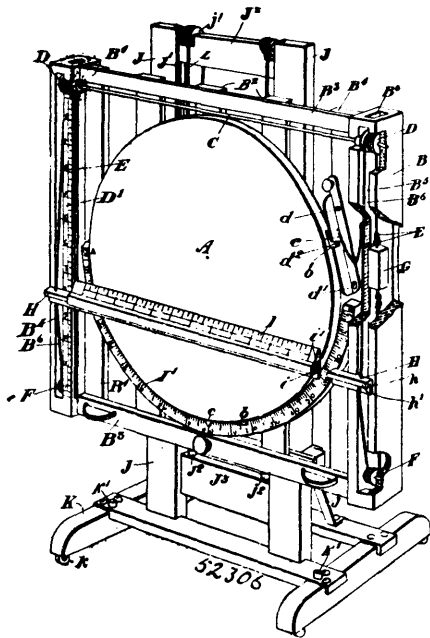
No. 52,305. Hinge. (Charnière.)



The W. S. Reed Toy Company, assignee of William Sumner Reed, all of Loominster, Massachusetts, U.S.A., 18th May, 1896; 6 years. (Filed 17th June, 1895.)

Claim.—1st. In a hinge for wall trunks, a hinge-leaf secured to the trunk-body and overlapping the cover, said leaf being provided in its overlapping portion with a circular opening, a disk fitted to rotate in said opening and having a projection securing the disk to the cover. 2nd. In a hinge for wall trunks, a hinge-leaf secured to the rear upper corner of the trunk-body and overlapping the cover, said leaf having a circular opening in its overlapping end, in combination with a disk having a shank pivoting in said opening, and a bolt securing said disk to the cover. 3rd. In a hinge for wall trunks, an angular hinge-leaf secured to the rear upper corner of the trunk body and overlapping the trunk cover, said leaf being provided with a circular opening in its overlapping portion in combination with a disk having an annular rabbet forming a shank which pivots in said opening and a bolt or rivet securing the disk to said cover. 4th. In a wall trunk the trunk-body and cover in combination with the leaf D, secured to said body and overlapping said cover, said leaf having the circular opening h, and bead f, around said opening; the disk C having the shank j pivoting in said opening, and a bolt or rivet securing said disk to said cover, substantially as described. 5th. In a hinge for wall trunks an angular leaf attachable to the trunk-body and to which the cover may be pivoted, said leaf having an arm for engaging the rear wall of said body and forming a stop for the cover, substantially as set forth. 6th. In a hinge for wall trunks the leaf D, provided with the arm 20, and off-sets q, r, arranged substantially as set forth. 7th. In a hinge for wall trunks the leaf D having a bead f forming a depression in which the pivot disk may rotate. 8th. In a hinge for wall trunks the leaf D provided with the opening h², having segmental space 21 in combination with the pivot disk having a projection for engaging in said space, and devices for attaching the disk to the trunk cover, substantially as described. 9th. In a hinge for wall trunks the leaf D having the opening h², and space 21 in combination with the disk C, provided with the shank j², having the projection 22 for ending said space and a pin or bolt for securing the disk to the trunk cover.

No. 52,306. Black Board. (Tableau.)

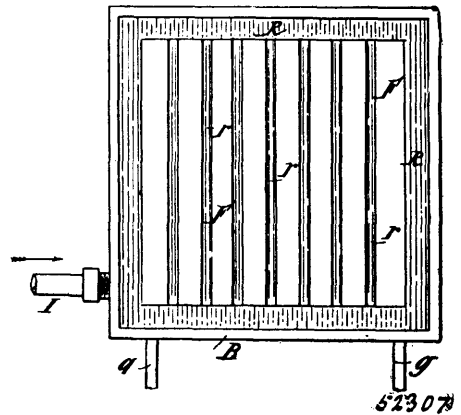


The Laughlin-Hough Drawing Table Company, assignee of Samuel John Laughlin and James Hough, all of Guelph, Ontario, Canada, 18th May, 1896; 6 years. (Filed 18th March, 1895.)

Claim.—1st. The combination with the black board, A, rotatably supported in an open frame having hollow end posts, of a rule connected at each end to cords in the open front of the posts, pulleys journalled in the rod extending across the top of the frame through the posts, the cords being wound a couple of times around the pulleys, and the opposite ends of the cords being provided with weights, as and for the purpose specified. 2nd. The combination with the black board, A, rotatably supported in an open frame having hollow end posts, of a rule connected at each end to cords in the open front of the posts, pulleys journalled on the rod extending across the top of the frame through the posts, the cords being wound a couple of times around the pulleys and the opposite ends of the cords being provided with weights and the continuation of the cords passing from the ends of the rule around the pulleys journalled in the lower ends of the posts and extending up to the weight to which they are connected, as and for the purpose specified. 3rd. The combination with a vertical black board, A, of a rule reverse L-shaped in cross section and having a groove, *h*, and tongue, *h*¹, and a scale rule supported on the top of the same and having the lower portion L-shaped in cross section and forming a groove, *i*¹, and tongue, *i*, arranged to fit the tongue, *h*¹, and groove, *h*, of the rule, H, as and for the purpose specified. 4th. The combination with the black board, A, rotatably supported in an open frame, B, which is provided at its lower end with a knob, of a cross bar secured to the back of the frame, standards supported on a suitable base, cords connected at one end to the cross bar and passing over pulleys secured in the top cross bar of the standards and having the other ends connected to a suitable weight, as and for the purpose specified. 5th. The combination with the black board, A, rotatably supported, of an open frame, which is hung from supporting standards, by cords passing over pulleys at the top of the standards and provided with a counter balancing weight, as and for the purpose specified. 6th. The combination with the black board, A, rotatably supported in an open frame by a central bolt extending through a cross bar, a bottom cross bar secured to the frame, of blocks, *b*¹, secured to the ends of the cross bars and turn buttons pivoted on the blocks and extending partially across the rear of the standards, and means for holding the frame in any desired position to which it may be raised or lowered, as and for the purpose specified. 7th. The combination with the black board, A, rotatably supported in an open frame, of the cords, L, passing from the back of the frame up over pulleys on the top of the standards, the weight, M, secured to the opposite ends of the cords and moving in vertical grooves, J¹, made in the standards, J, and means for holding the frame laterally rigid to the standard and yet permit of its free vertical movement, as and for the purpose specified. 8th. The combination with the black board, A, rotatably supported in a suitable frame and counter-balanced by cords passing from the back of the frame up over pulleys journalled on the top of standards and having weights secure to them, of the cushion plugs, *j*², and *k*¹, arranged as and for the purpose specified.

No. 52,307. Furnace for Burning Hydro-carbons. (Fournaise pour hydro-carbons.)

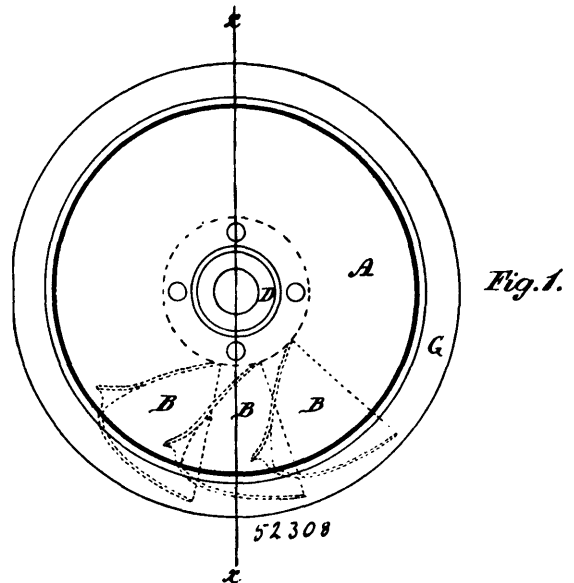
Fig. 1.



Charles H. Bachy, Sirault, Belgium, 19th May, 1896; 6 years. (Filed 5th August, 1895.)

Claim.—1st. A furnace for liquid fuel, which consists of a flat basin with a raised bottom traversed and surrounded by channels, this bottom being covered with a layer of felt, asbestos or other permeable material, in which rises the liquid supplied by the channels, and the flame developed at its surface being regulated by a plate or cover sliding like a drawer and carrying at its under surface a roller moving on the surface of the permeable material and preventing the flame from burning below the cover, and the arrangement of the latter as a hollow space forming flues which constitute tuyers wherein the air to be introduced into the flame can be preliminarily heated, substantially as hereinbefore described and represented in the drawings. 2nd. In combination with the furnace described in the preceding claim a feed device of constant flow characterized by compression of a layer of air by the liquid combustible admitted to the vessel above a column of water by an inverted syphon pipe, the two liquids being admitted from reservoirs at a higher level to allow of the immediate displacement of the petroleum by the sudden opening of the water reservoir, the whole substantially for the purposes indicated and as hereinbefore described and shown in the accompanying drawings.

No. 52,308. Turbine Water Wheel. (Turbine.)



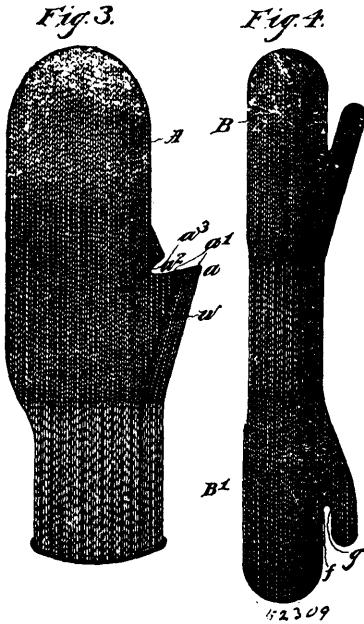
William O. Crocker, Turner's Falls, Massachusetts, U.S.A., 19th May, 1896; 6 years. (Filed 1st March, 1895.)

Claim.—1st. In a turbine water wheel receiving water at the side, the crown *a*, having the water or bucket surface formed to reversal curves, vertical buckets B with compound looped discharge edge H, and a circumferential band G, having a downward outward, and upward curve, substantially as set forth. 2nd. A turbine wheel having vertical

buckets B provided with reversed parabolic curved surfaces opposite the water entrance, and terminating with a scoop-shaped bottom, and having a looped compound discharge edge H, substantially as set forth. 3rd. A water wheel having a loop-shaped discharge, with central, downward, outward and upward curve, as set forth. 4th. A water wheel having crown buckets B and circumferential band, G with surfaces moulded to parabolic curves as shown.

No. 52,309. Mitten and Method of Knitting Same.

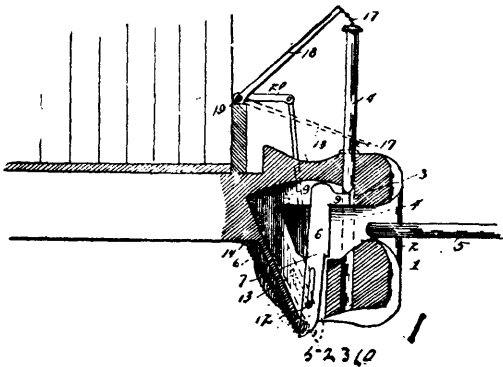
(Mittaine et méthode de tricoter.)



The Star Knitting Company, assignee of Jean C. Farnam, both of Lacross, Wisconsin, U.S.A., 19th May, 1896; 6 years. (Filed 13th April, 1896.)

Claim.—1st. The herein described method of knitting mittens and similar articles with a gusset in which the stitches are identical with the stitches of the main portion of the hand which consist in first knitting the article to the thumb, secondly, knitting a round of a less length than the last round and forming a portion of it out of a different and removable thread, third, then finishing the hand and forming the gusset by narrowing the courses adjacent the thumb portion, fourth, removing the removable thread, and finally knitting the thumb upon the stitches formed thereby and upon the stitches in the base of the thumb, substantially as set forth. 2nd. As a new article of manufacture, a knit mitten having a gusset in which the stitches are identical of the main portion of the hand, consisting of the wales between the thumb and the hand and having the base of the thumb formed upon the stitches of these wales and upon the stitches of a portion of the wales of the hand above these wales, substantially as set forth.

No. 52,310. Car-Coupler. (Attelage de chars.)

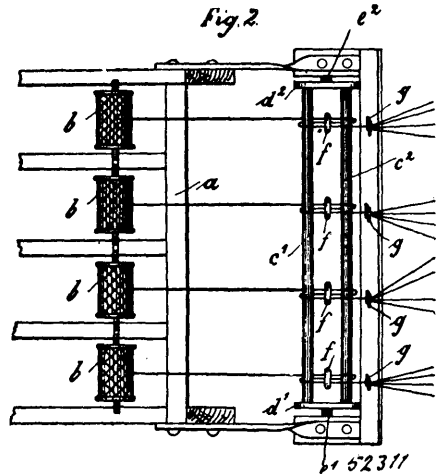


Frederick H. Newton and Linley G. Wade, both of Holly, Michigan, U.S.A., 19th May, 1896; 6 years. (Filed 23rd April, 1896.)

Claim.—1st. In a car-coupling, the combination of a draw-head, an approximately L-shaped pin-support and link-guider mounted for vertical movement in the draw-head and arranged to swing rearward, and a spring connected with the pin-support and link-

guider for normally throwing it forward and holding it upward, substantially as described. 2nd. In a car-coupling, the combination of a draw-head having a coupling-pin perforation and provided with a link opening and having a raised portion of the bottom thereof forming a fulcrum, said draw-head being provided in its bottom with an opening and having in its upper and rear walls an approximately L-shaped groove, an inverted L-shaped pin-support and link-guider arranged in the draw-head and having a limited vertical movement and arranged to swing rearward in the said groove, a spring connected with the bottom of the pin-support and link-guider for normally holding the same elevated and thrown forward, and means for depressing the link-guider and pin-support, substantially as described. 3rd. In a car-coupling, the combination in a draw-head provided in its bottom with an opening, a combined pin-support and link-guider mounted in the draw-head and extending through the opening of the bottom of the same, a spring for holding the pin-support and link-guider elevated, a bail connected with the bottom of the same and having upwardly-extending sides located on the exterior of the draw-head, and a rock-shaft having arms connected with the sides of the bail, substantially as described. 4th. In a car-coupling, the combination of a draw-head, a coupling-pin, a pin-support and link-guider, a rock-shaft, a central arm loosely arranged on the rock-shaft, and connected with the coupling-pin, the opposite side-arms similarly mounted on the rock-shaft and connected with the pin-support and link-guider, a lug projecting from the shaft and adapted to engage the tops of the side-arms, substantially as described.

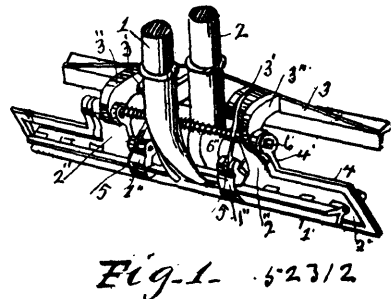
No. 52,311. Creel. (Porte-bobines.)



Kunstwerber Claviez & Company, assignee of Emil Claviez, both of Leipzig, Germany, 19th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—A bank or creel having as many threads doubled to a cross bobbin as matchings of threads are to be made side by side, and having bars arranged in front of each creel, the threads of each cross bobbin being wound in common in a suitable manner round the said bars and weighted in common by weights between the bars, whereby all the threads of a creel are subjected to an even braking action, which may be easily adjusted by shifting a brake lever to the required extent, and a very even warp is formed, substantially as hereinbefore described.

No. 52,312. Roofer's Seaming Tool. (Outil de couvreur.)

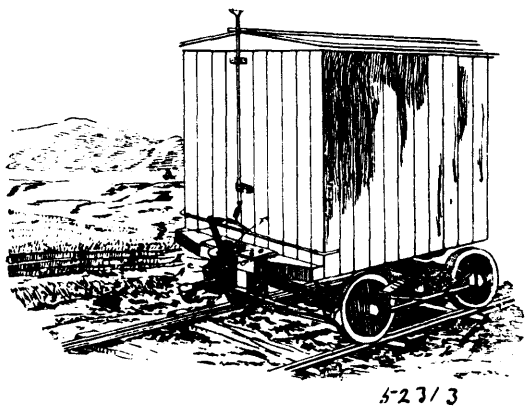


Emma H. Heberling, assignee of William L. Heberling, both of Havana, Illinois, U.S.A., 19th May, 1896; 6 years. (Filed 26th March, 1896.)

Claim.—1st. In a roofer's seaming tool, three jaws, each two of which are hinged or linked together on a pivotal line separate from that on which either of them is connected with the remaining jaw, all arranged to be brought together simultaneously by operating mechanism. 2nd. In a roofer's seaming tool, three jaws, each two

of which are hinged or linked together on a pivotal line separate from that on which either of them is connected with the remaining jaw, all arranged to be brought together simultaneously by the operation of two handles. 3rd. In a roofer's seaming tool, two jaws hinged together as a seam clamp, in combination with a third jaw which is pivotally connected with each of them above the pivotal line of their connection with each other. 4th. In a roofer's seaming tool, two jaws hinged together as a seam clamp, in combination with a third jaw which is hinged or pivoted to the clamp jaw nearest it above the pivotal line of the clamp hinge, and between the pivotal lines of the said two hinges is connected by links with the farther clamp jaw. 5th. In a roofer's seaming tool, a central jaw which is adapted to rest with its base on the roof while at work and is provided with two outside jaws which are adapted to close against it, in combination with a hinged raising-frame which is adapted to work under said central jaw, or to be swung out therefrom. 6th. In a roofer's seaming tool, a central jaw which is adapted to rest with its base on the roof while at work, and is provided with two outside jaws which are adapted to close against it, in combination with a hinged raising-frame which is adapted to work underneath said central jaw, or to be swung out therefrom, and is provided with an automatic locking device. 7th. In a roofer's seaming tool, two opposing jaws which are hinged together above their working faces, one of which jaws is adapted to rest on the roof while at work, and is provided on one side with a rigid longitudinal lip which is adapted to bend the seam flanges at right angles over the edge of the opposing jaw, in combination with a raising-frame which is hinged to said lipped jaw, and is adapted to work underneath it or to be swung out therefrom. 8th. In a roofer's seaming tool, two opposing jaws which are hinged together above their working faces, one of which jaws is adapted to rest on the roof while at work and is provided on one side with a rigid longitudinal lip which is adapted to bend the seam flanges at right angles over the opposing jaw, in combination with a raising-frame which is hinged to said lipped jaw and is adapted to work underneath it or to be swung out therefrom, and to be locked in position by an endwise movement. 9th. In a roofer's seaming tool, two opposing jaws provided with operating mechanism, in combination with a raising-frame or bar which is provided at its ends with hinge lugs which both stand outside of corresponding lugs on one of the said opposing jaws, and are hinged therewith by a pin or bolt on which a coil-spring is carried between the said lugs of the said jaw, one end of said spring engaging the inner side of one of the said jaw lugs, and the other end arranged with means to communicate pressure through the hinge-bolt hole of the opposite said jaw lug to the adjacent lug of the raising-frame, said frame being adapted to be thus forced endwise and locked.

No. 52,313. Car-Coupler. (*Attelage de chars.*)



William M. Robinson, Dilliner, John E. Minor, Mapletown, and Ramer M. Minor, Whiteley, all of Pennsylvania, U.S.A., 19th May, 1896; 6 years. (Filed 23rd April, 1896.)

Claim.—1st. In a coupler, the combination with a draw-head, of a rotary catch-block and the vertically-movable coupling and uncoupling devices substantially as shown and described. 2nd. In a car-coupler the combination with a draw-head, of a rotary catch-block arranged therein and the combined coupling and uncoupling device slidably connected with the catch-block, substantially as shown and described. 3rd. In a car-coupler, the combination with a draw-head of a rotary catch-block having a T-shaped opening and the coupling and uncoupling device comprising the body portion, legs and lugs, all arranged substantially as shown and described. 4th. In a car-coupler, the combination with a draw-head of a rotary catch-block, the sliding coupling device, the spring-actuated piston and connecting devices between said coupling device and said piston, substantially as shown and described. 5th. In a car-coupler, the combination with a draw-head having front and rear chambers, of the rotary catch-block and sliding coupler and uncoupler, the spring-piston, the slide-block and keeper and the uncoupling lever, all arranged substantially as shown and described. 6th. In a car-coupler, the combination with the draw-head rotary catch and slid-

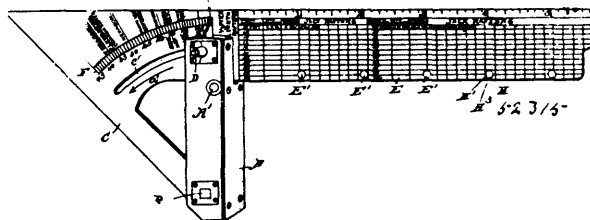
ing coupling device provided with serrations of the operating-lever, having a nose, the spring-actuated piston, carrying a slide-block provided with a keeper and cog teeth, all arranged substantially as shown and described. 7th. In a car-coupler, the combination with a draw-head of the rotary catch-block, having a T-shaped opening with flaring edges and provided with dovetail guideways upon its rear side, the sliding coupling device comprising the body, leg, and lug, said leg and body portions having dovetail grooves, the dovetail-shaped pin or plunger, the cap-piece and uncoupling lever all arranged substantially as shown and described. 8th. In a car-coupler, the combination with a draw-head having a front and rear chamber of a rotary catch-block having a spindle provided with a handle, the sliding coupling device provided with lugs for lifting the link, the cap pivoted to coupling device, the bail attached to cap-piece, the lever connected with the bail and provided with a handle and nose, the spring-actuated piston carrying a slide-block having a keeper and cog-teeth on the coupling device and the locking-bolt for holding the lever-handle, substantially as shown and described.

No. 52,314. Diaphragm for Electrolytical Apparatus. (*Diaphragme pour appareil electrolytique.*)

Carl Kellner, Vienna, Austria-Hungary, 19th May, 1896; 6 years. (Filed 18th March, 1896.)

Claim.—For apparatus for the electrolytical decomposition of metallic salts, diaphragms made either of soap only, or of soap in combination with a supporting skeleton, which latter is made of some material capable of resisting the decomposing action of the products generated within the apparatus, such as glass, wool or asbestos.

No. 52,315. Combination Square and Bevel. (*Equerre et beauveau combinés.*)



John McLean, Miller's Ferry, Alabama, U.S.A., 19th May, 1896; 6 years. (Filed 13th March, 1896.)

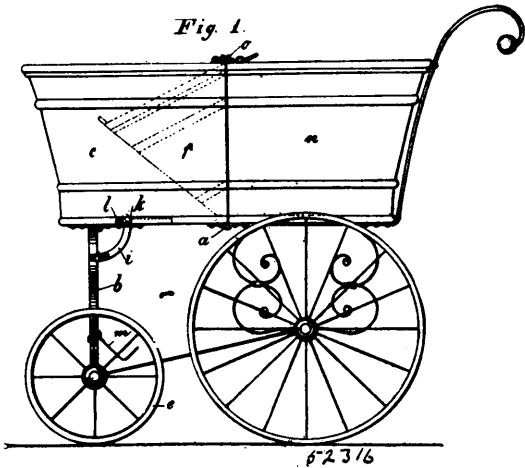
Claim.—1st. The herein-described combination square comprising the stock A, the graduated blade E, extending across the upper end of the stock and provided at its inner end with a blade C extending down from its upper straight edge at an angle of forty-five degrees thereto, and pivoted at its lower end in the lower end of the stock, a curved slot C' in the angle between the said two blades and concentric with the pivot B, a set screw extending through the upper end of the stock and through said slot to clamp the stock at any desired angle, and series of graduations F along the slot C', substantially as shown and for the purpose described. 2nd. The combination square comprising the graduated blade E having a blade C extending downwardly from its inner end and inclined at an angle of forty-five degrees toward its outer end; the lower end of the blade C having a pivot aperture and a curved slot C' being formed in the angle between the two blades concentric with said pivot aperture, a series of graduations along said slot, a stock A having a pivot at its lower end on which blade C works, a set screw D extending through the upper end of the stock and the said slot, and a pencil hole A' through the upper end of the stock parallel with the set screw and a pencil clamping spring crossing said aperture, substantially as shown and described. 3rd. A combination square comprising the stock A having a slot through its upper end, a set screw crossing the slot and a pencil-holder there below, a blade E extending through the stock slot having apertures along its lower edge and graduated on one side for rafters and on its opposite side for braces, and the blade C extending downwardly at an angle of forty-five degrees from the rear end of the blade A to the lower end of the stock and there pivoted, a curved slot C' in the angle between the two blades and concentric with the pivot; the said set screw being passed through said slot to adjust the stock toward and from the inclined blade C, a pointer on the upper end of the stock and a series of graduations along the slot C' over which said pointer works, substantially as shown and described.

No. 52,316. Carriage for Children. (*Voiture d'enfant.*)

Felix Cohn, Namslau, Silesia, Prussia, Germany, 19th May, 1896; 6 years. (Filed 29th February, 1896.)

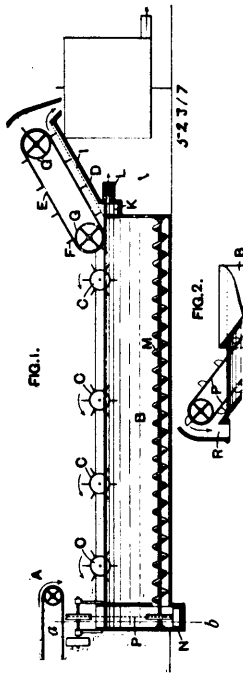
Claim.—1st. In a child's carriage, the combination of a front and rear section, with hinges connecting the lower parts of same, a king bolt, a spring encircling same and a spring connected with the forward part of the carriage and adapted to be engaged by the king-bolt, substantially as set forth. 2nd. A child's carriage having a body composed of two sections hinged together, as described, the forward section having a supporting spring hinged to the bottom

thereof, a segmental piece connected with said supporting spring, and a locking spring for engaging the segmental piece, substantially



as set forth. 3rd. In a vehicle having a body composed of a front and rear section hinged together as described, a pair of supplemental side pieces *p* and means for securing same, when the forward part of the carriage is inclined, substantially as set forth.

No. 52,317. Apparatus for Separating Foreign Matter from Disintegrated Wood. (*Appareil pour séparer des matières étrangères du bois désagrégé.*)

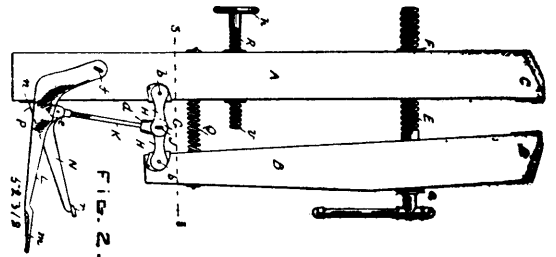


Nils Pedersen, Bovregaard Sarpsborg, Norway, 19th May, 1896; 6 years. (Filed 22nd February, 1896.)

Claim. 1st. In apparatus for separating foreign matters from disintegrated wood, the combination and arrangement with a water tank of a series of rotary paddles adapted to submerge the wood, substantially as and for the purpose set forth. 2nd. In apparatus for separating foreign matters from disintegrated wood, the combination and arrangement with a water tank of a series of rotary paddles and an inclined endless band fitted with scrapers, substantially as and for the purpose hereinbefore described. 3rd. In apparatus for separating foreign matters from disintegrated wood, the combination and arrangement with a water tank of a series of rotary paddles, a longitudinal rotary spiral conveyer in the bottom of the tank, and an inclined endless travelling band for removing the wood, the inclined band being fitted with scrapers, substantially as set forth. 4th. In apparatus for separating foreign matters from disintegrated wood, the combination and arrangement with a water tank of a series of rotary paddles and a longitudinal spiral conveyer in the bottom of the tank, substantially as set forth. 5th. In apparatus for separating foreign matters from disintegrated wood, the com-

ination and arrangement with a water tank of a series of rotary paddles, a longitudinal rotary spiral conveyer in the bottom of the tank, and a dredger for the removal of the deposited matters, substantially as set forth. 6th. In apparatus for separating foreign matters from disintegrated wood, the combination and arrangement with a water tank of an endless travelling apron and a series of rotary paddles, substantially as set forth. 7th. In apparatus for separating foreign matters from disintegrated wood, the combination and arrangement with a water tank of rotary paddles, an inclined endless travelling apron or chains fitted with scrapers, and a longitudinal rotary spiral conveyer, substantially as set forth. 8th. In apparatus for separating foreign matters from disintegrated wood, the combination and arrangement with a water tank of an inclined travelling apron or chains fitted with scrapers, a longitudinal rotary spiral conveyer, and dredging apparatus, substantially as set forth. 9th. In apparatus for separating foreign matters from disintegrated wood, the combination and arrangement with a water tank of a series of rotary paddles, an inclined travelling apron or chains fitted with scrapers, a longitudinal rotary spiral conveyer, and a well at the end of the conveyer, substantially as set forth. 10th. In apparatus for separating foreign matters from disintegrated wood, the combination and arrangement with a water tank of a series of rotary paddles, an endless travelling apron at one end of the tank, an inclined travelling apron or chains fitted with scrapers at the opposite end of the tank, a longitudinal rotary spiral conveyer, and a dredging apparatus, substantially as set forth.

No. 52,318. Vise. (*Etau*)



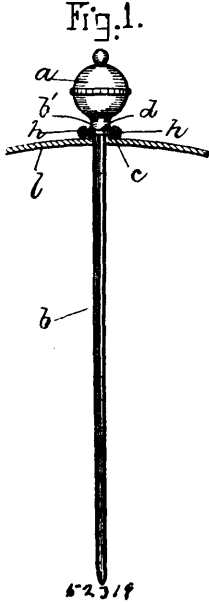
William Thompson, Boston, and William Alexander Thompson, Brockton, both in Massachusetts, U.S.A., 19th May, 1896; 6 years. (Filed 11th February, 1896.)

Claim.—1st. In combination, two jaws pivoted together, a toggle lever connected to said jaws, a treadle lever pivoted to a suitable support, and connected to the toggle lever, the point of connection on said treadle lever being at an angle or outside of a straight line between the pivot of the treadle lever and its operating end. 2nd. In combination, two jaws pivoted together, a toggle lever connected to said jaws, a treadle lever pivoted to a suitable support and connected to the toggle lever, the point of connection in said treadle lever being at a point below a straight line between the pivot of the treadle lever and its operating end. 3rd. In combination, two jaws pivoted together, a toggle lever connected to said jaws, a treadle lever pivoted to one of said jaws and connected to the toggle lever, a lever pivoted to said treadle lever having an arm or extension arranged to bear against a support and connected to said toggle lever. 4th. In combination, two jaws, a screw rod secured to one of said jaws and screwing into the other jaw, a toggle lever connected to said jaws, a treadle lever pivoted to one of the said jaws and connected to the toggle lever, a lever pivoted to said treadle lever having an arm or extension arranged to bear against a support, and connected to said toggle lever. 5th. In combination, two jaws pivoted together, a toggle lever connected to said jaws, a treadle lever pivoted to one of said jaws and connected to the toggle lever, a lever pivoted to the treadle lever having an arm or extension arranged to bear against a support and connected to the toggle lever, and a spring connected to the two jaws. 6th. In combination, two jaws pivoted together, a toggle lever connected to said jaws, a treadle lever pivoted to one of said jaws and connected to the toggle lever, a lever pivoted to the treadle lever having an arm or extension arranged to bear against a support and connected to said toggle lever, and a screw in one jaw arranged to bear against the other jaw. 7th. In combination, two jaws pivoted together, a toggle lever connected to said jaws, a treadle lever pivoted to one of said jaws and connected to the toggle lever, a lever pivoted to the treadle lever having an arm or extension arranged to bear against a support and connected to said toggle lever, and a spring connected to said jaws. 8th. In combination, two jaws pivoted together, a toggle lever connected to said jaws, a treadle lever pivoted to one of said jaws, a rod pivotally connecting the treadle lever and the toggle lever, and a lever pivoted to said treadle lever having an arm or extension arranged to bear against a support and connected to said toggle lever.

No. 52,319. Hat Fastener. (*Attache pour chapeaux.*)

Carl Nelson Moller, Chicago, Illinois, U.S.A., 19th May, 1896; 6 years. (Filed 14th January, 1896.)

Claim.—1st. An eyelet having downwardly projecting peripheral prongs for securing the eyelet to a hat, and upwardly projecting



peripheral clamping ears between the prongs, substantially as described. 2nd. A hat pin having a head, a shank, a circular flange around the shank with two or more notches in the periphery of the flange, in combination with an eyelet having a central opening for the pin, two or more downwardly projecting peripheral prong, for securing the eyelet to the hat, and two or more upwardly and inwardly projecting peripheral ear clips which pass through the notches in the flange of the pin and permit partial rotation of the pin to bring the flange under the ear clips with the notches out of alignment with the clips, the clips springing against the flange to prevent too ready displacement, substantially as described.

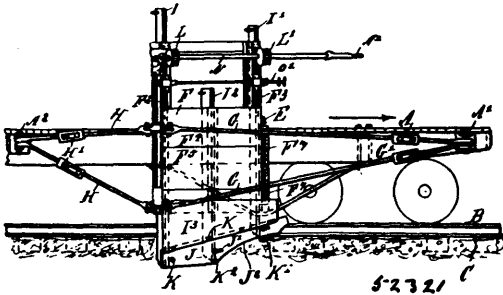
No. 52,320. Metallic Alloys. (Alliages métalliques.)

William Herman Kemler, Ashland, Kentucky, U.S.A., 19th May, 1896; 6 years. (Filed 25th October, 1895.)

Claim.—1st. An alloy containing zinc, copper and aluminum, the zinc being present in greater proportion than the aluminum being present in greater proportion than the copper. 2nd. An alloy containing about seventy-nine parts of zinc, about eight parts of copper, and about thirteen parts of aluminum.

No. 52,321. Shaper and Ditcher.

(Appareil à creuser des fossés et façonner.)

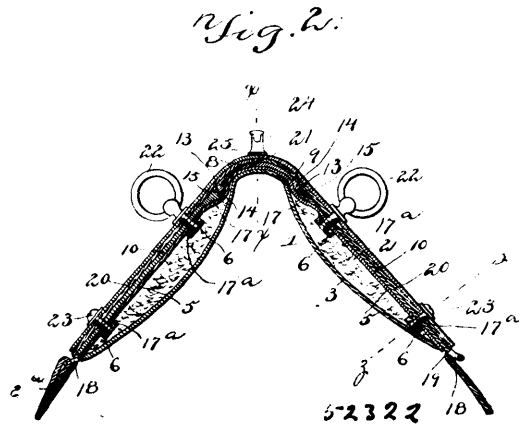


James Edward McCormick, Port Jarvis, New York, U.S.A., 19th May, 1896; 6 years. (Filed 23rd April, 1896.)

Claim.—1st. A machine of the class described, comprising a frame, means for holding it at an angle to the side of a car, and a knife held vertically adjustable on the said frame, the bottom edge of the knife being formed correspondingly to the desired cross section of the side of the track, substantially as shown and described. 2nd. A machine of the class described, comprising a frame pivotally connected with the side of the car, adjustable links pivotally connecting the free or outer ends of the said frame with the forward and rear ends of the car, and a knife carrier held vertically at its lower end with a knife the bottom edge of which is formed correspondingly to the desired cross section of the side of the track, substantially as shown and described. 3rd. A machine of the class described, comprising a frame pivotally connected with the side of the car, adjustable links pivotally connecting the free or outer end of the said frame with the forward or rear ends of the car, a knife carrier held vertically adjustable on the said frame, and provided at its

lower end with a knife the bottom edge of which is formed correspondingly to the desired cross section of the side of the track, and springs pressing the said frame at its pivot, to permit the frame to yield vertically, substantially as described. 4th. A machine of the class described, comprising a frame, means of holding the frame at an angle to the car, a knife carrier held vertically adjustable on the said frame, and provided at its lower end with a knife, the bottom edge of which is formed correspondingly to the desired cross section of the side of the track, and means, substantially as described, for raising and lowering the said knife carrier on the said frame, as set forth. 5th. A machine of the class described, comprising a frame and means for holding the same at an angle to a car, a knife carrier held vertically adjustable on the said frame, and provided at its lower end with a knife the bottom edge of which is formed correspondingly to the desired cross-section of the side of the track, and a locking device for fastening the said knife carrier in position after it is adjusted on the said frame, substantially as shown and described. 6th. In a shaping and ditching machine, the combination with a car, of a frame held at the side thereof, two vertically-movable bars in said frame means for moving said bars, and a knife, the same being pivotally connected to one bar, and slidably connected to the remaining bar, substantially as described. 7th. In a shaper and ditcher, the combination with a car, of a frame held at the side thereof, two vertically movable bars, a knife carried by said bars and being pivotally connected to one and slidably connected to the remaining bar, and means for moving said bars independently and in unison, substantially as described. 8th. In a shaper and ditcher, the combination with a car, of a frame held at the side thereof, two rack bars vertically movable in said frame, a knife pivotally connected to one rack bar, and slidably connected to the remaining bar, a shaft rotatably mounted and movable longitudinally, and two pinions carried by the shaft and respectively engaging the rack bars, substantially as described. 9th. In a shaper and ditcher, the combination with a car having ears projecting therefrom, of a frame provided with corresponding ears, a pin passed through said ears, springs yieldingly holding the ears on the pin, and a knife carried by the frame, substantially as described. 10th. In a shaper and ditcher, the combination of a frame, means for holding the same at an angle to a car, a knife carrier movable vertically in the frame, a knife on said carrier, and means for locking the knife carrier, the same comprising two laterally movable catches in unison engaging and disengaging respective parts of the knife carrier, substantially as described. 11th. In a shaper and ditcher, the combination of a frame, means for mounting the same, two rack bars movable vertically in the frame, a knife connected with the rack bars, a rotary and reciprocal shaft, and two gears carried on the shaft, the gears being differentially disposed with reference to the rack bars, substantially as described. 12th. In a shaper and ditcher, the combination of a frame, two rack bars movable in said frame, a knife pivotally connected to one rack bar and slidably connected to the remaining rack bar, a rotary and reciprocal shaft, and two gear wheels fixed to said shaft, the gear wheels being wider than the racks and differentially disposed with relation thereto, substantially as described. 13. In a shaper and ditcher, the combination of a frame, two vertically movable rack bars, means for moving the rack bars, a knife carried on said bars, and two catches connected to engage and disengage the respective rack bars in unison and lock the same, substantially as described.

No. 52,322. Harness Saddle. (Sellette.)

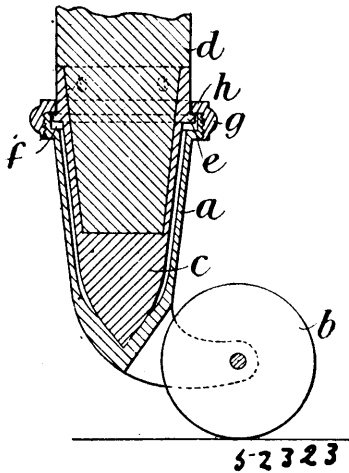


Henry Schmitz, Wymore, Nebraska, U.S.A., 19th May, 1896; 6 years. (Filed 2nd April, 1896.)

Claim.—1st. In a harness saddle, the combination of a pad body provided at the top with a longitudinal channel or recess and with burrs or nuts at the proper points, a self-adjusting sectional tree removably fitted in the channel or recess of the saddle body and provided at its outer ends with strap loops, a skirt or jockey strap fitted over the tree and provided with holes or openings aligning with similar holes or openings in the tree opposite said burrs or

nuts, said skirt or jockey strap essentially comprising centrally jointed pieces and further provided in opposite portions with slots to receive the outer strap loops of the tree, and the ferret and pad screws passed through the aligned openings of the skirt or jockey strap and the tree and removably engaging said burrs or nuts, substantially as set forth. 2nd. In a harness saddle, the combination of the saddle body having a centre upright screw post, the saddle tree fitted on said body and provided at the centre thereof with an opening fitting over said screw post and with projecting catches, the removable skirt or jockey strap fitted over the tree and provided with openings through which project said screw post and said catches, a removable cantle or seat plate provided on its under side with a back strap loop adapted to engage the projecting catches of the tree and with an opening fitting over said screw post, said cantle or seat plate being further provided near the opening therein with a lock notch, and the check-rein hook adapted to engage said screw post and provided on its lower end with a catch projection adapted to engage said lock notch, substantially as set forth. 3rd. In a harness saddle, the combination of the saddle body or pad having a centre upright screw post, the saddle tree fitted on said body and provided at the centre thereof with an opening fitting over said post and with spaced convergently disposed bevelled catch-lugs, the cantle or seat plate fitted over said screw post and carrying on its under side a back strap loop having a dove-tailed solid portion adapted to engage between said catch-lugs, and the check-rein hook working on said screw post over the cantle or seat plate, substantially as set forth. 4th. A saddle-tree comprising a centre-hook plate provided at its opposite ends with transverse C-shaped or nearly completely circular grooves and with stop shoulders at the lower edges of said grooves, and opposite side plates provided at their inner ends with transverse nearly completely circular pivot-ribs adapted to pivotally and detachably interlock with the grooves of the hook plate, said side-plates also having stop-shoulders below the pivot-ribs thereof, substantially as set forth. 5th. A saddle tree comprising a centre hook-plate provided at its opposite ends with transverse C-shaped or nearly completely circular pivot grooves and thickened lower stop-shoulders at the under sides of such grooves, and opposite side-plates provided at their inner ends with transverse nearly completely circular pivot-ribs adapted to pivotally and detachably interlock with the grooves of the hook-plate, and with thickened lower stop-shoulders at the under sides of said ribs that are opposed to the corresponding shoulders of the centre hook-plate, substantially as set forth.

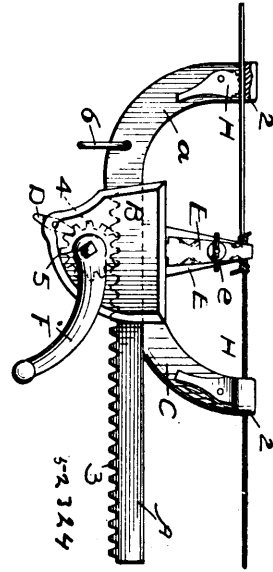
No. 52,323. Caster. (Roulette.)



James Percy Ernest Proud, Fortal, Kilkenny, Ireland, and John Charles Crampin Road, London, England, 19th May, 1896; 6 years. (Filed 24th March, 1896.)

Claim.—1st. A caster, in which the wheel is carried by a cone-shaped socket rotating upon a cone fitting within the said socket, substantially as described. 2nd. In a caster, in which the wheel is carried by a socket rotating upon a cone, a collar screwed unto the upper end of the said socket and projecting over a flange on the cone for preventing the said socket and cone from becoming separated, substantially as and for the purpose described. 3rd. In a furniture caster, wherein the wheel is carried by a socket rotating upon a cone, an undercut groove on the inner surface of the socket adapted to receive the head or heads of a screw or screws, substantially as described by reference to figure 2 of the accompanying drawing, for the purpose specified. 4th. In a caster, wherein the caster wheel is carried by a socket rotating upon a cone, a pin formed upon the bottom of the cone and projecting through a corresponding opening in the bottom of the socket, substantially as described and for the purpose specified.

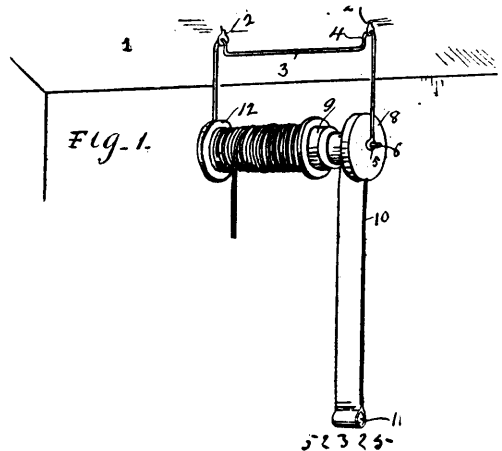
No. 52,324. Wire Stretching and Splicing Tool. (Outil à étirer et épisser le fil de fer.)



Odelon J. La Bauve, Galveston, Texas, U.S.A., 19th May, 1896; 6 years. (Filed 26th March, 1896.)

Claim.—The herein specified wire stretching and splicing tool, comprising a hollow head having an arm projected therefrom and terminating in an overhanging portion, a cam-shaped lever pivoted to the side of the said arm and adapted to co-operate with the overhanging portion to grip the wire, a second arm adapted to work loosely through the hollow head and provided with cog teeth and having one end projected and provided with an overhanging portion, a cam lever adapted to co-operate with the said latter overhanging portion to grip the wire, a pinion located in the hollow head and adapted to mesh with the cog teeth of the movable arm and adapted to be rotated by means of a handle applied to its journal, a detent pawl to engage with the said pinion, and a wire clamping device mounted on said hollow head located intermediate of the two wire gripping devices and comprising a relatively fixed jaw attached to the head, a movable jaw and a binding screw, substantially as specified.

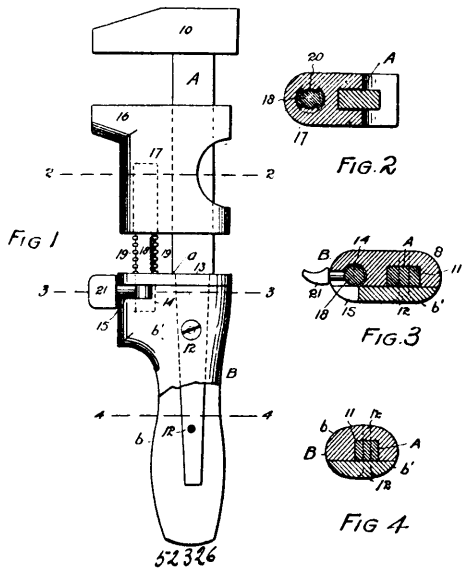
No. 52,325. Twine-Holder. (Porte-ficelle.)



Otto Priegel, Linville, Iowa, U.S.A., 19th May, 1896. (Filed 26th March, 1896.)

Claim.—In a twine holder, the combination with a core provided at one end with a drum and having terminal trunnions, a weighted strap reeled upon the drum, and a spool removably fitted upon the core and having a web to engage a groove in the core to prevent independent rotation, of a swinging hammer for supporting the core, said hanger having parallel pendent spring arms, terminating in bearing-eyes 5 for the reception of said trunnions, the inward tendency of the spring arms holding said eyes in engagement with the trunnions and preventing the accidental longitudinal movement of the spool upon the core, substantially as specified.

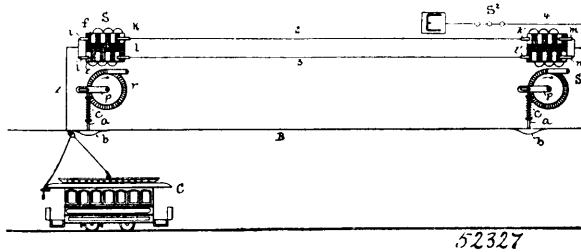
No. 52,326. Wrench. (Clé à écrou.)



Robert Alexander Wilson, assignee of Lewis Petty Davidson, both of Denver, Colorado, U.S.A., 20th May, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. In a wrench, the combination of a shank, a handle, the same being formed of two sections jointly embracing the shank, a movable jaw sliding on the shank, a revoluble screw connected to the jaw and to the handle, and a yoke at the end of the handle, said yoke embracing the shank and the screw, substantially as described. 2nd. In a wrench, the combination of a shank, a handle having sections jointly embracing the shank, a sliding jaw movable on the shank, a yoke lying against the end of the handle which is adjacent to the sliding jaw and held thereto by a shoulder on the shank, a screw connected with the sliding jaw and having bearings in the yoke, and a thumb-piece connected to the screw and movable in a recess in the handle, substantially as described.

No. 52,327. Electric Railway. (Chemin de fer électrique.)

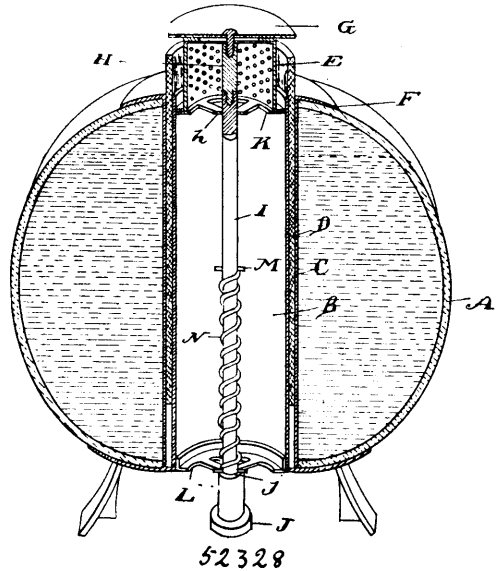


John F. Jordan and George A. Jordan, assignees of William H. Jordan, all of Brooklyn, New York, U.S.A., 20th May, 1896; 6 years. (Filed 28th March, 1896.)

Claim.—1st. The combination with an electric railway, of a divided signaling circuit, a switch at each end of the circuit, a connection from one switch to one side of the main or working conductor, a connection from the other switch to the other main or return conductor and containing signaling devices, and means at each switch operated by the contact devices carried by the car for operating the switch, whereby the signaling devices are successively connected with each division of the signaling circuit, substantially as set forth. 2nd. The combination with an electric railway, of a divided signaling circuit, a switch at each end of the circuit, a connection from one switch to the working conductor, a connection from the other switch to earth containing signaling devices, and means at each switch operated by the contact devices carried by the car for operating the switch, whereby the signaling devices are successively connected with each division of the signaling circuit, substantially as set forth. 3rd. The combination with a single track electric railway having turn-outs or sidings, of a divided signaling circuit, a switch at each end of the circuit located at the turn-outs, a connection from one switch to the working conductor, a connection from the other switch to earth extending from one turn-out to the other and containing signaling devices at each turn-out, and means at each switch operated by the contact devices carried by the car for operating the switch, whereby the signaling devices are successively connected with each division of the signaling circuit, substantially as set forth. 4th. The combination with an electric railway, of a divided signaling circuit, a switch at each end of the circuit, a con-

nection from one switch to the working conductor, a connection from the other switch to earth containing signaling devices, and means at each switch operated by the contact devices carried by the car whereby the circuit is closed at one end of the section by the entrance of the car, and opened at the other end of the section as the car leaves that section, and whereby the signaling devices are successively connected with each division of the signaling circuit, substantially as set forth.

No. 52,328. Lamp Burner. (Bec de lampe.)

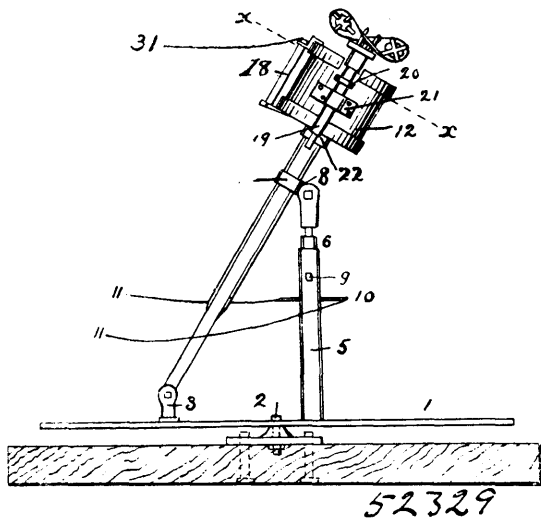


Sidney A. Hoover and Aaron Longheed, both of Port Arthur, Ontario, Canada, 20th May, 1896; 6 years. (Filed 19th March, 1896.)

Claim.—1st. A flame extinguisher for lamps or lanterns, consisting of a hollow wick tube, a movable disk at the top of the wick tube, and means for moving the disk towards and away from the wick tube, substantially as specified. 2nd. A flame extinguisher for lamps or lanterns, consisting of a hollow wick tube, a movable disk overlapping the top of the wick tube, an actuating rod located within the wick tube and connected to the disk, substantially as specified. 3rd. A flame extinguisher for lamps or lanterns, consisting of a hollow wick tube, a movable disk overlapping the top of the wick tube, an actuating rod located within the wick tube and connected to the disk, and a spring adapted to return the actuating rod and disk to their normal position, after being operated to extinguish the flame, substantially as specified. 4th. A flame extinguisher for lamps or lanterns, consisting of a hollow wick tube, a perforated tube moving vertically within the top of the wick tube, a disk at the top of the perforated tube, overlapping the wick tube, an actuating rod within the wick tube, the upper end of which is connected to the disk, and the lower end of which projects beyond the wick tube, substantially as specified. 5th. A flame extinguisher for lamps or lanterns, consisting of a hollow wick tube, a perforated tube moving vertically within the top of the wick tube, a disk at the top of the perforated tube, overlapping the wick tube, an actuating rod within the wick tube, the upper end of which is connected to the disk, and the lower end of which projects beyond the wick tube, and a spring to return the parts to their normal position after having been operated, substantially as specified. 6th. A flame extinguisher for lamps or lanterns, consisting of a hollow wick tube, a movable disk at the top of the wick tube, an actuating rod within the wick tube to operate the disk, and a stop to limit the upward movement of the actuating rod, substantially as specified. 7th. A flame extinguisher for lamps or lanterns, consisting of a hollow wick tube, a movable disk at the top of the wick tube, an actuating rod within the wick tube to operate the disk, a stop to limit the upward movement of the actuating rod, and a spring to return the actuating rod and disk to their normal position after being operated, substantially as specified. 8th. A flame extinguisher for lamps or lanterns, consisting of a hollow wick tube, a perforated tube moving vertically within the top of the wick tube, a disk connected to the perforated tube overlapping the wick tube, an actuating rod within the wick tube, movably held by suitable guides, the upper end of which is connected to the said disk, and the lower end provided with a stop to limit the upward movement, substantially as specified. 9th. A flame extinguisher for lamps or lanterns, consisting of a hollow wick tube, a perforated tube moving vertically within the top of the wick tube, a disk connected to the perforated tube overlapping the wick tube, an actuating rod within the wick tube, movably held by suitable guides, the upper end of which is connected to the said disk and the lower end provided with a stop to limit its upward movement, and a spring to

return to the parts to their normal position after being operated, substantially as specified. 10th. A flame extinguisher for lamps or lanterns, consisting of a hollow wick tube, a movable disk at the top of the wick tube, a pin depending from the under side of the disk, an actuating rod within the wick tube, suitable guides to maintain the actuating rod in its proper position, the upper end of the actuating rod connected with the lower end of the said pin, substantially as specified. 11th. A flame extinguisher for lamps or lanterns, consisting of a hollow wick tube, a movable disk at the top of the wick tube, a pin depending from the under side of the disk, an actuating rod within the wick tube, suitable guides to maintain the actuating rod in its proper position, the upper end of the actuating rod connected with the lower end of the said pin, and a spring encircling the actuating rod to return the parts to their normal position after being operated, substantially as specified.

No. 52,329. Target-Trap and Bird therefor. (Cible.)



Leander L. Shattuck, Titusville, Pennsylvania, U.S.A., 20th May, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. A trap for trap shooting, consisting of the shaft 14, located centrally in a cylindrical case 13, the coiled spring 16, connected at the ends with the shaft and the walls of the cylindrical case respectively, and operating when released to drive the shaft 14, the toothed pinion 15 on said shaft meshing into and driving the pinion 20 on the sleeve 19, the sleeve 19 being held in place and supported on the interior spindle 25, which is exteriorly threaded and fitting with interior threads in the sleeve 19, said spindle being flattened and passing through a slot in the bracket 22, thereby being prevented from turning with the sleeve 19; the head 23 and pins 24 on said sleeves 19; the pins 17 on the pinion 15 and latch 18 holding the pinion until released; all operating in combination substantially as described and for the purposes herein set forth. 2nd. A target or bird for trap shooting, consisting of the shank 27, wings 29, constructed, inclined and tilted as described, and with openings in each wing fitted to receive flat disks of paper, and with holes 28 fitted to be loosely adjusted on the pins 24, substantially as shown and described. 3rd. A trap and bird for trap shooting, consisting of the shaft 14 located centrally in a cylindrical case 13, the coiled spring 16 connected at the ends with the shaft and the walls of the case respectively, and operating when released to drive the shaft 14, the toothed pinion 15 on said shaft meshing into and driving the pinion 20 on the sleeve 19, the sleeve 19 being held in place and supported on the spindle 25, which is externally threaded fitting with interior threads in the sleeve 19, said spindle being flattened at the lower end and passing through a slot in the bracket 22, thereby being prevented from turning with the sleeve 19; the head 23 and pins 24 on said sleeve 19; the target or bird, consisting of the shank 27, wings 29, constructed inclined and tilting as described, and with openings in each wing to receive flat disks of paper, and with holes 28 in the shank fitted to be loosely adjusted on the pins 24; the pins 17 on the pinion 15, and latch 18 for holding the pinion till released; all the parts operating in combination and mounted on a revolving and adjustable base, substantially as described and for the purposes herein set forth.

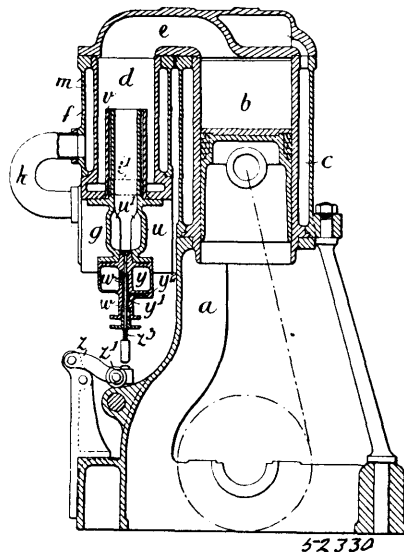
No. 52,330. Hydro-carbon Engine.

(Machine à hydro-carbures.)

William Edward Gibbon, Colchester, England, 20th May, 1896; 6 years. (Filed 23rd March, 1896.)

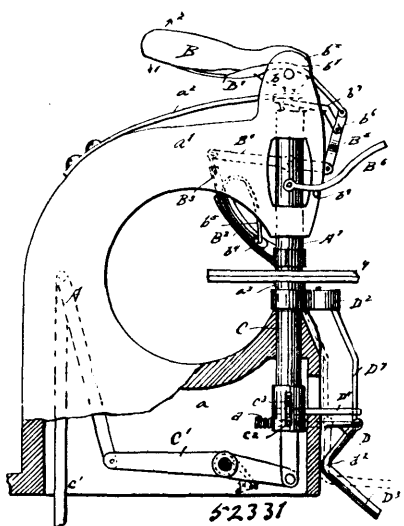
Claim.—1st. In an explosive engine, the combination with the combustion chamber, of a vaporizing device communicating inter-

iorly with a supply of liquid, an air inlet adjacent to the exterior of the said vaporizing device and located between it and the air inlet,



substantially as described. 2nd. In an explosive engine, the combination with the combustion chamber, of an air-heating chamber separate therefrom and surrounding the said combustion chamber, an air inlet for the said heating chamber communicating with the atmosphere, an air passage connecting said air chamber and said combustion chamber, a vaporizing device extending into the combustion chamber and communicating interiorly with a supply of liquid, and a guard surrounding the said vaporizing device between it and the said air passage, substantially as described. 3rd. In an explosive engine, the combination with the combustion chamber and the vaporizing chamber, of a liquid supplying device comprising the liquid supply passage, a plunger located therein having a longitudinal aperture in its end and a cross passage communicating therewith at a distance from its end, substantially as described.

No. 52,331. Riveting Machine. (Machine à river.)

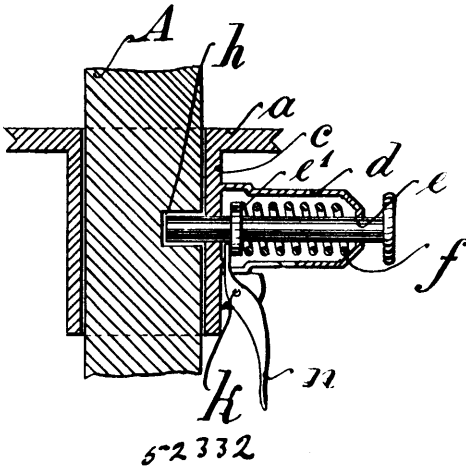


Christian A. Skeie, St. Hilaire, Minnesota, U.S.A., 20th May, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. In a riveting machine, the combination with a riveting-plunger, of a vertically movable tubular anvil, puncturing tool movable longitudinally therein, mechanism for moving the tool independently of the anvil, and means comprising a pin movable between the lower portion of the puncturing tool and the part for moving the anvil for causing the said puncturing tool and anvil to move together, substantially as specified. 2nd. In a riveting machine, the combination with a riveting-plunger, and a frame having a tubular portion in line with the plunger, of a tubular anvil movable vertically in said tubular portion, a puncturing tool in said anvil and

movably relatively thereof and also movable therewith, a rivet tray communicating with the tubular portion of the frame, a pusher finger extended into the tray, and a stop carried by the finger for connecting the anvil and puncturing tool, substantially as specified. 3rd. The combination with the anvil, mechanism for operating the same, and the rivet tray, of the yoke having its arms extended through openings in the base of the machine, the springs surrounding the arms, the rivet finger pusher rigidly connected thereto, and a cam lever for drawing the yoke outward, substantially as specified. 4th. The combination with a tubular anvil, a puncturing tool movable with and also independently of the anvil, and a rivet tray, of the spring-impelled yoke, the pusher finger connected thereto, the cam lever pivotally connected to the yoke, and the stop pin carried by the pusher for engaging the anvil with the puncturing tool, substantially as specified. 5th. The combination with a riveting plunger, of the vertically movable tubular anvil, a rock arm, a link having a pivotal connection with the rock arm and a pivotal lost motion connection with the anvil, the puncturing tool in the anvil and carried by the pivot connecting the link and anvil, and a stop pin movable between the link and puncturing tool for causing a connected movement of the puncturing tool and anvil, substantially as specified. 6th. In a riveting machine, the combination with an anvil, of a vertically movable presser plunger, a riveting-plunger within the presser plunger, a pivoted lever for forcing the riveting-plunger downward, a washer chute mounted on and communicating with the interior of the presser plunger, a pusher operating in said chute, a lever fulcrumed on the pivots of the pivoted lever, and link and lever connections between the said fulcrumed lever and the pusher in the chute, substantially as specified. 7th. In a riveting machine, the combination with an anvil, of a tubular presser plunger, a lever for lifting the plunger, a chute carried by and leading to the interior of the plunger, a pusher for operating therein, a spring finger for holding a washer in place in the chute, a washer-holding plunger in the presser plunger, a riveting-plunger in the holding plunger, a cam lever for operating the riveting-plunger, and a lever operated by the cam lever and having connections for operating the washer pusher, substantially as specified.

No. 52,332. Combined Walking Stick and Umbrella.
(*Canne et parapluie combinés.*)

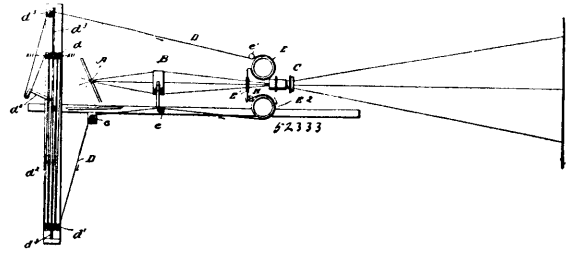


Felix Goldschmidt, Berlin, Prussia, Germany, 20th May, 1896; 6 years. (Filed 21st March, 1896.)

Claim.—1st. A convertible cane and umbrella stick having locking pin holes therein in combination with a frame, cover, top sleeve ring and sleeve runner having a radial longitudinally moving locking pin fitted upon said sleeves and adapted to engage with the holes in the cane or stick, substantially as described. 2nd. A convertible sleeve ring and sleeve runner, comprising a sleeve cylinder, a notch plate, a cylindrical casing projecting radially from the outer side of said sleeve cylinder, a locking pin fitted to move endwise in said casing and a spiral spring also fitted within said casing to press against the locking bolt, substantially as described. 3rd. A convertible sleeve ring and sleeve runner, comprising a sleeve cylinder and notch plate, a cylindrical casing formed thereon, a spring actuated locking pin held within said casing and a presser bar or lever for conveniently operating said spring. 4th. A convertible sleeve ring and sleeve runner, comprising a sleeve cylinder and notch plate, a cylindrical casing formed thereon, a spring actuated

locking pin, held within said casing, and a loop secured to the end of said pin and encircling the sleeve cylinder, substantially as and for the purpose described.

No. 52,333. Apparatus for Exhibiting Pictures.
(*Appareil pour exhiber des images.*)

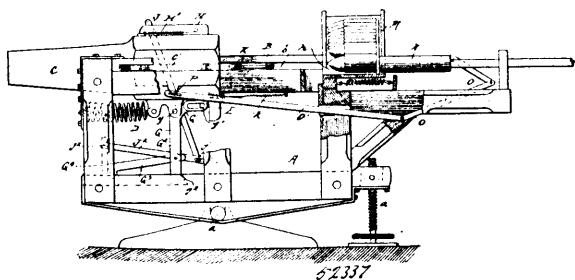


Thomas Armat, Washington, Columbia, U.S.A., 20th May, 1896; 6 years. (Filed 19th March, 1896.)

Claim.—1st. In a picture-exhibiting apparatus, the combination with an illuminator and a projecting lens, of a picture-carrying strip or film having a portion thereof arranged in the focus of the objective of the projecting lens, a tension device adapted to keep said portion of the film taut and prevent flexing or puckering at the point of exposure, means for intermittently moving said portion so as to impart a step-by-step movement thereto and successively place the picture in position for exposure, mechanism for taking up the film as it is intermittently moved, and mechanism for feeding the film so as to provide slack therein between the same and said tension device, whereby that portion of the film between the feeding and take-up mechanisms may be intermittently moved with great rapidity without unnecessary strain and wear upon the film, substantially as described. 2nd. In a picture-exhibiting apparatus, the combination with a picture-carrying film, of a tension device therefor adapted to keep the film taut and prevent flexing or puckering at the point of exposure, mechanism for taking up the film after leaving the tension device, means located intermediate said tension device and the take-up mechanism for intermittently moving the film, together with means for feeding the film so as to provide slack between the same and said tension device, whereby the pictures may be successively placed in position for exposure with great rapidity without unnecessary strain and wear upon the film, substantially as described. 3rd. In a picture-exhibiting apparatus, the combination with a picture-carrying film and means for giving movement to the same, of a tension device provided with a yielding member adapted to hold and prevent movement of the film for a predetermined interval of time, together with mechanism for intermittently moving the film and simultaneously releasing the pressure exerted by the yielding member of said tension device, whereby the pictures may be successively placed in position for exposure with great rapidity without unnecessary strain and wear upon the film, substantially as described. 4th. The combination with a film or strip and means for imparting movement thereto, of a tension device provided with a yielding member adapted to hold and keep the film taut and prevent flexing or puckering at the point of exposure, a rotating element for actuating the yielding member so as to relieve the pressure exerted thereby upon the film, together with means for intermittently moving the film through the tension device, substantially as described. 5th. The combination with a film or strip, of a pair of feed-drums adapted to be continuously rotated so as to give a continuous movement to the film, a tension device interposed between the feed-drums and provided with a yielding member adapted to hold and keep the film taut, so as to provide slack on one side thereof, a rotary disc or cam adapted to contact with a portion of the yielding member so as to release the pressure thereof on said film, and having thereon a projection portion adapted to engage the film and intermittently move the same when the pressure of said yielding member is released, substantially as described. 6th. In combination with the film and means for imparting movement thereto, the tension device comprising three members between which the film is adapted to pass, one member being stationary and the others adapted to press the film against said stationary member with different pressure so that when the pressure of one of the yielding member is released the other may exert a pressure sufficient to prevent slipping of the film without preventing its proper movement, whereby the film may be successively moved a uniform distance, substantially as described. 7th. The combination with a film or strip and means for intermittently moving the same, of a tension device comprising a stationary member, two spring-pressed yielding members adapted to press the film against said stationary member with different pressures, guides for aligning the film, and means whereby one of the yielding members may be actuated so as to release the pressure exerted thereby upon the film when the latter is moved, substantially as described. 8th. The combination with a film or strip, of a tension device comprising a stationary member, two yielding members hinged thereto adapted to press the film against said stationary member with different pressures, guides for aligning the film, means whereby one of the yielding members may be actuated so as to release the pressure thereof upon the film, and a plate or shield

to slide back and forth on said head, a lever in said groove pivoted to said block, the other jaw arranged to be moved back and forth on said block, a downward extension of said latter jaw into said groove or chamber arranged to engage with said lever, and a block in said lever arranged to bear against the under sides or shoulders of the sides of the groove or chamber. 3rd. In a vise, in combination, two jaws, one jaw movably secured to a support, a horizontal arm or head projecting backward from said support, a longitudinal groove or chamber in its upper side, a block arranged to slide back and forth on said head, a lever in said groove pivoted to said block, the other jaw arranged to be moved back and forth on said block, a downward extension of said jaw into the groove or chamber, arranged to engage with said lever, and a block in said lever arranged to bear against the under sides or shoulders of the sides of the groove or chamber. 4th. In a vise, in combination, two jaws, one pivoted to an upright bar, a horizontal arm or head projecting backward from said upright, a longitudinal groove or chamber in its upper side, a block arranged to slide back and forth on said head, a lever pivoted thereto in said groove, having a forked end, the other jaw arranged to be moved back and forth on said block, a downward extension of said jaw having lateral extensions on its lower end arranged to bear against the under side of the forked end of said lever, and a block in said lever arranged to bear against the under sides or shoulders of the sides of the groove or chamber. 5th. In a vise, in combination, two jaws, one pivoted to a support, a horizontal arm or head projecting backward from said support, a longitudinal groove or chamber in its upper side having under-bevelled sides, a block arranged to slide back and forth on said horizontal arm, a lever in said groove or chamber pivoted to said block, the other jaw arranged to be moved back and forth on said block, a downward extension of said latter jaw into said groove or chamber arranged to engage with said lever, a curved recess in the upper side of said lever, a block having its upper edges bevelled to fit the under-bevelled sides of the two sides of the groove or chamber. 6th. In a vise, in combination, two jaws, one pivoted to a support, a horizontal arm or head projecting backward from said support, a longitudinal groove or chamber in its upper side having under bevelled sides, a block arranged to slide back and forth on said horizontal arm, a lever in said groove or chamber pivoted to said block, the other jaw arranged to be moved back and forth on said block, a downward extension of said latter jaw into said groove or chamber arranged to engage with said lever, a curved recess in the upper side of said lever, a block having its under side bevelled to fit the under-bevelled sides of the two sides of the groove or chamber. 7th. In a vise, in combination, two jaws, one pivoted to an upright bar, a horizontal arm projecting backward from said upright bar, a longitudinal groove or chamber in its under side having under-bevelled sides, a block arranged to slide back and forth on said horizontal arm, a lever pivoted thereto in said groove having a forked end, the other jaw arranged to be moved back and forth on said block, a downward T-shaped projection to said latter jaw, having the upper surfaces of its T portion bevelled or inclined and arranged to engage with said lever, a curved recess in the upper side of said lever, a block having its under side rounded to fit said curve in the lever, and its upper edges bevelled to fit the under-bevelled sides of the groove or chamber. 8th. In a vise, in combination, a jaw arranged to move back and forth on a suitable support, and to be secured thereto a hollowed or inwardly curved bearing surface in the end or edge of said jaw, a lever pivoted to said block having a straight edge and a curved or rounded continuation or extension thereof and adapted in its operation to bear first by its straight edge upon the end or edge of the jaw, and then by its rounded edge against said edge and hollowed portion.

No. 52,337. Machine-Gun. (Cannon-revolver.)

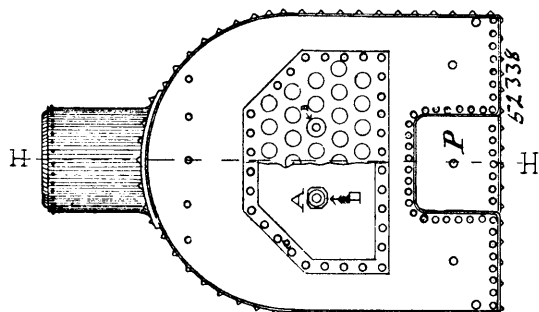


Alfred A. McKnight, Wilmington, Ohio, U.S.A., 20th May, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. The combination of the longitudinally movable barrel provided with a transversely movable breech block the frame in which said barrel is supported and movable, such framing having separated abutments, the lever pivoted to and movable with the barrel and having an arm connected with and operating the breech block and a second arm extended between the separated abutments and arranged for operation thereby, substantially as set forth. 2nd. The combination of the framing, the reciprocating barrel having near its rear end a transverse channel forming a guide for the breech

block, the block movable in said channel, devices for operating said block, the ejector movable rearwardly from a point in advance of said channel, and devices on the framing for operating said ejector when the block is withdrawn, substantially as set forth. 3rd. The combination of the framing the reciprocating barrel, the breech block the bell crank lever pivoted to the barrel and having one arm connected with the breech block and a drag section connected with the other arm of said lever and engaging abutments on the framing, substantially as set forth. 4th. The combination of the framing, the reciprocating barrel, the ejector, the lever pivoted to the barrel and arranged at one end to actuate the ejector and a connection between the other arm of the lever and the framing, substantially as set forth. 5th. The combination in a gun of the framing, the hammer pivoted to the framing, the trigger supported on the framing the transversely movable breech block and the reciprocating barrel having portions by which to cock the hammer and pull the trigger, substantially as set forth. 6th. The combination of the framing, the barrel reciprocating therein, the rammer carried by the framing and by which to force the cartridge into the barrel, and intermediate devices between said barrel and rammer whereby the movement of the barrel will operate the rammer substantially as set forth. 7th. The combination of the framing the reciprocating barrel, the cartridge holder supported on the framing in rear of the barrel and having an outlet in alignment with the bore of the barrel, the rammer and connections between the rammer and the barrel substantially as set forth. 8th. The combination of the framing, the barrel, the transversely movable breech block, the lever pivoted to the barrel and connected to the breech block, the rammer, and connections between the rammer and barrel, substantially as set forth.

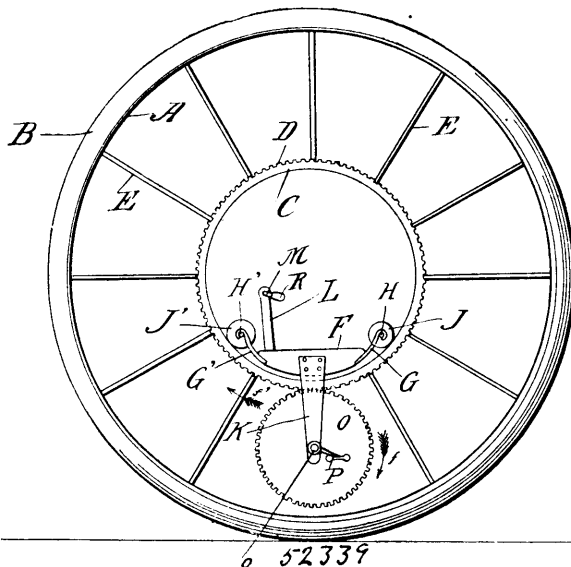
No. 52,338. Chaudière à vapeur. (Steam boiler.)



Samuel Marley et Jacques Hartenstein, tous deux de Montréal Québec, Canada, 20 mai 1896; 6 ans. (Déposé 25 mars 1896.)

Nous réclame.—1° La combinaison des deux plaques A, A, et le tuyau à fumée V, et R, T, tel que décrit. 2° La combinaison avec les plaques A, A, et le tuyau à fumée V, et les tubes E, des chaudières R, T, tel que ci-dessus décrit pour les fins indiquées.

No. 52,339. Monocycle. (Monocycle.)



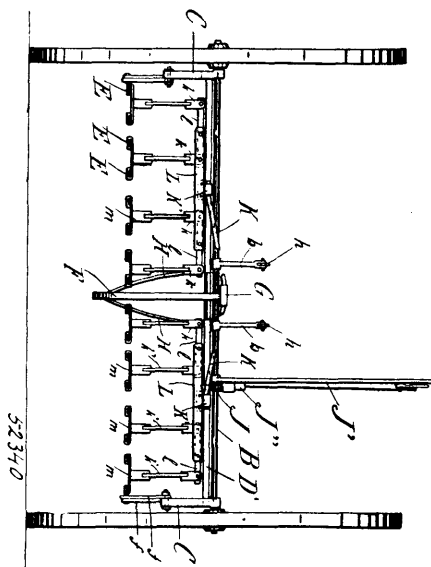
Joseph Chominard, Waltham, Québec, Canada, 20 mai 1896; 6 ans (Déposé 21 mars 1896.)

Je réclame.—1 Dans un monocycle, la combinaison d'une jante A, munie d'un bandage ordinaire B, avec des rayes E, et un anneau C, pourvu de dents sur sa circonférence extérieure. 2° Dans un

monocycle, la combinaison d'une jante A, de raies E, et d'un anneau C, pourvu de dents à sa circonférence extérieure, avec un chariot E, monté sur des roues J, J', par l'intermédiaire de ressorts G, G', et les pièces K, fixées de chaque côté du dit chariot et pourvues de tourillons à leur partie inférieure pour recevoir les essieux O, auxquels sont fixées d'un côté une roue dentée O' et de l'autre la pédale B.

Le tout tel que décrit et pour les fins indiquées dans la spécification.

No. 52,340. Cultivateur. (Cultivator.)



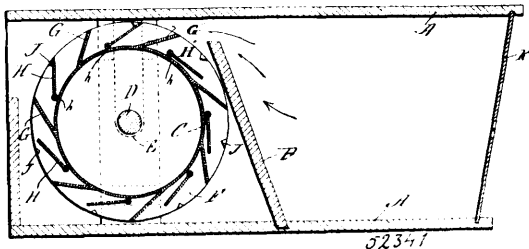
Elzéar Doré, Laprairie, Québec, Canada, 20 mai 1896; 6 ans. (Déposé 21 mars 1896.)

Résumé.—1. Dans un cultivateur pourvu d'une série de dents E, et d'une charpente convenable, la combinaison avec celle-ci d'un levier coudé F, convenablement articulé par une de ses extrémités au milieu de la barre E, formant partie de la charpente, et pourvu d'oreilles H, s'élevant de chaque côté du timon A, avec les barres h, articulées aux dites oreilles et aux leviers b, solidement fixées sur l'essieu B, du cultivateur, le bras J', également fixé sur le dit essieu et pourvu d'un "catch" J'', convenable pour s'engager dans un segment denté J, solidement fixé sur la barre D, faisant partie de la charpente du cultivateur.

2. Dans un cultivateur pourvu d'une série de dents E, et d'une charpente convenable, la combinaison avec le levier coudé F, et les dents E, d'un système pour distribuer la pression sur chacune des dites dents, constitué par deux ressorts parallèles k, assujettis dans le collet G, fixé sur le bout du levier coudé F, et ayant leurs extrémités assujetties dans d'autres collets k', fixés sur un système de palonniers, et les pièces k, connectées par l'intermédiaire des lames d'acier k', aux pièces m, reliant deux à deux les dents E, du cultivateur.

Le tout tel que décrit dans la spécification précédente et pour les fins indiquées.

No. 52,341. Roue Hydraulique. (Hydraulic wheel.)

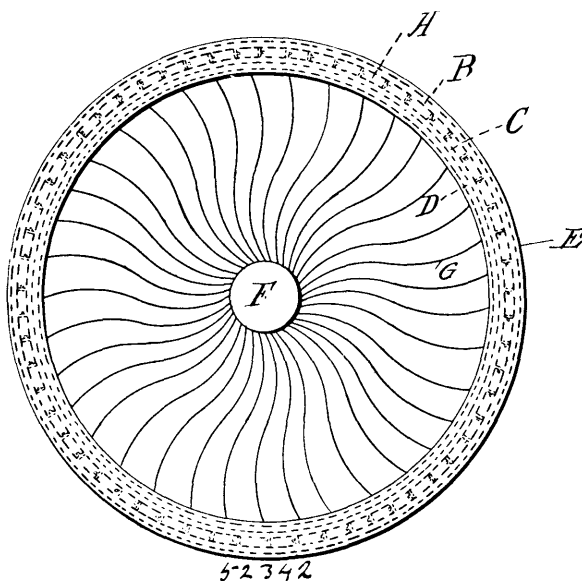


can-Baptiste Paréant, Sault au Récollet, Québec, Canada, 20 mai 1896; 6 ans. (Déposé 21 mars 1896.)

Résumé. Dans une roue hydraulique, la combinaison d'une boîte A, complètement ouverte à une de ses extrémités mais à moitié fermée à l'autre et pourvue d'un buttoir oblique R, avec un cylindre creux C, monté sur un arbre R, et pourvu à sa circonférence d'aubes fixes G, et d'aubes mobiles H, disposées entre les plaques F, fixées sur les côtés du cylindre C.

Le tout tel que décrit et pour les fins indiquées.

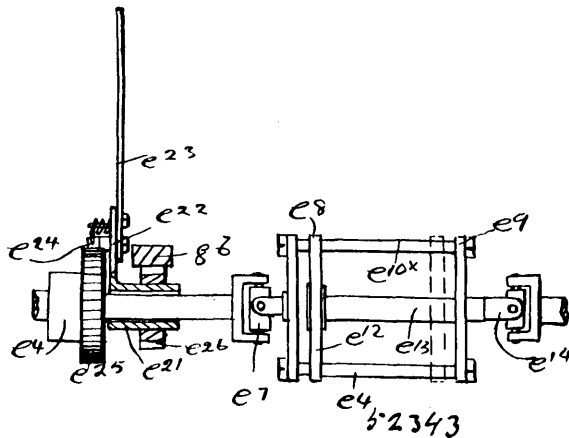
No. 52,342. Roue. (Wheel.)



George Edmond Paquette, Montréal, Québec, Canada, 20 mai 1896 6 ans. (Déposé 21 mars 1896.)

Résumé.—Une roue constituée par un moyeu F, des raies courbés G, et une jante formée d'une chaîne A, placée entre deux anneaux B, et C, d'un troisième anneau D, et d'une enveloppe E, le tout en combinaison et tel que décrit dans la spécification précédente.

No. 52,343. Sewing Machine. (Machine à coudre)



Mathias Koch, Montreal, Quebec, Canada, 21st May, 1896; 6 years. (Filed 13th April, 1896.)

Claim.—1st. In a sewing machine, the combination with stitch-forming mechanism, of a movable work support, a driving shaft, a vertical shaft extending at right angles to said driving shaft, intermediate means for operatively connecting said shafts, pattern cams mounted upon said second mentioned shaft, and means for operatively connecting said pattern cams with the work support, substantially as and for the purpose set forth. 2nd. In a sewing machine, the combination with stitch-forming mechanism, of a movable work support, a driving shaft, a shaft extending at right angles to said driving shaft, intermediate means for operatively connecting said shafts, pattern cams mounted upon said second mentioned shaft, means for operatively connecting said pattern cams with the work support and independent feed mechanism, for the purpose set forth. 3rd. In a sewing machine, the combination with stitch-forming mechanism, of a movable work support, a driving shaft, a shaft extending at right angles to said driving shaft, intermediate means for operatively connecting said shafts, pattern cams mounted upon said second mentioned shaft, means for operatively connecting said pattern cams with the work support, a collapsible feed device and means for operating same, for the purpose set forth. 4th. In a sewing machine, the combination with stitch-forming mechanism and a movable work support, of a collapsible feed device, for the purpose set forth. 5th. In a sewing machine, the combination with stitch-forming mechanism and a movable work support, of a collapsible feed device, and means for automa-

tically stopping the machine, for the purpose set forth. 6th. In a sewing machine, the combination with the driving shaft and a movable work table, of a rotatable shaft secured against longitudinal displacement, means for operatively connecting said shafts, a guiding frame connected by a ball-and-fork joint to the end of said last mentioned shaft, a cross-head adapted to slide in said guiding frame and connected by a ball-and-fork joint to a train of gears for operating a feeding device carried by said movable work table, and means for moving said work table, for the purpose set forth. 7th. In a sewing machine, the combination with the driving shaft and a movable work table, of a rotatable shaft secured against lateral displacement, means for operatively connecting said shafts and for imparting to said second mentioned shaft an intermittent rotary movement, a guiding frame connected by a ball-and-fork joint to the end of said last mentioned shaft, a cross-head adapted to slide in said guiding frame and connected by a ball-and-fork joint to a train of gears for operating a feeding device carried by said movable work table, and means for moving said work table, for the purpose set forth. 8th. In combination with the frame of a sewing machine of the class described, a rotatable shaft and a movable work table, one or more cams mounted upon said shaft and having a portion of the face or faces thereof formed with a rest section, and intermediate connections between said cams and work table, for the purpose set forth. 9th. In combination, shaft *k*, cams 4, 5, 6 and 7, having rest sections 41, 51, 61 and 71 respectively, slides 4*a* and 6*c*, contact blocks 4*c*, 4*e*, 6*f* and 6*g*, carriages *c* and *d*, and operative connections between said slides and carriages, substantially as described and for the purpose set forth. 10th. In a sewing machine of the class described, shuttle carriers, each having an independent locking device carried thereby, for the purpose set forth. 11th. In a sewing machine, the combination with the bed plate thereof, of a movable table comprising a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower section, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft, and a cam-shaft operatively connected to said main shaft; two pairs of cams carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward and a lateral movement; a cam-slide suitably supported at one end and operatively connected to one of said pairs of cams and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam-slide suitably supported at one end, provided with a rack upon the under side of its upper end and operatively connected to the other pair of cams; a counter-shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage, in which latter bearings the counter shaft is retained against longitudinal displacement, means for retaining said counter shaft against longitudinal displacement, a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage; means for operating main shaft; means for operatively connecting said main and cam-shafts together, for the purpose set forth. 12th. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower section, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft; a cam-shaft operatively connected to said main shaft; two pairs of cams carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement; a cam-slide suitably supported at one end and operatively connected to one of said pairs of cams and adjustably and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam slide suitably supported at one end, provided with a rack upon the under side of its other end and operatively connected to the other pair of cams; a counter shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage, in which latter bearings such counter shaft is retained against longitudinal displacement; means for retaining said counter shaft against longitudinal displacement, a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon second slide; one or more gears carried rigidly upon said counter shaft, and adapted to engage the racks upon said upper carriage; means for operating said main shaft; means for operatively connecting said main and cam shafts together, for the purpose set forth. 13th. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower section, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft; a cam-shaft operatively connected to said main shaft; two pairs of cams carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement; a cam-slide suitably supported at one end and

operatively connected to one of said pairs of cams and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam-slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter-shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage, in which latter bearings such counter-shaft is retained against longitudinal displacement; means for retaining said counter-shaft against longitudinal displacement; a pinion carried rigidly upon said counter-shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter-shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft; means for operatively connecting said main and cam shafts together, and means for feeding the work, for the purpose set forth. 14th. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower section, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate, a horizontal main shaft, a cam-shaft operatively connected to said main shaft, two pairs of cams carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement, a cam slide suitably supported at one end and operatively connected to one of said pairs of cams and rigidly connected at its other end to said lower carriage, one or more racks carried rigidly upon the under side of said upper carriage, a second cam-slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams, a counter shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage, in which latter bearings such counter shaft is retained against longitudinal displacement, means for retaining said counter shaft against longitudinal displacement, a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide, one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage, means for operating said main shaft, means for operatively connecting said main and cam shafts together, and means for intermittently feeding the work, for the purpose set forth. 15th. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower section, and the lower carriage held against forward and backward movement but free to move laterally to the bed plate, a horizontal main shaft, a cam-shaft operatively connected to said main shaft, two pairs of cams interchangeable with other pairs of cams and removably carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement, a cam-slide suitably supported at one end and operatively connected to one of said pairs of cams and adjustably and rigidly connected at its other end to said lower carriage, one or more racks carried rigidly upon the under side of said upper carriage, a second cam-slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams, a counter shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage, in which latter bearings such counter shaft is retained against longitudinal displacement, means for retaining said counter shaft against longitudinal displacement, a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide, one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage, means for operating said main shaft, means for operatively connecting said main and cam shafts together, and means for intermittently feeding the work, for the purpose set forth. 16th. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower section, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft; a cam shaft operatively connected to said main shaft; two pairs of cams carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively, a forward and backward, and a lateral movement; a cam-slide suitably supported at one end and operatively connected to one of said pairs of cams, and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam-slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage, in which latter bearings such counter shaft is retained against longitudinal displacement; means for retaining said counter shaft against longitudinal displacement, a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon such counter shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft, means for automatically stopping the machine, and means for oper-

atively connecting said main and cam shafts together, for the purpose set forth. 17th. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower section, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft; a cam-shaft operatively connected to said main shaft; two pairs of cams interchangeable with other pairs of cams and removably carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement; a cam-slide suitably supported at one end and operatively connected to one of said pairs of cams and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam-slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage, in which latter bearings such counter-shaft is retained against longitudinal displacement; means for retaining said counter-shaft against longitudinal displacement, a pinion carried rigidly upon such counter-shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft, and means for automatically stopping the machine, and means for operatively connecting said main and cam shafts together, and means for feeding the work, for the purpose set forth. 18th. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower section, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft; a cam-shaft operatively connected to said main shaft; two pairs of cams carried by said cam shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement; a cam-slide suitably supported at one end and operatively connected to one of said pairs of cams, and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam slide suitably supported at one end, provided with a rack upon the under side of its other end and operatively connected to the other pair of cams; a counter-shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage, in which latter bearings such counter-shaft is retained against longitudinal displacement; means for retaining said counter-shaft against longitudinal displacement, a pinion carried rigidly upon such counter-shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter-shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft, means for operatively connecting said main and cam shafts together, a second counter shaft mounted in bearings carried upon said bed plate, an eccentric mounted upon the main shaft, a bar pivotally connected at one end to the free end of the rod of said collar and rod connection, the other end of the said bar being fulcrumed upon said second counter shaft, a ratchet wheel rigidly mounted upon said second counter shaft, a spring pawl carried by said bar and adapted to be adjusted into and out of engagement with said ratchet wheel, a short spindle mounted in a bearing carried upon the upper carriage, a pair of feed rolls mounted in bearings carried by said upper carriage, a collapsible device connecting the adjacent ends of said second counter shaft and spindle; a train of gears connecting said short spindle to said feed rolls, for the purpose set forth. 19th. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower section and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft, a cam-shaft operatively connected to said main shaft, two pairs of cams carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement, a cam-slide suitably supported at one end and operatively connected to one of said pairs of cams and rigidly connected at its other end to said lower carriage, one or more racks carried rigidly upon the under side of said upper carriage, a second cam-slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams, a counter shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage, in which latter bearings such counter shaft is retained against longitudinal displacement, means for retaining said counter shaft against longitudinal displacement, a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide, one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage, means for operating said main shaft, means for operatively connecting said main and cam shafts together, a second counter shaft mounted in bearings carried upon said bed plate, an eccentric mounted upon the main shaft, a bar pivotally connected at one end to the free end of the rod of said collar and rod connection, the other end of said bar

being fulcrumed upon said second counter shaft, a ratchet wheel rigidly mounted upon said second counter shaft, a spring pawl carried by said bar and adapted to be adjusted into and out of engagement with said ratchet wheel, a short spindle mounted in a bearing carried upon the upper carriage, a pair of feed rolls mounted in bearings carried by said upper carriages, a collapsible device connecting the adjacent ends of said second counter shaft and spindle, said collapsible device consisting of a pair of end pieces connected together at their ends by a pair of spindles, one of said end pieces being bored centrally thereof, a sliding head bored to allow the passage therethrough of said spindles, a rod rigidly connected at one end to said sliding head and having its other end passed through the boring in one of said end pieces and connected by a ball-and-fork connection to one end of said short spindle, the other frame piece being connected to said second counter shaft by a ball-and-fork connection, a train of gears connecting said short spindle to said feed rolls, for the purpose set forth. 20th. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower section and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft; a cam-shaft operatively connected to said main shaft; two pairs of cams carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward and a lateral movement; a cam-slide suitably supported at one end and operatively connected to one of the said pairs of cams and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter shaft mounted in bearings carried by the said bed plate, and in bearings carried by said lower carriage in which latter bearings such counter shaft is retained against longitudinal displacement; means for retaining said counter shaft against longitudinal displacement, a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide, one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft; means for operatively connecting said main and cam shafts together; a second counter shaft mounted in bearings carried upon said bed plate; an eccentric mounted upon the main shaft; a bar pivotally connected at one end to the free end of the rod of said collar and rod connection, the other end of said bar being fulcrumed upon said second counter shaft; a ratchet wheel rigidly mounted upon said second counter shaft; a spring pawl carried by said bar and adapted to be adjusted into and out of engagement with said ratchet wheel; a short spindle mounted in a bearing carried upon the upper carriage; a pair of feed rolls mounted in bearings carried by said upper carriage; a collapsible device connecting the adjacent ends of said second counter shaft and spindle; a train of gears connecting said short spindle to said feed rolls; a sleeve mounted loosely upon said second counter shaft and having a radially projecting arm provided with a handle and carrying a spring operated pawl; a ratchet wheel mounted rigidly upon said second counter shaft adjacent to said radially projecting arm and adapted to be engaged by said last mentioned spring-operated pawl, for the purpose set forth. 21st. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower carriage and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft; a cam-shaft operatively connected to said main shaft; two pairs of cams carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement; a cam slide suitably supported at one end and operatively connected to one of said pairs of cams and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage, in which latter bearings such counter shaft is retained against longitudinal displacement; means for retaining said counter shaft against longitudinal displacement, a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft; means for operatively connecting said main and cam shafts together; a second counter shaft mounted in bearings carried upon said bed plate; an eccentric mounted upon the main shaft; a bar pivotally connected at one end to the free end of the rod of said collar and rod connection, the other end of the said bar being fulcrumed upon said second counter shaft; a ratchet wheel rigidly mounted upon said second counter shaft; a spring pawl carried by said bar and adapted to be adjusted into and out of engagement with said ratchet wheel; a short spindle mounted in a bearing carried upon the upper carriage; a pair of feed rolls mounted in bearings carried by said upper

carriage; a collapsible device connecting the adjacent ends of said second counter shaft and spindle; a train of gears connecting said short spindle to said feed rolls, for the purpose set forth. 22nd. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower carriage, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft; a cam-shaft operatively connected to said main-shaft; two pairs of cams carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement, a cam-slide suitably supported at one end and operatively connected to one of said pairs of cams and rigidly connected at its other end to said lower carriage, one or more racks carried rigidly upon the under side of said upper carriage, a second cam slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage in which latter bearings such counter shaft is retained against longitudinal displacement, means for retaining said counter shaft against longitudinal displacement, a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon the said upper carriage; means for operating said main shaft; means for operatively connecting said main and cam shafts together; a second counter shaft mounted in bearings carried upon said bed plate; a short spindle mounted in a bearing carried upon the upper carriage; a pair of feed rolls mounted in bearings carried by said upper carriage; a collapsible device connecting the adjacent ends of said second counter shaft and spindle; a train of gears connecting said short spindle to said feed rolls; a sleeve mounted loosely upon said second counter shaft and having a radially projecting arm provided with a handle and carrying a spring operated pawl; a ratchet wheel mounted rigidly upon said second counter shaft adjacent to said radially projecting arm and adapted to be engaged by said last mentioned spring operated pawl, for the purpose set forth. 23rd. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower carriage, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft; a cam shaft operatively connected to said main shaft; two pairs of cams carried by said cam shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement; a cam slide suitably supported at one end and operatively connected to one of said pairs of cams and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage in which latter bearings such counter shaft is retained against longitudinal displacement; means for retaining said counter shaft against longitudinal displacement, a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft; means for operatively connecting said main and cam shafts together, a second counter shaft in bearings carried upon said bed plate; a sleeve mounted loosely upon said second counter shaft and having a radially projecting arm carrying a spring operated pawl; a ratchet wheel mounted rigidly upon said second counter shaft adjacent to said radially projecting arm and adapted to be engaged by said last mentioned spring operated pawl; a short spindle mounted in a bearing carried upon the upper carriage; a pair of feed rolls mounted in bearings carried by said upper carriage; a collapsible device connecting the adjacent ends of said second counter shaft and spindle; a train of gears connecting said short spindle to said feed rolls; a pinion mounted rigidly upon said sleeve; a cam mounted removably upon said cam shaft; a slide support d in close proximity to said cam and carrying a contact block; a retractile spring connected at one end to the end of slide and the other end to the frame of the machine; a rack carried upon the under side of one end of said slide and adapted to engage said last mentioned pinion, for the purpose set forth. 24th. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower carriage, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft; a cam shaft operatively connected to said main shaft; two pairs of cams carried by said cam shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement; a cam slide suitably supported at one end and operatively connected to one of said pairs of cams and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam slide suitably supported at one

end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage in which latter bearings such counter shaft is retained against longitudinal displacement; means for retaining said counter shaft against longitudinal displacement, a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft; means for operatively connecting said main and cam shafts together; a second counter shaft mounted in bearings carried upon said bed plate; an eccentric mounted upon the main shaft; a bar pivotally connected at one end to the free end of the rod of said collar and rod connection, the other end of said bar being fulcrumed upon said second counter shaft; a ratchet wheel rigidly mounted upon said second counter shaft; a spring pawl carried by said bar and adapted to be adjusted into and out of engagement with said ratchet wheel; a short spindle mounted in a bearing carried upon the upper carriage; a pair of feed rolls mounted in bearings carried by said upper carriage; a collapsible device connecting the adjacent ends of said second counter shaft and spindle; a train of gears connecting said short spindle to said feed rolls; a tight and loose pulley carried upon the main shaft; a shaft or spindle supported by brackets secured to the bed plate; an arm connected at one end rigidly to said spindle and having its other end extending adjacent to said pulleys and provided with lateral projections adapted to straddle the driving belt; an arm connected at one end rigidly to said shaft or spindle and having its other end connected to a retractile spring, the other end whereof is connected to the frame of the machine; a lever having one end connected rigidly to said shaft or spindle, and the other end thereof extending across the front of the machine; a downwardly projecting rigid arm secured to the front of the machine and having notches adapted to receive said lever, and means for automatically moving such lever out of engagement with said notches, for the purpose set forth. 25th. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward or backward direction relatively to the lower carriage, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft; a cam-shaft operatively connected to said main shaft; two pairs of cams carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement; a cam slide suitably supported at one end and operatively connected to one of said pairs of cams and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage in which latter bearings such counter shaft is retained against longitudinal displacement; means for retaining said counter shaft against longitudinal displacement; a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft; means for operatively connecting said main and cam shafts together; a second counter shaft mounted in bearings carried upon said bed plate; an eccentric mounted upon the main shaft; a collar encircling said eccentric and a rod extending therefrom; a bar pivotally connected at one end to the free end of the rod of said collar and rod connection, the other end of said bar being fulcrumed upon said second counter shaft; a ratchet wheel rigidly mounted upon said second counter shaft; a spring pawl carried by said bar and adapted to be adjusted into and out of engagement with said ratchet wheel; a short spindle mounted in a bearing carried upon the upper carriage; a pair of feed rolls mounted in bearings carried by said upper carriage; a collapsible device connecting the adjacent ends of said second counter shaft and spindle; a train of gears connecting said short spindle to said feed rolls; a bell-crank lever fulcrumed to the frame of the machine; a bracket secured to the frame; a helical spring yieldingly connecting one arm of the said bell-crank lever to said bracket, the other arm of said bell-crank lever being located in close proximity to said lever when in its lowermost position; a disc carried rigidly upon the lower end of said cam-shaft and having a radial projection adapted to engage the inner arm of such bell-crank lever, and an automatic belt shifting device adapted to be freed by said bell crank, for the purpose set forth. 26th. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower carriage, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft; a cam-shaft operatively connected to said main shaft; two pairs of cams carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement; a cam slide suitably supported at one end and operatively connected to one of said pairs of cams and rigidly connected at its

other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage in which latter bearings such counter shaft is retained against longitudinal displacement; means for retaining said counter shaft against longitudinal displacement; a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft; means for operatively connecting said main and cam shafts together; a second counter shaft mounted in bearings carried upon said bed plate; an eccentric mounted upon the main shaft; a collar encircling said eccentric and a rod extending therefrom; a bar pivotally connected at one end to the free end of the rod of said collar and rod connection, the other end of said bar being fulcrumed upon said second counter shaft; a ratchet wheel rigidly mounted upon said second counter shaft; a spring pawl carried by said bar and adapted to be adjusted into and out of engagement with said ratchet wheel; a short spindle mounted in a bearing carried upon the upper carriage; a pair of feed rolls mounted in bearings carried by said upper carriage; a collapsible device connecting the adjacent ends of said second counter shaft and spindle; a train of gears connecting said short spindle to said feed rolls; a sleeve mounted loosely upon said second counter shaft and having a radially projecting arm provided with a handle and carrying a spring operated pawl; a ratchet wheel mounted rigidly upon said second counter shaft adjacent to said radially projecting arm and adapted to be engaged by said last-mentioned spring operated pawl, for the purpose set forth. 27th. In a sewing machine, the combination with the bed plate thereof, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower carriage, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed plate; a horizontal main shaft; a cam-shaft operatively connected to said main shaft; two pairs of cams carried by said cam shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement; a cam slide suitably supported at one end and operatively connected to one of said pairs of cams and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage in which latter bearings such counter shaft is retained against longitudinal displacement; means for retaining said counter shaft against longitudinal displacement; a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft; means for operatively connecting said main and cam shafts together; a second counter shaft mounted in bearings carried upon said bed plate; an eccentric mounted upon the main shaft; a collar encircling said eccentric and a rod extending therefrom; a bar pivotally connected at one end to the free end of the rod of said collar and rod connection, the other end of said bar being fulcrumed upon said second counter shaft; a ratchet wheel rigidly mounted upon said second counter shaft; a spring pawl carried by said bar and adapted to be adjusted into and out of engagement with said ratchet wheel; a short spindle mounted in a bearing carried upon the upper carriage; a pair of feed rolls mounted in bearings carried by said upper carriage; a collapsible device connecting the adjacent ends of said second counter shaft and spindle; a train of gears connecting said short spindle to said feed rolls; a sleeve mounted loosely upon said second counter shaft; a ratchet wheel mounted rigidly upon said second counter shaft adjacent to said radially projecting arm and adapted to be engaged by said last-mentioned spring operated pawl; a pinion mounted rigidly upon said sleeves; a cam mounted removably upon said cam-shaft; a slide supported in close proximity to said cam and carrying a contact block; a retractile spring connected at one end to the end of slide and at the other end to the frame of the machine; a rack carried upon the under side of one end of said slide and adapted to engage said last mentioned pinion; a tight and a loose pulley carried upon the main shaft; a shaft or spindle supported by brackets secured to the bed-plate; an arm connected at one end rigidly to said spindle and having its other end extending adjacent to said pulleys and provided with lateral projections adapted to straddle the driving belt; an arm connected at one end rigidly to said shaft or spindle and having its other end connected to a retractile spring, the other end whereof is connected to the frame of the machine; a lever having one end connected rigidly to said shaft or spindle, and the other end thereof extending across the front of the machine; a downwardly-projecting rigid arm secured to the front of the machine and having notches adapted to receive said lever; a bell-crank lever fulcrumed to the frame of the machine; a bracket secured to the frame; a helical spring yieldingly connecting one arm of said bell-crank lever to said bracket, the other arm of said bell-crank lever being located in close proximity to said lever when in its lowermost position; a disc carried rigidly upon the lower end of said cam-shaft and having a radial projection adapted to engage the inner arm of such bell-crank lever, for the purpose set forth. 29th. In a sewing machine, the combination with the bed-plate, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower section, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed-plate; a horizontal main shaft; a cam-shaft operatively connected to said main shaft; two pairs of cams interchangeable with the pairs of cams and removably carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement; a cam slide suitably supported at one end and operatively connected to one of said pairs of cams and adjustably and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter-shaft mounted in bearings carried by said bed-plate, and in bearings carried by said lower carriage in which latter bearings such counter shaft is retained against longitudinal displacement; means for retaining said counter-shaft against longitudinal displacement; a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft; means for operatively connecting said main and cam shafts together; a second counter-shaft mounted in bearings carried upon said bed-plate; an eccentric mounted upon the main shaft; a bar pivotally connected at one end to the free end of the rod of said collar and rod connection, the other end of said bar being fulcrumed upon said second counter shaft; a ratchet

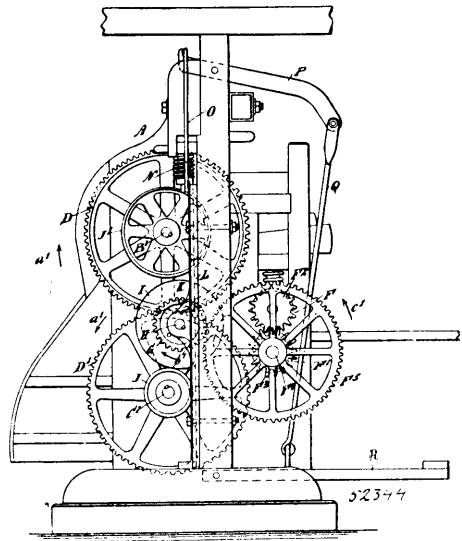
against lateral movement but free to move in a forward and backward direction relatively to the lower section, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed-plate; a horizontal main shaft; a cam-shaft operatively connected to said main shaft; two pairs of cams carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement; a cam-slide suitably supported at one end and operatively connected to one of said pairs of cams and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter-shaft mounted in bearings carried by said bed plate, and in bearings carried by said lower carriage in which latter bearings such counter-shaft is retained against longitudinal displacement; means for retaining said counter-shaft against longitudinal displacement; a pinion carried rigidly upon such counter-shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter-shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft; means for operatively connecting said main and cam shafts together; a second counter-shaft mounted in bearings carried upon said bed-plate; an eccentric mounted upon the main shaft; a bar pivotally connected at one end to the free end of the rod of said collar and rod connection, the other end of said bar being fulcrumed upon said second counter shaft; a ratchet wheel rigidly mounted upon said second counter shaft; a spring pawl carried by said bar and adapted to be adjusted into and out of engagement with said ratchet wheel; a short spindle mounted in a bearing carried upon the upper carriage; a pair of feed rolls mounted in bearings carried by said upper carriage; a collapsible device connecting the adjacent ends of said counter-shaft and spindle; a train of gears connecting said short spindle to said feed rolls; a sleeve mounted loosely upon said second counter-shaft and having a radially projecting arm provided with a handle and carrying a spring operated pawl; a ratchet wheel mounted rigidly upon said second counter-shaft adjacent to said radially projecting arm and adapted to be engaged by said last mentioned spring operated pawl; a pinion mounted rigidly upon said sleeve; a cam mounted removably upon said cam shaft; a slide supported in close proximity to said cam and carrying a contact block; a retractile spring connected at one end to the end of slide and at the other end to the frame of the machine; a rack carried upon the under side of one end of said slide and adapted to engage said last mentioned pinion; a tight and a loose pulley carried upon the main shaft; a shaft or spindle supported by brackets secured to the bed-plate; an arm connected at one end rigidly to said spindle and having its other end extending adjacent to said pulleys and provided with lateral projections adapted to straddle the driving belt; an arm connected at one end rigidly to said shaft or spindle and having its other end connected to a retractile spring, the other end whereof is connected to the frame of the machine; a lever having one end connected rigidly to said shaft or spindle, and the other end thereof extending across the front of the machine; a downwardly-projecting rigid arm secured to the front of the machine and having notches adapted to receive said lever; a bell-crank lever fulcrumed to the frame of the machine; a bracket secured to the frame; a helical spring yieldingly connecting one arm of said bell-crank lever to said bracket, the other arm of said bell-crank lever being located in close proximity to said lever when in its lowermost position; a disc carried rigidly upon the lower end of said cam-shaft and having a radial projection adapted to engage the inner arm of such bell-crank lever, for the purpose set forth. 29th. In a sewing machine, the combination with the bed-plate, of a pair of movable carriages mounted one upon the other, the upper carriage held against lateral movement but free to move in a forward and backward direction relatively to the lower section, and the lower carriage held against forward and backward movement but free to move laterally relatively to the bed-plate; a horizontal main shaft; a cam-shaft operatively connected to said main shaft; two pairs of cams interchangeable with the pairs of cams and removably carried by said cam-shaft and adapted to impart to said upper and lower carriages respectively a forward and backward, and a lateral movement; a cam slide suitably supported at one end and operatively connected to one of said pairs of cams and adjustably and rigidly connected at its other end to said lower carriage; one or more racks carried rigidly upon the under side of said upper carriage; a second cam slide suitably supported at one end, provided with a rack upon the under side of its other end, and operatively connected to the other pair of cams; a counter-shaft mounted in bearings carried by said bed-plate, and in bearings carried by said lower carriage in which latter bearings such counter shaft is retained against longitudinal displacement; means for retaining said counter-shaft against longitudinal displacement; a pinion carried rigidly upon such counter shaft and adapted to be engaged by the rack upon said second slide; one or more gears carried rigidly upon said counter shaft and adapted to engage the racks upon said upper carriage; means for operating said main shaft; means for operatively connecting said main and cam shafts together; a second counter-shaft mounted in bearings carried upon said bed-plate; an eccentric mounted upon the main shaft; a bar pivotally connected at one end to the free end of the rod of said collar and rod connection, the other end of said bar being fulcrumed upon said second counter shaft; a ratchet

wheel rigidly mounted upon said second counter shaft; a spring pawl carried by said bar and adapted to be adjusted into and out of engagement with said ratchet wheel; a short spindle mounted in a bearing carried upon the upper carriage; a pair of feed rolls mounted in bearings carried by said upper carriage; a collapsible device connecting the adjacent ends of said second counter shaft and spindle, said collapsible device consisting of a pair of end pieces connected together at their ends by a pair of spindles, one of said end pieces being bored centrally thereof, a sliding head bored to allow the passage therethrough of said spindles, a rod rigidly connected at one end to said sliding head and having its other end passed through the boring in one of said end pieces and connected by a ball and fork connection to one end of said short spindle, the other frame-piece being connected to said second counter shaft by a ball and fork connection; a train of gears connecting said short spindle to said feed rolls; a sleeve mounted loosely upon said second counter-shaft and having a radially projecting arm provided with a handle and carrying a spring operated pawl; a ratchet wheel mounted rigidly upon said second counter-shaft adjacent to said radial projecting arm, and adapted to be engaged by said last-mentioned spring operated pawl; a pinion mounted rigidly upon said sleeve; a cam mounted removably upon said cam-shaft; a slide supported in close proximity to said cam, and carrying a contact block; a retractile spring connected at one end to the end of slide and at the other end to the frame of the machine; a rack carried upon the under side of one end of said slide and adapted to engage said last mentioned pinion; a tight and a loose pulley carried upon the main shaft; a shaft or spindle supported by brackets secured to the bed plate; an arm connected at one end rigidly to said spindle and having its other end extending adjacent to said pulleys and provided with lateral projections adapted to straddle the driving belt; an arm connected at one rigidly to said shaft or spindle, and having its other end connected to a retractile spring, the other end thereof is connected to the frame of the machine; a lever having one end connected rigidly to said shaft or spindle and the other end thereof extending across the front of the machine; a downwardly projecting rigid arm secured to the front of the machine and having notches adapted to receive said lever; a bell-crank lever fulcrumed to the frame of the machine; a bracket secured to the frame; a helical spring yieldingly connecting one arm of said bell-crank lever to said bracket, the other arm of said bell-crank lever being located in close proximity to said lever when in its lowermost position; a disc carried rigidly upon the lower end of said cam shaft and having a radial projection adapted to engage the inner arm of such bell-crank-lever, for the purpose set forth. 30th. In combination with the shuttle carrier operating rail of a sewing machine of the class described, a shuttle carrier slotted at its rear end and having a dovetail projection upon the under side thereof adjacent to one end of said slot; a thumb lever fulcrumed to the upper side of said carrier, and means for yieldingly holding said lever with one end thereof projecting downwardly through said slot, for the purpose set forth. 31st. In a sewing machine of the class described, the combination with the main shaft and the actuating shaft for the movable work support, of a tight and loose pulley carried upon said main shaft; a belt-shifter yieldingly held in a position to throw said belt upon the loose pulley; a lever for moving same to throw the belt on the tight pulley, a retaining device for said lever, and a detent and bell-crank lever mechanism operated by said actuating shaft for freeing said lever from its retaining device, for the purpose set forth. 32nd. In a sewing machine of the class described, having-stitch forming instrumentalities, movable work support and feed mechanism; means for automatically stopping such machine, consisting of a tight and a loose pulley carried upon the main shaft, a shaft or spindle supported by brackets secured to the bed plate, an arm connected at one end rigidly to said spindle and having its other end extending adjacent to said pulleys and provided with lateral projections adapted to straddle the driving belt; a second arm connected at one end rigidly to said shaft or spindle and having its other end connected to one end of a retractile spring the other end whereof is connected to the frame of the machine; a lever having one end connected rigidly to said shaft or spindle and the other end thereof extending across the front of the machine; a downwardly projecting rigid arm secured to the front of the machine and having notches adapted to receive and hold said lever, and means for automatically moving such lever out of engagement with said notches, as and for the purpose set forth. 33rd. In a sewing machine of the class described, the combination with the feed rolls thereof, of a cam shaft, a cam mounted removably upon said cam shaft; a slide supported in close proximity to said cam and carrying a contact block adapted to be acted upon by said cam; a retractile spring connected at one end to the end of said slide and at the other end to the frame of the machine; a rack carried upon the under side of one end of said slide; a suitably mounted counter shaft, an operative connection between said counter shaft and said feed rolls, a sleeve mounted loosely upon said counter shaft and having a radially projecting arm carrying a spring operated pawl; a ratchet wheel mounted rigidly upon said counter shaft adjacent to said radially projecting arm and adapted to be engaged by said last mentioned spring operated pawl, a pinion mounted rigidly upon said sleeve and adapted to be engaged by the said rack, for the purpose set forth. 34th. In a sewing machine of the class described the combination with the feed rolls thereof, of a suitably mounted counter shaft, an operative connection between said counter shaft and said feed rolls; a sleeve mounted

loosely upon said counter shaft and having a radially projecting arm provided with a handle and carrying a spring operated pawl; a ratchet wheel mounted rigidly upon said counter shaft adjacent to said radially projecting arm and adapted to be engaged by said last mentioned spring operated pawl, for the purpose set forth. 35th. In a sewing machine of the class described, the combination with the feed roll thereof, of a suitably mounted counter shaft, an operative connection between said counter shaft and said feed rolls, a ratchet wheel rigidly mounted upon said counter shaft, a bar fulcrumed at one end upon said counter shaft, a spring operated pawl carried upon said bar and adapted to engage said ratchet wheel, an eccentric mounted upon the main shaft, and a collar and rod connection between said eccentric and the free end of said bar, for the purpose set forth.

No. 52,344. Leather Washing Machine.

(Machine à laver le cuire.)



James McKenzie and Charles Orlando Shaw, both of Cheboygan, Michigan, U.S.A., 21st May, 1896; 6 years. (Filed 11th April, 1896.)

Claim.—1st. A leather washing machine, comprising two revoluble brushes geared together, feed rolls adapted to be driven forward and backward to feed the leather to and from the shafts of said revoluble brushes, driving friction pulleys held on the shafts of said revoluble brushes, and a driven friction pulley intermediate of said friction pulleys and adapted to be moved in frictional contact with either driving friction pulley, said driven friction pulley being geared with one of the feed rolls, substantially as shown and described. 2nd. A leather washing machine, comprising two revoluble brushes geared together, feed rolls adapted to be driven forward and backward to feed the leather to and from said revoluble brushes, driving friction pulleys held on the shafts of said revoluble brushes, a driven friction pulley intermediate of said friction pulleys and adapted to be moved in frictional contact with either driving friction pulley, said driven friction pulley being geared with one of the feed rolls, a spring for holding said driven friction pulley normally in contact with one of the driving pulleys, and a treadle and lever mechanism under the control of the operator for moving said driven friction pulley out of contact with one driving pulley and in contact with the other driving pulley, substantially as shown and described. 3rd. A leather washing machine, provided with feed rolls geared together, a geared wheel secured on one of the feed rolls, a pinion in mesh with said gear wheel, and a friction pulley carrying said pinion and adapted to be driven in opposite directions, substantially as shown and described.

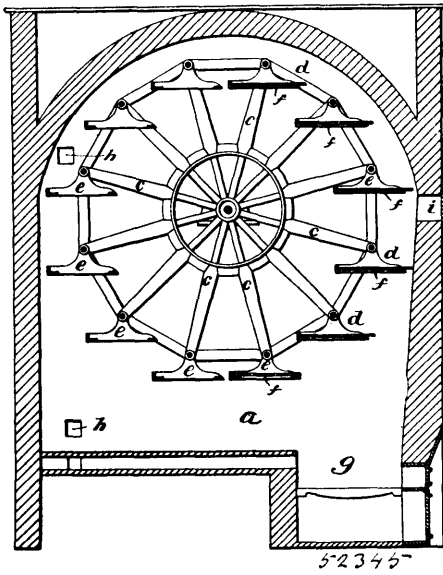
No. 52,345. Shelf for Baking Ovens.

(Tablette pour fourneaux de poêle.)

Clarence Roosevelt Bonnett, Allegheny, Pennsylvania, U.S.A., 21st May, 1896; 6 years. (Filed 13th April, 1896.)

Claim.—The combination with an oven having a reel therein, of permanent flat perforated shelves on said reel to provide for

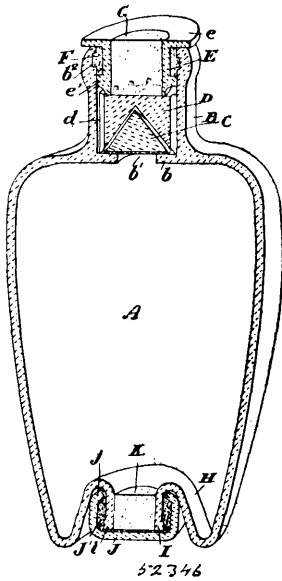
peeling, and a source of radiant heat situated continuous to the path of said perforated shelves so that heat may pass up through the per-



forations of the shelves and heat said shelves and enter the articles of food resting thereon, substantially as set forth.

No. 52,346. Non-Refillable Bottle.

(Appareil pour empêcher le remplissage des bouteilles.)

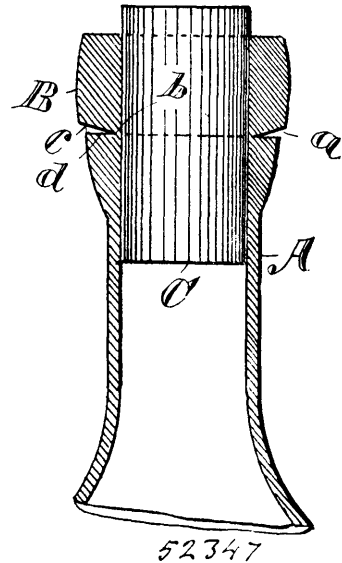


George Washington Johnson, Toronto, Ontario, Canada, 21st May, 1896; 6 years. (Filed 11th April, 1896.)

Claim.—1st. A non-refillable bottle having a neck with a bottom ledge and central opening, a conical plug designed normally to cover such opening, a stopper with a conical recess of greater size than the plug and having peripheral openings and undetachable means for securing the stopper in the neck and allowing of the free passage of the liquor from the openings when the bottle is tipped upside down and the plug removed from closing the opening, as and for the purpose specified. 2nd. A non-refillable bottle having a neck with a bottom ledge and central opening, a conical plug designed normally to cover such opening, a stopper with a conical recess of greater size than the plug and having peripheral longitudinal openings and a sleeve provided with an upper flange and lower shoulder, an annular groove in the neck between the flange and shoulder of the sleeve, and plaster of paris designed to be inserted and fill the space between the flange and shoulder and the groove and openings in the bottom of the sleeve set intermediate of the peripheral openings in the stopper as and for the purpose specified. 3rd. The combination with the neck, ledge, conical plug, stopper and sleeve and plaster of paris for locking the sleeve as described, of a raised bottom with downwardly extending neck and

a capsule and means for hermetically sealing and locking such capsule to the neck, as and for the purpose specified. 4th. In a bottle, the combination with the raised bottom provided with downwardly extending neck having an annular outwardly extending rim or shoulder at the lower end of the neck, and a cork for such neck, of a glass capsule having an inwardly extending flange and means between the shoulder and flange for locking the capsule and neck together, as and for the purpose specified. 5th. In a bottle, the combination with the raised bottom provided with downwardly extending neck having an annular outwardly extending rim or shoulder at the lower end of the neck, and a cork for such neck, of a glass capsule having an inwardly extending flange and plaster of Paris filling the space between the shoulder and flange of the capsule, as and for the purpose specified.

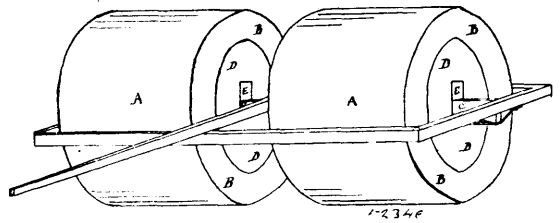
No. 52,347. Bottle. (Bouteille.)



Atwelt C. R. King, Vancouver, British Columbia, Canada, 21st May, 1896; 6 years. (Filed 10th April, 1896.)

Claim.—The herein described construction of a bottle neck, having its topmost part larger than the neck proper, and the said enlarged portion being divided from its lower part by a groove which encircles, and almost severs the said enlarged portion therefrom substantially as and for the purposes set forth.

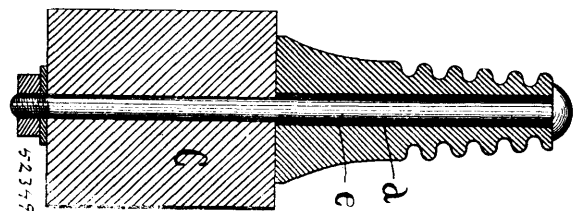
No. 52,348. Land Roller. (Rouleau d'agriculture.)



William Lowery Marshall, Port Perry, Ontario, Canada, 21st May, 1896; 6 years. (Filed 10th April, 1896.)

Claim.—1st. The use and combination of a double head of a land roller composed of an outer rim revolving on a central head or wheel, the central one being furnished with a slot for the passage of the axle, substantially as and for the purpose hereinbefore set forth. 2nd. The use of a flat non-revolving axle working in a slot in a central head of a land roller as shown substantially as and for the purpose hereinbefore set forth.

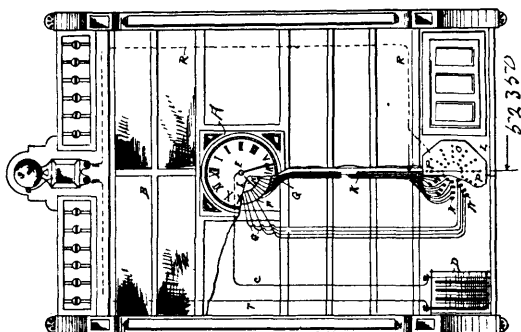
No. 52,349. Insulator-Pin. (Cheville d'isoloir.)



Fred Morton Locke, Victor, New York, U.S.A., 21st May, 1896 6 years. (Filed 10th April, 1896.)

Claim. An insulator-pin, comprising a tapering sleeve of insulating material having an external thread to receive the insulator cap, and provided with a longitudinal opening, a bolt passing through the sleeve and cross-bar and having a head resting upon the upper end of the sleeve and a nut for tightening the bolt and sleeve in place, the opening in the sleeve being slightly larger than the bolt, substantially as described.

No. 52,350. Electric Guest-Call Alarm.
(*Sonnerie d'appel électrique.*)



Frank O. Smith, La Crosse, Wisconsin, U.S.A. 21st May, 1896; 6 years. (Filed 9th April, 1896.)

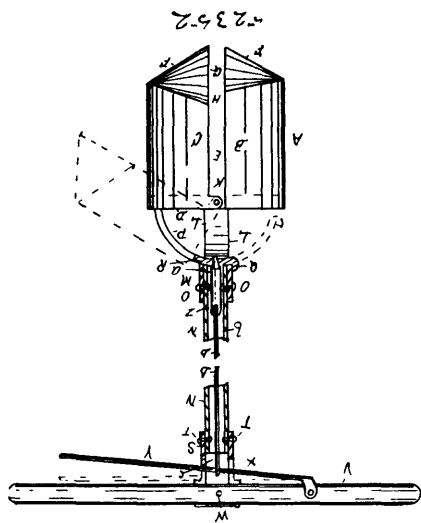
Claim.—An electric guest-call alarm, consisting of the combination of a clock, an electric bell and a battery having its poles electrically connected with said clock bell respectively, a ring of insulating material F surrounding the clock mechanism, a series of insulated wires G with exposed ends projecting through said ring to form a series of contact points H around the clock mechanism, a circuit closing finger attached to the hour arbor of the clock and adapted to form electrical contact successively with said contact points, together with an insulating keyboard L provided with the contact plates N attached severally to the wires G, the dial plate O connected to the bell by a single wire R and removable switch key U for connected said dial-plates severally with the contact plates, with removable room indicating checks adapted to be hung up on said keys, substantially as described.

No. 52,351. Effervescent Cartridges for Aerating Liquids.
(*Cartouche effervescente pour aérer les liquides.*)

Godfrey Bamberg, Streatham Hill, Surrey, England, 21st May, 1896; 6 years. (Filed 8th April, 1896.)

Claim.—An effervescent cartridge for aerating liquids, consisting of an acid cake cemented to an alkaline cake by a neutral soluble film, substantially as described.

No. 52,352. Earth Auger. (*Sonde à trépan.*)

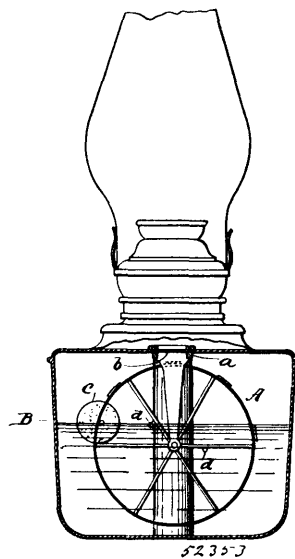


James Douglas Bowman, Harvey Y. Miller, Edwin D. Miller and Frederick Miller, assignees of James Douglas Bowman, all of West College Corner, Indiana, U.S.A., 21st May, 1896; 6 years. (Filed 24th April, 1896.)

Claim.—1st. In an earth auger, the combination, with a hollow handle, of a bail secured to the lower end thereof, two semi-cylindrical members secured to the ends of the bail, one of them being pivotally secured, whereby it may be swung outwardly from the other, and is provided with an arm, the free end of which is provided with a lug and a perforation, a plunger within the lower end of the handle, a handle lever pivotally secured to the cross-piece of the handle, and a rod for connecting the plunger with the lever, substantially as set forth. 2nd. In an earth auger, the combination, with a substantially semi-cylindrical bail, the central portion of which is provided with an upwardly projecting sleeve, of two members secured to the bail, one of which is pivotally secured thereto, whereby it may be swung away from the other one, said pivoted member being provided with an arm in the form of a quadrant, the free end of which is perforated and adapted to lie under the sleeve of the bail, a hollow stem secured to the sleeve, the upper end of which is provided with a cross-piece, a plunger within the stem, a rod connected with the plunger, and means of moving the rod, substantially as set forth.

Claim.—1st. In an earth auger, the combination, with a substantially semi-cylindrical bail, one of them being pivotally secured, whereby it may be swung outwardly from the other, and is provided with an arm, the free end of which is provided with a lug and a perforation, a plunger within the lower end of the handle, a handle lever pivotally secured to the cross-piece of the handle, and a rod for connecting the plunger with the lever, substantially as set forth. 2nd. In an earth auger, the combination, with a substantially semi-cylindrical bail, the central portion of which is provided with an upwardly projecting sleeve, of two members secured to the bail, one of which is pivotally secured thereto, whereby it may be swung away from the other one, said pivoted member being provided with an arm in the form of a quadrant, the free end of which is perforated and adapted to lie under the sleeve of the bail, a hollow stem secured to the sleeve, the upper end of which is provided with a cross-piece, a plunger within the stem, a rod connected with the plunger, and means of moving the rod, substantially as set forth.

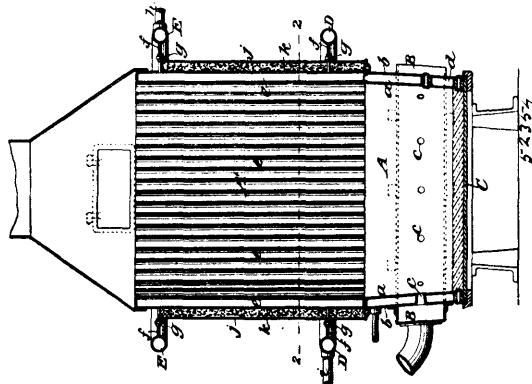
No. 52,353. Automatic Liquid Indicator.
(*Indicateur automatique pour liquides.*)



Frederic A. Morse, Pawtucket, Rhode Island, U.S.A., 21st May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. An automatic liquid indicator consisting of a properly mounted wheel having attached to its rim a float causing the wheel to revolve by the rise and fall of the surrounding liquid, said wheel being provided with stops for preventing the same from catching on a dead centre, and having a rim marked with suitable characters, substantially as described for the purpose specified. 2nd. The combination in an automatic liquid indicator of a wheel capable of revolving by the rise and fall of the surrounding liquid by means of a float attached to the rim thereof, said rim being marked with suitable characters representing quantity, and said wheel having stops to prevent dead-centring; with a containing vessel having fixed in the wall thereof a transparent eye-piece in close proximity to the rim of said wheel, all substantially as set forth.

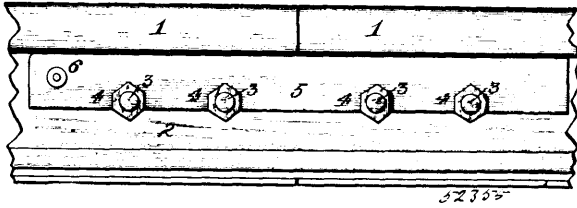
No. 52,354. Smelting Furnace. (*Fond à laie.*)



Christopher Cunningham, jr., Brooklyn, New York, U.S.A., 21st May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. In a smelting furnace, the combination of a water jacket composed of a series of upright tubes, a conduit for supplying water to said tubes near one end of each, branch pipes from said conduit one for each tube, a conduit for the escape of water from the said tubes near the other end, branch pipes one for each tube leading to the latter conduit, and detachable couplings in said branch pipes to permit the separate removal and replacement of the tubes, substantially as herein set forth. 2nd. In a smelting furnace, the combination of a water jacket composed of a series of upright tubes, a casing surrounding said jacket, a water supply conduit and a water escape conduit surrounding the said jacket outside the casing, branch pipes between the several upright tubes and the supply and escape conduits respectively, and detachable couplings in said branch pipes located outside of the casing, substantially as herein set forth.

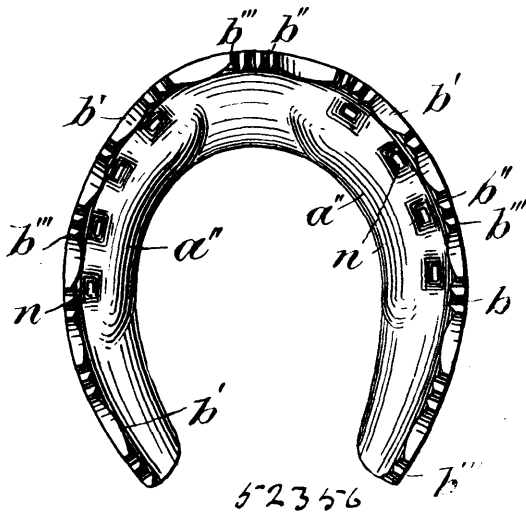
No. 52,355. Nut-Lock. (Arrête-écrou.)



John William Spriegel, Magazine, West Virginia, U.S.A., 21st May, 1896; 6 years. (Filed 27th April, 1896.)

Claim.—The combination with the rails, the fish plates and the bolts and nuts, one of said fish plates having a recess formed in its inner face, of a spring locking bar, a bolt or rivet for pivoting said locking bar to one of the fish plates, the head of said bolt or rivet being seated in the aforesaid recess, and a washer upon said bolt or rivet interposed between the locking bar and fish plate, so as to allow the locking bar to swing upward past the rail tread, said locking bar being provided on one of its edges with notches to receive the nuts and having a laterally projected lug at its other end to spring under the tread of the rail and lock the bar against vertical movement, substantially as set forth.

No 52,356. Horse-shoe. (Fer à cheval.)

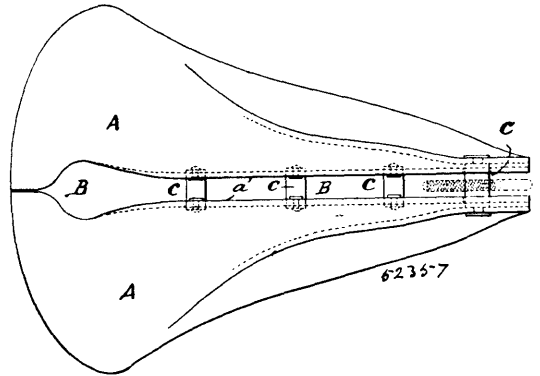


Mark Danby, North Augusta, Ontario, Canada, 21st May, 1896; 6 years. (Filed 27th April, 1896.)

Claim.—1st. A horse shoe consisting of an upper horizontal and an outer vertical flange integrally connected by a cove and having their upper and outer faces respectively slightly bevelled, scallops in the lower edge of the vertical flange and V-shaped notches between said scallops forming points, teeth or calks, nailholes near said vertical flange and a raised bead between said nail holes and the inner edge of the upper flange, substantially as set forth. 2nd. In a horse shoe, the combination of an upper flange level near the outer edge and slightly bevelled downwardly towards the centre of the hoof, from a point or line a little distance from the outer edge, a vertical outer flange integrally formed with said upper flange and slightly bevelled outwardly from the top, a cove integrally connecting said flanges, scallops in the lower edge of said outer flange, V-notches between said scallops and nail holes with counter-sinks in said cove near said outer flange, substantially as set forth.

No. 52,357. Saddle for Velocipedes.

(Selle de velocipedes.)

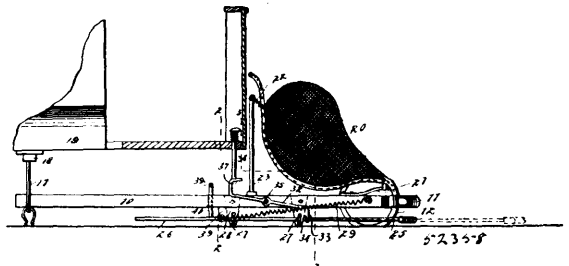


Sidney Patterson, Kensington, Middlesex, England, 21st May, 1896; 6 years. (Filed 27th April, 1896.)

Claim.—1st. A saddle for velocipedes, comprising a cover or seat having a centrally disposed longitudinal opening, and one or more rigid stays fixed to the edges of the cover forming the said longitudinal opening, substantially as and for the purpose described. 2nd. A saddle for velocipedes, comprising a cover or seat having a centrally disposed longitudinal opening, the edges of which are turned inwards or downwards, and of one or more rigid stays fixed to the inwardly or downwardly curved edges of the cover or seat forming the longitudinal opening, substantially as and for the purpose specified. 3rd. In a saddle for velocipedes, the combination with the cover or seat A having a centrally disposed longitudinal opening B extending through any portion of its length, of one or more stays C fixed to the edges a a' of the cover or seat A, substantially as and for the purpose specified. 4th. In a saddle for velocipedes, the combination with the cover or seat A having a centrally disposed longitudinal opening B extending through any portion of its length, of one or more adjustable stays C fixed to the edges a a' of the cover or seat A, substantially as and for the purpose specified.

No. 52,358. Automatic Life-Guard for Cars.

(Defense automatique pour chars.)



Clara M. Beebe, Elmira, New York, U.S.A., 21st May, 1896; 6 years. (Filed 27th April, 1896.)

Claim.—1st. In a car-fender, the combination of two buffer-arms, brackets depending from the buffer arms, rollers carried by the brackets, two plates movable longitudinally and supported by the rollers, a shelf carried by the front extremities of the plates, a retractile spring connected with the plates, a hook retaining the plates, a trip-pin movable to operate the hook, and a U-shaped bar vertically movable in the buffer-arms and supported by the plates when moved to the limit of their inward movement. 2nd. In a car-fender, the combination with a frame, of a shelf movable longitudinally in the frame, means for actuating the shelf, and a U-shaped bar movable vertically in the frame and supported by the shelf when the shelf is moved to the limit of its inward movement, substantially as described. 3rd. In a car-fender, the combination of two plates mounted to slide longitudinally under the car, a shelf carried by the front extremities of the plates, a spring connected to the plates and arranged to move said shelf forward when released, means for holding said shelf in place in a rearward position, and a vertically-movable bar having its arms bent downward and adapted to rest at their lower ends upon the upper sides of the plates, said ends of the bar being adapted when the plates are moved forward to drop behind the rear ends of the plates and hold the shelf and plates in a forward position, substantially as described.

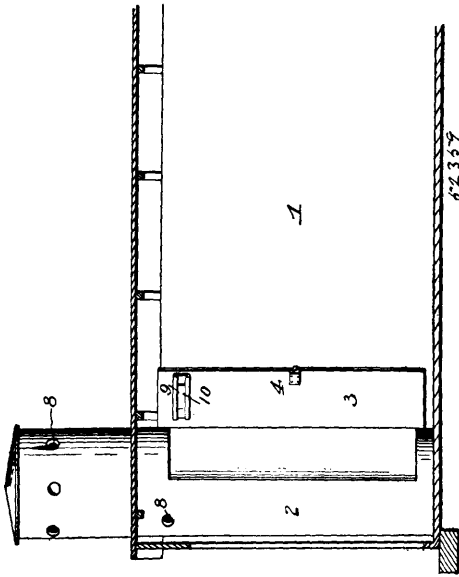
No. 52,359. Railway Car. (Char de chemin de fer.)

William Harden, Janesport, Missouri, U.S.A. 21st May, 1896; 6 years. (Filed 27th April, 1896.)

Claim.—A guard of the character described, consisting of a casing having a door, a platform extending across said casing about mid-

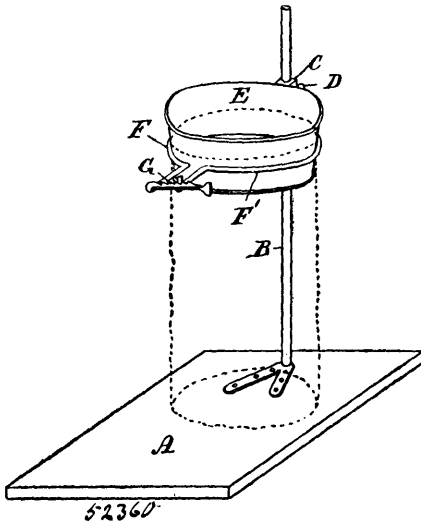
way its length, said platform consisting of two parts, one part being fixed to the casing and the other part hinged to the first named part

thereof provided with a projecting lip and the other side edge thereof formed with a Z-fold, the rear edge whereof is slitted to allow the



and provided with a spring for normally holding it down upon the upper face of the first part, the said casing being provided with vision openings in its sides near its upper and lower ends, substantially as set forth.

No. 52,360. Bag Holder. (*Porte-sac.*)



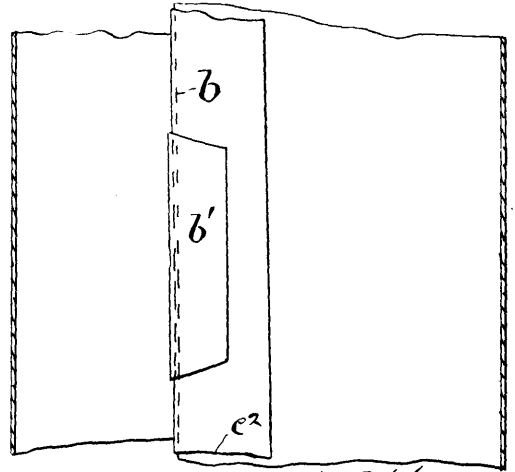
William Willis Hudgins, Madoc, Ontario, Canada, 21st May, 1896
6 years. (Filed 27th April, 1896.)

Claim.—A bag holder, comprising a platform *a*, supporting a vertical post or rod *b*, an adjustable bracket *c*, sliding on said post, and provided with a clamp holder or set screw *d*, to hold the bracket fixedly, a hopper or funnel *e*, secured to said bracket and curved arms *f, f'*, hinged at one end to said bracket, and encompassing said hopper and provided with interlocking ends, substantially as set forth.

No. 52,361. Stove-Pipe. (*Tuyau de poêle.*)

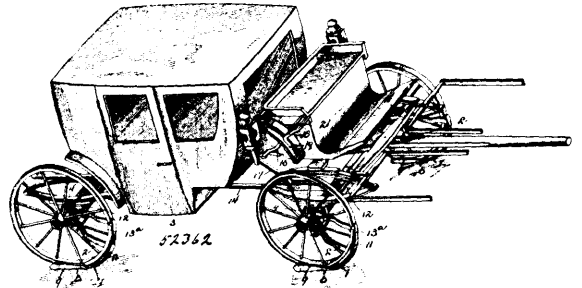
Thomas Charles Davidson, Montreal, Quebec, Canada, 21st May, 1896; 6 years. (Filed 25th April 1896.)

Claim.—1st. A pipe length having one side edge thereof provided with a projecting lip, and the other side edge thereof formed to allow the passage therethrough of such projecting lip, for the purposes set forth. 2nd. A pipe length having one side thereof provided with a projecting lip and the other side edge thereof folded and slitted, the fold to receive such first mentioned side edge and the slit to allow the passage therethrough of such projecting lip portion for the purpose set forth. 3rd. A pipe length having one side edge



passage therethrough of such projecting lip, such lip being adapted to be bent back over such Z-fold, for the purpose set forth.

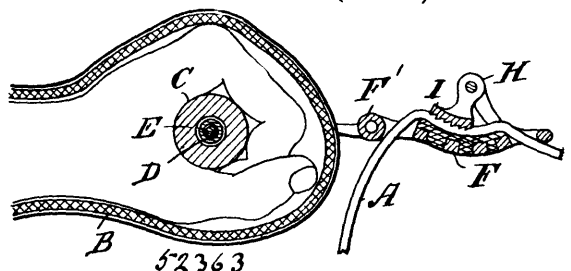
No. 52,362. Sleigh Attachment. (*Attache de traineau.*)



Charles Lusted, sr., La Fayette, Louisiana, U.S.A., 21st May, 1896;
6 years. (Filed 29th April, 1896.)

Claim.—1st. The combination with a vehicle, of a sleigh attachment provided with pivotally mounted runners arranged to swing eccentrically of the wheels of the vehicle, whereby when they are swung upward out of operation they will be carried away from the wheels, substantially as and for the purpose described. 2nd. In a sleigh attachment for vehicles, the combination of a bearing bracket designed to be mounted on an axle, a runner pivotally mounted on the bearing bracket and arranged to swing eccentrically on a vehicle wheel, a rock shaft provided with an arm, a link connected with the arm and with the runner, and forming a toggle connection, and means for operating the rock shaft, substantially as described. 3rd. In a sleigh attachment for vehicles, the combination of a bearing-bracket composed of two sides and provided with rearwardly extending arms adapted to embrace an axle, a fastening device connecting the arms for securing the bracket to the axle, a runner provided with arms eccentrically pivoted to the bearing-bracket between the sides thereof, a rock-shaft having an arm and a link connected with the arm of the rock-shaft and with an arm of the runner and forming a toggle connection, and means for operating the rock-shaft, substantially as described. 4th. In a sleigh attachment, the combination of a runner provided with a perforation, a shoe having a projection to engage the perforation and provided at opposite sides with flanges to embrace a wheel, and a fastening device for securing the shoe to the runner, substantially as described.

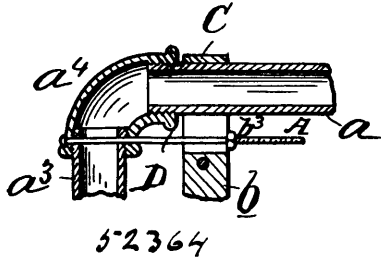
No. 52,363. Driving Mitten. (*Mitaine.*)



Dwight C. Clapp, Owosso, Michigan, U.S.A., 21st May, 1896;
6 years. (Filed 24th April, 1896.)

Claim.—1st. A driving gauntlet, having a hand-hold secured within the gauntlet, and a shaft extending through the hand-hold, and rein-fastening devices secured to the gauntlet by means of said shaft, substantially as described. 2nd. In a driving apparatus, the combination of a gauntlet, a tube extending laterally through the gauntlet and having its ends united therewith, a handle sleeved upon said tube, within the gauntlet, a shaft removably held in the tube, and rein-fastening devices secured to said shaft exteriorly of the gauntlet, substantially as described.

No. 52,364. Gate. (Barrière.)

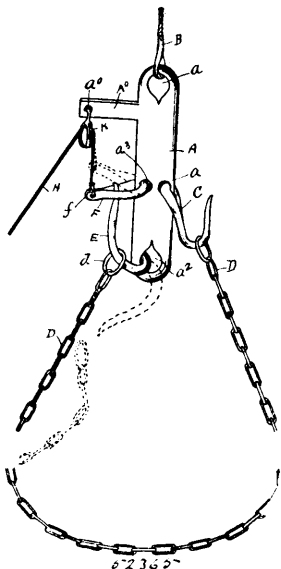


William Harley, Scottville, Michigan, U.S.A., 21st May, 1896; 6 years. (Filed 24th April, 1896.)

Claim.—1st. The combination with the hinging-post, of the gate pivotally connected thereto and capable of being raised and lowered, the wheel mounted on the upper end of said post, the lever fulcrumed on the upper portion of said gate at or near the centre thereof, and the chain-connection between said lever and said gate near the hinge-end of the latter, passing over said wheel on the post. 2nd. The combination with the hinging-post having hinge-rings and a wheel on its upper end, and a latch-post having upper and lower engaging plates, of the gate having at one end-portion a latch to engage said plates, and at its other end-portion engaging said hinge-rings, said latter portion having holes therein, a rod or belt designed to be inserted in said holes, a lever fulcrumed on the upper portion of said gate, and a chain connection between said lever and gate, the same being passed over said wheel, as set forth. 3rd. The herein described improved gate, consisting of a rectangular frame, a pair of tension bars *b*, clips movable upon the horizontal members of the gate-frame, to which clips the clamping-bars are connected at their upper and lower ends, a series of wires attached to the bars *b*, nutted straining-bolts holding the bars *b* to the uprights of the frame, a hinging-post supporting a wheel upon which the gate is capable of being raised and lowered, a latch-post having upper and lower engaging plates, a lever fulcrumed on the upper horizontal member of the gate-frame, and a chain passing over the wheel on the hinging-post, and connecting said lever with the hinge-end of the gate, substantially as described.

No. 52,365. Tripping Attachment for Cane-lifts.

(Attache de déclenchement pour monte-charge.)

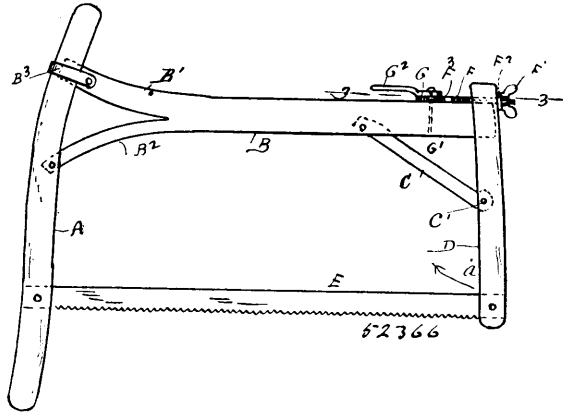


Albert A. Morrow, Loreauville, Louisiana, U.S.A., 22nd May, 1896; 6 years. (Filed 23rd April, 1896.)

Claim.—In a tripping device for cane-lifts, the combination of the metal bar A provided with the eye *a* in its upper end for receiving a rope or other device for suspending the said bar, and the eye *a*² in

its lower end for the holding-tongue, and the smaller eyes *a*¹ and *a*³; and having the laterally-extending arm *A*⁰ near its upper end provided with an eye *a*⁰ in the outer end thereof; of a rope B for suspending the said metal bar A; the hook C engaging in the eye *a*¹, for engaging one end of a sling; the tongue E loosely engaging in the eye *a*² and adapted to engage the other end of the sling; the link F engaging the eye *a*³, and provided with eye *f* in its outer end, and adapted to engage the end of the tongue E when the device is locked; the pulley-block K suspended from the eye *a*⁰ in the arm *A*⁰; and the tripping-line H rove through said pulley-block and fastened in the eye *f* in said link F by means of which the said link may be raised, thus tripping the device, substantially as described.

No. 52,366. Saw. (Scie.)



Henry J. Frederick, Brainerd, Minnesota, U.S.A., 22nd May, 1896; 6 years. (Filed 23rd April, 1896.)

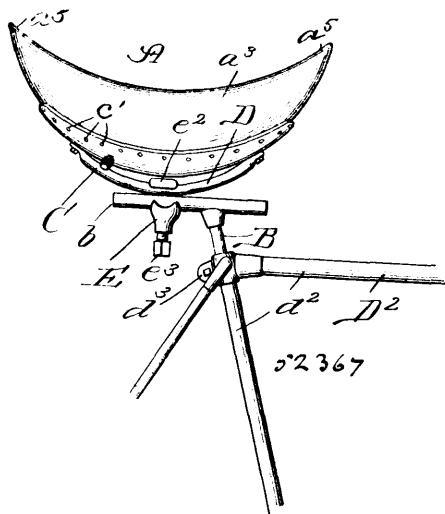
Claim.—1st. A saw frame comprising the front and rear bars, a rigid spacer bar fixedly secured to the rear or handle bar, and movably connected with the upper end of the front bar, a brace secured to the spacer bar and pivotally connected at its front end to the middle portion of the front bar to serve as a fulcrum thereof, a screw rod extending longitudinally along the spacer bar with its threaded end extended through an aperture in the upper end of the front bar and there provided with a nut, the inner end of the rod being provided with an eccentric strap, an eccentric pivoted to the rigid spacer bar and working in the said strap, and a handle for the eccentric, substantially as described. 2nd. A saw frame comprising the front bar and rear or handle bar, a rigid spacer bar forked at its rear extremity and there secured in recesses in the upper end of the handle bar, the upper member of the fork being provided with a π -shaped strap which embraces said handle bar, the front end of the spacer bar being movably connected with the upper end of the front bar, a brace secured at its inner end to the spacer bar and pivotally connected at its forward lower end to the middle of the front bar to serve as the fulcrum thereof, an eccentric pivoted on top of the rigid spacer bar near the forward end thereof and provided with a handle, an eccentric strap encircling said eccentric and provided with a screw rod extending forwardly through the upper end of the front bar, and a nut on the outer end of said rod, substantially as described.

No. 52,367. Bicycle Saddle. (Selle de bicyclette.)

William Isaac Bunker, La Grange, Illinois, U.S.A., 22nd May, 1896; 6 years. (Filed 21st April, 1896.)

Claim.—1st. In a bicycle saddle, the combination of a body portion, adapted to be used in longitudinal and transverse positions, a supporting or binding post and means for securing the saddle to the binding post in its longitudinal or transverse position, substantially as described. 2nd. In a saddle, the combination of a body portion, adapted to be used in longitudinal and transverse positions, a clip provided with transverse holes adapted to support the saddle in either a longitudinal or transverse position, and means for securing the saddle to the clip, substantially as described. 3rd. In a saddle, the combination of a body portion, crescent-shaped, longitudinally tapered from the centre to each end thereof and adapted to be used in longitudinal and transverse positions, a supporting or binding post, and means for securing the saddle to the binding post, substantially as described. 4th. In a saddle, the combination of a hollow crescent-shaped body portion, presenting in cross section circles of varying diameter a supporting post, and means for securing and sustaining the body portion upon the supporting post, substantially as described. 5th. In a saddle, the combination of a body portion crescent-shaped longitudinally, symmetrically tapered from the centre to each end thereof and adapted to be used in a transverse position, a clip provided with transverse and longitudinal holes, and means for securing the body portion and clip together, substantially as described. 6th. In a saddle, the combination of a hollow body portion crescent-shaped longitudinally and symmetrically tapering from the centre to each end thereof, a concave supporting base-plate, a sup-

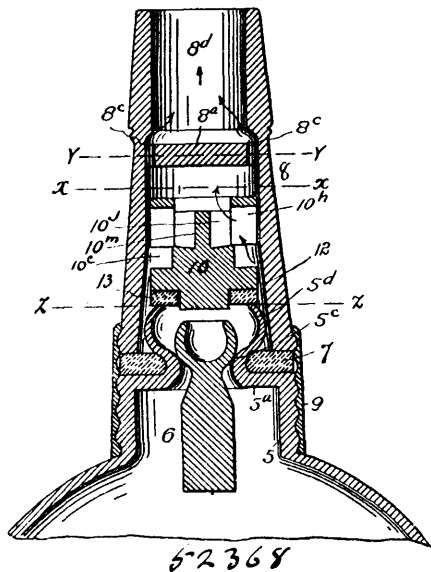
porting clip, and means for securing the different parts together, substantially as described. 7th. In a saddle, the combination of a



hollow crescent-shaped body portion adapted to hold fluid pressure, adapted to be used in longitudinal and transverse positions, rigid base-plates secured to the body portion, a supporting rod secured to the base-plates, and a supporting clip adapted to secure the supporting rod in position, and provided with transverse holes arranged at right angles to each other to support the body portion in either of its longitudinal or transverse positions, substantially as described. 8th. In combination with a bicycle saddle, a supporting clip provided with a hole for engaging the supporting or binding post, and an upwardly-extending lip or hook forming a portion of the clip adapted to secure the supporting rod or spring of a bicycle saddle rigidly in engagement with the supporting or binding post, substantially as described.

No. 52,368. Non-refillable Bottle.

(Appareil pour empêcher le remplissage des bouteilles.)

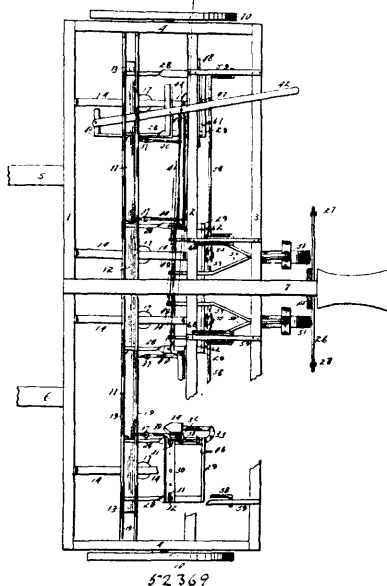


William von Bokern, Denver, Colorado, U.S.A., 22nd May, 1896; 6 years. (Filed 20th April, 1896.)

Claim.—1st. The combination with the bottle having the integral valve seat formed in its neck, and a movable valve adapted to engage said seat, of the detachable nozzle provided with the diaphragm formed integral therewith, and one or more passage-ways to allow the liquid to flow from one side of the diaphragm to the other, the movable safety device located in the nozzle between the neck and the diaphragm, and suitable means for connecting the neck and nozzle, substantially as described. 2nd. The combination with a bottle having an integral valve seat formed in its neck and a shoulder

surrounding said valve seat, a washer engaging said shoulder, a valve adapted to engage said seat, a nozzle having a diaphragm formed integral therewith, and one or more passages to allow the liquid to pass from one side of the diaphragm to the other, and suitable means for connecting the neck and nozzle, of the movable safety device located in the nozzle between the diaphragm and the neck, substantially as described. 3rd. The combination with the bottle having an integral valve seat and a shoulder surrounding said seat, a washer engaging said shoulder, a valve adapted to engage said seat, a nozzle engaging the washer around the valve seat, said nozzle having a diaphragm formed integral therewith, and one or more passages to allow the liquid to pass from one side of the diaphragm to the other, and suitable means for connecting the neck and nozzle, of the movable safety device located between the neck and the diaphragm of the nozzle, and a washer or packing ring applied to the lower end of the said device, and adapted to engage the top of the neck, substantially as described. 4th. The combination of a bottle having a valve seat formed in its neck, a suitable valve and a detachable neck having a diaphragm formed integral therewith, and one or more passages to allow the liquid to pass from one side of the diaphragm to the other, and a movable safety device located between the top of the neck and the diaphragm of the nozzle, substantially as described.

No. 52,369. Cultivator. (Cultivateur.)



William G. Scott, Rock Dell, Minnesota, U.S.A., 22nd May, 1896; 6 years. (Filed 23rd April, 1896.)

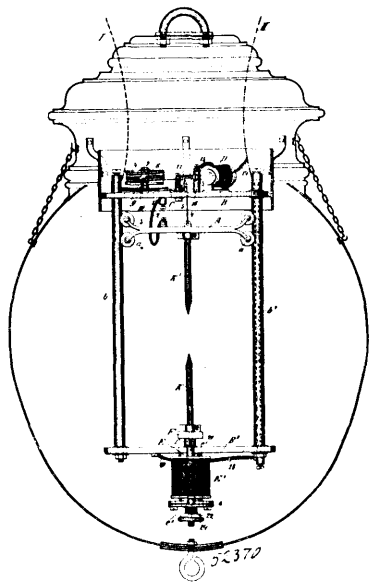
Claim.—1st. In a double-row cultivator, the combination of a main-supporting frame, four sets of shovels carried by the main frame, and an auxiliary frame for each of the central sets supporting the rear ends thereof. 2nd. In a cultivator, the combination of the main supporting frame, a coupling-bar, four sets of shovels pivotally connected to the coupling-bar, a shaft supported in bearings, a drum secured to the shaft, a flexible connection between the drum and coupling bar, and a lever for rotating the shaft. 3rd. In a double row cultivator, the combination of a main supporting-frame, a head carried thereby, a series of shovel-standards carried by the head having an adjustable connection therewith in unison. 4th. In a cultivator, the combination of a main supporting-frame, two heads carried thereby, a series of shovel-standards carried by each head, one of the shovel-standards of each head made movable independent of the others, transverse to the line of draft.

No. 52,370. Arc Lamp. (Lampe à arc.)

Eugene Hugo Arthur Heinrich Ritter von Nollendorf, Scholten-rings, Vienna, Austro-Hungary, 22nd May, 1896; 6 years. (Filed 22nd April, 1896.)

Claim.—1st. In an arc lamp, the combination with the frame and two carbon-holders movable therein of a drum pivoted on the frame, a cord connecting the upper carbon-holder and drum, an escapement wheel and pallet in operative connection with the drum, an electro-magnet operating the pallet, an armature for the lower carbon holder, an electro-magnet and spring for the armature, main conductors electrically connected with the carbons and branch conductors, electrically connected with the electro-magnets. 2nd. In an arc lamp, the combination with the frame and two carbon-holders therein, of a drum pivoted to a frame, a cord connecting the upper carbon-holder and drum, an escapement wheel, and pallet in operative connection with the toothed-wheel, an electro-magnet operating the pallet, and conductors electrically connected with the carbons

and electro-magnet. 3rd. In an arc lamp, the combination with the frame and two carbon-holders therein, of a drum pivoted to the



frame, a cord connecting the upper carbon-holder and drum, an escapement wheel ratchet and pawl mechanism connecting the drum and escapement wheel, a pallet engaging the escapement wheel, an electro-magnet operating the pallet, and conductors connected with the carbons and electro-magnet. 4th. In an arc lamp, the combination with the frame and two carbon-holders therein, of a pivot on the frame, a drum on the pivot, a spring connecting the drum and pivot, an escapement wheel in operative connection with the drum, a cord connecting the upper carbon-holder and drum, a pallet engaging the escapement wheel, an electro-magnet operating the pallet, and conductors electrically connected with the carbons and electro-magnet. 5th. In an arc lamp, the combination with the frame and two carbon-holders therein, of a pivot on the frame, an escapement wheel on the pivot, a cord in operative connection with the upper carbon-holder and escapement wheel, a pallet engaging the escapement wheel, an electro-magnet operating the pallet, and conductors electrically connected with the carbons and electro-magnet. 6th. In an arc lamp, the combination with the frame and two carbon-holders therein, of an armature on the lower carbon-holder, an electro-magnet and spring for moving the armature in respectively opposite directions, and conductors electrically connected with the carbons and electro-magnet. 7th. In an arc lamp, the combination with the frame and two carbon-holders therein, of an armature on the lower carbon-holder, a guide for the armature, an electro-magnet on the frame, and a spring in the guide for moving the armature in respectively opposite directions, a nut adjustment for the spring, a stop for the armature, and conductors electrically connected with the carbons and electro-magnet. 8th. In an arc lamp, the combination with the frame and two carbon-holders movable therein, of a pivot on the frame, a drum on the pivot, a spring connecting the drum and pivot, an escapement wheel in operative connection with the drum, a cord connecting the upper carbon-holder and drum, a pallet engaging the escapement wheel, an electro-magnet operating the pallet, an armature on the lower carbon-holder, a guide and stop for this armature, an electro-magnet on the frame, and a spring in the guide for moving said armature in respectively opposite directions, a nut adjustment for the spring, and conductors electrically connected with the carbons and electro-magnets.

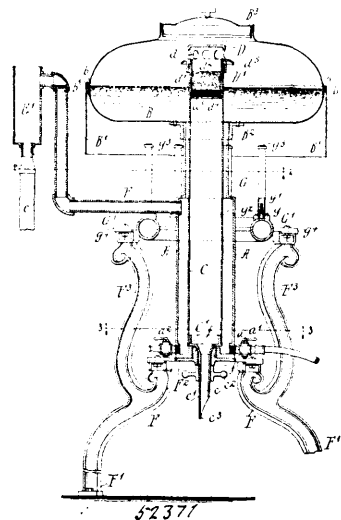
No. 52,371. Distilling Apparatus.

(Appareil de distillation.)

Ira H. Jewell, Chicago, Illinois, U.S.A., 22nd May, 1896; 6 years. (Filed 15th April, 1896.)

Claim.—1st. A distilling apparatus comprising an upright tubular tank or water-jacket having a supply inlet at its bottom, a boiler, the bottom wall of which is attached to the open upper end of said jacket, an upright tubular condenser located within the said jacket and extending at its upper end into the boiler and terminating above the water line therein, said condenser being provided with a discharge outlet at its bottom, substantially as described. 2nd. A distilling apparatus comprising an upright tubular tank or water-jacket provided with a supply inlet at its bottom, a boiler provided with an aperture in its bottom, around which the upper end of the jacket is secured, an upright tubular condenser located within the jacket, with its upper end extending into the boiler and terminating above the water line thereof, said condenser being provided with a discharge outlet at its lower end, and means for limiting the maximum

depth of water in the boiler comprising a passage connected with the jacket and leading upwardly therefrom and an overflow orifice in



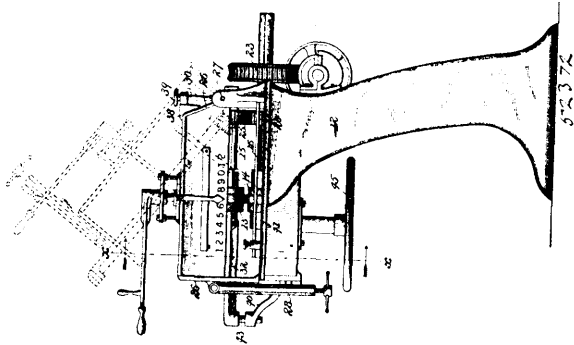
the said passage located above the level of the boiler bottom and below the level of the top of the said condenser, substantially as described. 3rd. A distilling apparatus comprising an upright tubular tank or water-jacket provided with a supply inlet at its bottom, a circular boiler having a central aperture in its bottom around which the upper end of the jacket is secured, a condenser tube located within the jacket and extending at its upper end into the boiler to a point above the water line thereof, said condenser being provided with a discharge outlet at its lower end, and an annular burner extending around the jacket beneath the boiler, substantially as described. 4th. A distilling apparatus comprising an upright tubular tank or water-jacket provided with a supply inlet at its bottom, a circular boiler having a central aperture in its bottom, around which the upper end of the jacket is secured, a condenser tube located within the jacket and extending at its upper end into the boiler to a point above the water level therein, said condenser having a discharge outlet, and an annular fuel pipe surrounding the jacket beneath the boiler provided with a plurality of jets or burners, substantially as described. 5th. A distilling apparatus comprising an upright tubular tank or water-jacket having a supply inlet at its lower end, a boiler provided in its bottom with an aperture with which the open upper end of the jacket is connected, and a straight upright condenser tube located within the jacket and extending upwardly within the boiler to a point above the water line thereof, said condenser tube being detachably secured at its lower end to the jacket and having a discharge outlet passing through the bottom wall of the jacket, substantially as described. 6th. A distilling apparatus comprising an upright tank or water-jacket, having a supply inlet at its base, a boiler provided in its bottom with an aperture with which the open upper end of the jacket is connected, and a straight condenser tube located within the said jacket with its upper end opening into the boiler above the top of the jacket, and provided with a depending projection on its lower wall apertured to form a discharge outlet, said projection being inserted through an aperture in the bottom wall of the jacket, and a nut or equivalent means for holding said conical surfaces in contact with each other, substantially as described. 7th. A distilling apparatus comprising an upright tank or water-jacket having a supply inlet, a boiler into which said jacket opens at its upper end, and an upright condenser tube located within the jacket, and opening at its upper end into the boiler above the water-jacket and provided at its lower end with a discharge outlet, and at its upper end with a laterally-apertured cap, substantially as described. 8th. A distilling apparatus comprising an upright tank or water-jacket, having a supply inlet, a boiler into which said jacket opens at its upper end, and an upright condenser tube located within the jacket, opening at its upper end into the boiler above the water-jacket and provided at its lower end with a discharge outlet, said tube having at its upper end a laterally-apertured cap provided with a projecting flange below the apertures therein, substantially as described. 9th. A distilling apparatus comprising an upright tubular tank or water-jacket having a supply inlet at its lower end, a boiler having an opening in its bottom to which the upper open end of the jacket is attached, a condenser within the jacket extending at its upper end into the boiler to a point above the water-level therein and provided at its bottom with a discharge outlet, and a mass or body of absorbent material placed in the upper end of said condenser, through which the steam or vapour passes in entering the condenser, substantially as described.

No. 52,372. Saw-Stretching Machine.

(Appareil pour étamer les scies.)

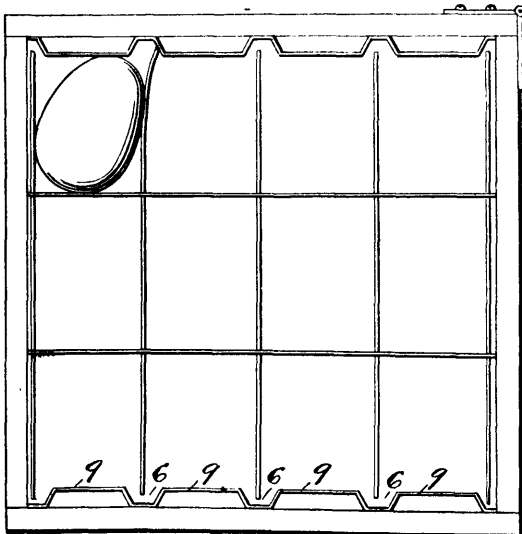
Elisha B. Rich, Chicago, Illinois, U.S.A., 22nd May, 1896; 6 years. (Filed 20th April, 1896.)

Claim.—1st. In a saw-stretching machine, a plurality of stretching rolls, shafts upon which said rolls are mounted, which shafts



are positioned horizontally, and positively and directly operating devices by which said rolls and shafts are moved positively back and forth to adjust the rolls relative to the surface of a saw held in a stationary position. 2nd. The combination in a saw-stretching machine, of a plurality of stretching rolls mounted upon rotated shafts and adapted to be moved laterally relative to a saw to be operated upon and frames within which said shafts and rolls are mounted, and one of which frames is hinged to the other and adapted to be raised away from the other. 3rd. The combination in a saw-stretching machine, of a plurality of stretching rolls mounted upon rotated shafts and adapted to be moved laterally from side to side relative to a saw to be operated upon and longitudinally movable frames acting upon or carrying the rolls to impart to the same the movement afore said and a manually operated rack and pinion device between the movable frames and the point of application of the power. 4th. The combination in a saw-stretching machine, of a plurality of stretching rolls mounted upon rotated shafts and adapted to be moved laterally from side to side relative to a saw to be operated upon and longitudinally sliding frames acting upon or carrying the rolls to impart to the same the movement afore said, a connecting member detachably holding the sliding frames so that the same move in unison, and manually operated devices connected with said sliding frames whereby the same are actuated. 5th. The combination in a saw-stretching machine, of a plurality of stretching rolls mounted upon rotated shafts and adapted to be moved laterally relative to a saw to be operated upon, sliding frames within which said shafts and rolls are mounted, one of which frames is hinged to the other, a connecting member detachably holding the sliding frames so that the same move in unison, and manually operated devices connected with said sliding frames, whereby the same are actuated. 6th. The combination in a saw-stretching machine, of a vertically-movable shaft carrying one of the stretching rolls, a hand lever, connections between said hand lever and the vertically-movable shaft carrying one of the stretching rolls, a hand lever, connections between said hand lever and the vertically-movable shaft and adjusting devices whereby the said shaft is maintained in a true horizontal plane.

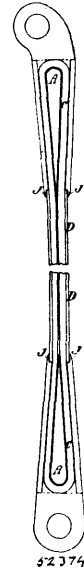
No. 52,373. Egg Crate. (Boîte à œufs.)



Albert De Leal Gilpin, Lincoln, Kansas, U.S.A., 22nd May, 1896; 6 years. (Filed 14th April, 1896.)

Claim.—An egg crate comprising a series of partitions and floors forming individual stalls, and a bottom and a top cushion of soft flexible sheet material corrugated to form grooves registering with the said partitions, and raised platforms registering respectively with the individual stalls, substantially as described.

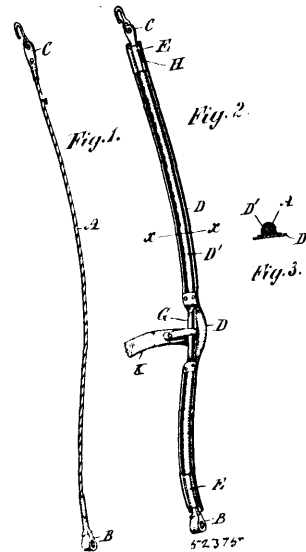
No. 52,374. Wedge Coupling. (Attache pour coins.)



Peter Herbert Moore, Sudbury, Ontario, Canada, 22nd May, 1896; 6 years. (Filed 18th September, 1895.)

Claim.—The combination of the couplings with the wedge, substantially as and for the purpose hereinbefore set forth.

No. 52,375. Harness Trace. (Trait de harnais.)



Thomas Clemow, Sudbury, Ontario, Canada, 22nd May, 1896; 6 years. (Filed 16th August, 1895.)

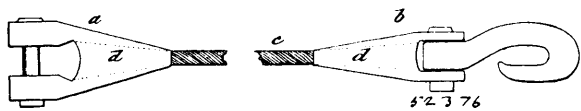
Claim.—1st. In combination with the wire cable A, the metal clips B, C, having sockets receiving the ends of said cable and secured therein, and the covering strips D, D', substantially as set forth. 2nd. A trace comprising an exterior covering of leather or other flexible material, and an internal core of wire cable having clips at the ends by which the trace is attached to the harness and to the vehicle. 3rd. A cable wire trace having terminals or clips B, C, provided with a socket in which to fasten the ends of the wires and strips covering said wires, substantially as set forth.

No. 52,376. Harness Wire Cable Coupling.

(Attelage de cable.)

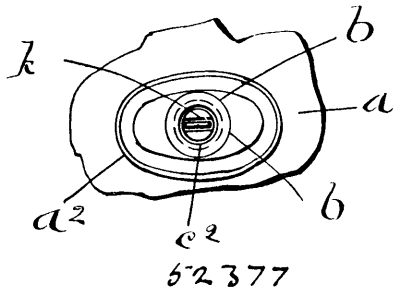
John Donald McDonald, Sudbury, Ontario, Canada, 22nd May, 1896; 6 years. (Filed 25th July, 1895.)

Claim.—1st. The form of the couplings A, B, figure I, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the couplings A, B, figure I, and the fasteners f, figure 5, substantially as and for the purpose hereinbefore set forth.



combination of the couplings A, B, figure I, and the fasteners f, figure 5, substantially as and for the purpose hereinbefore set forth.

No. 52,377. Inflating Device. (*Appareil à gonfler.*)

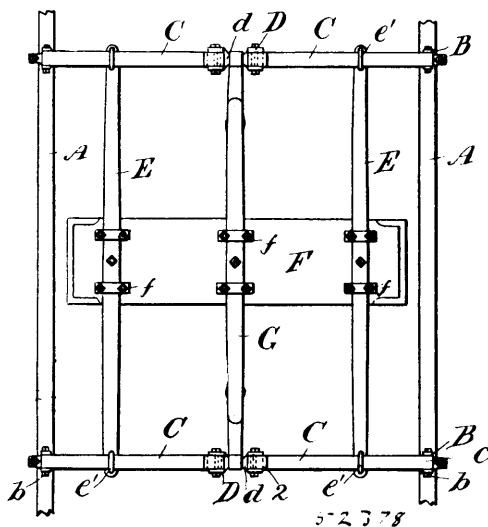


Henry Lawrence Gulline, Victoria, British Columbia, Canada, 22nd May, 1896; 6 years. (Filed 28th December, 1895.)

Claim.—1st. An inflating device consisting of a nipple formed of a hollow cylindrical body portion, the opening therethrough being contracted at its inner end, a valve contained in such body portion and formed with its inner end diminished, an opening extending from the outer end of such valve to a point in the surface of the diminished portion thereof, and an air supplying device, the discharge tube of which is detachably connected to such nipple, and has located therein a cylindrical section with one end closed and perforated and provided with a projecting tongue portion, for the purpose set forth. 2nd. An inflating device consisting of a nipple formed of a hollow cylindrical body portion, the opening therethrough being partially screw-threaded and contracted at its inner end, a valve contained in such body portion and formed with its inner end diminished, an opening extending from the outer end of such valve to a point in the surface of the diminished portion thereof, the undiminished portion of such valve being screw-threaded, and an air supplying device, the discharge tube of which is detachably connected to such nipple and has located therein a cylindrical section with one end closed and perforated and provided with a projecting tongue portion, for the purpose set forth. 3rd. An inflating device consisting of a nipple formed of a hollow cylindrical body portion, the opening therethrough being contracted at its inner end, a valve contained in such cylindrical body portion and formed with its inner end diminished, an opening extending from the outer end of such valve to a point in the surface of the diminished portion thereof, a slotted check valve located in the inner end of such nipple, and an air supplying device the discharge tube of which is detachably connected to such nipple and has located therein a cylindrical section with one end closed and perforated and provided with a projecting tongue portion, for the purpose set forth. 4th. An inflating device consisting of a nipple formed of a hollow cylindrical body portion, the opening therethrough being contracted at its inner end, a valve contained in such body portion and formed with its inner end diminished, an opening extending from the outer end of such valve to a point in the surface of the diminished portion thereof, a slotted check valve located in the inner end of such nipple, and an air supplying device the discharge tube of which is detachably connected to such nipple and has located therein a cylindrical section with one end closed and perforated and provided with a projecting tongue portion, for the purpose set forth. 5th. An inflating device consisting of a nipple formed of a hollow cylindrical body portion, the opening therethrough being contracted at its inner end, a valve contained in such cylindrical body portion the outer end of which is diminished to form a shoulder and formed with its inner end diminished and tapered, an opening extending from the outer end of such valve to a point in the surface of the diminished portion thereof, the ends of such hollow cylindrical body portion brazed or turned, and an air supplying device the discharge tube of which is detachably connected to such nipple and has located therein a cylindrical section with one end closed and perforated and provided with a projecting tongue portion, for the purpose set forth. 6th. An inflating device consisting of a nipple formed of a hollow cylindrical body portion, the opening therethrough being contracted at its inner end, a valve contained in such cylindrical body portion the outer end of which is diminished to form a shoulder and formed with its inner end diminished and tapered, an opening extending from the outer end of such valve to a point in the surface of the diminished portion thereof, a slotted check valve located in the inner end of such nipple and the ends of such cylindrical body portion brazed or turned, and an air supplying device the discharge tube of which is detachably connected to such nipple and has located therein a cylindrical section

with one closed and perforated and provided with a projecting tongue portion, for the purpose set forth. 7th. An inflating device consisting of a nipple formed of a hollow cylindrical body portion, provided with a dust guard across its inner end and the opening therethrough being contracted at its inner end to form a valve seat, a valve contained in such hollow cylindrical body portion the outer end of which is diminished and the inner end diminished and tapered, an opening extending from the outer end of such valve to a point in the surface of the diminished portion thereof, and a movable dust guard located in the outer end of such opening, a slotted check valve located in the inner end of such nipple and the ends of such cylindrical body portion brazed or turned, and an air supplying device the discharge tube of which is detachably connected to such nipple and has located therein a cylindrical section with one end closed and perforated and provided with a projecting tongue portion, for the purpose set forth.

No. 52,378. Vehicle Gear. (*Engrenage de voiture.*)



William Atkinson, Granby, Quebec, Canada, 22nd May, 1896; 6 years. (Filed 29 April, 1896.)

Claim.—1st. In a vehicle gear, the combination of side bars suitably supported, transverse or aid supports pivoted to said side bars fore and aft and each flexibly and slidingly joined in the centre, side springs parallel to the bars supported at their ends upon the transverse or end supports and adapted to resist a downward pressure in the centre, the cross bar secured to and carried upon said side springs and a centre spring secured to said cross bar adapted to resist a downward pressure at the ends and having its ends connected to the couplings of the end supports, substantially as set forth. 2nd. In a vehicle gear, the combination of side bars suitably supported, clips and shackles fore and aft on said side bars adapted to support transverse or end supports pivotally, two transverse or end supports each in two parts flexibly and slidingly joined in the centre and pivotally supported in said shackles at the outer ends, and a coupling connecting the inner ends flexibly and slidingly, substantially as set forth. 3rd. In a vehicle gear, the combination of side bars suitably supported, transverse or end supports secured to said side bars fore and aft, a longitudinal spring near each side bar having its ends carried upon the transverse or end supports and adapted to resist a downward pressure, a cross bar secured upon said spring and a spring between said side springs and parallel to them secured to said cross bar and supporting at its ends the transverse or end supports, substantially as set forth.

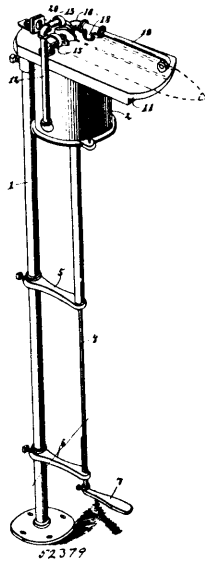
No. 52,379. Shuttle Threader.

(*Appareil pour enfiler les navettes.*)

Solyne Augustin Brodeur, Vaudreuil, Quebec, Canada, assignee of Rémi Brodeur, Fall River, Massachusetts, U.S.A., 22nd May, 1896; 6 years. (Filed 6th May, 1896.)

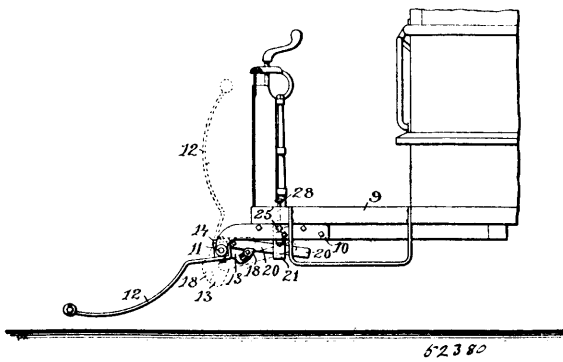
Claim.—1st. A shuttle threader, comprising a blow tube, a suction tube and means for forcing air through said blow tube, and at the same time causing a suction through said suction tube, substantially as specified. 2nd. A shuttle threader, comprising a cylinder, a piston operating therein, a blow tube communicating with the cylinder below the piston, a suction tube communicating with the cylinder above the piston, and means for clamping a shuttle against said suction tube, substantially as specified. 3rd. A shuttle threader, comprising a cylinder, a piston operating therein, a blow pipe communicating with said cylinder below the piston, opposite suction tubes communicating with the cylinder above the piston and yielding material in the mouths of said suction tubes, substantially as specified. 4th. A shuttle threader, comprising a cylinder, a piston operating therein, a blow tube communicating with the

cylinder below the piston, a suction tube communicating with the cylinder above the piston, and another suction tube opposite the



first named suction tube and communicating with the cylinder above the piston, the said last named suction tube being adapted to swing laterally to clamp a shuttle between the two suction tubes, substantially as specified. 5th. A shuttle threader, comprising a cylinder, a piston operating therein, a blow tube communicating with the cylinder below the piston, a suction tube communicating with the cylinder above the piston, another suction tube opposite the first named suction tube and communicating with the cylinder above the piston, the said last named suction tube being adapted to swing laterally to clamp a shuttle between the two suction tubes, and an adjustable guide or receiver for the end of the shuttle, substantially as specified. 6th. A shuttle threader, comprising a cylinder, a piston operating therein, a table on the cylinder, a blow tube communicating with the cylinder below the piston and having an outlet over the table, suction tubes arranged at opposite sides of the table and communicating with the cylinder above the piston, one of said suction tubes being mounted to swing laterally, an arm extended rearward from said swinging tube and adapted to engage a shuttle, and a guide or receiver for the end of a shuttle mounted on the table, substantially as specified. 7th. A shuttle threader, comprising a standard, a cylinder mounted thereon, a piston within the cylinder, a stem extended outward from the piston, guides adjustably mounted on the standard and through which the piston stem extends, an arm extended outward from the lower end of said stem, a spring for moving the piston upward, a blow pipe communicating with the interior of the cylinder below the piston, and a suction tube communicating with the said cylinder above the piston, substantially as specified.

No. 52,380. Car Fender. (Defense de chars.)

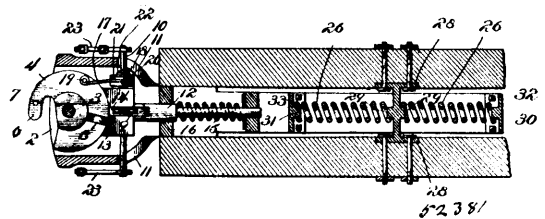


The Consolidated Car Fender Company, Providence, assignee of Albert Joseph Thornley, Pawtucket, both in Rhode Island, U.S.A., 22nd May, 1896; 6 years. (Filed 1st May, 1896.)

Claim.—1st. In a car-fender, the combination with a pivoted shaft, a bracket secured thereto, a lever pivoted to the bracket, and means carried by the bracket for limiting its movement by bearing against the lever, of a latching device adapted to engage the free end of the lever, and means for operating the latching-device. 2nd. In a car-fender, the combination with a sustaining-lever, of a

latching-device for latching the lever in two positions. 3rd. In a car-fender, the combination with a sustaining-lever, of a supporting device, including a locking device, consisting of oppositely-disposed bolts and means for simultaneously actuating the same. 4th. In a car-fender, the combination with a sustaining-lever, of a supporting device consisting of a bracket having two members separated at one portion for the insertion of the sustaining-lever, and a duplex locking-device mounted to act on the lever between the members. 5th. In a car-fender, the combination with a pivoted shaft, a fender carried by the shaft, a bracket secured to the shaft, a lever pivoted to the bracket, and adjustable means carried by the bracket for limiting its movements with reference to the lever, of a casting or bracket having a vertical slot in which the free end of the lever may move, and a latching-device for engaging the lever. 6th. In a car-fender, the combination with side arms, a fender-shaft journaled therein, a bracket plate secured to said shaft, a lever pivoted to the bracket-plate, and a stop adjustably mounted on the bracket-plate and adapted to bear on the lever, of a casting having a vertical slot in which the lever is free to reciprocate and move vertically, a latch, pivoted to said casting, having an arm for engaging the lever and a spring-supported arm for actuating the latch, and a plunger for depressing the actuating-arm. 7th. The combination with the side-arms 10-10, the shaft journaled in the arms, a fender mounted on the shaft, the bracket 13 secured to the shaft and having the slot 15 and corrugations 16, the dog 18 adjustably secured to the bracket by means of the bolt 17, and the lever 20 pivoted to the bracket 13 and adapted to be engaged by the dog, of the casting 21 having the slot 22, in which the free end of the lever 20 works, and the slot 23, the latch 24 pivoted in the slot 23 and having the arm 25 extending through the slot 22 and beyond the same, the spring-operated plug 27 for sustaining the arm 25, and means for depressing this arm to open the latch, as described.

No. 52,381. Car-Coupler. (Attelage de chars.)



George J. Farrey and Samuel L. Divin, both of Carlisle, Pennsylvania, U.S.A., 22nd May, 1896; 6 years. (Filed 29th April, 1896.)

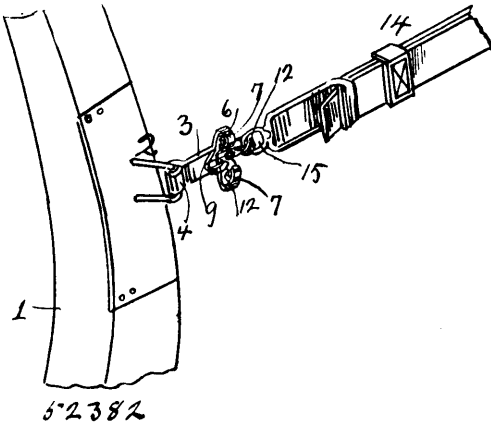
Claim.—1st. In a car-coupling, the combination of a draw-head, a pivoted knuckle mounted therein and capable of a limited movement longitudinally of the draw-head, a spring-actuated bar arranged in rear of the knuckle, and a catch carried by the spring-actuated bar for engaging the knuckle, substantially as and for the purpose described. 2nd. In a car-coupling, the combination of a draw-head, a pivoted knuckle mounted therein and capable of a limited inward and outward movement and provided at its back with a recess, a spring-actuated bar located in rear of the knuckle, a rock-shaft mounted on the spring-actuated bar and carried by the same, and a catch fixed to the rock-shaft and arranged to engage the recess of the knuckle, substantially as described. 3rd. In a car coupling, the combination of a draw-head, a pivoted knuckle mounted therein and capable of a limited inward and outward movement, a catch mounted in rear of the knuckle for engaging the same and capable of a limited movement longitudinally of the draw-head to conform to the movement of the knuckle, a spring for cushioning the inward movement of the knuckle and the catch, and connections between the knuckle and the catch whereby the catch is thrown into engagement with the knuckle by the rotation of the latter, substantially as described. 4th. In a car-coupling, the combination of a draw-head, a pivoted knuckle mounted therein and capable of a limited movement longitudinally of the draw-head and provided at its back with a recess, a spring-actuated bar arranged in rear of the knuckle, a rock-shaft journaled on the spring-actuated bar and carried by the same and provided with a catch for engaging the recess of the knuckle, an upward-extending arm movably connected with the rock-shaft and capable of a limited independent movement, and connections between the upward-extending arm and the knuckle, substantially as described. 5th. In a car coupling, the combination of a draw-head, a pivoted knuckle mounted therein, a transverse rock-shaft provided with a catch for engaging the knuckle, a disc fixed to the rock-shaft and provided with opposite shoulders, an arm loosely mounted on the shaft and arranged between the shoulders of the disc, and a bar connecting the arm with the knuckle, substantially as described.

No. 52,382. Hame Hook. (Crochet d'attelles.)

Samuel H. Windley and Spencer H. Phillips, both of Trenton, North Carolina, U.S.A., 22nd May, 1896; 6 years. (Filed 18th April, 1896.)

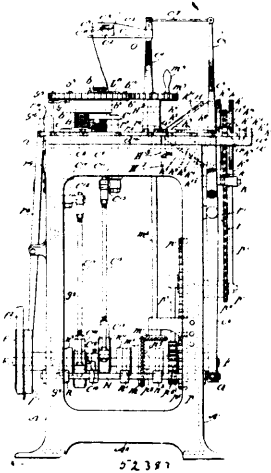
Claim.—The combination with the rectangular plate having one end formed into a hook, of the rotatable plate provided with radial

arms bent inwardly forming hooks, and their extremities bent inwardly forming lugs, the headed pivot pin and the plate clamped



between the head of said pin and the rotatable plate, formed with spring-arms corresponding and engaging with the lugs of said hooks, substantially as described.

No. 52,383. Knitting Machine. (Machine à tricoter.)



Emil John Franck, Philadelphia, Pennsylvania, U.S.A., 23rd May, 1896; 6 years. (Filed 27th March, 1896.)

Claim.—1st. A knitting machine provided with two groups of needles, one group being fixed as to its holder and the other group having fashioning needles being detachably connected to its holder and provided with spring arms having bent ends forming bits, a support or grooved cylinder, a driving shaft, reciprocating segmental needle holders, alternately moved from said shaft and eccentrics connected with said shafts and holders for respectively actuating said groups of needles, substantially as and for the purposes set forth. 2nd. A knitting machine provided with two groups of needles, holders reciprocated in the direction of the lengths of the needles for elevating and depressing the groups thereof, an oscillating ring provided with teeth for closing the beards of each group of needles as they descend, and with spaces for accommodating the beards of each group of needles as they ascend, movable web-holders, and a divided spring-actuated ring provided with recesses engaging oppositely-disposed cams, noses or projections of said beard-closing ring for operating said movable web-holders, substantially as and for the purposes set forth. 3rd. A knitting machine provided with two groups of needles, whereof the needles of one group are provided with spring arms bent to form bits and whereof the needles of the other group have bits, a grooved cylinder or support therefor, segmental needle-holders or carriers provided with recessed or grooved seats and one of said holders or carriers having a tapering internal surface, eccentrics for reciprocating the holders or carriers of the groups of needles and strippers for liberating the needles of the group provided with spring arms having bits from the recessed or grooved seat of their holder or carrier, substantially as and for the purposes set forth. 4th. A knitting machine provided with a cylinder having radial top-notches, needles, movable web-holders having curved fingers, lateral shanks and base projections, a ring, and means for imparting vertical movement to said ring to actuate said web-holders, substantially as and for the purposes set forth. 5th. A knitting machine provided with

a slotted needle-cylinder, two groups of needles, whereof one group is fixed as to its holder and provided with base-bits, and whereof the other group is provided with spring arms having bent ends forming bits, holders, a main driving shaft, eccentrics, strippers, movable web-holders having curved fingers and transverse shanks engaging the slotted portions of said cylinder, and means for actuating the same so as to engage and disengage stitches with the fingers of said web-holders, substantially as and for the purposes set forth. 6th. A knitting machine provided with two groups of needles, segmental reciprocating needle holders, web-holders, a needle cylinder provided with radial notches for the shanks of said web-holders, an oscillating beard closing ring having noses or projections, and a divided ring provided with recesses, said ring adapted to operate said web-holders, substantially as and for the purposes set forth. 7th. A knitting machine provided with two groups of needles movable in respect to their cylinder or support, segmental needle holders reciprocated in the direction of the lengths of the needles, an oscillating ring provided with teeth for closing the beards of each group as they descend and accommodating the same as they ascend and having lugs, cams or projections, movable web-holders and a spring controlled divided ring provided with recesses engaging the noses, lugs or cams of said beard closing ring and for operating said web-holders, substantially as and for the purposes set forth. 8th. A knitting machine provided with two groups of needles, a cylinder or support therefor, segmental needle holders reciprocated in the direction of the length of the needles, a ring having noses or projections, web-holders, and a spring controlled ring provided with recesses, substantially as and for the purposes set forth. 9th. A knitting machine provided with two groups of needles, whereof the needles of one group are provided with spring arms with bent ends forming bits, and whereof the needles of the other group are provided with base bits, reciprocating segmental needle-holders, an oscillating beard closing ring, web holders, a spring controlled divided ring, strippers or carriers oscillated so as to engage and disengage said needles, and means connected with and operated from the main driving shaft for alternately and successively permitting of the actuation of said groups of needles, substantially as and for the purposes set forth. 10th. A knitting machine provided with needles movable in the direction of their support, segmental needle holders reciprocated alternately from the main driving shaft, a sectional or two-part drum, each part of which is counter-weighted and provided with grooved cams, strippers or carriages, rack-bars, rollers engaging said cams and adapted to actuate said rack-bars controlling said strippers or carriages, and means for actuating the two-part drum, substantially as and for the purposes set forth. 11th. A knitting machine provided with fashioning needles having spring arms with bits, needles having lateral base bits, said needles movable in the direction of their cylinder, reciprocating segmental needle holders adapted to receive and support the bits of said needles, movable strippers or carriages provided with toothed peripheries, rack-bars having rolling means engaging grooved cams of a two-part weighted drum, and means for positively actuating said drum step by step to throw into and out of action said fashioning needles, substantially as and for the purposes set forth. 12th. A knitting machine provided with two groups of needles, whereof one group is provided with spring arms with rear bits, and whereof the other group is provided with base bits, segmental needle-holders reciprocated in the direction of the length of the needles, an oscillating beard closing ring, web-holders, a divided spring-controlled ring, a sinker-bed and gear and sinker-bars adapted to slacken the thread or yarn between each two of the needles of the groups as they are elevated for holding the same against accidental displacement until the thread or yarn is positively drawn off of said sinker-bars by the descent of the groups of said needles, substantially as and for the purposes set forth. 13th. A knitting machine provided with two groups of needles, whereof one group is provided with spring arms with bent ends forming bits and whereof the other group is provided with base bits movable within a grooved support, segmental needle-holders reciprocated in the direction of the lengths of the needles, a beard closing ring having noses or projections, movable web-holders, a spring-controlled ring provided with recesses and strippers or carriages, substantially as and for the purposes set forth. 14th. A knitting machine provided with needles movable in respect to their channelled cylinder or support, segmental needle-holders, movable web-holders and means for operating the same in certain directions with respect to said cylinder or support for respectively retaining and releasing the meshes or stitches of the article being fabricated, substantially as and for the purposes set forth. 15th. A knitting machine provided with two groups of needles, whereof one group is provided with spring arms having bent ends forming bits and whereof the other has base bits, complementary reciprocating segmental needle-holders, strippers, movable web-holders and means for operating said web-holders in certain directions with respect to the needle-cylinder for retaining and releasing the meshes or stitches of the article being fabricated, substantially as and for the purposes set forth. 16th. A knitting machine provided with two groups of needles, complementary segmental needle-holders for said groups, eccentrics, a driving-shaft, movable strippers or carriages, movable web-holders, a divided ring having recesses, a flanged oscillating-toothed beard closing ring provided with noses or projections, rack-bars having means adapted to travel in grooved cams of a sectional drum to permit of a step by step motion being imparted thereto, and

means for actuating said drum, substantially as and for the purposes set forth. 17th. A knitting machine provided with needles arranged in separate groups, whereof one group is provided with spring arms having rear bits, and whereof the other is provided with base bits, complementary segmental needle holders, movable strippers or carriages, a sectional drum with grooved cams, rack-bars adapted to actuate said strippers or carriages, and means for permitting of a step by step movement to said drum and for shifting the same a predetermined distance, substantially as and for the purposes set forth. 18th. In a knitting machine, a divided spring actuated ring provided with recesses or grooves, an oscillating beard closing ring provided with cams or noses reversely arranged with respect to each other and web-holders movable in a vertical direction by means of said divided ring, substantially as and for the purposes set forth. 19th. A knitting machine provided with a two-part drum loosely mounted on a shaft and having a two-part jacket provided with cams, ratchets connected with one end of said drum, reciprocating pawls and devices in virtue of which said pawls are caused to impart step by step and predetermined movements to said drum, substantially as and for the purposes set forth. 20th. A knitting machine provided with a sectional drum loosely mounted on a shaft having radial counter-weighted spokes or arms and grooved cams, spring pressed pawls adapted to alternately engage a ratchet of said drum, and means for actuating said pawls, substantially as and for the purposes set forth. 21st. A knitting machine provided with two groups of needles, needles-holders, movable strippers or carriages, a two-part weighted drum having triangular grooves, spring pressed and fixed pawls connected with ratchets of said drum, rack-bars provided with rolls engaging said cams, devices in virtue of which one of said spring pressed pawls is adapted to impart a movement to said drum at the beginning of the heel and the other a movement thereof at the beginning of the toe, the fixed pawls being adapted to impart corresponding movements to said drum at the completion of the heel and toe portion of the stocking, substantially as and for the purposes set forth. 22nd. A knitting machine provided with two groups of needles, one group being fixed as to its segmental holder or carrier, a drum having an annular grooved cam, a roll connected with a fulcrumed lever, a horizontal shifting rod in pivotal connection with said lever, a clutch member connected with the main driving shaft of the machine, an eccentric loosely mounted thereon, and an arm for preventing rotation through friction of the eccentric, the same being operatively connected to actuate said group of needles fixed as to its holder, substantially as and for the purposes set forth. 23rd. A knitting machine provided with fashioning needles, a segmental needle-holder, strippers or carriages adapted to be oscillated by rack bars, a sectional counter-weighted drum provided with grooved cams disposed at substantially an acute angle to each other and adapted to alternately operate said strippers or carriages step by step a predetermined distance and to permit said strippers or carriages to throw certain of the fashioning needle successively and simultaneously into and out of action, substantially as and for the purposes set forth. 24th. A knitting machine provided with a drum having a jacket with grooved cams, a roller adapted to engage said cams and connected with a vertical rod fulcrumed to the machine, a horizontal shifting rod in pivotal connection with said vertical rod and clutch members mounted on the main driving shaft, provisions for rotating one and reciprocating the other of said members, one of said clutch members being adapted to engage a gear on said shaft meshing with a mitre gear wheel of a vertical shaft, a sinker-gear and a gear meshing therewith mounted on the upper end of said vertical shaft, substantially as and for the purposes set forth. 25th. A knitting machine provided with a cylinder, two groups of needles, holders, a two-part drum having an annular grooved cam, a roll adapted to engage therewith, a clutch shifting mechanism actuated by said roll, gearing adapted to operate a sinker-bed, strippers or carriages, rack-bars and cams adapted to actuate said strippers or carriages, substantially as and for the purposes set forth. 26th. A knitting machine provided with a drum having an annular grooved cam, a vertical lever provided with a roller, the latter engaging said cam and said lever connected with a horizontal clutch shifting rod, a main driving shaft, clutch members and provisions for causing the rotation of one and reciprocation of the other, a gear constructed so as to be connected with each clutch member, a sinker-cam, sinker-gearing actuated by said gear to communicate rotary and to and fro movements to said sinker-cam, and means for actuating said drum, substantially as and for the purposes set forth. 27th. A knitting machine provided with a sinker-bed having sinkers, a sinker gear adapted to actuate said sinkers, a vertical shaft provided at one end with a mitre gear and at the other with a gear engaging said sinker gear, a bevel-gear mounted on the main driving shaft and engaging the mitre gear of said vertical shaft, a clutch movable on a sleeve mounted on the main driving shaft, said sleeve provided with a pinion, which latter meshes with a sector gear connected by means of a rod and a crank with a shaft carrying a gear, which latter meshes with a gear on the main driving shaft, whereby a rotary movement of said driving shaft is transformed into to and fro movement of the sinker-gear, substantially as and for the purposes set forth. 28th. A knitting machine provided with two groups of needles, whereof one group is provided with springs having bits and whereof the other group has base bits, reciprocating segmental needle holders provided with grooved or recessed seats for the bits of said needles, one of said

holders having a tapering or slanting body, oscillating strippers or carriages with toothed peripheries, grooved rack-bars engaging therewith, feathered brackets engaging the grooves thereof, a sectional drum provided with grooved cams, means connected with said rack-bars and engaging the grooved cams of said drum for actuating said strippers or carriages, and means to impart a step by step movement to said drum, substantially as and for the purposes set forth. 29th. A knitting machine provided with a fixed needle cylinder with radial notches, two groups of needles, web-holders with shanks and curved fingers, a flanged toothed beard closing ring with noses, cams or projections, a divided ring with complementary recesses or grooves, springs in engagement with said divided ring, and means for oscillating said beard closing ring and elevating and depressing said divided ring, substantially as and for the purposes set forth. 30th. A knitting machine provided with needles movable in their supports, segmental needle holders therefor, eccentrics for controlling the alternate movements of said holders, strippers or carriages, means for oscillating the same comprising a sectional drum provided with an annular grooved cam and a clutch shifting mechanism provided with means adapted to engage said cam and to prevent rotation through friction of one of the needle operating eccentrics, substantially as and for the purposes set forth. 31st. A knitting machine provided with needles movable in their grooved support or cylinder, reciprocating segmental needle holders, oscillating strippers or carriages, an oscillating beard closing ring, rack-bars engaging said strippers or carriages, a sectional counter-weighted drum provided with grooved cams, means connected with said rack-bars and engaging said grooved cams, and means for actuating said drum and rack-bars for throwing certain of said needles into and out of action, substantially as and for the purposes set forth. 32nd. A knitting machine provided with two groups of needles, whereof the needles of one group are provided with spring catches having bits and whereof the needles of the other group have base-bits, a grooved needle cylinder, complementary reciprocating segmental needle holders, strippers or carriages, rack-bars, a counter-weighted two-part drum and means for affording a step-by-step movement thereto, substantially as and for the purposes set forth. 33rd. A knitting machine provided with two groups of needles, whereof the needles of one group are provided with springs having bits and whereof the needles of the other group have base-bits, a grooved needle cylinder, segmental needle holders or carriers, strippers or carriages having toothed peripheries engaging rack-bars provided with rolling means which engage a grooved cam of jackets of a counter-weighted two-part drum, and means for imparting a step-by-step movement to said drum, substantially as and for the purposes set forth. 34th. A knitting machine provided with two groups of needles, whereof the needles of the one have springs with bits and whereof the needles of the other have base-bits, a fixed grooved cylinder or support therefor, complementary needle holders having recessed seats, one of said holders provided with a slanting inner surface, and both of said holders provided with a removable top-plate, substantially as and for the purposes set forth. 35th. A knitting machine provided with a grooved needle cylinder for the reception of needles, a needle holder reciprocated by an eccentric mounted on the main driving shaft, and a clutch shifting rod provided with a projecting arm adapted to engage a pin connected with said eccentric, substantially as and for the purposes set forth. 36th. A knitting machine provided with a shaft, a two-part weighted drum, spring-pressed pawls connected with the ratchets of said two-part drum and pawls connected with a cross-arm which is actuated by a crank mounted on a shaft driven by gears from the main driving shaft, a sprocket wheel, a chain with a step or projection, and means for operating said wheel, substantially as and for the purposes set forth. 37th. A knitting machine provided with two groups of needles, whereof the needles of one group are provided with curved springs and bits and whereof the needles of the other group are provided with base-bits, a fixed grooved needle cylinder, reciprocating segmental needle holders, oscillating strippers or carriages, longitudinal rack-bars provided with rollers, a counter-weighted two-part drum with angular cams, a sprocket-wheel and pattern-chain with steps or projections, a spring-pressed pawl connected with each part of said drum and mechanism actuated from the main driving shaft and adapted to be brought into engagement with said pawls so as to start the drum and to impart a step-by-step movement thereto so as to permit of certain of said needles being thrown into and out of action, substantially as and for the purposes set forth. 38th. A knitting machine provided with longitudinal rack-bars with grooved channels, feathered brackets engaging therewith, rollers journaled to said rack-bars, a grooved two-part drum, and means for imparting a step-by-step movement thereto and to said rack-bars, substantially as and for the purposes set forth. 39th. A knitting machine provided with needles having base-bits afforded a range of movement vertically in a grooved support, a complementary needle holder with an inner recessed or grooved seat and with a detachable plate or rim, a driving shaft, an eccentric mounted thereon and provided with a pin and a clutch-shifting mechanism provided with an arm adapted to engage the pin of said eccentric, substantially as and for the purposes set forth. 40th. A knitting machine provided with a bed-plate with a dish-shaped aperture, a grooved needle cylinder mounted therein, needles with curved springs and bits, a complementary needle holder with a grooved or recessed seat and with a slanting inner surface and oscillating strippers or carriages adapted to disengage said needles to permit said

holders to rise free thereof, substantially as and for the purposes set forth. 41st. A knitting machine provided with a fixed needle cylinder having radial notches or slots in the top thereof and carrying a detachable ring forming a support for the sinker-bed, bars and gear, an oscillating beard closing ring having noses adapted to engage recesses of a spring-controlled divided ring and to actuate the same, and web-holders engaging said ring, substantially as and for the purposes set forth. 42nd. A knitting machine provided with two groups of needles movable in their support, needle-holders controlled from a main driving shaft by means of eccentrics, oscillating strippers or carriages, rack-bars, a sectional drum and means for imparting a step-by-step movement to said drum and strippers or carriages, substantially as and for the purposes set forth. 43rd. A knitting machine provided with two groups of needles, whereof the needles of one group have spring arms with bent ends forming bits and whereof the needles of the other group have lateral base-bits, means for reciprocating the same in the direction of the lengths thereof, a grooved needle cylinder, a two-part counter-weighted drum having grooved cams, rack-bars, strippers, spring-pressed pawls, one of which is arranged at the end and the other near the end of the ratchets of said drum and fixed pawls arranged opposite said spring-pressed pawls upon said ratchets adapted to shift said drum different distances, spring-controlled pawl-levers, and a pattern-chain provided with pins or projections, substantially as and for the purposes set forth. 44th. A knitting machine provided with two groups of needles, means for reciprocating the same in the direction of the lengths thereof, strippers or carriages, a two-part counter-weighted drum having grooved cams, rack-bars provided with rollers which engage certain of said cams, a sinker-bed and sinkers, a sinker-gear, a gear meshing therewith carried by a vertical shaft journaled to the machine, a mitre-gear at the lower end of said shaft meshing with a similar gear on the main driving shaft provided with sockets having pins therein adapted to engage complementary sockets of adjacent clutch-members on said shaft, a pinion connected with one of said clutch-members, a sector-gear meshing with said pinion and actuated from the crank-arm of a cross-shaft provided with a gear meshing with a complementary gear of said driving shaft, and means for actuating said drum, substantially as and for the purposes set forth. 45th. A knitting machine provided with two groups of needles, segmental holders for reciprocating the same, eccentrics, a driving shaft, oscillating strippers or carriages, rack-bars, a two-part drum with grooved cams, rollers adapted to engage and travel in said grooved cams, spring-pressed and fixed pawls connected with said drum, pawl-levers pivotally connected with a cross-arm, and means for actuating said cross-arm, substantially as and for the purposes set forth. 46th. A knitting machine provided with needles movable in a channelled and notched cylinder, reciprocating segmental needle holders, oscillating strippers or carriages therefor, rack-bars, a spring-controlled divided ring provided with recesses, a beard closing ring provided with noses or projections, movable web-holders engaging notches of said cylinder, a sectional drum having grooved cams, devices adapted to engage and travel in said cams and means for imparting a step-by-step movement to said drum and actuating said devices and strippers or carriages, substantially as and for the purposes set forth. 47th. A knitting machine provided with a grooved needle cylinder having two groups of needles afforded a range of vertical movement therein, one group of said needles being engaged by a segmental needle holder and the other group detachably connected with a segmental needle holder, said holders reversely actuated in the direction of the lengths of the respective needle of the groups, oscillating strippers, a two-part drum provided with grooved cams, and means connected with the main driving shaft for actuating and controlling said drum, substantially as and for the purposes set forth. 48th. A knitting machine provided with needles, a fixed needle-cylinder, segmental needle holders alternately reciprocated from the main driving shaft, oscillating strippers or carriages for throwing said needles into and out of action, an oscillating beard closing ring provided with noses or projections, a divided spring-controlled ring provided with recesses, movable web-holders and means for actuating said beard closing ring so as to engage and disengage meshes of a web to and from said holders, substantially as and for the purposes set forth. 49th. A knitting machine provided with a fixed needle cylinder, fashioning needles provided with spring arms with bent ends forming bits, a segmental needle holder therefor, movable web-holders, strippers or carriages, an oscillating beard closing ring with noses or projections, a spring-controlled divided ring with recesses, a main driving shaft provided with an eccentric, a rod and a strap provided with a pivotal connection for actuating said holder so as to impart a reciprocating motion thereto, a two-part drum, and means for actuating the same, substantially as and for the purposes set forth. 50th. In a knitting machine, a fixed needle cylinder provided with two groups of needles, whereof one group is provided with spring arms having rear bits engaging a slanting recessed segmental needle holder, and whereof the other group of needles is provided with lateral base bits engaging a recessed segmental needle holder and vertical connecting rods attached to posts of said holders and to straps of eccentrics mounted on a main driving shaft and adapted to impart a reciprocating motion to said holders, substantially as and for the purposes set forth. 51st. A knitting machine provided with a fixed needle cylinder, needles, segmental needle-holders, strippers or carriages, means for actuating the same through the intervention of a two-part drum provided with grooved

cams having means connected therewith for imparting a step-by-step motion thereto and to said strippers or carriages, a sinker-gear, sinkers, sinker-bed, means to rotate said sinker-gear, and means to change the rotary movement into a reciprocating movement, substantially as and for the purposes set forth. 52nd. In a knitting machine, a main driving shaft, having two clutch members with provisions for rotating one and reciprocating the other and both of said members adapted to engage and be disengaged from a mitre-gear, the latter meshing with a complementary gear connected with a vertical rod, said rod carrying a gear which meshes with the gear of a sinker-bed, sinker-bars, said sinker-gear having a cam to actuate said bars, a cylinder provided with needles, segmental needle holders, strippers or carriages adapted to be operated so as to throw certain of said needles out of action, a beard closing ring, and means for actuating the same, substantially as and for the purposes set forth. 53rd. A knitting machine provided with needles, a notched and grooved needle-cylinder, means for reciprocating said needles in the direction of the lengths thereof, a beard closing ring provided with noses, lugs or projections reversely disposed with respect to each other, a divided spring-controlled ring having complementary recesses or grooves, web-holders connected with said needle-cylinder and divided spring-controlled ring and the shanks thereof detachably engaging the notches of said cylinder, and means for oscillating said beard closing ring and actuating said web-holders, substantially as and for the purposes set forth. 54th. A knitting machine provided with a drum having cams, means adapted to engage therewith and connected with rack-bars, a lever provided with a roller at one end and at the other end connected with a rod which is provided with means adapted to engage clutch members, whereof one is mounted on the main driving shaft and whereof the other is mounted on a sleeve loose on said shaft, a pinion secured to said sleeve, a sector gear meshing therewith and carried by the crank-arm of a cross-shaft provided with a gear, the latter meshing with a gear wheel secured to said main driving shaft, a mitre-gear mounted on said main driving shaft and meshing with a complementary gear of a vertical shaft carrying at the upper end thereof a gear meshing with a sinker-gear, a sinker-bed and sinkers, eccentrics mounted on said driving shaft and their accessories connected with needle-holders, needles, a needle-cylinder, strippers or carriages controlled by said rack-bars, and means for actuating said drum, substantially as and for the purposes set forth. 55th. A knitting machine provided with a fixed needle cylinder having a ribbed or channelled surface engaging a dish-shaped recess in the bed-plate of the machine, two groups of needles, whereof one group is provided with spring catches, and whereof the other group is provided with bits, segmental needle holders, a main driving shaft, means connected therewith for reciprocating said holders, and strippers or carriages adapted to permit certain of said needles to be thrown into and out of action, substantially as and for the purposes set forth. 56th. A knitting machine provided with two groups of needles, whereof one group is provided with spring arms with bits which are adapted to permit said bits to engage and disengage a complementary needle holder, strippers or carriages adapted to permit of certain of said needles being thrown out of action, and whereof the other group of needles is provided with lateral bits actuated by a holder having actuating means, said means having provisions for being thrown out of and into action, a ring connected with said cylinder for supporting the sinker-bed carrying sinker bars and gear, and a gear having provisions for being connected and disconnected to and from a clutch device upon the main driving shaft of the machine and connected to said sinker-gear, substantially as and for the purposes set forth. 57th. A knitting machine provided with needles movably connected with a fixed needle cylinder, segmental holders for said needles, means comprising clutch members for reciprocating said holders and needles alternately in up and down directions, a two-part drum provided with angular and annular grooved cams, rollers adapted to engage said angular cams and connected with rack-bars, strippers or carriages, a roller provided at one end of a pivotal lever and engaging the cams of said annular groove, a horizontal rod connected with the other end of said lever and actuating said clutch members, a main driving shaft, and means connected with said shaft for imparting motion to said drum, substantially as and for the purposes set forth. 58th. A knitting machine provided with a two-part drum having a ratcheted end, a shaft carrying a sprocket-wheel, a ratchet-wheel loose on said shaft, means for actuating said ratchet-wheel, lever-pawls adapted to engage the ratcheted end of said drum, fixed and movable pawls connected with said drum, a chain mounted on said sprocket-wheel and provided with lugs for shifting said movable pawls, substantially as and for the purposes set forth. 59th. A knitting machine provided with two groups of needles, whereof one group is fixed to a segmental holder, and whereof the other group is detachably connected therewith, a fixed needle-cylinder, strippers or carriages, a two-part drum provided with angular grooved cams, spring-pressed pawls connected with said drum, a pawl-lever adapted to actuate said pawls, a pattern-chain, rack-bars and means for imparting motion to the said pawl-lever, substantially as and for the purposes set forth. 60th. A knitting machine provided with a needle cylinder, two groups of needles, whereof one group is provided with spring arms with bent ends forming bits engaging a segmental holder having a recessed seat and a slanting interior surface, and whereof the other group is provided with bits engaging a segmental holder, said needles respectively reciprocated in up and down directions by

means of eccentrics mounted on the main driving shaft and one of said eccentrics clutched thereto, and means for engaging and disengaging said eccentric, to and from said shaft, substantially as and for the purposes set forth. 61st. A knitting machine provided with a fixed needle cylinder, two groups of needles, whereof one group has spring arms with bent ends forming bits, and whereof the other group is provided with bits, said groups of needles reciprocated alternately in the direction of the lengths thereof, segmental needle-holders controlled from the main driving shaft, strippers or carriages oscillated at right angles to the direction of movement of said needles for throwing one group out of action, an oscillated beard-closing ring, a sinker-bed carrying a sinker-gear and sinker-bars, and means for rotating the same and changing the direction of movement thereof, substantially as and for the purposes set forth. 62nd. A knitting machine provided with a main driving shaft, a pivotal forked lever actuated by said shaft, a beard-closing ring provided with noses or projections, a horizontal arm connected to the beard closing-ring and engaged by said lever, a sinker-bed, sinkers and sinker-gear, gearing for actuating said sinker-gear comprising clutch mechanism connected with said driving shaft, a divided ring provided with recesses, a needle cylinder and web-holders having shanks engaging notches of said cylinder, substantially as and for the purposes set forth. 63rd. A knitting machine provided with a fixed needle cylinder, a spring-controlled divided ring provided with recesses reversely disposed with respect to each other, said ring afforded a slight range of vertical movement, an oscillating beard closing-ring provided with lugs or projections engaging said recesses and controlled by means of a vibrating arm through the oscillations of a pivotal lever actuated from the main driving shaft, web-holders normally engaging said cylinder and said spring-controlled divided ring, substantially as and for the purposes set forth. 64th. A knitting machine provided with a fixed grooved needle cylinder, two groups of needles engaging the grooves thereof, means for reciprocating said needles alternately in vertical directions, oscillating strippers or carriages for releasing certain of said needles, a divided spring-controlled ring provided with recesses or grooves, web-holders, an oscillating beard-closing ring provided with noses, cams or projections, and means for oscillating said beard closing-ring and throwing said web-holders into and out of action, substantially as and for the purposes set forth. 65th. A knitting machine provided with a main driving shaft, a gear mounted thereon and provided with internal pockets, pins in said pockets and adapted to be brought into engagement with clutches of said shaft, a complementary gear mounted on a vertical rod and meshing with said gear, said rod carrying a gear, and a sinker-gear meshing therewith, substantially as and for the purposes set forth. 66th. In a knitting machine, a main driving shaft, a clutch shifting mechanism, an arm projecting from the clutch shifting rod of said mechanism, and having a recessed extremity adapted to engage a pin and an eccentric mounted on said shaft, substantially as and for the purposes set forth. 67th. A knitting machine provided with a fixed needle cylinder, a base-plate having a tapering or dish-shaped opening therein, two groups of needles, whereof one is provided with lower flaring springs with angular bits, and whereof the other is provided with angular bits engaging segmental needle holders, a main driving shaft, eccentrics mounted thereon and provided with straps and connecting rods in pivotal connection with posts of said needle holders, oscillating strippers, rack-bars, a drum, and means for imparting step-by-step motion thereto, substantially as and for the purposes set forth. 68th. A knitting machine provided with oscillating strippers or carriages, pins engaging with said strippers or carriages and with the bed-plate of the machine to prevent displacement thereof, rack-bars provided with grooved ways, feathered brackets engaging said ways, rollers connected with said rack-bars, a two-part drum provided with cams, and means for imparting motion to said drum, substantially as and for the purposes set forth. 69th. A knitting machine provided with a fixed needle cylinder having top notches and recesses in the body thereof, web-holders provided with curved fingers and with lateral shanks and end projections adapted to engage said recesses or grooves, a ring provided with reversely disposed recesses or grooves, means for raising said ring, a beard closing-ring provided with an inner flange having teeth formed in the surface thereof and cams, lugs or projections depending therefrom, and means for imparting an oscillating movement to said beard closing-ring, substantially as and for the purposes set forth. 70th. A knitting machine provided with a fixed needle cylinder, two groups of needles, whereof one group has spring arms with bent ends forming bits, which arms are adapted to permit said bits to engage and to be disengaged from their segmental holder, and whereof the other group has base-bits adapted to engage a segmental holder, a flanged beard closing-ring having teeth arranged around the inner edge and one tooth thereof being larger than the remaining teeth of said ring, a complementary recess corresponding to the larger tooth of said ring, and means substantially as described for oscillating said ring and controlling said holders, substantially as and for the purposes set forth. 71st. A knitting machine provided with two groups of needles, whereof one is provided with spring catches, needle holders therefor, oscillating strippers or carriages, a two-part counter-weighted drum provided with angular grooved cams and with a ratcheted end and spring pressed pawls, a sprocket-wheel carrying a sprocket-chain, a ratchet-wheel, and means adapted to be brought into engagement with the ratcheted end of said drum for imparting step-by-step

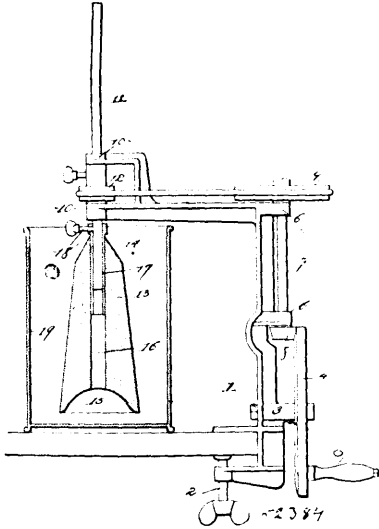
motion to said drum, substantially as and for the purposes set forth. 72nd. A knitting machine provided with two groups of needles, whereof one group is provided with spring arms with bent ends forming bits, both groups engaging segmental needle holders alternately reciprocated in the direction of the lengths of the needles from the main driving shaft by means of eccentrics, a fixed grooved needle cylinder, oscillating strippers or carriages connected with rack-bars actuated by rollers adapted to travel in cams, of a two-part weighted drum, a sinker-bed supported from said cylinder and provided with sinker-bars, sinker-gear, and means for actuating said sinker-gear, substantially as and for the purposes set forth. 73rd. A knitting machine provided with a drum having spring pressed pawls limited as to their range of movement by means of pins, a sprocket-wheel mounted on the drum shaft and carrying a sprocket-chain with stops or projections, lever-pawls adapted to be brought into engagement with the ratcheted end of said drum and with spring pressed pawls, substantially as and for the purposes set forth. 74th. A knitting machine provided with a divided ring having pins projecting therefrom, a sinker-bed with a depending extension provided with recesses or slots for the reception of the pins of said ring, and means for elevating and depressing said ring, substantially as and for the purposes set forth. 75th. A knitting machine provided with needles, a fixed grooved needle cylinder, reciprocating segmental needle holders or carriers, a spring controlled divided ring with projecting pins and recesses or grooves, a sinker-bed with a projecting slotted frame adapted for the reception of the pins of said ring, a sinker-gear and bars, a beard closing-ring provided with noses, lugs or projections, movable web-holders actuated by said spring controlled ring, a cam mounted on the main driving shaft and connected with a clutch, a lever limited as to its range of movement by means of pins and causing the movement of said beard closing-ring and actuated by said cam, substantially as and for the purposes set forth. 76th. In a knitting machine, a divided drum provided with a jacket with grooved cams for the reception of travellers, said drum provided with spokes and weighted arms projecting from the divided hubs thereof, substantially as and for the purposes set forth. 77th. In a knitting machine, a divided drum provided with a jacket with grooves or recesses formed therein, said drum having a divided hub with spokes and weighted arms and a distance-piece between the members of said hub, substantially as and for the purposes set forth. 78th. A knitting machine provided with a shaft having a threaded end, a divided drum with a two-part jacket having grooves or recesses formed therein, a divided hub integrally connected with said drum and provided with radial arms having weights connected therewith, a distance-piece between said divided hub, a sprocket wheel with a step-like hub having a ratchet wheel secured thereto, washers and a jam-nut applied to threaded portions of said shaft, substantially as set forth. 79th. A knitting machine provided with a counter-weighted two-part drum mounted on a shaft having divided hubs with a distance-piece and provided with a grooved jacket, strippers or carriages, means adapted to engage and travel in the grooves of said jacket carried by rack-bars for actuating said strippers or carriages, and means for imparting step-by-step movement to said drum, substantially as and for the purposes set forth. 80th. A knitting machine provided with fashioning needles having spring-arms with bits, a segmental reciprocating needle-holder or carrier, actuated by an eccentric provided with a strap and connecting rod, a main driving-shaft, movable strippers, rack-bars with travellers, a counter-weighted drum with a flanged, ratcheted end, a jacket having grooves formed therein, lever-pawls, fixed and spring-pressed pawls, connected with the ratcheted end of said drum, and a pattern-chain having lugs adapted to engage said spring-pressed pawls, substantially as and for the purposes set forth. 81st. A knitting machine provided with a divided drum having a flanged ratcheted end, slotted pawls pivoted to said drum, springs engaging said pawls, a pattern-chain with lugs, spring-controlled lever-pawls connected with a pivotal cross-arm, and means for actuating said cross-arm, substantially as and for the purposes set forth. 82nd. A knitting machine provided with a drum having grooved cams and a flanged end with teeth, spring-controlled lever-pawls connected with a pivotal cross-arm, one of said lever-pawls provided with a recessed surface, a pin located in the path thereof, spring-pressed pawls pivotally connected with said drum and limited as to their range of movement by means of pins, a pattern-chain provided with lugs for actuating said pawls, and means for actuating said cross-arm, substantially as and for the purposes set forth. 83rd. A knitting machine provided with a drum having a ratchet, slotted spring-pressed pawls connected with said drum, pins engaging the slotted portions of said pawls to limit the range of movement thereof, a main driving shaft, lever-pawls operated from a crank-shaft actuated by said main driving-shaft, a sprocket-wheel and a chain provided with steps or lugs, substantially as and for the purposes set forth.

No. 52,384. Churn. (Baratte.)

The One Minute Churn Company, St. Louis, Missouri, assignee of William Sanders, Calvert, Texas, both in the U. S. A., 23rd May, 1896; 6 years. (Filed 29th February, 1896.)

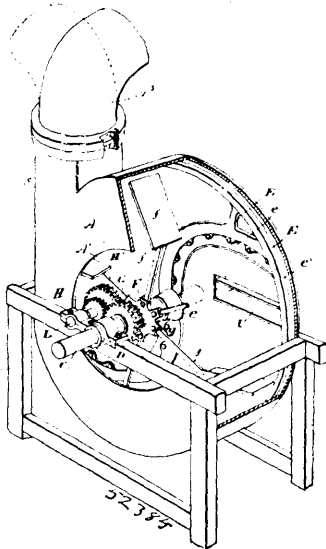
Claim.—1st. In a churn, the combination of a conical body, and means for rotating the same. 2nd. In a churn, the combination of a conical body having a semi-circular recess in its under side, said body being provided with a diametrically arranged vertical bore or

passage, and suitable means for operating said body. 3rd. In a churn, the combination of a suitable frame, a shaft arranged for



rotation in vertical bearings carried by said frame, a conical body carried by said shaft, and means carried by the frame for operating said shaft. 4th. In a churn, a suitable frame, a shaft arranged for rotation in vertically aligned bearings in said frame, means carried by the frame for rotating said shaft, a sleeve vertically adjustable upon the lower end of said shaft, and a conical body having a recess in its under side carried by said sleeve.

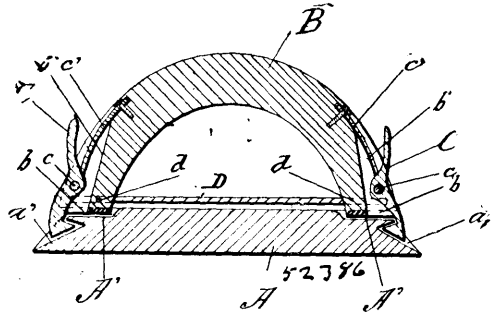
No. 52,385. Ensilage Cutter. (Coupe-paille.)



The Peter Hamilton Manufacturing Company, assignee of Andrew Johnston, both of Peterboro', Ontario, Canada, 23rd May, 1896; 6 years. (Filed 6th May, 1896.)

Claim.—1st. In an ensilage cutter, the combination with the knife wheel and knives thereof, and the main shaft to which it is secured, of an independent fan journaled independently of the knife wheel and a casing for both knife wheel and fan, and a suitable discharge tube, as and for the purpose specified. 2nd. In an ensilage cutter, the combination with the knife wheel and knives thereof, and the main shaft to which it is secured, of a fan loosely journaled on the same shaft adjacent to the knife wheel and suitably driven, a casing to enclose the knife wheel and fan and a discharge pipe for the casing, as and for the purpose specified. 3rd. In an ensilage cutter, the combination with the knife wheel and knives thereof, and the main shaft to which it is secured, of a fan loosely journaled on the same shaft adjacent to the knife wheel and the gear pinion G secured to the shaft C, the gear pinion g secured to the hub of the fan, and the gear pinions H and H' secured on the counter shaft b, a casing to enclose the knife wheel and fan and the discharge pipe for the casing, as and for the purpose specified.

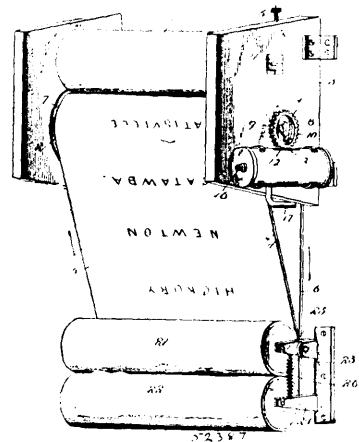
No. 52,386. Sad Iron. (Fer à repasser.)



Edmond Gagnon and Tréfilé Côté, both of Cap Chatte, Quebec, Canada, 22rd May, 1896; 6 years. (Filed 4th May, 1896.)

Claim.—1st. In a sad iron, the combination, with a base having recesses at its ends, of a detachable handle provided with plates of non-heat-conducting material at its ends, and spring-actuated catches pivoted in slots at the end portions of the said handle and engaging with the said recesses, substantially as set forth. 2nd. In a sad iron, the combination, with a base having recesses at its ends, of a detachable handle provided with plates of non-heat-conducting material at its ends, a horizontal guard plate secured to the lower parts of the handle, and spring-actuated catches pivoted in slots at the end portions of the said handle and engaging with the said recesses, substantially as set forth.

No. 52,387. Station Indicator. (Indicateur de station.)

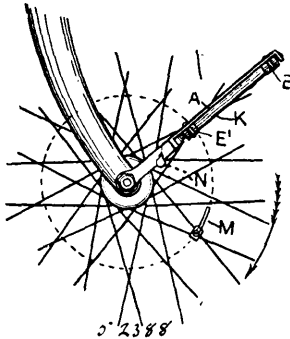


William B. Ramsay, Hickory, and James H. Beall, Senoir, both in North Carolina, U.S.A., 23rd May, 1896; 6 years. (Filed 4th May, 1896.)

Claim.—1st. In an indicator for bringing into proper position for observation the names of stations or other matter, the combination with a name-belt and operating rollers therefor, of a gear-wheel mounted upon the journal of one of the said operating rollers and having a ratchet and pawl connection therewith, a cylinder having a slot in its side for the reception of the toothed portion of the said gear wheel, and a spring-actuated piston mounted in the cylinder and provided with a rack which is in engagement with the aforesaid gear-wheel to operate the latter positively when the piston is moved against the tension of its spring, substantially as set forth. 2nd. In an indicator for bringing the names of stations or other matter into proper position for observation, the combination with the name-belt and operating rollers therefor, of a gear-wheel mounted upon a journal of one of the operating rollers and having a ratchet and pawl connection therewith, a cylinder having a slot in its side to receive the toothed portion of the gear-wheel, a spring-actuated piston operating in the cylinder and provided with a rack which is in mesh with the aforementioned gear-wheel, and a pipe communicating with the cylinder at a point between its ends for conveying the motive medium to the next indicator of a series, substantially as set forth for the purpose described. 3rd. In a station indicator, the combination with the name-displaying mechanism of actuating mechanism therefor, comprising a cylinder, a piston operating in the cylinder and having a longitudinal bore, a stem adapted to enter the bore of the piston, and a set-screw interposed between the piston and the said stem for regulating the movement of the piston, whereby the actuating mechanism can be adjusted to the distance apart of the names to be displayed, substantially as set forth for the purpose described. 4th. In a station indicator, the combination with a name-belt, and actuating mechanism therefor, of a roller having the name-belt wound thereon, and

from which the said name-belt is unwound by the actuating mechanism, and a second roller having the loose end of the belt connected therewith and in intimate contact with the first-mentioned roller and operated thereby to wind up the name-belt, substantially as set forth for the purpose described. 5th. In a station indicator, the combination with a name-belt, and actuating mechanism therefor, of a frame having fixed and pivoted arms, rollers journaled to the said arms, the one adapted to have the name-belt unwound therefrom and the other constructed to have the name-belt wound thereon and rotated by engagement with the roller from which the name-belt is unwound, and springs interposed between the two sets of arms for bringing the said rollers in intimate contact, substantially as set forth for the purpose described. 6th. In an indicator for displaying the names of stations and other desired matter, the combination of two rollers disposed in parallel relation and having their adjacent surfaces in contact, one roller being mounted in fixed bearings, the other in adjusted bearings, whereby the pressure between the engaging surfaces of the rollers can be regulated, and both rollers having their surfaces clothed, and one of the rollers having annular flanges at its ends, a name-belt passing between the rollers, an audible signal operated by means of one of the said rollers, a gear-wheel mounted upon a journal of the fixedly-mounted roller and having connection therewith by means of a ratchet and pawl, a cylinder slotted in its side to receive the toothed portion of the gear-wheel, a spring-actuated piston operating in the cylinder and having a rack to engage with the gear-wheel, and rollers disposed to maintain positive engagement, the one having the name-belt wound thereon and the other adapted to take up the name-belt as it is unwound from the supporting roller and driven by engagement therewith, substantially as set forth.

No. 52,388. Speed Indicator. (Indicateur de vitesse.)



Albert B. Holson and George T. Holson, both of Chicago, Illinois, U.S.A., 23rd May, 1896; 6 years. (Filed 29th February, 1896.)

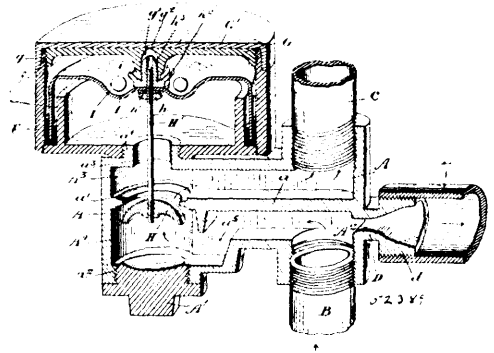
Claim.—1st. In a pace indicator for bicycles, the combination with a liquid rotatory indicator, of a friction actuating finger attached to the bicycle wheel and adapted to rotate the indicator tube by intermittent frictional contact, substantially as described. 2nd. The combination in a pace indicator for bicycles, having a rotatory indicating tube containing liquid and attached at less than a vertical angle to the bicycle, of a gravity indicator M pivotally mounted upon the tube frame and adapted to indicate the proper angle from the vertical to be subtended by the tube, in the manner stated. 3rd. The combination in a pace indicator of the class named, of a ball-bearing comprising a tube cap having chambers at the outer end separated by a ring, a series of balls arranged in a circle within the inner chamber, and in contact with the bottom and side walls thereof, and a stationary step having a laterally projecting flange adapted to almost fill the diameter of the outer chamber, and a central projection from the inner side of the said flange, which is disposed through a central hole in the said ring, and in contact with the circle of balls in the inner chamber, as stated. 4th. The combination in a pace indicator of the class named, having a combined ball-bearing chamber and cap for each end of the revoluble indicator tube, of a ball-bearing chamber having side walls which are inside the general walls of the cap, the bottom of the said chamber forming a partition in the cap which serves as a cover for the ends of the indicator tube, an annular groove formed around inside the cap, close to the said partition, which engages the marginal edge of a disc of packing which is in contact with the partition, and a projecting annular bead at the end of the indicator tube, which is also in contact with the packing, substantially as described.

No. 52,389. Gas Regulator. (Régulateur à gaz.)

Darius Wilson, Boston, Massachusetts, U.S.A., 23rd May, 1896; 6 years. (Filed 13th February, 1896.)

Claim.—1st. In a gas pressure regulator the combination with the casing, the inlet and outlet expansion chambers and their enlargements and the port connecting the same, of the valve cup connected by a flanged port to the upper expansion chamber and having an upwardly extending flange forming an annular receptacle for the mercury, the valve to close the port a^1 between the expansion

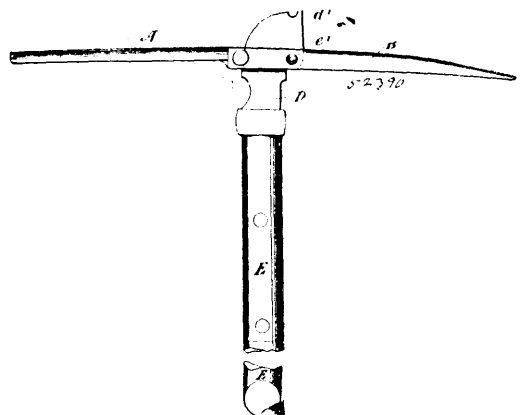
chambers, the float having its downwardly turned flange extending into the mercury, and the rod connecting the valve and float, as and



for the purpose specified. 2nd. In a gas pressure regulator the combination with the casing, the inlet and outlet expansion chambers and their enlargements and the port connecting the same, of the valve cup connected by a flanged port to the upper expansion chamber and having an upwardly extending flange forming an annular receptacle for the mercury, the valve to close the port a^1 between the expansion chambers, the float having its downwardly turned flange extending into the mercury, and an annular ring provided with one or more balls i , and the rod connecting the valve and float, as and for the purpose specified. 3rd. In a gas pressure regulator the combination with the casing, the inlet and outlet expansion chambers and their enlargements and the port connecting the same, of the valve cup connected by a flanged port to the upper expansion chamber and having an upwardly extending flange forming an annular receptacle for the mercury, the valve to close the port a^1 between the expansion chambers, the float having its downwardly turned flange extending into the mercury, the nut at the upper end of the rod provided with a reduced upper end and the guiding recesses into which such upper end fits and has movement, as and for the purpose specified. 4th. The combination with the expansion chambers, of a float cup located at the outside thereof and connected thereto by a flanged port, and having a screw top-plate and a cap for such cup, as and for the purpose specified. 5th. The combination with the expansion chambers and automatically operated valve, of a deflector in the inlet expansion chamber located in proximity to the valve, as and for the purpose specified. 6th. The combination with the expansion chambers, of the screw-plug located beneath the connecting ports, as and for the purpose specified. 7th. In a gas regulator such as described, the combination with an inlet expansion chamber, of an outlet port designed to receive the gas under full pressure, as and for the purpose specified. 8th. In a gas pressure regulator the combination with the expansion chambers, a float cup and float with a flange extending downwardly into the mercury and the valve connected thereto as specified, of an air-hole g^2 , as and for the purpose specified. 9th. In a gas pressure regulator a valve chamber provided with a liquid reservoir, a float therefor, a valve rod centrally attached thereto, and an annular depression in the float around the valve rod connection to receive and hold weights, as and for the purpose specified. 10th. In a gas regulator the combination of the expansion chamber, of a cylindrical float-cup connected thereto by a single opening or port and having the bottom of the cup screwed into the bottom of the cylindrical portion of the cup, as and for the purpose specified.

No. 52,390. Combined Pick and Shovel, etc.

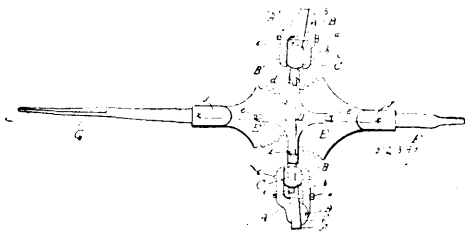
(Pic et pelle combinés, etc.)



William Henry Sharpington, 102 Camberwell New Road, London, England, 23rd May, 1896; 6 years. (Filed 30th December, 1895.)

Claim.—A combined spade or shovel and pick consisting of a spade A with pick B formed in one piece and having a slot C to allow of the same being pivoted to a shank D which is carried by a handle E, the shank D being so shaped as to allow of the spade and pick being turned at right angles to handle when desired, the spade and pick being held in the desired position by a spring bolt F substantially as described and set forth in the accompanying specification and drawings.

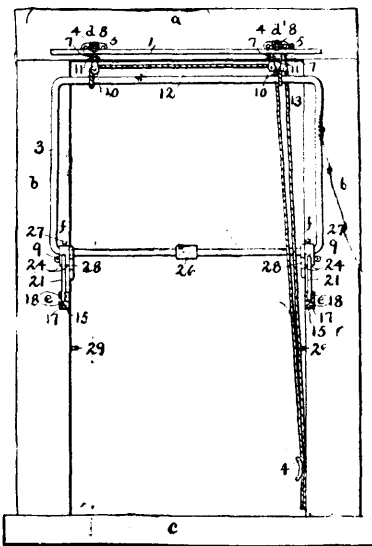
No. 52,391. Oar for Row Boats. (Rames.)



Joseph Berron, Jackmanton, Maine, U.S.A., 23rd May, 1896; 6 years. (Filed 12th February, 1896.)

Claim.—The combination, with brackets secured with the side of a boat, each said bracket having concave recesses and slots at its upper part, a pivoted joint at its side, and an adjusting bolt; of balls arranged in the said recesses and provided with pins engaging with the said slots, a frame provided with pivots journaled in the said balls, two intergearing toothed segments carried by the said frame, a handle secured to one segment, and an oar secured to the other segment, substantially as set forth.

No. 52,392. Awning. (Auvent.)



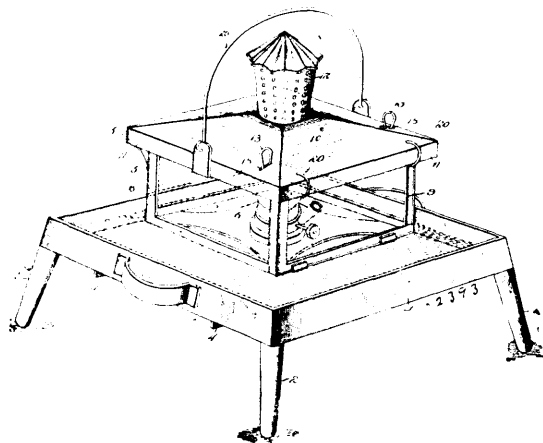
Frank A. Wagner, Cleveland, Ohio, U.S.A., 23rd May, 1896; 6 years. (Filed 28th March, 1896.)

Claim.—1st. In a combination with an awning having a rod secured to the upper part of the covering, carriers provided with posts and depending hooks, said rod resting on said hooks, and nuts threaded to said posts to retain said rod in place, substantially as and for the purpose set forth. 2nd. In combination with an awning having a rectangular frame attached to the lower part of the covering, laterally adjustable, perforated lugs secured on the back of said frame with set-screws, lugs provided with projecting sides and ears adapted to be fastened to the sides of a window casing, and arms pivotally connecting said frame lugs to said casing lugs, substantially as and for the purpose set forth. 3rd. In an awning a covering, a rod secured to the upper part of the same, carriers provided with posts and depending hooks, said rod resting on said hooks, and nuts threaded to said posts to retain said rod in place, in combination with a rectangular frame attached to the lower part of said covering, laterally adjustable, perforated lugs secured on the back of said frame by set-screws, lugs provided with projecting sides and ears adapted to be fastened to the sides of the window casings, and arms pivotally connecting said frame lugs to said casing lugs, substantially as and for the purpose set forth. 4th. The combination in an awning, of a covering, a rod secured to the upper part of the same, carriers provided with posts and depending hooks, said rod resting on said hooks, nuts threaded to said posts to retain said rod in place, pulleys suspended from said hooks by blocks, a rectangular frame secured to the lower part of

said covering, laterally adjustable, perforated lugs secured on the back of said frame by set-screws, lugs provided with projecting sides and ears adapted to be fastened to the sides of the window casing, arms pivotally connecting said frame lugs to said casing lugs, and ropes or cords fast to the front of said frame at one end and passing over said pulleys, substantially as and for the purpose set forth. 5th. In combination with an awning, one or more carriers having depending pulley hooks and threaded posts, and nuts, threaded to said posts capable of adjustably holding a rod in place on said hooks, substantially as and for the purpose set forth.

No. 52,393. Insect Destroyer.

(Appareil pour détruire les insectes.)



William Henry Freeman, Lexington, Nebraska, U.S.A., 23rd May 1896; 6 years. (Filed 4th May, 1896.)

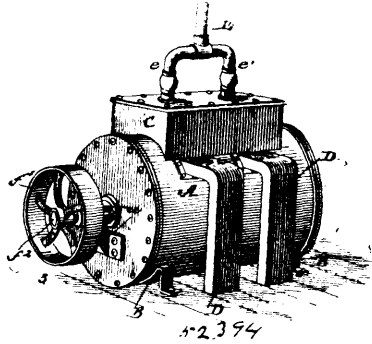
Claim.—1st. An insect-destroyer comprising a pan or trough provided with a socket, and a lantern-frame provided with a suitable lamp, and having a depending reservoir fitting in the socket of the pan or trough and detachably mounting the lantern-frame thereon, substantially as described. 2nd. An insect-destroyer comprising a pan or trough provided with legs and having a central opening and a collar or flange surrounding the same and forming a socket, and a lantern-frame provided with a depending reservoir fitting in the socket of the pan or trough, said lantern-frame being provided adjacent to its top with openings and having depending flanges located outside of the openings, substantially as described. 3rd. An insect-destroyer comprising a trough, a lantern-frame mounted thereon and comprising a bottom provided with openings, transparent sides provided at their upper edges with openings, one of the sides being hinged to the bottom, and a top hingedly connected with the sides of the lantern-frame and provided beyond the sides with depending flanges extending below the openings of the sides, a lamp, and means for securing the hinged side and the hinged top in their closed position, substantially as described. 4th. An insect-destroyer comprising a trough, a lantern-frame comprising sides having openings at their upper edges and provided with a supporting rod or wire, a hinged top, and catches mounted at opposite sides of the top and constructed of resilient material and consisting of loops extending through slots or openings of the hinged top, secured at one side to the same, and having at the opposite side outwardly extending portions engaging the supporting wires or rods of the sides, substantially as described. 5th. An insect-destroyer comprising a trough, a lantern-frame mounted on the trough and provided with a hinged side having a sieve at its top, and a catch comprising a pair of swinging hooks arranged to engage the top of the lantern-frame, and a connecting shank or pintle arranged in the sleeve of the hinged side, substantially as and for the purpose described.

52,394. Pump. (Pompe.)

William Perry Keeler, Spokane, Washington, U.S.A., 23rd May, 1896; 6 years. (Filed 4th May, 1896.)

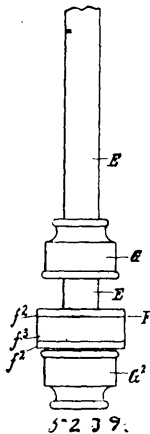
Claim.—1st. In a pump, the combination with a casing having an inlet and outlet, of eccentric and oppositely arranged pistons mounted to rotate in the casing, said pistons being integral and dividing the casing into compartments, and hinged valves resting upon the pistons, substantially as described. 2nd. In a pump, the combination with a casing having an inlet and outlet, of a cylinder mounted in the casing and formed with eccentric and oppositely arranged pistons, said cylinder fitting snugly in the casing and dividing it into compartments, and hinged valves resting upon the pistons, substantially as described. 3rd. In a pump, the combination with a casing having an inlet at one side near the top, and a chest divided into compartments, and communicating with the casing at the bottom, of a cylinder mounted in the casing and formed with two eccentric and oppositely arranged pistons, said cylinder fitting snugly in the casing and dividing it into two compartments one for each of the compartments of the

chest, and hinged valves resting upon the pistons, substantially as described. 4th. In a pump, the combination with a casing having



an inlet and discharge, of a solid revoluble cylinder fitting in the casing and provided with grooves forming two oppositely arranged eccentric pistons, said cylinder fitting snugly in the casing and dividing it into compartments and valves resting upon the pistons, substantially as described. 5th. In a pump, the combination with a casing, a chest above the casing and provided with two compartments, each communicating with the casing, a valved discharge-pipe connected with the said compartments, and inlet pipes opening into the upper part of the casing, of a solid rotatable cylinder in the casing and provided with grooves forming two oppositely arranged eccentric pistons, said cylinder fitting snugly in the casing and dividing it into two compartments, one for each of the compartments of the chest and valves hinged to the upper part of the casing and having their free ends resting upon the pistons, substantially as described. 6th. In a pump, the combination with a casing provided with inlet pipes leading into the upper part of the casing through the side thereof, a chest above the casing and provided with two compartments communicating with the casing, a valved discharge pipe connected with each compartment of the chest, of a solid cylinder mounted to revolve in the casing and provided with two annular grooves forming two oppositely arranged pistons, said cylinder fitting snugly in the casing and dividing it into two compartments, one for each compartment of the chest, and valves hinged to the upper part of the casing in front of and adjacent to the inlet pipes, and having their free ends resting upon the pistons, substantially as herein shown and described.

No. 52,395. Pump. (Pompe.)

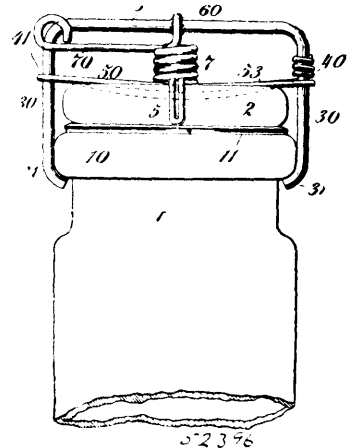


John C. Fountain and Thomas Ovens, both of Parkhill, Ontario, Canada, 26th May, 1896; 6 years. (Filed 6th December, 1895.)

Claim.—1st. In a pump, a tubular piston rod E, in which the openings e² and e³ are formed, substantially as and for the purpose set forth. 2nd. In a pump a tubular piston rod E, in which the openings e¹ and e³ are formed, substantially as and for the purpose set forth. 3rd. In a pump a tubular piston rod E, in which the openings e¹, e² and e³ are formed, substantially as and for the purpose set forth. 4th. In a pump a tubular piston rod E, in which the openings e¹ and e² are formed, the stops G¹ and G², and the piston F, in combination with the cylinder A and the valve C¹, substantially as and for the purpose set forth. 5th. In a pump a tubular piston rod E, in which the openings e² and e³ are formed, the stops G¹ and G², and the piston F, in combination with the cylinder A and the valve C², substantially as and for the purpose set forth. 6th. A tubular piston rod E, in which the openings e¹, e² and e³ are formed, the stops G¹ and G², and the piston F, in combination with the cylinder A and the valves C¹ and C², sub-

stantially as and for the purpose set forth. 7th. A tubular piston rod E, in which the openings e¹, e² and e³ are formed, the stops G¹ and G² and the piston F, in combination with the cylinder A and valves C¹ and C², the stuffing box H and discharge tube I, substantially as and for the purpose set forth. 8th. A tubular piston rod E, in which the openings e¹, e² and e³ are formed, the stops G¹ and G² and the piston F, in combination with the cylinder A, the valves C¹ and C², the stuffing box H, discharge tube I and guard K, substantially as and for the purpose set forth. 9th. A tubular piston rod E, in which the openings e¹, e² and e³ are formed, the stops G¹ and G² and the piston F, in combination with the cylinder A, valves C¹ and C², the tube B for guiding the valve C² vertically, and the valve chamber B, in which the openings C, C are formed, substantially as and for the purpose set forth. 10th. A tubular piston rod E, in which the openings e¹, e² and e³ are formed, the stops G¹ and G² and the piston F, in combination with the cylinder A, valves C¹ and C², the tube B for guiding the valve C² vertically, the valve chamber B in which the openings C, C are formed, the stuffing box H, and discharge tube I, substantially as and for the purpose set forth. 11th. A tubular piston rod E, in which the openings e¹, e² and e³ are formed, the stops G¹ and G² and the piston F, in combination with the cylinder A, the valves C¹ and C² and the branch O¹, substantially as and for the purpose set forth. 12th. A tubular piston rod E, in which the openings e¹, e² and e³ are formed, the stops G¹ and G² and the piston F, in combination with the cylinder A, the valves C¹ and C², the branch O, the stuffing box H and the discharge tube I, substantially as and for the purpose set forth. 13th. The combination of the cylinder A, piston F, piston rod E, tubular branch O², the valve chambers B¹, B³, and valves C¹, C⁴, and discharge tube I, substantially as and for the purpose set forth. 14th. The combination of the cylinder A, piston F, piston rod E, tubular branches O¹, O, the valve chambers B², B³, the valves C², C³, and discharge tube I, substantially as and for the purpose set forth. 15th. The combination of the cylinder A, piston F, piston rod E, tubular branches O, O¹ and O², the valve chambers B¹, B², B³ and B⁴, the valves C¹, C², C³, C⁴, the stuffing box H, and discharge tube I, substantially as and for the purpose set forth.

No. 52,396. Jar Fastener. (Attache de jarres.)

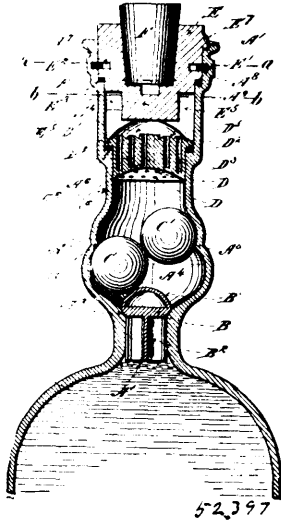


The Barstow Fruit Jar Company, Jersey City, New Jersey, assignee of Mark L. Deering, Brooklyn, New York, both in the U.S.A., 26th May, 1896; 6 years. (Filed 20th February, 1896.)

Claim.—1st. A jar fastener, comprising a yoke having the main section 3 and arms 30, with inwardly bent portions 31 at their lower ends, and a vertically movable cross-bar 4 spanning the yoke and secured by its ends to the arms thereof, substantially as described. 2nd. A jar fastener, comprising a yoke having the main section 3 and arms 30 with inwardly bent portions 31 at their lower ends, a vertically movable cross-bar 4 spanning the yoke and secured by its ends to the arms thereof, and a stop 5 projecting laterally from the cross-bar and yoke and adapted to make contact with the edge of the jar cover, substantially as described. 3rd. A jar fastener, comprising a yoke formed from wire, and having the main section 3 and arms 30 with inwardly bent portions 31 at their lower ends, and a vertically movable cross-bar 4 spanning the yoke and secured by eyes or coils at its ends to the arms of the yoke, substantially as described. 4th. A jar fastener, comprising a yoke formed from wire, and having the main section 3 and arms 30, with inwardly bent portions 31 at their lower ends, a vertically movable cross-bar 4 spanning the yoke and secured by eyes or coils at its ends to the arms of the yoke, and a stop 5 formed from the same piece of wire as the cross-bar, and projecting laterally from the cross-bar and yoke and adapted to make contact with the edge of the jar cover, substantially as described. 5th. A jar fastener, comprising a yoke having the main section 3 and arms 30, with inwardly bent portions 31 at their lower ends, a vertically movable cross-bar 4 spanning the yoke and secured by its ends to the arms thereof, and a device for

depressing the cross-bar composed of an inner coil 6 fixed to the yoke, and an outer coil 7 provided with a handle 70 and adapted to bear against the cross-bar, substantially as described.

No. 52,397. Device to prevent the Refilling of Bottles.
(Appareil pour empêcher le remplissage des bouteilles.)



Hugh Dixon, Sydney, assignee of James Daniel Midson, North Botany, and Frederick William Schroeder, Newton, all in New South Wales, 26th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. In stopping devices to prevent the refilling of bottles the combination and arrangement with a hollow valve such as B (or a hollow ball), in the base of the neck of a bottle, of two or more balls or globular weights (such as C and C'), the lower ball or balls resting upon the valve and the upper ball bearing angularly between the lower one and oppositely against the inner surface of a double globular or bulb-like enlargement (such as A') of said neck containing the balls so that the valves cannot be opened or raised in any manner by jiggling or otherwise when the bottle is in an upright position substantially as herein-described. 2nd. In stoppering devices to prevent the refilling of bottles, the combination and arrangement with a hollow valve such as B (or a hollow ball), in the base of the neck of a bottle, of two or more balls or globular weights (such as C and C'), the lower ball or balls resting upon the valve and the upper ball bearing angularly between the lower one and oppositely against the inner surface of a globular or bulb-like enlargement (such as A') of said neck containing the balls, and a plug or cork socket having passages (such as E) passing into its open interior adapted to receive a cork, and a locking device (such as E'), substantially as and for the purposes specified. 3rd. In stoppering devices to prevent the refilling of bottles, the herein-described crown piece or hood provided with ways or passages, so constructed as to allow the emission of the contents of the bottle, but prevent the admission of any hard foreign or injurious matter into the valve chamber, substantially as herein-described. 4th. In stoppering devices to prevent the refilling of bottles, the herein-described plug or cork socket having passages (such as E') passing into its open interior which is adapted to receive a cork and the whole locked or secured in position by a spring ring (such as E') engaging in corresponding grooves in the neck of the bottle and said plug or cork socket respectively, substantially as and for the purposes specified. 5th. In stoppering devices to prevent the refilling of bottles, a neck piece with valve chamber made independently of the bottle and secured to the upper part thereof, substantially as herein-described. 6th. In stoppering devices to prevent the refilling of bottles the herein-described combination of (1) hollow valve such as B or hollow ball having superimposed above it two or more balls or globular weights (such as CC'); (2) crown piece or hood (such as D), having therein passages or ways (such as D', D''); (3) a plug or cork socket (such as E), secured or locked in position by a spring ring (such as E'), engaging in corresponding grooves in the neck of the bottle and said plug or cork socket respectively, substantially as and for the purposes specified.

No. 52,398. Polishing Material and Process of Making Same. (Procédé pour la fabrication de matières à polir.)

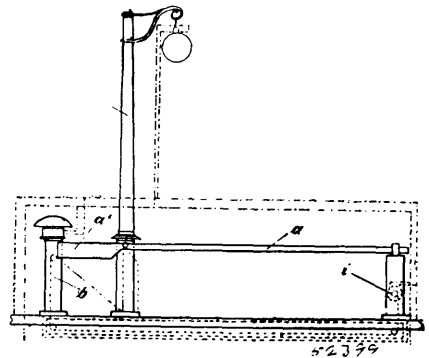
The Pittsburg Crushed Steel Company, assignee of Myer Milton Kann, both of Pittsburg, Pennsylvania, U.S.A., 26th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. An improvement in the manufacture of polishing material, which consists in mixing metallic iron or steel with sal-

ammoniac and water, and adding more water as the reactions proceed and until they cease, producing a fine powder, substantially as described. 2nd. An improvement in the manufacture of polishing material, which consists in mixing metallic iron or steel with sal-ammonia and water, stirring the mixture, and adding water until all reaction ceases, producing a fine powder, substantially as described. 3rd. An improvement in the manufacture of polishing material, which consists in mixing metallic iron or steel with sal-ammoniac and water, adding water until all reaction ceases, producing a powder, and then grinding the powder, substantially as described. 4th. As a new article of manufacture, a polishing rouge composed of an oxide of iron mixed with the carbon, silica, &c., which were present in the metallic iron or steel from which it is made, said rouge being of brown colour and magnetic in character, substantially as described.

No. 52,399. Electric Railway Gate.

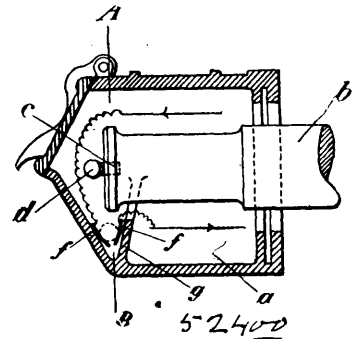
(Barrière électrique de chemin de fer.)



Hermann Biermann, Breslau, Silesia, Prussia, Germany, 26th May 1896; 6 years. (Filed 4th May, 1896.)

Claim.—The new or improved apparatus for preventing railway accidents, which consists, firstly of a dynamo, storage battery or other source of electricity mounted on the train, and secondly, of the rails of the track divided into sections, and used as a conductor for the electric current generated by the said source of electricity on the train, constructed and operating so as to actuate the level crossing stop bar, ring an alarm bell and light an electric lamp, substantially as described.

No. 52,400. Arrangement for Preventing Accidents on Railroads. (Appareil pour empêcher les accidents sur les chemins de fer.)



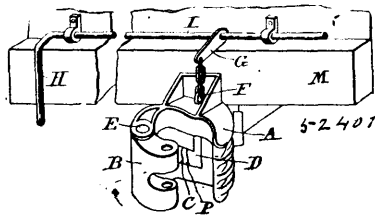
Hermann Biermann, Breslau, Silesia, Prussia, Germany, 26th May, 1896; 6 years. (Filed 4th May, 1896.)

Claim.—1st. The improved method of, and means for, giving notice of the overheating of the axles of railway carriages and the like, and consisting essentially of an easily melted plug ore extremity of which is inserted in the end of the axle, and the other projecting therefrom, the projecting part being caused to fall off when the axle becomes sufficiently heated to melt the end of the plug which is inserted therein, the falling portion completing an electric circuit and causing an alarm to be given on a bell or otherwise, the whole provided for, and operating substantially as described in the above specification and exemplified in the accompanying drawings. 2nd. The combination of parts substantially as described in the above specification and exemplified in the accompanying drawings and together forming and operating as a means for giving notice of the overheating of the axles of railway carriages and the like.

No. 52,401. Car Coupler. (Attelage de chars.)

Henry Gallagher and John J. McDonough, both of Savannah, Georgia, U.S.A., 26th May, 1896; 6 years. (Filed 4th May, 1896.)

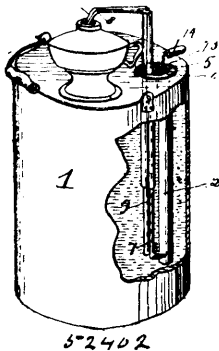
Claim.—1st. The combination of a draw-head and knuckle, said knuckle having a tongue and a locking-block with a twin lever



pivotaly controlled by means of trunnions on its sides, the upper face of the lever being in engagement with the rear shoulders of the locking-block, the inner foot of the twin lever adapted to bear against the rear end of the tongue of the knuckle and cause the knuckle to rotate outward whenever the locking-block is raised and pressed against the upper arms of the twin lever, the opposite foot of said twin lever being provided on its face with a projection that is adapted to support the locking-block, when said locking-block is in a raised position, substantially as set forth. 2nd. A draw-head provided with two sets of grooves, one set vertical, and the other set horizontal, said grooves adapted to provide a way for the said trunnions of the twin lever, for the purpose of allowing the said trunnions of the twin lever to work upward or downward, and for the removal of said trunnions inward or outward, as may be desired, all substantially as set forth.

No. 52,402. Pump for Oil Cans.

(*Pompe pour bidons à huile.*)



Fred. Clinton Smith, Delavan, Wisconsin, U.S.A., 26th May, 1896; 6 years. (Filed 6th May, 1896.)

Claim.—1st. The combination with the pump barrel, the curved plate secured thereto closed at top and bottom forming a vertical chamber, provided with an opening near its upper end communicating with the pump barrel, the plunger and its rod and the valve in the lower end of the barrel, of the valveless suction pipe communicating with said chamber near the lower end thereof and the valveless feed pipe communicating with the lower end of the barrel, substantially as described. 2nd. The combination with the pump barrel having a valve in its lower end, and a cover on top formed with openings therein, the plunger, the rod connected therewith for opening and closing said openings, of the feed pipe connected with said barrel near the lower end and formed with a nozzle, the curved plate secured to the exterior of the pump barrel forming a vertical chamber closed at top and bottom and communicating near its upper end with the barrel, the suction pipe connected with said chamber at the lower end thereof and also formed with a nozzle, substantially as described. 3rd. The combination with the pump barrel having a valve in its lower end and a cover formed with openings therein, the plunger, the rod connected therewith, the valve and washers on said rod, the arms secured to said barrel, the cap secured to said arms, and the cross bar, of the feed pipe connected with said barrel near the lower end thereof and formed with a nozzle, the curved plate forming a chamber communicating with the pump barrel, the suction pipe connected with the chamber and also formed with a nozzle, substantially as described.

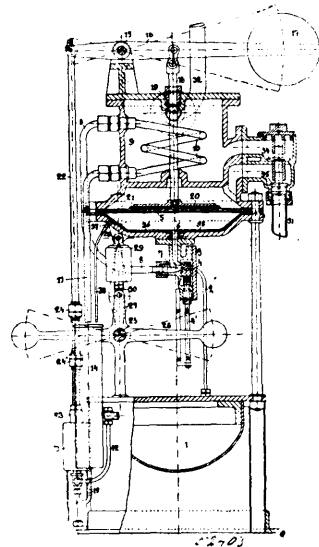
No. 52,403. Diaphragm Pump.

(*Pompe actionnée par la vapeur.*)

Gustaf Ferdinand Flodman, Folkkungagatan, Sweden, 26th May, 1896; 6 years. (Filed 4th May, 1896.)

Claim.—1st. In a diaphragm pump driven by steam, the inside of the wall of the steam space of the diaphragm vessel being lined with a non-conducting material, and said lining laid upon or combined with a wire netting or other perforated layer of some suitable metal, and the wall itself provided with a discharge opening, substantially as and for the purpose set forth. 2nd. A diaphragm pump driven by steam, the admission and exhaust of

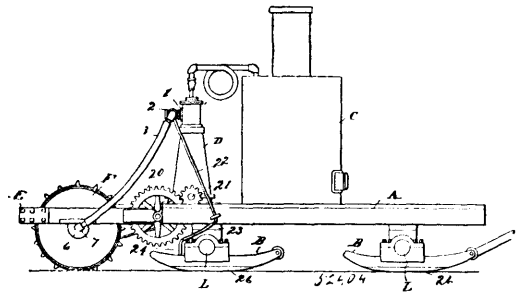
which is regulated by a slide valve or corresponding contrivance, in which steam space the inside of the wall is lined with a non-



conducting material laid upon a wire netting of suitable metal and the wall itself under the wire netting provided with a discharge opening, substantially as described.

No. 52,404. Steam Logging Machine.

(*Machine à vapeur pour billots.*)



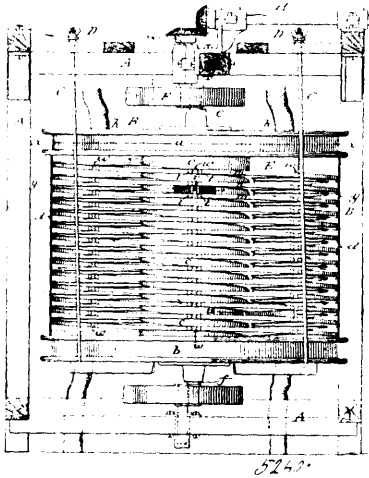
George Thompson Glover, Chicago, Illinois, U.S.A., 26th May, 1896; 6 years. (Filed 5th May, 1896.)

Claim.—1st. A toothed traction wheel or roller having teeth provided with heating chambers, substantially as and for the purpose set forth. 2nd. A toothed traction wheel or roller having teeth provided with heating chambers, and means suitable for supplying said chambers with steam, substantially as and for the purpose set forth. 3rd. A hollow traction wheel or roller having teeth provided with heating chambers communicating with the interior of the hollow wheel or roller, substantially as set forth. 4th. A hollow traction wheel or roller having teeth provided with heating chambers communicating with the interior of the wheel or roller, and means suitable for supplying steam to the interior of the hollow wheel or roller, substantially as set forth. 5th. A hollow traction wheel or roller arranged upon a hollow axle having its passage connected with the interior of the wheel or roller, and chambered teeth arranged upon the wheel or roller and having their chambers connected with the interior of the same, substantially as set forth. 6th. The combination with an axle provided with a steam conducting passage, of a hollow traction wheel having its hub provided with a steam passage arranged about the axle and communicating with the steam passage of the axle and the interior of the hollow wheel through the medium of ports, substantially as set forth. 7th. The combination with a hollow wheel or roller of the axle rigid with the wheel or roller and provided with a steam-conducting passage for supplying the interior of the wheel or roller, boxes in which the ends of the axle are journaled, and a steam coupling 7 having a swivel connection with the axle and connected with a suitable source of steam supply, substantially as set forth. 8th. The runner provided with a groove 28 and a shoe 29 fitted to the runner so as to close over the groove, which latter forms a heating chamber which is supplied with steam, substantially as set forth.

No. 52,405. Sifting Machine. (Tumis.)

William D. Gray, Milwaukee, Wisconsin, U.S.A., 26th May, 1896; 6 years. (Filed 5th May, 1896.)

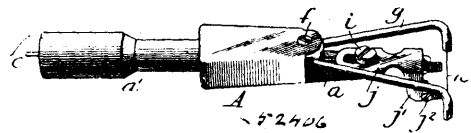
Claim.—1st. In a sifting machine, the combination of a central tubular trunk, provided with a lateral outlet for escape of material ;



a sieve winding spirally about said trunk from an upper to a lower level; and means substantially such as described and shown for imparting bodily horizontal motion to the sieve and trunk in a circular path. 2nd. In a sifting machine, the combination of a tubular trunk; a sieve winding spirally about said trunk; a board or stop extending across the sieve; and an opening through the trunk in rear of said board, whereby the material is directed from the sieve surface into the trunk. 3rd. In a sifting machine, the combination of a central tubular trunk; a sieve winding spirally about said trunk; a diaphragm extending across the trunk; an opening above said diaphragm through which material may pass from the trunk to the sieve; a board or stop extending across the sieve surface and serving to limit the travel of material upon its surface, and an opening through the trunk below the diaphragm and above or in rear of the stop board, whereby material is enabled to pass from the sieve surface into the trunk. 4th. In a sifting machine, the combination of a central trunk having independent longitudinal passages or compartments; a feed box at the upper end of the trunk provided with compartments corresponding with those of the trunk; and a sieve winding spirally about the trunk below the feed box, said trunk being provided with lateral openings for the passage of material from its compartments to the sieve. 5th. In a sifting machine, the combination of a central trunk having independent longitudinal passages or compartments; a feed box at the upper end of the trunk provided with compartments corresponding with those of the trunk; and a sieve winding spirally about the trunk below the feed box, said trunk being provided with lateral openings for the passage of material from the sieve into the trunk. 6th. In a sifting machine, the combination of a feed box divided into compartments; a central trunk extending downward from the feed box and similarly divided; a discharge box at the lower end of the trunk provided with compartments corresponding and communicating with those of the trunk; diaphragms extending across the compartments of the trunk; a sieve winding spirally about said trunk; lateral openings through the walls of the trunk above and below the diaphragms, and boards or stops extending across the sieve immediately below the lower openings of the trunk, substantially as and for the purpose explained. 7th. In a sifting machine, the combination of a chest or casing; a central column; a sieve winding spirally about said column; gather boards or carriers beneath said sieve; flights or blades applied to the upper surface of the sieve and serving to loosen and to distribute material over its surface; and means for imparting to the chest of casing a horizontal movement in a circular path. 8th. In a sifting machine substantially as described, the combination of a spirally inclined sieve; a series of flights or blades projecting upward from the face thereof; and means for imparting to the sieve a horizontal movement in a circular path. 9th. In a sifting machine, the combination of a central trunk, a sieve winding spirally about said trunk, and delivery chutes or spouts extending downward within said trunk and having openings at different levels to deliver material upon different portions of the sieve. 10th. In a sifting machine, a sifting chest or body comprising an upper feed box *a*; a lower discharge box *b*; an intermediate trunk *c*; a central pipe *j*; and partitions dividing the feed and discharge chambers and the trunk into compartments and extending inward to the central pipe, substantially as shown. 11th. In a sifting machine, a sieve support comprising an elevated seed box *a*; a tubular trunk *c* extending downward from said feed box; a discharge box at the lower end of the trunk, and partitions dividing the trunk

and the boxes into compartments. 12th. The herein described sifting machine consisting of a frame *A*; a chest or body *B*; hangers *C* carried at their upper ends by the frame and supporting the chest at their lower ends; a feed box *a* at the upper end of the chest; a trunk *c* extending downward from the feed box; a discharge box *b* at the lower end of the trunk; partitions dividing the feed and discharge boxes and the trunk into compartments; a sieve winding spirally about the trunk; a casing or jacket inclosing the sieve, inlet and exit openings through the walls of the trunk; stop boards extending across the sieve below the exit openings; and means substantially such as described for imparting a horizontal swinging motion to the chest *B*. 13th. In a sifting machine, the combination of a central tubular column provided with lateral openings, and two or more continuous spiral screens or sieves winding about said column after the manner of a double screw thread and each arranged to receive stock through the lateral opening of the central column. 14th. In a sifting machine, the combination of a tubular central column provided with lateral openings; two or more continuous spiral sieves or screens winding about said column after the manner of a double screw thread; and gatherboards or carriages similarly arranged, one beneath each sieve, the sieves being arranged to receive stock through the lateral openings of the trunk. 15th. In a sifting machine, the combination of a sieve in the form of a spiral inclined plane; flights or blades rising from the surface of said sieve at approximately right angles to the radii of the sieve; and means, substantially such as described, for bodily moving the sieve horizontally, in a circular path, all substantially as set forth. 16th. In a sifting machine, the combination of a central column; arms extending therefrom; sieve sections extending from arm to arm and supported thereby, and flights or blades adjustable secured to said arms between the sieve sections, substantially as described and shown. 17th. In a sifting machine, the combination of a central support, a series of radial arms; sieve frames or sections adapted to be inserted and removed into and from the spaces between the arms; and flights or blades secured to said arms, whereby the sieve sections may be withdrawn and replaced without disturbing said flights. 18th. In a sifting machine, the combination of a spirally arranged sieve having a continuous smooth upper face; and a series of flights or blades applied to said face at intervals to distribute and shake or loosen the stock. 19th. In a sifting machine, the combination of a central trunk containing feed and delivery passages, a sieve winding spirally about said trunk; and a discharge box at the lower end of the trunk and communicating therewith. 20th. In a sifting machine of the character described, the combination of a central column containing vertical passages; a gather box at the lower end of said column divided into compartments and communicating with the passages of the trunk; a sieve winding spirally about the trunk, and openings through the walls of the trunk, whereby material may pass from the sieve into the trunk and thence to the gather box. 21st. In a sifting machine of the character described, the combination of a central trunk or column containing upright passages; diaphragms extending across said passages; feed opening formed through the walls of the trunk above, and discharge openings formed through the walls of the trunk below said diaphragms; a gather or discharge box at the foot of the trunk having compartments corresponding and communicating with the passages of the trunk, and a sieve winding spirally about the trunk, substantially as described and shown.

No. 52,406. Dental Tool. (Outil dentaire.)



Andrew John Brown, Washington, Columbia, and Robert Spain Anderson, St. Louis, Missouri, both in the U.S.A., 26th May, 1896; 6 years. (Filed 1st April, 1896.)

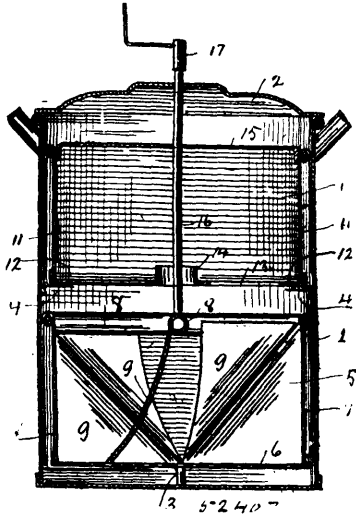
Claim.—1st. A dental tool comprising a tooth clamp, a blade-holder pivotally arranged, an operating shaft and means connecting said shaft and holder for imparting a vibrating movement to the latter. 2nd. A dental tool comprising a spindle adapted for connection with a rotating shaft and carrying a cam, a pivoted arm having a flanged end engaging the cam and at the other end two blade-holding fingers, and a tooth clamp or holder, the jaws of which are in proximity to the ends of said fingers. 3rd. The combination of a mounted blade and means for vibrating same, a tooth clamp or holder adjustable to or from said blade and provided with adjustable jaws.

No. 52,407. Dish Washer. (Machine à laver la vaisselle.)

Samuel Cripe and Elsberry E. Springer, both of Kokomo, Indiana, U.S.A., 26th May, 1896; 6 years. (Filed 7th May, 1896.)

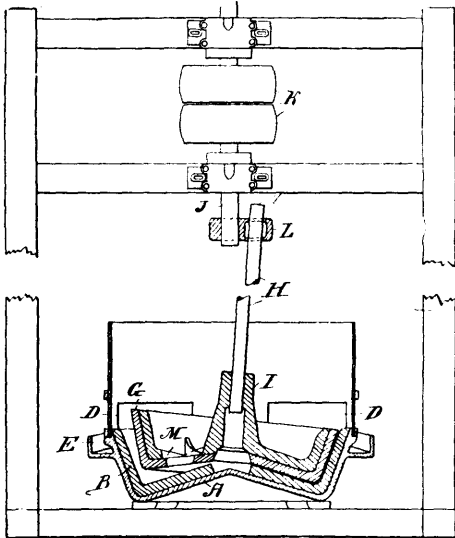
Claim.—The combination with an outer shell or casing, with an upwardly-projecting lug in its bottom and with supporting flanges intermediate its ends, a dasher consisting of a perforated bottom, a rim, cross-bars secured to the upper edge of the rim, and blades secured to the cross-bars and secured to the bottom and curved

transversely, and a dish-receptacle located above the dasher and supported upon the flanges of the shell or casing, a cover for the



shell or casing, a shaft secured to and projecting upward through the cover, and means for rotating the shaft, substantially as set forth.

No. 52,408. Rock-Crusher. (Brise-roche.)



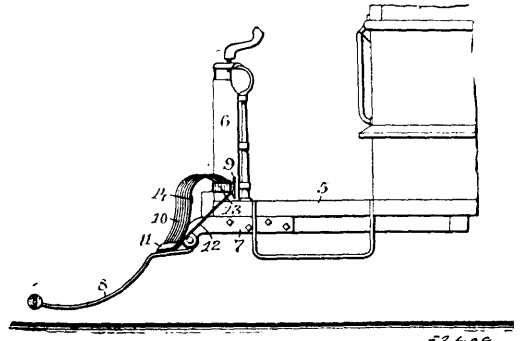
The Kinkead Mill Co., San Francisco, California, assignee of James H. Kinkead, Virginia City, Nevada, both in the U.S.A., 26th May, 1896; 6 years. (Filed 2nd May, 1896.)

Claim.—An improved crushing and grinding apparatus consisting of a pan having a conical bottom declining outwardly from the centre, sides extending upwardly at right angles therewith, a pan-shaped muller having a conical bottom and diverging sides, said bottom having a concavity slightly less in depth than the corresponding convexity of the bottom of the pan, and said muller being entirely open at its top whereby its sides and bottom form a deep receiving chamber into which the ore to be crushed is delivered, and having said bottom provided with openings which are covered when the bottom of the muller forms close contact with the corresponding grinding face of the pan, and opened or exposed when the muller lifts away from said grinding face whereby the ore is automatically fed through said openings during the gyrations of the muller, and is delivered directly to and crushed between the bottom surfaces of the pan and muller, a driving shaft having a crank connected loosely with the shaft of the muller and vertical extensions of the sides of the pan having screen openings for the discharged material.

No. 52,409. Car Fender. (Défense de chars.)

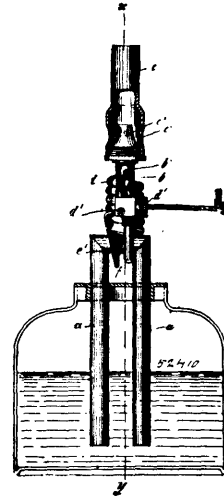
The Consolidated Car Fender Company, Assignee of Albert Charles Woodworth, both of Providence, Rhode Island, U. S. A., 26th May, 1896; 6 years. (Filed 1st May, 1896.)

Claim.—1st. The combination, in a cushion device for car-fender, of the curved metallic strips united at their ends to longitudinal



strips, cross-pieces connecting the longitudinal strips, and means for removably securing the same to the car-dasher. 2nd. The combination with the dasher 6 and hooks, as 9-9, secured thereto, of a cushion-device consisting of the longitudinal strips or bars 11 and 13, the curved strips 10-10 secured thereto, the cross-strips 12-12 connecting the ends of the strips 11 and 13, and the bracing-strip 14 secured to the curved strips 10-10 intermediate their ends.

No. 52,410. Process of gasifying and increasing the heating power of the gases, etc. (Procédé pour gazéifier et augmenter la force du gaz de chauffage, etc.)



Emil Rohrbeck, Berlin, Prussia, Germany, 26th May, 1896; 6 years. (Filed 26th November, 1895.)

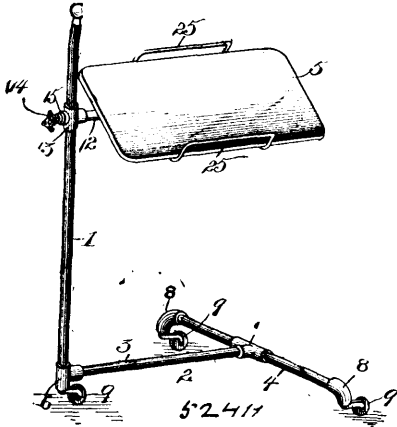
Claim.—1st. In apparatus for heating and lighting by vapourizing inflammable liquids the combination of a heating or gasifying pipe and a main burner with an auxiliary burner below or to the gasifying device being fed by the latter as well as the main burner substantially as described and shown and for the purpose specified. 2nd. Apparatus for gasifying inflammable liquids for heating and lighting purposes, characterized by gasifying spaces of very small interior dimensions and very large metallic surfaces, for instance in the form of several capillary or spiral or similarly arranged pipes or the like connected with each other, for saving heating materials, for increasing the sucking action and for obviating condensation substantially as described and shown and for the purpose specified. 3rd. In gasifying apparatus described, the arrangement of an additional pipe *c* above the orifice of the heating pipe *b*, for the purpose of conducting more air to the gasifying flame and thereby increasing the heating effect, substantially as described and shown and for the purpose specified.

No. 52,411. Adjustable Table. (Table ajustable.)

James R. Baker, Kendallville, Indiana, U.S.A., 26th May, 1896; 6 years. (Filed 5th February, 1896.)

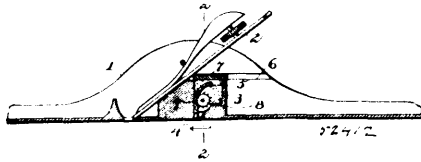
Claim.—1st. The combination with a table having a tilting top of a stop or rest substantially L-shaped in side elevation and extending transversely of the bottom of the table top and projecting upward at one edge thereof and adapted to be swung under the top of the table out of the way, the inner end of the rest or stop being hinged to the lower face of the table top to prevent such movement, and a spring bearing against the stop or rest and arranged to hold the same in

its operative and folded positions, substantially as described.
2nd. The combination with a table having a tilting top adapted to



be arranged horizontally and at an inclination of a stop or rest substantially L-shaped in side elevation and consisting of a rectangular frame arranged against the lower face of the table top and hinged at the inner ends of its sides to the lower face of the table top, and having its outer portion bent upward at right angles and projecting above the upper face of the table for supporting a book or the like, one of the sides of the frame being provided at the point of hinging with a crank bend 26 located in the same plane as the adjacent side of the frame, and a spring secured to the top of the table and engaging the crank bend, and adapted to hold the rest or support in its operative position and to secure the same when folded away beneath the table top, substantially as described. 3rd. The combination of a vertical standard, a base supporting the same, a horizontal arm extending from the standard, a table top mounted on the horizontal arm and adapted to be arranged in a horizontal or inclined position, the rests or stops located at opposite sides of the table top and being substantially L-shaped in side elevation to fit against the lower face of the table top, and to project upward at the side edges thereof, each stop or rest consisting of a rectangular frame hinged at the inner ends of its sides to the lower face of the table top, and having its outer position bent upward at the edge of the table, one of the sides being provided with an L-shaped bend 26 forming a crank arm and located in the same plane as the said side, and a spring secured intermediate of its ends to the lower face of the table top, and common to both stops or rests and engaging the crank arms thereof, whereby each stop or rest is retained in either a folded or operative position, substantially as described.

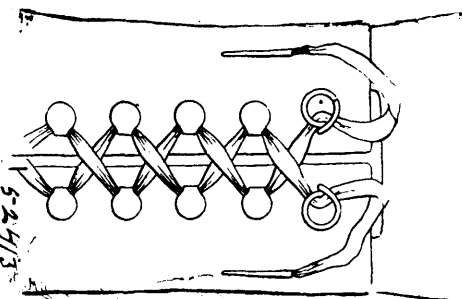
No. 52,412. Oiling Attachment. (*Attache pour graisseur.*)



Theodore Martin Anderson and Samuel Altshuler, both of New Whatcom, Washington, U.S.A., 26th May, 1896. (Filed 1st May, 1896.)

Claim.—A plane having a base portion formed with parallel and perpendicular sides having a block arranged between them and arising from the base portion, and a bit mounted between said sides and supported by the block, the block having an oil-chamber therein, substantially as described.

No. 52,413. Lace-Fastener. (*Attache de lacets.*)

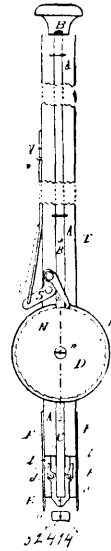


Charles H. Pratt, Helena, Montana, U.S.A., 26th May, 1896; 6 years. (Filed 5th May, 1896.)

Claim.—1st. A lace fastener comprising a single strand of wire bent to form convolutions, the free end of one projecting down outside of and at an angle to the plane of the other convolution, whereby the lateral movement is impeded; as and for the purpose set forth. 2nd. A lace fastener comprising a single strand of wire, formed into a coil composed of a lower complete convolution and an upper partial convolution, the end of the upper being turned to substantially a right angle with the plane of the coil and outside the lower convolution; substantially as described. 3rd. The combination with a body of supporting material and a lace, of a fastener for such lace comprising a single piece of wire formed into a coil composed of convolutions superposed one above the other and the free end of the upper projected outside the lower and at right angles to the plane of the coil, and the free end of the lower projected therefrom at a similar angle, and both adapted to be secured to the inside of such material; substantially as described. 4th. A shoe lace fastener, consisting of a single wire formed of convolutions, the free end of one projecting outside of and beyond the other convolution, and bent inwardly below the convolutions; substantially as and for the purpose set forth.

No. 52,414. Carpet Stretcher and Tacker.

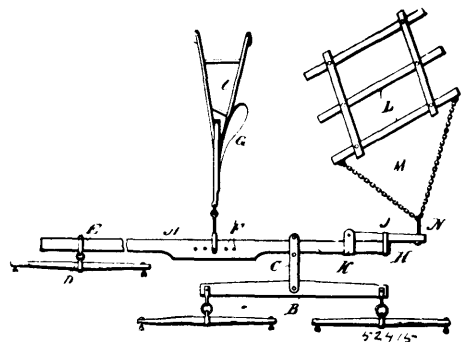
(*Machine à clouer et tendre les tapis.*)



Ephraim Huber and B. Reindart, both of Berlin, Ontario, Canada, 26th May, 1896; 6 years. (Filed 14th April, 1896.)

Claim.—1st. A tack feeder consisting of plates N and O with holes P formed as shown with guard rim R, operated on set-screw N by lever S to which motion is communicated by rod V from hammer rod B, all substantially as and for the purpose hereinbefore set forth. 2nd. The combination of hammer rod B casing C and jaws EE with feeder D all substantially as and for the purpose hereinbefore set forth. 3rd. A trailer constructed with spring M and connected with handle of tacker by wire rod J all substantially as and for the purpose set forth.

No. 52,415. Draft Equalizer. (*Régulateur du tirage.*)

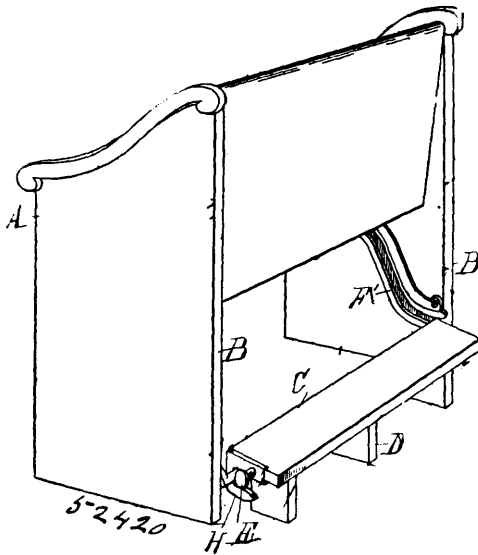


Stephen A. Miller, Abraham Miller and William H. Rasteter, all of Plain, Ohio, U.S.A., 26th May, 1896; 6 years. (Filed 14th April, 1896.)

Claim.—The combination with the equalizer bar A, having its end portion parallel, of the double and single trees adjustably secured thereto by the slidable clips C, E, the extensible bar H, and clips J and K, whereby the draft of the harrow and plough may be equalized on the team, substantially as set forth.

furnace and in admitting the heated compressed air as a hot blast to the furnace and in conveying the remainder of the compressed air for use in the district, in collecting the gas and vapours given off from the furnace, in condensing the vapours and leading the residual products to a tar well and in purifying the gas, in conveying the gas for use in the district, in utilizing the said gas and compressed air for desiccating solid or partially solid human excreta, after the separation of the liquid excreta, in filtering the air and gas after such use, in creating a draught independent of atmospheric influence and filtering the products of combustion of domestic and other fires, and in utilizing the said filtering material after use as a fuel for the furnace or otherwise, substantially as described. 2nd. The closed refuse destructor furnace consisting of a furnace body, a movable hearth, a drum adapted to be rotated in a casing to feed refuse and fuel to the said furnace, a measuring lock determining the amount of refuse and fuel admitted to the drum, of a tubular boiler supported within the said furnace and provided with a protecting bonnet of buyers and of the means for conducting the gases given off from the furnace, substantially as described. 3rd. The excreta reducer, consisting of a channelled pan with trap door opened and closed with the seat for separating the liquid and solid parts, of a series of brays down which the solids pass, of a means for drying or desiccating the solid excreta as it passes down the brays by compressed air admitted automatically of a gas burner turned on and off automatically for heating the said air and desiccating the excreta, of an exhaust opening for drawing out the desiccated excreta as dust, and of a means for condensing the vapour and passing it to the drains. 4th. The process of dealing with the fumes from fires and the like consisting of drawing or forcing the fumes through a filter of combustible material and in passing the filtered fumes to an ashpit or furnace.

No. 52,420. Kneeling Stool, etc. (Tabouret.)



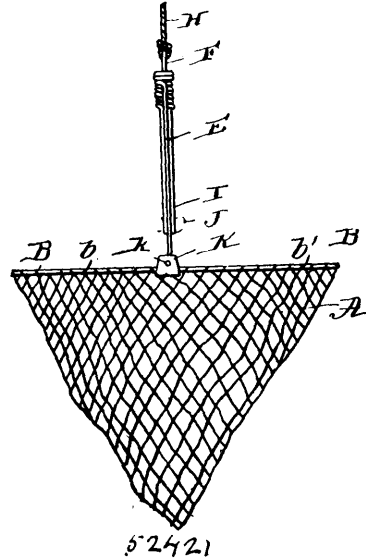
Louis J. Hoffmeyer, Detroit, Michigan, U.S.A., 27th May, 1896; 6 years. (Filed 10th December, 1894.)

Claim.—1st. The combination with the oppositely arranged standard of a kneeling and foot bench slidingly secured to said standards, and adapted when not in use to be raised from the floor, substantially as described. 2nd. The combination with the oppositely arranged standards of inclined guide ways thereon, a kneeling and foot bench arranged between said standards, and pins or lugs at each end of said bench adapted to slidingly engage with the guide way, substantially as described. 3rd. The combination with the oppositely arranged standards of guide ways formed thereon having a horizontal portion, an upwardly inclined portion and a detent at the upper end, a kneeling and foot bench arranged between said standards, and pins or lugs at each end of said bench adapted to slidingly engage with guide ways, substantially as described. 4th. The combination with oppositely arranged standards, of guide way formed thereon, having a horizontal portion, an upwardly inclined portion, and a detent at the upper end, hooks on the standards near the lower end of the guide ways, a kneeling and foot bench arranged between said standards, pins or lugs at each end of said bench adapted to slidingly engage with the guide ways, and hooks on said bench adapted to engage with the hooks on the standards, substantially as described.

No. 52,421. Fish and Crab Net. (Filets.)

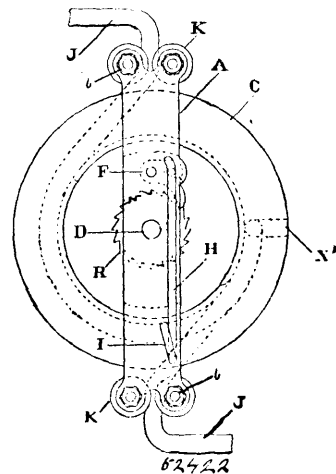
Decatur H. Hibbert, Media, Pennsylvania, U.S.A., 27th May, 1896; 6 years. (Filed 4th April, 1896.)

Claim.—1st. The combination with a net, of a support for the same, a bait-holder, and a loose connection between the bait-holder



and net support to permit the bait-holder to have a limited movement independent of the net-support. 2nd. The combination with a net, of a ring for supporting the same, a bait-holder adapted to be suspended from a line, and means attached to said ring and limiting the upward movement of the bait-holder. 3rd. The combination with a net, of a ring for supporting the same, a bait-holder adapted to be suspended from a line, and means attached to said ring and limiting the downward movement of the bait-holder. 4th. The combination with a net, of a ring for supporting the same, bail secured to the ring, a bait-holder, a rod, secured to the bait-holder, extending through the bail, and having an enlarged portion limiting the descent of the rod. 5th. The combination with a net, of a ring for supporting the same, a bait-holder adapted to be suspended from a line, and means attached to said ring and limiting the up and down movements of the bait-holder. 6th. The combination with a net, of a ring for supporting the same, made in two parts or halves, and a bail, the bail having a rigid connection with each of said parts when moved away from it and a pivotal connection therewith when moved toward it. 7th. The combination with a net, of a ring for supporting the same in two parts or halves, and a bail, the bail having a rigid connection with one of said parts and a pivotal connection with the other of said parts when moved in either direction from its central position.

No. 52,422. Machine for Raising and Lowering Electric Lights. (Appareil à suspendre les lampes électriques.)



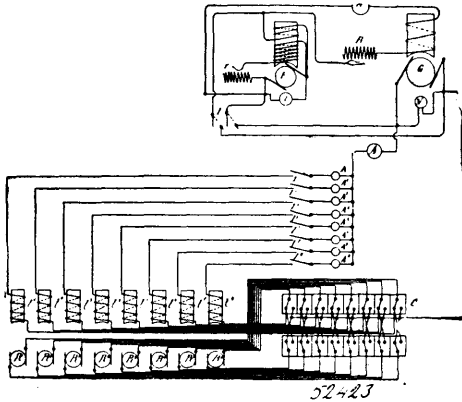
Nelson McLeod, Cannington, Ontario, Canada, 27th May, 1896; 6 years. (Filed 9th March, 1896.)

Claim.—1st. The combination of the discs C C, and C', with the frame A A, by means of shaft D, substantially as and for the purposes hereinbefore set forth. 2nd. The combination of the said shaft D, with the frame A A, by means of the coiled spring E, sub-

stantially as and for the purposes hereinbefore set forth. 3rd. The combination of the ratchet-wheel R, attached to the said shaft D, and the ratchet F, as and for the purposes hereinbefore set forth. 4th. The combination of the said ratchet F, with the rod H, and the spring I, substantially as and for the purposes hereinbefore set forth.

No. 52,423. Electric Locomotive.

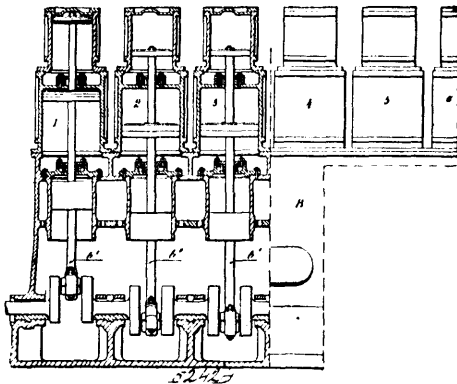
(Locomotive électrique.)



Jean Jacques Heilmann, Paris, France, 27th May, 1896; 6 years. (Filed 3rd January, 1895.)

Claim.—1st. In an electro locomotive system of the type set forth, the combination with a main dynamo driven by an engine having a fixed cut-off of an exciting dynamo driven by a separate engine, and a rheostat for varying the current supplied by said exciter to the main field magnets. 2nd. In an electro locomotive system of the type set forth, the combination with a main dynamo driven at varying speed by an engine having a fixed cut-off, of an exciting dynamo of constant potential, driven by a separate engine, and a rheostat for varying the current supplied by said exciter, substantially as described. 3rd. In an electric locomotive system of the type set forth, the combination with the main dynamo driven at varying speed by an engine having a fixed cut-off, of an exciting dynamo of constant potential driven by a separate engine and means for reducing the current supplied by the exciter when the work of the main dynamo is increased, substantially as described. 4th. In an electric locomotive system of the type set forth, the combination with a main dynamo driven by a principal engine, of an exciting dynamo driven by a separate engine, circuit connections between said exciter and the armature of the main dynamo, and a switch controlling said connections whereby the current of the exciter may be passed through the armature of the main dynamo as well as its field, and thus operate it as a moter temporarily, to start the principal engine from a dead centre, substantially as described.

No. 52,424. Balanced Steam Engine. (Machine à vapeur.)

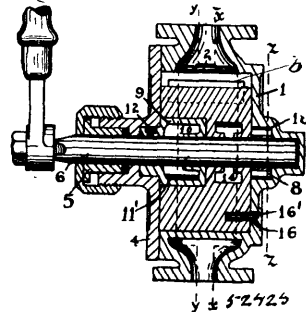


Jean Jacques Heilmann, Paris, France, 27th May, 1896; 6 years. (Filed 26th November, 1895.)

Je réclame.—1° Une machine verticale, pilon à 6 cylindres, ou à 6 files de cylindres, dont les deux moitiés sont symétriques par rapport au plan vertical médian méridien à l'arbre, les trois manivelles de chaque demi-machine étant à 120 degrés l'une de l'autre, et les pièces en mouvement alternatif, 9 pistons, tiges de pistons, etc., ayant exactement le même poids pour chaque cylindre, en vue d'arriver à un équilibrage parfait des efforts d'inertie. 2° Une machine à 5 cylindres, machine précédente dans laquelle les deux cylindres du milieu ont été réunis en un seul, dans laquelle les pièces mobiles correspondant au cylindre central ont un poids double de celles de l'un quelconque des autres cylindres. 3° Une

machine équilibrée à 8 cylindres, ou en général à un nombre de cylindres multiple de 6 ou 8, disposée en deux parties symétriques comme il est expliqué plus haut. 4° Une machine équilibrée à 6, 8, ou 12 cylindres, disposée comme il est dit précédemment, dans laquelle les cylindres et les pièces en mouvement correspondantes, ont des dimensions et des poids différents, le rapport de ces poids aux courses étant tel que les forces d'inertie soient les mêmes pour tous les cylindres, et le rapport de la longueur de la bielle au rayon de la manivelle, étant le même pour tous les cylindres.

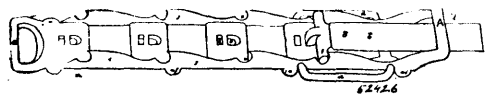
52425. Oscillating Pump. (Pompe oscillante.)



Adolphe Geiger, Rochester, New York, U.S.A., 27th May, 1896; 6 years. (Filed 17th September, 1895.)

Claim.—1st. In an oscillating pump, the combination with a casing having inlet and discharge ports and valves controlling them, of an oscillatory piston, and frictional connections between it and both the inlet and outlet valves for operating them by the movement of the piston, substantially as described. 2nd. In an oscillating pump, the combination with a casing having inlet and discharge ports, and valves for controlling said ports, a septum or abutment, and passages connecting opposite sides thereof, of an oscillatory piston having two wings and a passage connecting opposite sides of said wings, and connections between the piston and valves for operating the latter directly by the movement of the former, substantially as described. 3rd. In an oscillating pump, the combination with the casing provided with inlet and discharge ports, a movable septum or abutment having valves at its ends controlling the ports, and a passage connecting opposite sides thereof, of an oscillatory piston having wings on opposite sides of the septum, and a passage connecting the sides of said wings arranged opposite to the passage in the septum, and frictional connections between the piston and septum for causing the movement of the latter from the former, substantially as described. 4th. In an oscillating pump, the combination with the casing having inlet and outlet ports, of the oscillatory piston, and its spindle, the movable septum mounted on the spindle with its ends co-operating with said inlet and outlet ports, and the friction spring arranged between the spindle and septum, substantially as described. 5th. In an oscillating pump, the combination with the casing having the inlet and discharge ports, the spindle, the piston on the spindle having the wings, and a passage connecting opposite sides of the opposite wings, of the septum or abutment loosely mounted on the spindle, the ends co-operating with the ports in the casing and having the passage connecting opposite sides of the opposite ends of said septum, and the friction spring between the spindle and said septum, substantially as described. 6th. In an oscillating pump, the combination of a casing having inlet and discharge ports, the valves for controlling said ports, of a double balanced oscillatory piston and frictional connections between it and the valves for operating the latter by the movement of the piston, substantially as described. 7th. In a pump, the combination with the oscillatory piston, of the casing having inlet and exit passages with valves controlling the flow of water through the pump and the by-pass passages *b, b'*, for opening communication between the space on opposite sides of the piston when the piston is given an abnormal movement, substantially as described.

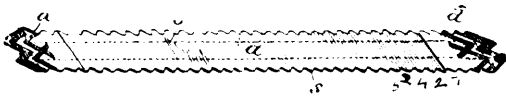
No. 52,426. Hame-Tug-Plate. (Plaque de mancelle.)



Kenneth R. Reid, Newburg, Ontario, Canada, 27th May, 1896; 6 years. (Filed 5th February, 1896.)

Claim.—1st. In a device for attaching a tug or trace to a harness-hame of the kind set forth, ribbed sides T having notches D & E, substantially as and for the purpose hereinbefore set forth. 2nd. In a device for attaching a tug or trace to a harness-hame, a catch as shown in figure 2, having a hook *c* and a bar *f*, substantially as and for the purpose hereinbefore set forth.

No. 52,427. Dress-Stay. (Busc de robe.)

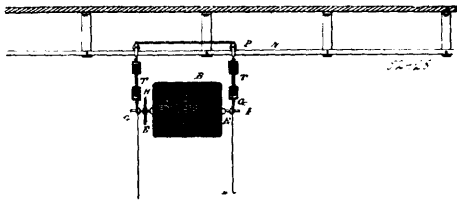


John S. Crotty, New York, State of New York, U.S.A., 27th May, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. A dress-stay, consisting of a blade having a covering strip *a* applied to one side and folded over at the end in one direction, and another covering strip *b* applied to the opposite side and folded over the ends in the opposite direction with two rows of stitching *s s* securing the covering strips together on opposite sides of the blade, substantially as set forth. 2nd. A dress-stay, consisting of a blade having a covering strip *a* applied to one side and folded over at the end in one direction, and another covering strip *b* applied to the opposite end and folded over the ends in the opposite direction the parts secured together, substantially as set forth. 3rd. The combination in a stay, of a blade, a covering strip *a* applied to one side and folded over the ends in one direction, another strip *b* applied to the other side and folded over the ends in the other direction, and a cap piece *d* at one or both ends, and the two rows of stitching passing through both covering strips and through the cap piece on opposite sides of the blade, substantially as set forth.

No. 52,428. Manufacture of Cereal Food, etc.

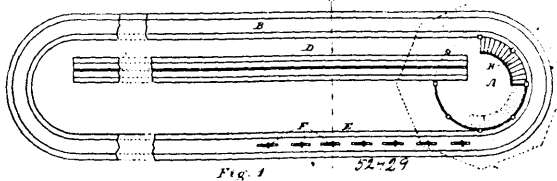
(Fabrication de céréales alimentaires, &c.)



Henry D. Perky, Boston, Massachusetts, U.S.A., 27th May, 1896; 6 years. (Filed 4th December, 1895.)

Claim.—1st. A food or bread composed of superposed or massed layers or deposits of comparatively dry, externally dry, externally rough, porous, sinuous threads or filaments of cooked whole wheat containing intermixed the bran, starch and gluten of the entire berry, and which is free from leavening or raising material or other products. 2nd. The process for reducing cereals for food, consisting, first, in cooking the grain with seasoning material, after it has been thoroughly cleaned, without destroying the whole berry form, second, partially drying the grain with agitation until its interior and exterior portions are of substantially of the same consistency, and finally compressing the grain to intimately comingle or incorporate together the outer or bran coats, gluten layers, and starchy, interior portions in the forms of porous, rough filaments or threads, substantially as specified. 3rd. Apparatus for the preparation of cereals for food, consisting of a boiler, its rotating mechanism, holding cages or tumblers adapted to be rotated in said boiler, drying frames adapted to receive said cages and rotate the same, and means for transferring the cages from the boiler to the drying frames, together with a reducing machine for reducing the cooked and dried grain to filamentous or thread-like form substantially as specified.

No. 52,429. Coasting Slide. (Glissoire.)



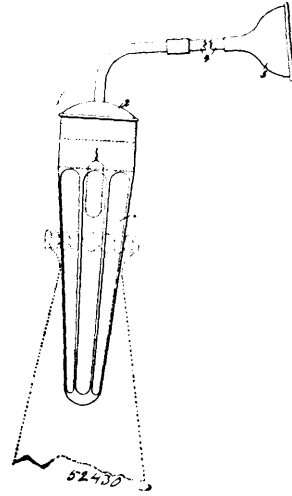
Edouard Gauthier, Ottawa, Ontario, Canada, 27th May 1896; 6 years. (Filed 25th March, 1896.)

Claim.—1st. An inclined continuous roadway carrying the central rail *B*, and supported by wooden framework; in combination with the pavillion *A*, the stairway *H* and car *C*, as shown and described. 2nd. An inclined continuous roadway having the central rail *B*, and the latches *E*, pivoted in said central rail, in combination with the pavillion *A*, having the stair *H*, as herein shown and described. 3rd. The combination of an inclined continuous roadway having the central rail *B*, in which is formed the groove *G* to receive a cable, by which cars are drawn up the incline of the roadway, with the cars *C*, and pavillion *A*, as herein shown and described.

No. 52,430. Vaporizer, etc. (Evaporateur et respirateur.)

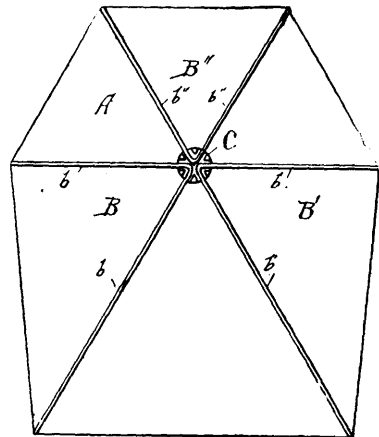
John Sumner Judge, Peterboro', Ontario, Canada, 27th May, 1896; 6 years. (Filed 28th March, 1896.)

Claim.—1st. A tapering reservoir fluted or grooved upon its outer surface so as to produce channels for the passage of the air when the



reservoir is set into a lamp chimney or the like, substantially as described. 2nd. A conical reservoir fluted upon its inner and outer surfaces, thereby increasing the area of the surface which gives off heat to the liquid contained in the receptacle and affording channels for the passage of air or burnt gases when the receptacle is set in a lamp chimney or the like, substantially as described. 3rd. A conical reservoir having grooves produced in its inner and outer surfaces by bending or pressing the material inwardly at intervals, substantially as described. 4th. The combination of the reservoir adapted to be set in a lamp chimney, a perforated plate arranged in said reservoir and adapted to support a pad or filling of absorbent material, and a cap fitting over said absorbent material and provided with an outlet tube, substantially as described. 5th. A reservoir provided with a cap and a rigid tube extending therefrom and adapted to convey the vaporized material to the mouthpiece, substantially as described. 6th. A vaporizer or inhaler provided with an externally grooved reservoir adapted to be inserted in a lamp chimney, substantially as described.

No. 52,431. Kite Frame. (Cadre de cerf-volant.)

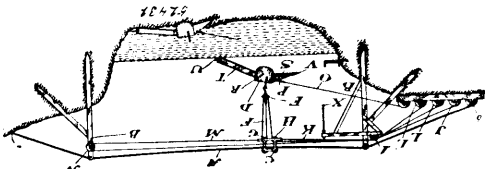


Everett E. Thayer, Jackson, Michigan, U.S.A., 27th May, 1896; 6 years. (Filed 28th March, 1896.)

Claim.—1st. H kite frame consisting of members bent to give the required form to the kite and firmly secured at their point of union, said members being so united as to stand in the same plane. 2nd. A kite frame consisting of several members bent at the proper angle to give the requisite form to the kite and united at the meeting of said angles at the centre, the opposed plates covering said members at their point of meeting to retain them in place. 3rd. As an improved article of manufacture, a wire kite frame made up of parts *B*, *B'* and *B''*, the parts *B* and *B'* having like angles and members of corresponding length, all of the parts being connected to each other at the angles or bends so as to lie in the same plane, substantially as shown and for the purpose set forth. 4th. A frame for kites made up of three pieces of wire which are bent at corres-

ponding angles, one of the pieces having members, as B², of equal length, and the other two pieces each having members of different lengths, the parts being joined to each other at the angle of the pieces by solder so as to lie in the same plane, for the purpose set forth. 5th. A kite frame consisting of light resilient members standing at various angles to give the proper form to the kite, said members converging to a common centre, at which point said members are firmly united together so as to stand in the same plane.

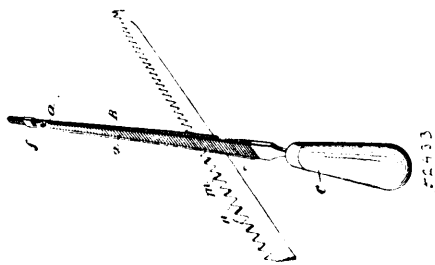
No. 52,432. Dredge. (Dragueur.)



James Amess, Toronto, Ontario, Canada, 27th May, 1896; 6 years. (Filed 26th March, 1896.)

Claim.—1st. In apparatus of the class described, a dredge bucket hung from a cable crossing a stream and suitably arranged so that it may be operated entirely from the banks to dredge the bed of the stream, substantially as and for the purpose specified. 2nd. In apparatus of the class described, a dredge bucket hung from a cable and movable thereon, in combination with means for moving the dredge bucket along the cable in either direction, substantially as and for the purpose specified. 3rd. In apparatus of the class described, a cable suitably swung across a stream or other place where dredging is to be done; in combination with a bucket suitably hung from the said cable and movable thereon, a rope suitably arranged to raise and lower the said bucket; and ropes arranged to move the bucket along the cable in either direction, substantially as and for the purpose specified. 4th. In apparatus of the class described, the cable A, suitably supported above a stream; in combination with the trolley C running thereon; the dredge bucket D, a rope F arranged to support the bucket from the trolley and also to raise and lower it; the ropes K and M attached to the trolley and arranged to move it in either direction on the cable; and the rope O connected to the bucket and adapted to move the said bucket in the bed of the stream, substantially as and for the purpose specified. 5th. In apparatus of the class described, a dredge bucket comprising the chamber R, the spout S, and the tail T, substantially as and for the purpose specified. 6th. In apparatus of the class described, a dredge bucket comprising the chamber R, the spout S, the tail T, a bail, a clevis P, adjustably connected to the spout and a clevis connected to the end of the tail, substantially as and for the purpose specified. 7th. In apparatus of the class described, the combination of a table A, anchored at its end a and wound at its other end on a suitably operated drum b, the standards or towers B, sheaves I and N connected thereto; a trolley C, the sheaves G and H journaled thereon, the dredge bucket D, the block E connected thereto, the ropes F, K and M arranged substantially as described; the rope O connected to the dredge bucket; suitable drums for operating the said ropes, and the hook X suitably supported from one of the standards or towers, substantially as and for the purpose specified. 8th. In apparatus of the class described, the combination of the cable A, anchored at its end a and wound at its other end on a suitably operated drum b, the standards or towers B; sheaves I and N connected thereto; a trolley C; the sheaves G and H journaled thereon; the dredge bucket D comprising the chamber R; spout S and the tail T, the end of the tail being provided with a hole or a clevis; the block E connected thereto; the ropes F, K and M arranged substantially as described; the rope O connected to the dredge bucket; suitable drums for operating the said ropes, and the hook X suitably supported from one of the standards or towers, substantially as and for the purpose specified.

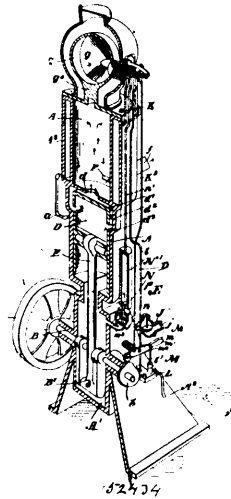
No. 52,433. File Guard. (Garde-Lime.)



Stephen Lonergan, Central Falls, Rhode Island, U.S.A., 27th May, 1896; 6 years. (Filed 25th March, 1896.)

Claim.—The improved file-guard for attaching to files used for sharpening saws herein described, said file-guard being made of thin sheet metal having one end formed to fit over the outer point of a file, the opposite end pointed to enter with the point of the file in the handle, substantially as shown and described.

No. 52,434. Petroleum Engine. (Machine à pétrole.)



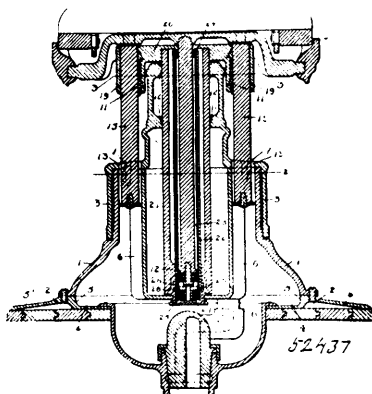
Dixon Best, Peterborough, Ontario, Canada, 27th May, 1896; 6 years. (Filed 26th March, 1896.)

Claim.—1st. The combination with a cylinder and piston, the piston rod and shaft and means for supplying the cylinder with fresh air above the piston, of an exploder secured to the head of the piston and provided with passage-ways leading into the top of the cylinder and oil supply valve located in the exploder, means for operating such valve and an annular chamber around the valve stem connected to the interior of the exploder and an air supply for such chamber connected to the interior of the cylinder as and for the purpose specified. 2nd. The combination with a cylinder and piston, of an exploder connected to the head thereof, the divided passage-way leading from the head of the piston into the exploder and a regulated oil vapour valve for such exploder as and for the purpose specified. 3rd. The combination with a cylinder, of an exploder, circular in interior, cross-section provided with conical ends and having a lower flange by which it is secured to the end of the cylinder and a divided passage-way leading from the conical ends into the centre of the head of the cylinder as and for the purpose specified. 4th. The combination with the head of the cylinder and exploder formed as shown and connected to the head as specified, of an outer shell secured to the head of the cylinder as and for the purpose specified. 5th. The combination with the head of the cylinder and exploder formed as shown and connected to the head as specified, of an outer shell secured to the head of the cylinder and a hinged cap for such shell, as and for the purpose specified. 6th. The combination with a cylinder and piston, piston-rod and shaft, central opening in the piston, passage-way beneath such opening, side passage-ways in the cylinder, ports in the piston and the pipe provided with a one-way valve leading into the crank pit as and for the purpose specified. 7th. The combination with a cylinder and piston, the piston-rod and shaft and means for supplying the cylinder with fresh air above the piston, of an exploder secured to the head of the cylinder and communicating therewith, means for supplying the exploder with oil vapour and an exhaust from the cylinder having the top of exhaust above the level of the top of the piston so as to keep a layer of burnt gas above the piston continually, as and for the purpose specified. 8th. The combination with a cylinder and piston, the piston-rod and shaft and means for supplying the cylinder with fresh air above the piston, of an exploder secured to the head of the cylinder and communicating therewith, a valve secured to the inner end of the valve casing and having a stem extending through the casing, a pipe leading from such casing to a pump, a spring-operated lever connected to the rod of such pump, a cam on the main shaft co-acting with such lever and an operating-rod connected to the lever and stem as and for the purpose specified. 9th. The combination with a cylinder and piston, the piston-rod and shaft and means for supplying the cylinder with fresh air above the piston, of an exploder secured to the head of the cylinder and communicating therewith, a valve secured to the inner end of the valve-casing and having a stem extending through the casing, a pipe leading from such casing to a pump, a spring-operated lever connected to the rod of such pump, a cam on the main shaft co-acting with such lever and an operating-rod connected to the rod of such pump, a cam on the main shaft co-acting with such lever and a crank connected to the other end of the rod, and a spring co-acting with the stem, as and for the purpose specified. 10th. The combination with the cylinder and piston, the piston rod and shaft, and means for supplying the cylinder with fresh air above the piston, of an exploder secured to the head of the cylinder and communicating therewith, a valve secured to the inner end of the valve-casing and having a stem extending through the casing, a pipe leading from such casing to a pump, a spring-operated lever connected to the rod of such pump, a cam on the main shaft co-acting with such lever, an operating rod

the pen holder, of a striker F actuated by the cams b² and engaging with the rocking beam C by means of a clutch, of a fly M for controlling the fall of the beam C, and of an arm K mounted on the rocking beam and carrying a small roller k and of the device for automatically controlling the flow of the inks to the pens, as set forth. 17th. In a ruling machine, a pen for ruling fine lines the thickness of the body R of which tapers away to the edge r forming its ruling points, as and for the purpose set forth. 18th. In a ruling machine, a pen for ruling broad lines, tints and the like, consisting of a piece K having straight front edge, and of a piece of flannel, felt or like absorbent material R¹ laid and stretched over the front edge of the plate and adapted to receive the ink, as set forth. 19th. In a ruling machine, a pen for ruling broad lines, tints and the like consisting of a plate R having teeth r¹ cut or formed on its front upturned edge and a longitudinal bar r² in front of the said teeth, and of a piece of flannel, felt or like absorbent material R¹ one edge of which engages with the teeth r¹ on the plate R and the other edge is passed round the bar r and stretched over the top face of the plate. 20th. In a ruling machine, a pen holder adapted to be fixed to the rocking beam C and consisting of two plates D and D¹ connected together at or about the centre of their widths and having their front edges adapted to grip the pens and of a longitudinal bar mounted in the ends of the plate D and having its central part of a flat or cam shape in cross section so that when rotated it expands or forces a part the back edges of the two plates and thus causes their front edges to approach each other, as and for the purpose set forth. 21st. In a ruling machine, the combination with the pen-holder, of absorbent ink pads T and plates T¹ having recesses or openings cut in them to allow the said ink pads to be grouped one above the other, as and for the purpose set forth. 22nd. In a ruling machine, the combination with the table for carrying the sheets of paper, of a device for carrying a stencil for masking the paper where lines are not to be ruled consisting essentially of a clamp U adapted to hold the stencil and pivoted to brackets V, V sliding in vertical in the table, of lifting mechanism to raise the said brackets actuated by an arm W adapted to be raised by means of a cam or stop on the frame of the machine and controlled by a spring adapted to keep the clamp down on the table, as set forth. 23rd. In a ruling machine, the combination with the table for carrying the sheets of paper to be ruled, of a device for carrying the stencil for masking the paper where lines are not to be ruled, consisting essentially of a clamp U adapted to hold the stencil and pivoted to brackets V, V sliding in vertical slots in the table, of lifting mechanism to raise the said brackets actuated through an arm W adapted to be raised by means of a cam or stop on the frame of the machine, and controlled by a spring adapted to keep the clamp V down on the table, and of the holders of fingers W¹ for gripping the sheets of paper on the table and holding them against the stop b, as set forth. 24th. In a ruling machine, the combination with a rocking beam carrying the ruling pens, of a table for carrying the sheets of paper and adapted to rotate under the said beam for ruling curved lines, as set forth. 25th. In a ruling machine, a compound rotating table for ruling curved lines of all kinds whether circular or elliptical, as set forth. 26th. In a ruling machine, the combination of a rocking beam adapted to carry the ruling pens, of a reciprocating table for carrying the sheets of paper to be ruled with straight lines, of a rotating table for carrying the sheets of paper on which curved lines are to be ruled, of the devices for controlling the lift and fall of the pen beam, of the device for controlling the flow of the inks, of the improved pen holder, of the improved masks for masking the ink pads and of the improved device for holding the stencil, all combined, arranged and adapted to operate, as set forth.

No. 52,437. Dental Chair.

(Fauteuil pour opération dentale.)



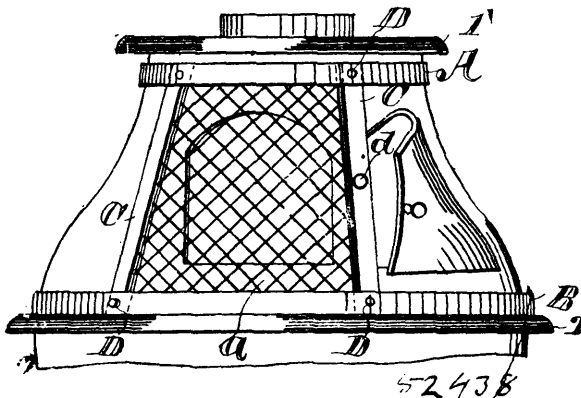
Frank Ritter, Rochester, New York, U.S.A., 28th May, 1896; 6 years. (Filed 13th April, 1896.)

Claim.—1st. In a dental chair, the combination of the seat supporting plunger, steadying rods or guides fixed to the seat frame

cross-bar, and the rod-receiving sleeves mediately supported in the pedestal, substantially as set forth. 2nd. In a dental chair, the combination of the seat supporting plunger, steadying rods or guides fixed to the seat frame cross-bar, and the rod receiving sleeves mediately supported in the pedestal and locks made operative by the assent of the said rods to lock the rods in the sleeves, substantially as set forth. 3rd. In a dental chair, the combination of the seat supporting plunger, steadying rods or guides fixed to the seat frame cross-bar, and the rod receiving sleeves mediately supported in the pedestal and a steadying cylinder, said cylinder having bearings in the pedestal and supporting said sleeves, substantially as set forth. 4th. In a dental chair, a chair seat frame having guides consisting of a seat frame elevating and lowering plunger, and parallel rods situated intermediately the plunger and the seat frame and each attached to the cross-bar, and a supplemental guide comprising a steadying tube movably supported in the pedestal and provided with sleeves to receive said parallel rods, substantially as set forth. 5th. In a dental chair, the base, the pedestal, the plunger fixed to the seat frame cross-bar, the plunger of piston cylinder, the sliding steadying tube situated between and touching both the pedestal and plunger tube whereby it is guided, said steadying tube being mediately connected to the seat frame and said plunger cylinder being mediately connected to the base, all substantially as described whereby the stability of the seat is promoted. 6th. In a dental chair, a sliding steady tube situated between the pedestal and the plunger cylinder and bearing against each, and devices for moving said tube when the chair seat frame is raised or lowered, substantially as described. 7th. In a dental chair, the base, the rotary pedestal seated upon the base, the steadying tube held in the pedestal and keyed against independent rotation thereon, a lock to prevent endwise movement therein and a lock to prevent rotation of the pedestal on the base all the locks being supported and carried by the pedestal, substantially as described. 8th. In a dental chair, the combination of the pedestal and the sliding steadying tube with an automatically operating locking device to lock the tube and pedestal together, substantially as described. 9th. In a dental chair, the combination of the pedestal and the sliding steadying tube with an automatically operating locking device to lock the tube and pedestal together and a lock-tripping lever, substantially as described. 10th. In a dental chair, the combination of the pedestal and the sliding steadying tube with an automatically operating locking device to lock the tube and pedestal together, the tube having a longitudinal groove and the pedestal a key fitting said groove to prevent independent rotation, substantially as described. 11th. In a dental chair, the combination of the plunger cylinder, the oil reservoir, the valve whereby oil may flow from the cylinder to the reservoir, the steadying tube, the pedestal, the device to lock said tube and pedestal together, the lock-tripping lever and a connection between the lever and valve whereby the operation of the lever to release the lock opens the valve, substantially as described. 12th. In a dental chair, the combination of telescoping pipes one of which is fixed to the cross-bar of the seat frame, and the other fixed to a coupling supported below the chair pedestal, said pipes being rotatable with the seat frame and pedestal, and adapted to connect with a receptacle attached to the chair and communicate with it and also with a conduit or receptacle below the chair, substantially as set forth. 13th. In a dental chair, in combination, the chair seat frame, the plunger, the pedestal, the telescoping pipes, the coupling 57, said pipes extending from the frame to the coupling and all the parts rotating with the pedestal, substantially as set forth. 14th. In a dental chair, in combination, the chair seat frame, the plunger, the pedestal, the telescoping pipes, the coupling 57, said pipes extending from the frame to the coupling and all the parts rotating with the pedestal, and a fixed bowl or support independent of the chair and having a seat for the coupling, substantially as set forth. 15th. In a dental chair, a vertically extensible pipe having connection and communication with a receptacle above and with another below the chair and rotatable with its pedestal, substantially as set forth. 16th. In a dental chair, the combination of two pairs of telescoping pipes, one pipe of each pair being fixed in the seat frame cross-bar, and the other pipe of each pair fixed to the coupling rotatably supported below the pedestal, the spittoon, the flexible pipes by which the spittoon and telescoping pipes communicate, substantially as described. 17th. In a dental chair, the combination of two pairs of telescoping pipes, one pipe of each pair being fixed in the seat frame cross-bar and the other pipe of each pair fixed to the coupling rotatably supported below the pedestal, a spittoon, and flexible pipes by which the spittoon and telescoping pipes communicate, said spittoon being mediately supported from the chair seat frame by a horizontally sliding arm, substantially as set forth. 18th. In a dental chair, the combination of a seat with a swinging frame supported from the seat frame, and seat-elevating bars pivotally supported in said frame, whereby the seat may be independently raised, substantially as described. 19th. In a dental chair, the combination of the seat with a swinging frame supported from the seat frame, the seat-elevating bars pivotally supported in said frame, whereby the seat may be independently raised, and a child's foot rest connected to said bars whereby the said rest may be moved into operative position simultaneously with the raising of the seat, substantially as set forth. 20th. In a dental chair, the combination of back frame pivoted to the seat frame, the curved toothed bar fixed to the back frame, the seat frame provided with the opening to receive the bar, and a locking bar supported and movable in the

seat frame to lock the back frame in any desired position, substantially as set forth. 21st. In a dental chair, the combination of the back frame pivoted to the seat frame, the curved toothed bar fixed to the back frame, the seat frame provided with the opening to receive the bar, and a locking bar supported and movable in the seat frame to lock the back frame in any desired position, said opening being below the top of the seat frame and the bar curved from the back frame toward its front whereby the back can be lowered to or below the level of the seat, substantially as set forth. 22nd. In a dental chair, the back frame comprising a rear part pivoted to the seat frame and slotted vertically, a sliding extension supported in said back part, a handle screwed into said sliding extension and extending through the slot in the rear pivoted part and adapted to bear against the latter when the screw handle is turned, all substantially as set forth whereby the extension can be moved and locked by said handle. 23rd. In a dental chair, the head-rest bar support comprising the two bars 38 and 39, having contiguous bevelled surfaces in combination with the sliding extension 37 and devices for forcing the bevelled faces together and wedging one of the said bars between the other and the sliding extension to lock the parts in place, substantially as set forth. 24th. In a dental chair, the combination of the head rest comprising the pads each connected by one arm with a hemisphere, a central pivot passing through the ball formed by said hemispheres, a socket to hold the ball, and a clamping device to lock the ball in its socket and its halves together, substantially as set forth. 25th. In a dental chair, the pads supported by a ball and socket joint, each pad having an independent pivot situated contiguous its back near a central line and adapted to permit movement in the direction of one plane only to provide for the automatic adjustment of the pad to the head, substantially as set forth. 26th. In a dental chair, a head rest comprising pads with inflatable cushions, substantially as set forth. 27th. In a dental chair, a compound bar containing at one end a socket for a ball and socket joint for the head rest, and comprising two covers 49 pivoted together by a headed pin, one of the said covers being pivotally connected by a pin to the back frame, bevelled blocks situated under said covers, frusto-conical sleeves surrounding the pins and means for moving the sleeves on the pins to tighten the same transversely to the covers and blocks, and to simultaneously crowd the blocks in a direction transverse to the pins whereby the ball is locked in its socket at one end of the bar and the other end of the bar locked to the back frame and the two members of the bar locked together by both lateral and vertical pressure, substantially as set forth. 28th. In a dental chair, a compound bar comprising two members each consisting of a bar or cover 49 and bevelled block 50 and also comprising transverse pins, bevelled sleeves moveable on the pins, and means such as a cam ring for tightening one of the pins, the construction being such that the movement that tightens a pin crowds the sleeves and blocks together and thereby tightens a second pin and simultaneously transmits pressure to the end of the bar to lock the head rest, substantially as set forth. 29th. In a dental chair, the base, the rotary pedestal seated upon the base, and a device to lock the base and pedestal together, said device consisting of a screw or the like provided with an operating thread on each side of its axis whereby it may be either loosened or tightened by a downward pressure of the foot, substantially as described.

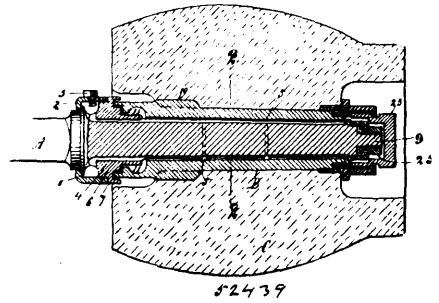
No. 52,438. Screen for Stoves. (Grillage pour poêles.)



Henry Hammelen, Vancouver, British Columbia, Canada, 28th May, 1896; 6 years. (Filed 14th April, 1896.)

Claim.—1st. The herein described apparatus to be employed as a screen for stoves, having bands A and B securely fixed at a suitable distance from each other by the vertical portions C; a screen of wire or other material arranged between two of the sides of the portions C and the said bands, and means for attaching and detaching the same to and from a stove, substantially as and for the purposes hereinbefore set forth. 2nd. In a screen for stoves, a sliding frame arranged to fit and follow the track of a sliding stove door, a screen of wire netting securely fastened within the sliding frame, and means for operating the same, substantially as and for the purposes specified.

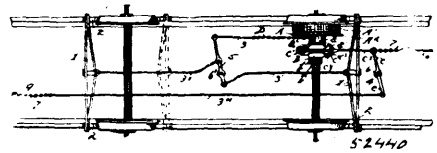
No. 52,439. Axle Box. (Boîte à graisse.)



Michael F. Deininger, Brooklyn, New York, U.S.A., 28th May, 1896; 6 years. (Filed 15th April, 1896.)

Claim.—The combination with the axle, having an annular recess, a cap to cover the recess and form an annular chamber, the cap being provided with an aperture through which a lubricant may be supplied, the axle also having longitudinal channels communicating with the said chamber, and a collar adjacent to the said chamber, of the axle box adapted to abut against the said collar, and provided adjacent thereto with an interior recess in its interior surface, substantially as described.

No. 52,440. Car-Brake. (Frein de chars.)

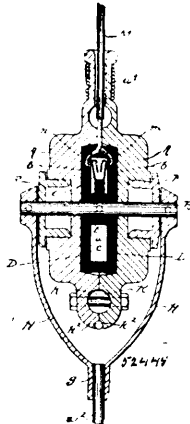


Paris Erb, Lancaster, Pennsylvania, U.S.A., 28th May, 1896; 6 years. (Filed 17th April, 1896.)

Claim.—1st. In a car-brake of the character described, the friction crutch comprising; the fixed member secured to a wheel or axle of said car, the loose member contracting with the said fixed member and movable back and forth on the axle of said wheel, the winding-drum of less diameter than the diameter of the frictional contact of the clutch members and integral with the back of said loose member, said back adapted at opposite beyond the diameter of said drum to have secured thereto the rear extremities of the winding chains connecting said clutch with the brake mechanism, and the bar or beam provided to ship said loose member, substantially as described and for the purpose hereinbefore set forth. 2nd. In a car-brake of the character described, the friction-clutch comprising a fixed, and a loose, member; having contact faces; the radial recesses, at prescribed intervals, in said faces; the fixed member secured to a wheel or axle of the car and the loose member movable back and forth on said axle, contracting with said fixed member; the winding-drum, about said axle, having one end secured to the back of said loose member, having chain-connections with the brake-mechanism of the car; the drum-diameter shorter than the diameter of said contact faces, the bar or beam C provided to ship said loose member into contact with said fixed member, to withdraw the same, and to hold it from contacting, substantially as described and for the purpose hereinbefore set forth. 3rd. In a car-brake of the character described, the shipper C, comprising the oblong loop C¹, V-shaped in cross-section, inwardly sloping, having the inner parallel edges c, and the rear end wedge-shaped lunc c¹, widened at the centre; the hood O² attached within its hollow to the forward end of said loop, and having the introverted side edge ribs c²; and the arm O³, having its rear end affixed to the back of said hood and at its forward end the attaching-hook c³; all substantially as described and for the purpose hereinbefore set forth. 4th. The combination in a car-brake of the character described, with the clutch A having the fixed member A¹ secured to a wheel or axle of the car, and the loose member A² provided with chain connections, with the brake-rigging, and having the hub-extension A⁵ with the winding-drum a, the V-shaped ring a¹, the intermediate groove a², and the cylindrical end bearing a³, movable back and forth on the axle of said wheel; the fixed collar having the V-shaped ring b and the rear end hub b¹, on the same axle, and set-screws B¹ tapped through said hub into said axle; of the shipper C, comprising the oblong loop C¹, V-shaped in cross-section and inwardly sloping, having the inner parallel edges c, and the rear end wedge-shaped lunc c¹, with the widened centre, the retaining hook C² affixed within its hollow to the forward end of said loop and having the introverted side edge retaining-ribs c², and the connecting arm C³, having its rear end attached to the back of said hook, and having at its forward end the hook c³; said shipper C by means of said hook c³ secured to the end of the lever 4; all substantially as described and for the purpose hereinbefore set forth. 5th. The combination in a car-brake of the character described, with the lever 4 pivoted to the hanger 6, and having its extremities

Claims.—1st. A heating apparatus for use with liquid hydrocarbons characterized by the insertion of the burner throughout its length within a gasifying medium forming numerous narrow interstices the hydrocarbon being conveyed through these interstices in very fine layers to obtain a complete vapourization under the action of the flame of the burner. 2nd. A heating apparatus for use with liquid hydrocarbons, characterized by a transverse tube at one extremity of the interior cylinder the said transverse tube being in communication at either end with the vapourizing chamber and communicating in the centre with the bore of the burner, and leaving on each side passages for the admission of air for admixture with the gas. 3rd. A heating apparatus for use with liquid hydrocarbons, comprising a number of single burners arranged in a common exterior casing containing the gasifying medium filed up directly between the cylinders of the burners thus greatly increasing the heating action upon the gasifying medium.

No. 52,445. Electrical Pilot, etc.
(*Avertisseur électrique, etc.*)



Henry Harvey Franklin, Brooklyn, New York, U.S.A., 28th May, 1896; 6 years. (Filed 30th March, 1896.)

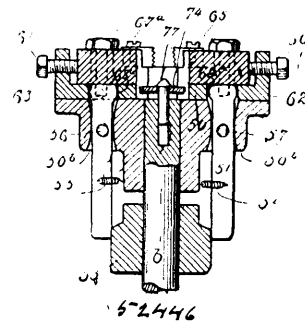
Claim.—1st. An electrical alarm device or apparatus which is adapted to be connected with a vessel, and to determine the depth of the water in which said vessel is moving, by coming in contact with the ground, said alarm device or apparatus being constructed as herein described. 2nd. An electrical alarm or signal apparatus adapted for use on board a vessel, and for determining the depth of water, which comprises a casing which is suspended by a cable through which passes two conductors, said casing being provided with a shaft, which passes centrally therethrough, and with a device or devices connected therewith, and adapted to complete the circuit through said conductors, said shaft being provided at each end with arms to which are secured a rod or pendulum which is adapted to come in contact with the ground, and said cable being wound on a drum which is suitably mounted on the vessel, and the conductors therein being in electrical connection with an alarm and a battery, substantially as described. 3rd. An electrical alarm for use on board a vessel and for obtaining the depth of water, which consists of a casing which is suspended by a cable through which passes two conductors, said casing being provided with a shaft which passes centrally therethrough, and with an arm connected therewith, which is adapted to complete the circuit through said conductors, said shaft being provided at each end with arms to which are secured a rod or pendulum which is adapted to come in contact with the ground, and said cable being wound on a drum which is supported upon the vessel, and the conductors in the cable being in electrical connection with conductors which are in circuit with a battery and an alarm bell, substantially as described. 4th. An electrical alarm for use on board a vessel, and for determining the depth of water, which consists of a casing which is suspended by a cable through which passes two conductors, said casing being provided with a shaft, which passes centrally therethrough, and with an arm connected therewith, which is adapted to complete the circuit through said conductors, said shaft being provided at each end with arms to which are secured a rod or pendulum which is adapted to come in contact with the ground, and said cable being wound on a drum which is supported upon the vessel, and the conductors in the cable being in electrical connection with conductors which are in circuit with a battery and an alarm bell, and said casing being constructed as herein described.

No. 52,446. Nipple Cutting Machine.
(*Appareil à couper les mamelons.*)

William Murchey, Detroit, Michigan, U.S.A., 28th May, 1896; 6 years. (Filed 2nd April, 1896.)

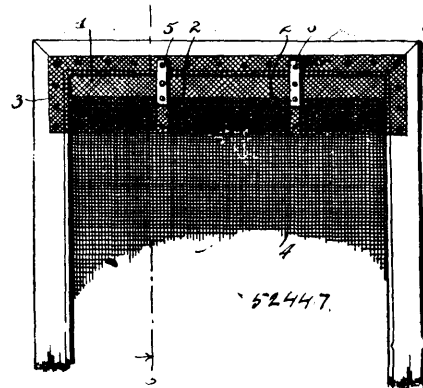
Claim.—1st. In a nipple cutting machine, the combination of the main framework, a main driving-wheel, a mandrel connected with the

axis thereof, and adapted to reciprocate longitudinally therethrough, a spider secured to the mandrel and provided with pins adapted to



engage with the main driving-wheel, a cutter head provided with radially movable cutters, and levers adapted to actuate said cutters, a sliding wedge block on the mandrel adapted to actuate the levers, and to itself engage alternately with the fixed part of the frame and with the work and be thereby stopped while the mandrel reciprocates through it, a counter-shaft carrying a cam-wheel, a lever actuated by said cam-wheel adapted to engage with and produce reciprocating motion of the mandrel, and means intermediate the driving-wheel and the counter-shaft whereby the movement of one is transmitted to the other, and the reciprocating motion of the mandrel regulated with respect to its rotary movement, substantially as specified. 2nd. In a head for nipple cutting machines, the combination of cutting tools adjustably secured in radially movable carrying plates, levers adapted to produce such radial movement, means for locking the levers and cutters in place and a centrally located reamer adapted to actuate the locking means and push it out of engagement, substantially as described. 3rd. In combination with the cutting head of a nipple cutting machine having spreading cutters and levers adapted to spread the same, a locking block, a reamer adapted to engage with the work and with the locking block, and adjusting screws adapted to regulate the engagement between the reamer and block and time the unlocking engagement with respect to the advancing motion of the cutter head, substantially as described. 4th. In combination with reciprocating mandrel a sleeved bearing and a drive pulley mounted thereon, a spider on the mandrel having radial spindles and friction wheels mounted thereon, and pins extending from the face of the driving pulley and engaging between the friction wheels, substantially as specified.

No. 52,447. Fly Exit. (*Appareil à laisser sortir les mouches.*)



Charles Oliver Taylor, Urbana, Ohio, U.S.A., 28th May, 1896; 6 years. (Filed 27th April, 1896.)

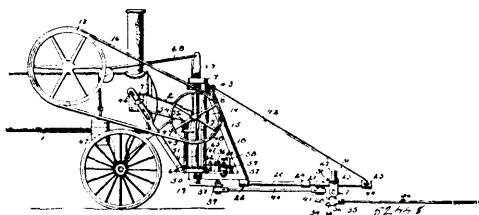
Claim.—As an article of manufacture, an attachment for screen doors or windows, consisting of a screen strip having perpendicular rigid wooden pieces attached thereto, metallic strips secured to said wooden pieces and extending beyond the upper ends thereof, said screen strip adapted to be secured on the opposite side of the frame of the door or window from the screen of the latter, the wooden pieces adapted to be secured to the screen of the door or window, thereby connecting the two screens and retaining them substantially parallel to each other, the metallic strips adapted to be secured to the upper side of the frame of the door or window, and thereby retain the wooden pieces in position, as set forth.

No. 52,448. Sawing Machine. (*Machine à scier.*)

Christian Moritz Hillebrand, Le Mars, Iowa, U.S.A., 28th May, 1896; 6 years. (Filed 27th April, 1896.)

Claim.—1st. The combination of a swivelled main frame adapted to swing in a vertical plane, means for securing said frame at the

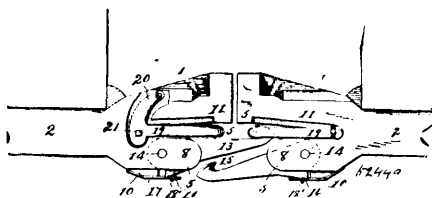
desired adjustment, a driving-shaft concentric with the axis of said frame, a reciprocatory cross-head or carriage mounted upon guides



supported by the main frame and adapted to carry a saw-blade, and connections between the cross-head or carriage and the driving-shaft, substantially as specified. 2nd. The combination with supporting-arms having bearings, of parallel guides having co-axial trunnions mounted in said bearings, a main frame having side-bars mounted for vertical adjustment in said guides, means for securing said frame at the desired vertical adjustment, a driving-shaft mounted concentric with one of the trunnions, a reciprocatory cross-head or carriage mounted upon the guides supported by the main frame, means for connecting a saw-blade to the cross-head or carriage and connections between the cross-head or carriage and the driving-shaft, substantially as specified. 3rd. The combination with a swivelled main frame adapted to swing in a vertical plane, and means for securing the same at the desired adjustment, of a driving-shaft mounted concentric with the axis of the main frame, a guide-frame swivelled upon the main frame, a cross-head or carriage mounted upon the guide-frame and adapted to carry a saw-blade, and connections between the driving-shaft and the cross-head or carriage, substantially as specified. 4th. The combination with supporting-arms having aligned bearings, of guides having trunnions mounted in said bearings, one of the trunnions being hollow, a main frame having parallel side-bars mounted in said guides for vertical movement, means for securing said frame at the desired vertical adjustment, a guide-frame swivelled upon the main frame and capable of swinging in a horizontal plane, a cross-head or carriage mounted upon the guide-frame and adapted to carry a saw-blade, a driving-shaft mounted in said hollow trunnion of one of the guides, and connections between the driving-shaft and the cross-head or carriage, substantially as specified. 5th. The combination with supporting-arms, of guides having trunnions mounted in aligned bearings, a main frame having parallel side-bars mounted in said guides, adjusting screws mounted upon brackets supported by the trunnions and threaded in openings in the main frame, a guide-frame swivelled upon the main frame, a cross-head mounted upon the guide-frame and adapted to support a saw-blade, a driving-shaft mounted concentric with the trunnions of the guides, and connections between the driving-shaft and the cross-head or carriages, substantially as specified. 6th. The combination of parallel pivotal guides having a common axis, a main frame having parallel side-bars mounted in said guides, adjusting devices mounted upon the trunnions and engaging the main frame to arrange the same at the desired vertical adjustment, retaining-braces pivotally connected to the main frame, means for securing said braces to lock the main frame against swinging movement upon the axis of the guides, a guide-frame carried by the main frame, a cross-head or carriage mounted upon the guide frame and adapted to carry a saw-blade, a driving-shaft mounted concentric with the axis of the guides, and connections between the driving-shaft and the cross-head or carriage, substantially as specified. 7th. The combination with a swivelled main frame adapted to swing in a vertical plane, and means for securing the frame at the desired adjustment, of a driving-shaft mounted concentric with the axis of the main frame, a guide-frame swivelled upon the main frame to swing in a horizontal plane, a spindle mounted upon the main frame, feeding devices for the guide-frame operatively connected with the spindle, a cross-head or carriage for a saw-blade mounted upon the guide-frame and operatively connected with the spindle, and connections between the driving-shaft and the spindle, substantially as specified. 8th. The combination with a swivelled main frame adapted to swing in a vertical plane, and means for securing said frame at the desired adjustment, of a driving-shaft mounted concentric with the axis of the main frame, a guide-frame supported by the main frame, a cross-head or carriage mounted upon the guide-frame and adapted to carry a saw-blade, connections between the driving-shaft and the cross-head or carriage, and counterbalancing weights flexibly connected to the main frame above the plane of its axis, substantially as specified. 9th. The combination with a swivelled main frame adapted to swing in a vertical plane, means for securing said frame at the desired adjustment, of a driving-shaft mounted concentric with the axis of the main frame, a guide frame swivelled upon the main frame, a segmental rack carried by the main frame, a pinion carried by the guide-frame and meshing with the teeth of said rack, a cross-head or carriage mounted upon the guide-frame and adapted to carry a saw-blade, a spindle operatively connected with the driving-shaft and said cross-head or carriage, and connections between the spindle and said pinion, substantially as specified. 10th. The combination with a swivelled main frame adapted to swing in a vertical plane, and means for securing said frame at the desired adjustment, of a driving-shaft mounted concentric with the axis of the main frame, a guide-frame swivelled upon the main frame to swing in a horizon-

tal plane, friction feeding machine for the guide-frame, a cross-head or carriage mounted upon the guide-frame and adapted to carry a saw-blade, and connections between the cross-head or carriage and the feeding mechanism and the driving-shaft, substantially as specified. 11th. The combination with a swivelled main frame adapted to swing in a vertical plane, and means for locking the frame at the desired adjustment, of a driving-shaft mounted concentric with the axis of the main frame, a guide-frame swivelled upon the main frame and adapted to swing in a horizontal plane, a cross-head or carriage mounted upon the guide-frame and provided with openings disposed, respectively, in vertical and horizontal planes, a bar adapted to fit in either of said openings, means for securing said bar against rotary and longitudinal movement, a holder secured to the bar and adapted to support a saw-blade, and connections between the driving-shaft and the cross-head or carriage, substantially as specified. 12th. The combination with a driving-shaft, and means for operating the same, of a frame, a carriage mounted for reciprocation on the frame, a bar, means for securing the bar to the carriage in a vertical or horizontal position and adjusting the same longitudinally thereon, a saw carried by the bar, and feeding devices for imparting an impulse to the saw in the direction of its width, substantially as specified. 13th. The combination with a driving-shaft, and means for operating the same, of a frame, a carriage mounted for reciprocation on the frame and operatively connected with the driving-shaft, a bar depending from the carriage and mounted for axial adjustment thereon whereby its lower extremity may be arranged below the level of the soil, a saw mounted upon the lower extremity of the bar, and means for imparting a continuous feeding impulse to the saw in the plane of its width, substantially as specified.

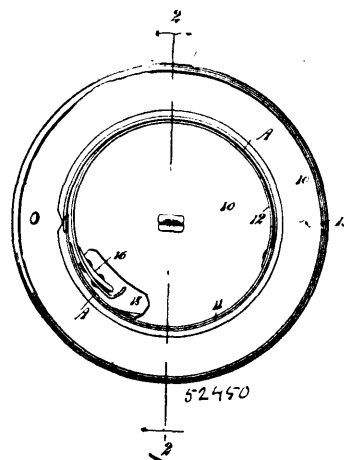
No. 52,449. Car Coupler. (Attelage de chars.)



Frank William Gerlach, Kenton, Ohio, U.S.A., 28th May, 1896
6 years. (Filed 27th April, 1896.)

Claim.—1st. In a car coupler, the combination with the draw-head having a central slot, and an intersected transverse opening, of a coupling tongue pivoted in said slot, a spring plate for exerting an upward pressure upon the tongue, a link pivoted to said draw-head, and means for lifting said link, substantially as set forth. 2nd. In a car coupler, the combination with a draw-head having a transverse opening, and a central slot, and a block secured to the under side of said draw-head, a tongue pivoted in said slot and provided with a block to engage the first named block, a spring plate having one end fixed to one of the blocks and provided at its opposite end with an elongated aperture to be engaged by a pin projecting downward from the other block, a U-shaped link pivoted to the side of the draw-head, and a lever secured to said link, substantially as set forth.

No. 52,450. Flue Stopper. (Bouchon pour cheminée.)

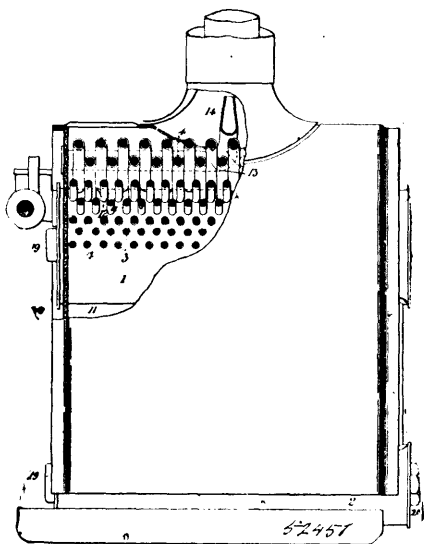


Louis Joseph Haberkorn and Edward Otto Beckman, both of Chatsworth, Illinois, U.S.A., 28th May, 1896; 6 years. (Filed 27th April, 1896.)

Claim.—1st. A flue stopper, comprising a head provided with a segmental slot, a collar on the inside of the head and having one end

fixed and provided at its other end with an arm projecting through the slot of the head, and means for locking the said arms in the slot of the head, substantially as described. 2nd. A flue stopper, comprising a head provided with a segmental slot, a collar having one end secured to a fixed support on the inside of the head, and provided with an arm at the other end, said arm projecting through the slot of the head, a guard on the arm for covering the slot of the head, and means for securing the said arm in the slot, substantially as described. 3rd. A flue stopper, comprising a head, a scoop projecting from the inner face of the head, a collar having one end secured to the scoop, and its other end extending within the scoop, and adjustably secured to the head, said collar and scoop forming an annular flange or band on the inner face of the head, substantially as described. 4th. A flue stopper, comprising a head provided with a slot, a scoop projecting from the inner face of the head, a collar having one end secured to the scoop and its other end extending into the scoop and forming therewith an annular flange on the inner face of the head, a screw threaded arm secured to the end of the collar in the scoop and projecting through the slot of the head, and a nut on the outer end of the said arm, substantially as described.

No. 52,451. Water-Tube. (Tube à eau.)

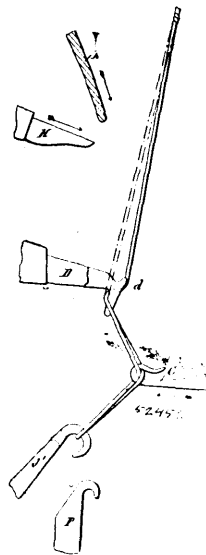


John Isaac Thornycroft, Church Wharf, Chiswick, Middlesex, England, 28th May, 1896; 6 years. (Filed 28th April, 1896.)

Claim.—1st. A water tube boiler, comprising a casing with uptake, an upper steam drum, and a lower water vessel arranged within said casing and connected by a longitudinal main group of bent heating tubes, some of which are arranged to form a close wall 3^a having exit passages at its lower and upper ends and are arranged to divide the interior of said casing into two parts, viz., a fire-box and a combustion chamber, in the latter of which the remaining tubes of the group are spaced apart as set forth, so that flame and hot gases can pass around each of them, and a close wall of tubes connecting said steam drum and water vessel and arranged to form the other side of said fire box, substantially as herein described. 2nd. A water tube boiler, comprising a casing with uptake, an upper steam drum, and a lower water vessel arranged within said casing and connected by a longitudinal main group of bent heating tubes, some of which are arranged to form a close wall 3^a having exit passages at its lower and upper ends and are arranged to divide the interior of said casing into two parts, viz., a fire-box and a combustion chamber, in the latter of which the remaining tubes of the group are spaced apart as set forth, so that flame and hot gases can pass around each of them, and a longitudinal row of bent tubes also connected to said steam drum and water vessel, these tubes being arranged close together along their upwardly extending portions so as to form a close tubular wall at the other side of the fire-box and having their lower portions made of smaller cross section than the upper portions and bent horizontally (or approximately so) so as to form hollow grate bars through which water can circulate and between which air can pass to the fire-box, substantially as herein described. 3rd. A water tube boiler, comprising a casing with uptake, a steam drum and a water vessel arranged one above the other at one side of and within said casing, a longitudinal group of bent heating tubes connecting said steam drum and water vessel, some of said tubes being arranged to form a close wall 3^a having exit passages at its lower and upper ends and are arranged to divide the interior of said casing into two parts, viz., a fire-box and a combustion chamber, in the latter of which the remaining tubes of the group are spaced apart as set forth, so that flame and hot gases can pass around each of them, a blast pipe terminating below the uptake and a damper arranged to control the passage of hot gases from the

combustion chamber to the uptake, substantially as described. 4th. A water tube boiler comprising a casing 6, a steam drum 1, a water vessel 2, a longitudinal group of bent heating tubes 3 arranged to extend from front to back of said boiler at one side of the fire-box and to connect said water vessel with the upper side of said steam drum, the two inner rows of tubes 3 being bent to form a close wall 3^a, in which are lower and upper exit openings 12 and 12^a and which divides the interior of said casing into a fire box and combustion chamber, in the latter of which the remaining tubes 3 are separately spaced, a longitudinal close row of tubes, also connecting the water vessel with the upper side of said steam drum and constituting the other side of said fire-box, downtake tubes connecting the steam drum and water vessel, a damper 9 arranged in a passage 8 between said casing and a steam drum and a blast pipe 14 terminating below the uptake, substantially as herein described for the purpose specified. 5th. A water tube boiler, comprising casing 6, steam drum 1, water vessel 2, two groups of heating tubes 3 and 4 connecting said water vessel with the upper side of said steam drum and forming the sides and roof of a fire box, some of said tubes 3 being arranged to form a wall 3^a formed with passages 12 12^a and arranged to separate the fire-box from a combustion chamber 11, in which the whole of the remaining tubes 3 are separately arranged, as set forth, and said tubes 4 being made of two diameters, the upper parts of larger diameter being arranged to form a close wall at one side of the fire-box and to extend over the tubes 3 where they are bent to form exit openings 13, and the lower parts of smaller diameter being bent to form a fire grate, down-take tubes between said steam drum and water vessel, a damper 9 arranged in a passage 8 between said steam drum and casing and a blast pipe 14, all substantially as described and shown for the purpose specified.

No. 52,452. Knot netting for fishing and other purposes and in machinery employed for making the same. (Appareil pour la fabrication des rets, etc.)



William Stuart, Esk Mills, Musselburgh, Midlothian, Scotland, 28th May, 1896; 6 years. (Filed 2nd April, 1896.)

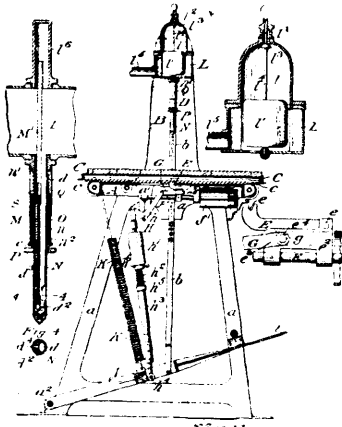
Claim.—1st. In machinery for making double knot netting, the needles D constructed with two wickers d, whereby both legs of the mesh may be chapped in, as described and shown. 2nd. In machinery for making double knot netting, the needles D, constructed with an enlarged or widened wickered, whereby both legs of the mesh may be chapped in, as described and shown. 3rd. The improved formation of double knot for fishing and other nets, substantially as described and shown.

No. 52,453. Bottle Filling Machine. (Appareil à emplir les bouteilles.)

William Miles Fowler, Stamford, Connecticut, U.S.A., 28th May, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. A bottle filling machine comprising means for supporting a bank of bottles a series of fillers located in position to simultaneously enter the nozzles of the bottles, closed charging cylinders one for each filler, a transmitting reservoir intermediate of the charging cylinders and source of supply and independent of the charging cylinders and means for automatically opening and closing the fillers as they enter and recede from the mouths of the bottles, substantially as set forth. 2nd. A bottle filling machine comprising means for supporting a bank of bottles, a series of fillers located in position to simultaneously enter the nozzles of the bottles, closed charging cylinders one for each filler, a transmitting reservoir independent of

the charging cylinders and forming a support for them, means for moving the transmitting reservoir and charging cylinders and fillers



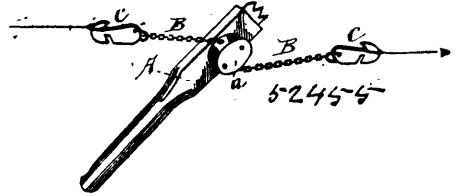
carried thereby towards and away from the bottles, a float governed by the rise of liquid in the transmitting reservoir to control the height of liquid in the several charging cylinders and means for automatically opening and closing the fillers as they enter and recede from the mouths of the bottles, substantially as set forth. 3rd. The combination with the charging cylinder and means for feeding liquid thereto, of a reciprocating valve for opening and closing the passage for the admission of the liquid to the charging cylinder a depending rod fixed to the cylinder a liquid conduit at one side of the rod, an air conduit spaced therefrom, a sleeve fixed to said valve for opening and closing the said conduits, a collar carried by said sleeve to form a closure for the mouth of the bottle and a tube extending from said valve to a point above the surface of the liquid in the charging cylinder and having a communication at its lower end with the aforesaid air conduit substantially as set forth. 4th. A filler comprising a liquid conduit, an air conduit extending to a point below the lower end of the liquid conduit and means for successively opening the air and liquid conduits as the filler enters the mouth of a bottle the point where the air vent is cut off by the raising of the liquid in the bottle being variable with respect to the lower end of the filler substantially as set forth. 5th. A filler comprising a conduit, an air conduit extending alongside the liquid conduit, and open at the side for a considerable distance from its lower end, a reciprocating sleeve forming a closure for the openings in the air and liquid conduits and means for operating the sleeve as the filler enters a bottle whereby the air and liquid conduits are opened and the height of the air escape opening determined by the position of the said sleeve substantially as set forth. 6th. A filler comprising a liquid conduit an air conduit a movable part for opening and closing said conduits a flexible disk secured to said movable part for covering the mouth of a bottle when the filler enters it and a support for the disk to hold it against the mouth of the bottle said support being spaced from the disk opposite that portion of the disk which is intended to engage the rim of the mouth of the bottle substantially as set forth. 7th. A filler comprising a liquid conduit an air conduit a sliding sleeve fitted to surround said conduits a screw threaded collar fixed to said sleeve an interior screw threaded sleeve, a stopper surrounding the sliding sleeve and a back support for the stopper carried by the said screw threaded sleeve substantially as set forth. 8th. A filler comprising a liquid conduit an air conduit having a portion of greater diameter than a lower portion and means for opening and closing the air and liquid conduits substantially as set forth. 9th. The combination with a distributing reservoir provided with an air vent and a range of fillers depending from the reservoir and having air vents opening into the reservoir of a supply conduit for conducting liquid to the distributing reservoir and permanently open to the reservoir for closing the air vent therein to determine the height of liquid in the reservoir substantially as set forth. 10th. The combination with a distributing reservoir provided with an air vent and with a range of air tight caps projecting from its top, of a range of fillers depending from the reservoir air vents extending from the fillers up within the air tight caps on the reservoir and a float for closing the air vent in the reservoir substantially as set forth. 11th. The combination with the distributing reservoir and fillers and means for reciprocating them, of a bottle supporting carriage and means for advancing the carriage step by step beneath the reciprocating fillers substantially as set forth. 12th. The combination with the reciprocating fillers and the bottle supporting carriage of an operating lever, a feed dog under the control of the lever and means for cushioning the carriage at its start and finish substantially as set forth. 13th. The combination with the reciprocating fillers and the bottle supporting carriage of a main operating lever for imparting motion to the fillers and carriage, a gravity dog for advancing the carriage, a dog operating lever having a loose engagement with the dog and a loose connection between the said dog operating lever and the main operating lever substantially as set forth.

No. 52,454. Artificial Fuel. (Combustible artificiel.)

John Dolphis Oligny, St. Henry, Quebec, Canada, 28th May, 1896; 6 years. (Filed 9th April, 1896.)

Claim.—1st. An artificial fuel, comprised of fuel oil, tar oil, soda, cream of tartar, saw-dust or peat and lime, substantially as and in the proportions hereinbefore set forth. 2nd. An artificial fuel, comprising an aerated mixture of fuel oil, tar oil, soda and cream of tartar, combined with saw-dust or peat and lime, substantially as and in the proportions hereinbefore set forth.

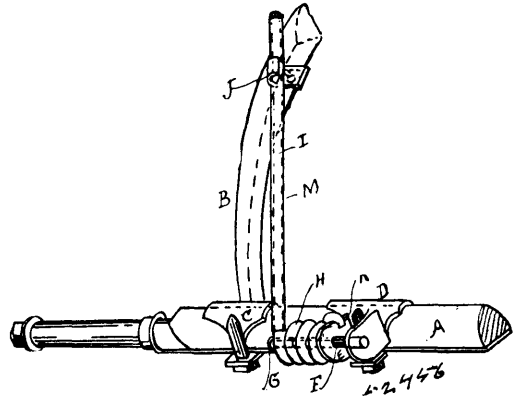
No. 52,455 Device for Tightening and Stretching Wire. (Tendeur de fil de fer.)



Francis Marion Farmer, Belcherville, Texas, U.S.A., 28th May, 1896; 6 years. (Filed 13th April, 1896.)

Claim.—A wire stretcher and tightener consisting of a lever having on one side of the end the fixed pulley a, and a rope or chain B passing through said pulley and provided with a hook at each end, as shown and described.

No. 52,456. Thill Support. (Arçon de limonière.)

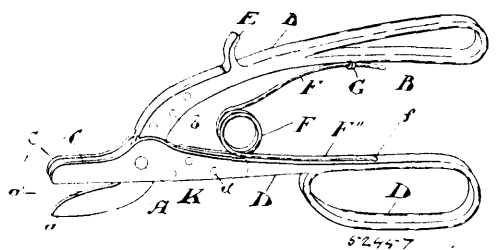


Henry Franklin Goding, Woodford's, Maine, U.S.A., 29th May, 1896; 6 years. (Filed 17th April, 1896.)

Claim.—1st. The combination with the axle and thill of a carriage, said axle having a clip attached thereto and a rod mounted in said clip and extending beyond the same, and said thill having a lug secured thereto, of a removable thill-supporter consisting of a spring having a coil on one end adapted to be supported on the extended end of said rod, said coil terminating in a hook adapted to engage loosely the top edge of said clip, the free end of said supporter extending upwardly and being adapted to engage loosely and slide in said lug, substantially as and for the purposes set forth. 2nd. The combination with the axle and thill of a carriage, of a supporting rod attached to the axle, a lug secured to the thill and a thill supporter consisting of a spring having a coil on one end adapted to be supported on said rod, and its free end enclosed in a rigid metallic reinforcing tube and adapted to engage loosely and slide in said lug, substantially as and for the purpose set forth.

No. 52,457. Can-Opener.

(Machine à ouvrir les boîtes métalliques.)

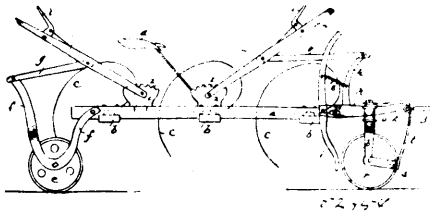


Edward Ney Pike, Orangeville, Ontario, 28th May, 1896; 6 years. (Filed 2nd April, 1896.)

Claim.—1st. In a can-opener, jaws pivoted together and operated by a handle, the lower jaw piece being pointed and having squared

cutting edges which are adapted to pass between the squared cutting edges on the sides of the upper jaw when the jaws are closed, substantially as and for the purpose specified. 2nd. In a can-opener, an upper jaw with flaring side pieces which converge towards their front end and are pivotally connected with a pointed lower jaw piece having squared cutting edges which are adapted, when the jaws are closed by the handle, to pass between the squared cutting edges on the side pieces of the upper jaw and cut out a metal strip which passes out between the said side pieces, substantially as described and specified. 3rd. In a can-opener, an upper jaw provided with flaring side pieces which converge towards their front end and are pivotally connected with a pointed lower jaw piece held normally open by means of a spring between the handle portions of the jaws, and which projects beyond the lower jaw, the squared cutting edges of the lower jaw being adapted to pass between the squared cutting edges on the side pieces of the upper jaw so as to cut out a strip, substantially as and for the purpose specified. 4th. In a can-opener, the combination of the lower jaw piece A; the upper handle piece B; stud E; side pieces C, C¹ of the upper jaw; lower handle piece D; pivot pin K; coil spring F; secured to the lower handle piece D, and with its free end F¹ passing through the staple G, on the upper handle piece B, substantially as described and specified. 5th. In a can-opener, the combination of the lower jaw piece A, pointed at a and with squared cutting edges a¹; the upper handle piece B with loop B¹; stud E; the flaring and converging side pieces C C¹ with squared cutting edges c c¹; lower handle piece D with loop D¹; pivot pin K; coil spring F, secured to the lower handle piece D, and with its free end F¹ passing through staple G on the upper handle piece B, substantially as described and specified. 6th. In a can-opener, an upper jaw with flaring side pieces pivotally connected with a pointed lower jaw piece having squared cutting edges which are adapted, when the jaws are closed by the handle, to pass between the squared cutting edges on the side pieces of the upper jaw and cut out a metal strip which passes out between the said side pieces, substantially as and for the purpose specified.

No. 52,458. Harrow. (Herse.)



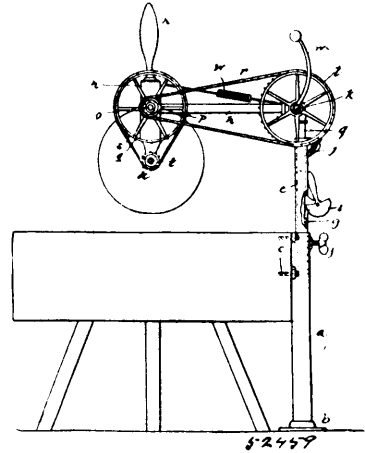
Freeman C. Merrill, Paris, Maine, U.S.A., 28th May, 1896; 6 years. (Filed 13th April, 1896.)

Claim.—In combination with a harrow-frame two or more wheels attached to the rear of the frame, said wheels being vertically adjust-

able, a wheel attached to the front thereof by means of a vertically adjustable frame or carrier, said frame having a forwardly-projecting guiding-loop and an evener loosely connected with said loop, said evener being connected by means of rods or equal length with the front of said harrow frame, substantially as described.

No. 52,459. Swinging Saw for Sawing Meats.

(*Scie pour viandes, etc.*)



John Marshall, Mansfield, Ohio, U.S.A., 28th May, 1896; 6 years. (Filed 17th April, 1896.)

Claim.—1st. The combination of a standard, a crane secured upon the same and having a swinging motion thereon, a yoke pivoted to the free end of said crane, a circular saw mounted in the lower end of said yoke, a spring applied to the said yoke and normally elevating it and the saw, and gearing for rotating the said saw, substantially as described. 2nd. The combination of a standard, a crane telescopically and axially adjustable therein, a yoke pivoted to the free end of said crane, a circular saw mounted in the lower end of said yoke, a spring applied to the said yoke and normally elevating it and the saw, and gearing for imparting rotary motion to the saw, substantially as described. 3rd. The combination of a standard, a crane secured upon the same and having a swinging motion thereon, a yoke pivoted to the free end of said crane, a circular saw mounted in the lower end of said yoke, a means applied to the yoke normally to elevate it and the saw, a motor medium and sprocket-gearing interposed between the said motor medium and saw for rotating the saw, substantially as described.

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

4342. ELLIOTT D. BARLING, 2nd term of No. 46,301, from the 9th day of June, 1900. Wire Fence, 1st May, 1896.
4343. THOMAS E. MONTAGUE, 2nd term of No. 36,527, from the 2nd day of May, 1896. Machine for Bending Vehicle Shafts and Poles, 2nd May, 1896.
4344. JOHN ROBERT MEADOWCROFT, 2nd term of No. 36,544, from the 5th day of May, 1896. Valve, 4th May, 1896.
4345. THE J. B. ARMSTRONG MANUFACTURING COMPANY OF GUELPH, (assignee), 3rd term of No. 24,014, from the 10th day of May, 1896. Buggy and Carriage Gear, 4th May, 1896.
4346. THE J. B. ARMSTRONG MANUFACTURING COMPANY OF GUELPH, (assignee), 3rd term of No. 24,015, from the 10th day of May, 1896. Bob Sleigh, 4th May, 1896.
4347. OTTMAR MERGENTHALER, 2nd term of No. 36,542, from the 5th day of May, 1896. Machine for Forming Type Bars, 5th May, 1896.
4348. DUNCAN MACPHERSON, 2nd term of No. 36,626, from the 19th day of May, 1896. Railway Switch Frog, 5th May, 1896.
4349. JAMES WHITE PROVAN, 2nd term of No. 36,568, from the 9th day of May, 1896. Hay Carrier, 6th May, 1896.
4350. JAMES B. TIERNAY, (assignee), 3rd term of No. 24,004, from the 7th day of May, 1896. Reaper and Mower Knife Sharpener, 7th May, 1896.
4351. JOHN BOYD DUNLOP, 2nd term of No. 36,551, from the 8th day of May, 1896. Vehicle Tire, 8th May, 1896.
4352. SAMUEL ELLIOTT, 2nd term of No. 36,601, from the 14th day of May, 1896. Method of and Apparatus for the Treatment of Smoke, 8th May, 1896.
4353. THE GENDRON MANUFACTURING COMPANY, (assignee), 2nd term of No. 36,661, from the 20th day of May, 1896. Process of Securing Metal Bodies, 11th May, 1896.
4354. PETER PAYETTE, 2nd term of No. 36,599, from the 14th day of May, 1896. Mill Dog, 12th May, 1896.
4355. THE CONSOLIDATED CAR HEATING COMPANY, 2nd term of No. 36,666, (assignee), from the 22nd day of May, 1896. Hot Water Heating Apparatus, 12th May, 1896.
4356. DAVID SOMERVILLE, 3rd term of No. 24,135, from the 22nd day of May, 1896. Waggon for Ballasting on Railways, 13th May, 1896.
4357. DAVID SOMERVILLE, 3rd term of No. 24,136, from the 22nd day of May, 1896. Plough, 13th May, 1896.
4358. THE HOGAN ENGINEERING COMPANY, (assignee), 2nd term of No. 36,607, from the 14th day of May, 1896. Fire Box for Heating Boiler, 13th May, 1896.
4359. THE HOGAN ENGINEERING COMPANY, (assignee), 2nd term of No. 36,608, from the 14th day of May, 1896. Compound Boiler, 13th May, 1896.
4360. THE HOGAN ENGINEERING COMPANY, (assignee), 2nd term of No. 36,609, from the 14th day of May, 1896. Means for Promoting Circulation in Boilers, 13th May, 1896.
4361. THE INTERNATIONAL ROCK PLASTER COMPANY, (assignee), 2nd term of No. 36,857, from the 19th day of June, 1896. Plaster, 15th May, 1896.
4362. WILLIAM JOHNSTON SPROULE, 2nd term of No. 36,988, from the 15th day of July, 1896. Latch for Bucket Door, 16th May, 1896.
4363. JAY SPENCER CORBIN, 2nd term of No. 36,664, from the 22nd day of May, 1896. Disc Harrow, 16th May, 1896.
4364. JACOB NEFF BARR, 2nd term of No. 36,851, from the 18th day of June, 1896. Railway Car, 18th May, 1896.
4365. WILLIAM A. KEMP, 2nd term of No. 36,765, from the 6th day of June, 1896. Stove Pipe, 19th May, 1896.
4366. JAMES TAYLOR HOYT, 3rd term of No. 24,117, from the 21st day of May, 1896. Toilet Paper, 20th May, 1896.
4367. JAMES TAYLOR HOYT, 3rd term of No. 24,118, from the 21st day of May, 1896. Cabinet for holding Toilet Paper, 20th May, 1896.
4368. WILLIAM BUCK, 2nd term of No. 36,702, from the 1st day of June, 1896. Oven Door for Stove, 20th May, 1896.
4369. WILBERT HOOEY and JAMES HANNAH, 3rd term of No. 24,180, from the 29th day of May, 1896. Refrigerator, 20th May, 1896.
4370. LOUIS CAPPLE WEGEFARTH, 2nd term of No. 36,699, from the 1st day of June, 1896. Hair Curler, 20th May, 1896.
4371. PETER PAYETTE, 2nd term of No. 36,643, from the 20th day of May, 1896. Mill Dog, 20th May, 1896.
4372. DONALD BARNES MORISON, 2nd term of No. 37,091, from the 30th day of July, 1896. Boiler Flue and Fire Box, 20th May, 1896.
4373. HENRY AUGUST GOETZ, 2nd term of No. 36,642, from the 20th day of May, 1896. Timber Seat and Tie, 20th May, 1896.
4374. JEAN BAPTISTE DORÉ, 2nd term of No. 36,898, from the 27th day of June, 1896. Hay Press, 26th May, 1896.
4375. GEORGE SHIRAS CLARK, 2nd term of No. 36,686, from the 29th day of May, 1896. Safety Vault, 26th May, 1896.
4376. PETER KELLS DEDERICK, 3rd term of No. 25,232, from the 27th day of October, 1896. Baling Press, 27th May, 1896.
4377. WINFIELD SCOTT GILMORE, 2nd term of No. 36,716, from the 2nd day of June, 1896. Railway Signal, 28th May, 1896.
4378. FREDERICK C. AUSTIN, 2nd term of No. 36,754, from the 4th day of June, 1896. Machine for Making and Repairing Roads, 28th May, 1896.
4379. ISRAEL KINNEY, 2nd term of No. 36,831, from the 16th day of June, 1896. Wire Fabric, 28th May, 1896.
4380. JOHN G. HUNLOCH, 2nd term of No. 36,803, from the 15th day of June, 1896. Plate for Railway Joints, 29th May, 1896.

TRADE-MARKS

Registered during the month of May, 1896, at the Department of Agriculture--
Copyright and Trade-Mark Branch.

5625. THOMAS BAKER, Ayr, Ont. Brown Eggs, 2nd May, 1896.
5626. EDWARD BILLING SUTCLIFFE, Halifax, N.S. A sign to distinguish the Registrant's Building in the City of Halifax, N.S., 4th May, 1896.
5627. ALEXANDER McMILLAN, JACOB P. HAYNES AND CHARLES R. HAYNES, St. Catharines, Ont. General Trade Mark, 4th May, 1896.
5628. BESSON AND COMPANY, L'd., London, England. Musical Instruments (Brass or the like wind instruments), 5th May, 1896.
5629. ELIJAH KITCHEN BARNSDALE, Stratford, Ont. A Proprietary Medicine, 7th May, 1896.
5630. HORMIDAS LAPORTE, Montreal, Que. Matches, 7th May, 1896.
5631. FELIX TELESOPHORE CARRIER, Lévis, Que. Cigars, 8th May, 1896.
5632. JAMES B. CAMPBELL, Montreal, Que. A Newspaper, 12th May, 1896.
5633. } THE LAKE OF THE WOODS MILLING COMPANY, L'd., Keewatin,
5634. } Ont. Flour, 12th May, 1896.
5635. F. L. MADDEN, Napanee, Ont. A Beverage known as Madden Cereal, 12th May, 1896.
5636. THE LAKE OF THE WOODS MILLING COMPANY, L'd., Keewatin, Ont. Flour, 15th May, 1896.
5637. DR. PAUL REMY, Mannheim, Germany. Pharmaceutical Products, 15th May, 1896.
5638. } LIEBIG'S EXTRACT OF MEAT COMPANY, L'd., London, England.
5639. } Extract of Meat, 18th May, 1896.
5640. }
5641. JOSEPH A. A. BELANGER AND DAMIEN MERCURE, Ste. Cunégonde, Que. General Trade Mark, 18th May, 1896.
5642. A. J. CALEY AND SON, Fleur de Lys Works, Norwich, England. Confectionery including Chocolate and Cocoa, 18th May, 1896.
5643. JOHN F. MICHIE, Toronto, Ont., trading as MICHIE AND COMPANY. Candies, Confections, Sweets and similar articles, 21st May, 1896.
5644. THE LAKE OF THE WOODS MILLING COMPANY, L'd., Keewatin, Ont. Flour, 23rd May, 1896.
5645. THE EASTERN TOWNSHIP CORSET COMPANY. Corsets, 26 mai 1896.
5646. WYCKHOFF, SEAMANS AND BENEDICT, Ilion and New York, N.Y., U.S.A. Type-writing Machines, 26th May, 1896.
5647. PERRY AND COMPANY, L'd., Birmingham, England. Bicycle Supplies, 26th May, 1896.
5648. THE ROYAL REMEDY AND EXTRACT COMPANY, Dayton, Ohio, U.S.A. Bonbons and Chewing Gum, 27th May, 1896.
5649. THE E. B. EDDY COMPANY, L'd., Hull, Que. General Trade Mark, 27th May, 1896.
5650. } WYCKHOFF, SEAMANS AND BENEDICT, New York, N.Y., U.S.A.
5651. } Type-writing Machines, 27th May, 1896.
5652. }
5653. }
5654. KATHREINERS MALZKAFFEE FABRIKEN MIT BESCHRÄNKTER HAPTUNG, Munich, Bavaria, Germany. Malt Coffee and other substitutes for Coffee and Cocoa, 27th May, 1896.
5655. PETER SPENCE AND SONS, Manchester Alum Works, Manchester, England. Chemical Substances used in manufactures, 28th May, 1896.
5656. TASSÉ, WOOD AND COMPANY, Montreal, Que. Cigars, 29th May, 1896.

COPYRIGHTS

Entered during the month of May, 1896, at the Department of Agriculture—
Copyright and Trade-Mark Branch.

8498. BABY'S CRADLE SONG. Words and Music by S. T. Church. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 1st May, 1896.
8499. GOD BLESS THE QUEEN OF CANADA. (Song with Chorus.) Words by Charles D. Bingham. Music by Horace W. Reyner, Mus. Bac. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 1st May, 1896.
8500. PÈRES ET THEOLOGIENS DU PREMIER CONCILE PROVINCIAL DE MONTRÉAL, 1895. (Photo.) Query Bros., Montreal, Que., 1st May, 1896.
8501. WAITING FOR HER BOY. Words by A. C. Lawrence. Music by D. J. Bunce. Whaley, Royce & Co., Toronto, Ont., 5th May, 1896.
8502. WHY SHOULD I LEAVE YOU! (Waltz Song.) Words by A. C. Lawrence. Music by D. J. Bunce. Whaley, Royce & Co., Toronto, Ont., 5th May, 1896.
8503. A TRIBUTE FROM THE GODS. Photograph from original Picture designed and executed by James Brotherhood, Stratford, Ont., 6th May, 1896.
8504. SWIMMING AND LIFE SAVING. By Captain W. D. Andrews, G.C.V., Toronto, Ont., 7th May, 1896.
8505. THAT'S WHAT I WANT SANTIE TO BRING. Words and Music by Alb. H. Fitz. Whaley, Royce & Co., Toronto, Ont., 7th May, 1896.
8506. THE MADOC MARCH. By Herbert O'Flynn, Madoc, Ont., 7th May, 1896.
8507. MASSEY'S MAGAZINE. May, 1896. The Massey Press, Toronto, Ont., 8th May, 1896.
8508. THE PROHIBITION LEADERS OF AMERICA. Edited by Rev. B. F. Austin, M.A., B.D., St. Thomas, Ont., 8th May, 1896.
8509. PASSION FLOWERS. (Semi-Sacred Song.) Words by Reginald Geoffrey. Music by Rev. J. Francis, B.D. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 8th May, 1896.
8510. WELLAND COUNTY BUSINESS DIRECTORY, 1896, AND HANDBOOK OF VALUABLE INFORMATION. Charles T. Kaumeyer, Chippawa, Ont., 8th May, 1896.
8511. HONOURABLE WILFRID LAURIER. (Photo.) Query Bros., Montreal, Que., 9th May, 1896.
8512. THE CANADIAN MAGAZINE. May, 1896. The Ontario Publishing Co. (Ltd.), Toronto, Ont., 9th May, 1896.
8513. AN ITINERANT IN THE BRITISH ISLES. By Rev. W. W. Walker. William Briggs (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 11th May, 1896.
8514. DILLON'S IMPROVED MILK BOOK AND LEDGER COMBINED. Thomas J. Dillon, Charlottetown, P.E.I., 11th May, 1896.
8515. THE ADJUSTABLE CHURCH ANNOUNCEMENT MAT. Leslie D. Post, Fort Frances, Ont., 12th May, 1896.
8516. THE NEW X RAYS. (Comic Song.) Words by James Fax. Music by Arthur W. Hughes. Whaley, Royce & Co., Toronto, Ont., 15th May, 1896.
8517. FASHIONS. An Illustrated Monthly Journal for Canadian Women. Volume 1. No. 7. Toronto, May, 1896. D. I. Barnett, Toronto, Ont., 16th May, 1896.
8518. SCHOOL MANAGEMENT AND THE PRINCIPLES AND PRACTICE OF TEACHING. By John Millar, B.A. William Briggs (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 18th May, 1896.
8519. ORPHEUS AND OTHER POEMS. By Edward Burrough Brownlow. (Sarepta.) The Pen and Pencil Club, Montreal, Que., 19th May, 1896.
8520. WEARY THE WAITING. (Song with Violin Obligato.) Words by Frank L. Stanton. Music by G. Caligari. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 19th May, 1896.

8521. ONLY MINE. (Burlesque Irish Ballad.) Words and Music by Arthur Seldon. Whaley, Boyce & Co., Toronto, Ont., 20th May, 1896.
8522. BUSTE DE L'HONORABLE WILFRID LAURIER. J. O. Gratton et G. Maillet, Montréal, Qué., 20 mai, 1896.
8523. PLAIN PRACTICAL POINTERS ON PROCURING PATENTS. (Circular.) Fetherstonhaugh & Co., Toronto, Ont., 21st May, 1896.
8524. THE SWORD OF ISLAM; OR, SUFFERING ARMENIA. (Annals of Turkish Power and the Eastern Question.) By J. Castell Hopkins. The Bradley-Garretson Co. (Ltd.), Brantford, Ont., 21st May, 1896.
8525. FAIR CANADA. (A New Patriotic Song.) Words by David Battle. Music by Helen M. Moore. David Battle, Thorold, Ont., 21st May, 1896.
8526. THE JOY OF LIBERTY STREET. (Song.) Words and Music by Thomas M. Bowers. Whaley, Royce & Co., Toronto, Ont., 21st May, 1896.
8527. THE ORANGEMAN'S PARADE. (A Selection of the Most Popular Airs for the 12th July. Easily Arranged for Piano or Organ.) By E. Corlett. Willimott H. Billing, Toronto, Ont., 21st May, 1896.
8528. THE DEBRISAY ANALYTICAL FRENCH METHOD. (Part I.) Charles T. DeBrisay, Toronto, Ont., 21st May, 1896.
8529. THE LAND OF NAPIOA. (And other Essays in Prose and Verse.) By Bertram Tennyson, Q.C., Moosomin, N.W.T., 22nd May, 1896.
8530. FIRST STEPS IN COMPOSITION. (Part I. First and Second Book Classes.) By W. A. Hutton & T. N. Leigh. The Copp, Clark Co. (Ltd.), Toronto, Ont., 22nd May, 1896.
8531. LES ÉTATS-UNIS. (Origine—Institutions—Développement.) Par A. D. DeCelles, Ottawa, Ont., 22 mai 1896.
8532. PRAYER BOOK GUIDE. Fanny Bate, Guelph, Ont., 23rd May, 1896.
8533. ABIDE WITH ME. (Quartette or Chorus.) By Frank B. Fenwick, Guelph, Ont., 26th May, 1896.
8534. LIFE OF THE VENERABLE MARIE MARGUERITE DUFROST DE LAJEMMERAIS, MADAME D'YOUVILLE, FOUNDRRESS OF THE SISTERS OF CHARITY (CALLED GREY NUNS) OF MONTREAL, CANADA. By Rev. D. S. Ramsay. La Communauté des Sœurs de la Charité (Sœurs Grises) de Montréal Qué., 26 mai 1896.
8535. 'TIS CANADA. (Patriotic Song and Chorus.) Words and Music by Charles A. Pearson, Lacolle, Que., 27th May, 1896.
8536. HENDERSON'S MANITOBA AND NORTH-WEST TERRITORIES GAZETTEER AND DIRECTORY FOR 1896. Henderson Directory Co., Winnipeg, Man., 28th May, 1896.
8537. THÉO. (Valse Élégante.—Pour Piano.) Composée par Eva Plouf, Montréal Qué., 28 mai 1896.
8538. GUARD WHILE I SLEEP. (Sacred Song.) Arranged by Frederick Warrington, Toronto, Ont., 29th May, 1896.
8539. THE WESTMINSTER. (A Paper for the Home, June, 1896.) The Westminster Co., Toronto, Ont., 29th May, 1896.
8540. THE ARCHBISHOPS OF CANTERBURY. (Book which is now being preliminarily published in separate articles in the "Canadian Church Magazine and Mission News," Toronto.) Rev. Chas. W. Mockridge, Toronto, Ont., 30th May, 1896.