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# The Canadian Patent Office

## RECORD





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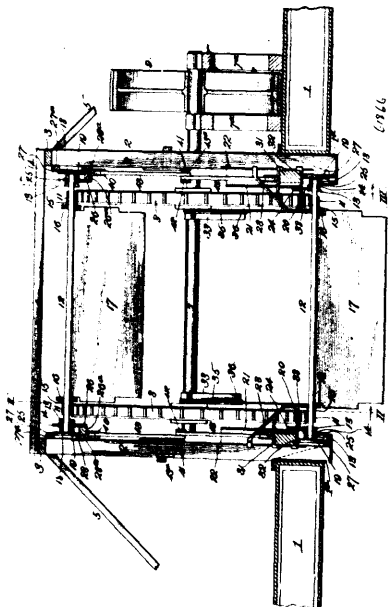
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### INVENTIONS PATENTED.

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

#### No. 61,866. Water-Current Motor.

(Moteur à courant d'eau.)



William Woodroe Douglas, Kansas City, Missouri, and Cambren Isaac Webb, Des Moines, Iowa, both in the U.S.A., 1st December, 1898; 6 years. (Filed 22nd July, 1898.)

*Claim.*—1st. In a current motor, the combination, as hereinbefore described, of a float, having a well and provided with a superstructure, transverse shafts journaled therein, sprocket-wheels upon said shafts, chains connecting said wheels, transverse shafts carried by said chains and provided with paddles and roller-carrying arms, elliptic tracks for said rollers, and elliptic tracks within the first-named tracks, the lower longitudinally extending portion of said

inner tracks being adjustable vertically in order to permit pressure of the water upon the paddles below the same to throw the paddles to their inoperative or inclined position. 2nd. In a current-motor, the combination, substantially as hereinbefore described, of a float provided with a well and a superstructure, transverse shafts journaled therein, sprocket-wheels upon said shafts, chains connecting said wheels, transverse shafts carried by said chains and provided with paddles, rollers and roller-carrying arms, elliptic tracks for engagement with the inner and outer sides of the shaft-rollers, elliptic tracks for engagement with the outer sides of the rollers of said roller-carrying arms, and elliptic tracks for engagement with the inner sides of the rollers of said arms and having their lower longitudinally extending portions vertically adjustable. 3rd. In a current-motor, the combination, as hereinbefore described, of a float having a well and a superstructure, transverse shafts journaled therein, sprocket-wheels upon said shafts, chains connecting said wheels, transverse shafts carried by said chains and provided with paddles, rollers, and a pair of roller-carrying arms near each end, elliptic tracks engaging the inner and outer sides of the shaft-rollers, elliptic tracks engaging the inner and outer sides of the rollers of the endmost roller-carrying arms, the lower longitudinally extending portions of the inner tracks being adjustable vertically, and supplemental vertically movable tracks engaging the inner sides of the rollers of the inner roller-carrying arms. 4th. In a current-motor, the combination, substantially as hereinbefore described, of a float provided with a well and a superstructure, transverse shafts journaled therein carrying sprocket-wheels, chains connecting said wheels, transverse shafts carried by said chains and provided with paddles, rollers, and a pair of roller-carrying arms near each end, elliptic tracks for engagement with the inner and outer sides of the shaft-rollers, elliptic tracks engaging the outer sides of the rollers of the endmost roller-carrying arms, elliptic tracks engaging the inner sides of said rollers and consisting of two sections, sliding brackets carrying timbers provided with tracks forming the lower longitudinal sections of the last-named elliptic tracks, a supplemental track carried by said tracks and engaging the inner sides of the rollers of the inner roller-carrying arms, longitudinal draw-bars connected by toggle-levers to said timbers, segmental guides for said draw-bars, and means to adjust and secure said draw-bars, and consequently the paddles, at any desired point of adjustment. 5th. In a current-motor, the combination, substantially as hereinbefore described, of a float provided with a well and a superstructure, transverse shafts journaled therein, sprocket-wheels upon said shafts connected by chains, shafts carried by and connecting said chains, paddles, and rollers upon said shafts, elliptic tracks engaging the inner and outer sides of said rollers, having their end-portions concentric of the first-named shafts, a pair of roller-carrying arms projecting forwardly from the ends of the shaft, an elliptic track engaging the outer sides of the rollers of said arms, with its end or curved portions extending eccentrically of the first-named shafts, a companion or inner track, the latter embodying a vertically movable lower section, an upper stationary section, having grooved ends, and a segmental pivoted section uniting the upper and lower sections, sliding brackets carrying said vertically movable section, a supplemental vertically movable track carried by said brackets, and auxiliary arms projecting from the paddle-shafts and provided with rollers engaging the lower edge of said supplemental tracks.

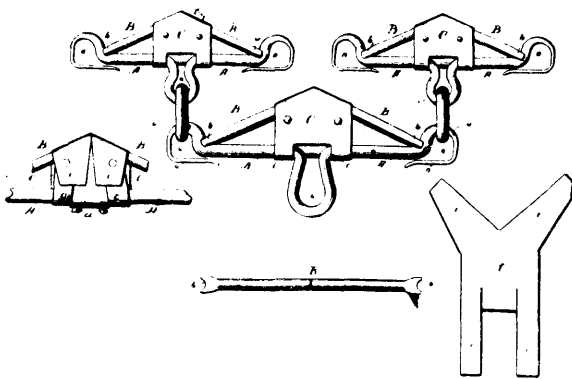
#### No. 61,867. Whiff-tree and Hold-Back.

(Palonnier et ragot de limonière.)

John W. Hyde, and Thomas C. Whitson, both of Bankston, Alabama, U.S.A., 1st December, 1898; 6 years. (Filed 8th November, 1898.)

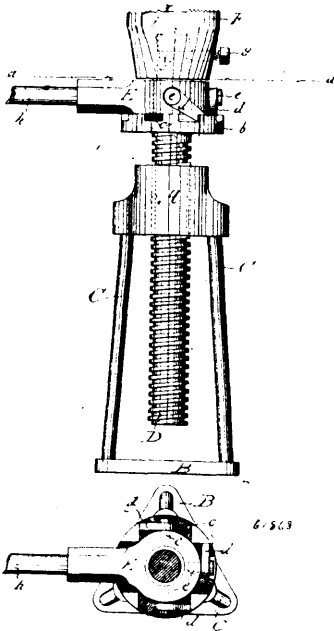
*Claim.*—In breast or single trees, the bar A, bent rearwardly at the middle to form the clevis a, and forwardly bent at the ends to

and are inclined inwardly toward each other, combined with a keeper, over the opposite edges of which the cam-surfaces catch when then



form the trace-hooks a', the said hooks being elongated made elastic and carried back to rest on or nearly on the said bar A, as shown and described.

**No. 61,868. Lifting Jack.** (*Appareil de relevage.*)



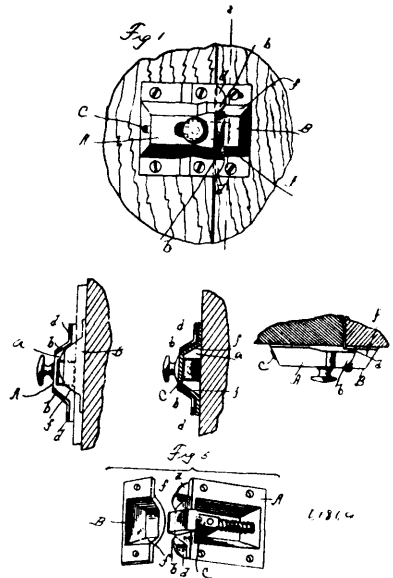
Andrew Olsen and Albert E. Fraser, Nanaimo, British Columbia, Canada, 1st December, 1898; 6 years. (Filed 26th October, 1898.)

*Claim.*—1st. In a lifting-jack, the portion of the main frame A, having the screw D, threaded therein, a fixed flange b near the top of the screw, pawl recesses c, in said flange, a lever socket E, arranged to lie upon the said flange and turn on the shank of the screw, and reversible pawls pivoted to the said socket, as and for the purpose set forth. 2nd. In a lifting-jack, the combination with a screw threaded into a top-frame piece A, and a head-piece F arranged to turn and rest on the upper end of the shank of the said screw, a flange integral with the screw, having pawl recesses therein, a lever socket embracing the shank of the screw, the same lying between the said flange and the head-piece F, and a plurality of reversible pawls d, pivoted to the rounded vertical wall of the said socket, as and for the purposes specified.

**No. 61,869. Latch.** (*Loquet.*)

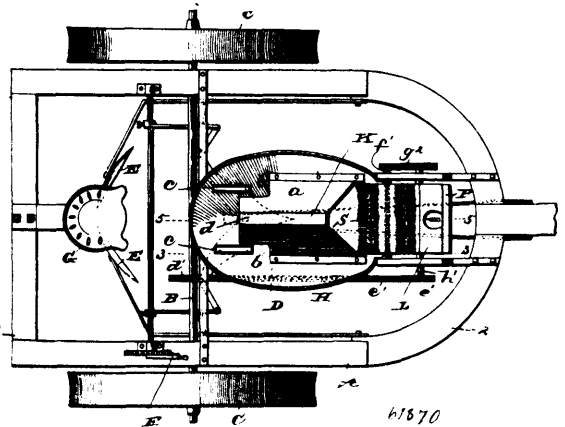
Joseph D. Woodbury and Francis L. Olds, both of Springfield, Massachusetts, U.S.A., 1st December, 1898; 6 years. (Filed 24th October, 1898.)

*Claim.*—In a fastening device for doors, the latch-case, provided with cam-surfaces b, which project over the inner end of the casing



door is closed and prevent the door from sagging, substantially as shown.

**No. 61,870. Potato Planter.** (*Semoir à patates.*)

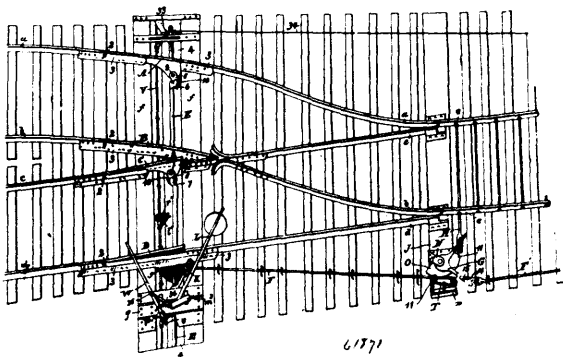


Joseph A. Mengel, George K. Binkley, both of Orwigsburg, and George H. Gerber, Pottsville, all in Pennsylvania, U.S.A., 1st December, 1898; 6 years. (Filed 22nd October, 1898.)

*Claim.*—1st. In a potato planter, a hopper provided with means for discharging potatoes from both sides of the centre of the hopper, an agitator for each discharge and an intermediate agitator, in combination with a conveyor for delivering the potatoes. 2nd. In a potato planter, a hopper provided with discharge openings on both sides of the centre of the hopper, an agitator for each opening and an intermediate agitator, in combination with a conveyer provided with pockets, means for engaging a potato in each pocket and means for releasing the potatoes. 3rd. In a potato planter, a hopper provided with agitators projecting through the wall of the hopper and suitable discharge openings, in combination with the conveyer constructed to operate said agitators in its rotation. 4th. In a potato planter, a hopper, in combination with a conveyer provided with pockets, means operating in each pocket to agitate potatoes in the pocket and engage one potato, and means for releasing the potatoes. 5th. In a potato planter, a hopper, in combination with a conveyer provided with pockets, means operating in each pocket to agitate potatoes in the pocket and engage one potato and a track with which said means engage to agitate and release the potatoes. 6th. In a potato planter, a hopper, in combination with a conveyer provided with pockets, means operating in each pocket to agitate potatoes in the pocket, eject surplus potatoes and engage one potato, and means for releasing the potatoes. 7th. In a potato planter, a hopper, in combination with a conveyer provided with pockets, means operating in each pocket to agitate potatoes in the pocket, eject surplus potatoes and engage one potato and a track with which said means engage. 8th. In a potato planter, a conveyer

provided with pockets having a slot in the bottom thereof, in combination with a curved needle in each pocket working in said slot and means for operating said needle to engage and release a potato. 9th. In a potato planter, a conveyer provided with pockets having a slot in the bottom thereof, in combination with a needle in each pocket having an arm for agitating potatoes in the pocket, and means for operating the needle. 10th. In a potato planter, a conveyer provided with pockets having a slot in the bottom thereof, in combination with a curved needle in each pocket having an arm for agitating potatoes in the pocket, and means for operating the needle. 11th. In a potato planter, a conveyer provided with pockets having a slot in the bottom thereof, in combination with a needle in each pocket provided with an arm for agitating potatoes in the pocket, and an arm to eject surplus potatoes, and means for operating the needle. 12th. In a potato planter, a conveyer provided with pockets having a slot in the bottom thereof, in combination with a curved needle in each pocket provided with an arm at one end for agitating potatoes in the pocket, an arm to expel the surplus potatoes, and means for operating the needle. 13th. In a potato planter, a conveyer having pockets, in combination with means for agitating and ejecting surplus potatoes and engaging one potato in each pocket, and means for releasing the potato. 14th. In a potato planter, a conveyer provided with pockets having a slot on each side of its centre, in combination with a curved needle in each pocket provided with an arm at one end for agitating potatoes in the pocket and an arm near the opposite end to expel surplus potatoes from the pocket. 15th. In a potato planter, a conveyer provided with pockets, in combination with a curved needle having a transverse bar, and a track with which said bar engages. 16th. A potato planter, provided with a conveyer having pockets, means operating in each pocket to remove surplus potatoes, a supplemental device separate from the pockets to remove surplus potatoes, means for engaging a potato in the pocket, and means for releasing potatoes.

**No. 61,871. Railway Switch.** (*Aiguille de chemin de fer.*)



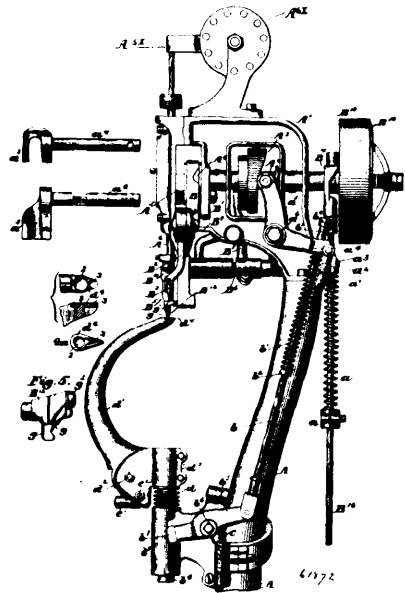
61871

Charles Henry Strauss and Benjamin Julius Rosten, both of Seattle, Washington, U.S.A., 1st December, 1898; 6 years. (Filed 17th October, 1898.)

**Claim.**—1st. In a safety railway switch, the combination with a plurality of tracks, such as a main and side track, and switch rails adapted to be moved into line with either track, of automatic actuating mechanism for the switch-rails comprising a rock-shaft arranged transversely to said tracks and having opposite bends, arms or cranks, connections between said shaft and rails, and movable parts or levers for each of said tracks connected respectively with said opposite arms of the rock-shaft, substantially as shown and described. 2nd. The combination of a plurality of tracks, switch-rails therefor, movable parts or levers in or by each of said tracks, mechanism connecting the same, whereby the depression of the movable part or parts of one track will elevate the corresponding part or parts of the other track, and operating connections between said mechanism and the switch-rails, substantially as shown and described. 3rd. The combination with the switch-rails, of a plurality of tracks, the rails of which are bodily movable vertically at or near the switch-rails, mechanism connecting said vertically movable rails, whereby the depression of those of one track will elevate the others, and actuating connections between said mechanism and the switch-rails for shifting the latter into line with the track, the movable rails of which are depressed, substantially as shown and described. 4th. The combination with the switch-rails, of a plurality of tracks, the rails of which are bodily movable vertically, fish-plates in which said vertical movable rails are held and guided provided with transverse bearings, a rock-shaft mounted beneath the tracks in said bearings and having opposite arms, bends or cranks, connections between the movable rails of one track and the arms at one side of the shaft, connections between the movable rails of the other track and the arms at the other side of the shaft, and actuating mechanism connecting the shaft with the switch-rails, substantially as shown and described. 5th. The combination with the switch-actuating parts or levers, and the switch-rails, of actuating mechanism connecting said parts with the switch-rails, locking devices for main-

taining the switch-rails in their set position, and a loose connection between said actuating mechanism and the locking devices whereby the latter are operated at a different time from the switch-rails, substantially as shown and described. 6th. The combination with the switch-actuating parts, such as the levers A, B, C, D, and the switch-rails, of actuating mechanism connecting said parts with the switch-rails, locking devices such as the keys *xx*, for maintaining the said actuating parts in their set position, and a loose connection, such as is provided by the slotted rod F, between said actuating mechanism and the locking devices, whereby the latter are operated at a different time from the said switch-actuating parts, substantially as shown and described. 7th. The combination with a plurality of tracks, each having switch-actuating parts or levers, and the switch-rails, of actuating mechanism connecting said parts with the switch-rails, switch-actuating parts or levers at the other side of or beyond the switch-rails, and mechanism connecting the last-mentioned levers with the first-mentioned levers of both tracks, whereby a clear main track is insured in both directions, substantially as shown and described. 8th. The combination with a plurality of tracks, each having switch-actuating parts or levers, and the switch-rails, of actuating mechanism connecting said parts with the switch-rails, locking devices for maintaining the switch-rails in their set position, a loose connection between said actuating mechanism and the locking devices whereby the latter are operated at a different time from the switch-rails, switch-actuating parts or levers at the other side or beyond the switch-rails, and mechanism connecting the last-mentioned levers with the first-mentioned levers of both tracks, substantially as shown and described. 9th. In an automatic railway switch, the combination with the tracks and switch-rails, of switch actuating levers inclined in opposite directions, one lever formed with a horizontally extending recess and the other with a corresponding projection fitting in said recess, connections between said levers and the switch-rails and means for elevating the levers, substantially as shown and described. 10th. The combination with a plurality of tracks having switch-actuating parts or levers, and the switch-rails of actuating mechanism connecting said parts with the switch-rails, a second second set of switch-actuating parts or levers beyond the switch-rails, mechanism connecting the latter levers with the switch-rails, and a third set of levers connected with the mechanism of said second set whereby the second set of levers may be rendered inoperative, substantially as shown and described. 11th. The combination with the rock-shaft B<sup>2</sup>, of levers C<sup>1</sup>, D<sup>1</sup>, of the sliding cams C<sup>2</sup>, brackets *y*, carrying rollers and means for reciprocating said cams and brackets, substantially as shown and described.

**No. 61,872. Machine for Inserting Metallic Fastenings.** (*Machine pour chasser les pointes métalliques.*)



61872

The McKay Shoe Machinery Company, Portland, Maine, and Louis Amédée Casgrain, Winchester, Massachusetts, U.S.A., 1st December, 1898; 6 years. (Filed 26th October, 1898.)

**Claim.**—1st. A horn spindle, and a horn pivoted thereon and provided at its upper end with two clinching cavities, one being located nearer the end of the tip of the horn than the other, either of said cavities being adapted to be put into line with the nose of the machine through which the nail is driven into the work supported on the horn, substantially as described. 2nd. A horn spindle, and a horn pivoted thereon and provided at its upper end with two clinching cavities, one being located nearer the end of the tip of the

horn than the other, either of said cavities being adapted to be put into line with the nose of the machine through which the nail is driven into the work supported on the horn, said horn having near its pivot, a shoulder, and a locking pawl engaging said shoulder, substantially as described. 3rd. A horn spindle, and a horn pivoted thereon and provided at its upper end with two clinching cavities, one being located nearer the end of the tip of the horn than the other, either of said cavities being adapted to be put into line with the nose of the machine through which the nail is driven into the work supported on the horn, said horn having near its pivot, a shoulder, and a locking pawl engaging said shoulder, a frame carrying said pawl and a spring to normally hold said pawl pressed against said shoulder, substantially as described. 4th. A horn spindle, and a horn pivoted thereon and provided at its upper end with two clinching cavities, one being located nearer the end of the tip of the horn than the other, either of said cavities being adapted to be put into line with the nose of the machine through which the nail is driven into the work supported on the horn, said horn having near its pivot, a shoulder, and a locking pawl engaging said shoulder, and a stop to align the horn so that the bottom of its main cavity will be kept in line with the nose of the machine, substantially as described. 5th. In a nailing machine, the following instrumentalities, viz:—a rotating shaft provided with a cam, a lever actuated by said cam, a horn spindle having a shoulder, means to support said spindle, a horn carried by said spindle, a spring co-operating with said horn spindle to substantially counterbalance the weight of said horn, a lever adapted to engage the shoulder of the horn spindle, a connecting rod interposed between said two levers, and a spring surrounding said rod to enable the horn under the action of said lever to adapt itself to varying thicknesses of material, said cam being shaped to actuate said devices and keep the horn in its elevated position when a nail is being driven, substantially as described. 6th. In a nailing machine, the following instrumentalities, viz:—a rotating shaft provided with a cam, a lever actuated by said cam, a horn spindle having a shoulder, means to support said spindle, a horn carried by said spindle, a lever adapted to engage the shoulder of the horn spindle, a connecting rod interposed between said two levers, a spring surrounding said connecting rod and supported at one end by a nut thereon to adapt itself to varying thickness of material combined with an adjustable sleeve carried by said rod, said cam being shaped to actuate said devices and keep the horn in its elevated position when a nail is being driven, substantially as described. 7th. A horn spindle, a horn pivoted thereon at one side of the center line of said spindle and provided with two shoulders near its pivotal points, combined with a pawl which may engage either of said shoulders to operate, substantially as described. 8th. A horn spindle, a horn pivoted thereon at one side of the center line of said spindle and provided with two shoulder near its pivotal point, combined with a pawl which may engage either of said shoulders, said pawl containing a spring to keep its point pressed toward the shoulders of said horn, substantially as described. 9th. In a nailing machine, a horn spindle having a horn pivoted thereon at one side of the center line of said horn spindle, means to normally act upon the lower end of said horn below its pivot to maintain the tip of the horn in nailing position, combined with a stop located above the pivotal point of said horn and between said horn and the center line of said horn spindle to determine the exact position of the clinching cavity at the tip of the horn with relation to the path of movement of the driver, substantially as described. 10th. In a nailing machine, a spindle, a horn pivoted thereon and provided with two clinching cavities, said horn having a two faced notch, combined with a pawl engaging said notch, substantially as described. 11th. In a nailing machine, a spindle, a horn pivoted thereon and provided with two clinching cavities, said horn having a two faced notch, combined with a pawl engaging said notch, and with an eccentric to adjust the position of said pawl, substantially as described. 12th. In a nailing machine, a horn spindle having a shoulder, a horn pivoted on said spindle, a lever to engage said shoulder to lift the horn, a rotating shaft having a cam, a lever actuated by said cam, and a rod connecting said two levers, said rod having a spring, a sleeve and a nut to adjust it, said lever being interposed between said spring and sleeve, substantially as described. 13th. In a machine for inserting nails into boots and shoes the following instrumentalities, viz:—a rotatable shaft, a driver bar and its attached driver, means carried by said shaft to operate said driver bar, a vertically movable horn or work-support normally occupying its lowest position when the machine is stopped, a cam carried by said shaft, a lever actuated by said cam connections between said horn and lever, a spring interposed between said connections and lever, said spring being compressed by said lever as the horn is being lifted to thereby hold the work up by a yielding pressure, said spring being relieved from its pressure when the machine is stopped and the horn is in its lowest position, substantially as described.

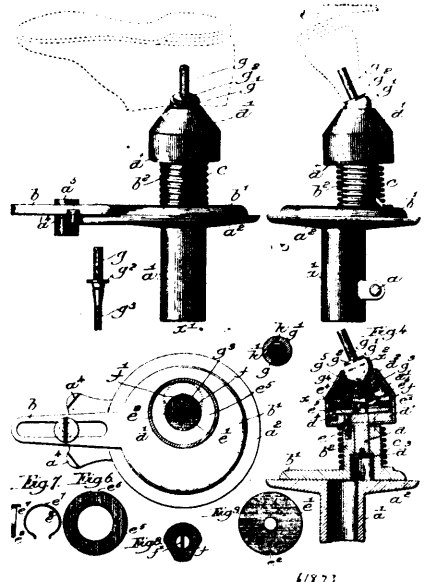
**No. 61,873. Jack for Slugging and Nailing Heels.**

(Machine pour enforcer les chevilles en bois dans les talons.)

The McKay Shoe Machinery Company, Portland, Maine, assignee of Louis Amédée Casgrain, Winchester, Massachusetts, U.S.A., 1st December, 1898; 6 years. (Filed 26th October, 1898.)

*Claim.*—1st. In a jack for holding a boot or shoe, having a heel into which is to be driven slugs, a swing plate having a hub and a vertically movable shank therein, a spring to support said shank,

and a pivoted last-holding pin made movable vertically with said shank, substantially as described. 2nd. The use in a jack having a



universally tippable last-holding pin, of a support for said pin, and locking means to hold said pin in any position in which it may be put by the requirements of the work, said locking means holding said pin firmly in position while a slug or nail is being driven into the sole on the last supported by said pin, substantially as described. 3rd. The use, with a jack having a last-holding pin provided with a ball or sphere, of a support for said ball or sphere whereby it and said pin are free to tip in its support, of locking means to hold said pin in fixed position during the driving of a slug or nail into the shoe on the last held on said pin, substantially as described. 4th. The use in a jack, having a last-holding pin provided with a partial ball or sphere, of a curb having a seat for said ball or sphere, substantially as described. 5th. The use, in a jack having a last-holding pin provided with a partial ball or sphere, of a curb having a seat for said ball or sphere, and a movable nut to aid in keeping said ball or sphere seated in said seat, substantially as described. 6th. The use, in a jack having a last-holding pin provided with a partial ball or sphere, and a curb having a seat to receive said ball or sphere, of a toothed plate, a toothed slide movable with or by said pin, and a toothed locking-plate, the said locking-plate and toothed plate engaging said toothed slide and locking the last-holding pin fixedly in position when the shank of said curb is depressed in its holding hub preparatory to driving a nail or slug in the sole laid on the last mounted on said pin. 7th. In a jack, the use, with a curb having a seat and a fixed toothed plate, of a movable toothed slide, a last-holding pin having a ball-like or spherical portion entering said seat, a toothed locking-plate mounted loosely in said curb, a shank attached to said curb and entering a hole in the hub, a spring applied to said hub to normally keep said curb elevated, and a device to arrest the movement of said toothed locking-plate as the curb is depressed to compress said spring, whereby said toothed slide is grasped to maintain in fixed position the last-holding pin while the slug is being driven into the work.

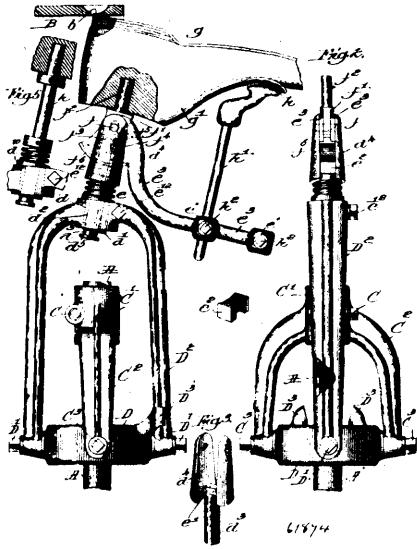
**No. 61,874. Jack for Shoe Nailing Machines.**

(Machine pour cherriller les chaussures.)

The McKay Shoe Manufacturing Co'y, Portland, Maine, assignee of Amedée Casgrain, Winchester, Massachusetts, U.S.A., 1st December, 1898; 6 years. (Filed 26th October, 1898.)

*Claim.*—1st. In a nailing machine, a last-holding pin, a diagonally bored sleeve to receive said pin, and means to support said sleeve so that it may be rotated to vary the inclination of said pin in said support more or less out of a vertical position, substantially as described. 2nd. In a nailing machine, a horn shaft, an auxiliary yoke or support sustained above it and provided with a hole bored diagonally therein with relation to the centre of said horn shaft, and a sleeve placed in said diagonally bored hole, combined with a last-holding pin, and a shank carrying it, said shank entering loosely the diagonal hole of said sleeve, the rotation of the sleeve in said support varying the angular position of the last pin to thereby more or less incline the sole of the shoe supported on said last, substantially as described. 3rd. In a shoe holding jack, a forked slide having a shank, a diagonally bored sleeve to receive said shank, a yoke or support having a diagonally bored hole to receive said sleeve, said sleeve being rotatable in said yoke or support, a spring to support said forked slide in a yielding manner, a locking device carried by said forked slide, a last pin, and a lever having segmental

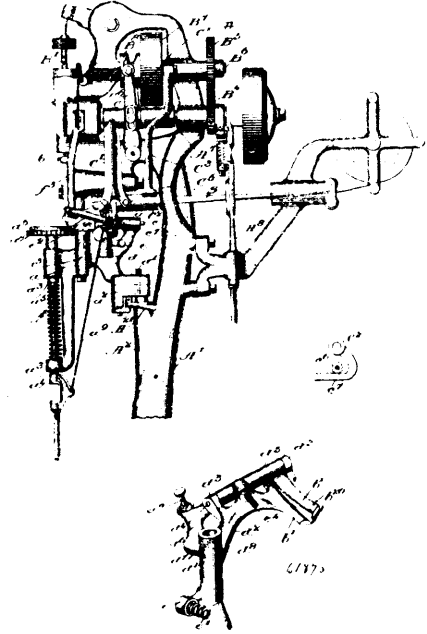
teeth to support a last and its shoe, and carrying a toe rest, said pin and lever being pivoted in said sleeve, pressure on the last carried



by said pin in making the shoe putting the toothed part of said lever into engagement with said locking device and holding the last pin and lever and toe rest firmly in position, substantially as described. 4th. The horn shaft, its attached main yoke, a ring pivoted on or with relation to said yoke, and an auxiliary yoke pivotally mounted on said ring and having a diagonally bored hole, combined with a last pin, and a sleeve bored diagonally and placed loosely in the hole of said yoke, the rotation of said sleeve placing said last pin in a position inclined more or less from a vertical, substantially as described. 5th. The last pin having a slotted shank, a lever, in one end of which the said shank is fitted, a forked slide, in which the said lever and shank are pivoted, a toe rest mounted on said lever, combined with a last mounted on said last pin and resting on said toe rest, and means to sustain the said forked slide, substantially as described. 6th. A last pin having a slotted and notched shank, a forked slide, and a lever having a connected toe rest combined with a strut or pin located between the said lever and the notched shank of the last pin, to operate, substantially as described. 7th. The last pin, and forked slide having a shank in which said pin is mounted to tip, combined with a sleeve having a diagonally bored hole to receive the shank of said slide, and means to sustain said sleeve loosely, whereby by rotating said sleeve in its sustaining means the angular position of the last pin may be changed at will, substantially as described. 8th. The last pin, and forked slide in which said pin is mounted to tip, combined with a sleeve having a diagonally bored hole to receive the shank of said slide, and means to sustain said sleeve loosely, the said sleeve being rotatable in its sustaining means to change the angular position of the last pin, a spring surrounding the shank of said slide to normally keep said slide elevated, substantially as described. 9th. A last pin, and forked slide having a shank in which said pin is mounted to tip, and a lever pivoted between the forked upper end of said slide, and having a series of teeth arranged in the form of a segment, combined with a sleeve having a diagonally bored hole to receive the shank of said slide, means to sustain said sleeve, the said sleeve being rotatable in its sustaining means to change the angular position of the last pin, a spring surrounding said shank and serving to normally keep said slide elevated, and a locking device to engage the toothed part of said lever, to thereby hold it in place, substantially as described. 10th. The forked slide having a shank, a last pin, a toothed lever mounted in said forked slide, a toothed locking block mounted loosely in said slide to engage the teeth of said lever when the last pin and the toothed end of said lever are depressed, combined with a sleeve in which the said forked slide enters, and means to sustain said sleeve, substantially as described. 11th. The forked slide having a shank, a last pin, a lever mounted in said forked slide and provided with teeth, a toe rest adjustable on said lever, and a toothed locking block to engage the teeth of said lever when the last pin is depressed, combined with a sleeve having a diagonally bored hole to receive the shank of said forked slide, and means to sustain said sleeve, substantially as described. 12th. In a shoe holding jack, a lever provided with a toe rest, means to sustain one end of said lever, and a movable last pin sustained by a holder mounted loosely at one end of said lever, combined with a pin or strut co-operating with said holder and lever, to operate, substantially as described. 13th. The forked slide having a shank provided with a stop to limit its upward movement, a guide for said shank, a spring

interposed between a shoulder of said forked slide and said guide, to normally keep said slide elevated, a lever having a toothed segmental part, a toe rest supported by said lever, a last holding pin mounted in said lever and adjustable therein, combined with a locking device made as a toothed block sustained loosely in the fork of said slide, said locking device being stopped by contact with the guide in which works the shank of said forked slide, the further descent of said forked slide after the arresting of the said locking device, causing the toothed part of said lever to engage said locking and lock the last holding pin and toe rest firmly in position, substantially as described.

**No. 61,875. Maching for Uniting a Welt or Band to a Shoe or Heel.** (*Machine à cheviller pour chaussures.*)

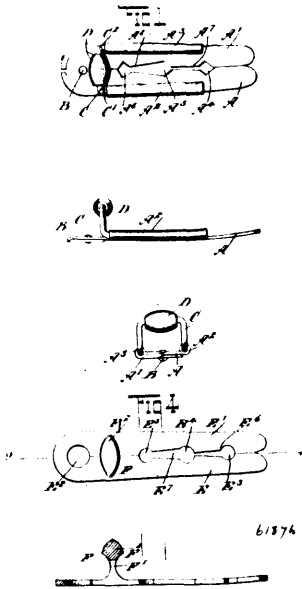


The McKay Shoe Machinery Company, Portland, Maine, U.S.A., assignee of Louis Amédée Casgrain, Winchester, Massachusetts, U.S.A., 1st December, 1898; 6 years. (Filed 26th October, 1898.)

*Claim.*—1st. In a nailing machine, a vertically movable, loosely supported table to sustain the work, a toothed gear located below said table and operatively connected therewith, a long toothed pinion occupying a position substantially parallel to the centre of rotation of said table, means to rotate said long toothed pinion that it may rotate said table in unison with it and yet let said table rise and fall to adapt itself to any variation of thickness of the material lying upon it and between it and the feeding device employed to move the material over the surface of said table, substantially as described. 2nd. The spring-sustained work-support having an attached gear, a long pinion having its teeth in engagement with the teeth of the said work-support and provided with bevel teeth at one end, and a feeding-wheel having bevel teeth engaging the bevel teeth of the said long pinion, combined with a shaft, and means to rotate it, the said feed-wheel, and the said work-support, substantially as described. 3rd. The strip carrying hub  $C^2$ , and attached rack and the feed-wheel and its shaft, combined with a pawl and a pawl carrier to actuate it, the said pawl carrier being moved by the said rack, substantially as described. 4th. In a nailing machine, a spring-sustained work-support, a gear carried thereby and located below said support, a feeding device to act upon the material lying on said table, a long pinion parallel to the shaft carrying said work-support, and gearing between the shaft carrying said feed device and said long pinion, to rotate said long pinion and cause it to rotate said work-support whatever its position due to variations in the thickness of the material lying on said support and between it and the said feeding device, substantially as described. 5th. In a nailing machine, a driver-bar and driver to drive a nail, a work-support on which the work to be nailed rests, combined with a welt-guide having a bottom plate on which the welt rests, and a pressing finger resting on the top of the welt, and means to move the said finger away from said bottom plate, to enable a welt to be laid on said bottom plate, substantially as described. 6th. In a nailing machine, a driver-bar and a driver to drive a nail, a work-support on which the work to be nailed rests, combined with a welt-guide having a bottom plate on which the welt rests, and a finger resting on the top of the welt, means to keep said finger pressed uniformly on said welt, and means to swing said welt-guide toward and from the driver, substantially as described.

7th. In a nailing machine, a driver-bar and driver to drive a nail, a work-support on which the work to be nailed rests, combined with a welt-guide having a bottom plate on which the welt rests, and a pressing-finger having a pin or tooth to enter the upper side of the welt, and means to move the said finger toward and from said bottom plate, substantially as described. 6th. In a nailing machine, a driver-bar and driver, a vertically yielding work-support to sustain a sole and adapt itself to variations in the thickness of said sole, means to positively rotate said work-support in its varying position, a rotatable feeding-wheel occupying a fixed position and acting on a welt lying on said sole, combined with means to rotate said feed-wheel positively at a faster surface-speed than the surface speed of said work-support, whereby said feed-wheel is enabled to crimp the welt and lay it on the curved portion of the sole, preparatory to the action of the driver in driving a fastening into said welt to secure it to said sole, substantially as described. 9th. In a nailing machine, a driver-bar and driver, a vertically yielding work-support, a welt-guide composed of a frame mounted on a vertical pivot and presenting a bottom plate, and a spring-pressed finger provided with teeth, to engage the upper side of said welt, and means to vibrate said frame about said pivot to aid in feeding said welt, combined with a feeding device acting on the welt being laid and nailed on the material sustained on said work-support, substantially as described. 10th. In a nailing machine, a driver-bar or driver, a vertically yielding movable work-support to sustain the material, a welt-guide composed of a plate and a movable finger between which the welt is laid, an edge-gauge, a feeding device acting on the welt where it contacts with the material lying on the said work-support, and means to move said welt-guide in the arc of a circle toward and from the said edge-gauge to force the edge of the welt against the edge-gauge preparatory to driving a nail in the welt, substantially as described.

**No. 61,876. Cuff-Holder. (Porte-poignets.)**



Charles Virgin Richards and Lelia Agnes Cushing, both of Skowhegan, Maine, U.S.A., 1st December, 1898; 6 years. (Filed 7th November, 1898.)

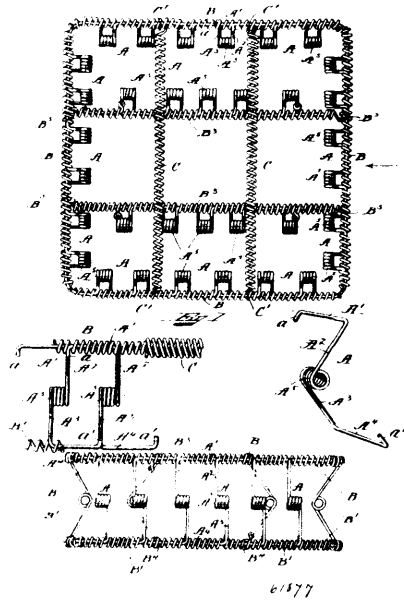
*Claim.*—1st. A cuff-holder, consisting of two flat arms connected with each other at one end so as to move toward and from each other at their free ends, the contiguous edges of the arms being provided with notches communicating with each other by means of two slots, such slots gradually decreasing in width in the direction of the joined ends of the arms, and the inner slot being wider than the outer slot. 2nd. A cuff-holder, having two arms joined to each other at one end, so that the free portions of the arms may move toward and from each other, a longitudinally extending tube carried by each arm, a U-shaped yoke, the arms of which are respectively held in the tubes, and a roller carried by the middle portion of the yoke and held raised above the arms, the roller forming a button with the middle portion of the yoke.

**No. 61,877. Seat or Cushion. (Siège ou coussin.)**

Patrick F. Quinn, Somerville, and Frederick Taylor, Chesnut Hill, Massachusetts, U.S.A., 1st December, 1898; 6 years. (Filed 27th September, 1898.)

*Claim.*—1st. In a seat or cushion, a series of wire springs provided with arms for forming an edge of said seat or cushion, a coil between the ends of said wire springs, flexible supporting means located around said arms and connecting the same together to form a con-

tinuous edge of said arms and adapted to yield to the movement of said wire springs under the action of weight. 2nd. In a seat or



cushion, a series of wire springs having the upper and lower arms forming respectively the upper and lower edges of said seat or cushion, a coil between the ends of said wire springs, flexible supporting means located around said upper arms of said wire springs and connecting the same together to form a continuous edge of said arms and adapted to yield to the movement of said wire springs under the action of weight, and a flexible supporting means located around said lower arms of said wire springs and connecting the same together to form a continuous edge of said arms and adapted to yield to the movement of said wire springs under the action of weight. 3rd. In a seat or cushion, a series of wire springs each having a V-shaped portion with an upper arm bent at an angle to said V-shaped portion, a coil at the apex of each V-shaped portion, flexible supporting means located around said upper arms and connecting the same together and adapted to yield to the movement of said wire springs under the action of weight, and a lower support for said springs. 4th. In a seat or cushion, a series of wire springs each having a V-shaped portion with an upper arm bent at an angle to said V-shaped portion, a coil in the apex of each V-shaped portion, flexible supporting means located around said upper arms and connecting the same together and adapted to yield to the movement of said wire springs under the action of weight, a lower support for said springs, and means for holding said upper arms and flexible supporting means in position with relation to one another. 5th. In a seat or cushion, a series of wire springs each having a V-shaped portion with an upper and lower arm bent at an angle to said V-shaped portion, a coil at the apex of each V-shaped portion, flexible supporting means consisting of coiled wire springs located around said upper arms and connecting the same together and adapted to yield to the movement of said wire springs under the action of weight, means for holding said upper arms and flexible supporting means in position with relation to one another, flexible supporting means consisting of coiled wire springs located around said lower arms and connecting the same together and adapted to yield to the movement of said wire springs under the action of weight, and means for holding said lower arms and flexible supporting means in position with relation to one another.

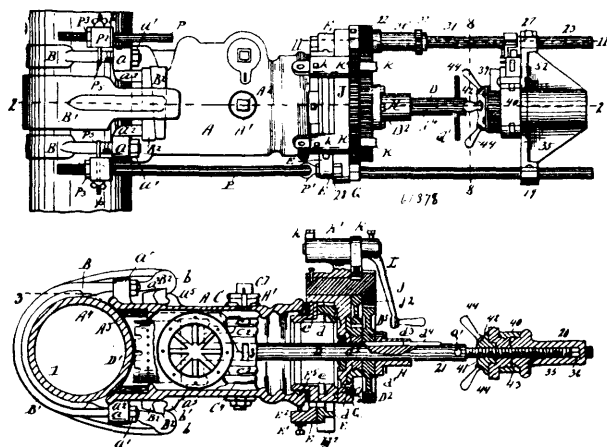
**No. 61,878. Shut-Off and Pipe Drilling Device. (Déviate et foret à tuyau.)**

(*Détente et foret à tuyau.*)

Solon G. Howe and David Inglis, both of Detroit, Michigan, U.S.A., 1st December, 1898; 6 years. (Filed 19th October, 1898.)

*Claim.*—1st. The combination of a sleeve, a shut-off valve to seat within the sleeve, and a hinge pin carrying said valve, said hinge pin and sleeve having a by-pass to open therethrough on both sides of the seat of said valve, substantially as described. 2nd. The combination of a sleeve, a shut-off valve to seat in said sleeve, and a hinge pin actuating said valve, said sleeve and hinge pin provided with registrable ports forming a by-pass to open therethrough on both sides of said seat, said hinge pin having an idle movement to cause said ports to register before actuating said valve, substantially as described. 3rd. The combination of a sleeve, a shut-off valve to seat in said sleeve, and a hinge pin actuating said valve, said sleeve and hinge pin provided with registrable ports forming a by-pass to open therethrough on both sides of said seat, said hinge pin having an idle movement to cause said ports to register before actuating said valve, substantially as described. 4th. The

combination of a sleeve, a shut-off valve to seat within said sleeve, a hinge pin, and connecting arms engaging said valve



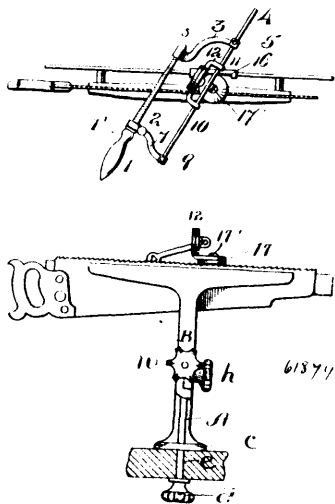
with said hinge pin, said hinge pin and sleeve formed with a by-pass to open on both sides of the valve seat, substantially as described. 5th. The combination of a sleeve, a shut-off valve to seat within said sleeve, a hinge pin pivoted with arms connecting the valve therewith, and recessed caps engaged upon the hinge pin, said hinge pin and sleeve having registrable ports to form a by-pass to open on both sides of the valve seat, and said connecting arms having a limited movement in the recesses of said caps to cause said passages to register before the valve is actuated, substantially as described. 6th. The combination of a sleeve permanently engagable upon a water pipe, a swinging shut-off valve to seat within said sleeve, a by-pass to open upon both sides of the valve seat, and means to automatically open and close said by-pass upon the actuation of said shut-off valve, substantially as described. 7th. The combination of a sleeve permanently engagable upon a water pipe, a hinge pin journalled in said sleeve, a swinging shut-off valve connected with said hinge pin to seat within the sleeve, a by-pass to open upon both sides of the valve seat, and means actuated by the movement of the hinge pin to open and close said by-pass, substantially as described. 8th. The combination of a sleeve permanently engagable upon a water pipe, a hinge pin journalled in said sleeve, a swinging shut-off valve carried by said hinge pin to seat within the sleeve, a by-pass to open upon both sides of the valve seat, and means actuated by the movement of the hinge pin to open and close said by-pass, said hinge pin having a limited movement to open said by-pass before opening the shut-off valve, substantially as described. 9th. The combination with a sleeve engagable upon a water pipe, and means to secure the sleeve upon said pipe, said means consisting of wrought metal bands, and a supplement cast metal yoke, said bands and yoke constructed to pass about the pipe and to be engaged with said sleeve, for the purpose described. 10th. The combination of a pipe, a sleeve engagable upon the pipe, a compressible packing between the sleeve and pipe, means to engage the sleeve upon the pipe and to compress said packing therebetween, and a lead packing on the sides and edges of the compressible packing, substantially as described. 11th. The combination of a sleeve, means to secure the sleeve upon a pipe, and a supporting plate held in place between said means and the pipe, substantially as described. 12th. The combination of a sleeve engagable upon a water pipe, means to engage the sleeve upon said pipe, an additional supplemental yoke to encircle a water pipe and engagable with the sleeve to assist in holding the sleeve upon the pipe, and wedges to hold the yoke and sleeve firmly together, substantially as described. 13th. The combination of a sleeve constructed with hook lugs *a'*, a yoke engagable therewith to secure the sleeve upon a water pipe, and wedges to hold the yoke and sleeve firmly together upon the pipe, the outer wedges formed with a lip *b'* to engage said hook lugs to prevent a lifting action as the wedges are driven into place, substantially as described. 14th. The combination of a sleeve, a hinge pin journalled therein, a swinging shut-off valve, arms connecting said shut-off valve with the hinge pin, and arms caps encircling the hinge pin and rotatable with the hinge pin, and a by-pass, said caps recessed on their peripheries to permit the hinge pin being rotated the length of said recesses before actuating the shut-off valve, substantially as described. 15th. The combination of a sleeve formed with an orifice to admit a hinge pin, a shut-off valve carried by said hinge pin, a nut to close said orifice, a packing nut engagable upon the first-mentioned nut, and a cap engagable on the hinge pin, substantially as described. 16th. The combination of a sleeve formed with an orifice to admit a hinge pin, a nut close said orifice, a packing nut engaged therewith, a cap engaged with the hinge pin, and a locking pin in connection with said cap, substantially as described. 17th. The combination of a sleeve formed with an orifice to admit a hinge pin, a nut to close said orifice, a packing nut engaged therewith, a cap engaged with the hinge pin, and a locking pin having a limited movement in

connection with said cap, substantially as described. 18th. The combination of a sleeve, a hinge pin journalled therein provided with connecting arms, a shut-off valve or gate connected with said arms, said gate constructed with lugs provided with square orifices, and said connecting arms constructed with square orifices at their outer ends, and a square pin uniting the connecting arms with said lugs, substantially as described. 19th. The combination of a sleeve, a shut-off valve and a reducing ring engagable upon the outer end of the sleeve, said reducing ring constructed with guide ribs, for the purpose described. 20th. The combination with a sleeve of a head engaged thereupon, a cutter spindle sleeved through said head, a gear provided with a hub mounted upon said spindle, and a ring plate made in halves secured to said head and having a tongue in grooved connection with the hub of said gear, and mechanism to actuate said gear, substantially as described. 21st. The combination of a head, a reciprocatory cutter spindle sleeved through said head, a feed screw bearing against said spindle to feed the spindle to its work, mechanism to advance the feed screw, and means to hold the feed screw from turning, said spindle being independently retractable, substantially as described. 22nd. The combination of a reciprocatory cutter spindle, a support therefor, a feed screw contacting with the end of said spindle, and mechanism to automatically feed said screw, said spindle being independently retractable. 23rd. The combination of a reciprocatory cutter spindle, a support therefor, a feed screw to feed the spindle, automatic mechanism to advance the feed screw, and means to hold the feed screw from turning, said spindle being independently retractable, substantially as described. 24th. The combination of a cutter spindle, a support therefor, a feed screw to advance said spindle, a removable pressure-bar to receive one end of the screw, mechanism to advance the feed screw, and means to prevent the feed screw from turning within the pressure-bar, substantially as described. 25th. The combination of a cutter spindle, a support therefor, a feed screw, a removable pressure-bar to receive one end of said screw, a gear mounted upon said spindle, and automatic mechanism actuated by said gear to operate the feed screw, said feed screw being non-rotatable, substantially as described. 26th. The combination of a reciprocatory cutter spindle, a head through which the spindle is sleeved, mechanism to drive said spindle, automatic and interchangeable feeding devices to feed the spindle to the work, and a pressure-bar carrying the feeding mechanism, said pressure-bar advanceable toward the cutter spindle, substantially as described. 27th. The combination with a reciprocatory cutter spindle, a support therefor, a pressure-bar, a feed screw engaged therewith to advance the cutter spindle, bars 18 and 25 connecting the pressure-bar with said support, sleeves 30 and 31 having a telescopic connection one with the other upon the bar 23, a feed pinion geared with the cutter spindle, a friction roll mounted upon the sleeve 31, a nut to feed the feed screw, a ratchet-wheel to drive said nut, a sliding bracket, and a pawl carried by said bracket to engage the ratchet-wheel, said friction roll engagable with said bracket, substantially as described. 28th. The combination of a reciprocatory cutter spindle, a removable pressure-bar, a feed screw, a ratchet-wheel located upon the feed screw, and a feed nut 41 engaged with the ratchet-wheel to reciprocate the feed screw, substantially as described. 29th. The combination of a reciprocatory cutter spindle, a support therefor, bars 18 and 23 connected with said support, a pressure-bar clasped to the bars 18 and 23, and a reciprocatory feed screw carried by the pressure-bar to advance the cutter spindle, said pressure-bar having a double clasp to engage one of the bars 18 and 23, substantially as described. 30th. The combination of a reciprocatory cutter spindle, a head provided with a perforated diaphragm, a headed screw extending longitudinally of the spindle engaging the head to said spindle, and a cutter blade secured to said head, substantially as described. 31st. The combination with a reciprocatory cutter spindle, of a head keyed to said spindle and provided with a perforated diaphragm, a headed screw extending longitudinally of the spindle engaging the head to the spindle to hold the head from sliding upon said spindle, and a cutter head secured to said head, substantially as described. 32nd. The combination of a sleeve engagable upon a pipe and provided with lugs, a tie-plate secured upon said sleeve, tie-rods having a jointed engagement with the tie-plate, the opposite ends of said rods provided with sleeve nuts to engage said lugs, and jam nuts to lock the sleeve nuts in place, substantially as described. 33rd. The combination of a sleeve provided with lugs, bands to engage said sleeve upon a pipe, a tie-plate, tie-rods connected to said tie-plate, sleeve nuts engaged with the opposite extremities of the tie-rods to engage said lugs, jam nuts to lock the sleeve nuts, hooked bolts carried by the sleeve nuts to hook over the bands, and thumb nuts upon the outer ends of the hooked bolts to secure the tie-rods to the bands, substantially as described. 34th. The combination of a sleeve, a hinge pin, a swinging gate carried by said hinge pin to seat within the sleeve, a by-pass to open through the sleeve and hinge pin upon both sides of the seat, and means to hold the gate from closing without design, substantially as described. 35th. The combination of a sleeve, a hinge pin, a swinging gate to seat within the sleeve, connecting arms to connect the gate with said hinge pin, a pin to engage said gate with the connecting arms, said sleeve formed with an opening through which the pin may be engaged in place with the connecting arms and gate, and means to close said opening, substantially as described. 36th. In combination, a pipe, a sleeve, means to secure the sleeve upon the pipe, a compressible packing between the pipe and the sleeve, a compressible



cushion extending outward from said packing to relieve the strain upon the sleeve in securing the sleeve upon the pipe, and a lead packing about said cushion and packing, said cushion serving to form a stop for the lead packing around the sleeve joint, substantially as described. 37th. The combination of a sleeve, a tie-plate, cutting mechanism carried by said plate, and an interchangeable reducing ring adjustably secured upon said sleeve, substantially as described. 38th. The combination of a sleeve, a tie-plate, and tie-rods jointly engaged with the tie-plate, said tie-rods adjustably engageable with said sleeve, substantially as described. 39th. The combination of a sleeve, a cutter, a support therefor, an independent non-rotatable feed screw to feed the cutter, a pressure bar engaging said feed screw and adjustably connected with said support, whereby the pressure bar may be accommodated to various lengths of sleeves, substantially as described. 40th. The combination of a cutter, a support therefor, means to rotate said cutter, a feed screw to advance the cutter, a pressure bar carrying the feed screw and adjustably connected with said support, an automatic device to actuate the feed screw and telescoping sleeves carrying the automatic device, substantially as described. 41st. The combination of a cutter, an adjustable pressure bar, an independent non-rotatable feed screw to advance said cutter housed in said pressure bar, and means to feed the screw, substantially as described. 42nd. The combination of a cutter spindle, a removable pressure bar, an independent non-rotatable feed screw rigidly held from turning in said pressure bar to advance said spindle, and means to reciprocate the feed screw, substantially as described. 43rd. The combination of a cutter, driving mechanism to actuate the cutter, an independent non-rotatable feed screw, a driving nut to actuate the feed screw, and adjustable automatic devices to actuate said nut whereby the feeding of the screw may be regulated, substantially as described. 44th. The combination of a sleeve and reducing ring, a tie plate secured to the reducing ring, packing between the tie plate and ring, a head secured to the tie plate, packing between the head and the tie plate, and drilling mechanism carried by said head, substantially as described. 45th. The combination of a pipe, a sleeve engageable upon the pipe, an inner compressible packing between the sleeve and pipe to act as a water packing and also as a cushion to remedy any unevenness between the sleeve and the pipe, means to engage the sleeve upon the pipe, and to compress said packing there between, and an outer lead packing on the sides and edges of the compressible packing, the compressible packing receiving the water pressure and relieving the lead packing therefrom, substantially as described.

**No. 61,879. Saw Filing Device.** (*Appareil à limer les scies.*)



Jacob W. Haddock and J. Edward Haddock, assignees of Robert Francis Foss, Laconia, New Hampshire, U.S.A., 1st December, 1898; 6 years. (Filed 20th October, 1898.)

*Claim.*—In a saw sharpening machine, the combination with the supporting standard, of the clamping-device hinged thereto and provided with the guide-bar *p*, carriage 16, to slide upon said bar, disc 13 pivoted to said slide, disc 12 having guides 10 and 11, and pivoted to said disc 13, and the file carrier adapted to be slidably supported in the guides, substantially as shown and described.

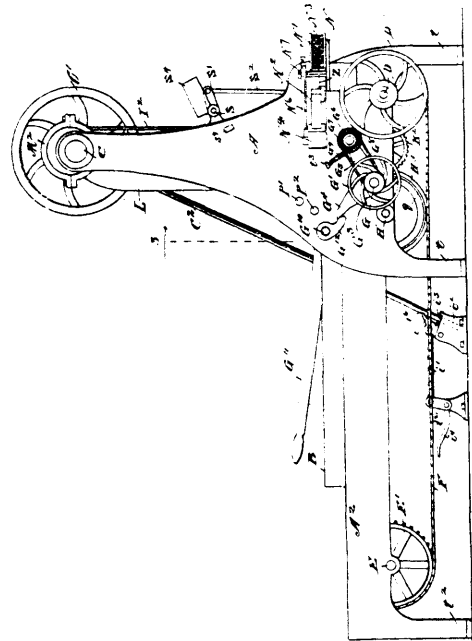
**No. 61,880. Box Blank Making Machine.**

(*Machine pour la fabrication de blanc pour boîtes.*)

William P. Healy, assignee of Frederick Peter Rosback, both of Chicago, Illinois, U.S.A., 1st December, 1898; 6 years. (Filed 9th August, 1898.)

*Claim.*—1st. In a machine for fastening a strengthening strip to a sheet, the combination of feed-mechanism for advancing the sheet

and strengthening strip longitudinally through the machine, a movable support, a tacking device on the support adjacent to the path



of the strengthening strip, means for actuating the tacking-device to drive fasteners, and means for moving the tacking-device with the strip and sheet while the fasteners are being driven, substantially as and for the purpose set forth. 2nd. In a machine fastening a strengthening strip to a sheet, the combination of feed-mechanism for advancing the sheet and strip longitudinally through the machine, a movable support, a tacking-device on the support adjacent to the path of the strip, means for actuating the tacking-device to drive fasteners, means for moving the tacking-device with the strip and sheet while the fasteners are being driven, and fastener supplying mechanism for the tacking-device operated by said movement of the tacking-device, substantially as and for the purpose set forth. 3rd. In a machine for forming blanks by tacking a sheet and strengthening strips to reinforcing cleats, the combination of guides for the cleats, feed-mechanism for advancing the cleats longitudinally in their guides and with a sheet and strengthening strips through the machine, a fastener driving device adjacent to the path of each strengthening strip, operating to fasten the strip and sheet, by successive operations, to the cleats, means for guiding the strengthening strips with the sheet and cleats across the fastener driving devices, and relative skipping means actuated by the said feed-mechanism, and operating, at predetermined intervals, in the passage of the sheet and cleats through the machine to prevent a single fastener driving operation of the fastener driving devices, and thereby produce an increase of the distance between points of tacking, substantially as described. 4th. In a machine for fastening a strengthening strip to a sheet, the combination of feed-mechanism for advancing the sheet and strip longitudinally through the machine, a movable support, a tacking-device on the support adjacent to the path of the strip, means for actuating the tacking-device to drive fasteners, means for moving the tacking-device with the strip and sheet while the fasteners are being driven, fastener applying mechanism for the tacking-device operated by said movement of the tacking-device, and skipper mechanism operating, relative to the feed-mechanism to withhold movement of the tacking-device at stated intervals, whereby no fasteners will be driven thereby, substantially as and for the purpose set forth. 5th. In a machine for fastening a sheet to a cleat, the combination of a feed-mechanism for advancing the sheet and cleat longitudinally through the machine, a movable support, a tacking-device on the support adjacent to the path of the sheet, means for actuating the tacking-device to drive fasteners, and means for moving the tacking-device with the sheet and cleat while the fasteners are being driven, substantially as and for the purpose set forth. 6th. In a machine for fastening a sheet to a cleat, the combination of feed-mechanism for advancing the sheet and cleat longitudinally through the machine, a movable support, a tacking-device on the support adjacent to the path of the sheet, means for actuating the tacking-device to drive fasteners, means for moving the tacking-device with the sheet and cleat while the fasteners are being driven, and fastener supplying mechanism for the tacking-device operated by said movement of the tacking-device, substantially as and for the purpose set forth. 7th. In a machine for fastening a sheet to a cleat, the combination of feed-mechanism for advancing the sheet and cleat longitudinally through the machine, a movable support, a tacking-device on the support adjacent to the path of the sheet, means for

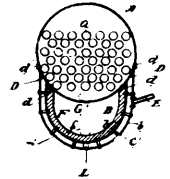
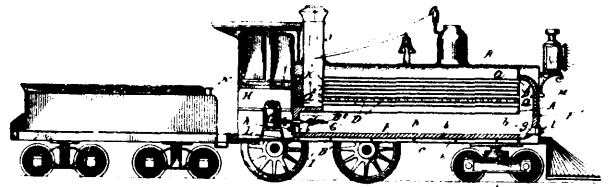
actuating the tacking-device to drive fasteners, means for moving the tacking-device with the sheet and cleat while the fasteners are being driven, fastener supplying mechanism for the tacking-device operated by said movement of the tacking-device, and skipper mechanism operating, relative to the feed-mechanism, to withhold movement of the tacking-device at stated intervals, whereby no fasteners will be driven thereby, substantially as and for the purpose set forth. 8th. In a machine for forming box-blanks, by fastening sheets and strengthening strips to reinforcing cleats, the combination of guides for the cleats, feed-mechanism for advancing the cleats longitudinally in their guides and with a sheet through the machine, a movable support, tacking-devices upon the support, means for moving the support back and forth adjacent to the path of the blanks, whereby it moves in the backward direction at approximately the speed of the blank in the operation of the tacking-devices, and means for feeding strengthening strips with the blank-material across the tacking-devices, substantially as and for the purpose set forth. 9th. In a machine for forming box-blanks, by fastening sheets and strengthening strips to reinforcing cleats, the combination of guides for the cleats, feed-mechanism for advancing the cleats longitudinally in their guides and with a sheet through the machine, a movable support, tacking-devices upon the support, means for moving the support back and forth adjacent to the path of the blanks, whereby it moves in the backward direction at approximately the speed of the blank in the operation of the tacking-devices, means for feeding strengthening strips with the blank-material across the tacking-devices, and fastener supplying mechanism for the tacking-devices operated by said movement of the tacking devices, substantially as and for the purpose set forth. 10th. In a machine for forming box-blanks, by fastening sheets and strengthening strips to reinforcing cleats, the combination of guides for the cleats, feed-mechanism for advancing the cleats longitudinally in their guides and with a sheet through the machine, a movable support, tacking-devices upon the support, means for moving the support back and forth adjacent to the path of the blanks, whereby it moves in the backward direction at approximately the speed of the blank in the operation of the tacking-devices, means for feeding strengthening strips with the blank-material across the tacking-devices, and skipper mechanism operating, relative to the feed mechanism, to withhold movement of the tacking-devices at stated intervals, whereby no fasteners will be driven thereby, substantially as and for the purpose set forth. 11th. In a machine for forming box-blanks, the combination with the feed-mechanism for the blank-material, of a pivotally mounted support, fastener driving tacking-devices on the support adjacent to the path of the blank-material, and means for moving the support on its pivot in the backward direction at approximately the speed of travel of the blank-material while fasteners are being driven, substantially as and for the purpose set forth. 12th. In a machine for forming box-blanks, the combination with the drive-shaft, of feed-belts for engaging and moving the blank-material through the machine geared to the drive-shaft, preliminary feed operating mechanism comprising gear mechanism which may be thrown at will into operative engagement with the feed-belts to advance the blank-material into the machine, and adjustable preliminary feed disengaging mechanism actuated by the advance of the feed-belts to a predetermined position in the machine, substantially as and for the purpose set forth. 13th. In a machine for forming box-blanks, the combination with the drive-shaft and feed for the blank-material, of a movable support adjacent to the path of the blank-material actuated from the drive-shaft to move back and forth and in its movement in the backward direction to travel at approximately the speed of the blank-material, a cross-head on the support geared to the said drive-shaft, and a fastener driving tacking device on the support connected to the said cross-head, substantially as and for the purpose set forth. 14th. In a machine for forming box-blanks, the combination with the drive-shaft, of feed-chains for the blank-material, feed-chain driving shafts geared to the said drive-shaft, a support adjacent to the path of the blank-material geared to one of the belt driving shafts to be oscillated thereby, clutch mechanism between the said support and feed-belt driving shaft, whereby movement of the support may be started and stopped, a fastener driving tacking-device on the support actuated from the drive-shaft to drive fasteners into the blank-material in the movement of the support in the backward direction, and skipper mechanism operating, relative to the feed-belts to produce engagement of said clutch at predetermined intervals, substantially as and for the purpose set forth.

**No. 61,881. Locomotive. (Locomotive.)**

William Melvin Russell and Thomas Asencio, both of New York City, New York, U.S.A., 1st December, 1898; 6 years. (Filed 2nd November, 1898.)

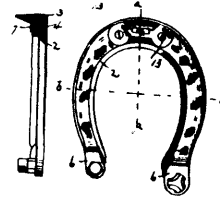
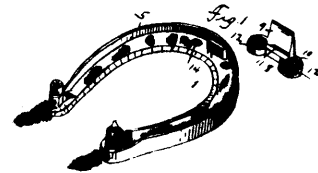
*Claim.*—1st. A locomotive having a cab and a boiler, a combustion chamber having two walls provided with a space between them forming a water-jacket, said space or jacket having communication with the interior of the boiler, a pulverizer and blower in said cab, and a nozzle opening into said combustion chamber and in communication with said pulverizer and blower, substantially as described. 2nd. A locomotive having a cab and a boiler, a combustion chamber having two walls provided with a space between them forming a water-jacket, said walls being connected with the boiler,

said boiler having one or more openings leading to the space or jacket between said walls, a pulverizer and blower located in said



cab, and a nozzle connected with the pulverizer and blower, said nozzle being located in the front wall of the combustion chamber, substantially as described.

**No. 61,882. Horse Shoe. (Fer à cheval.)**



John Kass and Peter Sibenaler, both of Menominee, Michigan, U.S.A., 1st December, 1898; 6 years. (Filed 24th October, 1898.)

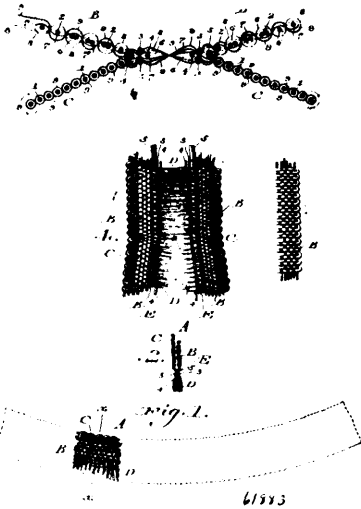
*Claim.*—1st. The herein-described horse shoe, consisting of the body, annular rims formed integrally with said body and located upon the inner and outer edge of the upper surface thereof, said body being further provided with an integrally-formed downwardly-extending outer rim, a retaining-post for the toe-calk, threaded apertures upon either side of said post, a toe-calk consisting of a point and base-plate, the latter having a mortise to receive said post, retaining-screws passing through said base-plate and into the threaded apertures, and calk-seats formed integrally with the ends of the shoe designed to receive the threaded shanks of the heel-calks, substantially as described and for the purpose set forth. 2nd. In a horse shoe, the combination with the body having an integral outer rim, and an integral retaining-post, of a toe-calk having a recess on its outer side to receive the outer rim of the shoe, and further provided with an aperture in the inner part of the base-plate to receive said post, substantially as set forth.

**No. 61,883. Skirt Protector. (Protecteur de jupes.)**

The Hensel Colladay Co., assignee of John Baptiste Poyet, both of Philadelphia, Pennsylvania, U.S.A., 1st December, 1898; 6 years. (Filed 31st October, 1898.)

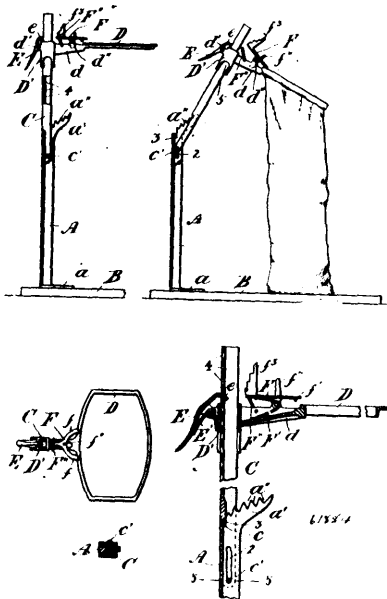
*Claim.*—1st. A skirt protector consisting of one or more heads and a brush, connected therewith and curved in the direction of the length thereof. 2nd. A skirt protector consisting of two heads of different fabric-compactness or density and a brush integrally connected, curving the protector in the longitudinal direction thereof. 3rd. A skirt protector consisting of separated heads and a brush

connected therewith, one of said heads being of greater width than the other. 4th. A skirt protector consisting of separated heads and



a brush, one of said heads being of greater width than the other, and said heads being of different fabric-compactness or density, and integrally-connected with each other and the brush imparting a curve to the protector in the direction of the length thereof. 5th. A fabric for a skirt protector formed of two pairs of heads each composed of warp and weft threads or yarn, the weft threads or yarn being floated from one set of heads to the other, the threads of one member of each pair of heads being so constituted as to produce a greater compactness or density in the fabric than the adjacent member of said pair.

No. 61,884. Bag Holder. (Aceroche-sac.)

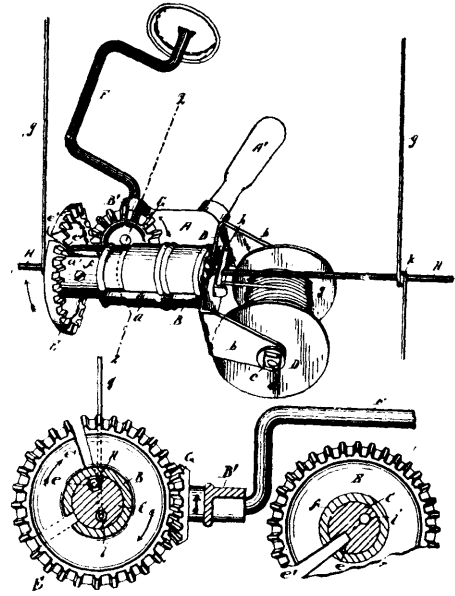


John Joseph Geary and Joseph Bernard Archambeault, both of Pembroke, Ontario, Canada, 1st December, 1898; 6 years. (Filed 2nd November, 1898.)

Claim.—1st. In a bag holder, the combination of a post of T-shaped cross section having its upper end deprived of the flange and formed into an ear curved away from the flange and the edge of the ear serrated and the web provided with a vertical slot below said ear, a foot on said post, an extension piece of channel-shaped cross section having its lower end deprived of the web causing the flanges to project and form lashes adapted to slide upon the sides of the web of the post, and its web provided with a series of perforations, a pin passing through the lower end of said extension and through the slot in the post, a ball provided with stem and box slide the latter adapted

to receive and slide upon the extension piece and provided with lugs at the rear, a trigger pivoted in said lugs having one end curved and adapted to enter the perforations in the extension piece, a spring pressing said end against said bar and into engagement with the perforations, a clamp pivoted upon the stem of the bail provided with claws handle and serrated lug, a spring operating said clamp to press the jawed end down, and a loop adapted to engage the serrated lug and hold the rear end of said clamp down against the pressure of the spring, substantially as set forth. 2nd. In a bag-holder, the combination of a post of T-shaped cross-section, having its upper end deprived of the flange and formed into an ear curved away from the flange and the edge of the ear serrated and the web provided with a vertical slot below said ear, a foot on said post, an extension piece of channel-shaped cross-section having its lower end deprived of the web, causing the flanges to project and form lashes adapted to clip and slide upon the sides of the web of the post, and its web provided with a series of perforations, and a pin passing through the lower end of said lashes and through the slot in the post, substantially as set forth. 3rd. In a bag holder-stand, the combination of a post of T-shaped section having its upper end deprived of the flange and formed into an ear curved away from the flange and the edge of the ear serrated and the web provided with a vertical slot below said ear, and the upper end of the web provided with a notch close to the flange, and an extension piece of channel-shaped section having its lower end deprived of the web, causing the flanges to project and form lashes adapted to clip and slide upon the sides of the web of the post, a lug forming a short extension of the web, having its outer face flush with the inner face of the web and adapted to fit into and engage the notch in the upper end of the web of the post, and a pin passing through the lower end of the lashes of the extension and through the slot in the post, substantially as set forth. 4th. In a bag-holder, the combination with a post of channel-shaped cross-section having perforations in its web, a box-slide carrying a bail on an arm or stem and adapted to receive and slide upon said post, and having its sides scalloped deeply to form jaws adapting it to ride upon the edge of a board when detached from said post, lugs on the rear of said slide, a trigger pivoted to said lugs and having one end curved and adapted to enter into the perforations in the web of the post, and a spring operating to press said trigger end into engagement with the post and into said perforations, substantially as set forth. 5th. In a bag-holder, the combination with the arm or stem of the bail of lugs, a clamp pivoted in said lugs, having arms extending to the rear of said bail and provided with claws below and a handle above and a serrated lug at the rear, a spring operating to press the clawed arms down and a loop pivoted to said stem and adapted to engage said serrated lug and hold the clamp down against the pressure of the spring, substantially as set forth.

No. 61,885. Wire Weaving Machine. (Machine à tisser le fil de fer.)

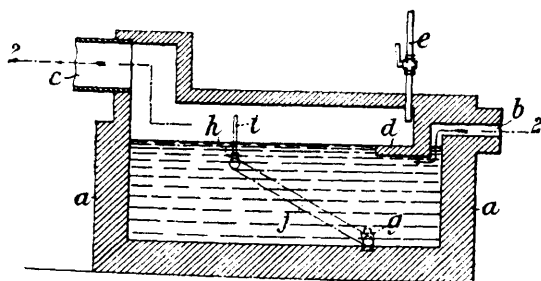


The Cochrane Fence Machine Company, assignee of Adam Cochrane, all of Detroit, Michigan, U.S.A., 1st December, 1898; 6 years. (Filed 4th November, 1898.)

Claim.—1st. In a fence machine, the combination of the rotary shaft having a longitudinal channel therein adapted to receive a fixed lateral wire which is supported near the axis of rotation of said shaft, a spool carried by said shaft containing a reel of stay wire, a way in said shaft eccentric to its axis of rotation through which the

stay wire is adapted to pass whereby by a rotation of said shaft said stay wire may be wrapped around said lateral fixed wire. 2nd. In a fence machine, the combination of the slotted hanger, the rotary shaft journaled in said hanger, a channel in said shaft adapted to receive a fixed lateral wire around which said shaft is adapted to rotate, a spool carrying the stay wire mounted on said shaft and adapted to rotate around said lateral wire, a longitudinal way in said shaft eccentric with its axis of rotation through which said stay wire is adapted to pass, and means for rotating said shaft to wrap said stay wire around said lateral wire. 3rd. In a fence machine, the combination of the hanger having a longitudinal slot therethrough, a shaft journaled in said hanger having a longitudinal channel in its periphery, a gear-wheel on said shaft having a diametric channel which registers with the channel in the shaft, a spool carrying a reel of stay wire mounted on the opposite end of said shaft and adapted to revolve therewith, a way passing longitudinally of said shaft eccentric to its axis of rotation adapted to receive said stay wire, a pinion engaging said gear-wheel, and a crank for rotating said pinion. 4th. In a fence machine, the combination with the hanger having a longitudinal slot therethrough, a shaft journaled in said hanger having a longitudinal channel therein extending to a point near its axis of rotation, the gear-wheel on said shaft a diametric channel which registers with the channel in said shaft, inclined arms mounted on the opposite end of said shaft, the spool carrying the stay wire journaled between said arms, a way passing longitudinally of said shaft eccentric to its axis of rotation adapted to carry said stay wire, a pinion engaging said gear wheel, and a crank for rotating said pinion. 5th. In a fence machine, the combination of a curved bracket carrying a hanger at one end having a longitudinal slot therethrough, a shaft journaled in said hanger having a longitudinal channel therein extending to a point near its axis of rotation, a gear-wheel on one end of said shaft having a diametric channel which registers with the channel in said shaft, inclined parallel arms mounted on the opposite end of said shaft, a spool adapted to carry the stay wire journaled between the ends of said arms, said spool standing out of axial alignment with said shaft, said shaft being provided with a longitudinal aperture eccentric to its axis of rotation adapted to carry said stay wire, a crank journaled in the bearing on said bracket, and a pinion carried on the journaled end of said crank meshing with said gear-wheel. 6th. In a fence machine, the combination of the slotted hanger, the channelled shaft journaled in said hanger, said channel being adapted to receive the fixed lateral wire which projects beyond the ends thereof, the pivoted catch for retaining the wire within the channel of the shaft, the spool carrying a winding of stay wire mounted on said shaft and adapted to revolve therewith, means for applying tension to said spool, said shaft having a longitudinal way therethrough eccentric to its axis of rotation adapted to carry said stay wire, and means for rotating said shaft.

**No. 61,886. Treatment of Complex Sulphide Ores.**  
(*Traitement de minerais sulfurés.*)



61886

Francis Ellershausen, London, England, 2nd December, 1898; 6 years. (Filed 15th May, 1897.)

*Claim.*—1st. The described process for the treatment of complex sulphide ores, such process consisting in heating an admixture of the ore with oxide of iron or of manganese (or an ore containing one or both of these oxides) and carbon in a reverberatory, a revolving or other suitable furnace in which the charge is heated by the flame of a fire place so as to volatilize the lead, zinc and sulphur, sulphatizing the zinc fumes and obtaining a solution thereof and agglomerating the lead compounds obtained with the fused residue, substantially as described. 2nd. In the treatment of complex sulphide ores, heating an admixture of the ore with oxide of iron or of manganese (or an ore containing one or both of these oxides) and carbon in a suitable furnace so as to volatilize the lead, zinc and sulphur, the zinc being then sulphatized so as to bring it into solution and separate it, substantially as described. 3rd. In the treatment of complex sulphide ores agglomerating with the fused residue, the precipitated lead compounds, substantially as described. 4th. In the treatment of complex sulphide ores sulphatizing the zinc and precipitating the lead compounds by causing the fumes generated by treatment in a furnace to pass into a tank partially filled with water, substantially as described. 5th. In a process for the treatment of complex sulphide

ores, substantially such as described, placing in the tank the deposit from any fumes which have been condensed and deposited whilst passing from the furnace, substantially as described. 6th. The improved tank for sulphatizing the zinc fumes and precipitating the lead compounds, arranged for operating, substantially as hereinbefore described.

**No. 61,887. Electric Fuse for Mine Blasting.**  
(*Fusée électrique pour le tirage à poudre.*)

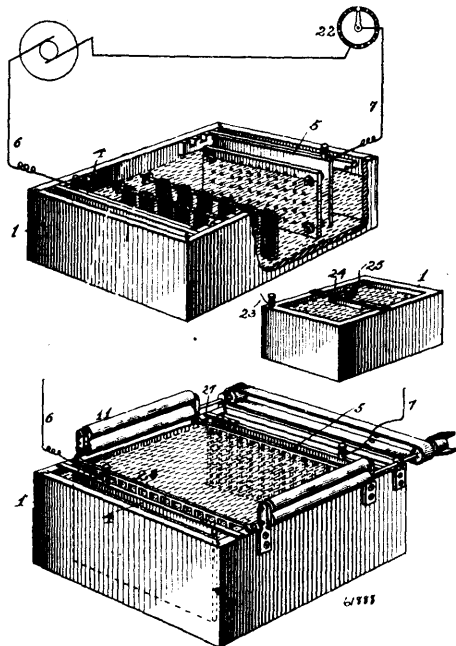


61887

Richard Linke, Charlottenburg, Germany, 2nd December, 1898; 6 years. (Filed 7th April, 1898.)

*Claim.*—An electric fuse for mining purposes, consisting of two copper wires connected by a platinum wire, wrapped about with long, fibrous, highly nitrated cotton wool, the covering being afterwards soaked in a solution of collodion.

**No. 61,888. Art of Electrical Dyeing.**  
(*Art de teindre par l'électricité.*)



61888

George Dexter Burton, Boston, Massachusetts, U.S.A., 2nd December, 1898; 6 years. (Filed 26th July, 1898.)

*Claim.*—1st. In a dyeing apparatus, the combination of a dye-vat, a dye liquor therein, two electrodes disposed in contact with said liquor and connected with opposite electric poles, the positive electrode being composed of carbon and the negative of lead. 2nd. In a dyeing apparatus, the combination of a dye-vat, a dye liquor therein, electrodes disposed in contact with said dye liquor and connected with opposite electric poles, the anode being composed of carbon and the cathode of lead, and a non-conducting roll disposed in said dye liquor and adapted to serve as a guide for the fabric being dyed. 3rd. In a dyeing apparatus, the combination of a dye-vat, a dye liquor therein, electrodes disposed in contact with said dye liquor, and connected with opposite electric poles, the anode being composed of carbon and the cathode of lead, and a non-conducting roll composed of porcelain disposed in said dye liquor and adapted to serve as a guide for the fabric being dyed. 4th. In an apparatus for electric dyeing, the combination of a dye-vat composed of non-absorbing non-conductive material, a dye liquor therein, and two electrodes disposed in contact with said liquor and connected with opposite electric poles, the anode being composed of carbon and the cathode of lead. 5th. In a dyeing apparatus, the combination of a vat or receptacle of non-conducting material, two electrodes composed of copper disposed in said receptacle, and conductors connecting said electrodes with opposite electric poles. 6th. The art of electric dyeing, which consists in subjecting a dyeable object simultaneously to the action of a dye liquor, and an electric

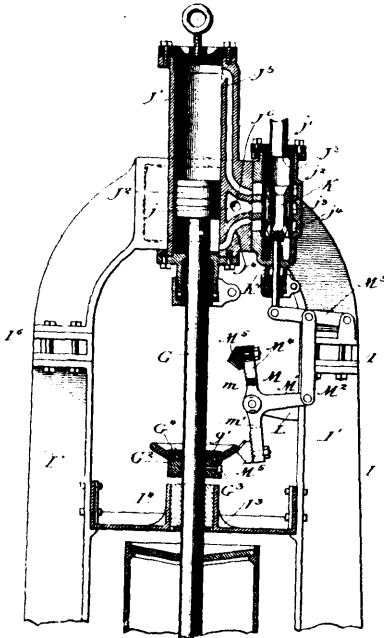
current of forty or more volts passed through said liquor, said current exposing the fibres of the dyeable object to the action of the dye liquor, and said liquor being free from dissolving metal during the dyeing operation. 7th. The art of electric dyeing, which consists in intermingling a dyeable fibrous substance with a dye liquor and passing an electric current of forty or more volts through that part of the dye liquor with which said fibrous substance is intermingled, whereby the fibres thereof are forced apart and thoroughly exposed to the action of the dye liquor, substantially as set forth. 8th. The art of electric dyeing, which consists in intermingling a dyeable fibrous substance with a dye liquor and passing an electric current of forty or more volts and of sufficient volume to maintain the liquor considerably above the normal temperature, through that part of the dye liquor with which said fibrous substance is intermingled, substantially as set forth.

**No. 61,889. Cornstalk Pith Product. (Produit d'épi de blé.)**

Lazarus Silvermann, Chicago, Illinois, U.S.A., 2nd December, 1898; 6 years. (Filed 12th July, 1898.)

*Claim.*—1st. The method of producing a light, cellular substance from the pith of cornstalks, as an absorbent for liquids, which consists in subjecting the pith, as taken from the cornstalks, to a brushing or carding action, lengthwise of the contained fibers, separating out the soft or cellular portion of the pith, leaving the fibers behind, as set forth. 2nd. The method of producing a light, cellular substance from the pith of cornstalks, as an absorbent for liquids, which consists in subjecting the pith, as taken from the cornstalks, to a brushing or carding, lengthwise of the contained fibers, separating out the soft or cellular portion of the pith, leaving the fibers behind, and then rendering this substance lighter by steaming, all substantially as set forth. 3rd. As a new article of manufacture, an absorbent for liquids, consisting of the light, cellular substance separated out in finely-divided condition from the fibers, in cornstalk pith, the same being applicable for the taking up and holding of liquids, substantially as described. 4th. As a new article of manufacture, an absorbent for liquids, consisting of the light, cellular substance separated out in finely-divided condition from the fibers in cornstalk pith, the same being applicable for the taking up and holding of liquids, and having been lightened by steaming, substantially as described. 5th. A pad, bandage, or sack, for surgical and other purposes, consisting of the light, cellular substance of cornstalk pith in comminuted form, free from fiber, and contained in a suitable envelope, substantially as set forth. 6th. A composition for a powder for application to the face, or for other purposes, consisting of the light, cellular substance, separated out from the corn-pith, and free from fibers, the same being triturated with a suitable hard substance, such as sulfate of potassa, or sugar of milk, substantially as set forth. 7th. A composition for lubricating, heating, or lighting purposes, consisting of the light, cellular substance separated out from cornstalk pith and free from fibers, the same being charged with oil, substantially as described.

**No. 61,890. Steam Stamp Mill. (Bocard à vapeur.)**

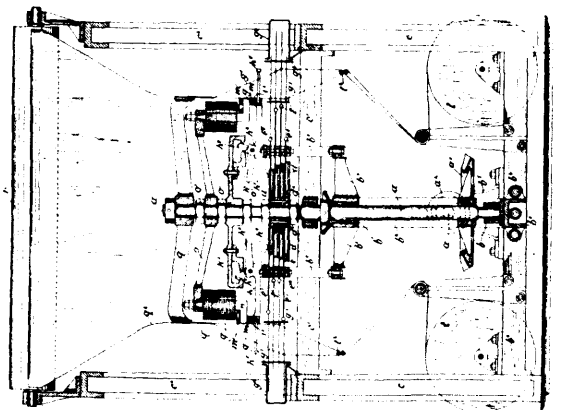


George Wood, Prescott, Arizona, U.S.A., 2nd December, 1898; 6 years. (Filed 4th July, 1898.)

*Claim.*—1st. The combination with the reciprocating stem of a stamp mill and an engine comprising a cylinder provided with

steam inlet and exhaust ports, a piston therein which is connected with said stamp stem, and a slide valve for controlling the admission of steam to said cylinder, of a valve actuating mechanism comprising a pivoted lever operatively connected at one end with said valve and formed at its opposite end with two oppositely directed tappet arms, detachable contact plates which have slotted connection with the opposite ends of said arms, and a tappet collar on said stamp stem adapted to alternately engage said contact plates of the lever arms in the reciprocation of the stem. 2nd. In combination with the reciprocating stem of a stamp mill and an engine comprising a cylinder provided with steam inlet and exhaust ports, a piston therein which is connected with said stamp stem and a slide valve for controlling the admission of steam to said cylinder, of a valve actuating mechanism comprising a pivoted lever operatively connected at one end with said valve and formed at its opposite end adjacent to the stamp stem with two separated arms, detachable contact plates mounted on opposite ends of said arms, interfitting projections and recesses on the adjacent faces of the plates and arms, a bolt having screw threaded engagement with each of said plates and having slotted connection with the arms and a tappet collar on said stamp stem for alternately engaging said contact plates of the tappet arms in the reciprocation of the stem. 3rd. The combination of the reciprocating stem of a stamp mill, a frame comprising two upright extensible standards connected by an upper arched portion, an engine mounted on said arched portion of the frame comprising a cylinder provided with steam inlet and exhaust ports, a piston therein connected with said stamp stem, a valve for controlling the passage of steam through said ports and means for varying the vertical length of said standards. 4th. The combination of the reciprocating stem of a stamp mill, a frame comprising two upright standards, and a separate arched portion mounted on said standards, an engine mounted on said arched portion of the frame comprising a cylinder provided with steam inlet and exhaust ports, a piston therein connected with said stamp stem and a slide valve for controlling the passage of steam through said ports and detachable distance blocks inserted between the upper ends of said standards and the arched portion of the frame. 5th. In a stamp mill, the combination of a mortar, a stamp adapted to reciprocate therein and provided with a stamp stem, a supporting frame comprising two upright standards secured at one side of the mortar independently of the foundation which supports the mortar and overhanging at their upper ends said mortar, a steam engine supported upon said overhanging portion of the standards and connected with said stamp stem, and a cross piece extending between said standards and formed outside of the same in a wide shallow tray which overhangs said mortar, said tray being provided centrally with a vertically extended guide bearing through which the stamp passes. 6th. In combination with a stamp stem G<sup>1</sup>, of the collar G<sup>2</sup>, provided in its upper surface adjacent the stem with a groove G<sup>3</sup> adapted to receive a mass of absorbent material and a screen attached to the collar to retain said absorbent material in place. 7th. The combination with the reciprocating stem of a stamp mill, of an engine comprising a cylinder provided with a steam chest, steam passages between said steam chest and the opposite ends of the cylinder which serve alternately as steam inlet and exhaust passages, the wall of the cylinder adjacent to said chest being provided with an inlet chamber which opens into the steam chest between said passages, an inlet pipe opening into said recess, an exhaust pipe opening into the steam chest, a hollow piston valve in the steam chest provided between its ends with a recess for alternately connecting said passages with the steam chest and chamber, and means for actuating said valve.

**No. 61,891. Circular Loom. (Métier circulaire.)**



Karl Harold, Königsfeld, near Brünn, and Richard Richards, 16th Elisabeth Strasse, Brünn, Austria, 2nd December, 1898; 6 years. (Filed 21st June, 1898.)

*Claim.*—1st. In a circular loom with electro-magnetic shuttle driving mechanism, shuttle race rings comprising diamagnetic cir-

cular segments  $mm^1$  connected to each other by plates  $m^2$  attached to the upper side of the levers  $h^2$  which carry the reeds  $h^3$ , the electro-magnets  $n$  which actuate or carry forward the shuttles, the shuttles  $p$  travelling on rollers  $p^2$  over the reeds  $h^3$ , and the arms  $h^2$  actuated by the curve  $k^4$  of the cam  $k^3$ , whereby the segments  $mm^1$  are lifted simultaneously with the reed when the latter beats the web thread up to the cloth, substantially as described. 2nd. In a circular loom with electro-magnetic shuttle driving mechanism (such as referred to in claim 1), the heads  $e^4$  grouped in sets upon wires  $f^1$  with intermediate discs or washers  $f$  of larger diameter than the eyes of the wires by which they are secured to the connecting rod  $e^5$  by the caps  $f^2$ , the screws  $f^4$  and clamp-shaped ends  $f^3$ , in combination with the connecting rods  $e^2$  supported by the radial slots  $e^5$  in the rings  $e^6$  and actuated by the studs  $e^2$  sliding in grooves  $e$  of the cams  $d$ , whereby a free motion of the heads in all directions is obtained and the concentric metal plate  $g^3$  with apertures  $g^2$  through which the wires pass, substantially as described. 3rd. In a circular loom such as described, the combination and arrangement of the shed forming cams  $d$  having each cam made larger than the one above it, for the purpose of ensuring a greater projection of the heads  $e^4$  the further they are from the apex of the shed, substantially as described. 4th. A circular loom having the several parts constructed and arranged in combination.

**No. 61,892. Process of Treating Oil or Distillate.**

(*Procédé pour le traitement d'huile ou de produits distillés.*)

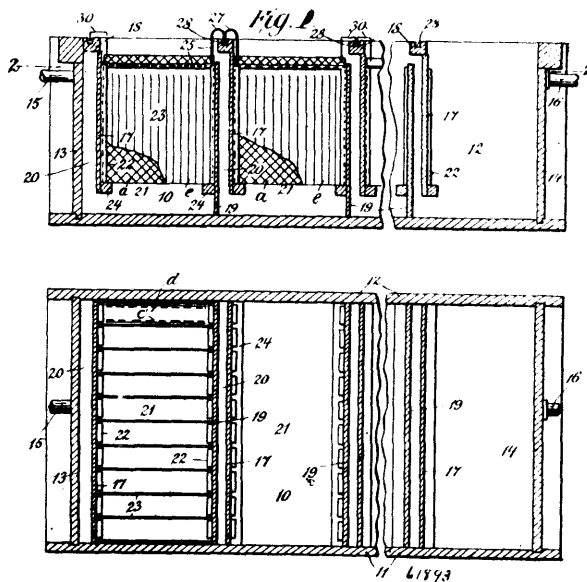
Otto Paul Amend, New York City, U.S.A., 2nd December, 1898; 6 years. (Filed 29th March, 1898.)

*Claim.*—1st. The process of desulphurizing and treating petroleum oil or distillate containing refractory sulphur compounds, as Lima or Canadian oil or distillate, which consists in treating the oil or distillate with sulphuric acid having a higher percentage of  $H_2SO_4$  than is found in ordinary commercial 66° Baumé acid, and containing  $SO_2$  or anhydrous sulphuric acid, in repeating the application of such acid until a splitting up of the sulphur compounds in the oil or distillate is effected, then removing the acid sludge and exposing the split up sulphur compounds to the action of an agent or re-agent having an affinity for sulphur, and in effecting the dehydration of the distillate. 2nd. The process of desulphurizing and treating petroleum oil or distillate containing refractory sulphur compounds, as Lima or Canadian oil or distillate, which consists in treating the oil or distillate with sulphuric acid containing a higher percentage of  $H_2SO_4$  than is found in ordinary commercial 66° B. acid, strengthened by the addition of  $SO_2$  or anhydrous sulphuric acid, in repeating the application of such acid until a splitting up of the sulphur compounds in the oil or distillate is effected, in removing the acid from the oil or distillate and exposing the latter to the action of an oxide or hydrate of an alkali or alkaline earth, preferably to dry hydrated or caustic lime, and in effecting the dehydration of the distillate, substantially as set forth. 3rd. The process of desulphurization and treating petroleum oil or distillate containing refractory sulphur compounds, as Lima or Canadian oil or distillate, which consists in treating the oil or distillate with sulphuric acid containing a higher percentage of  $H_2SO_4$  than is found in ordinary commercial 66° B. acid, strengthened by the addition of  $SO_2$  or anhydrous sulphuric acid, in repeating the application of such acid until a splitting up of the sulphur compounds in the oil or distillate is effected, in removing the strong acid from the oil or distillate and subjecting the latter to the action of a weaker acid, then removing the weak acid sludge and exposing the oil or distillate one or more times to the action of an oxide or hydrate of an alkali or alkaline earth, preferably to dry hydrated or caustic lime, and in effecting the dehydration of the oil or distillate, substantially as described. 4th. The method of desulphurizing and treating petroleum oil or distillate containing refractory sulphur compounds, as Lima or Canadian oil or distillate, which consists in treating the oil or distillate with sulphuric acid containing a higher percentage of  $H_2SO_4$  than is found in ordinary commercial 66° B. acid, strengthened by the addition of  $SO_2$  or anhydrous sulphuric acid, in repeating the application of such acid until a splitting up of the sulphur compounds in the oil or distillate is effected, in removing the strong acid from the oil or distillate and subjecting the oil or distillate to the action of a weaker acid, then removing the weak acid sludge and exposing the oil or distillate, one or more times, to the action of an oxide or hydrate of an alkali or alkaline earth, preferably to dry hydrated or caustic lime, in exposing the oil or distillate to the action of an alkali or alkaline earth in the presence of heat, and in dehydrating the distillate, substantially as described. 5th. The method of desulphurizing and treating petroleum oil or distillate containing refractory sulphur compounds, as Lima or Canadian oil or distillate, which consists in treating the oil or distillate with sulphuric acid, containing a higher percentage of  $H_2SO_4$  than is found in ordinary commercial 66° B. acid, strengthened by the addition of  $SO_2$  or anhydrous sulphuric acid, in repeating the application of such acid until a splitting up of the sulphur compounds in the oil or distillate is effected, in removing the strong acid from the oil or distillate and subjecting the oil or distillate to the action of a weaker acid, then removing the weak acid sludge and exposing the oil or distillate, one or more times, to the action of an oxide or hydrate of an alkali or alkaline earth, preferably to dry hydrated or caustic lime, in exposing the oil or distillate to the action of an alkali or alkaline earth in the presence of heat, and in effecting the dehydration of the distillate, substantially as described. 6th. The method of

desulphurizing and treating petroleum oil or distillate containing refractory sulphur compounds, as Lima or Canadian oil or distillate, which consists in treating the oil or distillate with sulphuric acid containing a higher percentage of  $H_2SO_4$  than is found in ordinary commercial 66° B. acid, strengthened by the addition of  $SO_2$  or anhydrous sulphuric acid, in repeating the application of such acid until a splitting up of the sulphur compounds in the oil or distillate is effected, then removing the strong acid and subjecting the oil or distillate to the action of a weaker acid, in removing the weak acid sludge and washing the oil or distillate, in dehydrating the oil or distillate and exposing the same, one or more times, to the action of an oxide or hydrate of an alkali or alkaline earth, preferably to dry hydrated or caustic lime, substantially as described. 7th. The method of desulphurizing and treating petroleum oil or distillate, containing refractory sulphur compounds, as Lima or Canadian oil or distillate, which consists in treating the oil or distillate with sulphuric acid, containing a higher percentage of  $H_2SO_4$  than is found in ordinary commercial 66° B. acid, strengthened by the addition of  $SO_2$  or anhydrous sulphuric acid, in repeating the application of such an acid until a splitting up of the sulphur compounds in the oil or distillate is effected, then removing the strong acid and subjecting the oil or distillate to the action of a weaker acid, in removing the weak acid sludge and washing the oil or distillate, in dehydrating the oil or distillate and exposing the same, one or more times, to the action of an oxide or hydrate of an alkali or alkaline earth, preferably to dry hydrated or caustic lime, and in exposing the oil or distillate to the action of an alkali or alkaline earth in the presence of heat, substantially as described.

**No. 61,893. Metal Precipitating Apparatus.**

(*Appareil de précipitation de métaux.*)

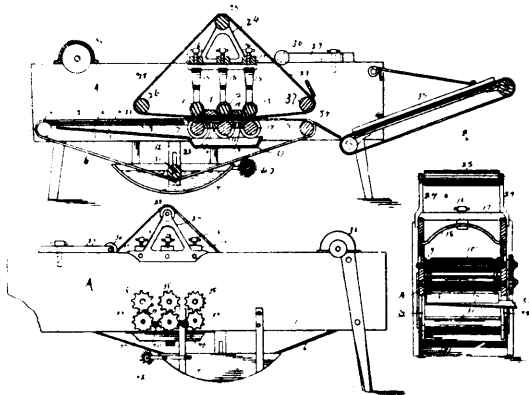


Charles Butters, Johannesburg, Transvaal, South Africa, 2nd December, 1898; 6 years. (Filed 29th August, 1898.)

*Claim.*—1st. The combination of a cell or trough, anodes therein, and cathodes consisting of lead foil cut into strips and hanging freely between the anodes. 2nd. The combination of a cell or trough, anodes therein, and cathodes consisting of sheets of metal foil cut into strips, a metal frame on which said strips are hung, said frame forming also an electrical connection for the cathode. 3rd. The combination of a cell or trough, anodes therein, cut into cathodes consisting of sheets of metal foil cut into strips, and a metal frame having a plurality of parts in different vertical planes on which said strips are hung, said frame forming also an electrical connection for the cathode. 4th. The combination of a cell or trough, anodes therein, and cathodes of sheets of metal foil, each sheet being in strips a part of its length and entire the rest of its length, and an electrical connection connected to said entire part of the sheets of foil. 5th. The combination of a depositing cell or trough, anodes and cathodes therein, the cathodes consisting of a plurality of separate layers of lead strips hanging between each pair of anodes. 6th. The combination of a depositing trough, anodes and cathodes therein, the cathodes consisting of a plurality of separate layers of lead strips hanging in different horizontal planes between each pair of anodes. 7th. The combination of a depositing cell or trough, anodes and cathodes therein, the cathodes consisting of a plurality of separate layers of lead strips hanging in different horizontal planes and in a plurality of separate planes. 8th. The combination of a depositing cell or trough, anodes and cathodes therein, the cathodes consisting of a plurality of separate layers of lead strips hanging between each pair of anodes, each anode consisting of a suitable

plate, and fabric covering consisting of a strip folded around the anode and having its ends secured together, said strips covering the sides and two edges only of the anode plate, as set forth.

**No. 61,894. Cider Expressing Apparatus.** (*Presse à cidre.*)

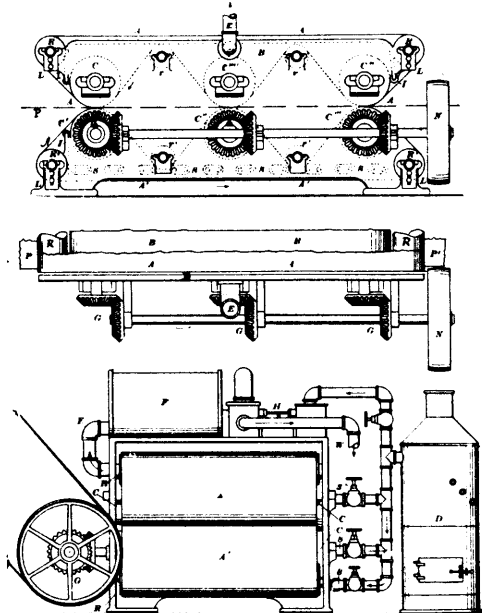


Eli Flory and Timothy Flory, Defiance, Ohio, U.S.A., 2nd December, 1898; 6 years. (Filed 31st December, 1898.)

*Claim.*—The combination with a frame, a set of rollers, journaled therein, vertically-movable journal-boxes, rollers, journaled in these boxes and co-operating with the other set of rollers, and means for varying the spring-pressure upon the boxes, of bolts passed around these sets of rollers, perforated blocks or bars interposed between the rollers of the lower set, and imperforate ones between the upper ones, said sets of boards having grooves and flanges at or near their ends whereby to prevent the passage of cider at that point.

**No. 61,895. Fabric Drying Apparatus.**

(*Appareil à sécher les étoffes.*)



L/565

Ada H. Colby, Concord, New Hampshire, U.S.A., administratrix of the Estate of Frank Arthur Colby, 2nd December, 1898; 6 years. (Filed 9th August, 1898.)

*Claim.*—1st. The process of drying fibrous substances or materials which consists in subjecting the same, in a closed chamber, to the combined action of an exhaust, of heat and of motion, as they are continuously carried through the said chamber, substantially as described. 2nd. The process of drying fibrous substances or materials, which consists in subjecting the same to the joint action of pressure, motion, heat and an exhaust, while they are continuously carried through a closed chamber, substantially as set forth. 3rd. A vacuum drier, consisting of a closed chamber communicating with an exhauster, means for heating the interior of the same rolls in pairs, rolling against each other, and suitably packed

against the walls of the said chamber, forming roller gates through which the web may be rolled into and out from the chamber, while these rolls and the web between them close the openings against the admission of air, and connecting mechanism whereby the rolls of the said gates and all the parts in contact with the web are moved with the same surface velocity, substantially as described. 4th. A vacuum web drier, consisting of a closed chamber connecting with an exhauster, means for heating the interior of the same, two rolls rolling against each other, suitably packed against the walls of the vacuum chamber, driven by power, and adapted to carry the web between them into the vacuum chamber without admitting air, and two similar rolls, similarly placed, and adapted to roll the said web out from the said chamber, substantially as herein set forth. 5th. In a vacuum drier, consisting of a closed chamber connected with an adjuster, means for heating the interior of the same, two rolls rolling against each other, suitably packed against the walls of the vacuum chamber, and two similar rolls similarly placed, and adapted to roll the said web out from the said chamber, the said rolls being provided with hollow journals, and means to supply heat to the said rolls through their said journals, substantially as described. 6th. In a vacuum web drier, the combination of the vacuum chamber, the heating surfaces within it, the moving rolls in pairs, forming roller gates, closing the entrance and exit of the said chamber against the pressure of external air, and an exhauster, arranged for joint action, as herein set forth. 7th. In a vacuum web drier, the combination chamber, the heating surfaces within it, the moving rolls in pairs, forming roller gates, closing the entrance and exit of the said chamber against the pressure of the external air, and a condenser and an exhauster arranged for joint action, substantially as specified. 8th. In a vacuum web drier, a closed chamber connecting internally with an exhauster, means for heating the interior of the same, rolls in pairs packed against the walls of this vacuum chamber, rolling against each other and forming roller gates by which the web may be rolled into and out from the said chamber, an endless apron passing through these gates, and through the said chamber, and adjustable guide or tightening rollers, substantially as set forth. 9th. In a vacuum web drier, a closed chamber connected with an exhauster, means for heating the interior of the same, rolls in pairs packed against the walls of this vacuum chamber and rolling against each other, and forming roller gates by which the web may be rolled into and out from the chamber, an endless apron passing through these gates and through the said chamber and returning outside, and guide or tightening rollers, substantially as set forth. 10th. A vacuum web drier, comprising a closed chamber, connected internally with an exhauster, rolls or cylinders arranged in pairs, two pairs of such rolls forming the inlet and the outlet for said chamber, in combination with two endless aprons adapted to pass through said chamber and be pressed between the two rolls or cylinders of each pair, and to receive the wet web between them as they enter the chamber, and to guide such web through this chamber, substantially as described. 11th. In a vacuum web drier suitably adjusted and suitably heated, cylinders grouped in pairs, and connected to rotate together for joint action, in combination with two endless aprons arranged to come together where they are pressed between the two cylinders of each pair, and being carried over small intermediate rollers, to be separated from each other and from the web carried between them in passing from one pair of cylinders to the next within the vacuum chamber, substantially as herein set forth. 12th. In a vacuum web drier, a chamber, means to exhaust it, means to heat it, cylinders C, C<sup>1</sup>, and C<sup>11</sup>, packed at I against the walls of the chamber B, in a way to exclude the air, forming roller gates allowing the web to be dried to pass between them, the endless aprons A, A<sup>1</sup>, passing together through these gates, and arranged to carry this web between them through the chamber, and the guide rollers R, R, R<sup>1</sup>, R<sup>1</sup>, over which these aprons are separately returned, substantially as set forth. 13th. In a vacuum web drier, the closed chamber B, connecting into the exhaust conduit E, the roller gates C, C<sup>1</sup>, C<sup>11</sup> and C<sup>111</sup>, allowing the web and the endless aprons to pass while excluding the air, the endless aprons A, A<sup>1</sup>, the adjustable guide rollers R, R, R<sup>1</sup>, R<sup>1</sup> outside the chamber, and within, the separating guide rollers r, r, r<sup>1</sup>, r<sup>1</sup>, arranged in pairs between the pairs of pressing cylinders, and roller gates C<sup>1</sup>, C<sup>11</sup>, C, C, etc., arranged for joint action, substantially as specified.

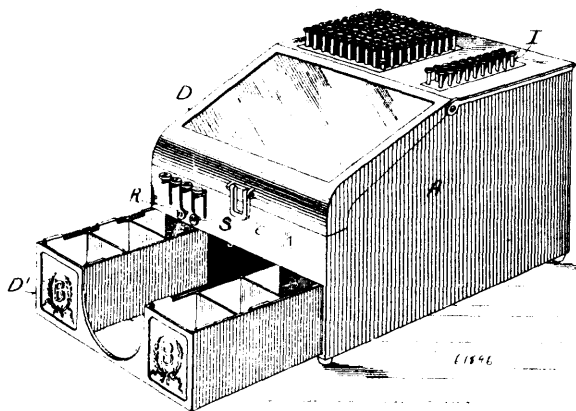
**No. 61,896. Coin Delivery and Cash Register Machines.**

(*Machine à délivrer et enregistrer la monnaie.*)

Edward Julius Brandt, Watertown, Wisconsin, U.S.A., 2nd December, 1898; 6 years. (Filed 3rd January, 1898.)

*Claim.*—1st. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, and a coin-ejector mechanism, together with an automatic cash-register mechanism embodying release and stop sections co-operative with said coin-ejector mechanism. 2nd. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a coin-ejector mechanism operative to lift coin clear of the stop, and deflectors for the lifted coin, together with an automatic cash-register mechanism embodying release and stop sections co-operative with said coin ejector mechanism. 3rd. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary

coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a series of lever controlled pushers



operative to lift coin clear of the stop, a series of rockers in opposition to the pusher-levers, and a series of reciprocative edgewise plates having feet in opposition to the rockers, together with an automatic cash-register mechanism embodying release and stop actions co-operative with said reciprocative plates. 4th. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a delivery-chute in front of this coin-stop, a coin-follower under tension in each of said coin-chutes, a series of lever-controlled pushers operative to lift coin clear of said stop, a series of rockers in opposition to the pusher-levers, and a series of reciprocative edgewise plates having feet in opposition to the rockers, together with an automatic cash-register mechanism embodying release and stop actions co-operative with said reciprocative plates. 5th. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a series of lever-controlled pushers operative to eject coin from certain of the chutes, a series of rockers in opposition to the pusher-levers, and a series of reciprocative edgewise plates having feet operative on the rockers, other pushers operative to eject coin from the remaining chutes, and a multiple-lever mechanism operative in conjunction with the latter, together with an automatic cash-register mechanism embodying release and stop actions co-operative with said reciprocative plates. 6th. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a series of lever-and-spring controlled pushers operative to eject coin from the aforesaid chutes, a series of rockers in opposition to the pusher-levers and a series of reciprocative edgewise plates having feet operative on the rockers, together with an automatic cash-register mechanism embodying release and stop action with the reciprocative plates. 7th. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary coin stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a series of lever-controlled pushers operative to eject coin from the chutes, and suitable mechanism for operating single levers and combinations of levers, together with an automatic cash-register mechanism embodying release and stop actions co-operative with the coin-ejector mechanism. 8th. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin follower under tension in each of said chutes, a series of levers, coin-ejectors in yielding connection with the levers, and suitable mechanism for operating single levers and combinations of levers, together with an automatic cash-register apparatus embodying release and stop actions co-operative with the coin-ejector mechanism. 9th. A coin-delivery apparatus comprising a series of inclined chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, levers having terminal-pins, coin-pushers having end apertures provided with knife edge bearings for the terminal-pins of the levers, a leaf-spring made fast to each of the aforesaid coin pushers to have bearings at its ends against a fixed resistance, and suitable mechanism for operating single levers and combinations of levers, together with an automatic cash-register mechanism embodying release and stop actions co-operative with the coin-ejector mechanism. 10th. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a series lever-controlled yielding pushers operative to eject coin from the chutes, suitable mechanism for operating single levers and combinations of levers and other suitable mechanism operative to throw one or more coin-pushers out of working position, together with an automatic cash-register mechanism embodying release and stop actions co-operative with the coin-ejector mechanism. 11th. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a series of lever-controlled yielding pushers operative to

eject coin from the chutes, suitable mechanism for operating the pushers singly or in combinations to eject coin from the chutes, and spring-controlled push-pins operative in conjunction with one or more coin-pushers to throw the same out of working position, together with an automatic cash-register mechanism embodying release and stop actions co-operative with the coin-ejector mechanism. 12th. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, chute-engaging coin-followers, flexible straps connected to the coin-followers and trained on pulleys through apertures in chute-bottoms spindles mounted in stationary bearings, strap-winding drums loose on the spindles, spiral-springs on said spindles connecting the latter with the drums, and suitable mechanism for ejecting coin from said chutes, together with an automatic cash-register mechanism having release and stop actions co-operative with the coin-ejector mechanism. 13th. A coin-delivery apparatus, comprising a series of inclined coin-chutes, a temporary coin-stop at the lower end of the chutes, chute-engaging coin-followers, flexible straps connected to the coin-followers and trained on pulleys through apertures in chute-bottoms, spindles mounted in stationary bearings, strap-winding drums loose on the spindles, spiral-springs on said spindles connecting the same with the drums, stops for retaining the spindles in rotary adjusted position to vary spring-tension, and suitable mechanism for ejecting coin from said chutes, together with an automatic cash-register mechanism having release and stop actions co-operative with the coin-ejector mechanism. 14th. A coin-delivery apparatus, comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a fulcrum-rod, a series of levers supported on the rod and provided with crank-rod extensions, a series of rockers operative on said lever-extensions, reciprocative edgewise plates having feet operative on the rockers, and pushers in connection with the levers operative to eject the coin from said chutes, together with an automatic cash-register mechanism having release and stop actions co-operative with the coin-ejector. 15th. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a series of levers, pushers in connection with the levers and operative to eject coin from all but three of the chutes, a series of rockers in opposition to said levers, a series of reciprocative edgewise plates having feet operative on the rockers, pushers operative to eject single coin from each of two chutes in the series of three, and another pusher operative to eject two coins from the remaining chute, a lever in connection with each of the latter pushers, and tilt-levers arranged with reference to the latter pusher-levers so that one, two, three or four of the same may be operated by a single impulse, and an automatic cash-register mechanism embodying release and stop actions co-operative with the reciprocative plates as well as similar actions operative in conjunction with the tilt-levers. 16th. A coin-delivery apparatus, comprising a series of three inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, three levers each carrying a coin-pusher, two of the pushers being operative on single coin in two chutes and the other on two coins in the remaining chute, and a series of four tilt-levers operative in conjunction with the former levers to effect ejection of one, two, three or four coins from the aforesaid chutes, together with an automatic cash-register mechanism embodying release and stop actions operative in conjunction with the tilt-levers. 17th. A coin-delivery apparatus, comprising a suitable casing, a series of inclined chutes in the casing, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a system of levers carrying pushers operative to eject coin from the chutes, a series of lever-actuating rockers, edgewise plates having feet operative on the rockers, spring-controlled push-pins connected to the plates, and pairs of suitably connected and spaced apart guide-plates for the push-pins arranged in banks, the upper guide-plate of each pair constituting a top-section of the casing, together with an automatic cash-register embodying release and stop actions co-operative with said edgewise plates. 18th. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, ejector-mechanisms operative on single coin and combination of coin, and stop-ears extending inward from walls of each chute in opposition to coin in rear of those in position to be ejected, together with an automatic cash-register mechanism having release and stop actions operative in conjunction with the coin-ejector mechanisms. 19th. A coin-delivery apparatus comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, ejector-mechanisms operative on single coin and combinations of coin and under-curved rearwardly tapered stop-ears extending inward from chute-walls in opposition to coin in rear of those in position to be ejected, together with an automatic cash-register mechanism having release and stop actions operative in conjunction with the coin-ejector mechanisms. 20th. A coin-delivery and cash-register machine comprising inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a series of levers carrying pushers operative to eject coin from the chutes, a series of lever-actuating rockers, a series of reciprocative edgewise plates provided with rocker-actuating feet and having prolongations



practically radial from a common centre, a rotative toothed register-disc having said centre for its axis, a series of plungers arranged in guides concentric with the disc to be actuated by the prolongations of said plates, a spring-controlled pawl-arm having the same axis as said disc and limited as to rotary movement with the latter by any one of said plungers brought in its path, an automatic detent for the disc, and spring-controlled release-and-reset mechanism for the pawl-arm co-operative with any one of the aforesaid plates. 21st. A coin-delivery and cash-register machine comprising inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of the said chutes, a series of levers carrying pushers operative to eject coin from the chutes, a series of lever-actuating rockers, a series of reciprocative edgewise plates provided with rocker-actuating feet and having prolongations practically radial from a common centre, a plurality of rotative toothed register-discs having said centre for their axis, suitable means for transmitting motion from one disc to another at predetermined intervals, a series of plungers arranged in guides concentric with the disc to be actuated by the prolongation of said plates, a spring-controlled pawl-arm having the same axis as said discs and limited as to rotary movement with one of the latter by any one of the plungers brought into its path, automatic detents for said discs, and spring controlled release-and-reset mechanism for the pawl-arm co-operative with any one of said plates. 22nd. A coin-delivery and cash register machine comprising inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a series of levers carrying pushers operative to eject coin from the chutes, a series of lever-actuating rockers, a series of reciprocative edgewise plates provided with rocker-actuating feet and having prolongations practically radial from a common centre, a rotative toothed register-disc having said centre for its axis, a pawl-arm having a spring-controlled stem in rotative slip engagement in the bearing for the disc, a lifting-lever for the stem having yielding spring-resisted play thereon, a spring-controlled rocker at a right-angle to those aforesaid in opposition to shouldered cam-ends of said plates, a cam-latch depending from the rocker to engage and normally support the lever, in position to hold the pawl-arm out of engagement with said disc, a detent for this disc in the descending path of said lever, a series of plungers arranged in guides concentric with said disc to be actuated by the prolongations of said plates to come in the working path of the pawl-arm subsequent to an automatic engagement of the latter with the aforesaid disc, a spring-controlled reset mechanism for the aforesaid lever and pawl-arm and a latch for this mechanism co-operative with the spring-controlled rocker. 23rd. A coin-delivery and cash-register machine comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a series of levers carrying pushers operative to eject coin from the chutes, a series of lever-actuating rockers, a series of reciprocative edgewise plates provided with rocker-actuating feet and having prolongations practically radial from a common centre, a rotative toothed register-disc having said centre for its axis, a series of plungers arranged in guides concentric with the discs to be actuated by the prolongations of said plates, a spring-controlled pawl-arm having the same axis as said disc and limited as to rotary movement with the latter by any one of said plungers brought in its path, an automatic detent for the disc, a spring-controlled cash-drawer, an automatic latch for the same, a latch-trip mechanism co-operative with any one of the aforesaid plates, and a pawl-arm push-rod extended from the cash-drawer. 24th. A coin-delivery and cash-register machine comprising a rotative toothed register-disc, an automatic detent for same, a spring-controlled slide carrying a similarly controlled disc-engaging pawl, a latch for the slide, a latch-release mechanism, a series of reciprocative push-stems individually operative to trip the latch-release mechanism and limit play of said slide, a spring-controlled reset-mechanism for the aforesaid slide, and a latch for this mechanism arranged to be tripped by an action of any one of the push-stems. 25th. A coin-delivery and cash-registering machine comprising a plurality of rotative toothed register discs, suitable means for transmitting movement from one disc to another at predetermined intervals, automatic detents for the discs, a spring-controlled slide carrying a similarly controlled pawl engaging one of the discs, a latch for the slide, a latch-release mechanism, a series of reciprocative push-stems individually operative to trip the latch-release mechanism and limit play of said slide, a spring-controlled reset-mechanism for the aforesaid slide, and a latch for this mechanism arranged to be tripped by an action of any one of the push-stems. 26th. A coin-delivery and cash-registering machine comprising inclined coin-chutes, a temporary coin-stop at the lower ends of all the chutes, a coin-follower under tension in each of said chutes, levers carrying pushers operative to eject coin from the chutes, a series of lever actuating rockers, a series of edgewise plates provided with rocker-actuating feet and having prolongations practically radial from a common centre, rotative toothed register-discs having said centre for their axis, suitable means for transmitting motion from one disc to another at predetermined intervals, a series of plungers arranged in guides concentric with the discs to be actuated by the prolongations of said plates, a spring-controlled pawl-arm having the same axis as said discs and limited as to rotary movement with one of the latter by any one of the plungers brought in its path, automatic detents for said discs, a spring-controlled slide carrying a

similarly controlled pawl engaging the disc that receives motion from the one with which said pawl-arm operates, a latch for the slide, a latch-release mechanism, a series of reciprocative stems individually operative to trip the latch-release mechanism and limit play of said slide, a spring-controlled reset-mechanism for the pawl-arm and slide, and a latch for this reset-mechanism having trip coincident with an operation of any of the aforesaid plates or stems. 27th. A coin-delivery and cash-registering machine comprising inclined coin-chutes, a temporary coin-stop at the lower ends of all the chutes, a coin-follower under tension in each of said chutes, levers carrying pushers operative to eject coin from the chutes, a series of lever-actuating rockers, a series of edgewise plates provided with rocker-actuating feet and having prolongations practically radial from a common centre, rotative toothed register-discs having said centre for their axis, suitable means for transmitting motion from one disc to another at predetermined intervals, a series of plungers arranged in guides concentric with the discs to be actuated by prolongations of said plates, a spring-controlled pawl-arm having the same axis as said discs and limited as to rotary movement with one of the latter by any one of the plungers brought in its path, automatic detents for said discs, a spring-controlled slide carrying a similarly controlled pawl engaging the disc that received motion from the one with which said pawl-arm operates, a latch for the slide, a latch-release mechanism, a series of reciprocative stems individually operative to trip the latch-release mechanism and limit play of said slide, a spring-controlled cash-drawer, an automatic latch for the same, a trip-mechanism for the latter latch co-operative with either of the aforesaid plates or stems, and rods extending from the cash-drawer as means for resetting the aforesaid pawl arm and slide. 28th. A coin-delivery apparatus and cash-register machine comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension of each of said chutes, a delivery-chute in front of the coin-stop, mechanism for ejecting coin from the inclined coin-chutes into the delivery-chute, a spring-controlled cash-drawer having a clearance-space that permits of a hand of the machine-operator being placed in position to receive coin from the delivery-chute outlet, an automatic latch for holding the drawer in closed position, and a latch-release and cash-register mechanism co-operative with coin-ejector mechanism. 29th. A coin-delivery apparatus and cash-register mechanism comprising a series of inclined coin-chutes, a temporary coin-stop at the lower ends of the chutes, a coin-follower under tension in each of said chutes, a delivery-chute in front of the coin-stop, mechanism for ejecting coin from the inclined chutes into the delivery-chute, a spring-controlled cash-drawer having a clearance space that permits of a hand of the machine-operator being placed in position to receive coin from the delivery-chute outlet, an automatic latch for holding the drawer in closed position, a latch-release and cash-register mechanism co-operative with the coin-ejector mechanism, and other mechanism operative to trip the drawer latch as well as to effect registration of cash independent of said coin-ejector mechanism.

#### No. 61,897. Method of Preserving Fish.

(Méthode de préserver le poisson.)

Martin Ekenberg, Gothenburg, Sweden, 2nd December, 1898; 6 years. (Filed 9th August, 1898.)

*Claim.*—1st. The process of preserving fish or the flesh of fish, which consists in adding feculoid substances to the mass before it is to be boiled in closed vessels, substantially as and for the purpose set forth. 2nd. The process of preserving fish or flesh of fish, which consists in placing alternate layers of the mass to be preserved and feculoid substances in the vessel intended to contain the preserved goods before it is to be heated, substantially as and for the purpose set forth.

#### No. 61,898. Fire-Proofing Composition.

(Composition à l'épreuve du feu.)

Gustave Xavier Dime, New York City, U.S.A., 2nd December, 1898; 6 years. (Filed 6th August, 1898.)

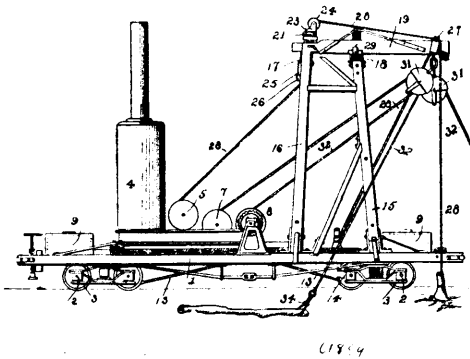
*Claim.*—1st. The herein-described composition of matter, consisting of chloride of ammonia and microcosmic salt, substantially as described and for the purpose specified. 2nd. The herein-described composition of matter, consisting of chloride of ammonia, 15 parts, and microcosmic salt, 1 part, substantially as described and for the purpose specified.

#### No. 61,899. Locomotive. (Locomotive.)

William Andrew Fletcher, Beaumont, Texas, U.S.A., 2nd December, 1898; 6 years. (Filed 2nd August, 1898.)

*Claim.*—1st. In a log-hauling locomotive, the combination with the platform, the connected shears and the crane, of the hollow pin secured to the rear shea's passing through said crane, the sheaves connected with said shears above and below the crane, the sheaves at the front of the crane at an angle to the sheaves connected with the shears, the guys passing around the sheaves connected with the shears, at opposite sides thereof, and through the hollow pin and around the sheaves connected with the crane and the drums with which said guys are connected, substantially as described. 2nd. In a log-hauling locomotive, the combination with the plat-

form, the connected shears, the crane, the hollow pivot pin passing through said crane, the grooved sheave connected above said



11814

shears above and below the crane and in different vertical planes, the sheaves at the front of the crane at an angle horizontally to the sheaves of the shears, the guys and the drums to which they are secured, of the sheaves connected with the underside of the crane at the front end thereof, the hauling chains, and the drums with which they are connected, substantially as described. 3rd. In a log-hauling locomotive, the combination with the platform, the axle provided with sprocket pinions, the sprocket chains, the transverse shaft, the sprocket wheels thereon, the guy rope drums mounted on a common shaft, the hauling rope drums located in rear thereof, and means for operating the same, of the connected shears, the crane, the hollow pin secured to the rear shears, passing through said crane, the sheaves connected with said shears above and below the crane, the sheaves at the front of the crane at an angle to the sheaves connected with the shears, the guys passing around the sheaves connected with the shears at opposite sides thereof and through the hollow pin and around the sheaves connected with the cranes and the hauling chains, substantially as described.

**No. 61,900. Treatment of Wool Grease, Soap Suds, etc.**  
(*Traitement de graisse de laine, eau de savon, etc.*)

John Hopkinson, Bradford, York, England, 2nd December, 1898; 6 years. (Filed 31st August, 1898.)

*Claim.*—1st. The treatment of wool grease and other like grease containing unsaponifiable matter which consists in treating them with caustic alkali ethyl or methyl alcohol and a solvent of fat alcohols such as coal tar benzol, separating the respective layers and distilling the same, substantially as described. 2nd. The treatment of wool grease and other like greases containing unsaponifiable matter which consists in treating them with caustic alkali ethyl or methyl alcohol and a solvent of fat alcohols such as coal tar benzol and separating the raw lanolin and fatty alcohols from the scap, substantially as described. 3rd. The treatment of wool grease and other like greases containing unsaponifiable matter which consists in partially saponifying with caustic alkali and heat, separating the unsaponified fat by means of salt adding to the remainder spirits and coal tar benzol whereby it is divided into two layers on standing and separating these layers, substantially as described. 4th. As a new article of manufacture, a lubricating grease of great viscosity formed of fat alcohols alone, or of lanolin which is a mixture of cholesterol and isocholesterin and fat alcohols, substantially as described. 5th. The process of separating distilled or other grease containing unsaponifiable matters into its constituent parts which consists in fully saponifying with caustic alkali, adding methyl or ethyl alcohol separating the upper layer, adding benzol with agitation a little at a time and skimming off till only the solution of soap remains, then distilling off the solvents from the separated layers.

**No. 61,901. Bale of Fibrous Material.**  
(*Ballot de matières fibreuses.*)



11901

George Archibald Lowry, Chicago, Illinois, U.S.A., 2nd December, 1898; 6 years. (Filed 31st August, 1898.)

*Claim.*—1st. As an article of manufacture, a bale of highly compressed fibrous material composed of a continuous spiral with the

convolutions flattened and resting one upon the other. 2nd. A bale of fibrous material formed in continuous spirals, each layer or spiral being compressed or flattened and compressed upon the preceding layers, thus forming a longitudinal central opening through the bale. 3rd. A cylindrical bale of fibrous material built up endwise by successive spiral layers, each succeeding layer compressed upon the preceding layers. 4th. A bale of fibrous material built up endwise by a superimposed spiral layers, each layer being compressed or flattened and compressed upon the preceding layers, whereby the fibres in each layer adhere together but without substantial adherence between adjacent spirals said bale having a longitudinal central opening therethrough.

**No. 61,902. Medicinal Preparations.**  
(*Préparation médicale.*)

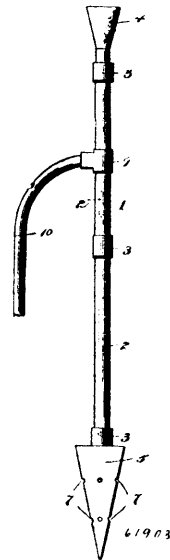
Samuel Theodor H. K. Endemann, New York City, New York, U.S.A., 2nd December, 1898; 6 years. (Filed 7th September, 1898.)

*Claim.*—1st. As new products, the glycerin ethers of aromatic substances containing oxygen in the form of hydroxyl, such as guaiacol, having the following characteristic properties, to wit:—A bitter taste, solubility in alcohol and ether, and slight solubility in water, and which, when heated with dilute acids, split and liberate a corresponding phenol-like substance and glycerin, said products being composed according to the following general formula:—  
 $CH_2, CH, CH_2O, R,$   
 $OH, OH.$

2nd. As new products, the glycerin ethers of the esters of aromatic oxy acids, such as oil of wintergreen, having the following characteristic properties, to wit:—A bitter taste, solubility in alcohol and ether, and slight solubility in water, and which, when heated with dilute acids, split and liberate a corresponding phenol carbonic acid and glycerin, said products being composed according to the following general formula:—  
 $CH_2, CH, CH_2O, R,$   
 $OH, OH,$

where R is the radical of an ester of an aromatic oxy acid.

**No. 61,903. Earth Thawing Device.**  
(*Appareil à dégeler la terre.*)



Samuel S. Erret, Horr, Montana, U.S.A., 2nd December, 1898; 6 years. (Filed 14th February, 1898.)

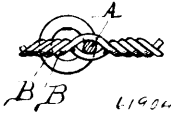
*Claim.*—A device of the class described, comprising a hollow stem or shaft adapted to be driven into the ground and forming a conduit and provided with a supply pipe, and a tapering discharge nozzle arranged at the lower end of the stem or shaft and provided with a longitudinal discharge opening and having transverse discharge openings extending from the longitudinal opening to the outer face of the nozzle at points between the end thereof, said nozzle forming a driving point, substantially as described.

**No. 61,904. Metal Fabric.** (*Tissu métallique.*)

James R. Jones, Waterford, Michigan, U.S.A., 2nd December, 1898; 6 years. (Filed 25th July, 1898.)

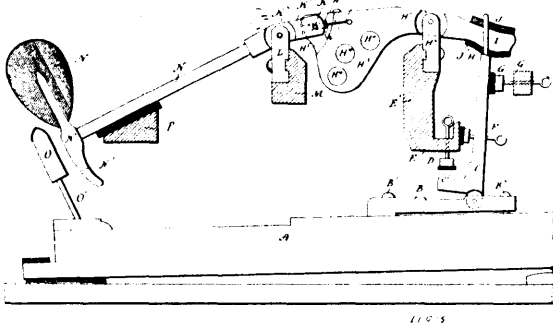
*Claim.*—1st. A resilient wire fabric having in combination resilient vertical strands formed of continuously-coiled spring-wire, and longitudinal strands arranged in pairs twisted together and about the wire connecting two adjacent coils of the vertical strands the

vertical strands having a series of resilient coils intermediate to the pairs of longitudinal strands, and the coils above and below the pint



of connection of the longitudinal strands with the vertical strands extending laterally on an arc of a circle on both sides thereof, thereby bracing the point of connection of the longitudinal strands on different sides of said point and both above and below said point, substantially as set forth. 2nd. In a wire fabric, vertical coiled-wire strands, interior wires within the coiled-wire strands and forming a part of the latter, and in combination therewith longitudinal strands twisted together and about the coiled vertical strands, the interior wires disconnected with the coils of the vertical strands as set forth. 3rd. In a wire fabric vertical coiled-wire strands, interior wires within the coiled wire strands and forming a part of the strands, the extremities of the interior wires formed with loops, substantially as set forth.

**No. 61,905. Plano Action. (Action de piano.)**

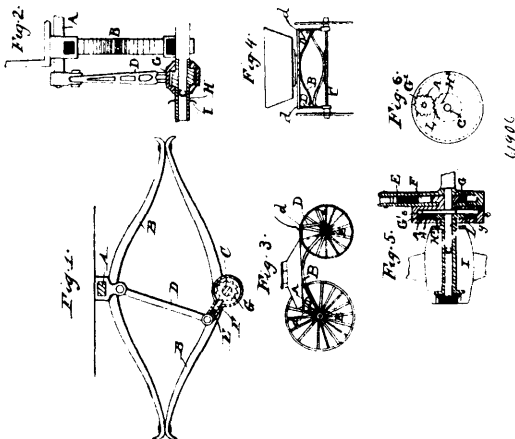


Morris Steinert, New Haven, Connecticut, U.S.A., 2nd December, 1898; 6 years. (Filed 10th October, 1898.)

*Claim.*—1st. In a piano-action, the combination with a key, a jack, a hammer-lever with the forward end of which the jack co-acts, and a hammer loosely articulated with the rear end of the said hammer-lever. 2nd. In a piano-action, the combination with the key thereof, of a jack mounted thereupon, a hammer-lever provided with an oblique operating face with which the jack co-acts, a hook secured to the jack and passing over the forward end of the hammer-lever so as to articulate the same with the jack, and a hammer loosely but positively articulated with the forward end of the hammer-lever. 3rd. In a piano-action, the combination with a hammer-lever formed with a tongue having a slot from which a slit extends to permit the slot to be constricted or enlarged by means of an adjusting-screw, of a hammer having a hammer-body formed with a yoke to receive the tongue, and provided with a pin passing into said slot in which it moves back and forth so as to loosely but positively articulate the hammer and lever.

**No. 61,906. Vehicle Motor.**

(Voiture à propulsion automatique.)

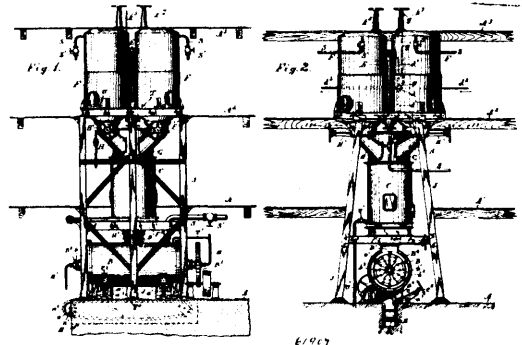


(George B. H. Austin, No. 60 Armadale Road, Armadale, Victoria, Australia, 2nd December, 1898; 6 years. (Filed 11th August, 1898.)

*Claim.*—1st. In mechanism for utilizing the bumping of vehicles for assisting in the propulsion of same, a pivoted arm such as E, using a pawl or ratchet engaging with a ratchet-wheel upon or connected to one or more of the wheels of said vehicles, said arm being connected by a rod or otherwise with the body of the vehicle, substantially as and for the purposes herein described. 2nd. In mechanism for utilizing the bumping of vehicles for assisting in the propulsion of same, a rod such as D, connected at one end by universal joints to the body of the vehicle and at the other end to a pivoted arm carrying a pawl or ratchet, substantially as and for the purposes herein described. 3rd. In mechanism for utilizing the bumping of vehicles for assisting in the propulsion of same multiply-ing gear inserted between the hub of the wheel and a pawl or ratchet rotated by the vertical movement of the body of said vehicle, substantially as and for the purposes herein described and explained.

**No. 61,907. Garbage Treating System.**

(Système de traitement des trippailles.)

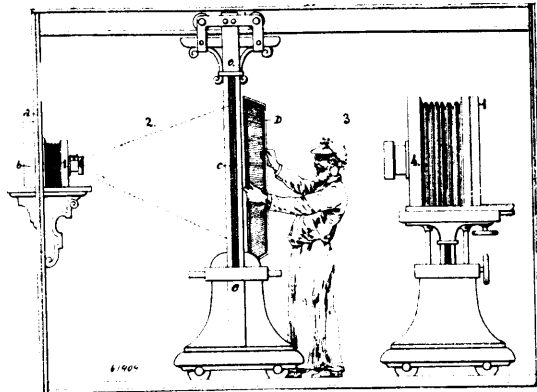


Cyrus C. Currier, Newark, New Jersey, U.S.A., 2nd December, 1898; 6 years. (Filed 17th June, 1898.)

*Claim.*—1st. An apparatus for treating garbage which comprises a tightly closed rendering tank, a tightly closed press-curb with opening in the bottom and piston for compressing the material, and a tightly closed drier, the three receptacles being connected by air-tight pipes and valves and thus adapted to render, press and dry the material in a continuous operation without the discharge of noxious gases, or any exposure of the material under treatment to the atmosphere. 2nd. In an apparatus for treating garbage, the combination, with a press-curb having valved outlet in the bottom, a piston to compress the material, and an air-tight hood upon the top of the curb with stuffing box for the passage of the piston rod, and inlets upon the sides of the hood, of a series of rendering tanks arranged above the hood with valve and tight pipe connecting the bottom of each with one of such inlets, by which the material from the rendering tanks may be successively pressed in the same curb without exposure to the atmosphere. 3rd. In an apparatus for treating garbage, the combination, with a press-curb having valved outlet in the bottom, a movable piston and a hood upon the top with inlets at the sides, of a series of rendering tanks connected each at the bottom by valved pipe with one of said inlets, a floor being arranged at the tops of such tanks to support the material when filling the same, and each tank having an inlet with valve to close the same when filled. 4th. In an apparatus for treating garbage, the combination, with a press-curb having perforated walls, of an air-tight jacket surrounding the same and having a pipe to withdraw the compressed fluid, a hood fitted air-tight on the top of the curb with inlet and valved pipe to insert the material, a piston with rod projected upward through the hood, an air-tight funnel below the curb, and a gate fitted to the bottom of the curb above the funnel, and adapted when retracted to open the entire bottom of the curb, substantially as herein set forth. 5th. In an apparatus for treating garbage, the combination, with a press-curb having perforated walls, of an air-tight jacket surrounding the same and having a pipe to withdraw the fluid, a hood fitted air-tight to the top of the curb with pipe and valve to receive the material, a piston with rod projected upward through the hood, an air-tight gate chamber attached to the bottom of the curb, and projected at one side of the same, a funnel connected with the bottom of the gate chamber, and a gate fitted to the bottom of the curb, and adapted when retracted to open the entire bottom of the curb, as and for the purpose set forth. 6th. In an apparatus for treating garbage, the combination, with a cylindrical press-curb having perforated walls, of an air-tight jacket surrounding the same with pipe to discharge the fluid, the rectangular plate *c* attached to the bottom of the curb with the plate *c*<sup>1</sup> connected thereto by rectangular frame *c*<sup>2</sup>, the openings through the plates in line with the bore of the curb, the rectangular gate *c*<sup>3</sup> fitted movably between the plates and provided with bearing rolls *c*<sup>4</sup>, a screw or screws *s* journaled in the frame *c*<sup>2</sup>, with nut or nuts to move the gate, and means for rotating the screw or screws to retract the gate, as and for the purpose set forth. 7th. In an apparatus for treating garbage, the combination, with a drying cylinder having filling inlet in the top and means for stirring the material, of the funnel *F*<sup>2</sup>

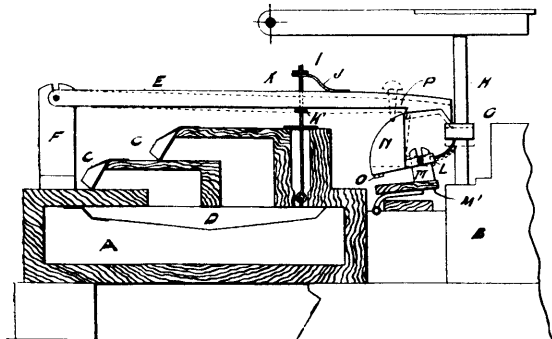
attached to the inlet, the valve H<sup>2</sup> at the bottom of the funnel, and gate chamber H<sup>1</sup> attached to the top of the funnel, the press-curb attached to the top of the gate chamber, with gate movable in the chamber and adapted when retracted to open the entire bottom of the curb in discharging the material to the drier, the gate chamber and funnel being air-tight to transfer the material without the escape of gas and vapour, substantially as herein set forth. 8th. In an apparatus for treating garbage, and comprising a drying cylinder with press-curb mounted upon the top of the same and connected therewith, the combination, with the drying cylinder having means for stirring the material, and outlet a from the bottom of the cylinder, of the manhole cover a<sup>1</sup> hinged at the sides of said outlet, worm gearing connected with said cover, to close it from the side of the drier, and a carrier, to close it from the side of the drier, and a carrier movable beneath the outlet to carry away the material when discharged from the outlet, as and for the purpose set forth. 9th. In an apparatus for treating garbage, the combination, with a single press-curb and a piston movable therein, of an air-tight hood fitted to the top of the curb, a hydraulic cylinder sustained above the hood with piston rod extended through the top of the same to the piston, a series of rendering tanks arranged about such hydraulic cylinder above the hood, and separately connected therewith by air-tight pipes and valves, a floor arranged at the tops of the rendering tanks to support the material when filling the tanks, a valve fitted within each rendering tank to close the inlet, the vertical boxes k<sup>2</sup> projected from the tops of the tanks upon the contiguous quarters of the same and provided with means for actuating the valves, and a valve box with valve and pipes for controlling the movement of the fluid in the hydraulic cylinder, with a handle g<sup>1</sup> extended adjacent to the vertical boxes k<sup>2</sup>, so as to be actuated by the same operator, substantially as shown and described. 10th. In an apparatus for treating garbage, the combination, with a press-curb having a gate at the bottom adapted to sustain the material when pressing the same, a drier with air-tight pipe and valve connecting it to the outlet of the press-curb, means for tightly closing the press-curb when charged, and vacuum pipes for connecting the press-curb and drying cylinder separately with a condenser to draw-off the vapours, substantially as herein set forth. 11th. An apparatus for treating garbage, comprising a tight conveyor-box, a series of air-tight rendering tanks above the same with tight pipes and valves connecting them separately to the conveyor-box, a series of air-tight press-curbs connected with the conveyor-box by suitable air-tight pipes and valves, and a conveyor within the conveyor-box for transporting the material from any of said tanks at pleasure to any of said press-curbs, substantially as herein set forth.

enlarged view by taking a photograph of the same, substantially as set forth. 2nd. The method before described of photo-mechanically



producing printing-plates of any kind, for typography, lithography and plate-printing, consisting in combining the operation of four camerae obscurae, by, first, producing an enlarged projected view of the translucent original, finely sub-dividing said view by a screen or screens placed in the path of light, and, subsequently reducing the said enlarged view by taking a photograph of the same, substantially as set forth. 3rd. Apparatus for photo-mechanically producing printing-plates of any kind for typography, lithography and plate-printing, consisting of the combination of four camerae obscurae, one of which, by a source of light, placed outside, projects an enlarged view of the translucent original on an opaque pane of a partition dividing a lightless chamber into two compartments, one of which compartments contains photographic apparatus for reducing the enlarged view by taking a negative of the same, substantially as set forth. 4th. Apparatus for photo-mechanically producing printing plates of any kind, for typography, lithography and plate-printing, comprising four camerae obscurae, two of which are formed by dividing a dark chamber into two compartments by a movable partition having an aperture containing an opaque pane, and a screen or screens to be placed against said pane, substantially as and for the purpose set forth.

**No. 61,908. Organ Attachment.** (*Attache pour orgues.*)



61908

Samuel Howard, Manchester, England, 2nd December, 1898; 6 years. (Filed 9th May, 1898.)

*Claim.*—1st. In American organs and like musical instruments, the combination of reed box with means for keeping all the pallets of such reed box closed below the highest note of each chord in the treble and above the lowest note of each chord in the bass, substantially as set forth. 2nd. In American organs and like musical instruments, the combination of a supplementary reed-box A, pallets D, levers E, with or without spring J, links I with adjustable collars K and K<sup>1</sup>, and levers L with projections N and fingers O, mounted in fixed or movable action-rail M, and operating under the action of plungers H and collars C, substantially as set forth. 3rd. In American organs and like musical instruments, the combination of supplementary reed-box with levers E operating permissively for one set of reeds and positively for the remaining reeds, substantially as set forth.

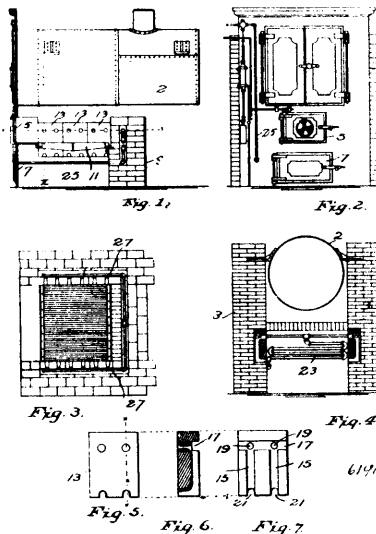
**No. 61,909. Printing Plate.** (*Planche d'imprimerie.*)

Ernst Fucks, sr., Leipzig, Germany, 2nd December, 1898; 6 years. (Filed 25th May, 1898.)

*Claim.*—1st. The method before described of photo-mechanically producing printing-plates of any kind, for typography, lithography and plate-printing, consisting in combining the operation of four camerae obscurae, by, first, producing an enlarged projected view of the translucent original, and subsequently, reducing the said

**No. 61,910. Smoke Preventer.**

(*Appareil à consumer la fumee.*)



61910

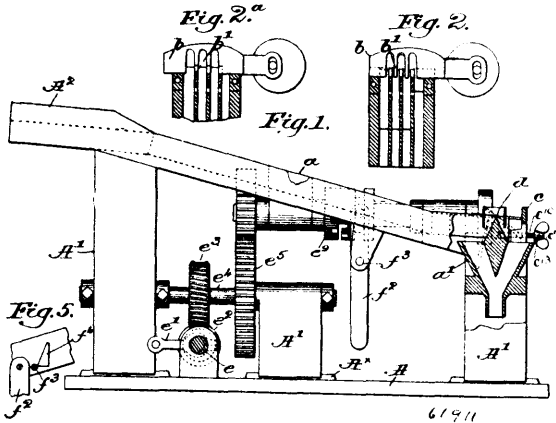
Ralph Waggett Cavenaugh, Saint Paul, Minnesota, U.S.A., 2nd December, 1898; 6 years. (Filed 26th May, 1898.)

*Claim.*—1st. As a new article of manufacture, the furnace wall-tiles, each formed with openings at top and bottom adapted to open above and below a furnace grate, a laterally extending channel across the openings at the top, and vertical channels connecting the openings at the top with the openings at the bottom, substantially as and for the purposes described. 2nd. In a furnace smoke-preventer, the combination of a pipe for supplying steam to the fire-box, a valve in said pipe to control the passage of the steam, a water-cylinder containing a piston, and having the piston-rod arranged to operate on said steam-valve, a water supply-pipe com-

municating with the water-cylinder on one side of the piston therein, a valve in said water-pipe, a rocking-shaft connected with said valve to positively move it in both directions, as shown, and having a member arranged in the path of movement of the furnace door so as to turn on the water to the cylinder when the door is opened, and means for regulating the escape of water from the cylinder, substantially as and for the purposes described. 3rd. In a furnace smoke-preventer, the combination of a pipe for supplying steam to the fire-box, a valve in said pipe, a cylinder provided with a piston and having a piston-rod extending through opposite ends of the cylinder and having one end arranged to actuate said steam-valve and the opposite end weighted outside of the cylinder, a pipe connecting with the interior of said cylinder for supplying a pressure-applying agent to act on said piston, a valve controlling the supply of said agent to the cylinder, means connecting said valve operatively with the furnace door to open the valve when the furnace door is opened, and means for the escape of the pressure-agent from the cylinder when the steam is to be shut off from the fire-box, substantially as and for the purposes described. 4th. In a furnace smoke-preventer, the combination of a pipe for supplying steam to the fire-box, a valve in said pipe, a water-cylinder containing a piston and having the piston-rod arranged in line with the stem of said steam-valve, a weight applied to the piston-rod outside of the water-cylinder, a water supply-pipe communicating with the interior of said cylinder, a valve in said water-pipe, means operatively connecting said valve with the furnace door so that when said door is opened the water will be turned into the cylinder and when closed the supply will be cut off, and means for controlling the escape of water from the cylinder, substantially as and for the purposes described. 5th. The combination, with the steam supply-pipe, provided with the valve 39 having the valve-stem 41, with the adjustable sleeve 67 arranged thereon, of the cylinder 47 having a piston arranged therein, the piston-rod 43 connected to said valve-stem 41 and adapted to engage said sleeve 67, the weight connected to the lower end of said piston-rod, the drip-valve permitting the water to escape from said cylinder, and means for supplying water to said cylinder each time that the furnace door is opened, for the purpose set forth.

**No. 61,911. Nail Assorting Machine.**

(Machine à assortir les clous.)



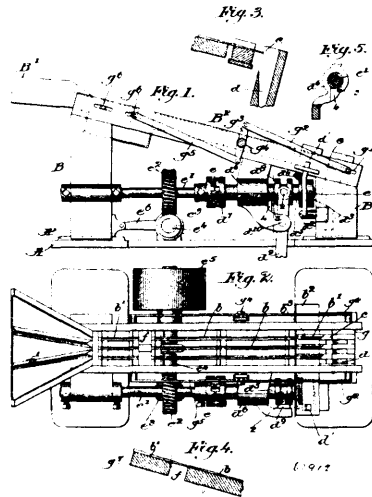
The McKay Shoe Machinery Co., Portland, Maine, assignee of Benjamin Franklin Mayo, Salem, Massachusetts, U.S.A., 3rd December, 1898; 6 years. (Filed 26th September, 1898.)

*Claim.*—1st. In a nail assorting apparatus, a series of raceways, adapted to receive upon them and sustain a series of co-operating pockets, a transferer adapted and to meet the sides of said nails and push them bodily laterally from said raceways, said nails dropping into said pockets, substantially as described. 2nd. In a nail assorting apparatus, a series of raceways, pockets arranged at the sides of said raceways, a stop for the ends of the nails lying at the extremities of said raceways, and a transferer adapted to meet the sides of a series of nails on said raceways, to push them laterally from said raceways, said nails falling upon a balancing device and entering said pockets head-first, substantially as described. 3rd. In a nail assorting apparatus, a series of raceways, pockets at the sides thereof, one for each raceway, a stop for the endmost nails lying on said raceways, means to adjust said stop, and a transferer to act upon and push said nails bodily laterally from said raceways, said nails dropping into said pockets, substantially as described. 4th. In a nail assorting apparatus a series of raceways, an extension of lesser inclination, a series of pockets at the ends of said raceways and a transferer adapted to meet the sides of the nails lying on said raceways, and move them bodily laterally therefrom to drop into said pockets, substantially as described. 5th. In a nail assorting apparatus, a series of raceways to receive and guide a series of nails, a series of pockets at the sides of said raceways, and a two-armed transferer having fingers to contact at two points with the sides of each nail to be transferred, substantially as described. 6th. In a

nail assorting apparatus, a series of raceways to receive upon them and guide a series of nails, a series of pockets, and an adjustable end stop for the ends of the nails lying at the delivery ends of said raceways, to receive against them the nails lying above said pockets, substantially as described.

**No. 61,912. Nail Assorting Machine.**

(Machine à assortir les clous.)

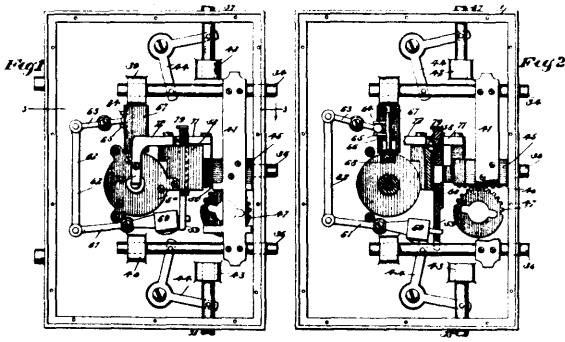


The McKay Shoe Machinery Company, Portland, Maine, assignee of Benjamin Franklin Mayo, Salem, Massachusetts U.S.A., 3rd December, 1898; 6 years. (Filed 26th September, 1898.)

*Claim.*—1st. In a nail assorting apparatus, a raceway separated into a plurality of sections adapted to ensure the travel of a nail from one onto the other section when the individual portions of said sections are in the same vertical plane, a stop to arrest the leading end of the nail, and means to effect relative lateral movement of one portion or section of said raceway with relation to the other portion or section thereof, to move laterally bodily the series of nails to be discharged, removing their ends from contact with said stops, and a series of pockets one for each of the nails so discharged, substantially as described. 2nd. In a nail assorting apparatus, a raceway separated into a plurality of sections located normally with relation to each other to ensure the travel of a nail from one onto the other section of said raceway when the said individual sections are in the same vertical plane, a stop located below the endmost section against which the end of the nail lying thereon may rest, a preliminary stop forming a part of the endmost section, it acting as a stop for the nail next back of the one to be discharged, and means to effect relative lateral movement of one portion or section of said raceway with relation to the other portion or section thereof, to ensure the discharge of the endmost series of nails, substantially as described. 3rd. In a nail assorting apparatus, a raceway separated into a plurality of sections adapted to ensure the travel of a nail from one onto the other of said sections when they are in the same vertical plane, a stop located below the end of the lowermost section of the raceway, said stop receiving against it the end of the nail lying on the lowermost section, a preliminary stop movable with the said lowermost section, it acting as a stop for the nail next back of those to be discharged, said nails lying on the section of the raceway above it, means to effect the relative lateral movement of one portion or section of said raceway with relation to the other portion or section thereof, a hopper, and a preliminary start therein, said preliminary start being located above the uppermost section of said raceway and separated therefrom by a space, to ensure the discharge of all nails leaving the said starts head foremost, substantially as described. 4th. In a nail assorting apparatus, a series of raceway section or portions, and a second series of raceway sections or portions, located below the same, said second section being shaped to constitute preliminary stops for the nails lying on the upper sections when the lower sections are being moved to discharge the nails from them, and a suitable end stop for the nails resting upon the lowermost section, substantially as described. 5th. In a nail assorting apparatus, a raceway separated into a plurality of sections adapted to ensure the travel of a series of nails from one onto the other of said sections, an end stop for the series of nails lying on the lowermost sections of the raceway, means to effect relative lateral movement of one portion or section of said raceway with relation to the other portion or section thereof, to ensure the discharge of nails therefrom, and a series of pockets normally out of line with said raceway sections when the nails are travelling from one to the other section, said pockets receiving the nails from the lowermost section when the latter are put in line therewith, substantially as described. 6th. In a nail assorting apparatus, a raceway having a series of grooves to receive a series of nails, a series of preliminary starts, a space being left between the lower ends of said starts and the upper

ends of said raceway grooves, and a series of stops at the lower ends of said raceways, whereby the nails leaving the starts head-first are discharged from the apparatus before they get upon the raceway, while those nails leaving the preliminary starts point-first pass into the raceways and travel down the same to said stops, substantially as described.

**No. 61,913. Combination Lock.** (*Serrure à combinaison.*)

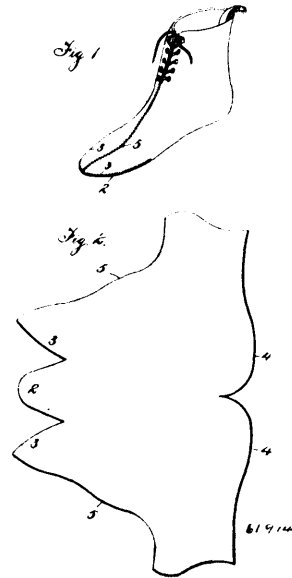


James W. Miner and Philip Keck, both of Johnstown, New York, U.S.A., 3rd December, 1898; 6 years. (Filed 7th November, 1898.)

*Claim.*—1st. A combination lock, comprising two sets of tumbler discs arranged in alignment, a spindle extended through said discs, a cam on said spindle between the sets of discs, a setting spindle at one side of the first-named spindle, and connections between said setting spindle and the first-named spindle, whereby said first-named spindle may be moved longitudinally to operate in connection with either set of tumbler discs, substantially as specified. 2nd. A combination lock, comprising two sets of tumbler discs, one set being mounted to rotate independently of the other set, a spindle mounted to rotate and to move longitudinally in sleeves upon which the tumbler discs are mounted to rotate, a setting spindle for imparting movement to said longitudinally movable spindle, to place it in operative connection with one set of tumbler discs, the said setting spindle also having operative connection with the lock bolt, and means connected with the first-named spindle for operating the tumbler discs, substantially as specified. 3rd. A combination lock, comprising independent set of tumblers, a spindle for operating said sets of tumblers, one set independently of the other set, a vertically movable keeper bar governed in its movement by the position of the tumblers, a locking bolt governed in its movement in one direction by said keeper bar, a rotary spindle adjacent to the first-named spindle, a segment gear adapted to be rotated by said rotary spindle, and a rack on the locking bolt engaging the said segment gear, substantially as specified. 4th. A combination lock, comprising rotary tumblers, each provided with a notch in its periphery, means for imparting rotary movement to said tumblers to bring the notches of the several tumblers into alignment, a part movable into said notches, a keeper bar having an opening near its end, a lever having pivotal connection with said keeper bar, a lever having connection with the part movable into the notches of the tumblers, a link connection between said two levers, and a locking bolt held in its locking position by said keeper bar and adapted to move longitudinally when the opening in said keeper bar is opposite the inner end of the locking bolt, substantially as specified. 5th. A combination lock, comprising sets of rotary tumblers, a spindle mounted to rotate and to move longitudinally in sleeves upon which the tumblers are mounted, a cam on said spindle between sets of tumblers, a rotary and longitudinally movable setting spindle, two segment gears loosely mounted on said setting spindle, connections whereby the first-named spindle may be moved longitudinally by a rotary movement of one of said segments, a locking bolt movable by one of said segments, and means for connecting the said spindle with either one of said segments, substantially as specified. 6th. A spindle for operating tumblers in a combination lock, consisting of an inner and outer section, one removable from the other, a two-part block forming a bearing for the outer section of the spindle, and means for holding said two-part block in engagement around said section of the spindle, substantially as specified. 7th. A spindle for operating the tumblers of a combination lock, the said spindle consisting of an inner section and an outer section, one section having an angular portion to engage in a correspondingly shaped opening in the other section, a bearing for the outer section of the spindle consisting of two semi-circular blocks separable one from the other, the said blocks being provided with an annular channel, and plates for engaging in said annular channel to hold the blocks together, substantially as specified. 8th. In a combination lock, rotary tumblers formed in two series, one series being independent of the other, a rotary and longitudinally movable spindle for operating the tumblers, one set independently of the others, a rotary and longitudinally movable setting spindle, a gear loosely mounted on said spindle, a block having a rack engagement with said gear, an angle-lever operated from said block, a connection between said

angle-lever and the first-named spindle, whereby upon rocking said angle-lever the spindle may be moved longitudinally, another gear mounted loosely on said setting spindle, a locking-bar having a rack engagement with said other gear, means for releasing said locking-bar when the tumblers are in releasing position, and means carried by the setting spindle for engaging with the gears thereon, whereby said gears may be rotated with the spindle, substantially as specified. 9th. In a combination lock, two series of tumblers, a rotary and longitudinally movable spindle for operating said tumblers, one series independently of the other, an angle-lever, means for rocking said angle-lever, and ball and socket connections between said angle-lever and the spindle, substantially as specified. 10th. In a combination lock, a rotary tumbler-disc having a notch in its periphery, and a collar adjustably connected to one side of said disc and having a lug projection to be engaged with a pin extended from another disc, the said collar having notches in its periphery to engage with a pin on its disc and hold said collar as adjusted, substantially as specified. 11th. In a combination lock, two series of rotary tumblers, a spindle extended through said tumblers and mounted to rotate and to move longitudinally, and means for moving said spindle longitudinally, comprising a lever, a screw-threaded rod having a ball and socket connection with the spindle and also having a ball and socket connection with the lever, and means for removably connecting the balls of said last-named ball and socket connection to prevent a rotary movement of the last-named ball relatively to the screw-rod, substantially as specified. 12th. A combination lock, comprising two sets of tumblers, each of said tumblers being notched, and one set being mounted to rotate independently of the other set, a bar extended across all the tumblers of the two sets, and mechanism having connection with said bar for releasing the lock-bolt, substantially as specified.

**No. 61,914. Shoe.** (*Chaussure.*)



Edmond Parent, Terrebonne, Quebec, Canada, 3rd December, 1898; 6 years. (Filed 11th November, 1898.)

*Claim.*—1st. A shoe, having its upper and sole formed of a single piece of material, substantially as described. 2nd. A shoe formed of a single piece of material, having its rear, a portion of its front and the front portion of the junction between the upper and sole connected by auxiliary means, substantially as described. 3rd. A pattern for shoes, having its contour on opposite sides of its centre, arranged approximately similar to the contour of the upper of the shoe, and having a central rounded portion at its front end, said rounded portion being connected to the contour lines of the upper by oppositely directed portions, whereby a shoe may be formed of a single piece of material, substantially as described.

**No. 61,915. Shoe.** (*Chaussure.*)

Edmond Parent, Terrebonne, Quebec, Canada, 3rd December, 1898; 6 years. (Filed 11th November, 1898.)

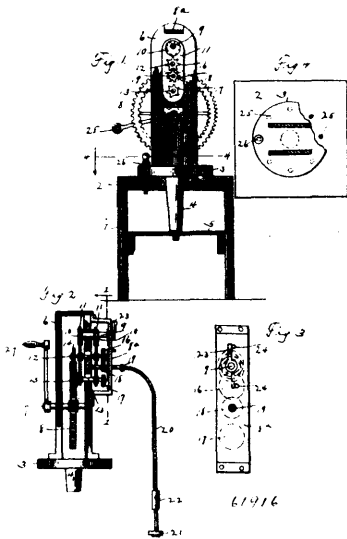
*Claim.*—1st. An upper comprising the upper formed of a single piece of material, the edges being connected together at the rear by rivets, and a reinforcing strip riveted to the heel portion of the upper substantially as described. 2nd. A shoe, comprising an upper formed of a single piece of material, a reinforcing piece riveted to the heel portion and back of said upper, the junction being arranged to allow of the passage of the edge of the upper into the reinforcing piece, and a sole lasted to said upper and said reinforcing strip, substantially as described. 3rd. A boot comprising an upper formed of a

single piece of material, having its outer edges connected together at the rear of the upper by rivets, a reinforcing strip or piece having



its edges adapted to be connected to the upper, provided with a peripheral incision adapted to receive the edge of the upper, rivets passed through said strip and a side upper whereby a secure fastening will be provided, and a sole lasted to said upper and said reinforcing piece, substantially as described.

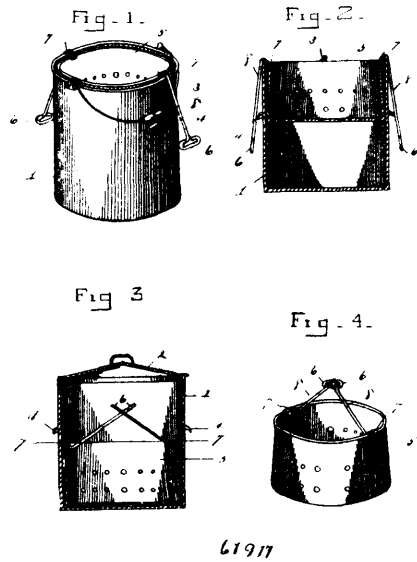
**No. 61,916. Horse-Shoe Calk Grinder.**  
(*Aiguiseur de fer à cheval.*)



Myron A. Ross, Monterey, Michigan, U.S.A., 3rd December, 1896; 6 years. (Filed 12th November, 1898.)

*Claim.*—1st. In a grinding-machine the combination of a support, a driving-wheel, rotating means therefor, a shaft carrying a rotary tool, means connecting said shaft with the driving-wheel, and means whereby the motion of the shaft carrying the rotary tool may be reversed without reversing the motion of the driving-wheel. 2nd. In a grinding-machine the combination of a support, a driving-gear, rotating means therefor, a shaft carrying a rotary tool, a gear thereon, a sliding frame, two sets of gears carried thereby, and means for shifting said frame to cause either of said sets of gears to connect the driving-gear and the rear on the tool-shaft whereby the motion of the tool-shaft may be reversed without reversing the motion of the driving-gear. 3rd. In a grinding-machine the combination of a support, a driving-gear, a shaft carrying a rotary-tool, a gear on said shaft, a sliding frame, a rock-shaft, means connecting said rock-shaft to the frame whereby said frame may be shifted to cause either of said sets of gears to connect the driving-gear and the gear on the tool-shaft, substantially as described.

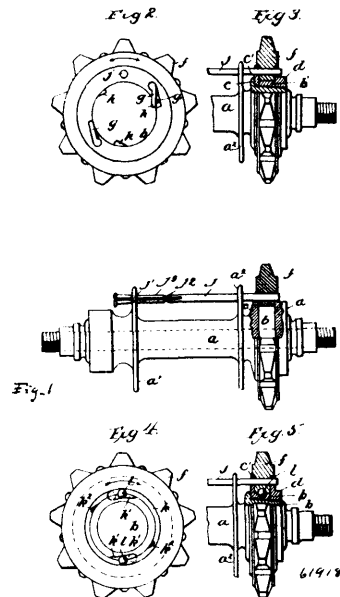
**No. 61,917. Dish Washer.** (*Laveuse de vaisselle.*)



Raymond F. Rightmire, Parkersburg, West Virginia, U.S.A., 3rd December, 1898; 6 years. (Filed 12th November, 1898.)

*Claim.*—A dish-washer, comprising an outer vessel or boiler, a tray or holder, arranged within the same, and the oppositely disposed handles hinged to the tray or holder at the upper edges thereof and provided at their inner ends with bends forming angularly-disposed arms adapted to engage the upper edge of the outer vessel when the handles are swung outward, whereby the tray or holder is supported in an elevated position, said arms being also adapted to engage the inner face of the tray or holder to support the handles in an elevated position within the outer vessel or holder, substantially as described.

**No. 61,918. Sprocket Wheel Clutch.**  
(*Embrayage de roue dentée.*)



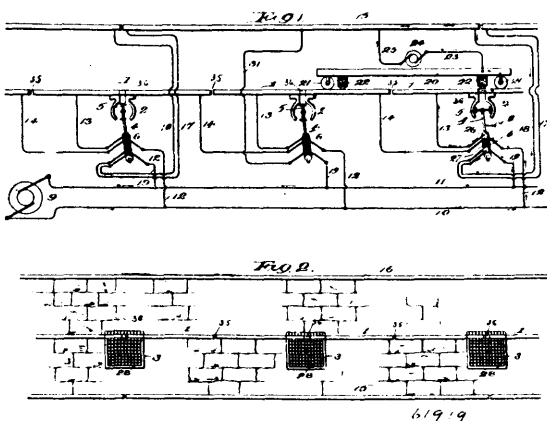
James Copeland and Henry Montgomery Copeland, Rangitikei and Cuba Streets, Palmerston, North, New Zealand, 3rd December, 1898; 6 years. (Filed 9th August, 1898.)

*Claim.*—1st. In combination, the hub having a circular bed, and side flanges and having two spoke-flanges, a sprocket-wheel rotatably mounted upon said bed between the flanges and having a clutch connection therewith, and the locking-pin passing through said flanges and sprocket-wheel, the said locking-pin passing also through the spoke-flanges, substantially as described. 2nd. In combination, the hub having the usual spoke-flanges, the sprocket-wheel rotatably mounted thereon and having a clutch connection with said hub, the

longitudinally-movable pin passing through the openings in the spoke-flanges and adapted to be moved to engage or disengage said sprocket, and means for holding said pin in its locking or unlocking position, substantially as described. 3rd. In combination, the hub having the usual spoke-flanges, the sprocket rotatably mounted upon the hub and having a clutch connection therewith, and means for locking said sprocket-wheel to the hub comprising a longitudinally-movable pin passing through openings in the spoke-flanges and adapted to engage the sprocket, said pin having a split-end provided with notches adapted to engage the edge of the opening in the spoke-flange to hold the pin in its locking or unlocking position, substantially as described.

**No. 61,919. Electric Railway System.**

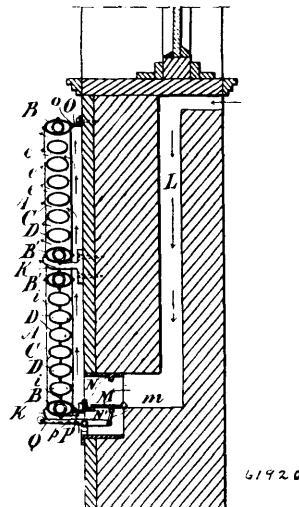
(Système électrique de chemin de fer.)



Benjamin J. Falk, assignee of William Lawrence, both of New York City, New York, U.S.A., 3rd December, 1898; 6 years. (Filed 30th May, 1898.)

*Claim.*—1st. In a surface contact electric railway, the combination of a moving vehicle, field-magnet poles located between the tracks at suitable intervals, an armature mounted for movement between the faces of each pair of poles, and a magnet carried by the moving vehicle supplying a magnetic flux to the field-poles for moving the armature. 2nd. The combination of feeder rail sections, pole pieces upon each of said sections, an armature pivoted at its centre and disposed between the adjacent ends of said pole pieces, normally at right-angles to said sections, wire connections and a source of energy, whereby the armature is caused to swing into line with said sections and find its relative poles. 3rd. The combination of feeder rail sections, pole pieces upon said sections, an armature hung between said pole-pieces, and means for energizing said sections, whereby the armature is caused to swing into line with said sections. 4th. The combination of a sectional track rail, feeder rail sections, pole pieces upon said sections, an armature pivotally hung between said pole pieces, an oscillating shaft upon which the armature is hung, means for normally holding the armature at right-angles to said sections, switch pieces upon said shaft and oscillating therewith, fixed switch pieces, wires leading from the switch pieces to adjacent sectional track rails, a source of electrical energy, and wires leading therefrom to the oscillating switch pieces upon the armature shaft. 5th. The combination of feeder rail sections, pole pieces upon said sections, a centrally pivoted armature hung between said poles, an oscillating shaft upon which the armature is hung, a switch piece upon the shaft, wire connections, a source of energy for energizing the feeder rail sections and causing the armature to find its relative poles and actuate the switch, and a car carrying a motor and a current collector. 6th. In an electric railway system, the combination of a junction box having a top provided with a cover and a seat for the feeder section, an oscillating shaft mounted therein carrying an armature and a switch, and a secondary box within the junction box enclosing the switch. 7th. In an electric railway system, a junction box having a seat for a feeder rail extending longitudinally across one side of the same, a secondary box within the junction-box enclosing a switch mechanism, and a removable cover for the junction-box. 8th. A junction-box for surface-contact railways provided with a seat at one side for the surface-contact, a cover-plate alongside thereof, and having a removable secondary switch-box within the junction-box, a shaft within the secondary switch-box carrying a switch, and extending out across the junction-box and carrying an armature. 9th. A junction-box for surface-contact railways provided with a seat at one side for the surface-contact, a cover-plate alongside thereof, a secondary switch-box within the junction-box having a removable cover lying under the removable cover of the junction-box, a shaft extending across the junction-box and through the secondary box, having a switch within the secondary box, and an armature within the junction-box.

**No. 61,920. Radiator. (Calorifere.)**



The Fowler & Wolfe Manufacturing Co., assignee of Arthur Henry Fowler, all of Philadelphia, Pennsylvania, U.S.A., 3rd December, 1898; 6 years. (Filed 18th October, 1898.)

*Claim.*—1st. A radiator-section composed of unitary hollow casting, consisting of four outer tubes communicating with one another at the corners, one or more intermediate cross-tubes between opposite outer tubes, and a series of connecting tubes between each intermediate cross-tube and at the opposite outer tube or adjacent intermediate cross-tube. 2nd. A radiator section composed of a unitary hollowcasting, consisting of a tubular structure embracing outer tubes communicating with one another at the corners, one or more cross-tubes between the outer tubes, and a series of connecting-tubes between said cross-tubes and the adjacent outer tubes. 3rd. A radiator-section composed of a flat hollow casting, made up of a multiplicity of communicating tubes, and provided at the corners with openings in the plane of the section arranged at right angles one to the other, whereby said section may be coupled with other sections to extend the radiator both longitudinally and transversely. 4th. A radiator-section composed of a flat hollow casting, made up of a multiplicity of communicating tubes and provided at the corners with openings in the plane of the section arranged at right angles, one to the other, whereby said section may be coupled with other sections to extend the radiator both longitudinally and transversely, in combination with similar sections coupled with said section at said openings and respectively located in a longitudinal and transverse direction with reference to said section. 5th. A radiator consisting of one or more flat hollow sections consisting of a battery of communicating tubes, arranged in an upright position, in combination with a wall located adjacent thereto so as to form an air-space between said wall and the inner face of the radiator, the spaces between the adjacent tubes in the lower portion of the radiator being closed to prevent the passage of the air between them and the top of the flue being closed to deflect the air and guide it between the open spaces between the tubes in the upper portion of the radiator. 6th. A radiator consisting of one or more flat hollow sections consisting of a battery of communicating tubes, arranged in an upright position, in combination with a wall located adjacent thereto so as to form an air-space between said wall and the inner face of the radiator, the spaces between the adjacent tubes in the lower portion of the radiator being closed to prevent the passage of the air between them and the top of the flue being closed to deflect the air and guide it between the open spaces between the tubes in the upper portion of the radiator, an air-inlet at the lower portion of said flue, and means to control said inlet to regulate the volume of air admitted through it to said space between the radiator and wall.

**No. 61,921. Thawing, Heating and Cooking Apparatus.**

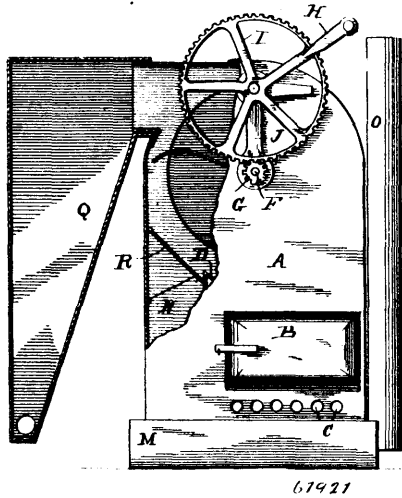
(Appareil à chauffer, dégeler et chauffer.)

The Alaska Supply & Agency Co., Sioux City, Iowa, and Charles Porter Brown, Omaha, Nebraska, both in U.S.A., 3rd December, 1898; 6 years. (Filed 5th April, 1898.)

*Claim.*—1st. A combined thawing, heating, and cooking apparatus comprising a casing, fire box contained in said casing, a fan drum connected to said box, and a rotary fan in said drum, means for driving said fan, and an open-bottom receptacle at the base of the machine, a cooking apparatus suitably secured to the casing and having communication with the fire box and a smoke pipe leading from such smoking apparatus, as set forth and for the purpose speci-

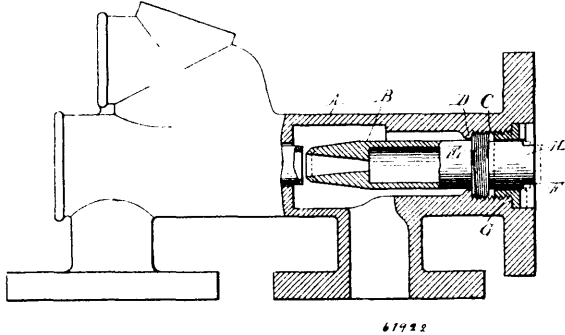


fied. 2nd. In a machine of the class described, the combination with the casing, fire box, fan drum and fan, and fan driving gear,



and the attachable heat conducting trunk, and valve for closing the passage to the base compartment, of the cooking or heating apparatus detachably connected to the casing, and an opening communicating from the fire box of the machine to the cooker, all arranged as set forth and for the purpose specified.

**No. 61,922. Injector. (Injecteur.)**



The Penberthy Injector Co., assignee of William A. Downes, all of Detroit, Michigan, U. S. A., 3rd December, 1898; 6 years. (Filed 25th July, 1898.)

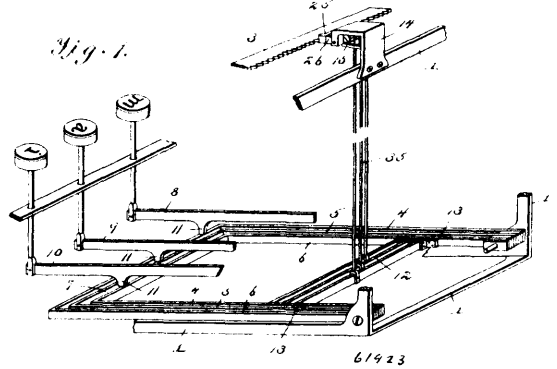
*Claim.*—1st. In an injector, the combination of a casing, a steam jet having a limited, longitudinal screw threaded adjustment in the casing, two shoulders formed at opposite ends of the adjusting movement of the jet against which it may be turned to lock it, the outer shoulder being detachable. 2nd. In an injector, the combination of a casing, a steam jet having a screw threaded engagement within the casing, two shoulders which limit the adjusting movement of the jet and against which it may be turned to lock it, an exteriorly screw threaded ring fitting around the jet and engaging a screw thread in the casing, forming the outer shoulder. 3rd. In an injector, the combination of the casing, an interiorly screw threaded portion at the steam end, a shoulder at the end thereof, a screw jet, a screw threaded collar on the steam jet engaging said screw thread in the casing, and a screw threaded ring fitting over the jet and engaging the screw thread in the casing, the collar on the jet adapted to be locked against the shoulder at the inner end of its movements or against the ring at the outer end of its movement.

**No 61,923. Typewriter. (Clavigraphic.)**

Monnosuke Higuchi, San Francisco, California, U. S. A., 3rd December, 1898; 6 years. (Filed 19th September, 1898.)

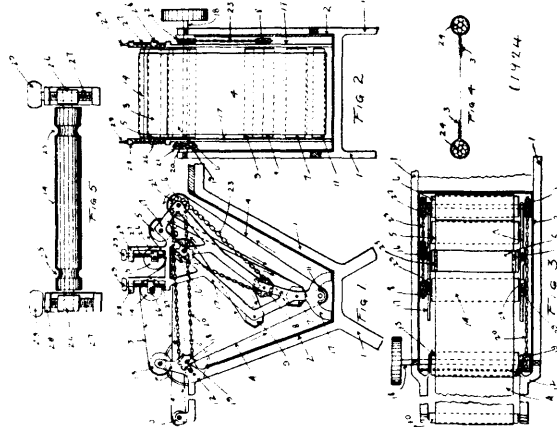
*Claim.*—1st. In a typewriter, the combination with a carriage having a toothed rack, of a pivoted detent to engage said rack, a regulating dog pivoted upon said detent, a stop upon said detent to limit the movement of the dog in one direction, a spring to limit the movement of the dog in an opposite direction, a finger piece upon said detent connected with devices to be moved by certain key levers, stops situated upon opposite sides of said finger piece,

a spring to move said finger piece opposite to the direction in which it is moved by the key levers, pivoted operating levers having



ends situated in the path of said regulating dogs, connections between said operating levers and devices to be operated by certain key levers, springs to move said operating levers in an opposite direction, and a stop to limit the movement of said operating levers under the influence of said springs. 2nd. In a typewriter, the combination with a carriage having a toothed rack, of a pivoted detent to engage said rack, a regulating dog situated upon said detent, a stop upon said detent to limit the movement of said dog in one direction, a spring to move said dog in an opposite direction, a plurality of pivoted operating levers pivoted adjacent to said detent in a manner to turn said detent upon its pivot when the levers are turned upon their pivots, stops upon the ends of said operating levers adapted to move into the path of said regulating dog, a stop upon said detent to limit the movement of said dog under the influence of said spring, and a plurality of sets of key levers, said sets of key levers being connected with the detent and with the operating levers. 3rd. In a typewriter, the combination with a carriage having a toothed rack, of a pivoted detent to engage said rack, slots in said detent, a regulating dog pivoted upon said detent and provided with variable stop faces, a stop upon said detent to limit the movement of the dog in one direction, a spring to move said dog in an opposite direction, a stop upon said detent to limit the movement of the dog under the influence of said spring, a plurality of pivoted operating levers having end portions extending through the slots in said detent and into the path of the stop faces upon said regulating dog, and a plurality of sets of key levers, said sets of key levers being connected with the detent and with the operating levers. 4th. In a typewriter, the combination with a carriage having a toothed rack, of a pivoted detent to engage the same, devices for turning said detent upon its pivot, a regulating dog pivoted upon said detent, stop faces upon said regulating dog, a stop upon said detent to limit the movement of said dog in one direction, a spring to move said dog in an opposite direction, a stop to limit the movement of said dog under the influence of said spring, and a plurality of sets of levers situated in the path of said stop faces upon said dog and situated below said detent so as to move the same when said levers are turned upon their pivots, and devices for moving said operating levers.

**No. 61,924. Starching Machine. (Machine à empeser.)**

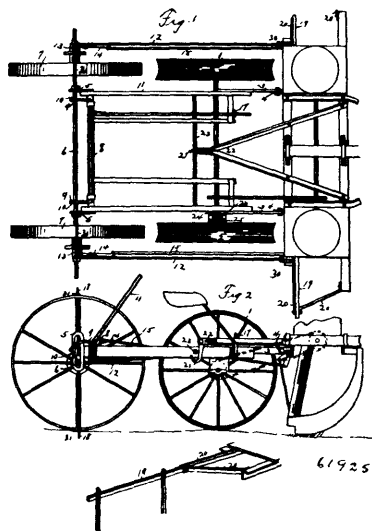


James Rickey, East Orange, New Jersey, U. S. A., 3rd December, 1898; 6 years. (Filed 9th November, 1898.)

*Claim.*—1st. In a machine for starching collars, cuffs and other articles, the combination with a vat, of a pair of endless aprons, suitable feeding, guiding and saturating-rollers carrying them, sprocket-wheels on one of the feed-rollers, the saturating-

rollers and guide-rollers respectively, and chains for driving them, adjustable boxes for one or more of the guide-rollers of the upper apron, and a removable frame within the vat for supporting all of said devices, except the delivery and the two adjacent guide-rollers, in operative positions, substantially as set forth. 2nd. In a machine for starching collars, cuffs and other articles, the combination with a vat, of upper and lower endless aprons, portions of which are face to face in the vat and serve as carriers for the articles, feeding, guiding and delivering-rollers therefor, and one or more polygonal saturating-rollers co-operating with the aprons in the vat, sprocket-wheels and endless chains for driving one of the saturating-rollers, one of the feeding and one of the guiding-rollers, and a removable frame in the vat upon which said devices, except the delivery and the two adjacent guiding-rollers, are operatively mounted, substantially as set forth.

**No. 61,925. Corn Planter.** (*Semoir à blé d'inde.*)

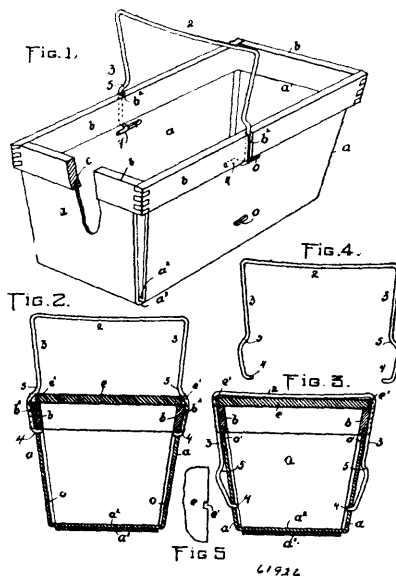


Charles H. Dill, Danville, Indiana, U.S.A., 3rd December, 1898; 6 years. (Filed 10th November, 1898.)

*Claim.*—1st. The combination in a corn-planter of the main frame and its carrying-wheels, the hinged front runner dropping part and the rear wheels mounted for vertical adjustment on the main frame, with a hook 21, supported on the front runner part and crossing the hinged connection of the said frame parts, it is adapted to automatically engage a fixed part on the main frame when it is desired to raise the front runner dropping part and the rear wheels from the ground and means connecting the rear wheels and the hopper dropping devices, for the purposes stated. 2nd. In a corn-planter, the combination of the main carrying-frame having the vertically-slotted brackets 5, 5 at its rear end, the rear wheels by their axle mounted within said bracket-slots, with means for vertically adjusting said wheels, consisting of the cross-rod 3 having the cranks 9, 9, the links 10, 10 connecting said cranks with the axle and the lever 11, connecting said cross-rod, the front hinged runner dropping part, means for actuating the corn-dropping devices from said rear wheels and the longitudinal bars 12, 12 pivotally connecting the ends of said axle and the said hinged front runner dropping part at each side of the frame. 3rd. In a corn planter, the combination of the main carrying-frame, the front runner dropping part hinged to said frame, and the rear wheels adapted to be raised from the ground, with a device carried by a support on the front runner part, in position to engage a fixed part of the main frame and thereby cause the said front runner part to be lifted free from the ground simultaneously with the lifting of the rear wheels and by their weight causing the rearward tilting of the main frame on its carrying-wheels. 4th. In a corn-planter, the combination of the main carrying-frame having one of its carrying-wheels loose on the axle, a front runner dropping part hinged to said main frame, and the rear wheels, and means connecting them with the dropping devices of the front runner part, with a ratchet device mounted on the axle of the main frame, consisting of a ratchet fixed on the axle, a ratchet fixed on the hub of the loose wheel, and a lever loose on the axle and having ratchets normally held out of engagement with said ratchet-wheels whereby the machine may be moved upon its carrying-wheels to set it to the starting line or hills, in the way stated. 5th. The combination in a corn-planter, of the main carrying-frame, a front runner dropping part hinged to said frame, the rear wheels and means connecting them with the dropping devices, with hill-markers on each end of the axle of the rear wheels and line-markers on each end of the front runner dropping part, whereby the hills are marked

as the corn is dropped and the starting line of the machine indicated at the end of the row. 6th. In a corn-planter, the combination with the main carrying-frame, the front runner dropping part and the rear wheels having knockers, slotted brackets on the main frame confining the axle of the knocker-wheels, with the longitudinal bars pivotally connecting the ends of the axle of the rear wheels and the front runner propping part, and tripping devices pivotally mounted on the said side bar or bars and connecting the corn-dropping devices.

**No. 61,926. Fruit Box and Basket.**  
(*Boite et panier à fruits.*)



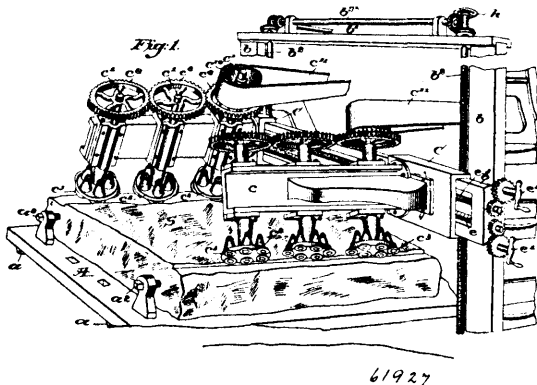
Henry Oscar Little, Bridgewater, Massachusetts, U.S.A., 3rd December, 1898; 6 years. (Filed 10th November, 1898.)

*Claim.*—1st. A fruit box or basket comprising a series of relatively thin wall-pieces, connected at their lower ends with a suitable bottom and inclined outwardly therefrom, and a series of stiff, relatively thick wooden strips united at their ends to form a rim of greater area than the bottom of the box, inclined crosswise to conform to the inclination of the wall-pieces and having longitudinal grooves in their lower edges in which the upper ends of the wall-pieces are secured, the said strips being solid above the wall-pieces and forming a practically rigid top or mouth which overhangs the wall-pieces and prevents crushing of the contents of the box, said strips also presenting inclined sides which permit the nesting of the box. 2nd. A fruit-box or basket comprising a series of stiff wooden strips united at their ends to form a stiff rim or frame, said strips being provided in their lower edges with longitudinal grooves, the sides of which are inclined inwardly toward the bottom of the box, and relatively thin wall-pieces correspondingly inclined and connected at their lower edges with a suitable bottom, the upper edges of said inclined wall-pieces being inserted in the longitudinal grooves of the frame-strips and united to the inclined sides of said grooves by glue-joints which are strengthened by the inclination of the wall-pieces and grooved sides, the said inclined strips with the upper portions of the inclined wall-pieces and the glue-joints forming a practically rigid top, which is of greater area than the bottom and prevents crushing of the contents of the box. 3rd. A fruit-box or basket comprising a series of stiff wooden strips tongued and grooved at their ends and interlocked and united by glue-joints to form a stiff rim or frame, said strips being provided in their lower edges with longitudinal grooves, the sides of which are inclined inwardly toward the bottom of the box, and two relatively thin strips, the central portions of which are crossed to form a double bottom, while their end portions are bent upwardly and inclined outwardly from said bottom to form wall-pieces which are inserted at their upper edges in said inclined grooves, and united to their inclined walls thereof by glue-joints which are strengthened by the inclination of the wall-pieces and grooved sides. 4th. A fruit-box or basket comprising stiff wooden strips united at their ends to form a stiff frame or rim, and provided with longitudinal grooves in their lower edges, two of said strips having transverse slots in their outer sides, relatively thin wall-pieces connected at their lower edges with a suitable bottom and inserted at their upper edges in said grooves and united to the sides thereof, two of said wall-pieces having longitudinal orifices or perforations extending from the lower ends of said transverse slots toward one end of the box, and a detachable wire handle composed of a cross-bar, arms thereon formed at their lower portions to enter said transverse slots and having inclines projecting inwardly from the upper ends of said

slots, and elbow-shaped ears on the lower ends of said arms, formed to pass through said orifices and to bear on the inner sides of the perforated wall-pieces, said ears detachably holding the arms in engagement with the transverse slots of the side-pieces and securing the inclines in position to hold a cover. 5th. A fruit-box or basket, comprising a series of stiff strips united at their ends to form a stiff frame and having longitudinal grooves in their lower edges, two of said strips having transverse slots in their outer sides, relatively thin wall-pieces connected at their lower edges with a suitable bottom and having their upper edges inserted in said grooves and united to the sides thereof, a wire bail or handle composed of a cross-bar, and side-arms engaged at their lower ends with said transverse slots and having inclines projecting inwardly from the upper ends of said slots, and a cover having slots in its edges formed to engage the lower portions of said inclines. 6th. A box or basket, comprising a body portion having in its sides two pairs of orifices, one pair being above the other, and a handle composed of a cross-bar, arms thereon adapted to bear on the sides of the box, and elbow-shaped ears formed on said arms and adapted to enter the upper orifices to hold the handle in a raised position and to enter the lower orifices to lock the handle against the cover of the box. 7th. A fruit-box or basket, comprising a body portion having in its side-pieces two pairs of orifices, one pair being above the other, and a handle composed of a cross-bar, side-arms adapted to bear against the side-pieces, ears formed on said arms and adapted to engage the upper orifices to hold the cross-bar of the handle elevated and the lower orifices to hold the cross-bar positively in a depressed position, and a cover having slots in its edges formed to interlock with the arms of the handle and prevent endwise displacement of the cover.

**No. 61,927. Stone Working Machine.**

(Machine à travailler la pierre.)



George Leone Badger, Quincy, Massachusetts, U.S.A., 3rd December, 1898; 6 years. (Filed 11th November, 1898.)

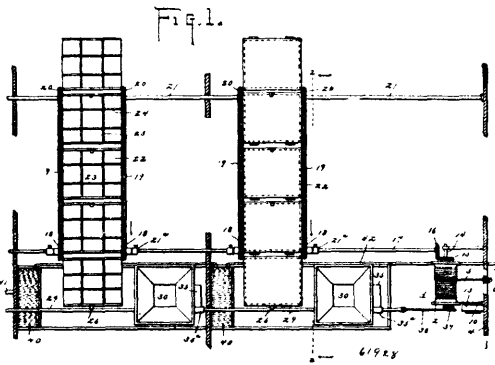
*Claim.*—1st. A machine for working stone, containing a work support for the stone, and working mechanism comprising one or more yielding tools, and means to impart to the same a rapid combined forward and back and rising and falling movement, all in a plane oblique to the stone surface to cause said tools to rapidly and sharply strike the stone surface, the tool delivering one blow freeing itself from the stone before the next blow is struck, whereby the stone is cracked off by a rapid succession of sharp blows, and means to cause a relative feeding movement of said work support and working mechanism in substantially the direction of the forward movement of said tool or tools at the time of delivery of certain of said blows, whereby a finished surface presenting parallel substantially straight lines may be had, substantially as described. 2nd. A machine for working stone, containing a work support for the stone, and working mechanism, comprising one or more yielding tools, means to impart to said tools a rapid repetition of combined forward and back and falling and rising movements all in one and the same plane oblique to the stone surface, to cause the said tools to rapidly and sharply strike the stone surface, said mechanism being arranged to deliver the impact of the blows substantially in the plane of the finished surface and in the coincident line therewith of said oblique plane, and means to cause a relative feeding movement of said work support and working mechanism in the direction of said coincident line, whereby a finished surface presenting parallel substantially straight lines may be had, substantially as described. 3rd. A machine for working stone, containing a work support for the stone, one or more freely rotatable disc tools, means to revolve the same in an oblique plane at an angle of twenty degrees or more to the stone surface, and to cause said tools to sharply strike the stone at approximately their lowest point of travel, said discs being peripherally bevelled to wedge-shaped edge, the upper surface of said edge at the moment of impact thereof being oblique to the stone surface, and means to cause a relative feeding movement of said work support and tools in the direction of the line of intersection of said plane of revolution and the stone surface, substantially as described. 4th. In a machine for working stone, a work support, one or more rotatable tools and a carrier for and to move the said

tool or tools to and from the stone in a plane at an acute angle with the stone surface to thereby chip away the stone surface, said tools being arranged to deliver a rapid succession of sharp blows progressively approximately in and on the line of intersection of said plane and the plane of the finished surface, and to instantly leave the surface after striking the blow, and means to relatively reciprocate the said carrier and work support in the direction of said line of intersection, whereby the said tool is capable of acting upon and to remove the stone on the said relative movement in either direction in said line, without necessary reversal of the angle of the plane in which the said rotatable tool is moved to and from the stone, substantially as described. 5th. In a machine for working stone, a work support, one or more rotatable tool carriers arranged at each of two opposite sides of said work support, one or more tools rotatably mounted on and to be revolved by the respective carriers in planes at acute angles with the stone surface, whereby rotation of said carriers causes the said tools to deliver a succession of blows upon said stone surface, and means to impart a relative feeding movement to the said work support and carriers in substantially the direction in which the said blows are struck, and means to move the said carriers one towards the other and inwardly from the edge or edges of said work support, to operate, substantially as described. 6th. In a machine for working stone, a work support, a plurality of rotatable tool carriers arranged at or near opposite sides of the said work support, tools rotatably mounted upon and to be revolved by rotation of said carriers in planes at acute angles with the stone surface to thereby deliver a succession of blows upon the latter, and means to impart a relative movement to the said work support and carriers, in substantially the direction in which said blows are delivered upon the stone surface, and connecting adjusting devices, between carriers at opposite sides said work support, whereby simultaneous adjustment of the carriers so connected may be had to insure accuracy of product, substantially as described. 7th. In a machine for working stone, a rotatable tool carrier, and a plurality of yielding disc tools rotatably mounted on said carrier and having their working edges or perimeters lying in one and the same plane oblique to the stone surface being worked, and arranged to deliver a succession of blows, substantially as described. 8th. In a machine for working stone, a vibrating carrier, a tool yieldingly mounted thereupon arranged to deliver a succession of blows in a straight line in the direction of said vibration, means to vibrate said carrier, and feeding mechanism to impart a relative feeding movement to said support and carrier, in line with the direction in which the impacts of said blows are delivered, substantially as described. 9th. In a machine for working stone, a pivotally mounted carrier, and means to reciprocally vibrate the same about its said pivot for dressing the stone, combined with one or more tools loosely mounted upon and to be vibrated by said carrier, said tools striking the stone in a rapid succession of short, sharp blows, the dressing of the stone resulting solely from said blows, substantially as described. 10th. In a machine for working stone, a pivotally mounted carrier, and means to rapidly vibrate the same about its said pivot for dressing the stone, combined with a tool pivoted to and to be vibrated by said carrier, to strike a progressive series of rapid blows in the direction of said vibration, said tool having also a rotative movement about its own pivot, substantially as described. 11th. In a machine for working stone, a vibrating carrier, a tool loosely mounted upon and to be vibrated by said carrier, and a retarding device to move said tool on said carrier as the tool is vibrated past said device, said tool being vibrated adjacent to and to be engaged by said retarding device, substantially as described. 12th. In a machine for working stone, a carrier, a support in which the same is mounted to vibrate at an acute angle with the stone surface, and one or more tools loosely mounted upon the said carrier, and means to rapidly vibrate said tools with a progressive movement relatively to the stone, thereby to deliver a succession of blows following close upon each other across the stone upon said stone surface, substantially as described. 13th. In a machine for working stone, a vibrating carrier, one or more tools mounted thereupon, means to impart to the tools short rapid vibrations in a progressive series relatively to the stone, thereby to deliver a succession of blows upon the stone surface, a support for the said carrier, and means for varying the position of the axis of said carrier on and with relation to its support to vary the angle at which the blows are delivered by the tool upon the stone surface, substantially as described. 14th. In a machine for working stone, a vibrating mounted carrier, a support for the same, one or more tools yieldingly mounted on said carrier, a cylinder and its piston connected with and to vibrate said carrier, substantially as described. 15th. In a machine for working stone, a head, a carrier shaft journaled therein, a carrier at one end of said shaft, and one or more tools yieldingly mounted on said carrier, a crank at the opposite end of said shaft, and a cylinder having its piston connected with and to vibrate said crank and its connected carrier, substantially as described. 16th. In a machine for working stone, a work support, a movable head arranged to travel across said work support, and provided with a tool-carrier, and one or more tools mounted loosely thereupon to yield as they strike the stone, combined with a motor upon and movable with said head and connected with and to operate said tool-carrier in a direction transverse to said travel, substantially as described. 17th. In a stone-dressing machine, a cylinder and a piston reciprocated therein, a tool-carrier, a tool freely rotatable therein, said tool having a smooth bevelled edge, and connections between said piston and said

carrier to vibrate the latter, said tool being free to turn in contact with the stone, substantially as described. 18th. In a machine for working stone, a vibrating carrier, and one or more tools mounted thereon, a support for said carrier, means to vibrate the carrier, and means to lock the same against vibration, and a work support, substantially as described. 19th. In a machine for working stone, the combination with a swinging vibrating carrier, and a plurality of disc-like tools rotatably mounted in the same plane thereon, and means to actuate said tool-carrier to deliver a rapid succession of blows, with impacts in one and the same straight line, of a work support, and means to move the same relatively to said tool-carrier, substantially as described. 20th. In a stone-dressing machine, the combination with a cylinder and a piston reciprocated therein, of a tool-carrier, a tool freely rotatable therein, said tool having a smooth bevelled edge, and connections between said piston and said carrier to vibrate the latter about its pivot, substantially as described. 21st. In a machine for working stone, a work-support, a tool-carrier, and means to impart a relative feeding movement thereto, combined with a tool mounted upon said carrier and movable in an arc substantially tangential to the surface of the stone, and means rapidly to vibrate said carrier, to deliver a rapid succession of blows each having its impact at said tangential point of meeting the surface, substantially as described. 22nd. In a machine for working stone, a work support, a tool-carrier, a tool carried thereby, means to impart continuous feeding movement relatively to said support and carrier, and means to impart at the same time to the latter a rapid succession of short vibrations in the direction of said feeding movement, to deliver thereby a series of rapid blows approximately in the plane of the dressed surface of the stone, substantially as described. 23rd. The herein described method of dressing stone, consisting in delivering against the stone surface a rapid succession of distinct blows, said succession of blows being delivered in a plane oblique to the stone surface, and each blow having its impact approximately in and along the line of intersection of said plane and the plane of the finished surface, this line lying at the base of the unfinished portion, to thereby utilize the natural tendency of the stone to fracture laterally and upwardly on the line of least resistance, or on the lines of grain and rift, in fracturing away the surface of the stone in a series of chips, substantially as described. 24th. The herein described method of working stone, which consists in delivering a succession of blows, first in one and then in an opposite direction and in substantially the same line, substantially as described. 25th. The herein described method of working stone, which consists in delivering a succession of blows, some of which are in one and some in an opposite direction, and all in substantially the same lines, substantially as described. 26th. The herein described method of working stone, which consists in delivering a succession of rolling blows, some of which are in one and some in an opposite direction, and all in substantially the same lines, substantially as described.

**No. 61,928. Stock Feeder and Waterer.**

*(Appareil à nourrir et abreuver le bétail.)*



Herman J. Bolinski, New London, Wisconsin, U.S.A., 3rd December, 1898; 6 years. (Filed 9th November, 1898.)

*Claim.*—1st. In an apparatus for feeding stock, the combination of a feed box or hopper, a feed supply chute connected therewith and provided with connected slides arranged one above the other to operate from opposite sides of the chute, whereby when one is drawn out, the other is drawn in, a reciprocating rod connected to said slides to operate them simultaneously to close one and open the other, a drum, and means for rotating it, a crank on said drum connected to said rod for operating it, and clock mechanism connected to said drum for tripping it. 2nd. In apparatus for feeding stock, the combination of feed-slide actuating mechanism, a clock mechanism connected to said slide mechanism for tripping the latter at predetermined intervals, a feed hopper and chute, connected lower and upper slides in said chute, operating simultaneously from opposite sides thereof, the one to open and the other to close the chute, said slide actuating mechanism consisting of a reciprocating rod connected to said slides, a drum, a crank connected thereto, and means for actuating said drum to impart a single revolution thereto when tripped and released by the clock mechanism.

3rd. In apparatus for feeding stock, the combination with a shaft and a motor for operating the same, of a conveyor connected to said shaft and operated thereby, a series of feed boxes carried by said conveyor, lids or covers therefor, and means for automatically releasing said lids or covers. 4th. In apparatus for feeding stock, the combination with a shaft and a motor for rotating the same, of sprocket-wheels on said shaft, a countershaft, sprocket-wheels on said countershaft, sprocket-chains connecting the sprocket-wheels on said shafts, feed boxes carried by said sprocket-chains, lids or covers therefor, and means for automatically and successively releasing said lids or covers for discharging the contents of the boxes. 5th. In apparatus for feeding stock, the combination with a shaft and a motor for rotating the same, of sprocket-wheels on said shaft, a countershaft, sprocket-wheels thereon, sprocket-chains connecting the sprocket-wheels on said shafts, feed boxes connected to said chains and provided with friction catches, pivoted lids or covers for said boxes and projecting keepers on said lids for the reception of said friction catches, and engaging means for said keepers adapted to disconnect the same from said catches, open the lids or covers and discharge the contents of the boxes therefrom. 6th. The combination with a shaft for operating a conveyor carrying feed boxes, of a motor for rotating said shaft, consisting of a drum having a shouldered flange thereon, a cord wound upon said drum and having a weight upon its free end for operating said drum, detent mechanism for said drum consisting of a pivotally mounted pawl adapted to engage the shouldered flange on said drum, a dog for holding said pawl in contact with said flange, and clock mechanism for automatically tripping said dog. 7th. In apparatus for feeding stock, the combination of a drum having a shouldered flange thereon, a cord wound upon said drum, a weight upon the end of said cord, detent mechanism for said drum, clock mechanism for automatically releasing said detent mechanism, shaft operatively connected with said drum and adapted to be rotated thereby, sprocket-wheels on said shaft, a countershaft, sprocket-wheels thereon, sprocket-chains connecting the sprocket-wheels on said shafts, feed boxes carried by said chains, pivoted covers for said feed boxes provided with projecting catches, spring keepers for receiving said catches, a reciprocating rod adapted to be engaged by said keepers for disengaging said lids or covers and discharging the contents of said boxes, a feed hopper, upper and lower cut-off slides for controlling said hopper, the said slides being carried by said reciprocating rod and so constructed and arranged that when one is open the other is closed, a crank upon the lower end of the shaft upon which said drum is mounted, and connections between said crank and said reciprocating rod, as and for the purpose set forth.

**No. 61,929. Horse Shoe.** (*Fer à cheval.*)

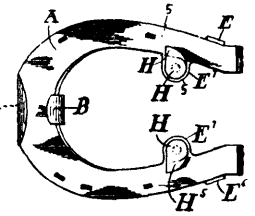
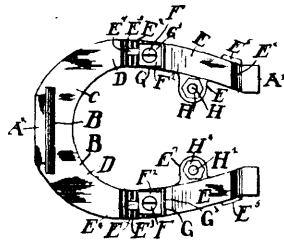
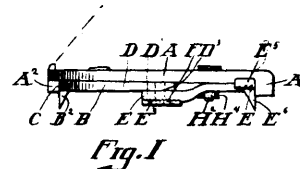


Fig. 2

Fig. 3

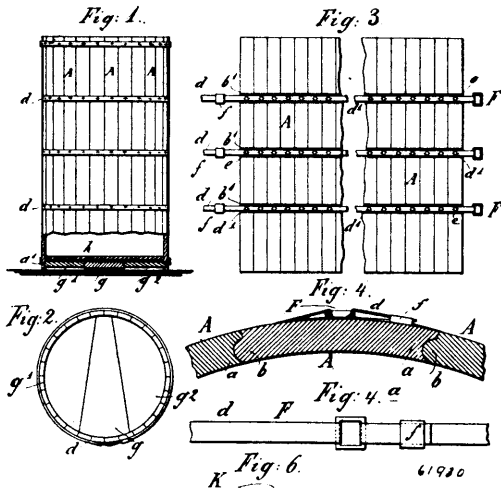
61929

Rupert H. Langdale, Cincinnati, Ohio, U.S.A., 3rd December, 1898; 6 years. (Filed 9th November, 1898.)

*Claim.*—1st. A supplementary horse shoe having a body B, with a calk B<sup>2</sup>, means for connecting it at front to the shoe A, and the pieces E, having the extensions E<sup>2</sup>, slotted and provided with corrugations, and the locking-piece G, and bolt and nut, and clamps respectively located at the inner side of the shoe and adapted to independently engage the upper shoe, substantially as and for the purposes specified. 2nd. A supplementary horse shoe having a body B, with calk B<sup>2</sup>, means for connecting it at front to the shoe A, and the pieces E, having the extensions E<sup>2</sup>, slotted and provided with corrugations, and the locking-piece G, and bolt and nut, and the clamps, each consisting of an eccentric, having a shank H<sup>2</sup>, and screw-tightening device, and flange H<sup>5</sup>, substantially as and for the

purposes specified. 3rd. A supplementary horse shoe having a body B, with calk B<sup>2</sup>, means for connecting it at front to the shoe A, and the pieces E, having the extensions E<sup>2</sup>, slotted and provided with corrugations, and the locking-piece G, and bolt and nut, and the clamps, each consisting of an eccentric, having a shank H<sup>2</sup>, and screw-tightening device, and flange H<sup>3</sup>, a flange E<sup>3</sup>, of the piece E, being present, substantially as and for the purposes specified. 4th. A supplementary horse shoe having a body B, with calk B<sup>2</sup>, means for connecting it at front to the shoe A, and the pieces E, having the extensions E<sup>2</sup>, slotted and provided with corrugations, and the locking-piece G, and bolt and nut, and the clamps, having an eccentric and a shank H<sup>2</sup>, provided with lug H<sup>3</sup>, and adapted to fit a hole E<sup>3</sup>, E<sup>4</sup>, of the piece E, and a screw-tightening device, and a flange H<sup>5</sup>, of the eccentric for overlapping the shoe, substantially as and for the purposes specified. 5th. A supplementary horse shoe having a body B, with calk B<sup>2</sup>, means for connecting it at front to the shoe A, and the pieces E, having the extensions E<sup>2</sup>, slotted and provided with corrugations, and the locking-piece G, and bolt and nut, and the clamps, having an eccentric and a shank H<sup>2</sup>, provided with lug H<sup>3</sup>, and adapted to fit a hole E<sup>3</sup>, E<sup>4</sup>, of the piece E, and a tightening device, and a flange H<sup>5</sup>, of the eccentric for overlapping the shoe, the piece E, having a flange E<sup>5</sup>, substantially as and for the purposes specified. 6th. A supplementary shoe having a toe-recess, and the movable pieces E, adjustable relatively to the body of the shoe, and means for locking them in place, and eccentrics, and means for locking them and clamping the pieces E, to the upper or primary shoe, substantially as and for the purposes specified. 7th. A supplementary horse shoe having a body B, with calk B<sup>2</sup>, means for connecting it at front to the shoe A, and the pieces E, having the extensions E<sup>2</sup>, slotted and provided with corrugations, and the locking-piece G, and bolt and nut, and the clamps, each consisting of an eccentric, having a shank H<sup>2</sup>, and screw H<sup>7</sup>, H<sup>8</sup>, substantially as and for the purposes specified.

**No. 61,930. Knock-Down Barrel, etc. (Baril pliant, etc.)**



George Ross-Lund, Bergen, Norway, 3rd December, 1898; 6 years. Filed 9th November, 1898.)

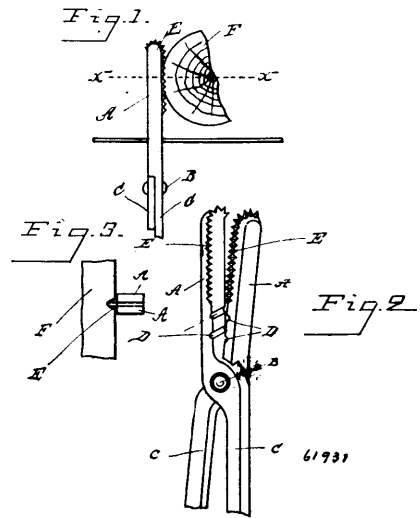
*Claim.*—The combination, with a series of staves, of which each staff is provided with exterior transverse recesses and with a croze at each end, rivets, nails or the like projecting outwardly from the staves, and heads set into the crozes of the staves, of bands or straps placed into the recesses of the staves and provided with narrow slots into which said rivets or nails project, and fastening devices or ties consisting of a buckle attached to one end of each strap, and a loop for each strap, one end of each strap being passed through said buckle and being returned and passed through the loop on the strap, substantially as set forth.

**No. 61,931. Tongs for Stretching Wire.**  
(Tenailles pour tendre le fil de fer.)

Zenas Cramer, Danube, New York, U.S.A., 3rd December, 1898; 6 years. (Filed 7th November, 1898.)

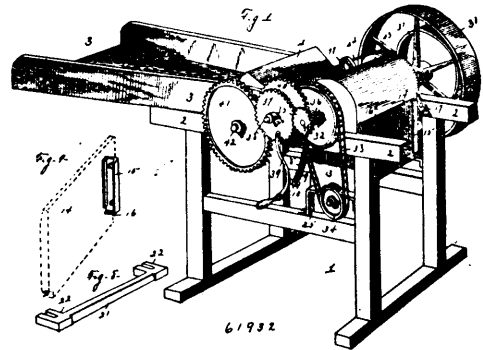
*Claim.*—1st. A pair of tongs for stretching wire, consisting of two jaws pivotally connected to each other and provided with two extended legs or handles, two or more opposing grooves formed across the inner faces of the jaws, said grooves being adapted to hold the wire, a series of wedge-shaped teeth situated on the upper end and on one side of the said jaws, said teeth being made flush with the inner faces of the said jaws and tapering towards the top faces of the jaws, substantially as described and for the purpose set forth. 2nd. A pair of tongs for stretching wire, consisting of two

jaws pivotally connected to each other and provided with two extended legs or handles, two or more opposing grooves formed



across the inner faces of the jaws, a series of teeth located on one or more sides of the jaws, substantially as described and for the purpose set forth.

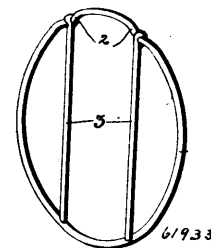
**No. 61,932. Feed-Cutter. (Coup-nourriture.)**



Cyrus B. White, Orangeville, Pennsylvania, U.S.A., 3rd December 1898; 6 years. (Filed 31st October, 1898.)

*Claim.*—In a feed-cutter, the combination with the cutting-cylinder, its actuating mechanism, and the pivoted hood covering said cylinder, of a trough or hopper underlying said cylinder, a pair of positively-driven toothed crushing-rolls, journaled in the bottom of said trough or hopper, an adjustable concave located beneath said rolls, provision for throwing said rolls out of operation, and a removable front wall to said hopper, the same consisting of a board sliding vertically in grooves in the opposite sides of the machine frame, substantially as described.

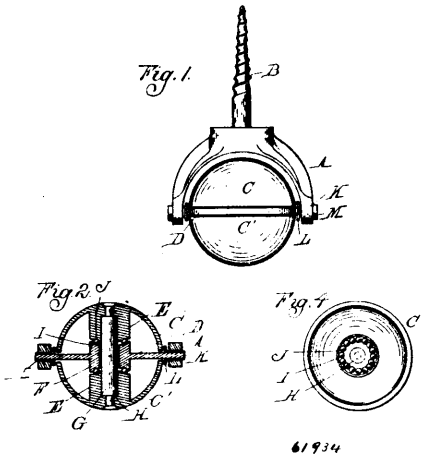
**No. 61,933. Lobster-Trap. (Parc à homard.)**



David Daishy, White Point, Nova Scotia, Canada, 3rd December, 1898; 6 years. (Filed 24th October, 1898.)

*Claim.*—1st. In a lobster-trap, the combination of a hoop having swinging arms secured thereto, and adapted to swing only in one direction, substantially as described. 2nd. In a lobster-trap, the combination of a hoop formed with loops or depression, swinging arms secured thereto, and adapted to swing only in one direction, substantially as described.

**No. 61,934. Caster. (Roulette de meuble.)**

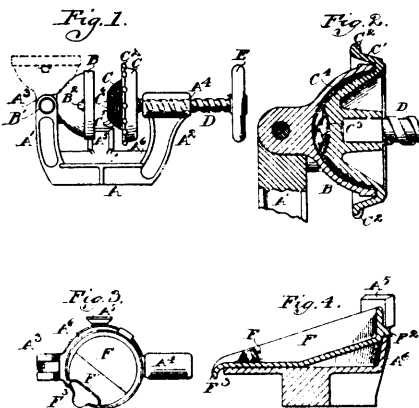


61934

Alfred Cousen, Detroit, Michigan, U.S.A., 5th December, 1898; 6 years. (Filed 24th October, 1898.)

*Claim.*—1st. A caster, comprising a forked support, a ball, composed of two hemispherical sections and a central equatorial section, each provided with an apertured hub in the common axis of the sections, a pin passing loosely through the hub of the central section and having its ends secured in the hubs of the end sections, ball-races formed in the adjacent faces of the hubs, balls in said races, and trunnions formed in the equatorial sections and journalled in bearings in the forked support. 2nd. In a ball-caster, a ball composed of two hemispherical sections axially united together and an equatorial section rotatorily secured between said hemispherical sections and forming therewith a complete ball, and ball-bearings between adjacent faces of said sections.

**No. 61,935. Lemon Squeezer. (Pressoir à citron.)**



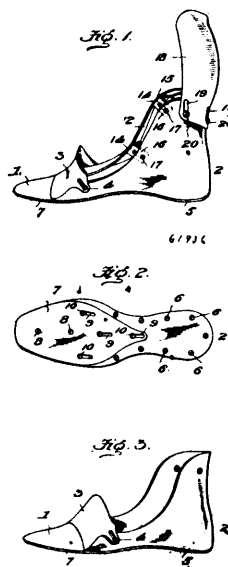
61935

Albert Baumgarten and Mathias Redlinger, both of Freeport, Illinois, U.S.A., 5th December, 1898; 6 years. (Filed 24th October, 1898.)

*Claim.*—1st. In a lemon-squeezer, in combination, a frame, a holder pivot-jointed thereto, a retaining-spring within the holder, a rotatable follower adapted to enter the holder, and a screw mounted in the frame for driving the follower into the holder, substantially as and for the purpose specified. 2nd. In a lemon-

squeezer, in combination, a frame consisting of a base portion and two upwardly-projecting arms integral therewith, a holder pivot-jointed to the free end of one of the upwardly-projecting arms, a rotatable follower in form of a truncated cone and adapted to enter the holder, a screw, mounted in an interiorly-threaded bearing in the free end of the remaining upwardly-projecting arm, for driving the follower into the holder, substantially as and for the purpose specified. 3rd. In a lemon-squeezer, in combination, a frame consisting of a base portion and two upwardly-projecting arms integral therewith, a holder pivot-jointed to the free end of one of the upwardly-projecting arms, a curved flat retaining-spring lying within the holder and projecting therefrom at opposite sides thereof, a rotatable follower, in form of a truncated cone and adapted to enter the holder, a screw, mounted in an interiorly-threaded bearing in the free end of the remaining upwardly-projecting arm, for driving the follower into the holder, substantially as and for the purpose specified. 4th. In a lemon-squeezer, in combination, a frame consisting of a base portion and two upwardly-projecting arms integral therewith, a hollow conoid-shaped holder pivot-jointed by its apex to the free end of one of the upwardly-projecting arms, a rotatable follower, in form of a truncated cone and adapted to enter the holder, a screw fast by one end to the base of the follower and mounted in an interiorly-threaded bearing in the free end of the remaining upwardly-projecting arm, a hand-wheel fast to the outer end of the screw, substantially as and for the purpose specified. 5th. In a lemon-squeezer, in combination, a frame consisting of a base portion and two upwardly-projecting arms, a hollow conoid-shaped holder pivot-jointed by its apex to the free end of one of the upwardly-projecting arms, a rotatable follower, in form of a truncated cone, having an annular flange thereon provided with a series of auxiliary driving-knobs, and adapted to enter the holder, a screw fast by one end to the base of the follower, and mounted in an interiorly-threaded bearing in the free end of the remaining upwardly-projecting arm, a hand-wheel fast to the outer end of the screw and the receptacle for receiving the lemon-juice after the same has been expressed by the squeezer, substantially as and for the purpose specified. 6th. In a lemon-squeezer, in combination, a frame, a cup-shaped holder thereon adapted to receive a half-lemon, a rotatable cone-shaped follower adapted to enter the holder and substantially conform to the interior thereof which follower has a bur-like surface and a receptacle at its forward end for receiving the lemon-seeds, and a screw mounted in the frame for driving the follower into the holder, substantially as and for the purpose specified.

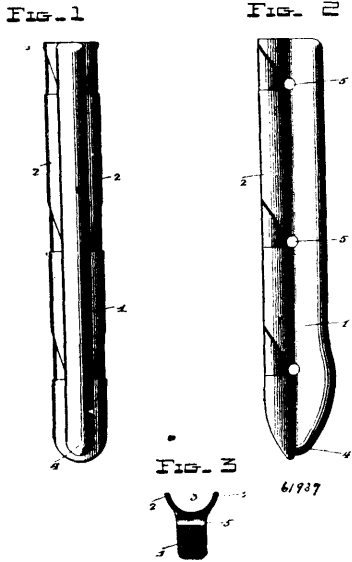
**No. 61,936. Artificial Limb. (Membre artificiel.)**



Francis Vincent McParlin, Chicago, Illinois, U.S.A., 5th December, 1898; 6 years. (Filed 17th October, 1898.)

*Claim.*—1st. An extension foot for the treatment of talipes equinus, comprising the elastic toe form 1, the sheet metal heel 2, the lower sole 5, 7, adjustably connected together and removably secured to said toe and heel, the instep 3, and the sole 12 adjustably secured to said heel 2, substantially as shown and described. 2nd. The elastic toe-form 1, and the sheet metal heel 2 adjustably secured thereto, in combination with the sheet metal instep 3, the upper sole 12, and the sheet metal ankle brace 18, adjustably secured to said heel, the bottom sole section 5 removably secured to said heel, and the forward section 7, adjustably secured to said rear section 5, substantially as shown and described.

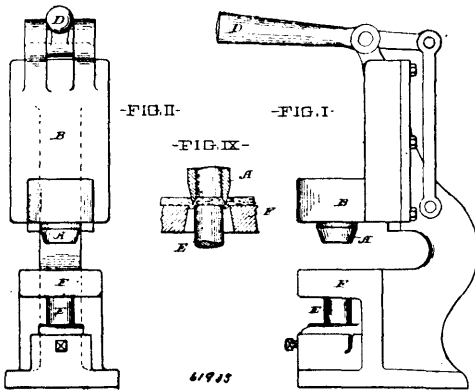
**No. 61,937. Ship Protector.** (*Protecteur de vaisseau.*)



Henri-Jean Baptiste Gravier, Ithaca, New York, U.S.A., 5th December, 1898; 6 years. (Filed 17th October, 1898.)

*Claim.*—A protector for ships consisting of a block of elastic material having side wings 2 2, to form a groove 3, to receive the prow of the vessel, and formed with transverse apertures intersected by recesses formed in the outer side of each of the wings, substantially as set forth.

**No. 61,938. Wad Cutter.** (*Coupe-bourre.*)



The Austin Cartridge Company, assignee of William L. Morris, all of Cleveland, Ohio, U.S.A., 5th December, 1898; 6 years. (Filed 29th October, 1898.)

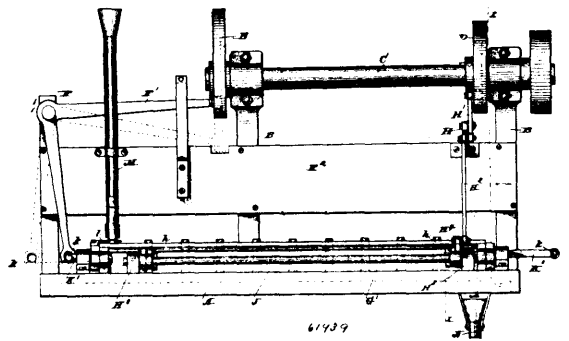
*Claim.*—1st. In a cutter the combination of a cutting edge, a cutting surface terminating in a cutting edge, and means for causing said surface to impinge upon said first named edge, substantially as set forth. 2nd. In a cutter the combination of a cutting edge, a cutting surface terminating in a cutting edge, and means for causing said surface to impinge upon said first named edge, and said second named edge to pass through the plane of said first named edge, substantially as set forth. 3rd. In a cutter the combination of a cutting edge, a cutting surface inclined to the plane of said edge, and terminating in a second cutting edge and means for causing said surface to impinge upon said first named edge, substantially as set forth. 4th. In a cutter the combination of a circular cutting edge, a conical cutting surface terminating in a second circular cutting edge coinciding with the circumference of a circular greater in diameter than that of a circle whose circumference is said first edge, and means for causing said surface to impinge upon the latter, substantially as set forth.

**No. 61,939. Conveyor for Cartridge Loading Machines.** (*Alimentateur pour machines à charger les cartouches.*)

The Austin Cartridge Company, assignee of William L. Morris, all of Cleveland, Ohio, U.S.A., 5th December, 1898; 6 years. (Filed 29th October, 1898.)

*Claim.*—1st. The combination in a machine for loading shells, of shell holding mechanism, shell conveying mechanism arranged within

but independent of said holding mechanism, and intermittent reciprocating mechanism connected with said holding and conveying mechanism,

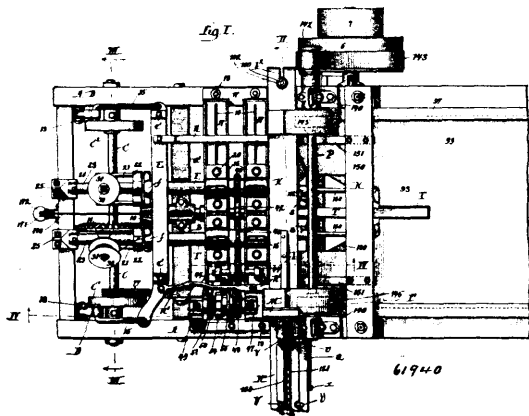


isms, substantially as set forth. 2nd. The combination in a machine for loading shells, of shell holding mechanism, consisting of a fixed clamp and movable clamp, independent shell conveying mechanism, reciprocating mechanism connected with the conveying mechanism, and reciprocating mechanism connected with said holding mechanism, said reciprocating mechanisms operating in two planes at right angles to each other whereby the said holding mechanism and the said conveying mechanism may be successively moved in planes at right angles to each other and whereby the conveying mechanism may be also moved in a plane parallel with the plane of movement of the holding mechanism, substantially as set forth. 3rd. The combination in a machine for loading shells, of shell holding mechanism, independent shell conveying mechanism arranged within the holding mechanism, driving means, primary reciprocating mechanism connecting said shell holding mechanism with said driving means, secondary reciprocating mechanism connecting said driving means with said conveying mechanism, said conveying mechanism also connecting with said primary reciprocating mechanism whereby the said holding mechanism and said conveying mechanism may be successively moved in planes at right angles with each other and said conveying mechanism may also be moved in a plane parallel with the plane of movement of said holding mechanism, substantially as set forth. 4th. In a shell loading machine, the combination with operating mechanism, of two parallel conveyor bars, each provided with a series of shell openings, said openings being adapted to register to grasp the shells, substantially as set forth. 5th. In a shell loading machine, two conveyor bars each formed with a series of shell openings, said openings being adapted to register, in combination with mechanism for moving said bars together longitudinally and also independently laterally, substantially as set forth. 6th. In a shell loading machine, the combination with two parallel co-operating conveyor bars respectively provided with shell-registering openings, one of said bars movable transversely and longitudinally, substantially as set forth. 7th. In a shell loading machine, the combination with clamps provided with longitudinal conveyor bar recesses, of conveyor bars respectively located in said clamp recesses, and means for imparting sliding movement to said conveyor bars, substantially as set forth. 8th. In a shell loading machine, the combination of shell clamps, one of which is adapted to have a transverse movement, reciprocating mechanism connected with said movable clamp, conveyor bars arranged within the clamps, means for moving said conveyor bars longitudinally, one of said conveyor bars adapted to have a transverse motion, and reciprocating mechanism connected with said transversely movable conveyor bar, substantially as set forth. 9th. In a shell loading machine, the combination of shell conveyor bars, locking mechanism connecting the two together whereby relative longitudinal movement is prevented, reciprocating means connected with said conveyor bars whereby they may be moved longitudinally, and mechanism connected with one of said bars whereby it may be transversely reciprocated, substantially as set forth. 10th. In a shell loading machine, the combination of shell conveyor bars, said bars connected together whereby relative longitudinal movement is prevented, a cam, a bell-crank mechanism connecting said cam and bars, substantially as set forth. 11th. In a shell loading machine, the combination of conveyor bars, bell-crank mechanism connected with said bars, a cam connected with said bell-crank mechanism, a second cam, a shell clamp connected with one of said conveyor bars, and intermediate mechanism connecting said clamp and second cam, substantially as set forth. 12th. In a shell loading machine, the combination of two conveyor bars, a pin rigidly secured to one bar and passing loosely through the second bar, whereby relative transverse motion is imparted and relative longitudinal movement prevented, and mechanism for operating said bars, substantially as set forth. 13th. In a shell loading machine, the combination of bi-partite shell clamps having shell openings in their adjacent edges, one of said clamps movable toward and from the other, independent bi-partite shell conveyors arranged within the clamps and having shell openings formed in their adjacent edges, one of said conveyors movable toward and from the other, and operating mechanism connected with said

clamps and conveyors and adapted to successively move said clamps and conveyors, substantially as set forth. 14th. In a shell loading machine, the combination with operating mechanism, of two conveyor bars, a fixed clamp and a movable clamp, said conveyor bars arranged parallel with respect to each other and each provided with a series of shell openings, said openings being adapted to register to grasp the shells, substantially as set forth.

**No. 61,940. Wire Fabric Making Machine.**

(Machine pour la fabrication de tissus métalliques.)



Hercules Woodenware Company, assignee of George Parnell Fisher, both of Chicago, Illinois, and Joseph Reif, jr., Hebron, Indiana, both in the U.S.A., 5th December, 1898; 6 years. (Filed 29th October, 1898.)

*Claim.*—1st. In apparatus of the character described, the combination with one or more revoluble spindles or twister heads mounted in manner free to reciprocate, of mechanism for operating said spindles comprising a cam shaft, grooved cam mechanism upon said shaft, lever mechanism engaged by said grooved cam mechanism and operatively connected with said spindles to reciprocate the same, suitable gearing engaging said spindles to revolve the same, a clutch mechanism for controlling the revolution of said spindles and means for automatically throwing said clutch mechanism into and out of action. 2nd. In apparatus of the character described, the combination with one or more revoluble spindles or twister heads mounted in manner free to reciprocate, of mechanism for operating said spindles comprising a cam shaft, cam mechanism upon said shaft, lever mechanism engaged by said cam and operatively connected with said spindles to reciprocate the same, suitable gearing engaging said spindles to revolve the same, a clutch mechanism for determining the extent of revolution of said spindles and an adjustable tripper lever for throwing said clutch mechanism out of action and a suitable revoluble part engaging said tripper lever to shift the same. 3rd. In apparatus of the character described, the combination with a main frame, of a drive shaft extending lengthwise of said frame, a cam shaft extending transversely of said frame and suitably geared to said drive shaft, cam mechanism upon said cam shaft, one or more revoluble and reciprocating spindles mounted upon the main frame, lever mechanism operatively connecting said cam mechanism and said spindles whereby said spindles are reciprocated and gear mechanism connecting the main drive shaft with the spindles whereby revolution is imparted to said spindles. 4th. In apparatus of the character described, the combination with a main frame and with one or more revoluble and reciprocating spindles mounted on said frame, of a main drive shaft, a cam shaft extending at right angles to said shaft, cam wheels fixed upon said cam shaft, driving levers engaging with said cam wheels, the upper ends of said driving levers being operatively connected with said spindles, suitable means for imparting revolution to said spindles and clutch mechanism for throwing said spindles into and out of action and automatic actuated tripping mechanism for said clutch mechanism. 5th. In apparatus of the character described, the combination with the main frame and with a drive shaft mounted thereon, and with one or more revoluble and reciprocating spindles mounted on said frame, of a cam shaft geared to said drive shaft and provided with cam mechanism, and lever mechanism engaging said cam mechanism, said lever mechanism being adjustably connected with the spindles whereby the throw of the said spindles may be varied. 6th. In apparatus of the character described, a spindle or twister head provided with a central aperture for one wire and with an eccentric aperture for another wire and with a groove or depression in the face of the spindle head between said apertures. 7th. In apparatus of the character described, the combination with one or more spindles or twister heads, of means for feeding slats in front of said spindles or twister heads comprising a feed device adapted to engage the end of a slat and means for shifting said feed device before it reaches the end of said slat to prevent its engagement with the end of said slat. 8th. In apparatus of the character

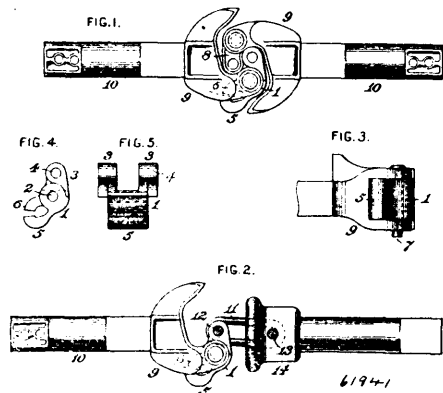
described, the combination with one or more spindles or twister heads, of mechanism for feeding slats in front of said spindles or twister heads comprising a feed chain and means for driving the same, a dog mounted upon said feed chain for engaging the ends of the slats and means for shifting the dog to prevent its engagement with the slats. 9th. In apparatus of the character described, the combination with one or more spindles or twister heads, of means for feeding slats in front of said spindles or twister heads, comprising a rack wherein the slats are held, a feed chain extending beneath said rack, a feed dog mounted upon said chain and having at its top a shoulder or part to engage the end of the lowermost slat, and a shiftable support for said feed dog arranged beneath said rack and whereby said dog may be thrown out of action to prevent its engagement with the lowermost slat. 10th. In apparatus of the character described, the combination with one or more spindles or twister heads, of means for feeding slats in front of said spindles or twister heads, comprising a rack for the slats, a feed chain extending beneath the bottom of said rack, a feed dog carried by said chain and a table beneath said rack and over which said chain and dog travel, said table being shiftable to prevent the engagement of the dog with the lowermost slat. 11th. In apparatus of the character described, the combination with one or more spindles or twister heads, of a rack for the slats, means for feeding slats in front of said spindles or twister heads comprising a feed chain arranged to travel beneath the slats in said rack, a dog pivotally connected to said feed chain and a table or support beneath said feed chain and beneath said rack upon which table said dog rests as it passes beneath the rack, said table being shiftable to prevent the engagement of the dog with the slats. 12th. In apparatus of the character described, the combination with one or more spindles or twister heads, of means for feeding slats in front of said spindles or twister heads comprising a rack for supporting the slats, a feed chain arranged to travel beneath said rack and provided with a dog to engage the lowermost slat within said rack and an adjustable sprocket-wheel for the said feed chain. 13th. In apparatus of the character described, the combination with one or more spindles or twister heads, of means for feeding slats in front of said spindles or twister heads comprising a rack for supporting the slats, a feed chain provided with a dog whereby the slats are fed in front of the spindles, a table located beneath said rack and over which said feed chain and dog pass, and means whereby said table may be manually shifted in order to prevent the engagement of the dog with the slats. 14th. In apparatus of the character described, the combination with one or more spindles or twister heads, of a feed device for automatically advancing the slats in front of the spindles or twister heads, suitable means whereby the series of slats are advanced after they have been connected with the wires by said spindles, mechanism for shifting said feed device to prevent its engagement with the slats, and suitable tripper mechanism engaging with the woven fabric and arranged in position to pass through said fabric and in so doing to actuate the mechanism, whereby the feed device is shifted. 15th. In apparatus of the character described, the combination with one or more spindles or twister heads and with mechanism for feeding slats in front of said spindles or twister heads, of mechanism for advancing the woven fabric, mechanism for automatically throwing the slat feeding mechanism out of action, and a suitable dummy or spacing mechanism arranged to pass in front of the spindles or twister heads when the slat feeding mechanism is thrown out of action and thereby form an opening in the fabric. 16th. In apparatus of the character described, the combination of one or more spindles or twister heads, mechanism for feeding slats in front of said spindles or twister heads, mechanism for automatically throwing said feeding mechanism out of action and a dummy or spacing mechanism arranged to be moved in front of said spindles or twister heads and between the wires issuing therefrom when the slat-feeding mechanism is thrown out of action in order to form open spaces in the fabric. 17th. In apparatus of the character described, the combination with one or more spindles or twister heads, whereby wires are bound around slats to form a fabric, of a dummy or spacing mechanism and means for inserting and withdrawing said dummy or spacing mechanism into and from the fabric at the points where the slats have been omitted. 18th. In apparatus of the character described, the combination with one or more spindles or twister heads whereby wires are bound around slats to form a fabric, of a dummy or spacing mechanism movable in the direction of the length of the slats and at right angles thereto, means for inserting and withdrawing said dummy or spacing mechanism into and from the fabric at the points where the slats have been omitted, mechanism for automatically feeding the slats in front of the spindles or twister heads, and means for throwing said slat feeding mechanism out of operation when said dummy or spacing mechanism is to be thrown into action. 19th. In apparatus of the character described, the combination with one or more spindles or twister heads, whereby wires are bound around slats to form a fabric, of a dummy or spacing mechanism, means for inserting and withdrawing said dummy or spacing mechanism into and from the fabric at points where slats have been omitted, said dummy or spacing mechanism comprising one or more pivoted arms having a part adapted to pass between the wires that issue from the spindles or twister heads. 20th. In apparatus of the character described, the combination with one or more spindles or twister heads, whereby wires are bound around the slats to form a fabric, of a dummy or spacing mechanism and means for inserting and withdrawing



said dummy or spacing mechanism into and from the fabric at the points where slats have been omitted, said dummy or spacing mechanism comprising one or more pivoted arms mounted to swing in the direction of the length of the slats and in position to pass into the fabric at points where slats have been omitted. 21st. In apparatus of the character described, the combination with one or more spindles or twister heads whereby wires are bound around slats to form a fabric, of a dummy or spacing mechanism and means for inserting and withdrawing said dummy or spacing mechanism into and from the fabric at points where slats have been omitted, said dummy or spacing mechanism comprising pivoted arms or parts adapted to swing in the direction of the length of the slats and being mounted to move with the fabric transversely to the direction of the length of the slats. 22nd. In apparatus of the character described, the combination with one or more spindles or twister heads whereby wires are bound around slats to form a fabric, of a dummy or spacing mechanism and means for inserting and withdrawing said dummy or spacing mechanism into and from the fabric at points where slats have been omitted, said dummy or spacing mechanism comprising pivoted arms or parts arranged beneath the spindles and pivoted at their upper ends with blades adapted to pass between the wires that issue from the spindles and being sustained in manner permitting movement in the direction of the length of the spindles. 23rd. In apparatus of the character described, the combination with suitable spindles or twister heads whereby wires are bound around slats to form a fabric, of a dummy or spacing mechanism, means for inserting and withdrawing said dummy or spacing mechanism into and from the fabric at points where slats have been omitted, said dummy or spacing mechanism comprising two pivoted arms each furnished with a blade or head adapted to enter between the wires that issue from the adjacent spindle, and means whereby said arms may be simultaneously shifted. 24th. In apparatus of the character described, the combination with suitable spindles or twister heads whereby wires are bound around slats to form a fabric, of a dummy or spacing mechanism and means for inserting and withdrawing said dummy or spacing mechanism into and from the fabric at points where slats have been omitted, said dummy or spacing mechanism comprising pivoted arms arranged to swing transversely to the wires issuing from the spindles and being mounted in manner free to slide in the direction of said wires, suitable levers for operating said arms and means for engaging said levers whereby the arms may be simultaneously moved in front of the spindles. 25th. In apparatus of the character described, the combination with one or more spindles or twister heads whereby wires are bound around slats to form a fabric, of a dummy or spacing mechanism, means for inserting and withdrawing said dummy or spacing mechanism into and from the fabric at points where slats have been omitted, said dummy or spacing mechanism comprising one or more arms each having a part adapted to pass between the wires that issue from the spindles or twister heads, suitable supports for said arms and whereon they are free to slide and means for retracting said arms towards the front of the machine after they have been withdrawn from the fabric. 26th. In apparatus of the character described, the combination with one or more spindles or twister heads whereby wires are bound around slats to form a fabric, of a dummy or spacing mechanism and means for moving said dummy or spacing mechanism between the slats of the fabric, comprising a tripper bearing against the fabric and adapted to pass into the open spaces thereof, said tripper being suitably engaged with the dummy or spacing mechanism whereby when one of the open spaces of said fabric comes opposite said tripper the dummy or spacing mechanism will be thrown into the fabric. 27th. In apparatus of the character described, the combination with one or more spindles or twister heads whereby wires are bound around slats to form a fabric, of a dummy or spacing mechanism and means for moving said dummy or spacing mechanism between the slats of the fabric, comprising a part engaging said dummy or spacing mechanism to shift the same and a part adapted to bear against the fabric and to enter the open spaces thereof, whereby when an open space of the fabric comes opposite the part of said shifting mechanism bearing against the fabric, the dummy or spacing mechanism will be thrown into action. 28th. In apparatus of the character described, the combination with one or more spindles or twister heads whereby wires are bound around slats to form a fabric, of a dummy or spacing mechanism and means for moving said dummy or spacing mechanism between the slats of the fabric, comprising a lever mechanism engaging said dummy or spacing mechanism, said lever mechanism being provided at one end with a part engaging the dummy or spacing mechanism and being provided at its opposite end with an upwardly extending part adapted to bear against the under side of the fabric and to enter open spaces of said fabric whereby when an open space of the fabric comes opposite the part of said lever mechanism bearing against the fabric, the dummy or spacing mechanism will be thrown into action. 29th. In apparatus of the character described, the combination with one or more spindles or twister heads whereby wires are bound around slats to form a fabric, of a dummy or spacing mechanism comprising arms adapted to be moved in front of the spindles and mounted in manner free to slide back and forth in the direction of movement of the spindles, means for moving said dummy or spacing mechanism in front of the spindles and into the plane of the slats being woven and means for moving said dummy or spacing mechanism beneath the plane of the woven slats, and means for retracting the dummy to its initial position when it has been shifted entirely

below the plane of the slats. 30th. In apparatus of the character described, the combination with one or more spindles or twister heads whereby wires are bound around slats to form a fabric, of a dummy or spacing mechanism for forming open spaces in the fabric, a table whereover the woven fabric is advanced, said table being formed with suitable openings, and means for moving said dummy or spacing mechanism to a position in front of the spindles, comprising lever mechanism, one part whereof engages the dummy or spacing mechanism and the opposite part whereof extends up through the slotted table into position to bear against the under side of the woven fabric whereby when an open space of said woven fabric passes above the rear end of said lever mechanism the dummy or spacing mechanism will be thrown into action. 31st. In apparatus of the character described, the combination with one or more spindles or twister heads whereby wires are bound around slats to form a fabric, of a shaft provided with cutter-heads arranged adjacent the ends of said spindles, and suitable means (such for example as the spindles themselves) for forcing the slats beneath the cutter-heads before revolution is imparted to the spindles or twister heads. 32nd. In apparatus of the character described, the combination with one or more spindles or twister heads whereby wires are bound around slats to form a fabric, of a shaft provided with cutter-heads and push-rods mounted to move in unison with the spindles and arranged in close proximity to the cutter-heads.

#### No. 61,941. Car Coupler. (*Attelage de chars.*)



Henry Hubbard Warner and George W. Cushing, Evanston, Illinois, both in the U.S.A., 5th December, 1898; 6 years. (Filed 9th November, 1898.)

*Claim.*—1st. A substitute knuckle, adapted to be connected with a coupler head of the master car builders' type, and provided with means for being held in operative position by a positive clutching with the outer surface of the wall of the coupler. 2nd. A substitute knuckle for a coupler head of the master car builders' type, having a body insertible in the opening of a coupler head, a coupling arm of standard contour on one side of said body, and a stop arm, adapted to bear against the outer surface of the wall of the coupler head on the opposite side of said body. 3rd. A substitute knuckle for a coupler head of the master car builders' type, having a body insertible between the lugs of a coupler head, provided with a passage for a knuckle pin to connect it with said lugs, a coupling arm of standard contour on one side of said body, provided with a passage for a link coupling pin, and a stop arm adapted to bear against the outer surface of the wall of a coupler, on the opposite side of said body. 4th. A substitute knuckle for a coupler head of the master car builders' type having a body insertible in the opening of a coupler head, a coupling arm of standard contour on one side of said body, a stop arm adapted to bear against the outer surface of the wall of a coupler head on the opposite side of said body, and a check piece adapted to bear against the inner surface of a coupler head. 5th. The combination of a coupler head of the master car builders' type, a substitute knuckle having a body fitting between the lugs of said coupler head, a coupling arm of standard contour on one side of said body, and a stop arm adapted to bear against the coupler on the opposite side of said head, and a knuckle pin connecting the substitute knuckle to the coupler head.

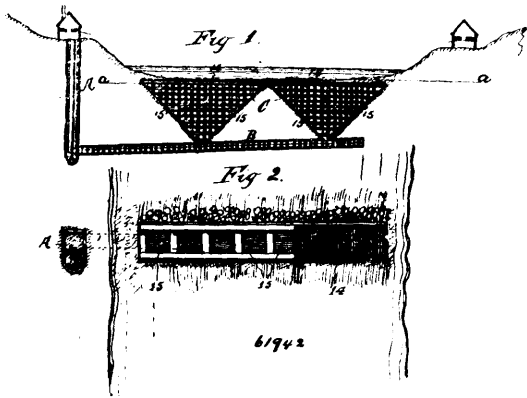
#### No. 61,942. River-Bed Mining Apparatus.

(*Appareil à miner les lits de rivières.*)

Robert Barr Sproul and Cecil Smith, both of Agassiz, British Columbia, Canada, 5th December, 1898; 6 years. (Filed 8th November, 1898.)

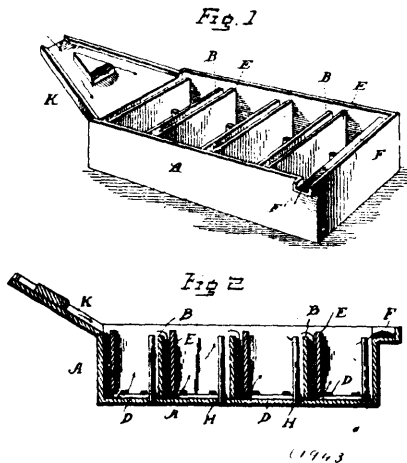
*Claim.*—1st. In a river-bed mining apparatus or principle, a sloping tunnel passing beneath the river-bed, uptakes or stopes connecting with said tunnel with the bed of the stream, and grizzlies or grate-bars arranged over the uptakes, so that the heavier bodies, such as precious metals, will pass through the grizzly to the tunnel, as specified. 2nd. In river-bed mining, a

tunnel passed beneath the bed of the stream to be operated upon, stopes connecting with the said tunnel and the bed of the stream,



a grizzly covering the top of the openings or stopes approximately, on a level plane with the river-bed, and one or more other grates or grizzlies arranged in the framework of the stopes between the bed of the stream and the tunnel, and means for conveying the materials, passed through the grizzlies, to the surface of the ground at some point above the flood-mark of the stream, substantially as specified. 3rd. In river-bed or placer mining, a tunnel passing beneath the stream to be operated upon, and means for connecting with the bed of the stream, as specified; a semi-circular groove 17 arranged in the tunnel, a worn-conveyer 18, arranged to turn in the groove, and means for operating said conveyer from the surface of the ground, as and for the purposes specified. 4th. In an apparatus or system of the kind and for the purposes described, a tunnel arranged beneath the bed of a stream to be operated upon, means for communicating with the bed of the stream, a vertical shaft connecting the outer end of the tunnel with the surface of the ground at a point above high-water, and means for sealing or closing the tunnel off from the shaft by a sliding door, all substantially as specified. 5th. In an apparatus for deep river-bed mining, a shaft and tunnel having stopes or openings transversely across the bed of a stream, in combination with a self-adjusting hoisting bucket 10 for hoisting the auriferous sands and gravel to the surface, as and for the purposes described.

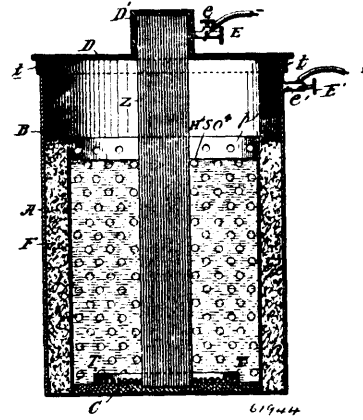
**No. 61,943. Milk Cooler. (Garde-lait aérateur.)**



John Barnhart, David A. Barnhart, James W. Barnhart, and John C. Leshler of Carlisle, Pennsylvania, U.S.A., 5th December, 1898; 6 years. (Filed 26th October, 1898.)

*Claim.*—In a milk-cooler, the combination with the tank, a series of transversely-arranged partitions, B and E, in pairs therein, each alternate partition E having a space intervening between its lower edge and the bottom of the tank and having their upper edges in the same plane, of the trough F and outlet F' leading therefrom, the upper surface of the said trough being in a plane coincident with the upper edges of said partitions B and below the upper edges of the partitions E, of the downwardly and outwardly inclined inlet passage-way, with dividing-block thereon, the lower end of said passage-way secured to and opening into the end of the tank, slightly beneath the top thereof, as set forth.

**No. 61,944. Electric Battery. (Pile électrique.)**



Owen Thomas Bugg and David Henry Darling, New York City, New York, U.S.A., 5th December, 1898; 6 years. (Filed 9th August, 1898.)

*Claim.*—1st. An electrical battery having a containing vessel of conducting material, in combination with a perforated interior cylinder also of conducting material and a mass of active material, such as flaky lead, packed between the inner wall of said vessel and the cylinder, together with a zinc electrode rigidly secured to the cover of the vessel, which latter is constructed of insulating material, substantially as described. 2nd. An electrical battery consisting of a conducting containing vessel provided with an insulating cover to which is rigidly secured a downwardly extending electrode, in combination with a perforated interior conducting cylinder and an active material between said cylinder and the containing vessel, together with a disc of cup-like form located in the bottom of the vessel and provided with means for positively securing the lower end of the downwardly extending electrode, substantially as described. 3rd. An electrical battery consisting of a conducting containing vessel having a non-conducting cover to which is rigidly secured the zinc electrode, in combination with an enclosed cylinder, and active material packed between said cylinder and the inner wall of the containing vessel, together with means at the bottom of the vessel for securing the zinc electrode, substantially as described. 4th. An electrical battery consisting of a lead containing vessel, an enclosed perforated cylinder also of lead, active material, such as flaky lead, packed between said perforated cylinder and the inner wall of the containing vessel, the same constituting one electrode of the battery, in combination with an electrode of opposite polarity consisting of a series of sheets of metal, properly amalgamated and rigidly secured at their upper ends to a non-conducting lid or cover, together with means located at the bottom of the vessel for rigidly securing said electrode in a vertical position, and an excitant liquid, such as sulphuric acid, substantially as described. 5th. An electrical battery consisting of a lead containing vessel A, a perforated cylindrical inner vessel B, active material B located between the perforated cylinder and the inner wall of the containing vessel, a non-conducting cover D, having an upwardly extending chamber D', a zinc electrode Z consisting of a series of thin plates properly amalgamated and held in position by a binding post E, a non-conducting disc C located at the bottom of the vessel and provided with means for securing the lower ends of the zinc Z and additional means in the nature of a cup T for preventing a short circuit upon disintegration of the zinc electrode Z, substantially as described.

**No. 61,945. Ornamenting Process.**

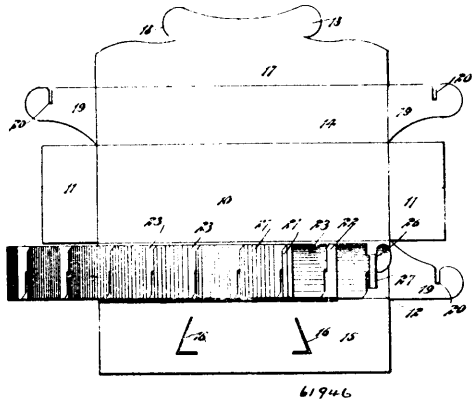
(Procédé d'ornementation.)

Alexander Walker, assignee of Harry Spurrier, both of Montreal, Quebec, Canada, 5th December, 1898; 6 years. (Filed 2nd April, 1898.)

*Claim.*—1st. As a new article of manufacture, a body of glass, porcelain, delf or the like, having an ornamentation consisting of a foreign substance and a substance chemically combined with said body. 2nd. An agent for ornamenting, consisting of a mixture including an element having an affinity for one of the component elements of the body to be decorated. 3rd. An agent for ornamenting bodies of glass, porcelain, delf and the like, said agent consisting of a mixture of silicate of soda and caustic soda. 4th. The art or process of decorating bodies, consisting in applying to the body an agent consisting of a mixture including a pre-ponderating element having an affinity for one of the component elements of the body to which it is applied, and then subjecting said body with the agent applied thereto to an action adapted to cause the pre-ponderating element of said agent and an element of the body to combine. 5th. The art or process of decorating bodies of glass, porcelain, delf and the like, consisting in applying to the body an agent consisting of a

mixture of silicate of soda and caustic soda and then subjecting the body with the agent applied thereto to heat. 6th. The art or process of decorating bodies of glass, porcelain, delf and the like, consisting in applying to the body, by means of a stamp carrying the design, an agent consisting of a mixture of silicate of soda and caustic soda and then subjecting the body, with the agent applied thereto, to heat, substantially as and for the purpose set forth.

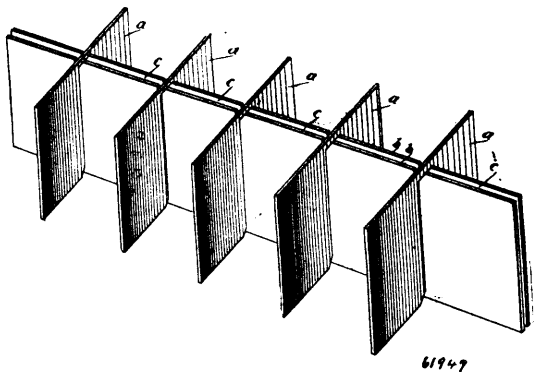
**No. 61,946. Egg Carton. (Boîte à œufs.)**



Robert J. Barkley, Chanute, Kansas, U.S.A., 5th December, 1898; 6 years. (Filed 3rd November, 1898.)

*Claim.*—1st. An egg carton formed with a series of pairs of parallel slits producing straps on the carton, and a folding filler having transverse and longitudinal panels, the transverse panels having each a headed tab respectively adapted to engage with the straps of the carton. 2nd. An egg carton, and a filler, the carton having a series of pairs of parallel slits produced therein forming straps on the carton, and the filler being provided with a series of headed tabs adapted to engage with the straps. 3rd. An egg carton, having a folding body portion formed with a series of slits therein, and a folding filler provided with headed tabs locking with the walls of said slits, whereby to removably attach the filler to the body portion.

**No. 61,947. Egg Carton Filler. (Cloison de boîtes à œufs.)**



Robert J. Barkley, assignee of John Franklin Barkley, both of Montreal, Quebec, Canada, 5th December, 1898; 6 years. (Filed 3rd November, 1898.)

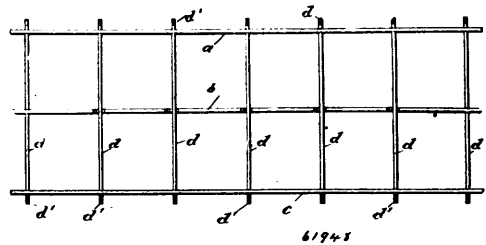
*Claim.*—A filler for egg cartons, having two longitudinal strips placed in immediate proximity to each other so that a narrow space will intervene between the strips, and transverse strips attached to the longitudinal strips and projecting beyond each side thereof, so as to form egg-receiving cells on each side of the two longitudinal strips.

**No. 61,948. Egg Carton Filler. (Cloison de boîtes à œufs.)**

Robert J. Barkley, assignee of John Franklin Barkley, both of Chanute, Kansas, U.S.A., 5th December, 1898; 6 years. (Filed 3rd November, 1898.)

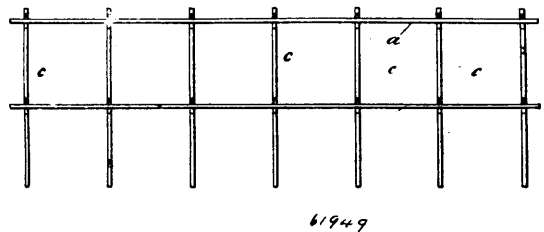
*Claim.*—A filler for egg cartons, the filler having three longitudinal strips running parallel with each other and joined by a series of transverse strips passing at right angles to the longitudinal

strips and forming a series of cells, each with four closed sides, the transverse strips having tabs projected through the two side longi-



tudinal strips, and the said two side longitudinal strips being provided with vertical slits *e* into which the tabs may be returned.

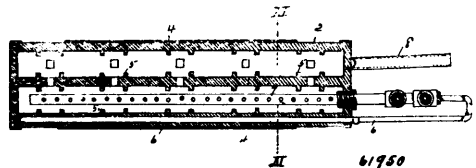
**No. 61,949. Egg Carton Filler. (Cloison de boîtes à œufs.)**



Robert J. Barkley, assignee of John Franklin Barkley, both of Chanute, Kansas, U.S.A., 5th December, 1898; 6 years. (Filed 3rd November, 1898.)

*Claim.*—A filler for egg cartons, the filler having two longitudinal strips, one of which is placed in the centre of the filler and the other of which is placed at one side thereof, the filler also having transverse strips extending at right angles to the longitudinal strips and running from the side longitudinal strip across the centre longitudinal strip and beyond the same, thus forming two rows of egg cells, the cells of one row having four closed sides, and the cells of the other row having three closed sides and open outer sides.

**No. 61,950. Gas Retort. (Cornue à gaz.)**



James E. Weaver and Robert Sutor, both of Pittsburg, Pennsylvania, U.S.A., 5th December, 1898; 6 years. (Filed 26th May, 1898.)

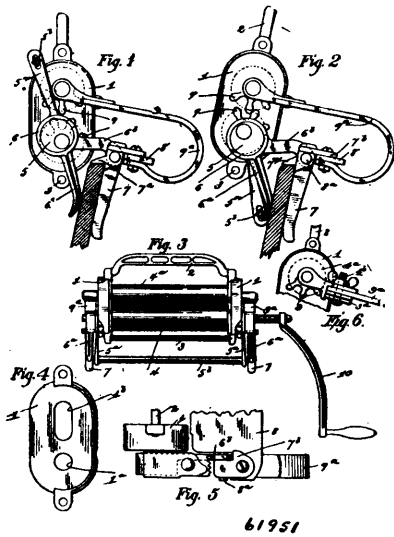
*Claim.*—1st. A retort having longitudinal perforated partitions and provided with interior projecting ribs, substantially as described. 2nd. A retort having longitudinal perforated partition-walls, an oil and steam mixer, and a pipe leading therefrom to a perforated pipe within one of the chambers of the retort, substantially as described.

**No. 61,951. Wringer. (Tordeuse.)**

Charles Philander Searles, Columbus, Ohio, U.S.A., 6th December, 1898; 6 years. (Filed 12th November, 1898.)

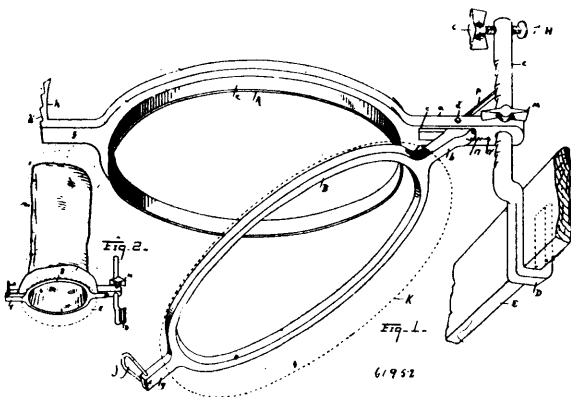
*Claim.*—1st. In a wringer, a movable frame carrying a roller movable therein, a spring carrying the opposing roller and a leg to engage one side of the tub, an eccentric on the shaft of the first mentioned roller, a clamping leg movable on said eccentric, and means for operating said eccentric to move the frame and the roller against the pressure of the spring, substantially as set forth. 2nd. In a wringer, a spring carrying a relatively stationary roller and a stationary clamping leg, a frame carrying a movable roller and a movable clamping leg, and an eccentric adapted to move the movable roller against the stationary roller and the movable leg towards the stationary leg, substantially as described. 3rd. In a wringer, a movable frame carrying a roller movable therewith and having

elongated slots 1<sup>b</sup>, a spring carrying an opposing roller, the shaft of said roller entering the slots, a leg to engage one side of the tub,



secured to the spring, an eccentric loose on the shaft of the first mentioned roller, a clamping leg 6<sup>a</sup> to engage the other side of the tub, having a collar 6 loose on the eccentric, and means for operating the eccentric, substantially as shown and described.

No. 61,952. Bag Holder. (*Acroche-sac.*)



William Whitmore, Stonewall, Manitoba, Canada, 6th Decembe 1898; 6 years. (Filed 12th November, 1898.)

*Claim.*—1st. In a bag-holder, the combination of the ring A, having the arm *f* and *a* extending therefrom, the ring B pivoted to the arm *a*, said arm being perforated at its outer end, a supporting bar adapted to engage through said perforation, a thumb-screw adapted to engage said bar and to secure said holder in its adjusted position, said ring B having an extension *g* at its outer free end, and ring *j* loosely supported in said extension and adapted to engage with the arm *f* upon the ring A, substantially as described. 2nd. In a bag-holder, the combination of the ring A, provided with a flange *e*, the arm *a* secured to said ring and provided with the opening *c* and a perforation at its outer end, the ring B having the arm *b* secured thereto, means for pivoting the arm *b* to the arm *a* within said opening *c*, the supporting arm C adapted to adjustably engage through said perforation, means for securing said arm in its adjusted position, and means for locking said rings in their closed condition, substantially as described.

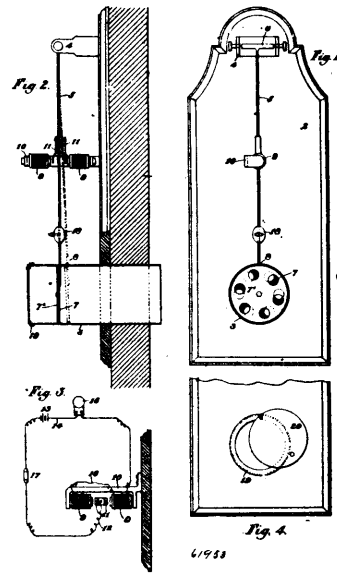
No. 61,953. Electro-Pneumatic Alarm.

(*Avertisseur électrique pneumatique.*)

George W. Mackenzie, Beaver, Pennsylvania, U.S.A., 6th Decem ber, 1898; 6 years. (Filed 10th August, 1898.)

*Claim.*—1st. A draft-tube, a diaphragm within the tube, a sup porting rod, electro-magnets in proximity to the rod for attracting the rod magnetically when the magnets are energized by a current established by contact with the rod, and an alarm device in circuit with the magnets, substantially as set forth. 2nd. In combination with a pivoted rod supporting a diaphragm within a draft-tube provided with contact-terminals secured to the rod, an open circuit

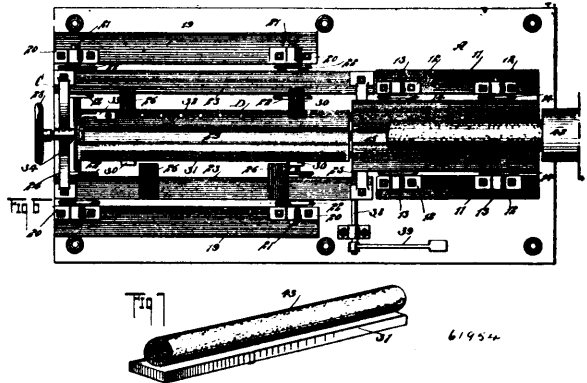
adapted to be closed by one of the rod-terminals, and an electro-magnet in series with the circuit adapted to be energized and to



magnetically attract the rod when the circuit is closed, substantially as set forth. 3rd. In combination with a pivoted rod supporting a diaphragm within a draft-tube, provided with contact-terminals secured to the rod, an open circuit adapted to be closed by one of the rod-terminals, an electro-magnet for attracting the rod magnetically when the magnet is energized by a current established by contact with the rod through the terminal, and an alarm device in series with the circuit, substantially as set forth. 4th. A draft-tube, a supporting rod pivoted outside of the tube, a diaphragm within the tube supported by the rod provided with perforated openings, a similar plate pivoted thereto adapted to open and close such openings, and means for actuating an alarm by movement of the diaphragm and rod, substantially as set forth.

No. 61,954. Cutting Table for Plastic Material.

(*Table à découper pour matières plastiques.*)

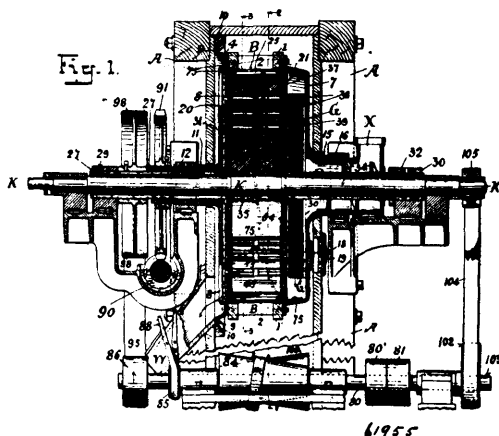


Arphad Snell, Tice, Illinois, U.S.A., 6th December, 1898; 18 years. (Filed 17th November, 1898.)

*Claim.*—1st. In a device for cutting plastic material, a revoluble table having a plurality of faces for receiving the material to be cut, and supports for the cut material, carried by the table and arranged at one side of each face thereof, each support being adapted to receive the cut material when the table is turned and to be delivered therefrom with the cut material thereon, when another face of the table has been brought into an uppermost position to receive a fresh supply of material, as set forth. 2nd. In a device for handling plastic material, a revoluble table having its faces prepared to receive the material, and guides projected beyond the said faces, adapted to support a board, which board receives the completed material, and means for delivering the said board and material carried thereby when the said table is turned to present another face uppermost, substantially as shown and described. 3rd. In a machine for manipulating plastic material, a revoluble table adapted to receive the moulded material, extensions from the said table projecting beyond its receiving faces, boards removably supported by said extensions, and a support adapted to receive the removable

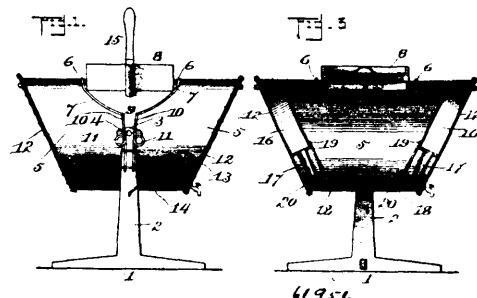
board and the plastic material delivered thereto, as and for the purpose specified. 4th. In a machine for manipulating plastic material, a table having end movement, and a rotating table located adjacent to said table and also having end movement, the rotating table being provided with projections extending beyond its receiving faces, removable boards supported by said projections, and means for rotating the said table, substantially as shown and described. 5th. In a machine for manipulating plastic material, a table constructed in two sections, one section having end movement and the other section having revoluble movement, the two sections being provided with roller supports, means for turning the revoluble section, and a supporting device for the plastic material carried by the revoluble section, and removable therefrom, as and for the purpose specified. 6th. In a machine for the manipulation of a plastic material, the combination, with a table having end movement, of a second table capable of end movement with the first table and also capable of rotary movement, the rotary table being provided with a gauge, and means for supporting a carrier for the plastic material delivered thereto from said table, substantially as shown and described. 7th. In a machine for the manipulation of plastic material, the combination, with a table constructed in two independent sections, both sections being capable of end movement and one section being also capable of rotary movement, the rotary section being provided with a gauge and with means for sustaining a support for the plastic material when said material is delivered from the said rotary section, as and for the purpose specified. 8th. In a machine for the manipulation of plastic material, the combination, with a table constructed in two sections, both sections being capable of end movement and one section of rotary movement having multiple faces adapted to receive material delivered thereto, each receiving face of the rotary section being provided with extensions adapted as supports for boards removable from the rotary section, a carriage for the revoluble section, and supports on the said carriage adapted to receive the supporting board for the plastic material when the rotary section is turned, substantially as shown and described. 9th. In a machine for the manipulation of plastic material, the combination, with a receiving table constructed in two sections, including a section capable of end movement and a second section capable of end movement and of rotary movement, the rotary section being provided with several surfaces adapted to receive the plastic material, the said faces being also adapted for registry with the receiving face of the table section having end movement only, of a carriage for the rotary section, means for turning the rotary section, a gauge on the rotary section, and a centering device for the rotary section, substantially as described. 10th. In a machine for manipulating plastic material, the combination, with a receiving table constructed in two sections, one section being capable of end movement only and the other section being capable of end movement and of rotary movement, a gauge carried by the rotary section, means for revolving the rotary section, and roller supports for the two sections of the table, of a centering device for the rotary section, stop devices for the section of the table having end movement only, means for securing the sections of the table in engagement with each other, as and for the purpose specified. 11th. In a machine for manipulating plastic material, the combination, with a receiving table constructed in two sections, one section being capable of end movement only and the other section being capable of end movement and of rotary movement, a gauge carried by the rotary section, means for revolving the rotary section, and roller supports for the two sections of the table, of a centering device for the rotary section, stop devices for the section of the table having end movement only, means for securing the sections of the table in engagement with each other, supports attached to the rotary section, extending beyond the receiving faces of the said section at a right angle to said faces, and removable boards engaging with the said supports, as and for the purpose specified.

and the suction block or blocks. 4th. A sifting machine embodying an enclosing sieve, a rotary blast and vacuum generator arranged



within the sieve, and an air shifting device or grate which is arranged inside of the path of said blast and vacuum generator and mounted independently thereof, either stationary or so as to rotate with less speed or in a contrary direction, and which operates to shift the air in a direction contrary to that in which the vacuum generator rotates. 5th. A shifting machine embodying an enclosing sieve, a rotary deflecting grate within and adjacent to the sieve, a rotary suction block or blocks and a fan or fans within said grate, a rotary grating within said suction block or blocks and said fan or fans, and an air chamber in the centre of the machine. 6th. A shifting machine embodying an enclosing sieve, a rotary air wave generator arranged within the sieve and producing blast and suction pulsations of the air within the sieve, and a screen which is interposed between the feed spout and the pulsator and which checks the air pulsations before they reach the spout. 7th. A shifting machine embodying a sieve, a grating or air shifting device arranged within the sieve, a rotary pulsator also arranged within the sieve, and producing blast and suction pulsations of the air within the sieve, and a variable speed driving mechanism whereby the pulsator is driven and by which the speed of the same can be changed independently of the speed of the other moving parts of the machine while the machine is running.

No. 61,956. Washing Machine. (Machine à laver.)



No. 61,955. Method of and Apparatus for Sifting Granular Substances. (Methode et appareil pour le tamisage de substances granulaires.)

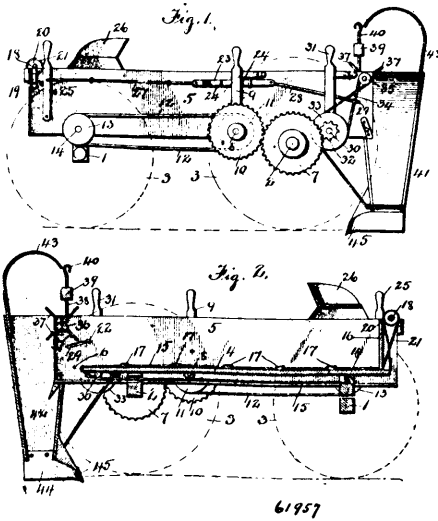
Frederick George Winkler, Jersey City, New Jersey, U.S.A., 6th December, 1898; 6 years. (Filed 14th November, 1898.)

Claim.—1st. The process of sifting granular materials hereinbefore described, consisting in first clearing the sieve by long and strong inward currents of air in a strong swift and sudden blast outward through the sieve, whereby the finer particles of the material are sifted through the sieve, and following this blast with a long and strong outward after-current of the remainder of the air whereby the sifted particles are blown far from the sieve and out of reach of the next inward current and causing said several currents to travel successively over all parts of the sieve. 2nd. A shifting machine embodying a sieve, one or more vacuum generators or suction devices whereby a copious current of air is drawn inwardly through the sieve from adhering particles, one or more main fans or blast devices whereby a swift sifting blast is generated which drives fine particles outwardly through the sieve, and one or more auxiliary fan or blast devices whereby a long and strong outward after-current is generated which blows the sifted particles out of reach of the next inward current. 3rd. A sifting machine embodying an enclosing sieve, a rotatable deflecting grate within the sieve, one or more rotary suction blocks or vacuum generators and one or more rotary auxiliary fans arranged between the main fan or fans

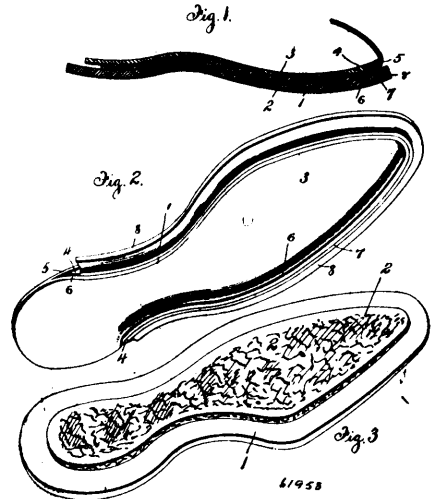
Austin M. Belding and Charles A. Rice, both of Osakis, Minnesota, U.S.A., 6th December, 1898; 6 years. (Filed 15th November, 1898.)

Claim.—1st. The combination, with a rocking or swinging vessel having downwardly and inwardly inclined ends and means of controlling the movement of the vessel, of the air-chambers upon the said ends, and the tubes opening into the air-chambers and into the vessel. 2nd. The combination, with a rocking and swinging vessel having a mouth, of the spring having a portion bowed around said mouth, arms depending from said bowed portion upon each side of the vessel and terminating in coil springs, the ends of the wire being secured below the pivot or journal point of the vessel, as set forth. 3rd. The combination in a washing machine, of the vessel having inclined ends and adapted to rock or swing, air-chambers having their only and permanent opening near the bottom of the vessel, tubes forming said opening and a channel between the chambers and the vessel, and a shield or protector having a portion secured to the air-chambers, and a portion depending in front of the tubes and engaging the inner wall of the vessel, as set forth.

**No. 61,957. Fertilizer Distributor. (Distributeur d'engrais.)**



described. 3rd. A cork sole for shoes, comprising a layer of cork wood, having a periphery approximately parallel with the contour



of the outer sole, interposed between the inner and outer soles of the shoe, substantially as described.

**No. 61,959. Mowing Machine. (Fauçonneuse.)**

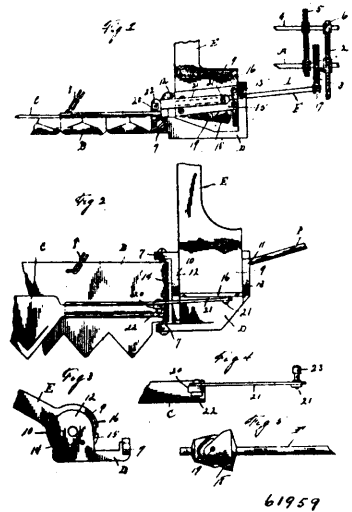
Charles Bellarmin Jutras, La Baie du Febvre, Quebec, Canada  
6th December, 1898; 6 years. (Filed 16th November, 1898.)

*Claim.*—1st. A fertilizer distributor, comprising a body mounted on wheels, a hopper removably connected to said body, said hopper serving to pass the fertilizer to predetermined points, and means, operated by the movement of said body, for automatically passing the fertilizer from said body to said hopper, substantially as described. 2nd. A fertilizer distributor, comprising a movable body portion, a distributing hopper removably connected to said body portion, means, operated by the movement of said body portion, for automatically passing the fertilizer from said body portion to said hopper, and means for masticating said fertilizer, substantially as described. 3rd. A fertilizer distributor, comprising a movable body portion, a distributing hopper removably connected to said body portion, means, operated by the movement of said body portion, for automatically passing the fertilizer to said hopper, and means located in the path of movement of said fertilizer for automatically masticating the fertilizing materials, substantially as described. 4th. A fertilizer distributor, comprising a movable body portion, a distributing hopper connected to said body portion, mechanism for passing the fertilizer from the body portion to said hopper, and means for returning said mechanism to its normal position, substantially as described. 5th. A fertilizer distributing hopper connected to said body portion, mechanism operated by the movement of said body portion, for passing the fertilizer from said body portion to said hopper, and means, for returning said mechanism to its normal position, substantially as described. 6th. A fertilizing distributor comprising a movable body portion, a distributing hopper connected to said body portion, mechanism operated by the movement of said body portion for passing the fertilizer from said body portion to said hopper, and means, operated independently of said mechanism, for returning said mechanism to its normal position, substantially as described. 7th. A fertilizing distributor comprising a movable body portion, a distributing hopper connected thereto, mechanism operated by the movement of said body portion for delivering the fertilizer to said hopper from said body portion, means automatically disconnecting the movement of said mechanism at a pre-determined point in its movement, and means for returning said mechanism to its normal position, substantially as described.

**No. 61,958. Shoe. (Chaussures.)**

Callix Vinette, Montreal, Quebec, Canada, 6th December, 1898; 6 years. (Filed 16th November, 1898.)

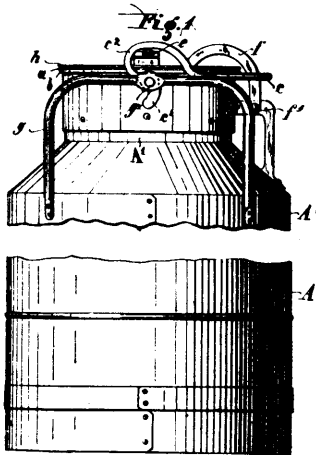
*Claim.*—1st. The method of forming a shoe, consisting in affixing to the outer sole a layer of cork wood having a periphery approximately parallel with the contour of the sole, preparing a box to receive said layer by forming a peripheral incision on the inner sole and uniting it to the bent over portion of the divided edge, a turned over portion of the welt securing the upper to the shoe, and uniting the inner and outer soles, substantially as described. 2nd. A cork sole for shoes comprising a layer of cork wood interposed between the inner and outer soles, substantially as



George Artemas Longley, Groton, Massachusetts, U.S.A., 6th December, 1898; 6 years. (Filed 16th November, 1898.)

*Claim.*—1st. The combination with the hinged cutting apparatus of a mowing-machine, for actuating the knife-bar thereof, of a peripherally-grooved, cone-shaped cam-wheel, and the inclined shaft to which said cone-wheel is secured, arranged in oblique relation in both a horizontal and a transverse plane, and journaled in a housing for said wheel, the inclination of said shaft being such as to bring its outer end carrying said cam-wheel own substantially in the plane of a pitman actuating the knife-bar with the forward face of the cone-wheel engaging the pitman in a plane parallel therewith, substantially as described. 2nd. The combination with the hinged cutting apparatus of a mowing-machine, of an obliquely or forwardly and downwardly extending cutter-actuating shaft, a cone-shaped wheel fast on said shaft provided with a peripheral cam-groove, a head or housing for said cam-wheel and in which the inclined shaft is journaled, and inclined guide-bars on the cam housing for guiding one end of the pitman and holding it in engagement with the cam-wheel on the actuating-shaft, substantially as described. 3rd. In a mowing-machine, the hinged cutting-apparatus thereof, in combination with the inclined or obliquely-arranged cutter-actuating shaft, the interposed link or pitman and the groove, cone-shaped cam-wheel for actuating said pitman, the housing for said cam-wheel, the supporting-arm or head carrying said housing and to which the said cutting-apparatus is hinged, the inclined shaft being journaled at its outer end in said housing and passing through the trunnion at the inner side thereof and on which the shoe is supported, and inclined guides in said supporting-arm or head for guiding one end of the pitman or link, substantially as described.

**No. 61,960. Milk Can. (Bidon à lait.)**

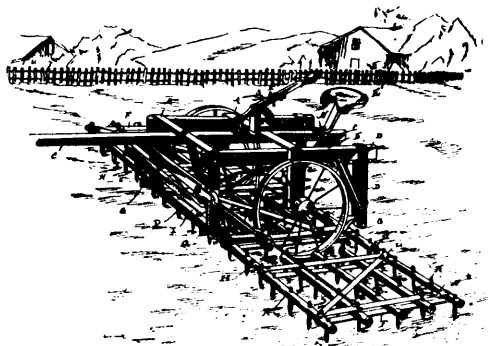


61960

Josef Fliegel, 8 Sprottauer Chaussee, Mallnitz, Silesia, Germany, 6th December, 1898; 6 years. (Filed 17th November, 1898.)

*Claim.*—1st. Forming the joining surfaces of the lid and neck of milk cans and the like of a material whose oxides are not detrimental to health, constructed and arranged substantially as hereinbefore described. 2nd. The use at the joining surfaces of the lid and neck of milk cans and the like rings such as *a*, and *b*, of solid metal or metal alloy whose oxides are not detrimental to health, said rings being pressed into firm contact by pressure applied centrally by a suitable locking device, constructed and arranged substantially as hereinbefore described. 3rd. The combination with a joint of the kind described and claimed for milk cans or the like or a bar or projecting part *c*, pressure lever *c'*, hinged to standards or part of the can and having a curved or eccentric portion for engaging and exerting pressure upon the part *c*, and locking the lid when the lever *c*, is depressed and a lid-raiser *c'*, for releasing the lid when the lever *c*, is raised, constructed and arranged substantially as hereinbefore described. 4th. The improvements in milk cans and the like comprising a joint formed of the material described and means for securing and locking the lid to the can all arranged and adapted for operation, substantially in the manner and for the purposes set forth in reference to and as shown in the accompanying drawings, constructed and arranged substantially as hereinbefore described.

**No. 61,961. Harrow. (Hersc.)**



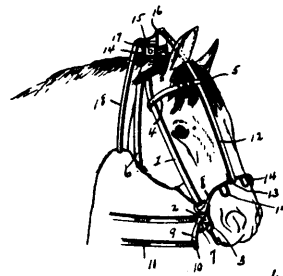
61961

John H. Ayrhart, Dedham, Iowa, U.S.A., 6th December, 1898; 6 years. (Filed 18th November, 1898.)

*Claim.*—1st. In a folding harrow, the combination with a central harrow-section of side sections hinged thereto, rods hinged to said side sections adjacent to the outer ends thereof, and rods hinged at one end to the harrow-frame and at their opposite ends to the first-named rods, substantially as set forth. 2nd. In a harrow, the combination with the frame having guides depending from the rear portion thereof, a harrow-section having projections adapted to move in said guides and provided with shoulders which engage the guides, bars depending from the forward part of the frame, shouldered projections upon the forward part of the harrow-sections, said projections adapted to engage the bars with the shoulders thereof abutting thereagainst, a rod connecting the projections at the forward end of the harrow-section, whereby said section is movable vertically

but is prevented from lateral movement, bails secured to the harrow and intersecting each other, an operating-lever, and a link connected to said lever and to the bails at their point of intersection, substantially as set forth.

**No. 61,962. Bridle. (Bridc.)**

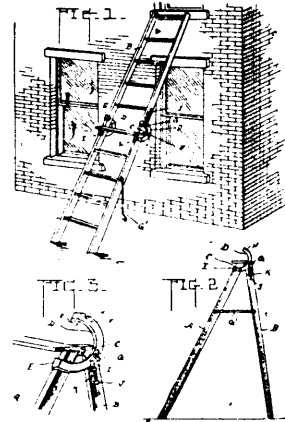


61962

John Hammond, Buena Vista, Ohio, U.S.A., 6th December, 1898; 6 years. (Filed 18th November, 1898.)

*Claim.*—1st. In a safety-bridle, the combination with the parts of the bridle, of plates attached thereto, a bit connected to said plates, arms pivotally mounted upon said plates, and having fingers in connection therewith to engage the nostrils of an animal, springs interposed between the opposite ends of the bit and the said arms, a throat-latch or choke-strap in connection with said arms, and reins attached to the lower ends of said arms, substantially as and for the purpose specified. 2nd. In a safety-bridle, the combination of a bit, movable nostril-closers, means for connecting said nostril-closers to the bit, driving reins attached to said means, a choke-strap, and a centre strap attached to the said nostril closer and also connected to the choke-strap, substantially as described. 3rd. In a safety-bridle, the combination of a bit, a pair of arms movably attached to said bit, nostril-closers in connection with said arms, a centre strap attached to said nostril-closers, an upper lever to which said centre strap is also attached, a choke-strap connected to said lever, and driving reins secured to said arms, substantially as described.

**No. 61,963. Ladder. (Echelle.)**



61963

Bryant A. Ward, Bardwell, Kentucky, U.S.A., 6th December, 1898; 6 years. (Filed 18th November, 1898.)

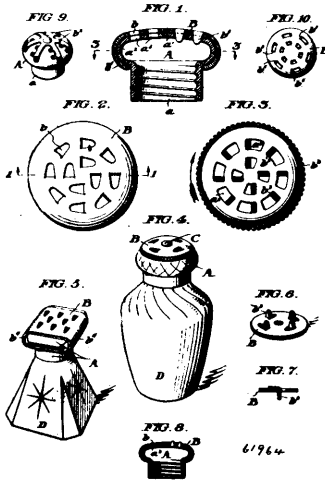
*Claim.*—A ladder comprising two sections hinged together so that when the sections are straightened out their adjacent ends will abut, braces curved in the arc of a half-circle, the lower ends of said braces being secured to the sides of one section of the ladder and the upper ends of said braces extending over the upper end of that section of the ladder to which the lower end of the brace is attached, and having its extremity lying parallel and in line with the forward edges of the side piece of said ladder-section, and formed with an angular hook *E* adapted to receive the folding section of the ladder and brace the same, and a spring bolt and thumb-screw for clamping the braces to the folding section of the ladder, substantially as described.

**No. 61,964. Salt Cellar. (Sellière.)**

Henry Binley, Philadelphia, Pennsylvania, U.S.A., 6th December, 1898; 6 years. (Filed 18th November, 1898.)

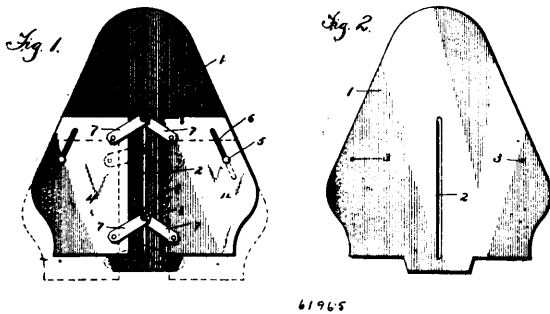
*Claim.*—1st. In combination, a main cap embodying perforations, a supplementary cap structure supported over said main cap free for lateral movement with respect thereto, and tongues mounted on

one of said structures and projecting into the openings formed in the other, substantially as set forth. 2nd. The combination to form



a top for a salt cellar, of a main cap embodying elongated openings, means for securing said supplementary cap upon the main cap free for lateral movement with respect thereto, and spurs mounted upon one of said caps and permanently existing within the opening in the other cap, substantially as set forth. 3rd. The combination to form a top for a salt cellar of a main cap embodying elongated concentric openings, a supplementary cap also embodying elongated concentric openings, means for securing said supplementary cap upon the main cap for rotary oscillation with respect thereto, and spurs mounted upon said supplementary cap, substantially as set forth. 4th. The combination to form the top of a salt cellar, of a main cap embodying elongated openings, a supplementary cap in which U-shaped tongues have been formed and bent down to project through openings of the main cap, and means for securing said supplementary cap upon the main cap free for rotary oscillation with respect thereto, substantially as set forth. 5th. The combination to form the top of a salt cellar, of a main cap formed with a neck and a head having a projecting rib or bead, a supplementary cap mounted upon said main cap and having a depending flange bent beneath the rib or bead of the said main cap, openings in the top of said main cap and in said supplementary cap, and spurs integral with said supplementary cap and extending through the openings in the main cap, substantially as set forth. 6th. In combination, a main cap embodying perforations, a supplemental structure supported over said main cap free for lateral movement with respect thereto, tongues mounted on said supplemental structure and projecting into the perforations of the main cap, substantially as set forth.

No. 61,965. Shoe Pattern. (Patron de chaussures.)



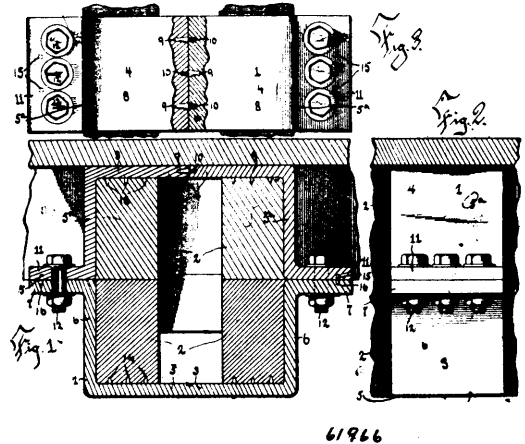
Norman McLeod, Merrickville, Ontario, Canada, 6th December, 1898; 6 years. (Filed 15th August, 1898.)

Claim.—1st. An adjustable shoe pattern, comprising a base plate having the general form of a shoe upper and wings slidably mounted to opposite sides of said base plates, said wings having an adjustable movement laterally and rearwardly, whereby the size of the upper to be cut may be varied without changing the relative shape, substantially as described. 2nd. An adjustable shoe pattern, comprising a base plate having the general configuration of a shoe upper, wings slidably connected to said base plate on opposite sides thereof, said wings having an adjustable movement laterally and rearwardly, and pivotal connections between said wings, said connections having an operative connection with said base plate, whereby said wings will have a similar movement, and will also be secured in their adjusted positions, substantially as described.

3rd. An adjustable shoe pattern, comprising a base plate having the general configuration of a shoe upper, and also having a central elongated slot, wings slidably connected to said base plate, said wings having a movement laterally and rearwardly, levers pivotally connected to said wings, and to each other, said levers being adapted to compel uniform movement of said wings, and a securing device mounted in said elongated slot and forming the pivotal connection between said levers for holding said wings in their adjusted positions, substantially as described.

No. 61,966. Clamp for Draw Timbers.

(Lien pour bois de charpente.)

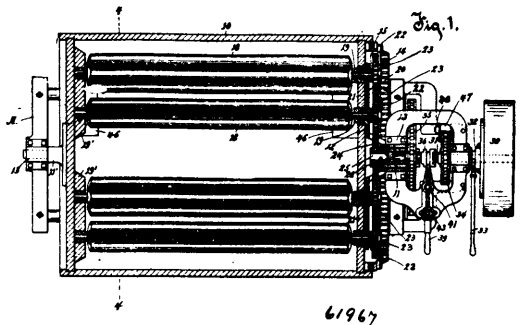


Ferdinand Herman Lange, Wilkesbarre, Pennsylvania, U.S.A., 6th December, 1898; 6 years. (Filed 19th November, 1898.)

Claim.—1st. A clamp for draft timbers comprising a lower section or stirrup having a horizontal bottom portion and vertical sides, the upper, laterally separable sections having vertical sides and inwardly extending top portions interlocked at their adjacent ends, and means for connecting the upper and lower sections, substantially as described. 2nd. A clamp for draft timbers comprising a lower section or stirrup, the laterally separable upper sections having their inner ends interlocked, means for securing the outer ends of the upper sections to the terminals of the lower section, and spurs projecting inward from the sections and adapted to be embedded in the draft timbers, substantially as described. 3rd. A rectangular clamp for draft timbers comprising a continuous lower section or stirrup and the laterally separable upper sections having their inner ends detachably interlocked and their outer ends detachably secured to the lower section, substantially as described. 4th. A clamp for draft timbers comprising the continuous lower section or stirrup having its terminals extending horizontally, the upper sections consisting of vertical sides and horizontal top portions and having their outer ends extended horizontally and arranged against those of the lower section, dowel pins having threaded shanks mounted in threaded perforations of the inner end of one of the upper sections and engaging sockets of the other, pins depending from the outer terminals of the upper sections and engaging depressions or sockets of the lower section, and fastening devices connecting the outer ends of the sections, substantially as described.

No. 61,967. Churn and Butter-Worker.

(Baratte et batte à beurre.)



William E. Penn and Charles S. Brown, both of Lake Mills, Wisconsin, U.S.A., 6th December, 1898; 6 years. (Filed 19th November, 1898.)

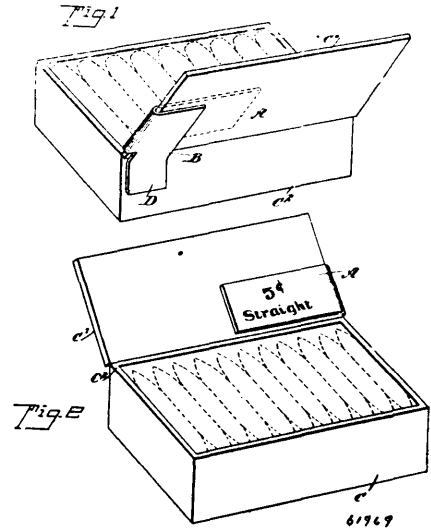
Claim.—1st. The combination with a revoluble drum having tight heads and central drum-supporting gudgeons thereon, a large ring-



gear on the front end of the drum and means for rotating the drum through said ring-gear, of rolls in the drum in one or more sets, the set or sets of rolls being severally eccentric to the axis of the drum, pinions outside of the drumhead on the journals of the rolls meshing with each other, a driving shaft concentric with but not fixed to the drum, a pinion on said driving-shaft in a plane with the roll-journal pinions and meshing with that pinion of the set or sets of roll-journal pinions nearest the axis of the drum, and means independent of the drum for rotating said driving-shaft. 2nd. The combination with a revoluble drum having tight heads and central drum-supporting gudgeons thereon, and means for rotating it, of a plurality of sets of rolls in and parallel with the drum, and non-concentric therewith, pinions outside the drum on the journals of the rolls, the pinions of each set of rolls meshing with each other, a pinion on a driving-shaft concentric with the drum and in a radial plane with said roll-journal pinions and meshing with the adjacent pinions of each set on the roll-journals and means for rotating said driving-shaft independently of and differentially from the rotation of the drum. 3rd. The combination with a revoluble drum having tight heads and central drum-supporting gudgeons mounted on a frame, one of which gudgeons is hollow and has branching legs or flanges by which it is affixed to the drumhead, of rolls in and eccentric to the drum having journals that extend at one end through the drumhead, pinions on said journals meshing with each other, a shaft mounted in said hollow gudgeon, and a pinion on said shaft within the inner of said roll-journal pinions. 4th. The combination with a revoluble drum having tight heads and central drum-supporting gudgeons mounted on a frame, one of which gudgeons is hollow and has branching legs by which it is affixed to the drumhead, of rolls in and eccentric to the drum having journals that extend at one end through the drumhead, pinions on said journals meshing with each other, a shaft mounted in said hollow gudgeon, a pinion loose on said shaft within the legs of the gudgeon and in the plane of and meshing with the inner of said roll-journal pinions, and means for putting said shaft-pinion into engagement with its shaft. 5th. The combination with a revoluble drum having central drum-supporting gudgeons, one of which is hollow and has branching legs by which it is affixed to the drumhead, of rolls in the drum in sets eccentric thereto, pinions outside the drum on the roll-journals, a driving-shaft journaled in the gudgeon, a pinion on said driving-shaft meshing with a roll-journal pinion, a pulley-shaft having a bearing in the driving-shaft, and means for clutching the pulley-shaft to the driving-shaft. 6th. The combination with a revoluble drum having central drum-supporting gudgeons, one of which is hollow and has branching legs by which it is affixed to the drumhead, a drum-rotating gear fixed on the drum and a countershaft geared to the drum-rotating gear, of a driving-shaft mounted in the hollow gudgeon, a roll-driving pinion on said driving-shaft, rolls in the drum having gears outside meshing with a pinion on the driving-shaft, a pulley-shaft concentric with and having a bearing in said driving-shaft, and mechanism connecting said pulley-shaft and driving-shaft operatively respectively with said countershaft and in such manner as to differentiate the speed of the drum. 7th. The combination with a drum, provided with rolls therein mounted longitudinally thereof, of a plate provided with roll-journal boxes and secured releasably to the drumhead, a block of substantially the thickness and material of the drumhead fastened to the plate, said block being adapted to enter and close an aperture through the drumhead eccentric to the axis provided for passing a roll through the drumhead. 8th. The combination of a revoluble cylindrical drum, rolls in sets in the drum mounted in the heads thereof, each set being eccentric to but parallel with the axis of the drum and in a radial plane thereof, and ledges on the inner surface of the shell, and ends of the drum in front of each set of rolls, said ledges extending the entire length of the drum, and continuously therewith, partially across both of its heads, and having faces inclined inwardly from the surface of the drum toward the rolls.

named member adapted to fit the first named surfaces, and means for securing the members to the post and gate, as specified. 2nd. In combination, a member A, a screw-threaded shank F formed therewith, a pintle I projecting upward therefrom, two cam surfaces formed upon this member and uniting at the lowest plane, the member B having a hole therethrough adapted to fit upon the pintle, a threaded shank formed with the last named member by means of which it may be attached to the gate, cam surfaces formed upon this member adapted to fit the cam surfaces upon the first named member, and a nut secured upon the pintle so as to prevent the removal of the member B therefrom, as shown and described.

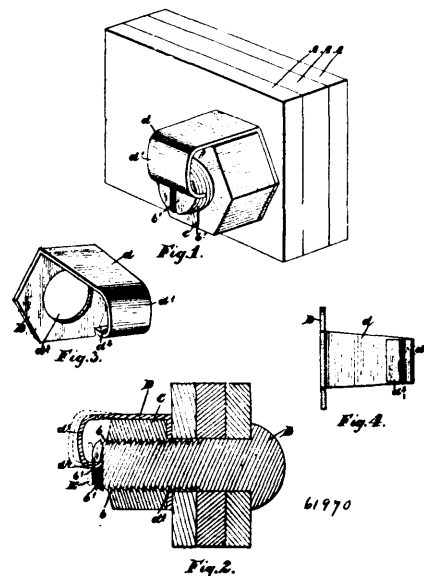
**No. 61,969. Box Lid Support.** (*Support de couvercle de boîtes.*)



Joseph Lanham Conway, Sioux City, Iowa, U.S.A., 6th December, 1898; 6 years. (Filed 19th November, 1898.)

*Claim.*—1st. A box lid support made of a single piece, and comprising a lid clamp for engaging a hinged lid or cover, and a rest extending at an angle from the clamp and adapted to rest against the top of the box, substantially as shown and described. 2nd. A box lid support made of a single piece, and comprising a front plate, a doubled-up back plate forming with the front plate a clamp for engaging the lid or cover, and a rest extending from the lower edge of the said back plate and at an angle thereto, substantially as shown and described.

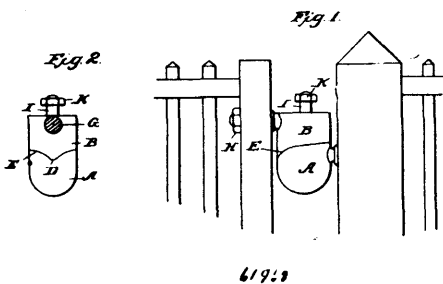
**No. 61,970. Nut Lock.** (*Arrête-écrou.*)



Thomas Broadbent, Toronto, Ontario, and James Broadbent, Madison, Wisconsin, U.S.A., 6th December, 1898; 6 years. (Filed 21st November, 1898.)

*Claim.*—1st. A nut lock comprising a washer designed to fit inside the nut and having a spring arm integrally formed with such washer

**No. 61,968. Hinge.** (*Penture.*)

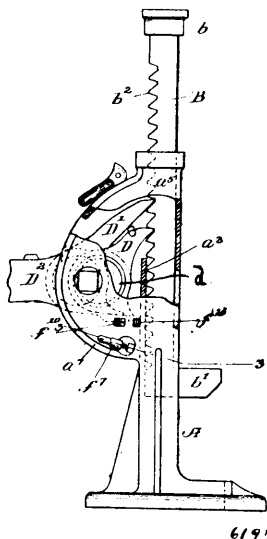


James Wood, Logan, Utah, U.S.A., 6th December, 1898; 6 years. (Filed 19th November, 1898.)

*Claim.*—1st. A hinge consisting of the members A and B, the former having two cam surfaces which come together upon the lowest plane, a pintle projecting upward from this member, the member B adapted to fit upon said pintle, cam surfaces formed upon the last

provided with a bent end, the tip of which is designed to engage with a notch in the end of the bolt as and for the purpose specified. 2nd. The combination with the bolt provided with a cross notch or notches and the nut fitting thereon, of the washer plate corresponding in form to the sides of the bolt and having a tapered spring arm narrower than any side and provided with a curved outer and having a straight tip designed to fit into the notch on the end of the bolt as and for the purpose specified.

**No. 61,971. Lowering Jack. (Cric.)**



Edwin T. Trefethen, Boston, Massachusetts, and Arthur O. Norton, Coaticook, Quebec, Canada, 7th December, 1898; 6 years. (Filed 18th July, 1898.)

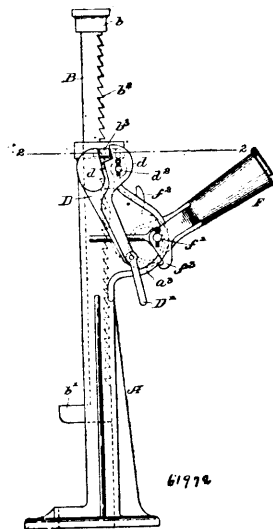
*Claim.*—1st. In a jack, the combination of a standard having a guideway for the lifting-bar, a toothed lifting-bar in said guideway, a handle fulcrumed on the standard and provided on opposite sides with reverse cams, a pawl mounted on each cam and alternately movable into and out of engagement with a tooth on the lifting-bar. 2nd. In a jack, the combination of a standard having a guideway for the lifting-bar, a toothed lifting-bar in said guideway, a handle fulcrumed on the standard, a pair of pawls each mounted on a cam fast on the handle and alternately movable into and out of engagement with the teeth on the lifting-bar, and a mechanism which is movable into the path of the pawls when the lifting-bar is to be lowered and which automatically and alternately moves one pawl under a tooth while the other pawl is moving to engage another tooth of the lifting-bar. 3rd. In a jack, the combination of a standard having a guideway for the lifting-bar, a toothed lifting-bar in said guideway, a handle fulcrumed on the standard, and provided on opposite sides with reverse cams, a pawl mounted on each cam and alternately movable into and out of engagement with teeth on the lifting-bar, a movable frame comprising a spring-controlled pin for each pawl, and means for locking said frame in position to keep said pins in the paths of the pawls.

**No. 61,972. Trip Jack. (Cric.)**

Arthur O. Norton, Coaticook, Quebec, assignee of Ervin T. Trefethen, Boston, Massachusetts, U.S.A., 7th December, 1898; 6 years. (Filed 18th July, 1898.)

*Claim.*—1st. In a jack, the combination of a standard having a guideway for the lifting-bar, a toothed lifting-bar loosely mounted in said guideway, a handle fulcrumed on the standard, a lifting pawl pivoted on the handle and movable into and out of engagement with a tooth on the lifting-bar, and a locking-block which is removable from said position while the lifting-bar is at rest. 2nd. In a jack, the combination of a standard having a guideway for the lifting-bar and, inclined thereto, a guideway for a reciprocating locking block with a toothed lifting-bar, a handle fulcrumed on the standard, a lifting-pawl pivoted on the handle and movable into and out of engagement with a tooth on the lifting-bar, a reciprocating locking-block mounted in its said guideway and movable into and out of engagement with a tooth on the lifting-bar, a lever fulcrumed on the standard and engaging said locking-block, and a weight on the lever and operating to move the lifting-block under a tooth as the lifting-pawl raises the apex of a tooth past the opposed edge of the locking-block. 3rd. In a jack, the combination of a standard having a guideway for the lifting-bar and, at an angle thereto, a guideway for a reciprocating locking-block, with a toothed lifting-bar, a handle fulcrumed on the standard, a lifting-pawl pivoted on the handle and movable into and out of engagement with a tooth

on the lifting-bar, a locking-block automatically movable into position under a tooth on the lifting-bar as the lifting-bar is raised, a



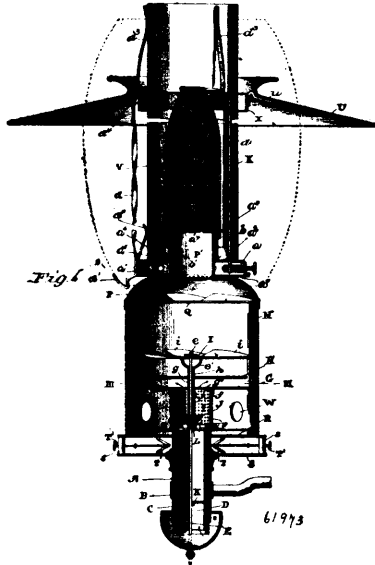
compound lever fulcrumed on the standard and means for connecting it with the handle when the locking-block is to be moved out of the way of said teeth to permit the automatic fall of the lifting-bar. 4th. In a jack, the combination of a standard and a toothed lifting-bar movable therein with a handle fulcrumed on the standard, a lifting pawl pivoted on the handle, and movable into and out of engagement with a tooth on the lifting-bar, and means to support the lifting-bar when the pawl is out of engagement with it, said handle being provided with a cam and the pawl being mounted thereon. 5th. In a jack, the combination of a standard and a toothed lifting-bar movable therein with a handle fulcrumed on the standard, a lifting pawl pivoted on the handle and movable into and out of engagement with a tooth on the lifting-bar, and means to support the lifting-bar when the pawl is out of engagement with it, said handle having a cam and the pawl being mounted thereon, and there being a ring between the handle and pawl, within the cam receiving recess of the pawl. 6th. In a jack, the combination of a standard, a toothed lifting-bar mounted therein, a handle fulcrumed to the standard, a lifting pawl pivoted to the handle and movable into and out of engagement with a tooth on the lifting-bar, means for automatically locking the lifting-bar in raised position when the lifting pawl is out of engagement with the lifting-bar, and means for temporarily connecting the locking mechanism with the handle when it is desired to lower the lifting-bar.

**No. 61,973. Means for Generating and Burning Hydro-Carbon Gas. (Moyen de generer et bruler le gaz a hydro-carbone.)**

Jasper Henry Moss and Channing John Brown, both of Topeka, Kansas, U.S.A., 7th December, 1898; 6 years. (Filed 25th July, 1898.)

*Claim.*—1st. The improved process of generating gas from liquid hydro-carbon and burning the same, which consists in maintaining a low or imperfect combustion at the end of a wick which supplies the liquid, thus evolving vapour, copiously commingling air with such vapour at a location distinct from that where the latter is evolved, imparting a whirling motion to the resultant gas, and conducting the same to a suitable burner, substantially as described. 2nd. An apparatus for burning hydro-carbon oils, comprising a distinct generating chamber, a distinct mixing chamber, a burner in the generating chamber for partially consuming the oil and generating a vapour, and a burner communicating with a mixing chamber for finally burning the mixed vapour and air. 3rd. An apparatus for burning hydro-carbon oils, comprising a distinct generating chamber, and a distinct mixing chamber, a burner in the generating chamber for partially consuming the oil and generating a vapour, means located in the mixing chamber in the path of the vapour for mixing the vapour and air, and a burner communicating with the mixing chamber for finally burning the mixed vapour and air. 4th. An apparatus for generating vapour from hydrocarbon oils, comprising a wick tube, a vapour generating chamber enclosing said tube at the burner, means for admitting air to said chamber so as to sustain a low or partial combustion only of the oil and generate vapour, a mixing or commingling chamber distinct from said generating chamber arranged to receive the main body of vapour therefrom, means located within the commingling chamber in the path of the vapour for automatically effecting a thorough commingling of the vapour and air during the passage thereof through said commingling chamber, a vapour burner communicating with said mixing chamber, and means for preventing ignition of the vapour in the commingling chamber, whereby a

principal flame is maintained remote from the vapour generating flame for consuming said main body of vapour, substantially as



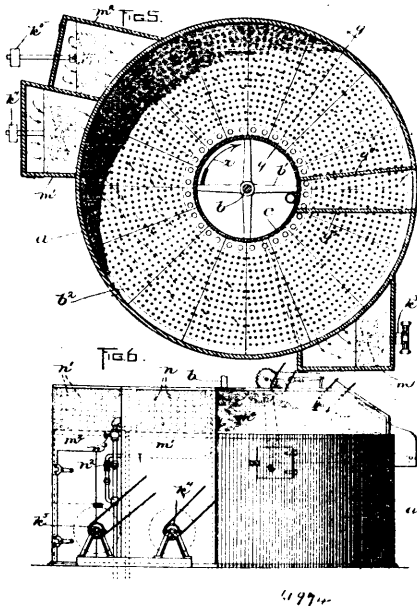
described. 5th. In a heating or lighting apparatus, a primary burner for generating gas from a hydro-carbon, a distinct generating chamber enclosing said burner, means for introducing air to maintain a low or partial combustion of the oil at the point of ignition and generate a vapour, and means for introducing additional air in such generating chamber to lighten and purify such vapour before its issuance into the mixing chamber proper, in combination with a mixing chamber for receiving the vapour issuing from said generating chamber, and a main burner located at a distance from said primary burner and communicating with the mixing chamber for burning the mixed vapour and air. 6th. A gas or vapor generator and burner comprising a wick tube, a preliminary combustion and gas generating chamber enclosing said wick tube at the burner end thereof, means for admitting air to said generating chamber so as to sustain a low or partial combustion only of the gas generated therein by the flame at the wick, a mixing or commingling chamber arranged to receive the main body of gas generated in said preliminary chamber, devices arranged within said commingling chamber constructed to set up a rotary or whirling motion of the gases in passing through the commingling chamber, a burner for consuming the gases passing from the latter chamber, and means for preventing ignition of the gases within the commingling chamber, whereby the gases generated quickly pass from the generating chamber and rush through the commingling chamber with a rotary or whirling motion to supply the main flame of the burner and maintain a brilliant light or intense heat at that point, substantially as described. 7th. An apparatus for generating gas from hydrocarbon oils and burning the same so as to produce a brilliant light or intense heat therefrom comprising a wick tube, a gas generating chamber, means for admitting air to said chamber so as to sustain a low or partial combustion only of the gas generated therein by the flame at the wick, a mixing or commingling chamber arranged to receive the unconsumed gases and waste products of combustion issuing from said preliminary combustion and gas generating chamber, and means for maintaining a principal flame for consuming the gases passing from the commingling chamber, together with means interposed between the preliminary and main burners constructed to effect a rotary or whirling motion of the gases in their passage through the commingling chamber, whereby the unconsumed gases are drawn off from the generating chamber with a rotary or whirling motion, and thoroughly commingled and pass into the principal flame where the main body of the gas is consumed, substantially as described. 8th. An apparatus for generating vapour from hydrocarbon oils and commingling the same for consumption by a burner adapted to produce a brilliant light, comprising a vapour generating chamber, a wick tube having its burner end enclosed in said chamber, means for feeding air to said chamber, a distinct mixing chamber, a principal burner located over said mixing chamber, and devices arranged in the path of the vapour between said generating chamber and principal burner constructed to spread and thoroughly commingle the upward current of vapour and air and to produce a rotary or whirling motion thereof, so as to increase the draft and effect a more perfect combustion of the vapour and gaseous products of combustion fed to the principal flame, substantially as described. 9th. In a vapour burner, a wick tube, a vapour generating chamber enclosing said tube at the burner end thereof, means for admitting air to said chamber, a perforated plate or diaphragm having a non-perforated portion partially closing the upper part of said chamber and projecting inwardly to arrest and deflect the current of air and vapour, and an

air spreader adjacent to the burner end of the wick tube, together with a mixing chamber over the generating chamber, whereby the air entering said generating chamber is deflected against the sides and top thereof so as to form an eddy therein to prevent the flame from igniting the vapour in the mixing chamber, substantially as described. 10th. In a vapour burner, the combination with a principal burner and a mixing chamber for supplying commingled vapour and air thereto, of a vapour generating chamber communicating with the mixing chamber and a wick tube constructed to maintain a low or partial combustion only at the wick and generate vapour, a plate or diaphragm arranged over said generating chamber for regulating the flow of vapour and air and deflecting the same, and a fan disc above said diaphragm, whereby the vapour and air are spread, commingled and given a rotary or whirling motion in passing to the principal burner, so as to increase the draft and insure a perfect combustion of the inflammable gases at the principal burner, substantially as described. 11th. In a vapour generator and burner, the combination with the mixing chamber, of devices located therein constructed to thoroughly mix and impart a whirling motion to the vapour and air rising therethrough, a burner over said mixing chamber, a distinct vapour generating chamber located within the mixing chamber, and means for feeding air to the latter chamber in such quantity as to sustain a low or partial combustion only, while permitting the main body of vapour generated to pass into the mixing chamber to feed the principal flame, substantially as described. 12th. In a vapour generator and burner, the combination with a principal burner, of a vapour and air receiving chamber and devices located therein for mixing the vapour and air in its passage therethrough to the burner, a wick tube, a distinct vapour generating chamber enclosing the burner end of said wick tube, a partition or movable bottom for the latter chamber constructed to admit air therethrough, and means for shifting said bottom and the walls of the generating chamber to permit the wick to be lighted. 13th. In combination with the mixing chamber having a vapour burner at its top, a distinct generating chamber, devices interposed between said generating chamber and burner constructed to spread and mix the vapour and air passing through the mixing chamber and to produce a rotary or whirling motion thereof, together with a wick tube and means for admitting sufficient air to the vapour generating chamber to sustain a low flame or partial combustion therein and to generate vapour, the main body of which is commingled with air and fed to the principal flame. 14th. In a vapour generator and burner, a mixing chamber, an annular wick tube, a concentric air tube, a spreader at the top of said air tube, and a vapour generating chamber enclosing the upper end of the wick tube, and having an inwardly flange or cover at its upper part constructed to deflect the air and vapour passing therefrom so as to form an eddy therein to prevent the flame at the wick from igniting the vapour in the mixing chamber. 15th. In a vapour generator and burner, a vapour generating chamber, a mixing chamber communicating therewith, a wick tube, an air tube and an air spreader or deflector at the top of said air tube, said generating chamber having the upper part thereof formed or provided with an inwardly projecting plate or flange constructed to deflect the air and vapour passing therefrom so as to form an eddy therein to prevent the flame at the wick from igniting the vapour in the mixing chamber. 16th. In combination with the mixing chamber and principal burner, a vapour generating chamber, enclosed in said mixing chamber, having its upper end partially closed and its sides perforated, a wick tube having its burner end enclosed in said generating chamber, a guide-rod supporting said generating chamber, and guiding means for said rod, a perforated plate encircling the upper end of said wick tube and forming a movable bottom for said mixing chamber, and means for shifting said movable bottom and therewith said generating chamber, to permit the wick to be lighted, substantially as described. 17th. In combination with the mixing chamber provided with a vapour exit and burner, and with devices located therein for mixing the vapour and air passing therethrough, a distinct vapour generating chamber below said burner and mixing devices having a perforated outer wall and a partially closed top, a perforated deflecting diaphragm having a solid part arranged directly over said generating chamber so as to deflect the upward current of vapour and air and aid in mixing the same, and a fan-disc arranged over said deflector for imparting a rotary or whirling motion to the air, said generating chamber, deflector and fan-disc being secured to a vertically movable rod working in suitable guides to permit said devices to be raised and lowered, and means for raising said chamber, deflector and fan-disc together. 18th. In combination with the mixing chamber having a movable perforated bottom, and a burner, the wick tube, the gas generating chamber, means for sustaining the walls of said generating chamber in the plane of the wick tube, and a push rod and toggle-links arranged to raise said movable bottom and thereby raise said generating chamber to permit the wick to be lighted, substantially as described. 19th. In a gas or vapour burner, a horizontal base-plate having a circular series of air-inlet openings and inclined deflectors above said openings to direct the incoming currents of air obliquely and produce a whirling motion thereof, substantially as described. 20th. A gas or vapour burner comprising a centrally apertured horizontal base-plate with a circular series of openings and inclined deflectors above said openings, a dome rising from said plate around its central aperture and having a perforated top or cap, and an imperforate ring surrounding the dome with a space of limited area between it and the same,

said ring being elevated from the base-plate and standing directly over the deflectors, substantially as and for the purpose described. 21st. In a burner, a chimney holder comprising resilient standards rising from the base of the burner, curved resilient arms on the inner edges of said standards and adapted to bear against the lower part of the chimney, said standards also adapted to bear at their upper ends against the latter, and a band encircling the standards at their upper ends, substantially as and for the purpose described. 22nd. In a burner, a chimney holder comprising resilient standards rising from the burner-base and adapted to bear at their upper ends against the chimney, said standards being shouldered, and a ring having openings through which the standards extend, said ring resting against the shoulders of the latter. 23rd. In a burner, a chimney and shade holder comprising resilient standards rising from the base of the burner and having downwardly extending hook-shaped globe supports at their lower ends. 25th. In a burner, a chimney, shade and globe holder comprising resilient standards rising from the base of the burner, shouldered near their upper ends and formed with hook-shaped extensions at their lower ends, a ring fitting over the upper ends of said standards and against the shoulders thereof, and shade supports carried by said ring.

**No. 61,974. Wool Drying Apparatus.**

(Appareil à sécher la laine.)



of the character specified, comprising an annular rotary foraminous table, means for rotating it, an annular casing having two air-chambers, one located above and the other below said table, means for forcing air from one chamber to another through said table, an air-box or conduit communicating with both chambers and extending across one edge of the table, means for forcing air through said conduit, the chambers, and the table, an air-heater located in said conduit, the conduit having an air-inlet adjacent to said heater, and a movable valve or cover adapted to open or close said inlet and thereby regulate the temperature of the circulated air. 5th. An apparatus of the character specified, comprising a horizontal rotary foraminous table, means for rotating it, a casing having a plurality of air-chambers at one side of the table, and a single air-chamber at the opposite side of the table, a plurality of conduits connecting the chambers at one side of the table independently with the single chamber, air-heaters in said conduits, air-forcing devices to maintain currents of heated air through said conduits, chambers, and table, and means for independently regulating the temperature of the said currents. 6th. An apparatus of the character specified, comprising a horizontal rotary foraminous table, means for rotating it, a casing enclosing said table and having an enclosed upper air-chamber above the table and a discharge-passage or outlet between the ends of said upper chamber, means for maintaining a circulation of air through said chamber and table, and a blower arranged to discharge a blast of air through said discharge-passage. 7th. An apparatus of the character specified, comprising a horizontal rotary foraminous table, means for rotating it, a casing enclosing said table and having an enclosed upper air-chamber above the table and a discharge-passage or outlet between the ends of said upper chamber, means for maintaining a circulation of air through said chamber and table, and a feeding device arranged to deposit material to be dried on the table at one end of said chamber. 8th. An apparatus of the character specified, comprising a circular casing having a circular track or flange on its inner surface, a vertical shaft within said casing, a spider affixed to said shaft, a series of perforated plates affixed at their inner ends to said spider and radiating therefrom to form an annular perforated table the outer edge of which is above said track, and means for forcing air through the table, said plates being elastic and adapted to normally spring upwardly from said track at their outer ends. 9th. An apparatus of the character specified, comprising a casing, a horizontal foraminous table in said casing, means for rotating the table, means for forcing air through the table, and a feeding device having provisions for depositing the material to be dried in greater quantity upon the outer than upon the inner portion of the table. 10th. An apparatus of the character specified, comprising a casing, a rotary perforated table therein, means for depositing the material upon said table to be dried, and a blower for ejecting the material after it has been dried. 11th. An apparatus of the character specified, comprising a rotary perforated table, and a travelling spiked apron for delivering the material to said table, the apron being arranged transversely of the table and having spikes on its carrying face for taking up the material, the said spikes being arranged in increasing density toward the outer edge of the table, so as to take up and deliver more material at the outer portions of said table than at the inner portions thereof. 12th. An apparatus of the character specified, comprising a casing, a horizontal rotary perforated table or carrier, means for depositing the material upon said table, means for causing a heated current or currents of air to pass through the table and the material thereon, and means for ejecting the material from the table and the casing.

**No. 61,975. Truing Device.** (Appareil à ajuster.)

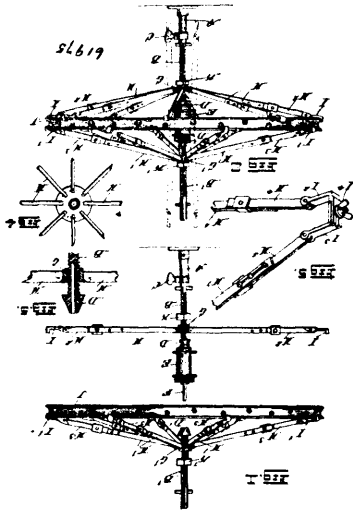
George Wagner, and Henry J. Hadlich, both of St. Paul, Minnesota—U.S.A., 7th December, 1898; 6 years. (Filed 6th August 1898.)

Claim.—1st. In a truing device, the combination of a standard forming a support, a threaded spindle mounted in the standard and projecting upward therefrom and having a bearing at its top, a rod carried by the threaded spindle and projecting upwardly above the bearing, a second threaded spindle carried on the upper end of the rod and having a bearing at its lower end, a nut screwing on each spindle, and braces carried by the nuts and extending outward therefrom. 2nd. In a truing device, the combination of a support, a threaded spindle carried vertically thereon, a nut screwing on the threaded spindle, braces pivotally mounted on the nut and projecting radially therefrom, a rod carried at the upper end of the spindle and projecting above the same, a second threaded spindle carried on the upper portion of the rod, a nut working on the second threaded spindle, and braces pivotally connected to the second nut and projecting radially therefrom. 3rd. In a truing device, the combination of two threaded spindles, a rod connected with each and extending between the same, the rod serving to carry the hub of the wheel, a bearing carried at the inner end of each spindle, the bearings serving to engage the said hub of the wheel, and braces carried on each spindle to co-act with the rim of the wheel. 4th. In a truing device, the combination of two spindles, a rod connecting the spindle, braces adjustably carried on each rod and projecting radially therefrom, extensions respectively for the braces by which to adjust the length thereof, and attaching devices carried by the extensions and adapted to engage with the rim of the wheel. 5th. In a truing device for vehicle wheels, the combination of a breaded spindle, a second threaded spindle longitudinally aligned with the first

M. T. Stevens and Sons, assignee of George Stone, all of North Andover, Massachusetts, U.S.A., 7th December, 1898; 6 years. (Filed 21st July, 1898.)

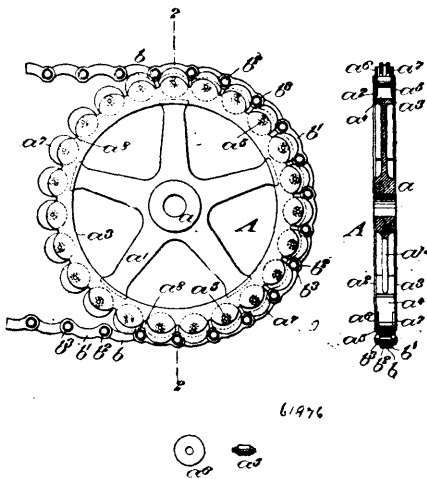
Claim.—1st. The combination with a body frame and a chamber therein of general circular form, of a circular endless conveyer constantly travelling in the chamber, fans for circulating and forcing air downwardly through the conveyer, and means for heating the air during each complete circuit. 2nd. An apparatus of the character specified, comprising a horizontal rotary foraminous annular table, means for rotating it, a casing having two air-chambers, one located above and the other below the table, the upper chamber being segmental and having ends extending across the table at one side of its axis, and forming a discharge passage or outlet above and extending across the table, means for forcing air from one chamber to another through the table, and means for feeding the material to be dried into one end of the segmental chamber, the other end of said chamber having provision for permitting the exit of the dried material from the chamber into the discharge-passage. 3rd. An apparatus of the character specified, comprising a horizontal rotary foraminous annular table, means for rotating it, a casing having two air-chambers, one located above and the other below the table, the upper chamber being segmental and having ends extending across the table at one side of its axis and forming a discharge-passage or outlet above and extending across the table, means for forcing air from one chamber to another through the table, means for feeding the material to be dried into one end of the segmental chamber, and the other end of said chamber having provision for permitting the exit of the dried material from the chamber into the discharge-passage, and means for forcing the dried material across the table through said passage. 4th. An apparatus

spindle, the spindles being adapted to engage the respective ends of the hub of the wheel, and braces carried on each spindle and



strained thereby, whereby to co-act with the rim of the wheel. 6th. In a truing device for vehicle wheels, the combination of a threaded spindle, a second threaded spindle longitudinally aligned with the first spindle, the spindles being adapted to engage the respective ends of the hub of the wheel, a nut working on each threaded spindle, and braces carried by each nut to co-act with the rim of the wheel. 7th. In a truing device for vehicle wheels, the combination of two threaded spindles longitudinally aligned with each other and adapted to engage the respective ends of the hub of the wheel, and braces carried on each threaded spindle and strained thereby, the braces having attaching devices at their outer ends and said devices engaging the outside of the rim of the wheel.

No. 61,976. Chain-Driving Mechanism. (Mécánisme de roue de commandes.)



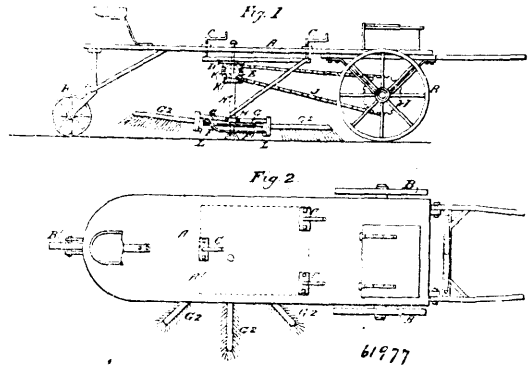
Samuel Frank Clouser and George Washington Holske, both of New York City, New York, U.S.A., 7th December, 1898; 6 years. (Filed 1st September, 1898.)

Claim.—A driving mechanism, comprising a chain having studs projecting outwardly from the opposite sides thereof and a driving-wheel having a pair of annular flanges, an annular series of pivots secured to said flanges, and a pair of rollers rotatably mounted on each of the said pivot and projecting a considerable distance beyond the peripheries of the flanges, the successive pairs of rollers being adapted to support between them on their peripheries the drive-chain studs at points beyond the peripheries of the flanges, substantially as set forth.

No. 61,977. Street Sweeper. (Balayeuse de rue.)

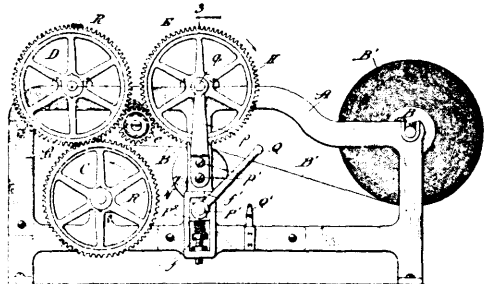
Fred R. Smith and Roland D. Overholt, assignees of James H. Winspear and Samuel Y. Sansom, all of Omaha, Nebraska, U.S.A., 7th December, 1898; 6 years. (Filed 20th September, 1898.)

Claim. 1st. The combination, with a wheel-supported platform, of a second platform supported from the first by devices permitting



universal adjustment of its plane with reference to the plane of the first, brush mechanism dependent from the second platform and arranged for rotation about a vertical axis, and means for imparting rotary movement to said mechanism. 2nd. The combination, with a wheel-supported platform, of a second normally stationary platform adjustably supported from the first by screw-threaded rods not in the same straight line, an approximately vertical dependent shaft rigidly fixed to the second platform, a brush-supporting approximately horizontal track fixed to the lower end of said shaft, a series of radial brush-arms resting upon said track, and means for carrying the brush-arms bodily about said shaft. 3rd. The combination with a central rotary shaft, of a series of radial brush-arms rotating with the shaft and hinged to swing in vertical planes only, an approximately circular track arranged to support the hinged arms and provided with a segment depressed below the remainder and projecting beyond the general line of the circumference, rollers fixed to the arms, respectively in position to run upon said track, rollers mounted upon said arm in position to pass over or under the widened segment only of the track, and means for at will guiding the rollers last named upon or under said widened portion. 4th. The combination with a suitable wheel-supported platform, of a rotary vertical shaft supported thereby, brush-arms rotating with said shaft and hinged for vertical motion only, a track supporting said arms and having a depressed segment extending beyond the general peripheral line, rollers mounted upon said arms, respectively in position to run upon said track, rollers borne by said arms in position to pass along the projecting portion of the depressed segment, a section hinged to the end of said segment, and means for swinging the section into and out of the path of the rollers last named to guide them above or below said projecting portion.

No. 61,978. Rotary Stenciling Machine. (Machine à patroner rotatoire.)

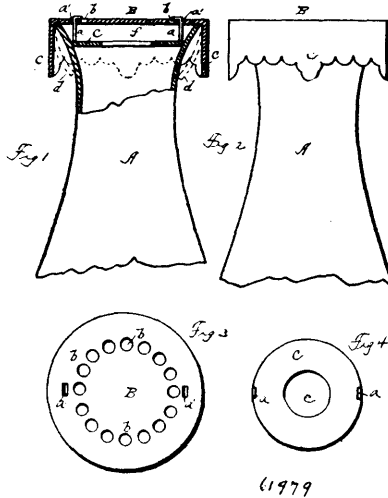


The A. B. Dick Company, Chicago, Illinois, assignee of George Washington Cummings, New York City, assignee of Addison Charles Thomas and Cassius Milton Hamilton, both of Chicago, aforesaid, all in the U.S.A., 7th December, 1898; 6 years. (Filed 13th June, 1898.)

Claim.—1st. In a rotary stenciling machine, the combination with the frame, of a stencil-cylinder journaled therein, means for supplying ink to the inner side of a stencil after the latter is in place upon the stencil-cylinder, a paper-supply drum, and a yielding impression roll of rubber or the like, contacting with the stencil-cylinder and co-acting therewith in the production of the copy, substantially as and for the purpose set forth. 2nd. In a rotary stenciling machine, the combination with the frame, of a stencil-cylinder journaled therein, means for supplying ink to the inner side of a stencil after the latter is in place upon the stencil-cylinder, a paper-supply drum,

an impression roll contacting with the stencil-cylinder, and feed and severing rolls journaled in the frame, substantially as and for the purpose set forth. 3rd. In a rotary stenciling apparatus, the combination with the frame, of a stencil-cylinder journaled therein, an absorbent pad with said cylinder, a wax-coated stencil of the material herein described secured on the exterior of said pad, means for automatically supplying ink to the pad from the interior of the cylinder, a yielding impression-roll of rubber or the like journaled in contact with stencil-cylinder and co-acting therewith in the production of the copy, and a paper roll for supplying the paper, substantially as and for the purpose set forth.

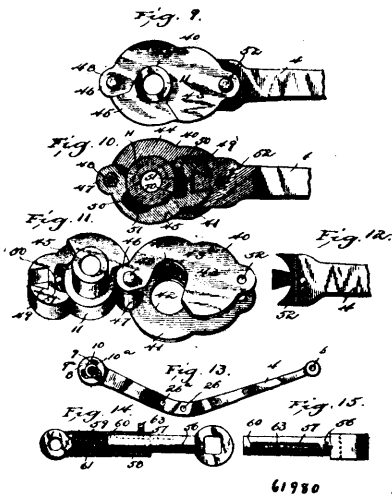
**No. 61,979. Cap for Lamp Chimneys or Globes.**  
(*Capuchon pour cheminées de lampes.*)



William H. Stephenson, Albert Oppenheim, and William H. Ernst, all of Bluffton, Indiana, U.S.A., 7th December, 1898; 6 years. (Filed 31st October, 1898.)

*Claim.*—A cap for lamp-chimneys consisting of the inner depending plate provided with one or more openings therein and upwardly-extended arms in combination with the cap having the perforations and flange and holding-fingers and slots adapted to receive the arms of the lower plate whereby the two parts are attached together, substantially as described.

**No. 61,980. Bicycle Propelling Mechanism.**  
(*Mécanisme de propulsion de bicycles.*)

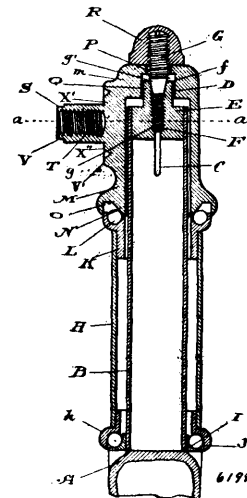


William W. Brooks and Thomas W. Carter, both of Memphis, Tennessee, U.S.A., 7th December, 1898; 6 years. (Filed 19th October, 1898.)

*Claim.*—1st. In a propelling and back pedalling brake for bicycles, the combination with a treadle shaft, the treadle levers with means for clutching the same to said shaft, of a crank-shaft operatively connected with the treadle levers, gearing between the crank-shaft

treadle-shaft, and clutch devices for making the gears fast with their respective shafts, substantially as described. 2nd. In a propelling and back pedalling mechanism for bicycles, the combination with a treadle-shaft, and treadle levers having clutch devices for making the same fast with the treadle-shaft, of a crank-shaft having link connections with said treadle levers, sprocket-pinions fitted to the treadle and crank-shafts, said pinion provided with clutch devices for making the same fast with their respective shafts, a sprocket-chain connecting said sprocket-pinions, and means for operatively connecting the treadle-shaft with a rear wheel, substantially as described. 3rd. In a propelling mechanism for bicycles, the combination with a treadle shaft and treadle levers, of a crank shaft journaled in the bicycle frame in advance of said treadle-shaft, sprocket pinions provided with clutch devices and mounted on the treadle shaft and the crank shaft, a sprocket-chain connecting said sprocket-pinions, and connections between the treadle levers and the crank shaft, substantially as described. 4th. In a propelling mechanism for bicycles, the combination with a shaft or sleeve, of a divided hinged clutch embracing said sleeve and having rollers which are confined within the clutch members and arranged to bind against the sleeve, and a treadle-lever operatively connected with the clutch members to close the latter and make the rollers grip the sleeve, for the purpose described, substantially as set forth. 5th. In a propelling mechanism for bicycles the combination with a shaft or sleeve, of a divided clutch which embraces said shaft or sleeve, and has its members hinged together to open or close a limited distance, clutch rollers mounted loosely in one or both members of said clutch and arranged to have contact with the shaft or sleeve, and a treadle lever fulcrumed on one member of the clutch and connected with the other clutch member, substantially as and for the purpose described. 6th. A divided clutch consisting of overlapping members one of which carries a series of gripping rollers, a hinge-pintle for uniting the members pivotally together, and a lever fulcrumed on one clutch member and loosely connected with the clutch member which sustains the gripping rollers, substantially as described. 7th. A divided clutch having its members pivoted together and with one member formed at its free end with a jaw, a lever fulcrumed in the other member and provided with a projection that fits in said jaw, and gripping rollers carried by the jaw-formed clutch member, substantially as described. 8th. The combination with a shaft or sleeve, of a divided clutch having its members loosely fitted to, and hinged together at one side of said shaft or sleeve, and one of said members carrying a series of spring pressed rollers arranged to bind on the shaft or sleeve, and a lever pivoted at a point intermediate of its length to one clutch member and loosely connected to the free end of the clutch member which sustains the gripping rollers, substantially as described.

**No. 61,981. Bicycle Head and Handle Bar Fastener.**  
(*Attache pour tiges et poignées de barres de bicycles.*)



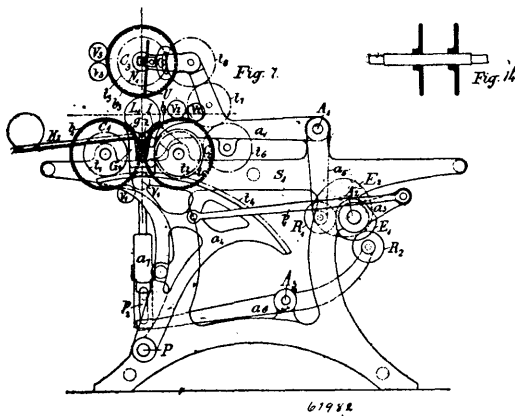
John Halliday, Goderich, Ontario, Canada, 9th December, 1898; 6 years. (Filed 26th July, 1898.)

*Claim.*—1st. In a bicycle, a handle bar fastener embracing in its construction a cap or head fastener adapted to be fitted to the standard of the front forks, a pin projecting from the cap, recesses formed in the cap contiguous to and eccentric with the pin, in combination with the standard of the front forks, a plug fitted in the end of the standard, and an expanding screw adapted to expand the standard against the cap, substantially as specified. 2nd. In a bicycle, a handle bar fastener embracing in its construction a cap or head fastener adapted to be fitted to the standard of the front forks, a pin projecting from the cap, recesses formed in the cap contiguous to and concentric with the pin, in combination with the standard of the front forks, a plug fitted in the end of the standard, an expand-

ing screw adapted to expand the standard against the cap, and the handle bar consisting of two independent sections, each having an eye at its inner end to fit the pin, recesses formed in the eye of the outer handle bar section, and pins formed on both side faces of the eye of the inner handle bar section to engage the recesses in the eye of the other handle bar section and cap, and means for locking the other handle bar sections in position, substantially as specified. 3rd. In a bicycle, a combined handle bar fastener and cap, embracing in its construction a sleeve to enclose the upper end of the standard of the front forks, a solid top for the sleeve, a central bore through the top, a pin projecting from the sleeve on which is adapted to be mounted the eyes of the handle bar sections, recesses formed in the sleeve concentric with the pin, in combination with the standard of the front forks, an expanding plug in the standard fitted to receive an expanding screw, a nut fitted on the head of the expanding screw to conceal it and bear against and hold the cap adjusted, in combination with the handle bar consisting of two independent sections, each having an eye at its inner end through which passes the pin of the cap, recesses formed in the eye of the outer handle bar section, and pins projecting from the side faces of the eye of the inner handle bar section, adapted to enter the recesses of the cap and eye of the outer handle bar section, substantially as specified.

**No. 61,982. Machine for Printing on Cylindrical Objects.**

(Machine à imprimer des objets cylindriques.)



Gottfried Eickhoff and Peter Ernst Theodor Juhl, both of Copenhagen, Denmark, 9th December, 1898; 6 years. (Filed 13th July, 1897.)

**Claim.**—1st. A machine for printing cylindrical or approximately cylindrical objects, composed of a suitable frame, one or more cylinders journaled therein, each adapted to carry one or more forms, guiding and supporting discs or rims on or mounted concentric with said cylinder or cylinders and rotating in the same direction and at the same surface speed and supporting and rotating the object to be printed, mechanism to impart motion to said cylinders, and inking-rollers actuated by suitable mechanism, substantially as set forth. 2nd. In a machine for printing cylindrical or approximately cylindrical objects, the combination of a suitable frame, two or more cylinders journaled therein, and each adapted to carry one or more forms, guiding and supporting rims or discs on or concentric with said cylinders and rotating in the same direction and at the same surface speed and supporting and rotating the object to be printed, mechanism to impart motion in the same direction to said cylinders, inking-rollers actuated by suitable mechanism, two sets of discs or rollers adapted to carry the object to be printed, levers or arms on which said last-named discs or rollers are pivoted, a shaft or axle upon which said levers or arms are secured, a cam actuating said levers or arms so as to cause them to rise and fall and cause the objects to be printed to be pressed against the printing surface and to lower them after the impression has been effected, and a shaft upon which said cam is secured, substantially as set forth. 3rd. In a machine for printing cylindrical or approximately cylindrical objects, the combination with a suitable frame of two or more parallel cylinders journal-

therein, and each adapted to carry a form, guiding and supporting rims or discs on or mounted concentric with said cylinders and rotating in the same direction and at the same surface speed and supporting and rotating the objects to be printed, mechanism to impart motion in the same direction to said cylinders and rims or discs, inking rollers actuated by suitable mechanism, a shaft or axle journaled centrally over said printing cylinders parallel to their axes, arms secured upon said shaft adapted to have their ends come in contact with the objects to be printed and adapted to control said objects when approaching to or receding from the printing cylinders, an inclined shelf or ledge adapted to sustain and advance the objects to be printed when approaching the printing cylinders a downwardly inclined shelf or ledge on the other side receiving the objects after receiving the impression and allowing them to recede from said cylinders and mechanism giving motion to the shaft carrying said arms, substantially as set forth. 5th. In a machine for printing cylindrical or approximately cylindrical objects, the combination with a suitable frame of two or more parallel cylinders journaled therein and each adapted to carry a form, guiding and supporting rims or discs on or mounted concentric with said cylinders and rotating in the same direction and at the same surface speed and supporting and rotating the objects to be printed, mechanism to impart motion in the same direction to said cylinders and rims or discs, inking rollers actuated by suitable mechanism, a shaft or axle journaled centrally over said printing cylinders parallel to their axes, arms secured upon said shaft, curved holders at the ends of said arms adapted to carry the objects to be printed, a pair of friction discs or rollers at the outer ends of each of said arms or holders one to act forwardly and one rearwardly, means of imparting motion to said shaft carrying said arms, an inclined ledge or shelf leading to the upper surface of said printing cylinders and adapted to carry and advance the objects to be printed when deposited thereon by the holders on said arms, a downwardly inclined ledge or shelf on the other side adapted to receive the objects after receiving the impression and cause them to recede from said cylinders, substantially as set forth. 6th. In a machine for printing cylindrical or approximately cylindrical objects, the combination with a suitable frame of two or more cylinders journaled therein and adapted to carry a form, guiding and supporting rims or discs on or mounted concentric with said cylinders and rotating in the same direction and at the same surface speed and supporting and rotating the objects to be printed, a pressure apparatus for pressing the objects to be printed upon the printing surface consisting of a roller or set of discs upon an axle parallel to and central above the object receiving the impression, a pair of arms carrying said axle at their ends, a shaft upon which said arms are mounted and adapted and depressed, a lever or arm secured upon said axle and adapted to control the same and a cam mounted upon an axle and operating said arm and elevating its free end at suitable intervals to allow the objects to be removed after receiving the impression, substantially as set forth. 7th. In a machine for printing cylindrical or approximately cylindrical objects, the combination with a suitable frame of two cylinders journaled therein parallel and near to one another and each adapted to carry a form or forms, guiding and supporting rims or discs on or mounted concentric with said cylinders and rotating in the same direction and at the same surface speed and supporting and rotating the objects to be printed, an open top carrying piece near one of the outer ends of the said cylinders, a transporter parallel to and between the said cylinders adapted to have a longitudinal movement and passing through said carrying piece, bearings near the outer ends of said cylinders in which the said transporter is adapted to move, transversely connected arms carrying said bearings, a shaft or axle upon which said arms are mounted, mechanism to give a slight intermittent lift to said arms and mechanism to give a longitudinal motion to said transporter, substantially as set forth. 8th. In a machine for printing cylindrical or approximately cylindrical objects, the combination with a suitable frame of two cylinders journaled therein parallel and near to one another and each adapted to carry a form or forms, guiding and supporting rims or discs on or mounted concentric with said cylinders and rotating in the same direction and at the same surface speed and supporting and rotating the objects to be printed, an open top carrying piece near the outer end of one of the said cylinders, a transporter parallel to and between the said cylinders adapted to have a longitudinal movement and passing through said carrier, means of giving motion to said transporter, bearings near the outer ends of said cylinders adapted to carry said supporter slidingly, transversely connected arms carrying said bearings, a shaft or axle upon which said arms are mounted, a lever controlling said arms and causing them to turn upon their shaft or pivot, a cam operating said lever and causing it to raise and depress said arms periodically, a shaft upon which said cam is mounted, upwardly projecting brackets on the upper part of said arms, one or more printing cylinders journaled in said brackets parallel to and central above the lower cylinders and transmitting gear between the lower and upper cylinders carried on said brackets and causing said cylinders to move all in the same direction and at the surface speed, substantially as set forth. 9th. In a machine for printing cylindrical or approximately cylindrical objects, the combination with a suitable frame of two cylinders journaled therein parallel and near to one another and each adapted to carry a form or forms, guiding and supporting rims or discs on or mounted concentric with said cylinders and rotating in the same direction and

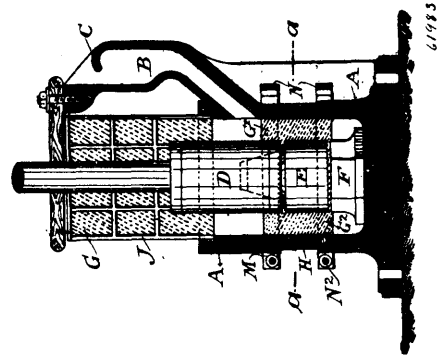
at the same surface speed and supporting and rotating the objects to be printed, an open top carrying-piece near the outer end of one of the said cylinders, a transporter parallel to and between the said cylinders adapted to have a longitudinal movement and passing through said carrying-piece, a connecting-rod on said transporter, a crank-lever pivoted to said connecting-rod and journalled below, a double lever operating said crank-lever at one end, a cam operating the other end of said lever, a shaft upon which said cam is mounted, another cam mounted on said shaft, a lever operated by said last-named cam and connected to a pair of transversely connected arms pivoted above and having their ends extended to the cylinders, bearings carried at the ends of said arms adapted to receive the transporter slidingly, substantially as set forth. 10th. In a machine for printing cylindrical or approximately cylindrical objects, the combination with a suitable frame, of two cylinders journalled therein parallel and near to one another and each adapted to carry a form or forms, guiding and supporting rims or discs on or mounted concentric with said cylinders and rotating in the same direction and at the same surface speed and supporting and rotating the objects to be printed, an open top carrying-piece near the outer ends of the said cylinders, a transporter between and parallel to the said cylinders adapted to have a longitudinal movement and passing through said carrying-piece, bearing holding said transporter slidingly, connected arms the end of which carry said bearings and mounted pivotally upon a shaft or axle, upwardly projecting bracket extensions on said arms, one or more printing cylinders journalled in said brackets centrally above and parallel to the lower ones, a lever controlling said arms, a cam operating said lever and causing the arms to be lifted periodically, a shaft upon which said cam is mounted, another cam mounted on the same shaft, a double lever operated by said cam and giving a reciprocating motion to said transporter by means of suitable connecting-pieces, a crank at the end of said shaft, a connecting-rod or pitman pivoted to the crank-pin at one end and to a sector at the other, a sector pivoted to the frame below and having teeth upon its segment, gear-wheel on the axles of the lower printing cylinders gearing into said segment, a gear-wheel on the upper cylinder, and a train of wheels connecting the upper and lower cylinders and causing them to have the same speed and to move in the same direction, substantially as set forth. 11th. In a machine for printing cylindrical or approximately cylindrical objects, the combination with a suitable frame, of a pair of printing cylinders journalled therein, gear-wheels upon the axles of said cylinders, a sector pivoted to the frame below and having its toothed segment gear into said wheels, a connecting rod or pitman pivoted to said sector and to a crank pin and a shaft with a crank and pin to which said connecting-rod or pitman is pivoted, substantially as set forth. 12th. In a machine for printing cylindrical or approximately cylindrical objects, the combination with a suitable frame of a pair of printing cylinders journalled therein, parallel and near to one another, and each adapted to carry a form or forms, guiding and supporting rims or discs on or mounted concentric with said cylinders and rotating in the same direction and at the same surface speed and supporting and rotating the objects to be printed, an open top carrying-piece with stops secured to the frame near one of the outer ends of said cylinders and centrally between them, a receiver or striker with open and inclined top secured to the frame at the other end of the cylinders in line with the carrier, a transporter between and parallel to the said cylinders adapted to have a longitudinal movement and passing through said carrying-piece and striker, vertically movable bearings for said transporter, means of giving a to and fro movement to said transporter, means of carrying said bearings of said transporter and give them an intermittent rise and fall, an inclined plane at the side of the striker to receive and guide the objects therefrom after receiving the impression, and mechanism to give motion to the printing cylinders, substantially as set forth. 13th. In a machine for printing cylindrical or approximately cylindrical objects, the combination with a suitable frame of a pair of shafts or axles journalled therein parallel to each other and adapted to carry printing cylinders or guiding discs or rims or both, another corresponding pair of shafts or axles journalled above or below those first above referred to in vertically moving arms or brackets, printing cylinders or guiding discs or rims, or both combined, mounted upon all the said shafts or axles in opposite sets, and the peripheries of each pair on each pair of shafts or axles coming near to each other, mechanism to give motion to said shafts or axles in the same direction, a transporter having a longitudinal movement placed between the lower cylinders and parallel thereto, mechanism to give motion to said transporter, fixed bearings to carry said transporter, an open top carrying-piece at one end of one set of printing cylinders or guiding discs, and a receiver or striker with open and inclined top at the other end in line with said carrying-piece, through both of which said transporter passes, and mechanism to give an intermittent vertical motion to said carrying-piece and striker, substantially as set forth.

**No. 61,983. Stamper Box. (Brocard.)**

Thomas Thompson, Lindsay Street, Coolgardie, Western Australia, 9th December, 1898; 6 years. (Filed 19th August, 1897.)

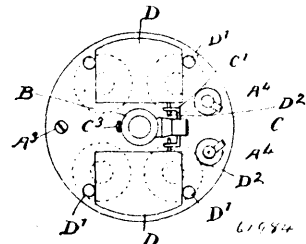
*Claim.*—1st. In combination with a battery or mortar box or analogous crushing chamber, the use of a screen which totally surrounds such box or chamber in a lateral concentric manner, substantially as and for the purposes herein specified and set forth. 2nd.

The combination of the screen with a battery or similar box containing one or more stampers whereby a free and unrestricted dis-



charge is obtained, and said screen surrounding such box or stamper, substantially as and for the purposes herein specified and set forth.

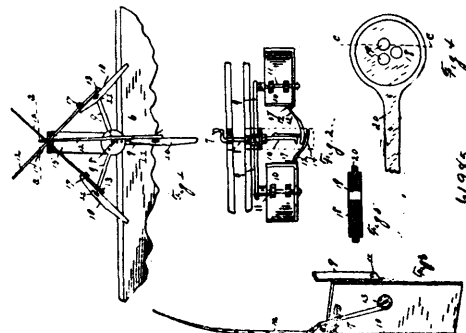
**No. 61,984. Gas Lighter. (Allume-gaz.)**



Frederick Alexander Burden, Montreal, Quebec, Canada, 9th December, 1898; 6 years. (Filed 13th October, 1897.)

*Claim.*—1st. In a gas lighter, a by-pass gas cock and an electrically operated mechanism, adapted to open and close the valve by two positive movements and a by-pass aperture in the valve piece. 2nd. In a gas lighter, a by-pass gas cock, a valve seat having an aperture cut long and narrow, and a by-pass aperture cut from the side of the valve aperture, and a valve piece adapted to open and close the valve aperture, but not to effect the by-pass aperture. 3rd. In a gas lighter, a by-pass gas cock, two independent electrically operated armatures, adapted to open and close the valve by positive movements, and a by-pass aperture in the valve piece. 4th. In a gas lighter, a by-pass gas cock, comprising a valve, operated positively by two independent armatures, a narrow valve aperture, and a by-pass aperture contiguous thereto. 5th. In a gas lighter, a by-pass gas cock, comprising the valve piece C, aperture B<sup>1</sup>, by-pass B<sup>2</sup>, for the purpose set forth. 6th. In a by-pass gas cock, the combination of the valve-piece C, aperture B<sup>1</sup>, by-pass B<sup>2</sup>, levers C<sup>1</sup>, C<sup>2</sup>, armatures DD, set screws E<sup>1</sup>, E<sup>2</sup>, and magnets AA, for the purposes set forth. 7th. In a by-pass gas cock, the combination of a valve piece, a narrow valve aperture, a by-pass aperture contiguous thereto, means of opening and closing valve and regulating screws adapted to limit action of the valve piece, as described.

**No. 61,985. Boat Propeller. (Propulseur de vaisseau.)**



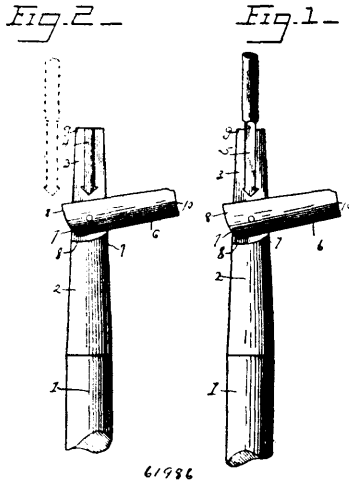
William Henry Knapp, Galesburg, Michigan, U.S.A., 9th December, 1898; 6 years. (Filed 2nd November, 1898.)

*Claim.*—The combination of a rotatable shaft, arms radiating from said shaft, paddles pivoted between their two ends to the outer



ends of said arms, bowed-rods crossing each other near their upper ends and having their lower ends pivoted to the sides of the paddles and having a lateral movement, and a support for the crossing upper ends of the bowed-rods, substantially as set forth.

**No. 61,986. Tool Handle. (Manche d'outils.)**

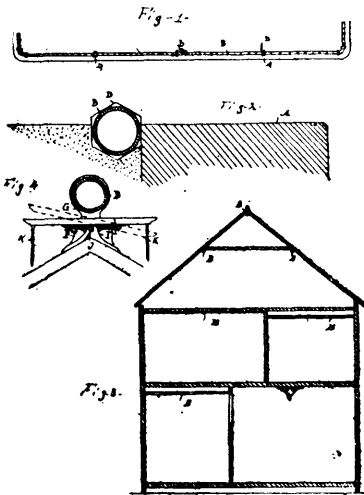


61986

Fred Pederson, Childress, Texas, U.S.A., 9th December, 1898 ; 6 years. (Filed 2nd November, 1898.)

*Claim.*—1st. A tool-handle comprising, the combination of a wooden shaft or handle part, a metallic socket part secured to the handle, the socket part being provided with a recess or seat for the tool-shank, and a pivoted keeper adapted to swing over and press the side of the tool-shank, substantially as described. 2nd. A tool-handle comprising, the combination of a wooden shaft, a metallic socket part provided with a recess or seat for a tool-shank, a vibrating or swinging keeper for holding the tool in its seat, and shoulders or abutments to limit and regulate the extent of the closing movement, substantially as described.

**No. 61,987. Street Sprinkling, Irrigating and Fire Extinguishing System. (Système d'arrosage et d'incendie pour les rues.)**



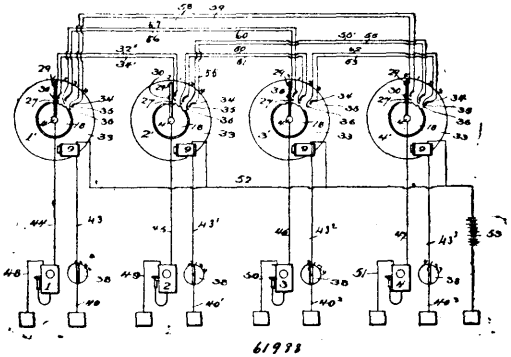
61987

Alexander McGeoch, Oakland, California, U.S.A., 9th December, 1898 ; 6 years. (Filed 5th November, 1898.)

*Claim.*—1st. In a system of water-supply, a pipe having one or more rows of holes of decreasing diameters, said holes provided with counterbored bushings, and polygonal collars on the pipes adapted to receive a tool or device whereby they may be rotated. 2nd. In a system of water-supply for extinguishing fires, a perforated pipe connected with a source of supply and journaled on the apex of the roof of a building, and means whereby the discharge from the pipe may be directed to either slope of the roof. 3rd. A sprinkling device consisting of a pipe section, or sections, having a line of perforations along one side, brackets by which said pipe is supported along the ridge of a house, a direction-board supported and turnable beneath the pipe with attachments to tilt the board and direct the discharge-jets to either side of the ridge.

**No. 61,988. Telephone Signal System.**

(Système de signal de téléphone.)

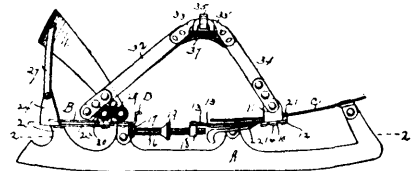


61988

Wallace A. Stilwell and Alexander Barneke, both of Salina, Kansas, U.S.A., 9th December, 1898 ; 6 years. (Filed 8th July, 1898.)

*Claim.*—1st. A telephone exchange system, comprising a central office in which is located a series of switch-boards, one for each distant or subscriber's station, a pair of conductor-wires leading from each board to each of the other switch-boards, one of these wires terminating in a spring-contact point 34 which normally contacts with one of a series of contact shoes 35, which are connected by a common conductor 54, and also connected to a unison post 37 which normally in contact with a rotating contact-arm 27, having a ground connection through the corresponding telephone, and the other wire of each pair leading from a fixed contact post 36, located in the path of and adapted to be engaged by a spring-contact finger 20, carried by said rotating contact arm 27, as and for the purpose set forth. 2nd. A telephone switch-board comprising two series of fixed contacts arranged in concentric circles, a common conductor normally connected with each contact of one of the series, a series of wires arranged in pairs, the ends of the wires of each pair terminating in a contact in each series, a switch arm movably secured relatively to the series of contacts and normally electrically connected with the common conductor and permanently connected through a telephone station with the ground, said switch adapted to simultaneously connect with the contiguous ends of any pair of wires in said series, as and for the purpose set forth. 3rd. A telephone signal system comprising an electrically operated switch having a movable switch arm carrying two contact points as 29 and 30, and permanently connected through a telephone station with the ground, of a series of individual conductors arranged in pairs, the contiguous ends of each pair terminating in the path of said contact points 29 and 30, one end of one wire of each of which pairs is connected to an insulated contact post as 36, and the other wire to a contact spring as 34, normally in contact with a common conductor as 54, said common conductor having a normal ground connection through the switch arm, as and for the purpose set forth.

**No. 61,989. Skate. (Patin.)**



61989

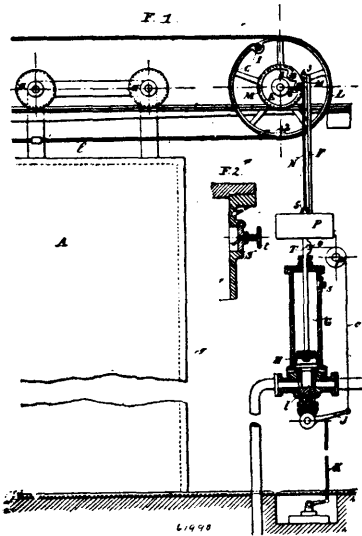
Charles Dumke, Waterloo, Wisconsin, U.S.A., 9th December, 1898 ; 6 years. (Filed 22nd August, 1898.)

*Claim.*—1st. The combination, with a skate-iron and a foot-plate fixed thereon, of an auxiliary frame below the foot-plate, laterally-bearing guards mounted on the auxiliary frame and adjustable thereon at right angles to the length of the skate-iron, and means adapted to adjust the auxiliary frame toward the front and rear parallel with the skate-iron and independent of and without moving the guards laterally. 2nd. The combination with a skate-iron and a foot-plate fixed thereon, of an auxiliary frame below the foot-plate, laterally-bearing guards mounted movably in the auxiliary frame and adjustable thereon at right angles to the length of the skate-iron, means for adjusting the guards laterally, and other means adapted to adjust the auxiliary frame toward the front and rear parallel with the skate-iron and independent of and without moving the guards laterally. 3rd. In fastening devices for a skate, the combination of an auxiliary frame adjustable on the foot-plate toward front and rear, laterally-moving strap-guards mounted in the auxiliary, said straps having recesses along their edges to take onto

a post in the frame, and a cam-lever pivoted in the frame adapted to bear against the straps and hold them in engagement with said post. 4th. The combination, with a skate-iron and a heel-plate fixed thereon, of a heel-guard plate provided with upturned heel-guards, said heel-guard plate being freely slidable on the permanent heel-plate, and means connected with instep-clamping devices for sliding the heel-plate. 5th. The combination, with a skate-iron and a heel-guard having fingers projecting upwardly at the rear part thereof, of a heel strap attached medially to said fingers their front ends being attached to the rear ends of tiltable levers mounted on the frame, side straps attached to the rear ends of said tiltable levers and at their front ends being attached to the skate-frame at a distance in front of the rear attachment, and means for clamping the two side-straps together over the instep of the user. 6th. In skate-fastening devices, the combination, of a slidable heel-guard plate having guards thereon, fingers projecting upwardly from the guards, a flexible strap attached medially to the fingers and at its front ends to tiltable levers mounted on said slidable guard-plate, and means for tilting the levers and thereby drawing said strap forwardly. 7th. In skate-fastening devices, the combination of a slidable heel-guard plate having guards thereon, fingers projecting upwardly from the guards, a flexible strap attached medially to the fingers and at its front ends to tiltable levers, swinging laterally-projecting arms pivoted to the slidable heel-guard plate, and means attached to the rear ends of said levers for tilting them and thereby drawing the heel-strap forwardly. 8th. In skate-fastening devices, the combination of a slidable heel-guard plate having guards thereon, fingers projecting upwardly from the guards, a flexible strap attached medially to the fingers and at its front ends to tiltable levers, said tiltable levers, posts swivelled in swinging arms in which posts said levers are pivoted, said swinging arms pivoted on the slidable heel-plate, and means for tilting said levers. 9th. In skate-fastening devices, the combination with a skate-iron, of a heel-guard plate slidable rearwardly on the skate-frame, an auxiliary forwardly-adjustable frame at a distance in front of the heel-guard plate, side straps one at each side connected severally to the slidable heel-plate and to the adjustable frame, and means for clamping the side straps to each other over the instep.

**No. 61,990. Door Opener and Closer.**

(Appareil à ouvrir et fermer les portes.)

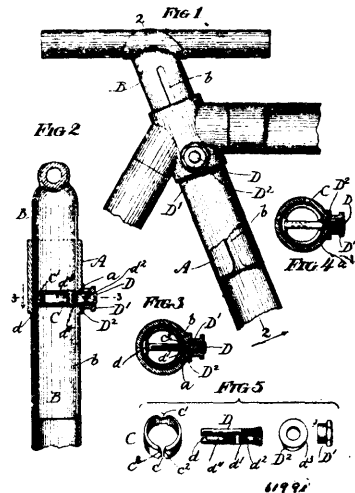


Emile Frederic Le Maire, 111 Rue Perronet, Neuilly-sur-Seine, France, 9th December, 1898; 6 years. (Filed 8th August, 1898.)

*Claim.*—1st. In combination, the door, the bar C secured thereto, the pulleys upon which the bar rests to be supported thereby, and the operating ropes also attached to said pulleys, said pulleys having the peripheral projection *d* for supporting the bar C and the surfaces *e e'* for the attachment of the operating ropes, substantially as described. 2nd. In combination, the sliding door, the track and pulley, suspending means, a motor for operating the door positively, and the flexible band connection between the motor devices and the door, substantially as described. 3rd. In combination, the door, the bar C attached thereto, the pulleys supporting the same, and operating means attached to the pulleys, said pulleys serving as the means of support and traction, substantially as described. 4th. In combination with the door made up of sliding sections, one section of which is adapted to engage and cause the movement of the next section, and motor mechanism for operating the sections, substantially as described. 5th. In combination with a sliding door, the bar C, the pulley D, the bands connected with opposite ends of the bar and passing around the pulley in opposite directions and secured thereto,

the bar H connected with the motor, the small pulley F connected with the pulley D, and the bands extending from the bar H around the pulley F in opposite directions and secured thereto, substantially as described. 6th. In combination with the sliding door, the lock comprising the rotary part P, the screw-threaded rod O, and the bolt connected therewith, substantially as described. 7th. In combination, the sliding door, and suspending mechanism therefor, a motor connected with the door, and a push-button connected with the controlling device of the motor, substantially as described.

**No. 61,991. Internal Fastener for Telescoping Tubular Parts.** (*Attache interieur pour tubes telescopiques.*)

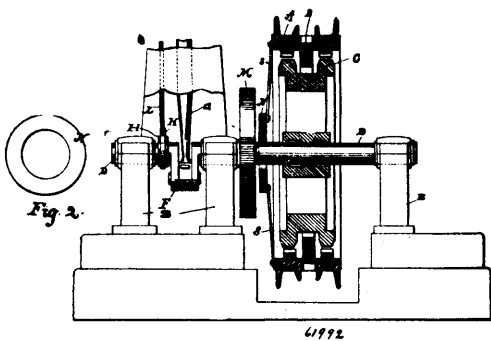


George D. Thompson, Chicago, Illinois, U.S.A., 9th December, 1898; 6 years. (Filed 15th December, 1898.)

*Claim.*—1st. An internal fastener for telescoping tubular parts, comprising a tubular inner member having wall portions capable of being expanded outwardly, an outer member within which said tubular member is adapted to telescope, an expanding device located within the inner tubular member, and means for operating said expanding device consisting of an operating member provided with a projection arranged to extend transversely out through an opening in the inner tubular member and through a supporting bearing in the outer member, operative connections between the operating member and expanding device whereby endwise movement of the operating member effects the expansion or contraction of the expanding device, and means for effecting the positive endwise movement of said operating member. 2nd. An internal fastener for telescoping tubular parts, comprising a tubular inner member having yieldable wall portions capable of being expanded outwardly, an outer member within which said tubular member is adapted to telescope, an expanding device located within the inner tubular member consisting of a metal annulus, and means for expanding said annulus, consisting of an operating member provided with a projection arranged to extend transversely out through an opening in the inner member and through a supporting bearing in the outer member, operative connections between the operating member and annulus whereby endwise movement of the operating member effects the expansion of the annulus, and means for effecting the positive endwise movement of said operating member. 3rd. An internal fastener for telescoping tubular parts, comprising a tubular inner member having a longitudinally slotted wall, an outer member within which said tubular member is adapted to telescope, an expanding device located within the inner tubular member consisting of a spring metal annulus so constructed as to tend to assume an external size less than the internal measurement of the tubular member within which it is located, and means for expanding said annulus consisting of an operating member provided with a projection arranged to extend transversely out through the slot in the inner member and through a supporting bearing in the outer member, operative connections between the operating member and annulus whereby endwise movement of the operating member effects the expansion of the annulus, and means for effecting the positive endwise movement of said operating member. 4th. An internal fastener for telescoping tubular parts, comprising a tubular inner member having yieldable wall portions capable of being expanded outwardly, an outer member within which said tubular member is adapted to telescope, an expanding device located within the inner tubular member consisting of a metal annulus open or interrupted at one side, and means for expanding said annulus consisting of a movable member provided with a part arranged to extend transversely out through an opening in the inner member and through a supporting bearing in the outer member, said movable bearing being provided with a part extending through the opening of the annulus and adapted to force the ends of the annulus apart when the movable member is operated. 5th. An

internal fastener for telescoping tubular parts, comprising a tubular inner member having a longitudinally slotted wall, an outer member within which said tubular member is adapted to telescope, an expanding device located within the inner tubular member consisting of a spring metal annulus open at one side and so constructed as to tend to assume an external size less than the internal measurement of the tubular member within which it is located, and means for expanding said annulus consisting of a bolt arranged to extend transversely between the ends of said open annulus, out through the slot of the inner member and through a supporting bearing in the outer member, a cam surface upon the bolt with which an end of the annulus has yielding engagement and whereby the annulus will be expanded or permitted to contract upon endwise movement of the bolt, and means for effecting the positive endwise movement of the bolt. 6th. An internal fastener for telescoping tubular parts, comprising a tubular inner member having a longitudinally slotted wall, an outer member within which said tubular member is adapted to telescope, an expanding device located within the inner tubular member consisting of a spring metal annulus open at one side and so constructed as to tend to assume an external size less than the internal measurement of the tubular member within which it is located, and means for expanding said annulus consisting of a bolt arranged to extend transversely between the ends of said open annulus, out through the slot of the inner member and through a supporting bearing in the outer member, supporting connection between the bolt and the closed side of the ring, a pair of cam surfaces upon opposite sides of the bolt, and arranged in divergent relation, with which the ends of the annulus have operative engagement, and means for effecting the positive endwise movement of the bolt. 7th. An internal fastener for telescoping tubular parts, comprising a tubular inner member having a longitudinally slotted wall, an outer member within which said tubular member is adapted to telescope, an expanding device located within the inner tubular member consisting of a spring metal annulus open at one side and so constructed as to tend to assume an external size less than the internal measurement of the tubular member within which it is located, and means for expanding said annulus consisting of a bolt arranged to extend transversely between the ends of said open annulus, out through the slot of the inner member and through a supporting bearing in the outer member, a yoke upon the inner end of the bolt with which the closed side of the annulus is detachably engaged, a pair of cam surfaces forming the bottom walls of channels upon opposite sides of the bolt, said cam surfaces being arranged in inwardly divergent relation, and with which the ends of the annulus have yielding engagement, guide channels extending from the inner end of the bolt toward the cam surfaces for directing the ends of the annulus into engagement with the latter, and a nut-threaded upon the outer end of the bolt.

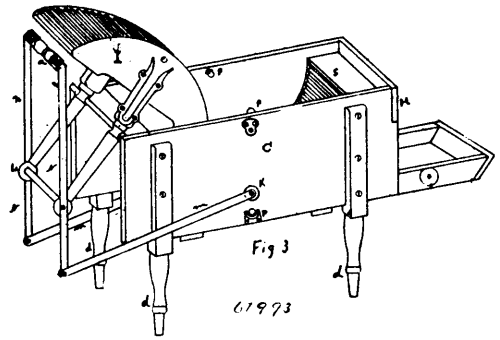
**No. 61,992. Means for Preventing Stray Magnetism in Dynamo Electric Machines.** (*Moyen d'empêcher la perte du magnétisme dans les machines dynamo électriques.*)



John F. Kelly, Pittsfield, Massachusetts, U.S.A., 9th December, 1898; 6 years. (Filed 16th September, 1898.)

*Claim.*—1st. A dynamo-electric machine having an energizing-coil and a magnetic part within the influence of said coil, in which said coil sets up a magneto motive force, in combination with a coil surrounding said part and adapted to produce therein a magneto motive force which neutralizes and prevents the passage of the through said part of the magnetic flux produced by said first force. 2nd. A dynamo-electric machine having an inductor mounted upon, and rotating with a shaft, and an energizing coil surrounding said shaft, magnetizing said inductor, and setting up a magneto motive force in said shaft, and an engine directly connected to said shaft, in combination with a protecting-coil, between said engine and machine, surrounding said shaft and setting up in said shaft a magneto motive force which, at a point therein, neutralizes and prevents the passage through said shaft of the magnet flux produced by said first force.

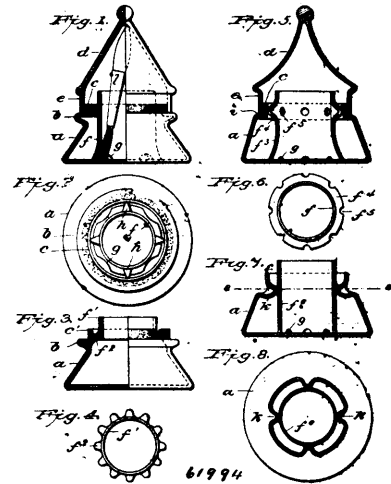
**No. 61,993. Washing Machine.** (*Machine à laver.*)



Lucas Milton Lent, Brantford, Ontario, Canada, 9th December, 1898; 6 years. (Filed 8th November, 1898.)

*Claim.*—1st. In a washing machine the combination of the body C, levers m and n, handle bar A, and the rocker I, substantially as and for the purposes hereinbefore set forth. 2nd. In a washing machine of the kind set forth rocker posts L, bifurcated at their lower ends to form slots T, and attached to the sides of the rockers I, substantially as and for the purposes hereinbefore set forth. 3rd. In a washing machine a hinged drawer h, substantially as and for the purposes hereinbefore set forth.

**No. 61,994. Mucilage Pot.** (*Pot à mucilage.*)

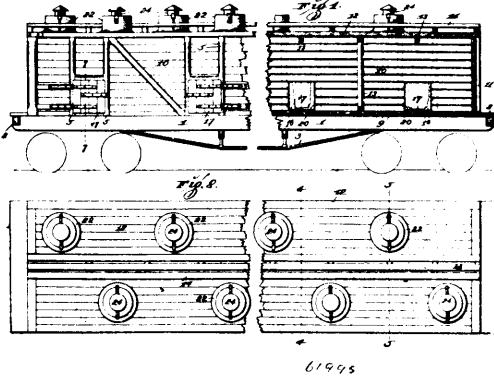


Henry Wilson Scattergood, Philadelphia, Pennsylvania, U.S.A., 9th December, 1898; 6 years. (Filed 2nd November, 1898.)

*Claim.*—1st. A vessel having an external neck, combined with an internal neck of less diameter and of greater height than the external neck, supported upon the bottom of the vessel and communicating with the vessel, and adapted to receive the waste or surplus from the brush and return it to the vessel from the space between itself and the external neck, substantially as described. 2nd. A vessel, having an external neck, and an internal neck of less diameter, normally projecting above the external neck, and supported by immediate contact with the vessel, open at both ends, and centered within the external neck by lateral projections made on the internal neck of the vessel, thereby to return the waste or surplus from the brush from outside of the said internal neck, substantially as described. 3rd. A vessel, having an external neck, combined with an internal neck, normally projecting above the external neck, and supported by direct contact with the vessel, open at both ends and provided with teats projected laterally into touch with the external neck, and communicating with the vessel both internally and externally, substantially as described. 4th. A vessel, having an external neck, and an internal neck made as a tube resting upon the bottom of the vessel and projecting above the external neck, and having lateral projections or teats which come into contact with the inner surface of the external neck and afford passages into the vessel between the two necks, substantially as described. 5th. A vessel, having an external neck, an internal neck made as a tube resting upon the bottom of the vessel and projecting above the external neck, and having lateral projections or teats which come into contact with the inner surface of the external neck and afford passages into the vessel between the two necks, an external horizontal shoulder on the vessel, and a cover resting thereon and inclosing the necks, substantially as described.

**No. 61,995. Oyster and Fish Car.**

(*Char à huître et poisson.*)

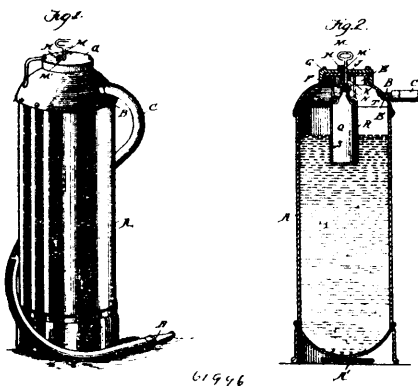


Arthur E. Stilwell, Kansas City, Missouri, U.S.A., 9th December, 1898; 6 years. (Filed 22nd September, 1898.)

*Claim.*—1st. In an oyster and fish car, a water-tight car-body constructed with receiving-openings in the top, discharge openings in its sides adjacent its bottom, which bottom is constructed of transverse timbers slightly inclined from the sides of the car to the centre thereof, substantially as specified. 2nd. In an oyster and fish car, a water-tight car-body, and break water-partitions arranged transversely within said car-body, substantially as specified. 3rd. In an oyster and fish car, a water-tight car-body, in the top of which is formed the receiving-openings, and ventilator-caps normally closing said openings, substantially as specified. 4th. In an oyster and fish car, a water-tight car-body, break water-partitions arranged transversely within said car-body, in the top of which car-body is formed a plurality of receiving-openings, and ventilator-caps normally closing said openings, substantially as specified. 5th. In an oyster and fish car, a water-tight car-body constructed with discharge-openings in its sides adjacent its bottom, doors normally closing said openings, and gates hinged in said openings so as to close when the doors are closed and to swing downwardly and form discharge-chutes when said doors are open, substantially as specified. 6th. In combination with an oyster and fish car having discharge-openings formed in its sides, the gate 18 provided with the wings 20, which gate swings in the opening and forms a chute for the discharge of the contents of the car, substantially as specified. 7th. In an oyster and fish car, a water-tight car-body, in the top of which body is formed ventilated receiving-openings and in the sides of which car-body is formed, a series of discharge-openings, doors normally closing said discharge-openings, partitions arranged transversely within the car-body, and gates hinged in the discharge-openings in front of the doors therefor, which gates swing downwardly to form chutes when the doors are open, substantially as specified. 8th. In an oyster and fish car, a water-tight car-body, a series of partitions arranged transversely within said car-body thus forming compartments, in the top of each compartment in said car-body there being formed a plurality of receiving-openings, ventilated covers for said openings, and in the side walls of each compartment of the car there being formed discharge-openings, and gates hinged in said openings, which gates swing downwardly and form discharge-chutes when the doors are open, substantially as specified.

**No. 61,996. Chemical Fire Extinguisher.**

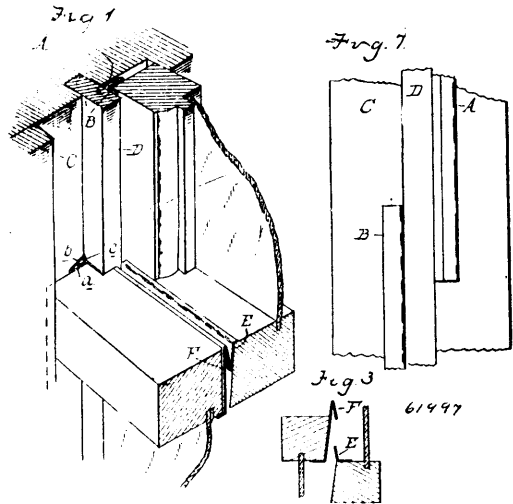
(*Extincteur d'incendie chimique.*)



John A. Durham, Knoxville, Tennessee, U.S.A., 9th December, 1898; 6 years. (Filed 8th October, 1898.)

*Claim.*—1st. A chemical fire extinguisher comprising a main receptacle having an opening in its top provided with an air-tight cap, a discharge pipe for said main receptacle, a wire holder depending from the bottom of said cap adapted to hold an acid bottle, said holder being formed with spring coils, so that it will readily yield to allow the said bottle to be removed or inserted, a rod moving vertically through the said cap carrying on its lower end a flexible stopper adapted to close the mouth of the bottle, and a locking device provided on said vertical rod, substantially as described and for the purpose stated. 2nd. A chemical fire extinguisher consisting of the main receptacle provided with a discharge opening and having in its top an opening provided with an air-tight cap, a depending spring basket adapted to hold an acid bottle secured in the bottom of said cap, and a vertically moving rod provided with a flexible stopper on its lower end adapted to close the mouth of the bottle and having on its upper projecting end a detent adapted to engage the catch secured on the outside of the cap, substantially as described.

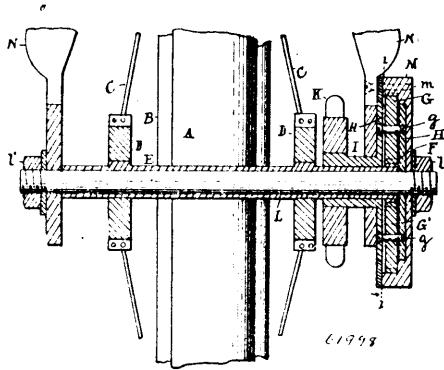
**No. 61,997. Window Guard.** (*Garde-fenêtre.*)



George W. Golden, Detroit, Michigan, U.S.A., 9th November, 1898; 6 years. (Filed 21st November, 1898.)

*Claim.*—1st. A window guard comprising two strips secured respectively to the sash and frame, one strip having a longitudinal fold or return bend formed therein, and the other strip having one edge projecting into the groove of said fold and slidingly engaging therewith. 2nd. A window guard comprising two strips of sheet metal, having a longitudinal tongue and groove sliding engagement with each other, said strips being secured to the sash and frame, respectively, with their engaging portions free to move laterally with the sash. 3rd. A window guard comprising two sheet metal strips having a longitudinal tongue and groove sliding engagement with each other, said strips being secured to the sash and frame respectively with their engaging portions lying therebetween and substantially parallel with the edge of the sash and free to move laterally therewith. 4th. A window guard comprising two sheet metal strips having a longitudinal sliding tongue and groove engagement with each other, one of said strips being secured to the sash and the other having a flange secured between the parting strip and one side of its groove in the frame. 5th. A window guard comprising two sheet metal strips, one being formed with a longitudinal fold or return bend and an angle flange on one of its sides, and the other forming an angle bar, one wing of which is adapted to slidingly engage with said fold, one of said strips having its angle flange secured to the face of the sash and the angle flange of the other being secured between the parting strip and one edge of its groove in the frame, and the engaging portions of said strips lying between the edge of the sash and frame. 6th. A guard and weather strip for the horizontal rail of a window sash comprising a sheet metal strip secured to said rail having an inclined tongue or flange and a second strip secured to the adjoining rail or frame, against which said inclined flange is adapted to wedge. 7th. A guard for the meeting rails of window sashes comprising a sheet metal strip secured to one rail having a longitudinal fold or return band, and a second strip secured to the adjoining rail having a projecting inclined flange adapted to enter the groove of said fold and wedge against the return bend. 8th. A guard for the meeting rails of window sashes comprising sheet metal strips secured respectively to said rails and having a tongue and groove engagement with each other, the lower sash strips extending down between said rails and secured to the lower edge of its rail.

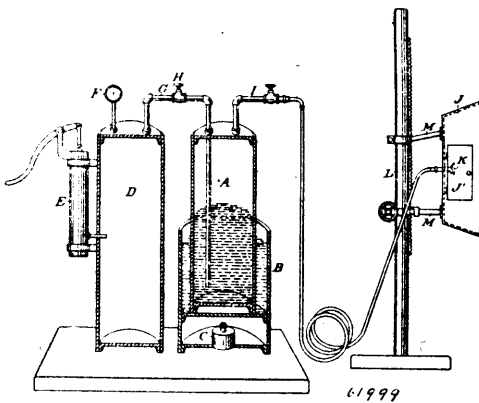
**No. 61,998. Bicycle Speed Increasing Device.**  
(Appareil pour augmenter la vitesse des bicyclet.)



Gustav Josef Dolliner, New York City, New York, U.S.A., 9th December, 1898; 6 years. (Filed 8th August, 1898.)

*Claim.*—1st. A propelling mechanism consisting of a power-wheel K, turning a set of cog-wheels, A, A', mounted between two rotary plates H, H', said cog-wheels A, A', meshing a gear m', and a cog-wheel F, which is adapted to turn a hub or axle, substantially as shown and described. 2nd. A propelling mechanism consisting of a power-wheel K, turning a set of cog-wheels A, A', mounted between two rotary plates H, H', said plates being housed in a box M, having the gear m', said cog-wheels meshing a centrally located cog-wheel F, as well as the gearing m', substantially as shown and described. 3rd. The combination in a bicycle or other vehicle of a wheel and hub proper, having a cog-wheel F, the axle E, the box M, and the forks N, N' stationary at all times, and a propelling mechanism consisting of a sprocket-wheel K, driven by a chain or otherwise propelled, a hub I, rotary plates H, H', cogwheels A, A', mounted between said plates, substantially as shown and described. 4th. In a bicycle the combination of a stationary axle L, nuts l, l', forks N, N', a box M, having a ring plate M' and a gearing m', a wheel composed of a rim A, a tire B, sprockets C, hubplates D, D', a hub E, a corkwheel F mounted thereon, a power-wheel K, an auxiliary hub I, rotary plates H, H', cog-wheels A, A', pivoted between the said plates, substantially as shown and described.

**No. 61,999. Earth Thawing Apparatus.**  
(Appareil pour dégeler la terre.)



Charles John Shields, Oakland, California, U.S.A., 9th December, 1898; 6 years. (Filed 7th February, 1898.)

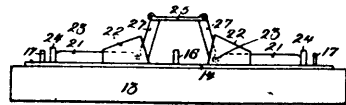
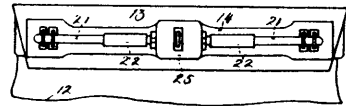
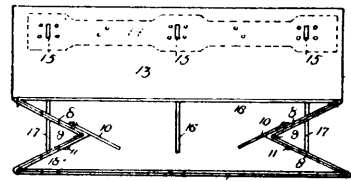
*Claim.*—In a device for producing and applying a heating medium of the character described, a burner-containing case, a movable standard, jointed arms by which the burner case is connected with the standard, and a tilting frame for adjusting it with relation to the standard and to the surface to be acted on, substantially as herein described.

**No. 62,000. Fastener for Mail Pouches.**  
(Attache de sacs de maille.)

Thomas Doyle, Fort Wayne, Indiana, U.S.A., 9th December, 1898; 6 years. (Filed 8th October, 1898.)

*Claim.*—1st. In a mail-pouch, a fastener consisting of two rigid side plates or bars, cross plates or bars hinged thereto and also hinged at their centres so as to form two equal half parts, three staples or eye-bars rigidly attached to one of the sides of the frame, slots in the

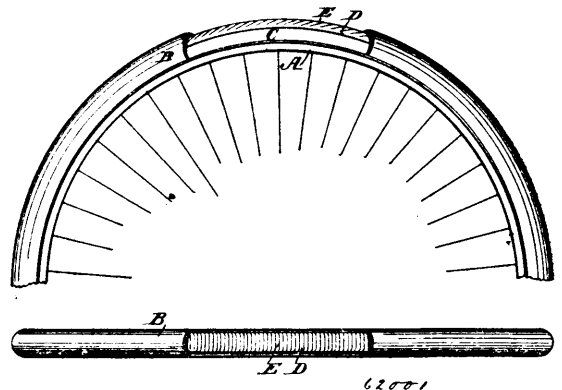
cross-bars and side plate for the passage of the staples or eye-bars, and means to lock the frame together when collapsed, consisting of



62000

two sliding bars joined to an intermediate plate which is provided with a slot through which the centre staple passes, the two sliding bars being adapted to enter the two end staples or eye-bars and thereby lock the frame together and means to lock the centre staple, the whole being suitably attached to the pouch. 2nd. In a mail-pouch fastener, a locking device consisting of two metallic plates or bars secured to the pouch, one of them provided with three projecting staples or eye-bars, two attached at or near the ends and one in the centre of the bar, slots in the other bar for the passage of said eye-bars, two bolts adapted to enter the end staples respectively, and a centre piece or plate provided with a slot for the passage of the middle eye-bars, two intervening bolts connecting the ends of the centre piece with the inner ends of the bolts by being hinged thereto, adapted to draw the bolts toward the centre when the centre piece is raised out of engagement with the end eye-bar, and to force the bolts into engagement with the end eye-bar when centre piece is pushed down on the plate or bar, guides for said bolts attached to one of said bars to hold the bolts in place and guide them. 3rd. In a collapsible for mail-pouch openings, two rigid side bars, two cross-bars hinged at the centres, and a latch on one of the half parts and a catch on the other, the whole adapted to lock the frame in an open position.

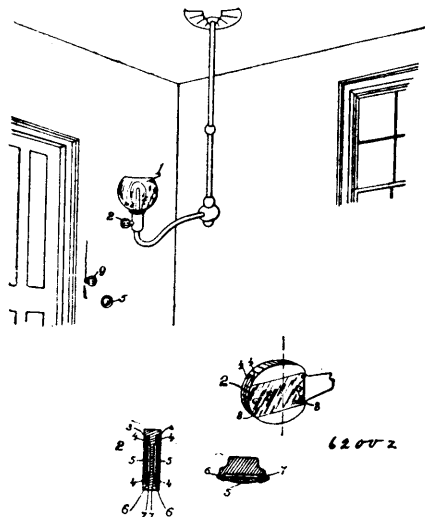
**No. 62,001. Pneumatic Tire.** (Bandage pneumatique.)



Henry Bancroft, 70 Market Street, Church, near Accrington, Lancaster, England, 10th December, 1898; 6 years. (Filed 23rd September, 1898.)

*Claim.*—In pneumatic tires, the combination with an inner air tube and an enclosing tube, of an interposed strip of leather, segment-shaped in cross-section, encircling said air tube along its tread portion and having its concave side secured to said air tube, said strip having its outer convex side provided throughout its length with transverse sloping, or inclined, slits, or incisions, whereby to afford the proper resiliency, and whereby, in practice, said slits will close in the direction of movement of the wheel and present a solid, non-puncturable surface, substantially as described.

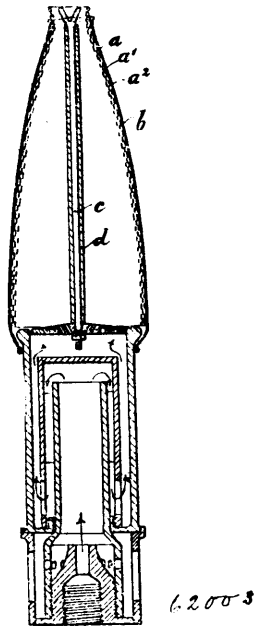
**No. 62,002. Electric Circuit-Closing Device.**  
(Appareil à fermer les circuits électriques.)



George Newman, El Paso, Texas, U.S.A., 10th December, 1898; 6 years. (Filed 24th August, 1898.)

*Claim.*—An electric circuit-closing device having in the face exposed to view and a contact a recess, and in said recess a plate of transparent material coated on the underside with luminous or phosphorescent paint, said recess being so configured that said paint is maintained out of contact with the surface of the recess, substantially as described.

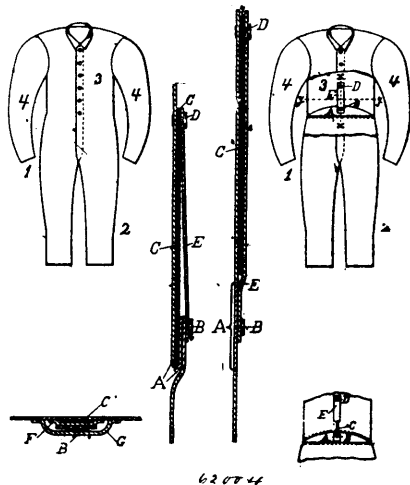
**No. 62,003. Gas Burner.** (Brûleur de gaz.)



Ernest Salzenberg, Crefeld, Prussia, 10th December, 1898; 6 years. (Filed 1st December, 1897.)

*Claim.*—1st. The herein described process of producing incandescent gas light, which consists in supplying gas to an incandescent gas burner at a pressure of three atmospheres or upward, that is, at a sufficient pressure to produce a light of a golden yellow colour, substantially as set forth. 2nd. The combination of a gas burner, with an incandescent mantel, and a network of incombustible threads or wires enclosing the mantel and firmly securing it to the burner and supporting it against the gas pressure, substantially as set forth. 3rd. The combination of a gas burner, with an incandescent material formed of a plurality of superimposed layers of incandescent material, and means for supporting the mantel in position upon the burner, substantially as set forth. 4th. The combination of a gas burner, an incandescent mantel, a support *c*, and an incombustible covering *d* on the support *c*, substantially as set forth.

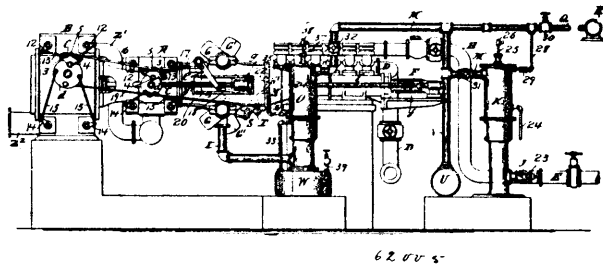
**No. 62,004. Garment.** (Vêtement.)



Anton M. Lundgard, Omaha, Nebraska, U.S.A., 10th December, 1898; 6 years. (Filed 12th July, 1898.)

*Claim.*—In an overall garment, comprising the leg and body portions made in a single continuous piece, of a piece inserted in the back of the garment at or near the junction of the leg and body portions, the stiff strip secured at its upper end to said back and its lower end engaging with said insertion, and the elastic band or strip secured to said insertion at its lower end and at its upper end connected with the back of the garment, substantially as and for the purpose hereinbefore set forth.

**No. 62,005. Steam Engine.** (Machine à vapeur.)



Charles Campbell Worthington, Irvington, New York, U.S.A., 10th December, 1898; 6 years. (Filed 30th August, 1898.)

*Claim.*—1st. The combination with an engine cylinder and a single valve at each end of the cylinder controlling the admission and cut-off of the motor fluid, of a rocker having two pivots, connections from the rocker to the valves and means of oscillating the rocker on one of its pivots for operating the valves for admission and on the other pivot for operating the valves for cut off, substantially as described. 2nd. The combination with an engine cylinder, and a single valve at each end of the cylinder controlling the admission and cut off of the motor fluid, of a rocker connected to the valves, a movable member on which the rocker is pivoted, means for operating the rocker to oscillate the rocker for operating the valves for admission, and means for oscillating the rocker on its pivot to the movable member for operating the valves for cut off, substantially as described. 3rd. The combination with an engine cylinder and a single valve at each end of the cylinder controlling the admission and cut off of the motor fluid, of a rocker connected to the valves, a second rocker on which said rocker is pivoted, means for actuating said second rocker to oscillate the first-mentioned rocker for operating the valves for admission, and means for oscillating the first-mentioned rocker on its pivot to the second rocker for operating the valves for cut off, substantially as described. 4th. The combination with an engine cylinder, and a single valve at each end of the cylinder controlling the admission and cut off of the motor fluid, of a rocker connected to the valves, a movable member on which the rocker is pivoted, actuating means having a pivotal connection to the rocker for oscillating said rocker on the movable member for operating the valves for cut off, said actuating means being detachable and adapted to be secured in a fixed position for the operation of the valves without cut off, and means for actuating said movable member to oscillate the rocker on its pivotal connection to the actuating means for operating the valves for admission, substantially as described. 5th. The combination with two cylinders and a single valve at each end of each cylinder controlling the admission and cut off of the motor fluid, of a rocker for each cylinder, connections between the rocker of each cylinder and the valves of

its cylinder through which each of said valves is operated by said rocker for admission and cut off, and connections between the rocker of each cylinder and the pistons of both the cylinders, all combined and operating to actuate the valves of each cylinder through the same rocker by its own piston to cut off the motor fluid, substantially as described. 6th. The combination with two cylinders, and a single valve at each end of each cylinder controlling the admission and cut off of the motor fluid, of a rocker for each cylinder having two pivots, separate connections from each rocker to the respective valves of its cylinder, and connections between each of said rockers and the pistons of both of the cylinders for oscillating the rockers on their respective pivots for operating the valves for admission and cut off, substantially as described. 7th. The combination with two cylinders and single valves controlling the admission and cut off of the motor fluid, of a rocker for each cylinder connected to the valves of its cylinder, a movable member for each cylinder on which the rocker is pivoted, connections between each of said movable members and the piston of the other cylinder, all combined and operating to actuate the valves of each cylinder by the piston of the other cylinder to admit the motor fluid, and by its own piston to cut off the motor fluid, substantially as described. 8th. The combination with two cylinders and single valves controlling the admission and cut off of the motor fluid, of a rocker for each cylinder connected to the valves of its cylinder, a movable member for each cylinder on which the rocker is pivoted, connections between each of said movable members and the piston of the other cylinder, and connections between each of said rockers and the pistons of its own cylinder, all combined and operating to actuate the valves of each cylinder by the piston of the other cylinder to admit the motor fluid, and by its own piston to cut-off the motor fluid, separate exhaust valves, and operating connections between said exhaust valves and the movable members, substantially as described. 9th. The combination with two cylinders and single valves controlling the admission and cut-off of the motor fluid, of a rocker for each cylinder connected to the valves of its cylinder, a second rocker for each cylinder on which the first-mentioned rocker is pivoted, connections between each of said first-mentioned rockers and the pistons of both the cylinders, connections between each of said second rockers and the pistons of the other cylinder, and connections between each of said first-mentioned rockers and the piston of its own cylinder, all combined and operating to actuate the valves of each cylinder by the piston of the other cylinder to admit the motor fluid, and by its own piston to cut-off the motor fluid, substantially as described. 10th. The combination with two cylinders and single valves controlling the admission and cut-off of the motor fluid, of connections between each of said valves and the pistons of both cylinders, whereby the valves of each cylinder are actuated by both of the pistons for the operation of the valves with cut-off, the connections between each of the valves and one of the pistons being adapted to be secured said fixed position for the operation of the valves without cut off, substantially as described. 11th. The combination with two cylinders and single valves controlling the admission and cut-off of the motor fluid, of a rocker for each cylinder having two pivots and connections between said pivots and the respective pistons whereby the rocker is rocked on one of its pivots by one of the pistons and on the other of said pivots by the other piston, and connections between said rockers, all combined and operating to actuate the valves of each cylinder by one of the pistons to admit the motor fluid and by the other piston to cut off the motor fluid, the cut-off connections between the rockers and pistons being adapted to be secured in a fixed position for the operation of the valves without cut-off, substantially as described. 12th. The combination with the main cylinder or cylinders and piston or pistons and single valves at each end of the cylinder or cylinders controlling the admission and cut off of the motor fluid, of a rocker for each cylinder having two pivots, connections from each rocker to the valves of its cylinder, means for oscillating each rocker on one of its pivots for operating the valves for admission and on the other pivot for operating the valves for cut-off, and a compensating cylinder or cylinders and piston or pistons arranged to act in opposition to the main piston or pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, substantially as described. 13th. The combination with the main cylinder or cylinders and piston or pistons and single valves at each end of the cylinder or cylinders controlling the admission and cut off of the motor fluid, of a rocker for each cylinder having two pivots, connections from each rocker to the valves of its cylinder, means for oscillating each rocker on one of its pivots for operating the valves for admission and on the other pivot for operating the valves for cut-off, a compensating cylinder or cylinders and piston or pistons arranged to act in opposition to the main piston or pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, and an accumulator arranged between the compensating cylinder or cylinders and the source from which the pressure in said cylinder or cylinders is derived, substantially as described. 14th. The combination with the main cylinder or cylinders and piston or pistons and single valves at each end of the cylinder or cylinders controlling the admission and cut-off of the motor fluid, of a rocker for each cylinder having two pivots, connections from each rocker to the valves of its cylinder, means for oscillating each rocker on one of its pivots for operating the valves for admission and on the other pivot for operating the valves for cut-off, a compensating cylinder or cylinders and piston or pistons arranged to act in opposition to the main piston or pistons during the first

part of the stroke, and in conjunction therewith during the last part of the stroke, and two pistons arranged between the compensating cylinder or cylinders and the source from which the pressure in said cylinder or cylinders is derived, and a body of elastic fluid between said pistons, substantially as described. 15th. The combination with the main cylinder or cylinders and piston or pistons, of a pumping engine and single valves at each end of the cylinder or cylinders controlling the admission and cut-off of the motor fluid, and a rocker for each cylinder having two pivots, connections from each rocker to the valves of its cylinder, means for oscillating each rocker on one of its pivots for operating the valves for admission and on the other pivot for operating the valves for cut-off, a compensating cylinder or cylinders and piston or pistons arranged to act in opposition to the main piston or pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, and an accumulator between the compensating cylinder or cylinders and the force main through which pressure is transmitted from the force main to said compensating cylinder or cylinders, substantially as described. 16th. The combination with the main cylinder or cylinders and piston or pistons of a pumping engine and single valves at each end of the cylinder or cylinders controlling the admission and cut-off of the motor fluid, of a rocker for each cylinder having two pivots, connections from each rocker to the valves of its cylinder, means for oscillating each rocker to the valves of its pivots for operating the valves for admission and on the other pivot for operating the valves for cut-off, a compensating cylinder or cylinders and piston or pistons arranged to act in opposition to the main piston or pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, two pistons between said compensating cylinder or cylinders and the force main through which pressure is transmitted from the force main to said compensating cylinder or cylinders, and a body of elastic fluid between said pistons, substantially as described. 17th. The combination with the main cylinders and pistons forming the two sides of a duplex engine and single valves at the ends of the cylinders controlling the admission and cut-off of the motor fluid, of a rocker for each cylinder, connections between each of said rockers and the valves of its cylinder for actuating said valves by said rocker for admission and cut-off, and connections between each of said rockers and the pistons on both sides of the engine, all combined and operating to actuate the valves of each side of the engine by the piston on the other side to admit the motor fluid and by the piston of their own side to cut off the motor fluid, and a compensating cylinder or cylinders and piston or pistons for each side of the engine arranged to act in opposition to the main pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, and an accumulator between the compensating cylinders and the source from which the pressure in said cylinders is derived, substantially as described. 19th. The combination with the main cylinders and pistons forming the two sides of a duplex engine and single valves at the ends of the cylinders controlling the admission and cut-off of the motor fluid, of a rocker for each cylinder, connections between each of said rockers and the valves of its cylinder for actuating said valves by said rocker for admission and cut off, and connections between each of said rockers and the pistons on both sides of the engine, all combined and operating to actuate the valves of each side of the engine by the piston on the other side to admit the motor fluid and by the piston of their own side to cut off the motor fluid, a compensating cylinder or cylinders and piston or pistons for each side of the engine arranged to act in opposition to the main pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, and an accumulator between said compensating cylinders and the force main through which pressure is transmitted from the force main to said compensating cylinders, substantially as described. 20th. The combination with the main cylinders and pistons forming the two sides of a duplex pumping engine and single valves at the ends of the cylinders controlling the admission and cut off of the motor fluid, of a rocker for each cylinder, connections between each of said rockers and the valves of its cylinder for actuating said valves by said rocker for admission and cut-off, and connections between each of said rockers and the pistons on both sides of the engine, all combined and operating to actuate the valves of each side of the engine by the piston on the other side to admit the motor fluid and by the piston of their own side to cut off the motor fluid, a compensating cylinder or cylinders and piston or pistons for each side of the engine arranged to act in opposition to the main pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, two pistons between said

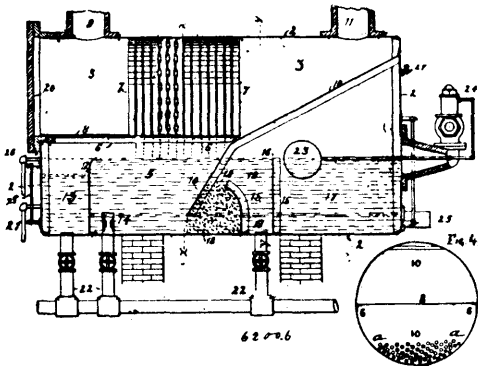
compensating cylinders and the force main through which pressure is transmitted from the force main to said compensating cylinders, and a body of elastic fluid between said pistons, substantially as described. 21st. The combination with a main cylinder or cylinders and piston or pistons, and a compensating cylinder or cylinders and piston or pistons arranged to act in opposition to the main piston or pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, of two pistons arranged between the compensating cylinder or cylinders and the source from which the pressure in said cylinder or cylinders is derived, and an elastic cushion between said pistons, substantially as described. 22nd. The combination with a main cylinder or cylinders and a piston or pistons, and a compensating cylinder or cylinders and piston or pistons arranged to act in opposition to the main piston or pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, of two pistons arranged between the compensating cylinder or cylinders and the source from which the pressure in said cylinder or cylinders is derived and a body of elastic fluid between said pistons, substantially as described. 23rd. The combination with a main cylinder or cylinders and piston or pistons, and a compensating cylinder or cylinders and piston or pistons arranged to act in opposition to the main piston or pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, of two pistons arranged between the compensating cylinder or cylinders and the source from which the pressure in said cylinder or cylinders is derived, one of said pistons being subjected on one side to the pressure of the fluid from said source, and the other of said pistons on one side to the pressure of the fluid in the compensating cylinder or cylinders, connections between said cylinders on the other side of said pistons, and a body of elastic fluid filling said chambers and connections through which pressure is transmitted between said pistons, substantially as described. 24th. The combination with the main cylinders and pistons forming the two sides of a duplex engine and having connections by which the valve or valves of each side is or are operated from the other side, and a compensating cylinder or cylinders and piston or pistons for each side of the engine arranged to act in opposition to the main pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, of two pistons arranged between the compensating cylinders and the source from which the pressure in said cylinder or cylinders is derived, and a body of elastic fluid between said pistons, substantially as described. 25th. The combination with the main cylinder or cylinders and piston or pistons of a pumping engine, and a compensating cylinder or cylinders and piston or pistons arranged to act in opposition to the main piston or pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, of a piston between said compensating cylinder or cylinders and the force main subjected on one side to the pressure in the force main, and a body of elastic fluid acting on the opposite side of said piston through which pressure is transmitted from the force main to the compensating cylinder or cylinders, substantially as described. 26th. The combination with the main cylinder or cylinders and piston or pistons of a pumping engine, and a compensating cylinder or cylinders and piston or pistons arranged to act in opposition to the main piston or pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, of two differential pistons arranged between the compensating cylinder or cylinders and the force main through which pressure is transmitted from the force main to said compensating cylinder or cylinders, said pistons being subjected on one side, respectively, to the pressure of the fluid in the force main and in the compensating cylinder or cylinders, and a body of elastic fluid between the other sides of said pistons, substantially as described. 28th. The combination with the main cylinders and pistons forming the two sides of a duplex pumping engine and having connections by which the valve or valves on each side is or are operated from the other side and a compensating cylinder or cylinders and piston or pistons for each side of the engine arranged to act in opposition to the main pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, of a piston between said compensating cylinders and the force main subjected on one side to the pressure in the force main, and a body of elastic fluid acting on the opposite side of said piston through which pressure is transmitted from the force main to the compensating cylinders, substantially as described. 29th. The combination with the main cylinders and pistons forming the two sides of a duplex pumping engine and having connections by which the valve or valves on each side is or are operated from the other side and a compensating cylinder or cylinders and piston or pistons for each side of the engine arranged to act in opposition to the main pistons during the first part of the stroke and in conjunction therewith during the last part of the stroke, of two pistons between said compensating cylinders

and the force main through which pressure is transmitted from the force main to said compensating cylinders, and a body of elastic fluid between said pistons, substantially as described. 30th. The combination with a pumping engine having one or more compensating cylinders or pistons, of connections between said compensating cylinder or cylinders and the force main including a piston acted upon on one side directly by the liquid in the force main, and a body of elastic fluid acting on the opposite side of the piston and through which said pressure is transmitted from the force main to the compensating cylinder or cylinders, substantially as described. 31st. The combination with a pumping engine having one or more compensating cylinders and pistons, of connections between said compensating cylinder or cylinders and the force main including a piston subjected on one side to the pressure in the force main, a second piston having one end subjected to the pressure in the compensating cylinder or cylinders, a body of elastic fluid between said pistons through which pressure is transmitted from the force main to the compensating cylinder or cylinders, and means for applying adjustable pressure to said second piston independently of said body of elastic fluid to regulate the pressure in the compensating cylinder or cylinders, substantially as described. 32nd. The combination with a pumping engine having one or more compensating cylinders and pistons, of connections between said compensating cylinder or cylinders and the force main including a piston subjected on one side to the pressure in the force main, a body of elastic fluid acting on the opposite side of the piston and through which pressure is transmitted from the force main to the compensating cylinder or cylinders, and means controlled by said piston for permitting the escape of elastic fluid from said body of fluid when the piston is moved against the force pressure beyond a certain point, substantially as described. 33rd. The combination with a pumping engine having one or more compensating cylinders and pistons, of a piston subjected on one side to the pressure in the force main, a second piston subjected on one side to the pressure in the compensating cylinder or cylinders, a body of elastic fluid between said pistons, a continuously operating pump for supplying the elastic fluid, and means controlled by the position of the first-mentioned piston to permit the escape of elastic fluid and prevent its escape to secure the proper pressure of elastic fluid under changes of main pressure, substantially as described. 34th. The combination with a pumping engine having one or more compensating cylinders and pistons, of a piston subjected on one side to the pressure in the force main, a second piston subjected on one side to the pressure in the compensating cylinder or cylinders, a body of elastic fluid between said pistons through which pressure is transmitted from the force main to the compensating cylinder or cylinders, and means controlled by the first-mentioned piston to permit the escape of elastic fluid from between the pistons when said first-mentioned piston is moved against the force pressure beyond a certain point and to prevent the escape of elastic fluid when the piston is moved in the opposite direction beyond a certain point, substantially as described. 35th. The combination with a piston acted upon by a column of liquid under pressure, of a body of elastic fluid acting on the opposite side of said piston, a continuously operating pump for supplying the elastic fluid, and means controlled by the position of the piston to permit the escape of elastic fluid from said body and prevent its escape to secure the proper pressure of the elastic fluid under changes of liquid pressure, substantially as described. 36th. The combination with a piston acted upon by a column of liquid under pressure, of a body of elastic fluid acting on the opposite side of said piston, a continuously operating pump for supplying the elastic fluid, and means actuated on the movement of the piston against the pressure of the liquid to permit the escape of elastic fluid from said body and on the movement of the piston in the opposite direction to prevent the escape of elastic fluid, substantially as described. 37th. The combination with a piston acted upon by a column of liquid under pressure, of a body of elastic fluid acting on the opposite side of said piston, means actuated on the movement of the piston against the pressure of the liquid to permit the escape of elastic fluid from said body up to a certain point of travel of said piston, and means for permitting a large escape of said elastic fluid from said body upon the further movement of the said piston, substantially as described. 38th. The combination with a piston acted upon by a column of fluid under pressure, of a body of elastic fluid acting upon the opposite side of said piston, a pipe connecting said cylinder with an elastic fluid supply and arranged inside the end of the cylinder so as to be closed by the piston before the latter reaches the end of the cylinder, and a normally open small connection between the cylinder and elastic fluid supply through which elastic fluid is admitted when the main connection is closed, substantially as described. 39th. The combination with a column of liquid under pressure, of a piston subjected to the pressure of the column of liquid, a second piston opposing the movement of the first-mentioned piston by said liquid, and a body of elastic fluid between said pistons for relieving variations in pressure of the column of liquid, substantially as described. 40th. The combination with the force main of a pumping engine, of a piston subjected to the pressure of the force main, a second piston opposing the movement of the first-mentioned piston by said liquid, and a body of elastic fluid between said pistons for relieving variations in force main pressure, substantially as described. 41st. The combination with a cylinder having a valve controlling the admission and cut-off of the motor fluid and a separate exhaust valve, of a



rocker provided with a block connected to the valve controlling the admission and cut-off and adjustable to vary the point of connection between the valve connections and rocker, means for actuating said first-mentioned valve for admission and cut-off through said rocker, and means independent of the adjustment of said block for actuating said exhaust valve, substantially as described. 42nd. The combination with cylinder A having single valves controlling the admission and cut-off of the motor fluid, of rocker c having adjustable connection blocks 3, links connecting said blocks to the respective valves, and means for actuating said rocker c for operating the valves for admission and cut-off through said rocker c, substantially as described. 43rd. The combination with a cylinder having single valves controlling the admission and cut-off of the motor fluid at opposite ends of the cylinder, of rocker c mounted between said valves, link connections between said rocker and the respective valves, and rocker d on which rocker c is pivoted at such point that each of the valves is substantially stationary while the other valve is being operated by the rocker c for cut-off, substantially as described. 44th. The combination with a cylinder having single valves controlling the admission and cut-off of the motor fluid at opposite ends of the cylinder, of rocker c, link connections between said rocker and the respective valves, rocker d on which said rocker c is pivoted and by which the valves is operated for admission, said rockers and link connections being constructed and arranged to hold each of said valves substantially stationary while the rocker d is actuating the other valve for admission, substantially as described. 45th. The combination with a cylinder and a valve at each end of the cylinder controlling the admission and cut-off of the motor fluid, of rocker d mounted on the cylinder, rocker c pivoted on said rocker d between said valves, a link connection between said rocker c and each of said valves, and means for actuating rockers c and d for operating the valves through rocker c for admission and cut-off, substantially as described. 46th. The combination with a cylinder having a valve at each end of the cylinder controlling the admission and cut-off of the motor fluid and separate exhaust valves, of rocker d mounted on the cylinder, connections between said rocker d and the exhaust valves, rocker c pivoted on said rocker d between the valves, a link connection between said rocker c and each of the valves controlling the admission and cut-off, and means for actuating rockers c and d for operating the valves through rocker c for admission and cut-off and for operating the exhaust valves through rocker d, substantially as described. 47th. The combination with a cylinder and an oscillating valve at each end of the cylinder controlling the admission and cut-off and cranks 12 on the valve-stems, of rocker d mounted on the cylinder, rocker c mounted on said rocker d between the valves, single links 13 connecting said rocker c to the cranks 12, and means for actuating said rockers c, d to operate the valves for admission and cut-off through said rocker c, substantially as described.

**No. 62,006. Steam Separator.** (*Séparateur à vapeur.*)

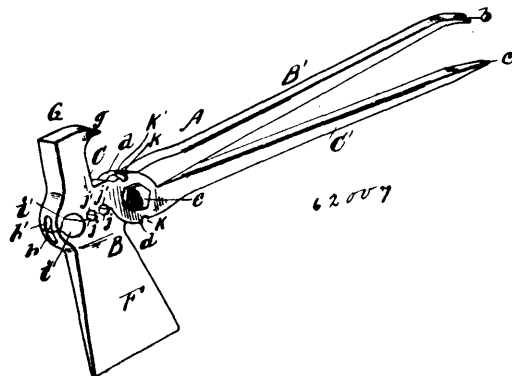


George I. Roberts, New Rochelle, New York, U.S.A., 10th December, 1898; 6 years. (Filed 26th July, 1898.)

*Claim.*—1st. In a steam separator in combination with an upper compartment having inlet and outlet openings, a lower compartment having inlet and outlet openings, a partition between said compartment within which said lower compartment inlet opening is located, and a surface overflow partition-dam in said lower compartment as and for the purposes set forth. 2nd. In a steam separator, in combination with an upper compartment having inlet and outlet openings, a lower compartment having inlet and outlet opening, a removable partition plate, a fixed partition-apron, separating said compartments and a plurality of partitions in said lower compartment for controlling the movements of the several drip matters or materials as and for the purposes set forth. 3rd. In a steam separator, in combination with the upper and lower compartments each having inlet and outlet openings, a removable partition plate, a fixed partition apron and a centrally located baffle device in the upper compartment as and for the purposes set forth. 4th. In a steam separator, in combination with the upper and lower compartments, each having inlet and outlet openings, a removable partition plate, a fixed partition apron a centrally located baffle device in the upper compart-

ment, an overflow and an underflow exit for the said lower compartment, as and for the purposes set forth. 5th. In a steam separator, in combination with the lower or drip receiving compartments, a partition dam over which the lighter foreign matters or materials pass or flow, a partition apron under which the water passes, a retaining partition of approximately low elevation, and a final partition dam over which the water of condensation passes for discharge or exit, as and for the purposes set forth. 6th. In a steam separator, in combination with the lower or drip receiving compartment, a partition dam over which the lighter foreign matter or materials pass or flow, a partition apron under which the water of condensation passes, a discharge pipe or blow nozzle extending up from the bottom of said drip receiving compartment to a height somewhat above the bottom edge of said partition apron, a retaining partition and a final partition dam over which the water passes for discharge or exit, as and for the purposes set forth. 7th. In a steam separator, in combination with the lower or drip receiving compartment, a partition dam over which the lighter foreign matter or materials passes or flow, a retaining partition filtering or clarifying material enclosed by and between said partition apron and said retaining partition as and for the purposes set forth. 8th. In a steam separator, in combination with the lower or drip receiving compartment, a partition dam over which the lighter foreign matter or materials pass or flow, a partition apron under which the water of condensation passes, a retaining partition, and a discharge nozzle extending up from the bottom of said drip receiving compartment to a height somewhat above the bottom edge of said partition apron, as and for the purposes set forth. 9th. In a steam separator, in combination with the main shell, a baffle device located therein, and having a plurality of separately mounted chains or ropes, substantially as shown and described. 10th. In a steam separator in combination with the main shell a baffle device located therein, and conforming with the outline of said main shell, and having a plurality of separately strung or mounted chains or ropes substantially as and for the purposes set forth.

**No. 62,007. Combination Tool.** (*Outil à combinaison.*)



August C. Ponkney, Cotulla, Texas, U.S.A., 10th December, 1898; 6 years. (Filed 7th October, 1898.)

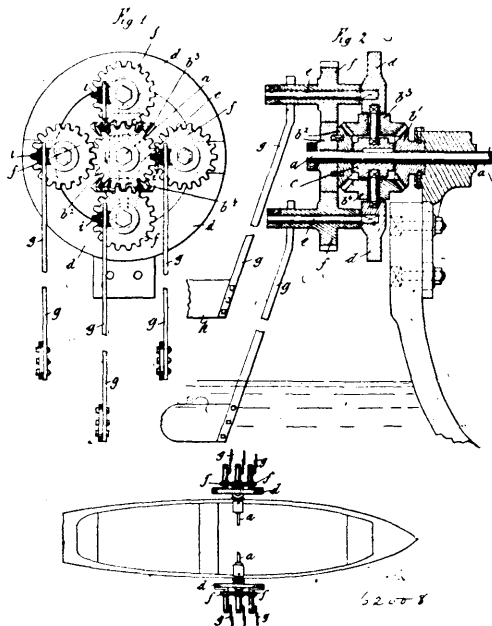
*Claim.*—1st. A combination tool consisting of two sections B, C, pivoted together, each section having a handle B', C', one carrying a hatchet-blade, the other a hammer-head, said hatchet-blade and hammer-head having broad horizontal meeting ends adapted to abut against each other provided with duplicate claws h, h', and recesses i, i', substantially as described. 2nd. A combination tool consisting of two sections B, C, pivoted together, each having a handle B', C', one of said parts carrying a hatchet-blade, the other a hammer-head, diagonal bevelled-edge cutting notches k, k' in the enlarged pivotal portion through which the parts are engaged, substantially as described. 3rd. The combination-tool herein described, comprising two sections B, C, each having a handle B', C', the former carrying a hatchet-blade F, and the latter a hammer-head G, having a rearwardly-projecting nail-claw g, said hatchet-blade and hammer-head having broad horizontal meeting ends adapted to squarely abut against each other and provided with the duplicate claws h, h', the semi-circular recesses i, i', and the shallow transverse recesses j, j' located midway thereof, a vertical pivot enlargement d, d' on each handle in rear of said hammer-head and hatchet-blade and connected therewith by the necks l and provided with the diagonal bevelled-edge notches k, k' disposed immediately below said claw g, and a pivot e passed through said pivot enlargement and uniting the two sections of the tool, substantially as described.

**No. 62,008. Water Vehicle.** (*Vehicule pour l'eau.*)

Theodor Hugo August Lukatis, Berlin, Germany, 10th December, 1898; 6 years. (Filed 3rd August, 1898.)

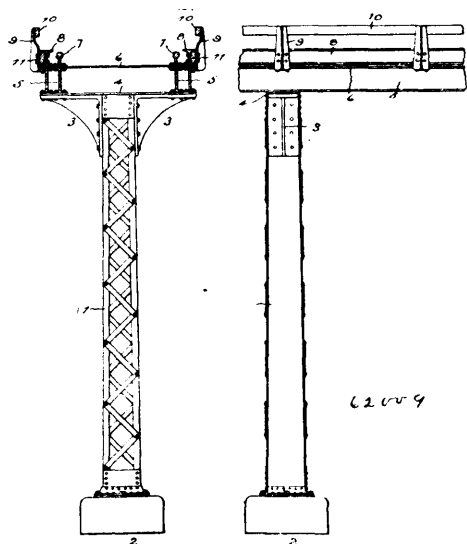
*Claim.*—1st. A driving mechanism for water vehicles, having the paddles h carried by wheels, which, turning on a common disc d cause the paddles h to constantly immerse and emerge in a vertical

direction, owing to the said wheels being caused to turn about their own axes, constructed and arranged, substantially as hereinbefore



described. 2nd. A driving mechanism for water vehicles, of the kind specified, having the driving shaft *a*, a bevel-wheel *b*<sup>1</sup> fast upon the bearing of the said driving-shaft further opposite the said bevel-wheel, a similar but loose bevel-wheel *b*<sup>2</sup> and a sleeve *c* are mounted, the said sleeve being fast upon the said driving-shaft and carrying two similar or equal and loose bevel-wheels *b*<sup>3</sup>, *b*<sup>4</sup>, engaging with the level-wheels *b*<sup>1</sup>, *b*<sup>2</sup>, the said sleeve being further rigidly connected with a disc *d*, mounted vertically on the shaft *a*, the said disc *d* carrying cog-wheels *f* with the paddle stems *g* and paddles *h* through the intermediary of axles *e*, arranged parallel to the shaft *a*, the said cog-wheels *f* being loose and actuated by the bevel or cog-wheels *b*<sup>2</sup>, constructed and arranged, substantially as hereinbefore described. 3rd. A driving mechanism for water vehicles, of the kind specified having the paddle stems *g* adapted to be adjusted in height by means of set screws *i*, so that in spite of the varying draught of the vessel, the paddles *h* admit of being immersed to a suitable depth, constructed and arranged, substantially as hereinbefore described.

**No. 62,009. Railway. (Chemin de fer.)**



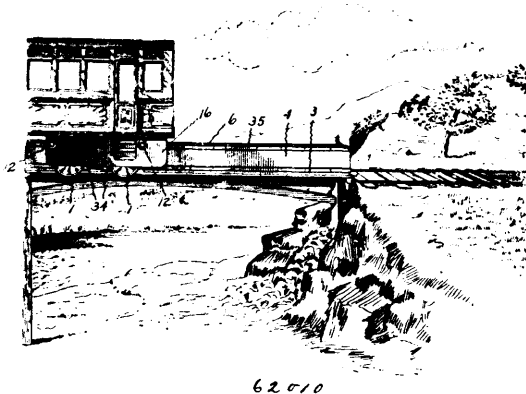
George Joseph Capewell, Hartford, Connecticut, U. S. A., 10th December, 1898; 6 years. (Filed 6th September, 1898.)

*Claim.*—1st. An improved railway, having a track formed by two parallel rails with tread-faces of usual shape and common gauge,

and a track formed by two rails with smooth horizontal tread-faces extending parallel with but higher than the rails of the first-mentioned track and two rails with smooth vertically arranged tread-faces extending parallel with and higher than the other rails and held to withstand outward thrust, substantially as specified. 2nd. An improved railway, having a track formed by two parallel rails with tread-faces of usual shape and common gauge, a track formed by two rails that have horizontal tread-faces at a higher level and wider gauge than the rails of the first-mentioned track, brackets at intervals extending upwardly from the rails with the higher tread-faces, and rails with vertical tread-faces secured to the brackets higher than the wide-gauge rails, substantially as specified.

**No. 62,010. Railway Car Truck.**

(*Châssis de chars de chemin de fer.*)



George Joseph Capewell, Hartford, Connecticut, U. S. A., 10th December, 1898; 6 years. (Filed 6th September, 1898.)

*Claim.*—1st. A railway car-truck, having wheels adapted to travel on a standard gauge two-rail track, wheels adapted to travel on a central rail track, a truck-frame supported by the wheels, and side-bearing retaining wheels supported by the truck-frame, substantially as specified. 2nd. A railway car-truck, having wheels adapted to travel on a standard gauge two-rail track, yokes supported by said wheels, wheels adapted to travel on a central rail track, a truck frame supported by the yokes, and retaining wheels for keeping the central track wheels in position, substantially as specified. 3rd. A railway car-truck, having wheels adapted to travel on a standard gauge two-rail track, wheels adapted to travel on a central rail track, yokes supported by the wheels which are being made use of, and a truck frame pivotally connected with the outer ends of the yokes and connected by springs with the inner ends of the yokes, substantially as specified. 4th. A railway car truck, having a traction-wheel, a motor frame supported by the traction-wheel, a motor movably hung in the motor frame, gearing between the motor and the traction-wheel, and a truck frame supported by the motor frame, substantially as specified. 5th. A railway car truck, having traction-wheels, a motor frame supported by the traction-wheels, a motor movably hung in the motor frame, gearing between the motor and the traction-wheels, and a truck frame supported by yielding connections mounted on the motor frame, substantially as specified. 6th. A railway car truck, having a central traction-wheel adapted to run on a raised single rail track, traction-wheels adapted to run on a double rail track that is lower than the single rail track, a truck frame supported by either the single rail traction-wheel or the double rail traction-wheels, depending upon the track that is being used, retaining wheels supported by the truck frame and arranged to bear against the sides of the single rail, a motor frame in the truck frame, and a motor supported by the motor frame for rotating the traction-wheels, substantially as specified.

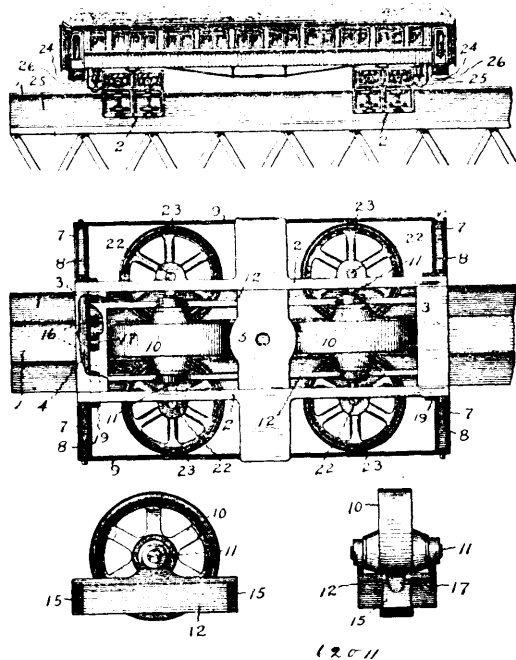
**No. 62,011. Railway Car Truck.**

(*Châssis de chars de chemin de fer.*)

George Joseph Capewell, Hartford, Connecticut, U.S.A., 10th December, 1898; 6 years. (Filed 6th September, 1898.)

*Claim.*—1st. A car truck having a centrally located wide tread traction-wheel, a wheel frame supported by the journal of the traction-wheel, a truck frame adapted to be pivotally connected with a car body, and yielding supporting connections between the wheel frame and the truck frame whereby the wheel frame may be permitted an oscillation from side to side independently of the truck frame to enable the wheel tread to run flatly upon the traction-rail without tilting the truck frame, substantially as specified. 2nd. A car truck having a centrally arranged wide tread traction-wheel, a wheel frame supported by the journal of the traction-wheel, a truck frame adapted to be pivotally connected with a car body, and yielding supporting connections between the wheel frame and the truck frame whereby the wheel frame may be permitted an oscillation from end to end independently of the truck frame to enable the wheels to run over slight elevations or depressions of the traction-

rail without tipping the truck frame, substantially as specified. 3rd. A car truck having a centrally arranged wide tread traction-wheel



having a tire of cushioning material, a wheel frame supported by the journal of the traction-wheel, a truck frame adapted to be pivotally connected with a car body, yielding supporting connections between the wheel frame and the truck frame whereby the wheel frame may be permitted an oscillation from side to side transversely independent of the truck frame and from end to end longitudinally independent of the truck frame, and horizontally arranged side guiding wheels having tires of cushioning material, substantially as specified. 4th. A car truck having a traction-wheel, a wheel frame supported by the journal of the traction-wheel, a truck frame adapted to be pivotally connected with the car body, transversely extending bars loosely resting against parts of the wheel frame, and springs thrusting between the bars and parts of the truck frame, substantially as specified. 5th. A car truck having a traction-wheel, a wheel frame supported by the journal of the traction-wheel, a truck frame connected with the wheel frame by pivots that extend lengthwise of the wheel frame in front and back of the traction-wheel whereby the wheel frame and the truck frame are permitted an oscillation independently of each other on an axis extending longitudinally of the wheel frame, substantially as specified. 6th. A car truck having a wide tread traction-wheel located centrally of the truck, a wheel frame supported by the journal of the traction-wheel, a truck frame pivotally supported by the wheel frame and adapted to be connected with a car body, and horizontally arranged guiding-wheels located each side of and below the traction-wheel, substantially as specified. 7th. A car truck having centrally arranged vertically bearing traction-wheels with grooved peripheries, journals for the traction-wheels, a horizontal frame supported by the journals of the traction-wheels, skeleton frames depending from the horizontal frame on each side of the plane of the traction-wheels, and horizontally bearing retaining wheels supported by bearings in the vertical frames below the traction-wheels, substantially as specified.

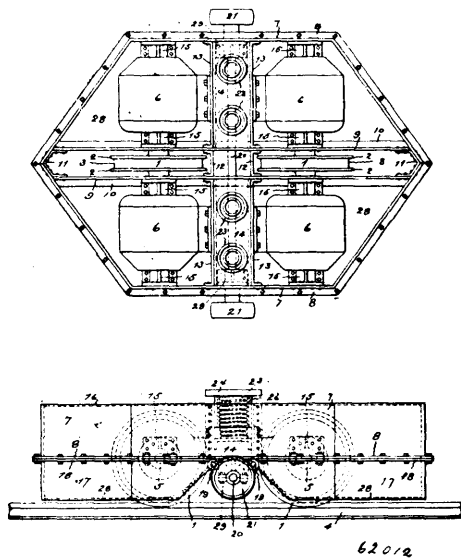
**No. 62,012. Electric Railway Truck.**

(Châsses de chars électrique.)

George Joseph Capewell, Hartford, Connecticut, U.S.A., 10th December, 1898; 6 years. (Filed 6th September, 1898.)

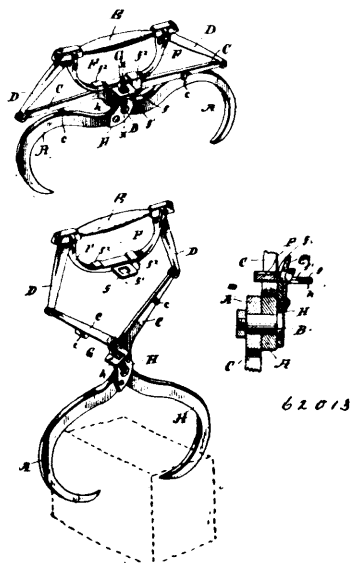
Claim.—1st. A car truck having a pair of central traction-wheels arranged one behind the other to run a single rail track, an axle for each traction-wheel, motors arranged concentric of the axles on each side of each traction-wheel, and a truck frame with central recesses for the traction-wheels and a closed chamber each side for each motor, supported by the axles, substantially as specified. 2nd. A car truck having a pair of central traction-wheels arranged one behind the other to run upon a single rail track, an axle for each traction-wheel, motors arranged concentric of the axles on each side of each traction-wheel, a truck frame supported by the axles, and retaining wheels supported by the truck frame and arranged to run on each side thereof in connection with the retaining track of wide gauge, substantially as specified. 3rd. A car truck having central traction-wheels arranged to run upon a single rail track, axles for the traction-wheels, motors arranged concentric of the axles on each side of the traction-wheels, vertically arranged longitudinally

extending plates that are joined together near their ends supported by the axles, vertically arranged transversely extending plates braced



ing the longitudinal plates, and retaining wheels supported by bearings attached to the longitudinal plates and arranged to run in connection with a retaining track, substantially as specified. 4th. A car truck having central traction-wheels arranged to run upon a single rail track, axles for the traction-wheels, motors arranged concentric of the axles on each side of the traction-wheels, a closed truck frame with parallel sides and pointed ends supported by the axles and retaining wheels supported by the truck frame and arranged to run in connection with a retaining track, substantially as specified.

**No. 62,013. Ice Tongs.** (Pinces pour la glace.)



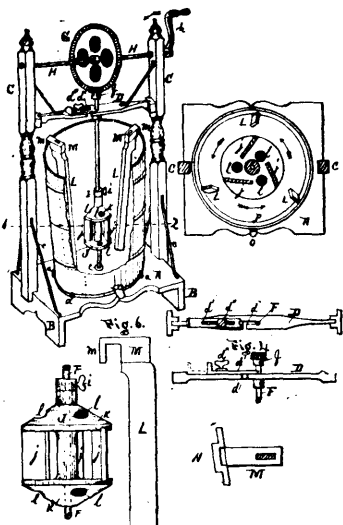
Isaac L. Edwards, Aurora, Illinois, U.S.A., 10th December, 1898; 6 years. (Filed 3rd November 1898.)

Claim.—1st. The combination of a pair of jaws pivoted together, having each an extension, a handle-bar, pivotal connections between the latter and each jaw extension, a spring-latch on one of the jaws, and a part connected to the handle to co-operate with the latch, substantially as and for the purpose specified. 2nd. The combination of a pair of jaws pivoted together, having each an extension, a handle-bar, pivotal connections between the latter and each jaw extension, a spring-latch on a jaw, and a bar attached to the handle, having a lateral extension to be engaged by the latch, substantially as and for the purpose described. 3rd. The combination of a pair of jaws pivoted together, having each an extension, a handle-bar,

pivotal connections between the latter and each jaw extension, a spring-latch on one of the jaws, a bar attached to the handle having a lateral extension, to be engaged by the latch, a like lateral extension on the latch-carrying jaw, and lugs on said bar to engage outer sides of the two jaw extensions, substantially as and for the purpose described.

**No. 62,014. Churn. (Baratte.)**

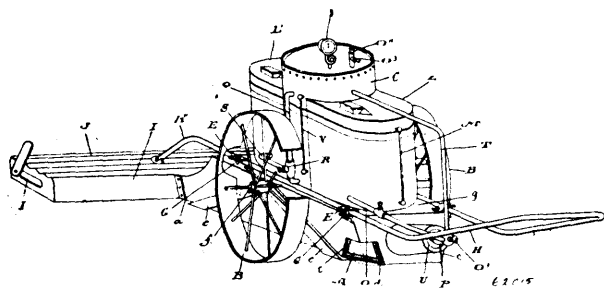
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John N. Cummings, Thamesville, Ontario, Canada, 10th December, 1898; 6 years. (Filed 21st November, 1898.)

*Claim.*—1st. The combination in a churn of the tub E, with the adjustable dasher J, being constituted with the blades j, being movable and set on an angle, and the flanges k and k', having their outer sides bevelling and having the holes l, substantially as and for the purposes specified. 2nd. The combination in a churn of the tub E, with the movable breakers L, having the metal brackets M, so constructed that they hang at the angles, specified for the purposes set forth. 3rd. The combination in a churn of the tub E, the breakers L, the adjustable dasher J, secured to the rod F, and the detachable bearing d, in the cross bar E, substantially as and for the purposes specified. 4th. The combination in a churn of the tub E, the dasher J, containing the blades j, set on an angle, and having the holes l, in the leveled flanges k and k', and the movable breakers L, substantially as specified and for the purposes herein before set forth.

**No. 61,015. Asphalt Pavement Repairing Apparatus. (Appareil pour réparer le pavage d'asphalte.)**

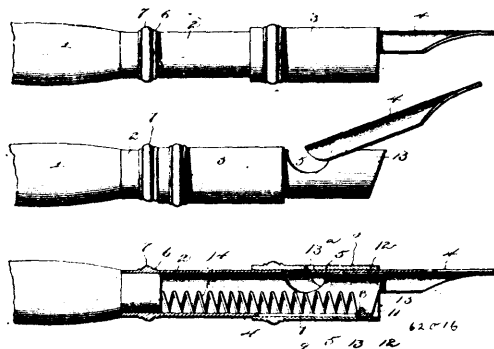


William G. Mackendrick, Toronto, Ontario, Canada, 10th December, 1898; 6 years. (Filed 3rd October, 1898.)

*Claim.*—1st. An apparatus or machine for repairing asphalt pavement consisting of a combustion chamber having an open bottom and its sides, end, and top closed, a burner on the outer side of the combustion chamber, an opening through the side or end of the combustion chamber opposed to the burner, means for feeding the burner with fuel, and forcing the flame through the opening into the combustion chamber, and an extension for the combustion chamber, having an open bottom and its sides, end, and top closed, the under side of the top of the extension being corrugated, and an opening from the combustion chamber into the extension, substantially as specified. 2nd. An apparatus or machine for repairing asphalt pavements consisting of a fire-box having an open bottom and closed sides, end, and top, a boiler supported on the fire-box, one side or end of the

fire-box having an opening, a burner on the outer side of the fire-box opposed to the opening, a valve fitted to the burner, oil and water tanks, a connection between the oil tank and the valve, a connection between the steam space of the boiler and the valve, and a connection between the water tank and the boiler, substantially as specified. 3rd. An apparatus or machine for repairing asphalt pavements consisting of a fire-box having an open bottom and closed sides, end, and top, a boiler supported on the fire-box, one side or end of the fire-box having an opening, a burner on the outer side of the fire-box opposed to the opening, a valve fitted to the burner, oil and water tanks, a connection between the oil tank and the valve, a connection between the steam space of the boiler, and the valves, a connection between the water tank and the boiler, an extension from one of the sides of the fire-box having an open bottom, and the under side of the top corrugated and having closed sides and ends, and an opening into the fire-box, substantially as specified. 4th. An apparatus or machine for repairing asphalt pavements consisting of a fire-box having an open bottom and closed sides, end and top, a boiler supported on the fire-box, one side or end of the fire-box having an opening, a burner on the outer side of the fire-box opposed to the opening, a valve fitted to the burner, oil and water tanks, a connection between the oil tank and the valve, a connection between the steam space of the boiler and the valve, a connection between the water tank and the boiler, and carrying-wheels and handle bars connected to the fire-box, substantially as specified. 5th. An apparatus or machine for repairing asphalt pavements consisting of a fire-box having an open bottom and closed sides, end and top, a boiler supported on the fire box, one side or end of the fire-box having an opening, a burner on the outer side of the fire-box opposed to the opening, a valve fitted to the burner, oil and water tanks, a connection between the oil tank and the valve, a connection between the steam space of the boiler and the valve, a connection between the water tank and the boiler, an extension from one of the sides of the fire-box having an open bottom, an the under side of the top corrugated and having closed sides and ends, an opening into the fire-box, and carrying-wheels and handle bars connected to the fire-box, substantially as specified. 6th. An apparatus or machine for repairing asphalt pavements consisting of a combustion chamber fitted with a burner to heat the pavement, and a boiler supported by the combustion chamber and heated by the flame from the burner, substantially as specified.

**No. 62,016. Pen Ejecting Pen-Holder. (Porte-plume à ejecteur.)**

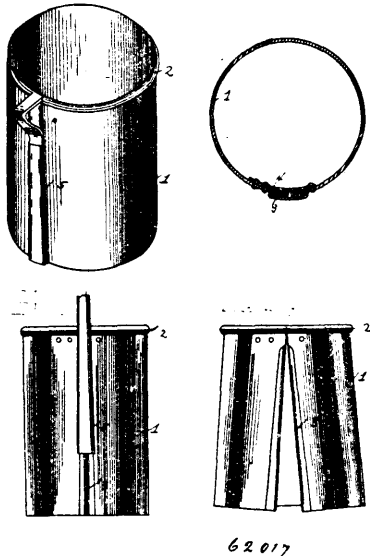


William Joseph Allen, West Superior, Wisconsin, U.S.A., 10th December, 1898; 6 years. (Filed 31st October, 1898.)

*Claim.*—1st. A pen-holder, comprising a stock having a sleeve or ferrule provided with an opening or recess and having a pen receiving portion in advance of the same, whereby the inner end of the shank of the pen is adapted to extend over the opening or recess, the latter being of sufficient size to permit the inner end of a pen to be depressed, and a sliding sleeve mounted on the stationary sleeve or ferrule and normally extending over the pen-receiving portion of the same, said sliding sleeve being adapted to be withdrawn from over the pen to eject the latter, substantially as described. 2nd. A pen-holder, comprising a stationary sleeve or ferrule provided at the top with a recess or opening of a sufficient size to permit the inner end of a pen to be depressed, and having pen-receiving portions in advance of the same, said sleeve or ferrule being provided with a longitudinal slot, and a sliding sleeve arranged on the stationary sleeve or ferrule, adapted to extend over the pen receiving portions and provided with a projection arranged in the said slot to limit the movement of the sliding sleeve, substantially as described. 3rd. A pen-holder, comprising a stationary sleeve or ferrule having a ferrule having a recess or opening of sufficient size to permit the inner end of a pen to be depressed and slotted in advance of the recess or opening to form pen-supporting wings, and a sliding sleeve arranged on the stationary sleeve or ferrule and normally disposed over the wings, substantially as described. 4th. A pen-holder comprising a stock, a ferrule secured to the stock, provided with a collar or enlargement and having a recess or opening of sufficient size to permit the inner end of a pen to be depressed, said ferrule being adapted

to receive a pen in advance of the recess or opening, a sliding sleeve arranged on the ferrule and provided with a slot 13, and having its inward movement limited by the collar or enlargement, and means for limiting the outward movement of the sliding sleeve, substantially as described. 5th. A pen-holder comprising a stationary ferrule, a sliding sleeve arranged on the exterior of the ferrule, said sliding sleeve being adapted to receive a pen between it and the ferrule, and a spiral spring housed within the ferrule and connected with the exterior sliding sleeve to hold the same normally extended, substantially as described.

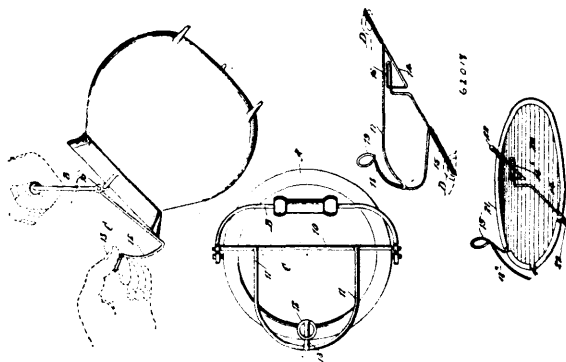
**No. 62,017. Transplanter.** (*Transplanter.*)



Orville T. Millar, Augusta, Michigan, U.S.A., 10th December, 1898; 6 years. (Filed 21st November, 1898.)

*Claim.*—In a transplanter implement the combination of cylinder 1 open at one side, constructed of sheet metal, an elastic ring around the top of the same, a link 4 pivotally connected to the open side of the cylinder at the top so that the tension of the ring tends to open the bottom of the cylinder, reverse flanges 3, on the open sides of the cylinder and a slide 5 to crowd over the flanges and draw the bottom of the transplanter implement together so that when the implement is in use and the plant has been moved and the slide is drawn up the transplanter releases the load of the earth and the plant without disturbing the same as specified.

**No. 62,018. Draining Attachment for Pots and Kettles.** (*Couloir pour ustensils de cuisine.*)

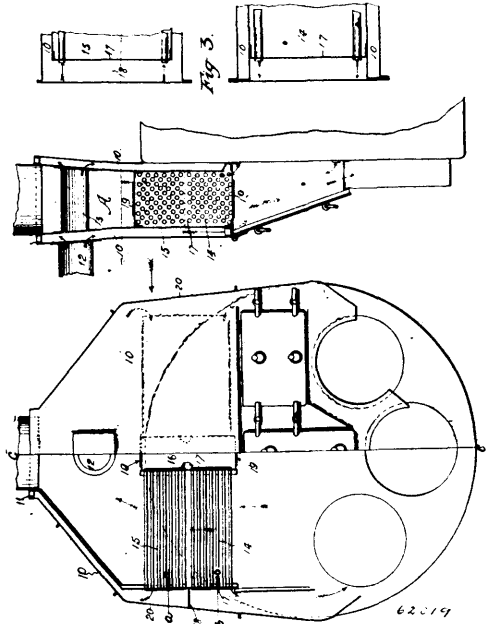


Edwin A. Colle, Three Oaks, Michigan, U.S.A., 10th December, 1898; 6 years. (Filed 21st November, 1898.)

*Claim.*—1st. A draining attachment for pots and kettles consisting of a body bar adapted for pivotal connection with the mouth portion of a pot or kettle, a yoke extending from the body bar, and a handle connected with and located above the yoke, as described. 2nd. A draining attachment for pots and kettles, consisting of a body bar having a handle attached thereto between its ends, the body bar being arranged at its extremities for pivotal engagement with the pot or kettle, a yoke projected from the body bar, the yoke being at an angle to said bar, and a handle connected with the yoke and supported above the same, substantially as described. 3rd. A

draining attachment for pots and kettles, consisting of a body bar arranged for pivotal engagement with the upper portion of the pot or kettle, a yoke projected at right angles from the body bar, the members of the yoke being located one at each side of the centre of the body bar, an arm upwardly and inwardly projected from the lower section of the yoke, and a handle carried by said arm, having an upward and outward inclination, as described.

**No. 62,019. Draught Mechanism for Furnaces.** (*Mécanisme de tirage pour fournaies.*)



John B. Houston, Vancouver, British Columbia, Canada, 10th December, 1898; 6 years. (Filed 21st November, 1898.)

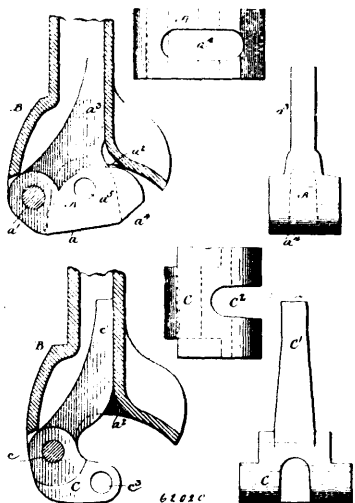
*Claim.*—1st. In an economizer for furnaces, in combination with an uptake for the gases and smoke, a jacket surrounding said uptake in proximity to the furnace, means for passing air thereto, of nests of tubes placed horizontally on opposite sides within the uptake, a central chamber dividing the said tubes, other nests of tubes arranged beneath the first ones, and communicating from the central chamber to the jacket beneath the parting walls 18, which divide the lower tubes off from the upper ones, as specified. 2nd. In an economizer for furnaces, having an uptake to receive the heated gases generated thereby, the combination of a jacket surrounding the lower part of the uptake, and means for distributing cold air around the said uptake within the jacket, of a central chamber 16 arranged in the uptake, of a nest of tubes 15, on opposite sides of the central chamber, said tubes communicating between the jacket and the central chamber, and of other nests of tubes 14, arranged beneath the tubes 15, which also connect between the jacket and the central chamber, and parting plates 18, which divide the outer ends of the nests of tubes, as and for the purposes specified. 3rd. In combination with an uptake, having a jacket arranged thereon and means for passing a flow of air to the jacket, of a central chamber 16 arranged in the uptake, perforations in the opposite walls of the chamber 16, and the outer walls of the uptake nests of tubes or pipes passed through said perforations communicating between the jacket and the chamber 16, and horizontal parting walls 18, placed between the jacket and the uptake dividing the outer ends of the upper and lower nests of tubes, so that the incoming air flow will pass through the upper tubes to the central chamber and back through the lower nests of tubes to the jacket, as specified. 4th. In an economizer having an uptake and a jacket surrounding the same, the combination of nests of tubes 14 and 15, extending horizontally across the uptake and communicating with the opposite sides of said jacket a horizontal parting wall 18 arranged to divide the upper nest of tubes from the lower one, on the side where the air is introduced into and expelled from said tubes, as specified.

**No. 62,020. Car Coupler Knuckle.** (*Jointure d'attelage de chars.*)

George Henry Gilman and James Henry Brown, both of Tacoma, Washington, U.S.A., 10th December, 1898; 6 years. (Filed 21st November, 1898.)

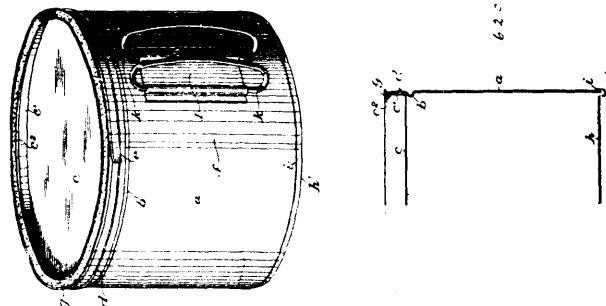
*Claim.*—1st. A buffer adapted to take the place of the ordinary knuckle in a car coupling, the said buffer comprising a head portion forming a buffer proper and having an attaching portion for receiving the pivot pin of the coupling for holding it in place and

a stem adapted to extend into the body portion of the coupler, whereby the said buffer is substantially prevented from rotating upon



the said pivot pin, substantially as described. 2nd. An emergency buffer comprising a head portion adapted to be mounted in a coupler by means of its pivot pin, the rear contour of said head portion being adapted to rest against the front surface of the body portion of the coupler for protecting the faces and edges thereof, and a stem adapted to engage the interior of the body portion of the coupler, for substantially preventing the rotation of the buffer on the pivot pin, substantially as described. 3rd. An emergency buffer comprising a head portion forming a buffer proper and having a recess formed in the said head portion to receive a link, and apertures to receive a coupling pin, and a stem adapted to extend some distance into the body of the coupler, whereby the buffer is substantially prevented from having a swinging movement upon the pivot pin, the construction being such that the buffer can be inserted in the place of a broken or disabled knuckle and held in place by means of the pivot pin of the coupler, substantially as described. 4th. An emergency buffer comprising a perforated portion adapted to be engaged by the pivot pin of an ordinary coupler, a head portion forming a buffer proper extending from the pivot receiving portion in front of the end of the coupling and adapted to rest against the front face thereof for protecting the faces and edges of the coupler, and a rearwardly extending stem engaging the body portion of the coupler, whereby the said buffer is substantially locked against any swinging movement, substantially as described.

**No. 62,021. Butter Can.** (*Vaisseau pour le beurre.*)

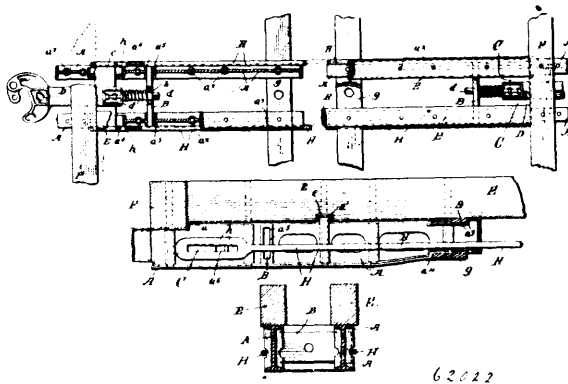


Arthur L. Whitney, San Francisco, California, U.S.A., 12th December, 1898; 6 years. (Filed 25th November, 1898.)

*Claim.*—An improved containing can, consisting of a side formed in a single sheet with an indented ledge or fillet in a line below the top adapted to form a seat for the cover, a sharp crease or indentation formed in the metal sheet between said ledge and the upper edge of the can with an extension *c* parallel with said crease, and which extends beyond the vertical joint of the can side, whereby the portion of the can above the crease may be torn away along said line for the purpose of opening the can, and a cover having an upturned flange around the periphery, flared inwardly at the top to form a channel between itself and the upper edge of the can.

**No. 62,022. Draft Beam for Cars.**

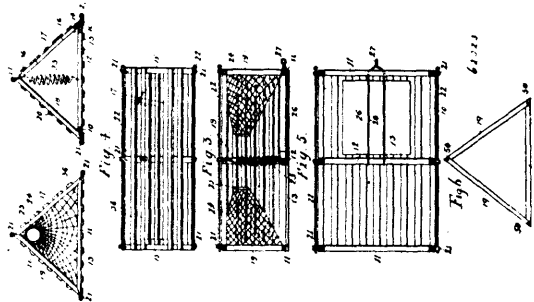
(*Barre d'attelage de chars.*)



Thomas W. Saling, Marshall, Texas, U.S.A., 12th December, 1898 6 years. (Filed 26th November, 1898.)

*Claim.*—1st. A draft-beam for cars provided with transverse slots extending through the said beam, one of said slots being adapted to receive a follower-plate and hold the same rigidly and the other slot being adapted to receive a key-plate for securing a coupler in place, the construction being such that the key-plate may slide in said slot according to the movement of the coupler, substantially as described. 2nd. In a draft-mechanism for cars, the combination with a suitable coupler, of draft-beams secured to the underside of the car, said beams being provided with apertures extending through said beams for receiving follower-plates and key-plates whereby the coupler may be secured to said beams, the construction being such that the said follower plate may be held rigidly and the key-plate may be allowed to slide in its slots to conform to the movement of the coupler, substantially as described. 3rd. In a draft-gear for cars, the combination with a suitable coupler, of draft-beams provided with transverse apertures and be held rigidly therein, and a key-plate passing through the draw-head and the other set of apertures and adapted to slide therein and connecting draw-rods for joining the outer ends of the said key-plates at the opposite ends of the car, substantially as described. 4th. In a draft-gear for cars, the combination with a suitable coupler, of draft-beams adapted to receive the coupler between them, said beams being made alike whereby they are interchangeable, the said beams being also provided with transverse apertures whereby they are adapted to receive and hold rigidly follower-plates and to receive and movably hold key-plates in position, substantially as described. 5th. A draft-beam for cars provided with a transverse vertical slot for rigidly securing a follower-plate and a transverse longitudinal slot for receiving and movably holding a key-plate, the construction being such that the key-plate is guided in its movement with a coupler, substantially as described. 6th. A draft mechanism for cars comprising metallic beams adapted to be secured to the car-sills, the said beams being provided with vertical slots for rigidly securing a follower-plate and being also provided with longitudinal slots for movably holding and guiding a key-plate whereby a coupler may be secured to said beams, substantially as described.

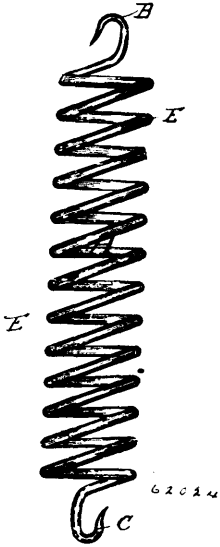
**No. 62,023. Lobster Trap.** (*Parc à homard.*)



Matthew W. Ingraham, North Sidney, Nova Scotia, Canada, 12th December, 1898; 6 years. (Filed 21st April, 1898.)

*Claim.*—A collapsible lobster trap, consisting of a base and two sides forming a triangular prism, netting forming the entrances, secured to the triangular ends, and terminating in a ring secured to the apex of the trap near the centre, a spiral bait holder placed vertically in the centre of the trap, balast secured to the base of the trap, a swivel for attaching the rope secured to one end, the said sides being united at their meeting edges by wire rods passing through eyes or holes, substantially as set forth.

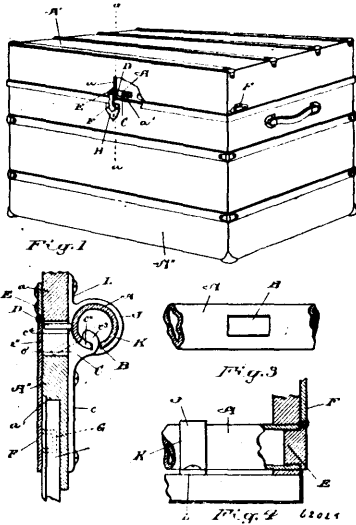
**No. 62,024. Bait Holder. (Porte-appât.)**



Matthew W. Ingraham, North Sidney, Nova Scotia, Canada, 12th December, 1898; 6 years. (Filed 29th November, 1898.)

*Claim.*—A bait holder for lobster and like traps consisting of a spiral wire, made of bright galvanized wire or sheet iron, and secured by both ends to the trap body, for the purposes set forth.

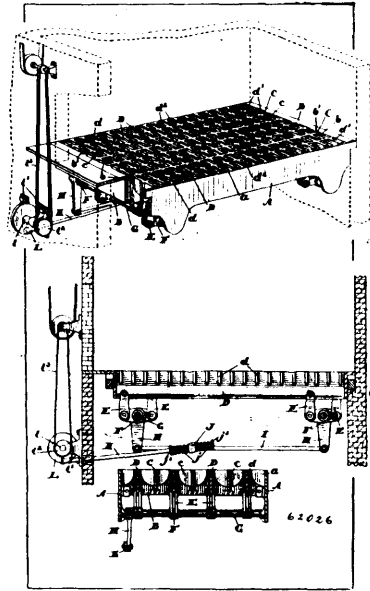
**No. 62,025. Lock. (Serrure.)**



John Ellis Lanceley, Toronto, Ontario, Canada, 12th December 1898; 6 years. (Filed 28th November, 1898.)

*Claim.*—1st. A lock embracing in its construction a rotatable keeper, and a stationary bolt engaged by the rotatable keeper, substantially as specified. 2nd. A lock embracing in its construction a rotatable keeper, a stationary bolt engaged by the rotatable keeper, and means to rotate the keeper, substantially as specified. 3rd. A lock embracing in its construction a rotatable keeper having a plurality of bolt sockets, a plurality of stationary bolts, the heads of which are arranged to be engaged by the keeper and contained in the sockets when the keeper is rotated, substantially as specified. 4th. A lock embracing in its construction a rotatable keeper having a plurality of bolt sockets, a plurality of stationary bolts, the heads of which are arranged to be engaged by the keeper and contained in the sockets when the keeper is rotated, and a lever to operate the keeper, substantially as specified. 5th. A lock embracing in its construction a rotatable keeper having a plurality of bolt sockets, a plurality of stationary bolts, the heads of which are arranged to be engaged by the keeper and contained in the sockets when the keeper is rotated, a lever to operate the keeper, and a lock to normally prevent the rotation of the keeper, substantially as specified.

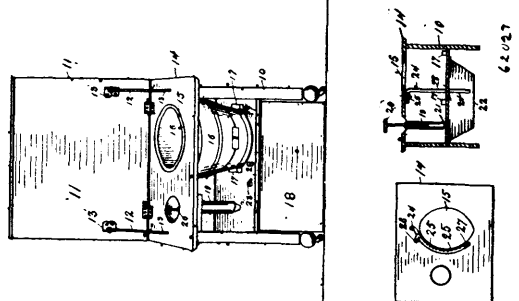
**No. 62,026. Grates for Furnaces and Stoves. (Grille pour fournaies et poêles.)**



Josiah Wedgewood, Brampton, Ontario, Canada, 12th December, 1898; 6 years. (Filed 25th November, 1898.)

*Claim.*—1st. In a grate, the combination with a suitable frame of the longitudinal stationary bars provided with laterally extending teeth and the longitudinal movable bars having laterally extending teeth interposed between the teeth of the stationary bars, and means for imparting a vertical movement to the movable bars, as shown, and for the purpose specified. 2nd. In a grate, the combination with a suitable frame of the longitudinal stationary bars provided with laterally extending teeth, the longitudinal movable bars having laterally extending teeth interposed between the teeth of the stationary bars, the rocking rods, the arms extending laterally therefrom alternately to one side and to the other, the arms pivotally connected to such rods and to the vertically movable bars, and means for rocking such rods, as and for the purpose specified. 3rd. In a grate, the combination with a suitable frame of the longitudinal stationary bars provided with laterally extending teeth, the longitudinal movable bars having laterally extending teeth interposed between the teeth of the stationary bars, the rocking rods, the arms extending laterally therefrom alternately to one side and to the other, the arms pivotally connected to such rods and to the vertically movable bars, the hangers, the rod connecting the hangers, the collar pivotally connected to the connecting-rod, the pitman extending through such collar, the spring on each side, and collars secured to the pitman on the outer end of the spring, and means for imparting the requisite movement to the pitman, as and for the purpose specified. 4th. The combination with the frame having the end bars provided with lugs and recesses, the stationary bars provided with laterally extending teeth fitting at the ends into such recesses, the movable bars provided with laterally extending teeth interposed between the stationary teeth and the guiding teeth forming part of the movable bar and fitting closely against the central portions of the stationary bars of the grate, and means for imparting a vertical movement to the movable bars, as and for the purpose specified.

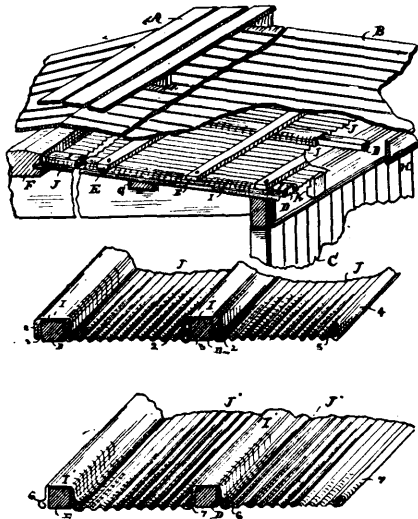
**No. 62,027. Commode. (Commode.)**



Charles W. Grant, Jamestown, New York, U.S.A., 12th December, 1898; 6 years. (Filed 25th November, 1898.)

*Claim.*—A sanitary commode or closet, consisting of box 10, cover 11 hinged thereto and provided with metal slides 12, 12, for holding the cover, seat 14 having opening 15, and air-pump 19 suitably mounted therein, shelf 28 having reservoir 22 secured to its underside, pipe 24, pail or removable receptacle 16, all arranged to operate in the manner and for the purpose set forth.

**No. 62,028. Car Roof. (Toiture de chars.)**

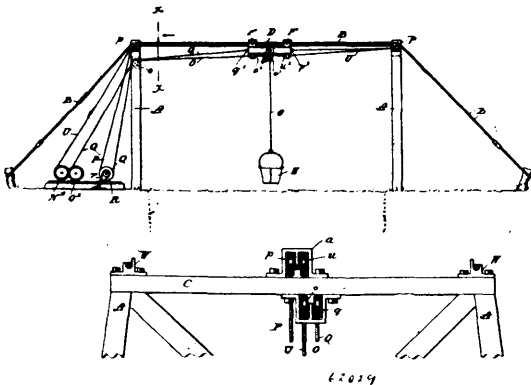


62028

William D. Drake. Cleveland, Ohio, U.S.A., 12th December, 1898; 6 years. (Filed 25th November, 1898.)

*Claim.*—1st. In a roof, in combination, the rafters, hangers resting on the rafters and provided with flexible sides which are free from the rafters and which extend downward and with upward turn free from the rafters, metallic sheets suspended from the hangers by sides which interlock with sides of the hangers, forming with the hangers a continuous flexible roof, substantially as shown and described. 2nd. In a roof, in combination, the outer roofing, rafters, hangers resting on the rafters and provided with flexible sides which are free from the rafters and which extend downward and with upward turn free from the rafters, metallic sheets suspended from the hangers by sides which interlock with the sides of the hangers, forming with the hangers a continuous flexible inner roof, substantially as shown and for the purpose described.

**No. 62,029. Over-Head Carrier. (Transport aérien.)**



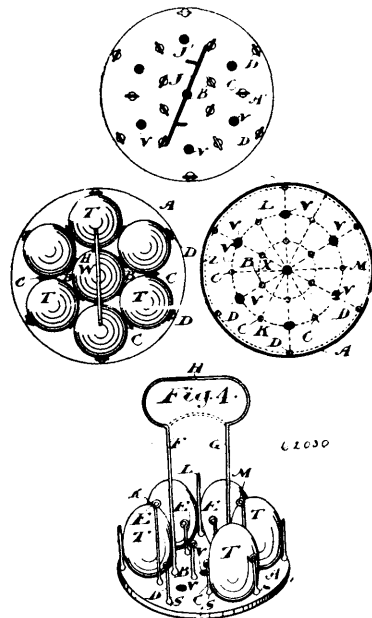
62029

Charles Henry Shipman, New York City, New York, U.S.A., 12th December, 1898; 6 years. (Filed 23rd November, 1898.)

*Claim.*—1st. In a carrier in combination, a track, a carriage movable thereon, a traveller movable transversely of said track on said carriage, identical supporting means passing to said traveller to manipulate the same and also said carriage. 2nd. In a carrier in combination, a track, a carriage movable thereon, a traveller movable transversely of said track on said carriage, identical supporting means passing to said traveller to manipulate a weight and also said traveller. 3rd. In a carrier in combination, a track, a carriage movable thereon, a traveller movable transversely of said track on said carriage, identical supporting means passing to said traveller to

manipulate a weight and also said carriage and traveller. 4th. In a carrier in combination, a track, a carriage therefor, a transverse traveller, a weight support and identical supporting means to move said weight longitudinally, transversely and vertically of said track. 5th. In a carrier in combination, a track, supporting means movable longitudinally, transversely and vertically of said track and operated from one drum. 6th. In a carrier in combination, a track, a carriage thereon, a traveller movable with relation thereto and transversely of said track, flexible means running to said carriage and traveller and adapted to actuate both in one direction and to support a weight, and a second flexible means to actuate the carriage and traveller in an opposite direction. 7th. In a carrier in combination, a track, a carriage thereon, a traveller on said carriage movable transversely of and below said track, having a plurality of vertically adjustable weight supporting means arranged longitudinally of said track. 8th. In a carrier in combination, a track, a carriage thereon, a traveller on said carriage movable transversely of said track having a plurality of vertical and simultaneously adjustable weight supporting means arranged longitudinally of said track and separated one from the other. 9th. In a carrier in combination, an elevated track, a carriage movable thereon, a traveller movable on said carriage transversely of said track, identical supporting means passing to said traveller and adapted to manipulate a weight and also said carriage and traveller, a drum to control said means, and means, to stop the movement of said carriage over said track, controllable from near said drum.

**No. 62,030. Egg Holder. (Porte-œufs.)**



62030

Henry James Marks, Toowoomba, Queensland, Australia, 12th December, 1898; 6 years. (Filed 25th November, 1898.)

*Claim.*—1st. In an egg holder, the combination with a base plate of three series of egg dividing pins arranged upon concentric circles X, Y and Z respectively, so that there will be one central egg space around which are other egg spaces, each bounded by four egg dividing pins, two of which are on circle Y, one upon X and one upon Z, as set forth. 2nd. In an egg holder, the combination with a base plate of three series of egg dividing pins arranged upon concentric circles X, Y and Z respectively, two of the pins upon the inner circle having upward extensions to form or be connected to a handle, as set forth. 3rd. In an egg holder having a handle, the combination with a base plate having egg dividing pins, certain of which are lengthened to form a handle thereon, of a plate to form an upper tier, and means to support the said plate, said upper plate being slitted to pass over the handle, and having egg dividing pins as in the base plate except as to those of the pins in the base plate which are lengthened, as set forth. 4th. In an egg holder, the general combination and arrangement of the base plate, the egg dividing pins having enlarged heads, the egg dividing pins having extensions upward to form the handle with or without the holes for drainage and other purposes, all substantially as illustrated and described.

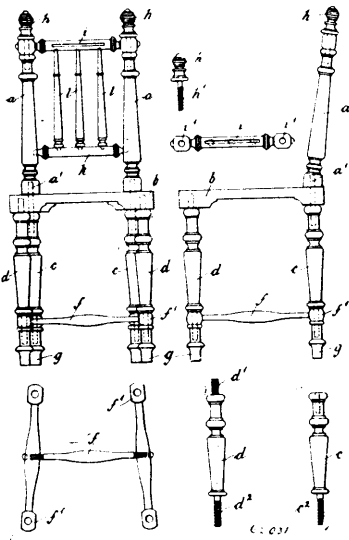
**No. 62,031. Chair. (Fautuil.)**

Gerhard Terlinden, Oberhausen, Germany, 12th December, 1898; 6 years. (Filed 25th November, 1898.)

*Claim.*—The improved detachable chair herein described, in which the back *a* and legs *c d* are connected to the seat *b* by screw

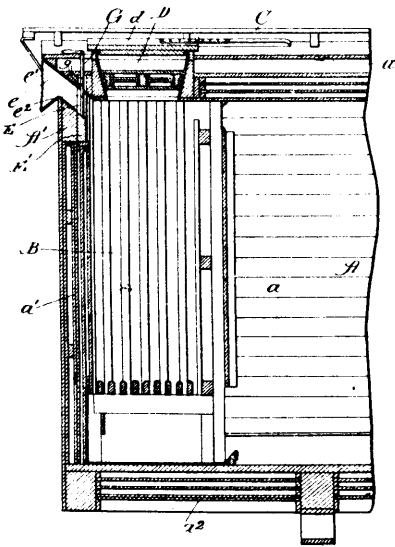


pegs *a*<sup>1</sup>, the secure tightening of the parts being effected on the one hand by the knobs *h* screwed on to the posts *a* by pegs *a*<sup>1</sup>, and



likewise securing the cross-piece *l*<sup>1</sup>, and on the other hand by the feet *g* screwed on to the pegs *e*<sup>2</sup> *d*<sup>2</sup> of the chair legs, substantially as described and shown in the drawings.

**No. 62,032. Ventilating and Refrigerating Car.**  
(*Char ventilateur et réfrigérant.*)



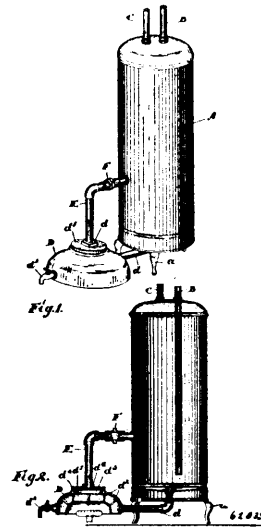
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Frank Thompson, Chicago, Illinois, U.S.A., 12th December, 1898; 6 years. (Filed 22nd November, 1898.)

*Claim.*—1st. In a combined ventilating and refrigerating car, the combination of a car-body provided with an ice-tank at each end thereof, an ice opening or openings in the roof of the car provided with hatch-doors and a ventilator opening in the end-plate of the car located adjacent to the roof portion, a funnel leading from the ventilating opening to a point adjacent to the edge of the roof and provided with a screen, and a vertical movable plug or door for covering and uncovering the ventilating opening, substantially as described. 2nd. In a combined ventilating and refrigerating car, the combination of a car-body provided with an ice-tank at each end thereof, and with ice openings and hatch-doors on the roof of the car over the ice tanks, a ventilating opening or openings in the end of the car and in the end-plate thereof adjacent to the roof, a funnel in such openings provided with a screen and leading to a point adjacent to the edge of the roof, a vertical movable plug arranged adjacent to and for the purpose of covering and uncover-

ing the ventilating opening, and a jointed rod for operating such doors so that the projecting end of the rod may be laid on the roof, substantially as described.

**No. 62,033. Water Heater.** (*Chauffeur d'eau.*)



George Alexander Perran, Toronto, Ontario, Canada, 12th December, 1898; 6 years. (Filed 22nd November, 1898.)

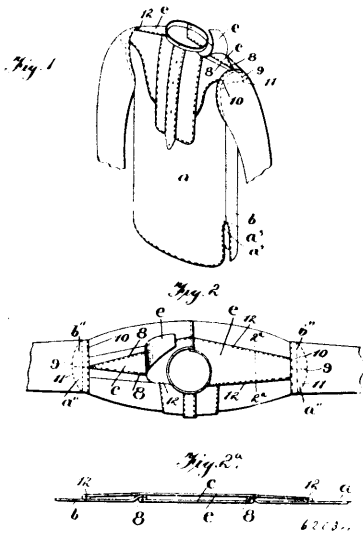
*Claim.*—1st. In a heater for water, the combination with the stand heater of the hollow dome substantially reverse U-shaped in cross-section, the pipe connecting the bottom thereof with the bottom of the heater and the pipe connected to the top of the dome and extending into the heater intermediate of its length, as and for the purpose specified. 2nd. In a heater for water, the combination with the stand heater of the hollow dome substantially reverse U-shaped in cross-section, the pipe connecting the bottom thereof with the bottom of the heater, the top orifice in the hollow dome provided with a suitable flange, the screw-cap fitting thereon and the pipe extending from the screw-cap to the heater, as and for the purpose specified. 3rd. In a heater for water, the combination with the stand heater of the hollow dome substantially U-shaped in cross-section, the pipe connecting the bottom thereof with the bottom of the heater, the top orifice in the hollow dome provided with a suitable flange, the screw-cap fitting thereon, the pin-struts extending from the bottom walls of the dome to the top walls and the pipe extending from the screw-cap to the heater, as and for the purpose specified. 4th. In a heater for water, the combination with the stand heater of the hollow dome substantially reverse U-shaped in cross-section, the pipe connecting the bottom thereof with the bottom of the heater and the pipe connected to the top of the dome and extending into the heater intermediate of its length, and the faucet connected to the bottom of the hollow dome, as and for the purpose specified.

**No. 62,034. Garment.** (*Vêtement.*)

George Frederick Pooley, Salisbury, Maryland, U.S.A., 12th December, 1898; 6 years. (Filed 23rd November, 1898.)

*Claim.*—1st. A shirt having the front and back portions meeting and united over the outer portions of the shoulders and overlapping and secured to the sleeves outwardly beyond the stitching securing the sleeve to the body around the armhole, and yokes uniting the front and back portions between the neck and said meeting edges, substantially as described. 2nd. A shirt having the front and back portions meeting and secured together over the outer portions of the shoulders and extending outwardly and overlapping and secured to the sleeves outwardly beyond the stitching around the armholes, and the yokes tapering from the neck outwardly to a point and uniting the edges of the back and front portions from the neck and outwardly to said meeting edges, substantially as described. 3rd. A shirt having the front and back portions, the outwardly-tapered inner shoulder-yokes uniting their top edges, the said back and front top edges meeting and united beyond the outer ends of said yokes and extended outwardly and overlapping the sleeves and united thereto, outwardly beyond the stitching around the sleeves and uniting the same to the body, and the outer shoulder-yokes extending from the sleeves to the neck and covering the inner yokes and extending beyond the united edges of the back and front, and onto and united to the back and front, substantially as described. 4th. A garment having front and back body portions, yokes uniting the top edges of said front and back portions and tapering outwardly

from the neck opening toward the armholes, the top edges of the front and back body portions meeting and secured directly together



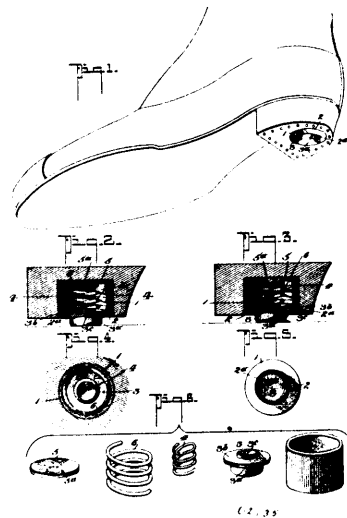
beyond the outer ends of the yokes, substantially as described. 5th. A garment having the front and back body portions, tapered inner yokes uniting the top edges of said body portions by lines of stitching, such as 8, and the outer shoulder-yokes arranged above and covering said inner yokes and extended down at the back and front beyond the inner yokes and united to the back and front body portions by the lines of stitching, such as 12, arranged downwardly beyond the lines of stitching 8, for the purpose substantially as described. 6th. A garment having its body portion provided with two projections or ears at each armhole, said projections integral with the body, the projections at each armhole stitched together and the sleeves stitched to the body completely around the armholed and inwardly beyond said projections with the projections extending outwardly along the sleeves over the shoulders and stitched around their edges to the sleeves outside of said stitching around the armholes, substantially as described. 7th. A garment having its body portion formed with the armholes, the sleeves having their inner ends stitched to the body portion completely around the armholes, said body portion cut with an ear or projection integral therewith and projecting outwardly above each armhole, respectively, and beyond said stitching around the same and within the sleeves, and stitched around their edges to the sleeves, so that each sleeve is united to the body portion around the armhole and at another point outwardly beyond the armhole, and the body portion extends outwardly along the shoulder portion of each sleeve, substantially as described. 8th. A garment having the gusset at the end of the seam uniting the two portions thereof, comprising a tapered projection extending out from the edge of one portion, said seam continued along one edge of said projection and uniting the same to the edge of the opposite portion, the projection puckering out between said portions forming a fullness, the other edge of the projection being hemmed in continuation of the hemmed edges of said portions below said seam, substantially as described.

**No. 62,035. Heel Spring.** (*Ressort pour talons de chaussures.*)

George E. Swan, Beaver Dam, 12th December, 1898; 6 years. (Filed 22nd November, 1898.)

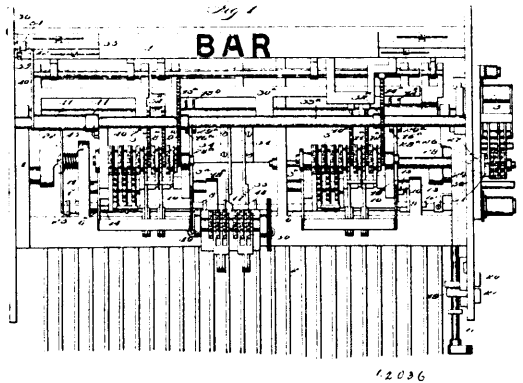
*Claim.*—1st. A device for the purposes stated, comprising a hollow casing adapted to fit in a socket in a heel, said casing having an opening in the bottom, a tread block detachably held for a rotary and lateral movement in the casing and its slug or tread member projected through the opening in the casing bottom, and a buffer spring held within the casing to rest on the tread block, as specified. 2nd. A device for the purposes describes, comprising a hollow casing adapted to fit a socket in the heel, said casing having its bottom formed with a centre opening, a pressure spring held in the casing and a tread block having a slug portion projected through the opening in the casing bottom, said block being held between the spring and the casing bottom, but disconnected therefrom whereby it is capable of moving laterally and rotatably, substantially as shown and for the purposes described. 3rd. A device for the purposes described, comprising a casing adapted to be fitted in the socket of the heel and having a bottom central aperture, a tread block comprising a disc portion of less diameter than the casing and having a slug or tread member of less diameter than the casing bottom aperture, a main coil buger spring seated in the casing to bear against the outer edge of the tread block and a second coil spring held to

bear centrally on the said tread block all being arranged substantially as shown and described. 4th. As a new article of manufacture,



a spring tread attachment for heels, comprising a casing formed of a cup shaped body having its bottom centrally apertured, a tread block consisting of a disc portion of a less diameter than the cup shaped body, having an integral pendent circular tread or slug member adapted to extend through the opening in the casing bottom and being of less diameter than such opening, and a central boss on the upper face, a main buffer or coil spring held in the casing to bear on the outer edge of the tread block disc, a second coil spring held within the first spring, its lower end seating on the tread block round its boss and a top plate fixedly held on the upper end of the cup body formed with a pendent boss to project in the upper end of the inner spring, all being arranged substantially as shown and described, whereby the inner spring will serve as a yielding fulcrum or centre-bearing for the tread block as it is moved laterally or rotated.

**No. 62,036. Cash Register.** (*Régistre à monnaie.*)



The National Cash Register Company, assignee of Thomas Carney, all of Dayton, Ohio, U.S.A., 13th December, 1898; 6 years. (Filed 6th September, 1898.)

*Claim.*—1st. In a cash-register, the combination with a plurality of operating keys, of duplicate register operating devices coupled so as to operate simultaneously, a plurality of independent registering mechanism adapted to be moved into connection with the operating devices, and means for simultaneously adjusting all of said registering mechanisms, whereby only one of the same is thrown into connection with its respective operating device upon the movement of the machine, and the remainder rendered inactive. 2nd. In a cash-register, the combination with a plurality of operating keys, of a plurality of independent registering machines, duplicate register operating devices having their corresponding portions coupled so as to operate simultaneously, means for moving the registering mechanism into connection with the operating devices, and devices for simultaneously throwing one of said registering mechanisms into connection with said moving means and withdrawing the remainder from such connection. 3rd. In a cash-register, the combination with a plurality of operating keys, of a plurality of independent registering mechanisms, a shifting device, a lock for securing the

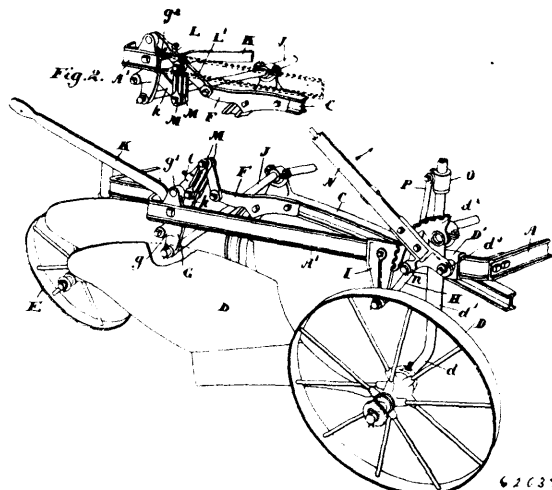
shifting device positively in any of its adjusted positions and means connecting said shifting device with all of the registering mechanisms whereby they are adjusted simultaneously so as to be thrown into operative position or rendered inactive respectively. 4th. In a cash-register, the combination with a plurality of operating keys, of a plurality of independent registering mechanisms, operating racks for each of said mechanisms, coupling devices for connecting the corresponding racks of the different registering mechanisms so that they move together, and means for simultaneously adjusting all of the registering mechanisms whereby only one of the same is thrown into connection with its respective racks upon the movement of the machine and the remainder rendered inactive. 5th. In a cash-register, the combination with a plurality of operating keys arranged in banks, of a plurality of independent registering mechanisms, each of which corresponds to said bank, duplicate operating devices connected to the keys and adapted to be engaged by the registering mechanisms, couplings for connecting the respective like bank portions of the operating devices so that they move together, and means for simultaneously adjusting all of the registering mechanisms, whereby only one of the same is thrown into connection with its respective operating device upon the movement of the machine and the remainder rendered inactive. 6th. In a cash-register, the combination with a plurality of keys, of a plurality of independent registering mechanisms, operating devices connected to the keys, levers for throwing the registering mechanisms into connection with the operating devices, and means for simultaneously adjusting all of said levers whereby one of the same will be thrown into connection with its respective operating device upon the movement of the machine and the remainder rendered inactive. 7th. In a cash-register, the combination with a plurality of operating keys, of a plurality of pivotally mounted independent registering mechanisms, a shaft, a plurality of racks rigidly mounted on said shaft and adapted to be engaged by the respective registering mechanisms, other racks loosely mounted upon said shaft in proximity to the respective registering mechanisms and connected so as to move simultaneously, and shifting devices for throwing any one of the registering mechanisms into connection with said duplicate racks. 8th. In a cash-register, the combination with a plurality of operating keys, of a plurality of independent movable registering mechanisms, duplicate register operating devices, throwing levers for the registering mechanisms, means for simultaneously moving one of said levers into operative position and the remainder out of operative position, and lever operating devices adapted to strike said levers and throw the registering mechanisms into operating positions. 9th. In a cash-register, the combination with a plurality of operating keys, of a plurality of independent movable registering mechanisms, operating devices with which said mechanisms are adapted to be brought into connection, means for throwing said mechanisms forward separately into engagement with the operating devices and means for positively locking said mechanisms in their inoperative positions during a portion of the movement of the machine and releasing them when they are to be thrown into operative position. 10th. In a cash-register, the combination with a plurality of operating keys, of a plurality of independent registering mechanisms, levers for separately throwing said mechanisms into operative positions, a power shaft operated by the keys, cams on said shaft adapted to engage said throwing levers and means for simultaneously moving said levers so that only one of the same will be engaged by any of the cams at the same time. 11th. In a cash-register, the combination with a plurality of operating keys, of a plurality of independent movable registering mechanisms, register operating devices, levers for throwing said mechanisms into connection with the operating devices, locking arms connected to said mechanisms for holding them out of contact with the operating devices, a power shaft connected with the keys, cams on said shaft adapted to engage both the throwing levers and the locking arms, and means for adjusting said levers into or out of operative position. 12th. In a cash-register, the combination with a plurality of operating keys, of a plurality of independent registering mechanisms, registering operating devices, a shifting bar connected to the registering mechanisms, a spring for normally holding said bar in one position, a latch for holding said bar in the opposite position, and means connecting said latch with the keys whereby it is operated to release the shifting bar upon said keys being operated. 13th. In a cash-register, the combination with a plurality of operating keys, of a plurality of pivoted independent registering mechanisms, throwing levers pivotally mounted on the frames on said mechanisms, notched plungers also mounted on said frames and adapted to adjust the positions of the levers, means for simultaneously operating said plungers, cams connected to the moving parts of the machine for operating said levers, and registering operating devices so located as to be engaged by the registering mechanisms when the latter are moved by the throwing levers. 14th. In a cash-register, the combination with a registering mechanism, of a plurality of counters mounted in a movable frame and arranged to be brought into connection with the registering mechanism at will, an indicator for indicating which counter is being employed and means connecting one of the movable counter frames directly with the indicator so that its movements will move said indicator. 15th. In a cash-register, the combination with a registering mechanism, of a printing mechanism connected thereto, a special key, a slotted plate arranged to be operated by said key and a special printing segment having a projection which enters the slot of said plate. 16th. In a

cash-register, the combination with a registering mechanism, of a plurality of counters arranged to be brought into connection therewith at will, a shifting rod for controlling all of said counters, a latching lever for said rod and means for operating said lever to automatically release the rod upon each operation of the machine. 17th. In a cash-register, the combination with a registering mechanism, of a plurality of special counters arranged to be brought into connection therewith at will, and a plurality of auxiliary counters one for each special counter for registering the number of times their respective special counters are operated. 18th. In a cash-register, the combination with a registering mechanism, of a plurality of special counters arranged to be brought into connection therewith at will, a shifting bar for establishing the connection between the said counters and the registering mechanism, auxiliary counters, one for each special counter, and means connected to the shifting bar for bringing the proper auxiliary counter into operative position with its special counter so that the number of times any special counter is operated will be registered on its auxiliary counter. 19th. In a cash register, the combination with a registering and printing mechanism, of a plurality of counters, a key for bringing either of said counters into connection with the registering mechanism at will, a slotted plate arranged to be operated by said key, and a special printing device having a projection which enters the slotted plate whereby said device is operated. 20th. In a cash register, the combination with a registering mechanism, of a printing mechanism connected thereto, a printing segment, a special key, a plate having an incline slot and arranged to be operated by said key, and a pin mounted on the printing segment and projecting into the slot of said plate. 21st. In a cash register, the combination with a registering mechanism, of counters arranged to be brought into connection therewith at will, an indicator having corresponding indications on opposite sides so as to be seen at both the back and the front of the machine, and means for connecting said indicator with one of the counters whereby it is turned or not according to the position of said counter. 22nd. In a cash register, the combination with a registering mechanism, of a plurality of counters arranged to be brought into connection therewith at will, a movable rod arranged to shift the connections so that one or the other of said counters is thrown into operative position, a pivoted lever arranged to engage a projection of said rod and lock it in position, and a cam mounted on a movable part of the machine and arranged to engage and operate said lever to release the rod near the end of the operation of the machine. 23rd. In a cash register, the combination with a registering mechanism, of a plurality of counters arranged to be brought into connection therewith at will, a movable rod arranged to shift the connections so that one or the other of said counters is thrown into operative position, and means for locking said rod in the position to which it is adjusted and automatically release the same near the end of the operation of the machine. 24th. In a cash register, the combination with a registering mechanism, of a plurality of counters arranged to be brought into connection therewith at will, an indicator for indicating which counter is being employed, an arm mounted on one of the counters, and means arranged to be struck by said arm for operating said indicator. 25th. In a cash register, the combination with a registering mechanism, of a plurality of counters arranged to be brought into connection therewith at will, a rotary indicator having similar indications on opposite sides so as to indicate the same characters at both the front and the back, an arm mounted on one of said counters, and operating devices connected to the indicator and arranged to be struck and operated by the said arm when the counter carrying the same is thrown into operative position. 26th. In a cash register, the combination with a registering mechanism, of two counters arranged to be brought into connection therewith at will, a rod for effecting the engagement of the counters with the registering mechanism, a key having a bevel portion engaging said rod, a plate having an incline slot mounted on said rod, and a printing segment having a projection engaging the slot in said plate. 27th. In a cash register, the combination with a registering mechanism, of a series of keys, indicators for said keys, a latch plate for said indicators, a plurality of counters, an indicator for said counters, and means for operating said indicator in connection with the counters, adapted to be caught and held in position by said latch plate. 28th. In a cash register, the combination with a registering mechanism, of a plurality of counters, a counter indicator, a slide arranged to be operated by one of the counters and connected to the indicator and latching means for holding the indicator set until the operation of the machine. 29th. In a cash register, the combination with a registering mechanism of two counters mounted on movable frames so that they may be brought into connection therewith at will, a slidable rod arranged to bring either one or the other of the counters into operative position, means mounted on said rod for locking the inoperative counter in position, a key for operating said rod, and a device for locking said rod in position and automatically releasing it near the end of the operation of the machine. 30th. In a cash-register, the combination with a registering mechanism of two counters arranged to be brought into connection therewith at will, a shifting rod for said counters, a key for operating said rod, a spring for normally forcing said rod in one direction, a bevelled nut on said rod, a latch lever arranged to engage said nut, and means connected with the movable parts of the machine for operating said lever to release it from said nut. 31st. In a cash-register, the combination with a registering mechanism of two counters arranged to be thrown into connection

therewith at will, a movable rod adapted to bring one of said counters into operative position and simultaneously lock the other against such operation, and an operating key having a bevelled portion arranged to engage a portion of said rod whereby the movement of said key will move said rod. 32nd. In a cash-register, the combination with a registering mechanism of a counter normally co-operating with the same and arranged to automatically return to co-operative position when moved from it, a second counter, means for moving the latter into co-operative position with the registering mechanism and simultaneously disengaging the first mentioned counter, and an indicator controlled by the movements of said counters for indicating which of the same is being used. 33rd. In a cash register, the combination with a registering mechanism of two counters arranged to be brought into connection therewith at will, an indicator for said counters having corresponding indicators upon opposite sides, a slotted arm connection to said indicator, a slide having a pin engaging said slotted arm, and an arm mounted on one of the counter frames and connected to said slide. 34th. In a cash-register, the combination with register operating devices, independent counters arranged to be moved into connection with the same, a shifting rod, a pivoted lever engaging said rod, and a key arranged to operate said lever. 35th. In a cash register, the combination with register operating devices, independent counters arranged to be moved into connection with the same, a shifting bar, a lever for operating said bar, a key and a latching means for said lever arranged to be released by said key. 36th. In a cash-register, the combination with register operating devices, independent counters arranged to be moved into connection with the same, a shifting rod for said counters, a lever for operating said rod, a key for moving said lever, and means connected to the movable parts of the machine and arranged to lock said lever. 37th. In a cash-register, the combination with register operating devices, independent counters arranged to be moved into connection with the same, a shifting rod, and a pivoted key arranged to operate said rod. 38th. In a cash-register, the combination with a registering mechanism of a plurality of counters arranged to be brought into connection therewith, a shifting device for said counters, a key for operating said device and means connected to the movable parts of the machine for locking said key if the registering mechanism is operated before said key. 39th. In a cash-register, the combination with a registering mechanism of independent counters arranged to be moved into connection with the same, a shifting rod for said counters, a special key for operating said rod, and means connected to the movable parts of the machine for limiting the initial movement of said special key. 40th. In a cash-register, the combination with a registering mechanism, of independent counters arranged to be moved into connection with the same, a shifting device for said counters, a special key for operating said shifting device, a latch for holding said key in a partly operated position and means for releasing said latch upon the full stroke of the key. 41st. In a cash-register, the combination with a series of keys, of a register operating mechanism connected to the same, independent counters arranged to be moved into connection with said operating mechanism, of a key coupler, a shifting device for said counters, and a key for actuating said device arranged to first make a partial stroke by itself and then be coupled and operated with the regular keys. 42nd. In a cash-register, the combination with a registering mechanism, of independent counters, a shifting device for said counters, a key for operating said device and means for locking said key upon the operation of the registering mechanism. 43rd. In a cash-register, the combination with a registering mechanism, of independent counters, a shifting device for the same, a pivoted lever arranged to operate said device and having an incline slot and a key having a pin projecting into said slot. 44th. In a cash-register, the combination with a registering mechanism, of a plurality of counters arranged to be brought into connection therewith, a shifting device for said counters, a key for operating said devices and a stop arranged to limit the stroke of said key and connected to the registering mechanism so as to be moved upon the operation of the latter to permit a full stroke of said key. 45th. In a cash-register, the combination with a series of keys, of a registering mechanism connected to the same, a movable member arranged to be operated by any of said keys, duplicate counters arranged to be moved into connection with said registering mechanism, and a special key for throwing said counters arranged to first make a partial stroke by itself and then be coupled and operated with the regular keys. 46th. In a cash-register, the combination with a series of keys, of a registering mechanism, a key coupler, a plurality of independent counters arranged to be brought into connection with the registering mechanism, a shifting key for said counters, a lever arranged to be operated by said key, a locking bar mounted on the key coupler and arranged to arrest the said lever and means connected to the key coupler for limiting the initial movement of the shifting key. 47th. In a cash-register, the combination with register operating devices, of duplicate registers arranged to be brought respectively into connection with said devices at will, and an indicator arranged to indicate which of the counters is employed for any particular transaction. 48th. In a cash-register, the combination with register operating devices, of duplicate registers arranged to be brought respectively into connection with said devices at will, and a printing mechanism arranged to print a designation of the counter which is employed for any particular transaction. 49th. In a cash-register, the combination with register operating devices, of a plurality of counters, capable of independent operation, and means

for bringing any one of said counters into connection with the operating devices at will.

**No. 62,037. Gang Plough. (Charru-buttoir.)**



The Cockshutt Plough Company, assignee of Frederick James Peel, all of Toronto, Ontario, Canada, 13th December, 1898; 6 years. (Filed 15th November, 1898.)

*Claim.*—1st. In a high lifting gang or riding plough, a double locking, raising and lowering device comprising two toggle-jointed bars connected one with the other by the central pivot and to the frame and beam as shown and for the purpose specified. 2nd. In a high lifting gang or riding plough, the combination with the plough beams and frame, of a toggle-jointed bar pivotally connected at one end to the frame and at the other end to the beam and a secondary toggle-jointed bar pivotally connected at one end to the frame and at the other end to the central pivot of the primary toggle and means connected to the secondary toggle for manipulating both as and for the purpose specified. 3rd. In a gang or wheel plough, the combination with the plough beam and bails, of the lever suitably pivoted on the frame and provided with a bent end, the toggle-jointed bar connecting the frame to the beam and the link connecting the pivotal centre of the toggle-jointed bar to the bent end of the lever, as and for the purpose specified. 4th. In a gang or wheel plough, the combination with the plough beam and bails, of the lever suitably pivoted on the frame and provided with a bent end, the bracket secured to the beam, the toggle-jointed bar pivotally connected at one end to the frame and at the other end to the rear end of the bracket and the link connecting the pivotal centre of the toggle-jointed bar to the bent end of the lever, as and for the purpose specified. 5th. The combination with the frame and sleeve bracket and furrow-wheel having a bent axle, the vertical portion of which extends through the sleeve of the bracket, of the quadrant secured to the sleeve, the lever pivoted on the bracket and the collar secured to the axle and the rod connecting the lever to the collar as shown and for the purpose specified. 6th. The combination with the frame and sleeve bracket and furrow-wheel having a bent axle, the vertical portion of which extends through the sleeve of the bracket, of the quadrant secured to the sleeve, the lever pivoted on the bracket and provided with an offset projection, the collar secured to the vertical portion of the axle and the rod pivotally connected to the collar and to the offset projection of the lever, as and for the purpose specified. 7th. The combination with the frame and sleeve secured thereto and furrow-wheel and axle having the vertical portion extending through the sleeve, of a lever having its fulcrum forward of the sleeve, the stationary quadrant, the collar on the upper portion of the axle and the link or rod connecting the lever to the collar, as and for the purpose specified.

**No. 62,038. Vegetable Powder. (Poudre végétale.)**

The Merrell-Soule Company, assignee of William Buell Gore, all of Syracuse, New York, U.S.A., 13th December, 1898; 6 years. (Filed 14th November, 1898.)

*Claim.*—The herein described method of preparing vegetable powder or meal suitable for the admixtures with liquid for the production of soups, puddings, sauces, jams, pies, etc., which consists in cooking the green vegetable substance and reducing the same to a pulp adding starch to the moist pulp and drying the mixture, substantially as set forth.

**No. 62,039. Locomotive Smoke Stack.**

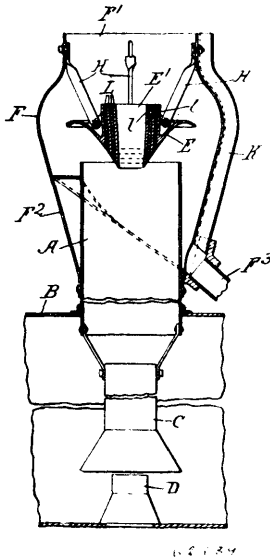
(*Cheminée de locomotives.*)

Georgiana T. G. Forsyth, Chicago, Illinois, U.S.A., 13th December, 1898; 6 years. (Filed 11th November, 1898.)

*Claim.*—1st. In a locomotive smoke-stack, in combination with the smoke-box, the uptake pipe or barrel leading therefrom, and the

steam nozzle discharging into the same under the lower open end thereof, a conical deflector overhanging the margin of the uptake-

link having at one end a side link pivotally connected thereto and at the other end a staple or like connection to a base plate, in com-

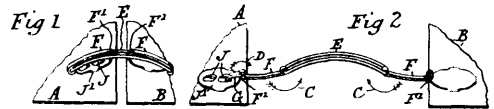
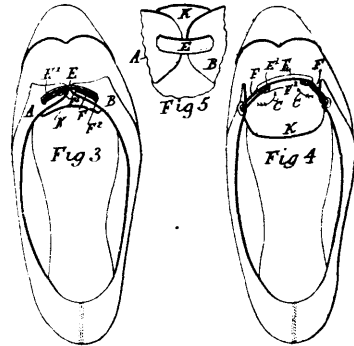


pipe and having a relatively large axial aperture, and being at its outer marginal portion downwardly concave, and an expanded head which encompasses the upper end of the uptake pipe and such deflector leaving a free annular passage around the margin of the deflector, whereby a large central portion of the ascending column in the uptake-pipe obtains unobstructed and direct exit without deflection through the centre of the deflector, and simultaneously the outer annular portion of said column, which in its ascent encounters the deflector, is deflected to precipitate solid matter therefrom outside the uptake-pipe. 2nd. In a locomotive smoke-stack, in combination with the smoke-box, the uptake-pipe or barrel leading therefrom, and the steam nozzle discharging into the same under the lower open end thereof, a conical deflector which overhangs the margin of the uptake-pipe and has a large central unobstructed opening through it and its outer marginal portion downwardly concave, an expanded head joined to the uptake-pipe below its upper end, and enclosing a pocket around the upper portion of the uptake-pipe and an annular space around the deflector, and a discharge-pipe leading from the pocket, whereby, simultaneously, the central steam core of the ascending column in the uptake-pipe obtains a direct unobstructed egress without deflection through the deflector, and the outer annular smoke-containing portion of said column is deflected to precipitate solid matter therefrom outside the uptake-pipe, and such precipitated matter is conducted off by the discharge-pipe from the pocket. 3rd. In a locomotive smoke-stack, in combination with the uptake pipe or barrel and an expanded discharge head within which said uptake-pipe discharges, an annular conical deflector within the expanded head concentric with the uptake-pipe and having a central aperture for the escape without deflection of the core of the ascending column in the uptake-pipe, removable annular bushings in said central opening in the same deflector, whereby the diameter of said opening may be varied step by step at will.

**No. 62,040. Boot Fastening. (Attache de chaussures.)**

Victor Bergman and William George Boyle, both of Mystia, Victoria, Australia, 13th December, 1898; 6 years. (Filed 11th November, 1898.)

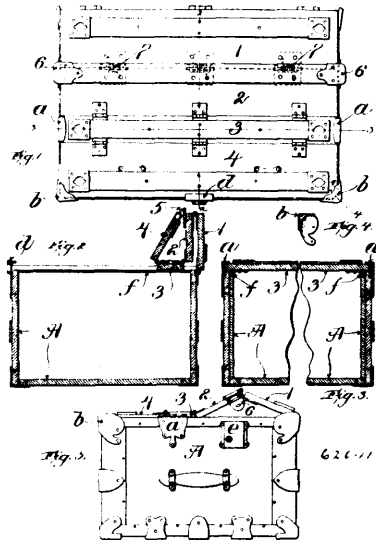
*Claim.*—1st. In a fastening for articles, an apertured major link having pivotally connected thereto a side link or links, substantially as set forth. 2nd. In a fastening for articles, an apertured major link having pivotally connected thereto a side link or links, and, combination with either or both side links an end hook or end link, substantially as set forth. 3rd. In a fastening for articles, the combination of parts substantially as described, consisting of an apertured major link E, side links F adapted to pass through the said major link in closing and end hook G, and means for engaging the said hook with an article as A, as set forth. 4th. In a fastening a side link pivotally attached to a major link so as to be adapted to close into a position above the line adjoining the major link ends, substantially as set forth. 5th. In a fastening for articles, the combination with a major link, of an adjustable and removable side link or links, and eyes or the like on said major link for said adjustment, substantially as set forth. 6th. In a fastening for articles, the combination of parts consisting of a major link having at each end sockets for the pivotal connection thereto of side links, removable side links, and means for the connection of such side links to articles as A and B, as set forth. 7th. In a fastening for articles, a major



62040

link having at one end a side link pivotally connected thereto and at the other end a staple or like connection to a base plate, in combination with a projection under the major link at the base plate end, the side link being of such length as to be adapted when folded into closed position to have one end above the said projection, as set forth.

**No. 62,041. Trunk. (Coffre.)**

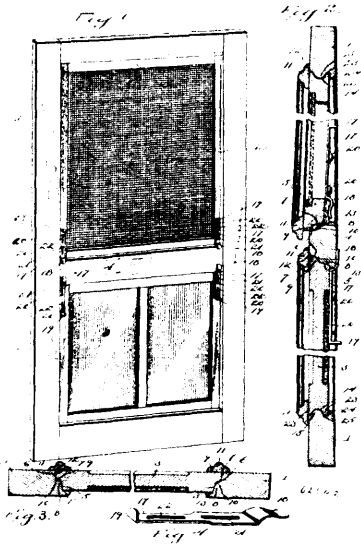


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Edward P. White, and Edward D. Bean, both of Arlington, Massachusetts, U.S.A., 13th December, 1898; 6 years. (Filed 26th October, 1898.)

*Claim.*—1st. The trunk herein described, made up of a body part A, a lid composed of a multiplicity of parts hinged together, part 1 hinged to the body part A, part 2 to part 1, part 3 to part 2, part 4 to part 3 and so on successively, each succeeding part being hinged to the next part or parts, and part 3 or some succeeding part being connected by a sliding connection to the body part A, and means to lock the parts of the lid not hinged to the body part when the lid is in the closed position. 2nd. The trunk herein described, made up of a body part A, a lid composed of a multiplicity of parts hinged together successively, part 1 hinged to the body part A, part 2 to part 1, part 3 hinged to part 2 and connected by a sliding connection to the body part A, part 4 hinged to part 3, and means to lock the parts to the body part A when the lid is in the closed position.

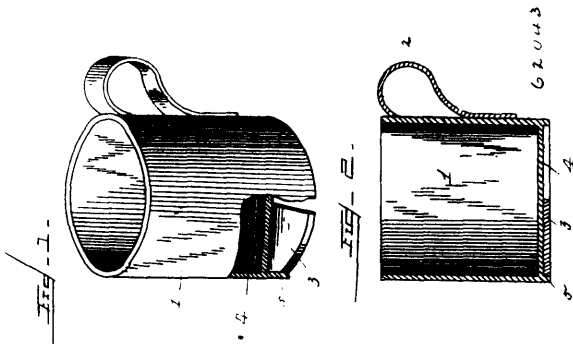
**No. 62,042. Screen and Storm Door.**  
(*Store et contre-porte.*)



Charles R. Moore and John T. Rocque, both of Newport, Vermont, U.S.A., 13th December, 1898; 6 years. (Filed 21st November, 1898.)

*Claim.*—1st. The combination with a door having panel openings of removable panels, each panel having a longitudinal groove, segmental in cross-section formed in one of its edges, the remaining edges thereof being formed with a rabbet on their inner sides and a tongue on their outer sides, and the respective edges of the panel openings being formed with reversely arranged tongues and rabbets into which the panels are adapted to fit, one of the edges thereof being provided with a longitudinal rib, segmental in cross-section and adapted to fit within the longitudinal groove in the panel, the panel openings being provided with a shoulder extending around the inner face, and a moulding provided upon the outer face of the panel and extending beyond the edges of the panel, thereby forming lap or covered joints, substantially as and for the purpose set forth. 2nd. The combination with a door having panel openings, and removable panels having a hinge connection with one edge of the openings, of a locking device, for the opposite edge of the panels, consisting of a sliding latch formed with a longitudinal slot or slots in the shank thereof, screws or other suitable fastenings engaging the slot and slidably mounting the latch upon the panel, said latch being provided with a handle or thumb-piece at one end and formed into a deflected or offset spring tongue at the other end, which is adapted to engage the intermediate transverse bar of the door, substantially as shown and described. 3rd. The combination with a door having panel openings, of removable panels, each panel having a longitudinal groove, segmental in cross-section formed in one of its edges, the remaining edges thereof being formed with a rabbet on their inner sides and a tongue on their outer sides, and the respective edges of the panel openings being formed with reversely arranged tongues and rabbets into which the panels are adapted to fit, one of the edges thereof being provided with a longitudinal rib, segmental in cross-section, adapted to fit within the longitudinal groove in the panel, and provide a hinge and interlocking connection therefor, substantially as and for the purpose set forth.

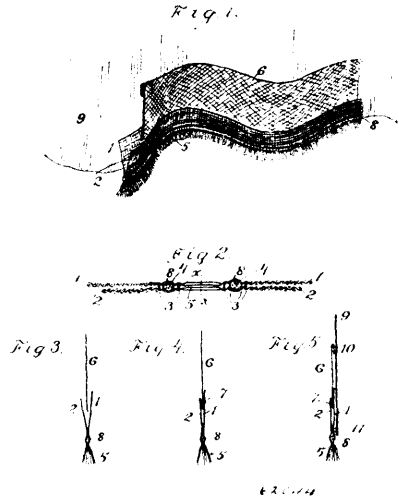
**No. 62,043. Cup or Pail.** (*Godet ouseau.*)



James W. Scoles and John T. Houser, both of Martinsville, Illinois U.S.A., 13th December, 1898; 6 years. (Filed 21st November, 1898.)

*Claim.*—As a new article of manufacture, a drinking-cup provided on its outside with a handle, a depending flange below the bottom of said cup and forming a recess, and a counterweight secured within the recess to partially cover the face of the cup-bottom and arranged on one side of the vertical axis of the cup-body opposite to the side to which the handle is secured, whereby the vessel is maintained normally in an upright position to float on the water by the counterweight which is disposed to utilize the liquid as a fulcrum in overbalancing the gravity of the handle, substantially as described.

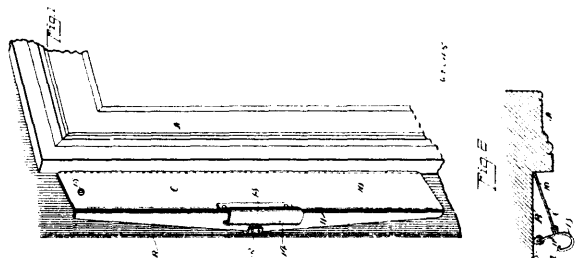
**No. 62,044. Skirt or Garment Binding.**  
(*Bordure de jupe ou vêtement.*)



Lucian Flanders Howe, assignee of Lizzie Ella Howe, both of New York City, New York, U.S.A., 13th December, 1898; 6 years. (Filed 21st November, 1898.)

*Claim.*—1st. A skirt or garment binding having a suitable edging and a head portion comprising two webs united together and to said edging, substantially as set forth. 2nd. A skirt or garment binding having a suitable edging, a head portion comprising two webs united together and to said edging and a strip of fabric inserted between the two webs of said head portion, substantially as set forth. 3rd. A skirt or garment binding having the fringe or pile edge portion and the two-web head portion woven or braided in one piece. 4th. A skirt or garment binding having a double web portion whose webs are of different widths. 5th. A skirt or garment binding having a double web portion in which the two webs are of different thicknesses.

**No. 62,045. Wall Protector.** (*Protecteur de murs.*)

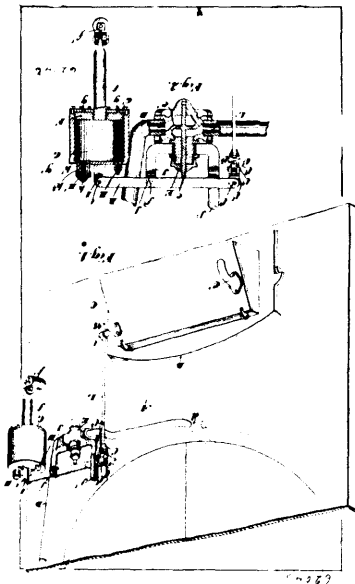


Richard L. Hardin and Richard Henry Harper, both of Chicago, Illinois, U.S.A., 13th December, 1898; 6 years. (Filed 18th November, 1898.)

*Claim.*—1st. As an improved article of manufacture, a wall protector consisting of a body comprising a blade or plate having a flange at its outer edge, and a handle attached to said body, for the purpose specified. 2nd. A wall protector, consisting of a body comprising a main plate or blade, and an inwardly extending flange at the outer edge of said plate or blade, the flange being provided with a cushion, and a handle located at the flanged edge of the body, which handle extends over and beyond the flange of the body, substantially as described. 3rd. A wall protector, consisting of a body, which body comprises a front or main plate and a flange at the outer longitudinal edge of said main plate, said flange being tapered in opposite directions from its centre, a cushion located at the central portion of the inclined edge of the flange, and a handle

attached to the body at its flanged edge, which handle is curved over and beyond the flange, the inner face of the handle being concaved and its outer face convexed, as described.

**No. 62,046. Smoke Consumer.** (*Foyer fumivore.*)

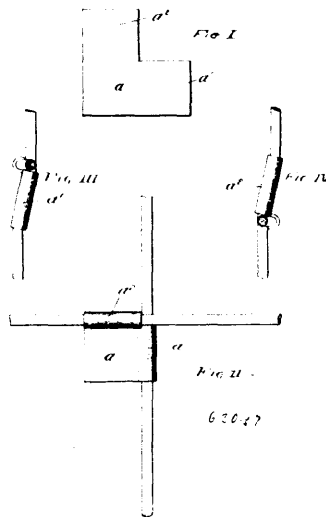


Walter Redpath and Andrew Hugh Reid, both of Toronto, Ontario, Canada, 13th December, 1898; 6 years. (Filed 18th November, 1898.)

*Claim.*—1st. The combination with the steam pipe for conveying steam into the interior of the furnace and the door of such furnace, of a check valve situated intermediate of the length of the steam pipe and provided with an upwardly extending spindle, a lever suitably pivoted and extending over the spindle, a vacuum pot connected at one end of the lever and provided with an air valve and pot-cock at the upper end thereof and a suitably perforated bottom, a piston located in the pot and a rod therefor suitably connected at the bottom to a support and a rod connected to the furnace door at one end and having a universal joint connection at the opposite end to the long end of the lever, as shown and for the purpose specified. 2nd. The combination with the steam pipe for conveying steam into the interior of the furnace, and the door of such furnace, of a check valve situated intermediate of the length of the steam pipe and provided with an upwardly extending spindle, a lever, a bracket held on the top of the check valve and having a pivotal support at one end thereof for the lever and a guiding jaw at the opposite end, and a vacuum pot connected at one end of the lever and provided with an air valve and pot-cock at the upper end thereof and a suitably perforated bottom, a piston located in the pot and a rod therefor suitably connected at the bottom to a support and a rod connected to the furnace door at one end and having a universal joint connection at the opposite end to the long end of the lever, as and for the purpose specified. 3rd. The combination with the steam pipe for conveying steam into the interior of the furnace and the door of such furnace, of a check valve situated intermediate of the length of the steam pipe and provided with an upwardly extending spindle, the lever suitably pivoted and extending over the spindle, a vacuum pot connected at one end of the lever and provided with an air valve and pot-cock at the upper end thereof and a suitably perforated bottom, a piston located in the pot and a rod therefor suitably connected at the bottom to a support, a damper for the furnace door hinged at the top and provided with a suitable handle, a bracket extending laterally therefrom and forming a trunnion, a rod having an eye at the bottom end journaled on the trunnion and a universal joint connection at the top of the rod, as shown and for the purpose specified. 4th. The combination with the steam pipe for conveying steam into the interior of the furnace and the door of such furnace, of a check valve situated intermediate of the length of the steam pipe and provided with an upwardly extending spindle, a lever suitably pivoted and extending over the spindle, a rod having a universal joint situated intermediate of its length, permanently connected at one end to the lever and at the other end to the door, and means attached to the opposite end of the lever for controlling the gradual raising of such end of the lever after being depressed by the opposite end of the lever being raised by the opening of the door, as and for the purpose specified.

**No. 62,047. Wire Fence-Joint.**

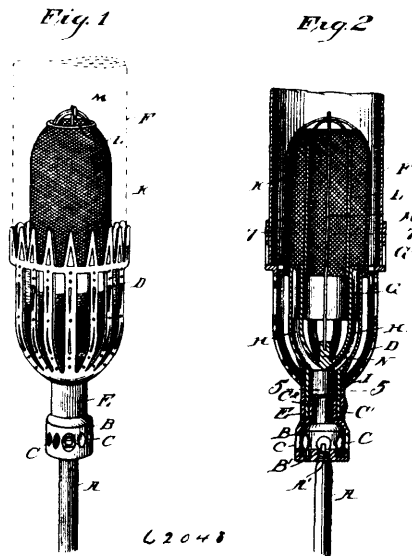
(*Joint de clôture de fil de fer.*)



Max W. Boiley assignee of Jonathan Harris, both of Cleveland, Ohio, U.S.A., 13th December, 1898; 6 years. (Filed 17th November, 1898.)

*Claim.*—1st. A wire fence-joint, comprising the combination with crossed wires of a clamp consisting of a metal plate provided with two lateral projections, said projections being bent around the wires forming the sides of the same angle of the joint and forming two engaging loops, the body of said clamp occupying but one angle of said joint, substantially as set forth. 2nd. A wire fence-joint, comprising the combination with crossed wires of a clamp consisting of a metal plate provided with two lateral projections, said projections being bent around the wire forming the sides of the same angle of the joint and in opposite direction, and forming two loops, said loops extending to the apex of the said angle, substantially as set forth. 3rd. A wire fence-joint, comprising the combination with crossed wires of a clamp occupying but one angle of the joint, each wire being bent once on each side of its respective loop and in opposite directions respectively, substantially as set forth.

**No. 62,048. Gas Burner.** (*Bruleur de gaz.*)

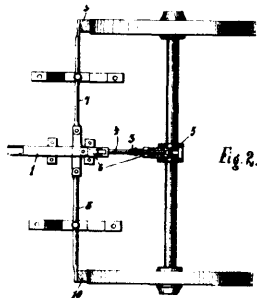
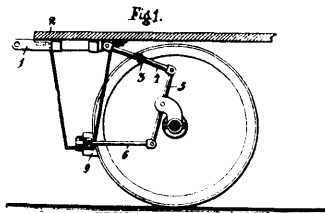


Christian Edward Lotz, Wheeling, West Virginia, U.S.A., 14th December, 1898; 6 years. (Filed 3th October, 1898.)

*Claim.*—1st. In an incandescent lamp, a burner, comprising a mixing chamber, a central tube leading therefrom, forked branches leading upward from said central tube, and an annular chamber

secured upon the upper ends of the branch pipes and provided with escape apertures at the top, thus forming the tip of the burner, substantially as described. 2nd. The combination with the mixing chamber, having the upwardly-projecting nozzle, of the burner-tip, the branch pipes leading therefrom, and the downwardly-projecting stem surrounding the nozzle of the mixing chamber, and the skeleton chimney-holder provided with the downwardly-projecting nozzle, mounted around the main pipe and mixing chamber nozzle, substantially as described. 3rd. The combination in a burner, of an annular chamber forming the tip of the burner and communicating with the mixing chamber, a central supporting-rod, and an inner and an outer mantle depending from said rod inside and outside of the burner-tip, substantially as described. 4th. The combination of the mixing chamber, the main pipe and branch pipes leading therefrom, the annular chamber forming the burner-tip and having exit apertures in its upper surface, the skeleton chimney-holder mounted about the main pipe, the central supporting-rod mounted in a socket secured in the crotch of the branch pipes, metallic baills suspended at the top of said rod, and the inner and outer mantles, one within the other, their lower ends embracing the upper edge of the annular tip-chamber, substantially as described.

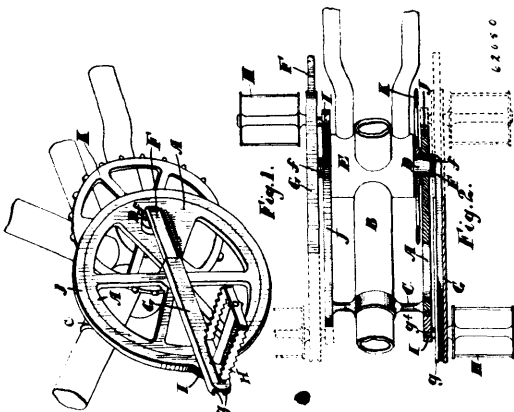
**No. 62,049. Brake. (Frein.)**



Adolf Heinrich Marwede, 17 Lindenstrasse, Steglitz, near Berlin, 14th December, 1898; 6 years (Filed 6th October, 1898.)

*Claim.*—In a vehicle brake the combination of a movable tongue or draft-bar, a draw-bar pivoted to the tongue, a lever pivotally connected with the draw-bar and supported from the axle, a bar pivoted to the lower end of the said lever and levers pivoted to said bar and carrying brake-blocks at their outer ends, substantially as described.

**No. 62,050. Crank. (Bielle.)**

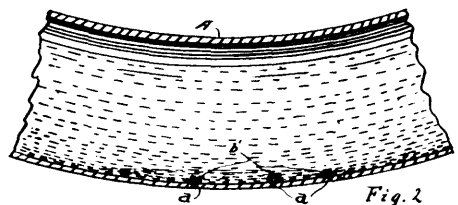
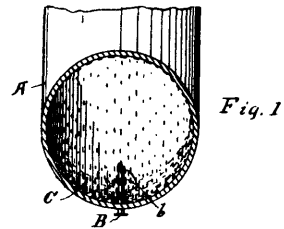


Henry Taylor, Belleville, Ontario, Canada, 14th December, 1898; 6 years. (Filed 28th September, 1898.)

*Claim.*—In a crank drive, the combination with the revoluble axle and disc rigidly mounted near the end thereof and eccentric thereto,

a ring having a suitable bearing on the disc, a bar secured on the end of the axle and of equal size throughout, a bar slidably held upon the aforesaid bar and so arranged as to reciprocate freely diametrically past the axle, and a pedal or impelling device on the end of the reciprocating bar, a pin opposite the centre of the pedal revolubly connecting such bar to the ring whereby such pedal is maintained in its revolution in a true circle, as and for the purpose specified.

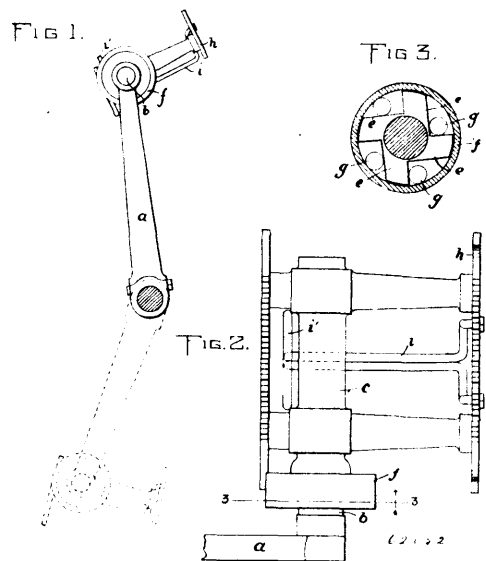
**No. 62,051. Composition for Preventing Punctures in Pneumatic Tires. (Composition pour empêcher les piqûres dans les bandages pneumatiques.)**



Fred B. Parks, Grand Rapids, Michigan, U.S.A., 14th December 1898; 6 years. (Filed 14th August, 1898.)

*Claim.*—1st. The herein described composition of matter, consisting of glucose, glycerine and fine vegetable seeds, substantially as shown and described. 2nd. The herein described composition of matter, consisting of glucose, glycerine and fine bi-conical vegetable seeds, substantially as shown and described and for the purpose set forth.

**No. 62,052. Bicycle Crank Pedal. (Bielle pour pedales de bicycles.)**



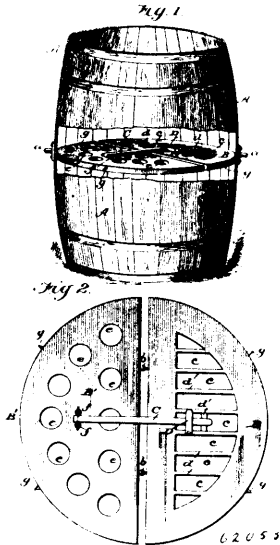
John Frank Wilkinson, East-Pepperell, Massachusetts, U.S.A., 14th December, 1898; 6 years. (Filed 21st September, 1898.)

*Claim.*—A crank-pedal comprising in its construction a crank-arm and wrist-pin, a pedal, and a clutch to prevent the pedal from rotating in one direction about the wrist-pin, and an elastic arm attached



to the front portion of the pedal and extending to the rear of the wrist-pin and above the plane of the rear portion of the pedal, the said wrist-pin extending through the pedal near the rear thereof, and the clutch being adapted to grip at any point of rotation.

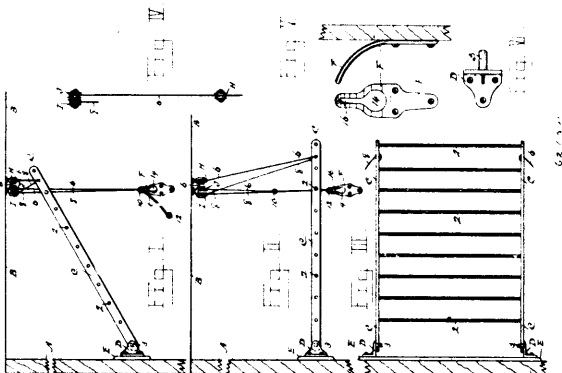
**No. 62,053. Churn. (Baratte.)**



Leroy Drake, Shelton, Nebraska, U.S.A., 14th December, 1898; 6 years. (Filed 28th November, 1898.)

*Claim.*—1st. The improved collapsible diaphragm or partition for use within a churn of the class indicated, the same comprising two reticulated semicircular parts, which are flexibly connected, a locking bar or lever, and means for securing it in place on the said parts and thereby holding them rigidly in the same plane, substantially as shown and described. 2nd. The improved collapsible diaphragm or partition for churn of the class indicated, which comprises two reticulated semi-circular parts flexibly connected, a lever hinged to one of said parts, and a device attached to the other part and adapted for locking engagement with the free end of the lever, substantially as shown and described. 3rd. The improved collapsible diaphragm or partition for churn of the class indicated, which consists of two flat semi-circular parts having openings and flexibly connected at their adjacent straight edges, a lever hinged to one of such parts, and a pivoted locking device on the opposite parts for locking the free end of the lever and thereby holding said parts in rigid alignment, substantially as shown and described. 4th. The combination with a churn body of a collapsible diaphragm or partition arranged within said body, comprising segmental parts flexibly connected and having peripheral points as specified, and a lever hinged on one of said parts, and means for detachably locking its free end to the other part, substantially as shown and described. 5th. The combination with a churn body of the diaphragm formed of two hinged foldable parts, and a lever and a locking device applied thereto, said diaphragm being arranged in the churn body, as and for the purpose specified.

**No. 62,054. Clothes Drier. (Schoir à linge.)**

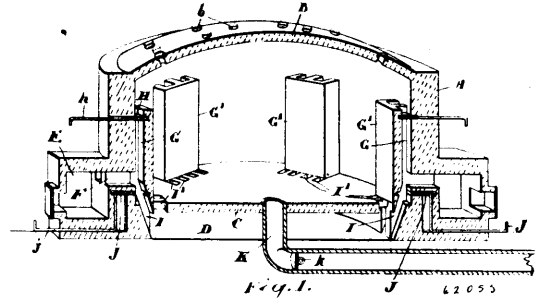


Edward J. Kearney, Hamilton, Ontario, Canada, 14th December, 1898; 6 years. (Filed 29th November, 1898.)

*Claim.*—1st. A clothes drier of the character described comprising two projecting arms connected by a series of horizontal transverse

bars forming a clothes frame, the inner ends of said arms pivoted to the inner side of brackets, secured to a wall, and means consisting of pulleys attached to the ceiling, and cords attached to the end of the frame to pass over said pulleys in order to raise, lower, and retain the frame in desired position, for the purposes specified. 2nd. A clothes drying device comprising a frame, as described, the inner end of said frame pivoted to the inner side of brackets secured to the wall, cords attached to the outer end of the frame, a pulley attached to the ceiling over one said cord attachment, and a pair of pulleys attached to the ceiling over the other said cord attachment, said cords to hang down and fastened together to form a knot, or stop, which shall be capable of entering the opening of the outwardly curved fastening which is secured to the wall, and fasten in the smaller upper slot of the same to retain the frame in elevated position, and a knot, or stop, at the end of the cords, to enter the slot of said fastening to retain the frame in lowered position, substantially as set forth.

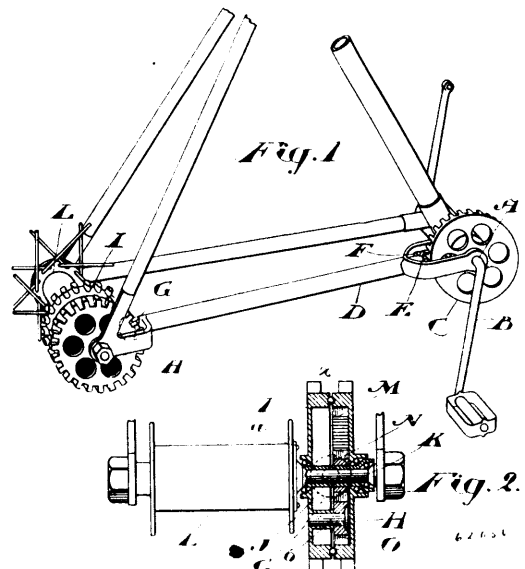
**No. 62,055. Brick Kiln. (Four à briques.)**



John Ed. Webb, Toronto, Ontario, Canada, 14th December, 1898; 6 years. (Filed 21st December, 1897.)

*Claim.*—1st. In a kiln, in combination the walls, the crown and bottom, the furnace chambers situated outside of the wall, the inwardly extending flues from the furnace chambers and the vertical flues connected therewith located inside the main walls, suitable chambers therefor and a central flue leading from the bottom of the chamber and provided with a suitable damper, as and for the purpose specified. 2nd. In a kiln, in combination the walls, the crown and bottom, the furnace chamber situated outside the walls, the inwardly extending flues from the furnace chamber, the downwardly extending flues connecting the same with the chamber below the bottom of the kiln, the flues in the bottom in proximity to the downwardly extending flues and the openings in the crown, as and for the purpose specified. 3rd. In a kiln, in combination, the walls, the crown and bottom and chamber located underneath the bottom, the furnaces located peripherically outside the wall and provided with inwardly extending flues, the upwardly and downwardly extending flues connected to such inwardly extending flues and extending up into the kiln at the top and into the bottom, as and for the purpose specified.

**No. 62,056. Bicycle Gear. (Engrenage de bicyclet.)**

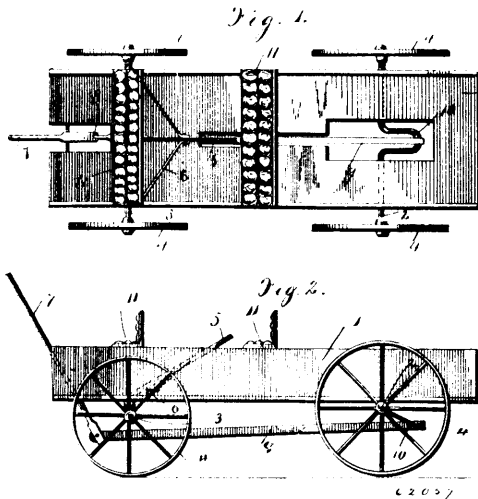


Andrew Turnbull, North Dumfries, Ontario, Canada, 14th December, 1898; 6 years. (Filed 29th July, 1898.)

*Claim.*—1st. In a bicycle, the combination of the crank axle, a bevel pinion fast on the said axle, a shaft suitably journaled on the

frame, a bevel pinion on the shaft meshing with the said bevel gear-wheel, a sleeve upon the axle of the driving-wheel and secured to hub thereof, two bevel gear-wheels journaled face to face on the said sleeve, a bevel pinion fast on the aforesaid shaft meshing with both the said bevel gear-wheels, a gear pinion fast on the said sleeve, an internal gear formed on one of the said bevel gear-wheels, and a gear pinion journaled on a stud on the other bevel gear-wheel and meshing with both the internal gear and the gear pinion, substantially as and for the purpose specified. 2nd. In a bicycle, the combination of a sleeve upon the axle of the driving-wheel and secured to the hub thereof, two bevel gear-wheels journaled face to face on the said sleeve, a shaft, a bevel pinion fast on the aforesaid shaft meshing with both the said bevel gear-wheels, a gear pinion fast on the said sleeve, an internal gear formed on one of the said bevel gear-wheels, a gear pinion journaled on a stud on the other bevel gear-wheel and meshing with both the internal gear and the gear pinion and the crank axle and mechanism for oppositely rotating the said bevel gear-wheels from the crank axle, substantially as and for the purpose specified.

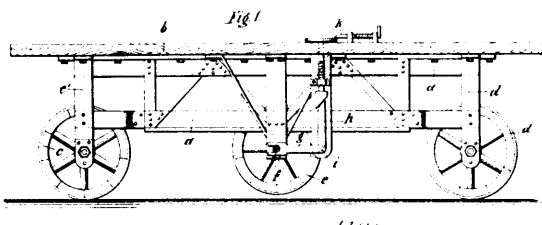
**No. 62,057. Carriage Propelling Mechanism.**  
(*Mécanisme de propulsion pour voitures.*)



Louis Gervais, Berthier, Quebec, Canada, 14th December, 1898; 6 years. (Filed 4th August, 1898.)

*Claim.*—The combination with a carriage body having a plurality of seats, and also having its front axle pivotally connected to said body, of a rear axle having an off-set portion, said axle being provided with wheels secured thereto and adapted to have movement with said axle, a lever pivotally mounted in the front of said body, an operating lever connected to said off-set portion and to said lever, a handle pivotally connected to said body, and connecting bars secured to said handle and to the opposite ends of said front axle, whereby said carriage body will be moved and said front axle may be oscillated from within the carriage body, substantially as described.

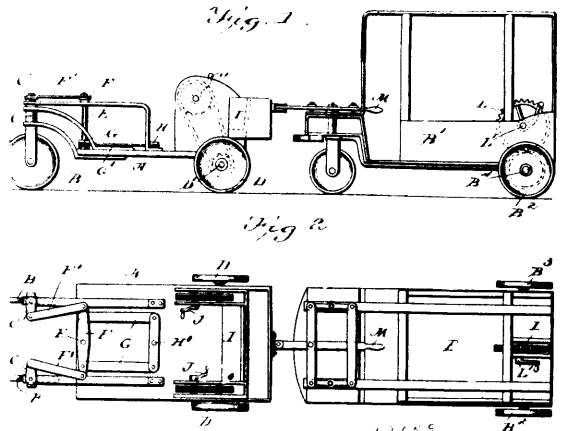
**No. 62,058. Vehicle Frame.** (*Cadre de voiture.*)



Zilzislav Marevsky, St. Petersburg, Russia, 14th December, 1898; 6 years. (Filed 9th August, 1898.)

*Claim.*—1st. A truck or carrying-frame for vehicles, having carrying-wheels arranged centrally of the vehicle in the line of direction of its travel, and auxiliary wheels arranged on either side of the carrying-wheels, said auxiliary wheels being adapted to be raised and lowered, substantially as set forth. 2nd. A truck or carrying-frame for vehicles, having centrally arranged carrying-wheels, as described, and adjusting auxiliary wheels arranged on either side of the carrying-wheels, and mechanism for raising and lowering said auxiliary wheels, substantially in the manner and for the purpose set forth. 3rd. A truck or carrying-frame for vehicles, comprising centrally arranged supporting-wheels, as described, and auxiliary wheels arranged on either side of the supporting-wheels, said auxiliary wheels being adapted to support the vehicle only upon its being oscillated or tilted laterally.

**No. 62,059. Motor Vehicle.** (*Véhicule moteur.*)

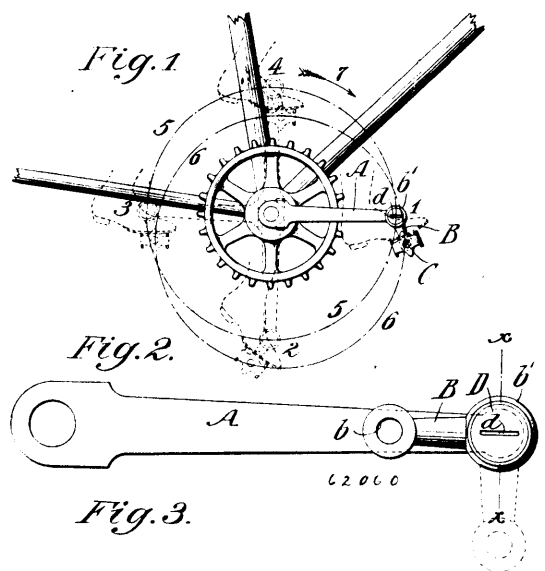


Ferdinand Damour, Bolckow, Missouri, U.S.A., 14th December, 1898; 6 years. (Filed 12th August, 1898.)

*Claim.*—1st. A vehicle, substantially as described, comprising the steering-wheels, the upright shafts supporting the same, the bearings for such shafts, the lateral crank-arms at the upper ends of such shafts, the upright countershaft, the cross-lever at the upper end thereof, the pitmen connecting the ends of said cross-lever with the crank-arm on the upright shafts of the steering-wheels, the base cross-lever at the lower end of the countershaft, the foot-lever pivoted between its ends and the pitmen connecting the opposite ends of the foot-lever with the ends of the base cross-lever, substantially as set forth. 2nd. A vehicle, substantially as described, comprising the framing, the upright steering-wheel shafts having crank-arms, the upright countershaft having at its upper and lower ends the cross-levers, connections between the upper cross-lever and the crank of the steering-shafts, and the foot-lever connected with the lower cross-lever of the countershaft, substantially as set forth. 3rd. The improved vehicle, herein described, comprising the framing, the gearing whereby the vehicle may be self-propelled, the guiding-wheels having upright shafts provided at their upper ends with inwardly projected crank-arms, the upright countershaft having at its upper end a cross-lever whose opposite ends are connected with the cranks of the upright steering-shafts, the cross-lever at the lower end of the upright countershaft, the foot-lever pivoted between its ends, and the pitmen connecting the opposite ends of said foot-lever with the opposite ends of the lever at the lower end of the countershaft, substantially as shown and described.

**No. 62,060. Bicycle Pedal Crank.**

(*Bielle pour pédales de bicyclettes.*)



Hugo Scheeren, New York City, New York, U.S.A., 14th December, 1898; 6 years. (Filed 26th August, 1898.)

*Claim.*—1st. An improved jointed pedal crank for bicycles embodying a main crank, an auxiliary crank pivoted to the free end

thereof, and a pedal secured to the free end of the said auxiliary crank, substantially as shown and described. 2nd. An improved jointed pedal crank for bicycles, embodying a main crank, an auxiliary crank pivoted to the free end thereof, and a pedal threaded into the free end of said auxiliary crank and adapted to be threaded into the free end of said crank in place of the auxiliary crank, substantially as shown and described. 3rd. An improved jointed pedal crank for bicycles, embodying a main crank of the ordinary type, a pivot adapted to thread in the free end of said main crank, said pivot being provided with a fixed cone on the outer end thereof, an inner cone threaded upon said pivot, an auxiliary crank provided with a ball bearing confined between said cones, and a pedal axle adapted to thread into the free end of said auxiliary crank or into the free end of the main crank in place of said pivot, substantially as shown and described. 4th. An improved jointed pedal crank for bicycles, embodying a main crank having a threaded hole near the free end thereof, a pivot adapted to thread therein, said pivot being provided with an enlarged head forming a cone, a compound lock-nut and adjusting cone threaded upon said pivot and provided with a hub upon its rear face adapted for contact with the main crank and an auxiliary crank provided at one end with a threaded hole adapted to receive the pedal axle and at its other end with an enlarged head having a hole therethrough and an integral central annular rib therein, both walls of said annular rib being provided with a suitable channel adapted to act in combination with the said cone as ball races, a double series of balls running in said channels and means for lubricating said balls, substantially as shown and described.

**No. 62,061. Vehicle Tire. (Bandage de vehicules.)**

Fig. 1.

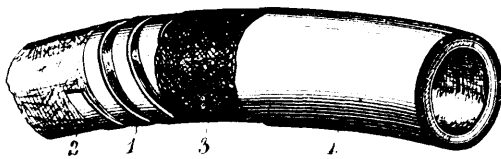
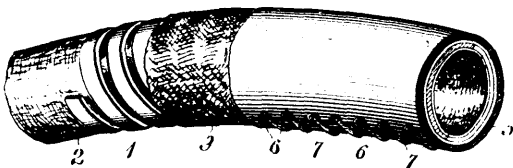


Fig. 2.



1261

Thomas William Mitchel and Kenneth Douglas Southerland, both of Montreal, Quebec, Canada, 14th December, 1898; 6 years. (Filed 30th August, 1898.)

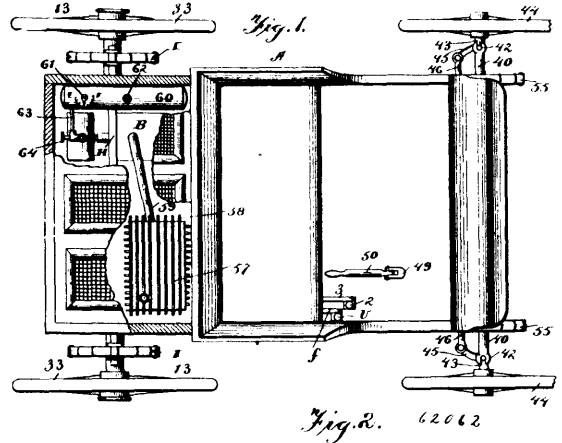
**Claim.**—1st. A flexible tube comprising a metal coil enclosed between an inner and an outer layer or tube and having the said layers or tubes cemented to the opposite sides thereof, substantially as set forth. 2nd. A flexible tube comprising a metal coil having its convulsions spaced apart, and an inner and an outer layer or tube cemented to the opposite sides of the metal coil and to each other opposite the spaces formed between the adjacent or contiguous convulsions of the metal coil, substantially as described for the purpose specified. 3rd. A flexible tube comprising a metal coil placed between an inner and an outer layer or tube, the layers or tubes being cemented to the opposite sides of the metal coil and being formed of textile fabric, the one being bias with respect to the other, substantially as and for the purpose set forth. 4th. A flexible tube comprising a metal coil formed of a strip or ribbon of spring material having the convulsions spaced apart, and an inner and an outer layer or tube receiving the metal coil between them and cemented, respectively, to the opposite of the metal coil and to each other opposite the spaces formed between the convolutions thereof, substantially as described. 5th. In combination, a flexible tube, a casing therefor comprising a strip having a series of eye-lets along its longitudinal edges, a lace for connecting the longitudinal edges of the casing, and a strip interposed between the inner tube and the casing and overlapping the joint formed between the longitudinal edges of the strips comprising the casing, and secured at one edge to an edge portion of the casing, substantially as and for the purpose set forth.

**No. 62,062. Motor Vehicle. (Vehicule moteur.)**

Alexander Winton, Cleveland, Ohio, U.S.A., 14th December, 1898; 6 years. (Filed 1st September, 1898.)

**Claim.**—1st. A motor vehicle comprising a motor, a motor drive shaft, a clutch carried thereby, drive wheels, a connection between

said clutch and drive wheels, a counter shaft actuated by the motor and carrying a brake member, a shaft extending parallel the counter

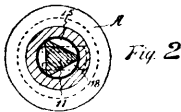
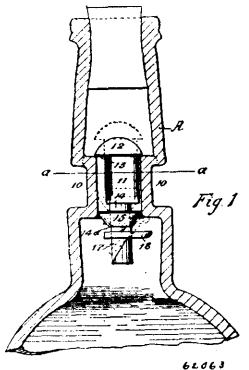


shaft, a co-acting brake member actuated by said parallel shaft, and a connection between the parallel shaft and the clutch for operating the latter. 2nd. A motor vehicle comprising a motor, a motor drive shaft extending transverse the vehicle, a clutch carried by said shaft, a gear-wheel driven by the clutch, drive-wheels, a connection between said clutch, motor shaft and drive-wheels, a counter shaft parallel with said drive-shaft and driven by said clutch gear-wheel, a brake member carried by the counter shaft, an oscillating shaft parallel with the counter shaft, a connection between said oscillating shaft and clutch for actuating the latter, a co-acting brake member actuated by the oscillating shaft, and a reciprocating operating lever connected with the oscillating shaft, the parts operating for the purpose described. 3rd. The combination with the drive shaft of friction plate fast thereto, a second co-acting friction plate keyed thereto but movable upon and longitudinal the shaft, intermediately pivoted dogs having one end adapted to move the plate toward the rigid plate, and a member for separating the opposite ends of the dogs. 4th. The combination of the motor, a drive shaft, a friction-plate fast to said shaft, a second friction-plate keyed to the shaft but movable longitudinally thereon, a gear loose upon the shaft and situated between the friction-plates, the dogs adapted to move the movable plate in contact with the gear and thereby clamp it between said friction-plates. 5th. A motor vehicle comprising a motor, a drive shaft carrying a fast go-ahead mechanism, a single counter shaft operatively connected with the drive shaft, the counter shaft carrying a slow go-ahead and a backing mechanism, each driven by the drive shaft, and means for controlling the said mechanisms. 6th. A motor vehicle comprising a motor, a drive shaft, a fast go-ahead mechanism carried by said drive shaft, a single counter shaft driven by said mechanism, said shaft carrying a slow go-ahead and a backing mechanism, each of the latter mechanisms adapted to be driven by the drive shaft, and controlling members for all said mechanisms. 7th. A motor vehicle comprising a motor, a drive shaft, a fast go-ahead mechanism carried by but normally loose thereon, a counter shaft driven by the fast go-ahead mechanism and carrying a slow go-ahead backing mechanism, and a brake-wheel, the mechanisms of the counter shaft driven by the drive shaft independent of the fast go-ahead mechanism, and a co-operating brake member, whereby the brake is adapted to be used when either of the mechanisms are in operation. 8th. A motor vehicle comprising a motor, a go-ahead mechanism and a backing mechanism, a controller for each mechanism, and a member common to both mechanisms and adapted to apply one and by the same movement release the other, for the purpose described. 9th. A motor vehicle comprising a motor, a drive shaft connected therewith and carrying a go-ahead and a backing mechanism, a clutch for each mechanism, an actuating member situated between the clutches, a lever connected with the actuating member and adapted when at a central position to hold the actuating member out of contact with both clutches and to operate one clutch when moved in one direction and to release the applied clutch apply the unapplied clutch when moved in the opposite direction beyond said central position. 10th. A motor vehicle comprising drive-wheels, separate shafts therefor and to which the wheels are attached, bevel gears attached to adjacent ends of the shafts, bevel gears 16, fitting between and engaging opposite edges of said shaft gears, a support rotatable around said wheel shafts, the support carrying a driving gear having the axis of the shafts and the centre of its rotation. 11th. A motor vehicle comprising a drive shaft, a revolving gear casing operatively connected therewith, a casing gear, and a yielding connection between said casing and its gear wheel. 12th. A motor vehicle comprising a drive shaft, a propelling member operatively connected therewith, a gear having a cavity receiving said member, and having itself a co-acting propelling member within said cavity, and rubber situated within said cavity and filling the spaces at opposite sides of said members and receiving the pro

pulling force. 13th. A motor vehicle comprising a drive shaft, a casing surrounding said shaft, a sprocket or belt wheel supported by said casing and operatively connected with the shaft, a motor, a sprocket chain or belt operatively connecting the motor and said sprocket or belt wheel, and means for adjustably moving said casing in respect to the motor connection, for the purpose described. 14th. In a motor vehicle, a steering mechanism comprising a rigid axle having at its ends sockets with vertical bearings, short wheel axes supported by said bearings and having laterally extending arms, a member connecting said arms, a bell crank-lever intermediately pivoted and having one end flexibly connected with said connecting member, and an operating handle operatively connected with the opposite end of said bell crank-lever. 15th. In a motor vehicle, the body provided with a seat and a portion extending rearward of the seat, a motor situated in this rear extension of the body, the rear extension having an open bottom and ventilated top, whereby there is a free upward circulation of air, and in rear of the occupant of the vehicle, substantially as described. 16th. In a motor vehicle, the body, the seat supported by the body, a steering mechanism and a controlling lever for the steering mechanism having its lower end pivoted in front of and below the plane of the seat, said pivoted lever extending rearwardly and upwardly, substantially as and for the purpose described. 17th. A motor vehicle comprising a motor, the drive wheels operatively connected with the motor, the body, a seat, the body having an entrance way in front of the seat, controlling levers for the propelling mechanism situated just in front of and at one end of the seat and in rear of the passage way to be operated by one hand of the driver, and a steering handle situated at a point inside of said levers at a point adapted to be operated by the other hand of the driver, substantially as described. 18th. A motor vehicle comprising a motor, the drive wheels operatively connected with the motor, the body, a seat, the body having an entrance passage-way in front of the seat, controlling levers for the propelling mechanism situated just in front of and at one end of the seat and in rear of the passage-way to be operated by one hand of the driver, and an upwardly and rearwardly extending lever pivoted at its forward and lower end at a point in front of and inside of the controlling levers, substantially as described.

**No. 62,063. Non-Refillable Bottle.**

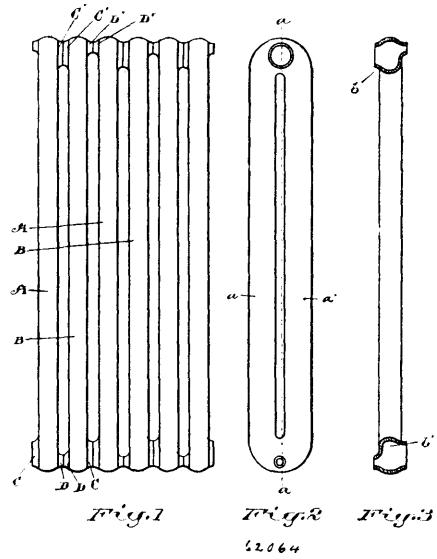
(*Bouteille non-réemplissable.*)



Alfred Taylor, William Henry Quann, and John Henry Quann, all of Vancouver Island, British Columbia, Canada, 15th December, 1898; 6 years. (Filed 28th November, 1898.)

*Claim.*—1st In combination with a bottle, a neck having a contracted throat, a valve loosely arranged in the same, the stem of which has an irregular surface, a cap on said stem and a rubber or pliable washer on the stem beneath said cap, of a coned flexible washer on a contracted portion of the stem at some distance below the cap, said cone being inverted and made to fit the wall of the throat and a means for preventing the valve from being detached from the throat, as specified. 2nd. In a bottle for the purposes described, in combination with the neck having a contracted throat, a movable valve in said throat, a cap on said valve, and a washer therebeneath attached to the valve, and made to rest between the rim of the cap and the upper side of the throat, of a flexible closure surrounding the stem of the valve and engaging the walls of the throat, a flattened contraction on the stem of the valve beneath the said throat, and in proximity to the lower rim of the flexible closure, a bi-forked check bar arranged to lie in the flattened contraction, with its forks on each side of the stem, in a horizontal position, so that as the valve falls towards the mouth of the bottle it will be prevented from coming away from the throat, as specified.

**No. 62,064. Radiator. (Calorifere.)**

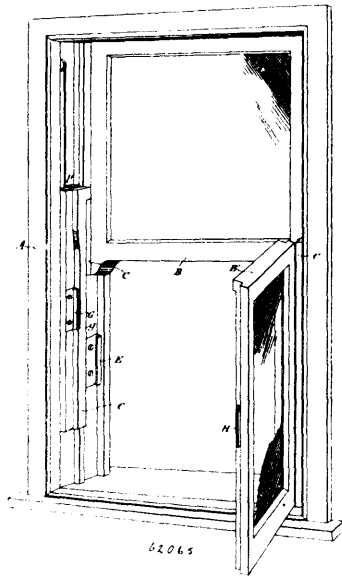


Mary McMaster Travers, and Charles H. Smith, both of Toronto, Ontario, Canada, 15th December, 1898; 6 years. (Filed 25th November, 1898.)

*Claim.*—A radiator embracing in its construction a plurality of loops or sections, each consisting of a water-leg terminating at both ends in a water-chamber, a port communicating with the water-chamber at the bottom at one side of the loop, and a port communicating with the water-chamber at the top at the opposite side of the loop, a drainage opening opposed to the lower port, and an air-vent opposed to the upper part, substantially as specified.

**No. 62,065. Window. (Fenêtre.)**

Fig. 1.

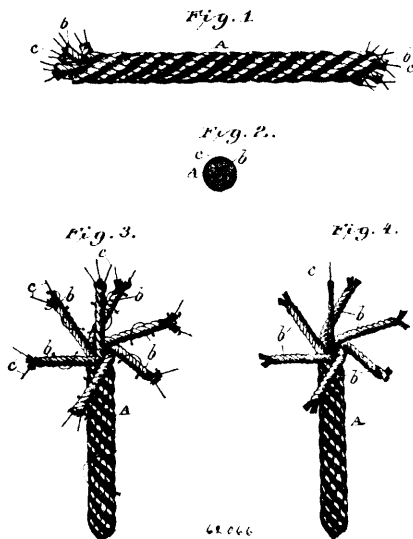


The McCalls Sliding-Hinge Window Company, San Francisco, California, U.S.A., 15th December, 1898; 6 years. (Filed 25th November, 1898.)

*Claim.*—1st. In a window, vertically slidable strips movable in the channels formed in the casing, plates fixed on the face of the channels and clasps upon the edges of the sash-strips engaging said plates and slidable thereon, whereby the strips are prevented from being withdrawn from the channels, sashes hinged to said strips so as to be opened or closed about the hinges, corresponding slidable strips upon the opposite side of the window against which the sash is closable, and angle-plates fixed to the strip and to the sash respectively to form channels between the plates and the adjoining surfaces, said plates provided with vertical flanges adapted to enter

said channels and interlock when the sash has been closed against the slidable strip. 2nd. In a window having vertically slidable sashes, independent strips slidable in the vertical channels formed by the window-stops, said strips having slidable plates and guides by which they are maintained within their channel, hinges by which the adjacent edge of the sash is attached to one of the strips so as to open and close about its hinges, vertically disposed plates fixed respectively to the meeting edges of the opposite strip and the corresponding edge of the sash, said plates having vertical flanges adapted to interlock by sliding them together after the sash has been closed against the strip whereby the sash and strip are normally movable in unison, and a hinged stop-plate fixed in the channel in which the strip slides, having a leaf which can be turned outwardly so as to arrest the strip in its upward movement and allow the sash to be slipped upwardly and disengaged from the strip for the purpose of opening. 3rd. In a hinged and slidable window of the character described, slidable strips and guides by which the strips are retained in their channels, corresponding strips upon their opposite sides against which the free edges of the sashes close, and vertical interlocking plates by which the said edges of the sashes are connected with the slidable strips, hinged plates fixed in the channels in which the strips slide, said plates having outwardly turnable leaves with lugs whereby the leaves are arrested at right angles with the main plates so as to form a stop against which the upper ends of the strips are arrested, and having central slots through which the counterweight cord is movable. 4th. In a hinged and slidable window, sashes hinged to strips vertically slidable in guides in one side of the frame, other strips slidable in the opposite side of the frame, guides by which the strips are engaged and retained when at the lower part, and from which they disengage at the upper part of their travel, vertical interlocking plates upon the free edges of the sashes and the corresponding sliding strips, and foldable stops by which said strips may be arrested and the sashes raised and disengaged therefrom.

**No. 62,066. Rope Cord or Twine.** (*Corde cordage ou fil.*)



Robert C. Fisher, Toronto, Ontario, Canada, assignee of Walter H. Avis, Buffalo, New York, U.S.A., 15th December, 1898; 6 years. (Filed 18th March, 1897.)

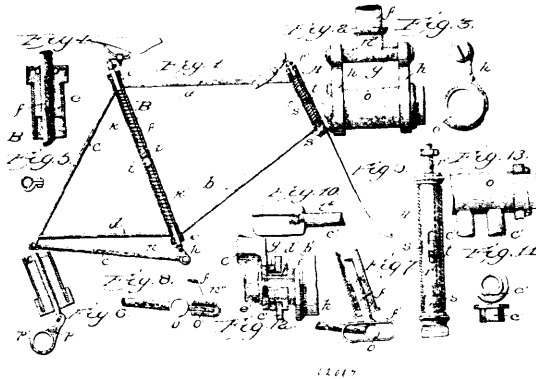
**Claim.**—1st. A cord, rope or twine, the strands of which are composed of threads or yarns of fibrous material and threads of wire, combined and twisted together, substantially as described. 2nd. A cord, rope or twine, having a core composed of mingled and twisted threads of wire and fibrous material, substantially as described.

**No. 62,067. Bicycle.** (*Bicyclet.*)

George P. O. C. E. Krebs and Herbert R. Oliver, both of Baltimore, Maryland, U. S. A., 15th December, 1898; 6 years. (Filed 1st June, 1898.)

**Claim.**—1st. In combination with the tubular seat standard of a bicycle frame, a rod extending entirely through the same, a seat carried on the upper end of said rod, springs located in said tube for flexibly supporting said rod, the reaches having pivotal connection with rear axle, the crank box carried by the reaches and a turning or sliding connection between the reaches and the rod whereby the relation of the seat and crank axle is maintained, the seat supporting rod accurately guided in the tube and the springs confined therein, and there is no binding action in the connection with the rear axle by reason of the pivotal connection

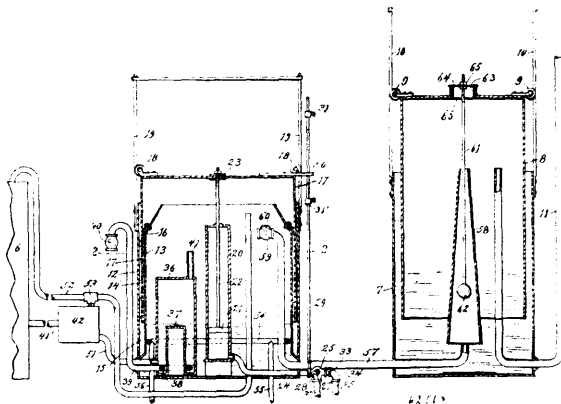
at one end of the reach and the sliding or turning connection at the opposite end, substantially as described. 2nd. In combination with



the flexibly supported rod *f*, the reaches having sliding or turning connection therewith, and the bearings between the reaches and the rear axle comprising the flanged sleeve turning on the axle and supporting the end of the reach which is clamped thereto, substantially as described. 3rd. In combination with a tubular standard, a seat supporting rod extending through the same, a spring sustaining the rod, reaches carrying the crank-box having pivotal connection with the rear axle and a freely movable connection between the reaches and the lower end of the seat-supporting rod, substantially as described. 4th. In a bicycle or the like a tubular standard, a spring-supported rod for the seat extending through the said standards, reaches carrying the crank-box pivotally connected with the rear axle and a doubled jointed turning connection between the reaches and the lower end of the rod directly in line therewith, substantially as described. 5th. In combination, in a bicycle, a spring supported rod, reaches connected thereto having forked ends pivotally connected to the rear axle, said axle being adjustable longitudinally of the forked ends within the same, substantially as described.

**No. 62,068. Gas-Making Machine.**

(*Machine pour la fabrication du gaz.*)



Edward Tumath, assignee of Frank A. Smith, both of Oconto, Wisconsin, U.S.A., 15th December, 1898; 6 years. (Filed 10th February, 1898.)

**Claim.**—1st. In an apparatus for making gas, the combination of initial and terminal gas-holders, water-tanks into which said holders are inverted and are movable, means for supplying gas to the initial gas-holder, a pipe extending from the initial gas-holder to and into the terminal gas-holder, pump mechanism within the initial water-tank, and having its piston-stem extending up to and connecting directly with the initial gas-holder, means for introducing a pressure agent into the cylinder of the pump mechanism to cause an up-movement of the piston of said pump mechanism by pressure thereagainst, whereby the initial gas-holder is elevated on said up-movement of the piston, and means for causing the pressure agent to be discharged from beneath the piston to permit of the descent of said piston and consequent descent of the initial gas-holder. 2nd. In an apparatus for making gas, the combination of initial and terminal gas-holders, water-tanks into which said holders are inverted and movable, means for supplying gas to the initial gas-holder, a pipe extending from the initial gas-holder to and into the terminal gas-holder, a distributing pipe leading from the terminal gas-holder, pump mechanism within the initial water-tank, and having its piston-stem extending up to and connected with the initial gas-holder, a rod for controlling the valve of the actuating medium of the pump-piston, contacts carried by said rod, and an arm projecting from the initial gas-holder and adapted to engage the stops of the

rod on the up and down movement of said holders, whereby a reversal of the valve mechanism is secured. 3rd. The combination of a generator having a suitable discharge and provided interiorly with a chamber formed by a wall of such less dimensions than the generator as to leave a space around said inner chamber, the wall forming the chamber secured to and extending upwardly from the bottom of the generator, a pipe located within the generator and arranged around the wall forming the interior chamber, and provided with a discharge-opening or openings, and means for conducting air to the pipe for discharge out of the opening or openings thereof. 4th. In an apparatus for making gas, the combination of a water-tank provided with an interior wall whereby a chamber is formed for the reception of a suitable fluid, a gas-holder inverted into the water-tank and extending into the chamber formed between the two walls of the water-tank, and a packing arranged around and extending from the inner wall of the water-tank and bearing against the gas-holder. 5th. In an apparatus for making gas, the combination of a water-tank and telescoping gas-holder, a storage-tank for containing a suitable gas-producing medium, a generator, a pipe extending from the storage-tank, a casing to which said pipe leads, another pipe leading from the casing to the generator, said generator being in communication with the gas-holder, valve mechanism within the casing and adapted to be automatically opened when the supply of gasoline within the casing falls below the normal level and to be automatically closed when the supply of gasoline in the casing is augmented to a certain extent, and a pipe leading from the storage-tank into the water-tank and gas-holder, said pipe provided with a branch pipe leading to the casing for the valve mechanism. 6th. In an apparatus for making gas, the combination of a water-tank and a gas-holder inverted therein, pump mechanism within the water-tank, and having its piston-stem extending to and connected with the gas-holder, means for introducing a pressure agent into the pump mechanism to cause an up-movement of the piston of the pump mechanism by a pressure against said piston whereby the gas-holder is elevated on said up-movement of the piston, means for causing the pressure agent to be discharged from beneath the piston to permit of the descent of said piston and consequent descent of the initial gas-holder, a carburetter also located within the water-tank and adapted for discharging gaseous vapour therefrom into the gas-holder, and means for forcing gas out of the gas-holder and tank on the down-movement of said gas-holder.

**No. 62,069. Translucent Plastic Compound.**  
(Composition plastique transparente.)

Julius Heymanson, Chicago, Illinois, U.S.A., assignee of Hermann Tzschucke, Dresden Strehlen, German Empire, 15th December, 1898; 6 years. (Filed 6th June, 1898.)

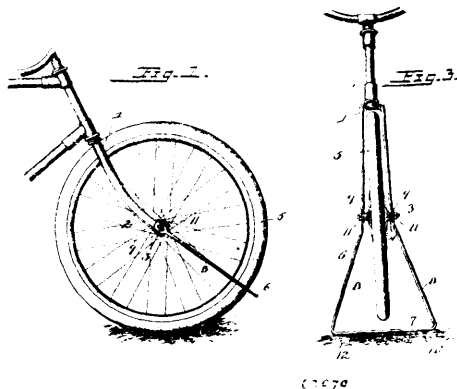
*Claim.*—1st. The herein described composition of matter, consisting of glue, chalk or gypsum, alum, magnesium sulphate, colouring matter, glycerine, oil, alcohol or its homologues, and water, substantially in the proportions and for the purposes specified. 2nd. The herein described composition of matter, consisting of glue, chalk or gypsum, alum, magnesium sulphate, colouring matter, glycerine, oil, alcohol or its homologues, water, and potassium bichromate, substantially in the proportions and for the purposes specified. 3rd. The herein described process for the manufacture of a translucent plastic compound, which consists in preparing a milk of chalk or gypsum, and separate solutions of glue, alum, magnesium sulphate, and colouring matter, mixing and stirring these preparations, in about the proportions stated, then adding glycerine, oil and alcohol or its homologues, in about the proportions stated, again stirring, then straining or filtering the mixture, then heating to near the boiling point, and cooling slowly, substantially as and for the purposes specified. 4th. As a new manufacture, an article made from a translucent plastic compound of glue, chalk or gypsum, alum, magnesium, glycerine, oil, alcohol or its homologues, and water, substantially as and in about the proportions described.

**No. 62,070. Bicycle Support.** (Support de bicyclet.)

Isaac Hudson Sapp and William T. Stuart, both of Papeete Tahiti, Society Islands, South Pacific Ocean, 15th December, 1898; 6 years. (Filed 15th August, 1898.)

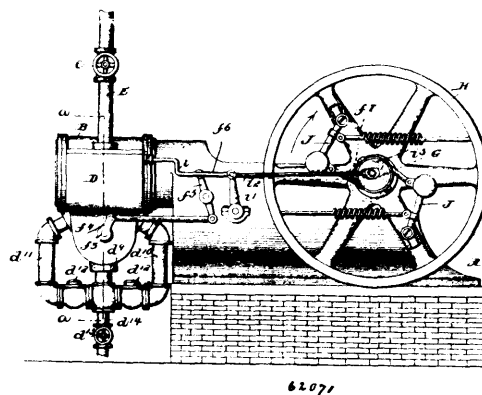
*Claim.*—1st. The combination with a steering fork and an axle supported thereby, of a stand clamped rigidly to said axle and fork, substantially in alignment with the fork and adapted to be brought into vertical position for service by reversing the steering fork in its bearing in the machine frame, substantially as and for the purpose described. 2nd. In a bicycle, the combination of a reversible steering-fork, a wheel-axle, a stand fixed to the wheel-axle and reversible with the fork, and a wheel mounted on said axle, said stand arranged, in the normal position of the fork, to incline forwardly of a vertical line dropped from the wheel-axle and adapted, on reversal of the fork and its wheel, to lie in a substantially vertical position beneath said wheel-axle, substantially as described. 3rd. The combination with a curved steering fork and a non-rotatable axle, of a triangular support having its arms rigidly clamped on the axle and against the steering fork, said support arranged to embrace

the steering wheel and disposed at an angle to the length of the steering fork, whereby the support is carried wholly by the axle and



fork and is caused to assume a vertical position by giving the steering fork a semi-turn in its bearing in the bicycle frame, substantially as described.

**No. 62,071. Steam Engine.** (Machine à vapeur.)

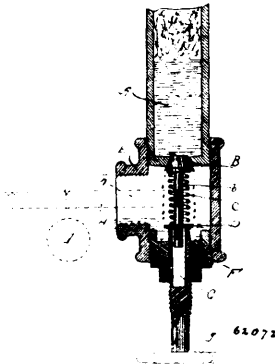


John Joseph Torpey, Robert Charles Cunningham and Wilkson Thomas Girling, all of Philadelphia, Pennsylvania, U.S.A., 15th December, 1898; 6 years. (Filed 17th August, 1898.)

*Claim.*—1st. In a steam engine, the combination, with the steam cylinder and the piston, of a chamber having communication with said cylinder, valve mechanism for regulating the admission of live steam to said chamber, and valve mechanism for regulating the admission of exhaust steam from the cylinder to said chamber and for permitting the commingled steam to enter the cylinder at predetermined intervals, substantially as described. 2nd. In a steam engine, the combination, with the steam cylinder and the piston, of a plurality of chambers having communication with said cylinder, valve mechanism for regulating the admission of live steam to said chambers in succession, and valve mechanism for regulating the admission of exhaust steam thereto in succession and for permitting the commingled steam in the respective chambers to enter the steam cylinder at predetermined intervals, substantially as described. 3rd. In a steam engine, the combination, with the steam cylinder and the piston, of two chambers, a valve for regulating the admission of live steam thereto at predetermined intervals, a valve for controlling communication between said chambers and the steam passages to the cylinder, a pipe to which the exhaust steam is directed from said cylinder, connections between said pipe and the respective chambers, and check valves in said connections, substantially as described. 4th. In a steam engine, the combination, with the steam cylinder and the piston, of the steam chest comprising the primary chamber into which the steam pipe extends, the mixing chambers having communication with said primary chamber, the valve chamber having communication with the said mixing chambers and with the steam cylinder, and valve mechanism for controlling such communications, substantially as described. 5th. In a steam engine, the combination, with the steam cylinder and the piston, of the chamber into which the steam pipe extends, the slide valve therein, means for actuating said valve, the mixing chambers having communication with the first named chamber, a valve chamber having communication with said mixing chambers and with the respective steam passages to the cylinder, a rotary valve in said valve chamber, and means for operating said valve. 6th. In a steam engine, the combination, with the steam cylinder, of the steam chest comprising the relatively arranged chambers, such as 1, 2, 3 and 4, the valve for regulating the admission of steam from chamber 1, to chambers

and 3, in alternate succession, the valve in chamber 4 for controlling the communication between said chambers 2 and 3, and the steam passages to the cylinder, a pipe to which the exhaust steam is directed from the cylinder by said latter valve, branch pipes leading from said pipe to the respective chambers 2 and 3, and check valves in said branch pipes, substantially as described.

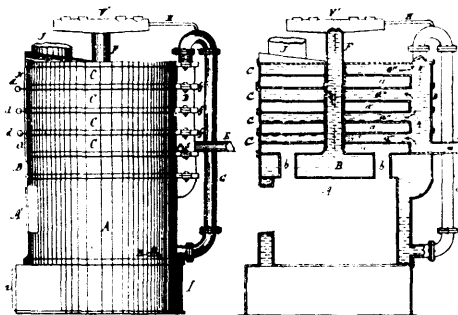
**No. 62,072. Steam Trap. (Trappe de vapeur.)**



John Spitsmiller and Marion Sanders, both of Poplar Bluff, Missouri U.S.A., 15th December, 1898; 6 years. (Filed 26th September, 1898.)

*Claim.*—1st. The combination with a pipe A forming a reception for water of condensation, of a coupling arranged on the end of said pipe, a plug in said coupling opposite the pipe A, a rod threaded through said plug and extending into said coupling, a valve closing an opening in the pipe A, and a spring interposed between said threaded rod and valve, substantially as described. 2nd. In a steam-trap, the combination with a suitable receptacle for collecting the water of condensation, of a valve which closes an opening in the bottom of said receptacle, a stem on said valve, a spring surrounding said stem, a follower strung on the stem, a hollow threaded rod for regulating the compression of the spring and a coupling in which said hollow threaded rod is mounted, substantially as described. 3rd. In a steam-trap, the combination with with a suitable receptacle in the form of a pipe for collecting the water of condensation, of a valve for closing an opening in the bottom of said receptacle, a stem on said valve, a spring surrounding said stem, a follower which bears against one end of said spring, a hollow, threaded rod for adjusting the compression of the spring, the hollow in said rod receiving the valve stem and a T-coupling mounted on the end of said pipe, in which coupling the hollow threaded rod is mounted, the water of condensation passing beyond the valve from the pipe, finding an exit through the side opening in the T-coupling, substantially as described.

**No. 62,073. Hot Water Heater. (Calorifere à eau chaude.)**



William James Walsh, James M. Ryckman, and Michael Holland Le Hane, all of Hamilton, Ontario, Canada, 15th December, 1898; 6 years. (Filed 28th November, 1898.)

*Claim.*—1st. In combination with a hot water heater and radiators a direct central water pipe constructed to connect the first water section, over the fire, and pass up through the upper sections and be connected with the radiators, substantially as and for the purpose specified. 2nd. In a circular hot water heater, the construction of the water and smoke sections with a recess in each from the front to the central portion form a direct draft smoke flue when the sections are placed one on top of the other, substantially as and for the purpose specified. 3rd. In a circular hot water heater a series of dampers hinged to the sections to close and cover the direct draft openings of the sections into an indirect draft around the sections when the dampers are placed diagonally across the said direct draft

openings, substantially as specified. 4th. In a hot water heater, a circulating water pipe connecting the top section of the heater with the fire section for heating the return water before it comes directly over the hottest part of the heater, substantially as specified. 5th. A hot water heater, constructed with the return water pipe connected with the first smoke and water section above the fire section, in combination with radiators, and flow pipes, substantially as and for the purpose specified. 6th. In a hot water heater, an air pipe H, connecting and in combination with the circulating pipe G, and the flow pipe F, substantially as and for the purpose specified. 7th. In a hot water heater, and radiators, a direct water pipe attached to the first water section over the fire chamber, and made to pass up through all the upper sections and make a direct connection with radiators, and the return water pipe made to enter the first smoke and water section above the fire section, and a water circulating pipe made to connect the top section with the bottom of the fire section, all constructed substantially as and for the purpose specified. 8th. In a hot water heater, a direct hot water flow pipe F, connected to the first water section B, over the fire section A, and connected to radiators, and the return water pipe E, from the radiators made to enter the left compartment of the water way D, opposite to and communicating with the first smoke and water section C, immediately over the hot water section B, above the fire, substantially as and for the purpose specified. 9th. In a hot water heater, a series of water and smoke sections C, constructed each with an opening L, (from front to centre or otherwise) so that when the sections are placed one on top of the other, a direct draft is obtained for the smoke and products of combustion, direct from the fire to the smoke exit pipe J, substantially as specified. 10th. In a hot water heater, the combination of the central direct flow pipe F, from the first water section B, to the radiators, the return water pipe E, from the radiators to the first water and smoke section C, above the fire section A, the circulating water pipe C, connecting the top section C, with the bottom of the fire section A, the direct smoke flue L, in the sections C, and the dampers M, made to close said flue L, for conducting the smoke and products of combustion around the sections C, for an indirect draft, all constructed substantially as and for the purpose specified.

**No. 62,074. Picker for Stringed Musical Instruments.**

(Appareil pour contrôler et guider les instruments de musique à cordes.)

Fig 1

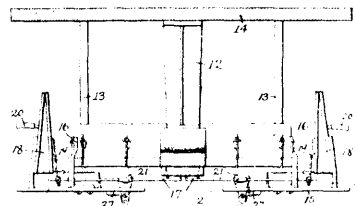
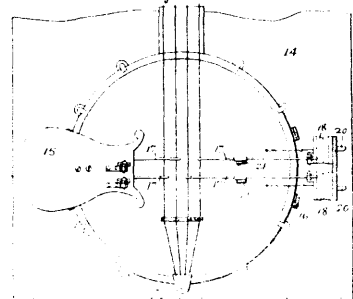


Fig 2

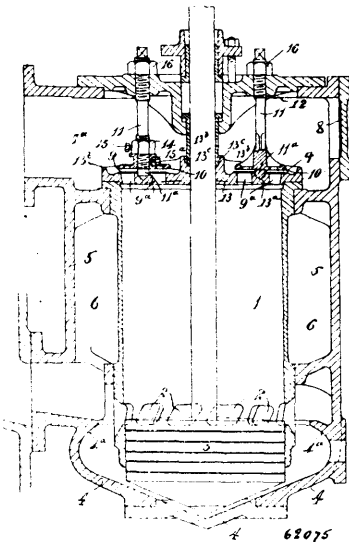


The American Automatic Banjo Company, New York City, New York, assignee of Charles Bigelow Rendall, and Jacob Porter Tirrell, both of Boston, Massachusetts, U.S.A., 15th December, 1898; 6 years. (Filed 5th November, 1898.)

*Claim.*—1st. A guiding cam for a picker having an aperture encircling a projection of the picker, the side walls of which are located at a suitable distance apart to allow of the desired amplitude of lateral movement of the picker, the end walls being inclined for guiding the picker at the conclusion of its stroke into the desired plane of its return movement. 2nd. In a stringed musical instrument, a picker arranged to vibrate in a substantially horizontal plane, a guiding cam for the lateral vibrations of the picker, having an aperture encircling a projection of the picker, the side walls of the aperture being located at a suitable distance apart to allow of the desired amplitude of lateral vibrations, and the end walls being inclined to guide the picker at the conclusion of its longitudinal movement in each direction into the desired plane of its return movement. 3rd. In a stringed musical instrument, in combination with the picker thereof, a motor, and a resilient connection between

the picker and the motor. 4th. In a stringed musical instrument, a resiliently supported guiding cam for the picker. 5th. In a stringed musical instrument, in combination with the picker thereof, a pivotally mounted guiding cam for the picker, and means for resiliently opposing the oscillations of the cam, thereby cushioning the reciprocating strokes of the picker.

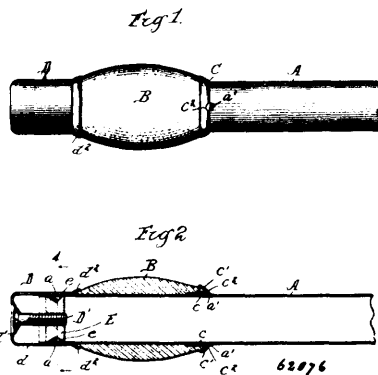
**No. 62,075. Air Pump. (Pompe à air.)**



Frederick Edwards, London, Middlesex, England, 16th December, 1898; 6 years. (Filed 12th April, 1898.)

*Claim.*—1st. In a pump, a valve chamber provided with a valve seat, a normally fixed but endways adjustable stud and guard carried by the wall of said valve chamber and capable of being adjusted in an endwise direction from or towards the valve seat from the exterior thereof, and a valve fitted to slide on the inner end of said stud between said valve seat and guard. 2nd. In a pump, a valve chamber provided with a removable door and a valve seat, a stud having its outer end adjustably mounted in the wall of said chamber opposite said valve seat and at its inner end extending freely into a hole in said valve seat of greater depth than the distance between the inner end of said stud and a guard carried by it, and a valve fitted to slide on the inner end of said stud between said valve seat and guard, substantially as described. 3rd. In a pump, a valve chamber having a removable door, a valve plate resting against the delivery end of the pump cylinder, endways adjustable studs having their outer ends carried by and extending through the wall of the valve chamber so as to be capable of adjustment from the exterior thereof and having their inner ends normally pressed against said valve plate so as to hold the same in place, guards carried by said studs, and valves mounted to slide on the inner ends of said studs between the valve plate and guards, substantially as described. 4th. In a pump, a valve chamber having a removable cover, valve guards carried by and removable with said cover, a valve plate, and valves arranged to work between said guards and valve plate, substantially as described. 5th. In a pump, the combination with the pump cylinder and perforated valve plate at the head or delivery end of the cylinder, of a valve chamber having an outlet branch, a removable cover, and a removable door, studs screwed through said removable cover so as to be capable of endways adjustment from the exterior thereof and having their inner ends normally extending freely into holes in said valve plate, guards carried by said studs, and valves mounted to slide on the inner ends of said studs between the guards and valve plate and control the openings in the latter plate, substantially as described. 6th. In an air pump of the kind referred to, the combination with the barrel, and the bottom casing of the pump, of an upper external casing that forms outside the barrel an air vessel or receiver adapted to store air or vapour near the inlets to the barrel, substantially as described for the purpose specified. 7th. In an air pump of the kind referred to, a valve seat having walls that form for each valve a separate shallow compartment, substantially as described, for the purpose specified. 8th. In an air pump of the kind referred to, a valve seat plate provided with a small annular water channel around the bucket rod where it passes through the valve seat, substantially as described, for the purpose specified. 9th. In an air pump of the kind referred to in which the bucket is formed with its upper surface of such a form as to give an increased depth of water over the outer portion of the top of the bucket next the wall of the barrel, substantially as described with reference to the accompanying drawings, for the purpose specified. 10th. An air pump of the kind referred to in which the valve chamber is constructed with a weir 11, substantially as described with reference to the accompanying drawings.

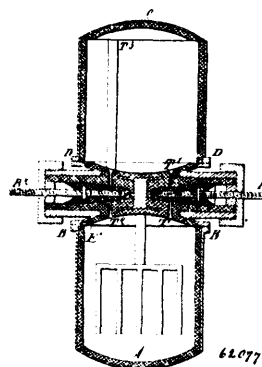
**No. 62,076. Bicycle Handle. (Poignée de bicyclet)**



Thomas B. Jeffrey, Chicago, Illinois, U.S.A., 16th December, 1898; 6 years. (Filed 24th August, 1898.)

*Claim.*—1st. The combination with the bar of a grip engaged thereto by ferrules adapted to lap over each end of the grip and means for moving one ferrule toward the other, substantially as described. 2nd. The combination with the bar and grip of a sleeve fitting on said bar, said sleeve provided with a flange extending back over the sleeve and adapted to engage the end of the grip, substantially as described. 3rd. The combination with the bar and grip of means for engaging the other end of the grip and a ferrule for engaging one end of the grip and a ferrule for engaging the other end of the grip, the latter comprising a sleeve adapted to fit the bar hauling one end closed and provided on the other end with a flange adapted to engage the end of the grip, substantially as described. 4th. The combination with the bar of a grip made of compressible material of barrel shape, slipped on to the bar, and ferrules adapted to lap over and engage each end of the grip whereby longitudinal compression will reduce the diameter of the bore of the grip, substantially as described. 5th. The combination with the bar and grip and means for engaging each end of the grip and an axial screw for adjusting one of the engaging means, substantially as described. 6th. The combination with the bar and grip of ferrules for engaging each end of the grip and stops bent up from the metal composing the bar for limiting the movement of one of the ferrules along the bar, substantially as described. 7th. The combination with the bar and grip of ferrules for engaging each end of the grip and stops bent up from the metal composing the bar for limiting the movement of one of the ferrules along the bar, a block or nut in the end of the bar and a screw adapted to engage the other ferrule and adapted also to engage the nut, substantially as described. 8th. A tubular handle bar having steps bent from the metal composing the bar, substantially as described. 9th. The combination with the tubular metal bar having steps upset from the metal composing the bar, of a ferrule for engaging the grip, the later notched to engage the steps substantially as described. 10th. The combination with the tubular handle bar and the grip and means for engaging one end of the grip of a ferrule for engaging the other end of the grip, said ferrule having an indented end, a nut in the end of the bar and the screw passed through the indented end of the ferrule and into the nut, substantially as described.

**No. 62,077. Electric Battery (Batterie électrique.)**



Charles Theryc, Marseille, France, 16 décembre, 1898; 6 ans. (Déposé 21 juillet 1897.)

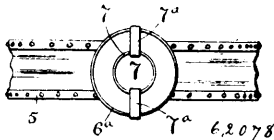
*Résumé.*—1. Un élément galvanique dans lequel le liquide consiste en une solution aqueuse de chlorure de brome l'élément pouvant être sous pression ou non. 2. Une disposition de élément décrit, dans laquelle le chlorure de brome se trouve dans un récipient



special communicant avec la pile par une orifice d'entrée pouvant être réglé et fermé. 3. Une modification de l'élément galvanique décrit dans laquelle le récipient à chlorure de brome et la pile sont retenus par une communication fermée pendant le dégagement de courant, qui, après que l'élément est de nouveau excité, sert à faire retourner les vapeurs de chlorure de brome dans le récipient.

**No. 62,078. Pneumatic Insect Powder Distributor.**

(Machine pneumatique à distribuer la poudre à insectes.)

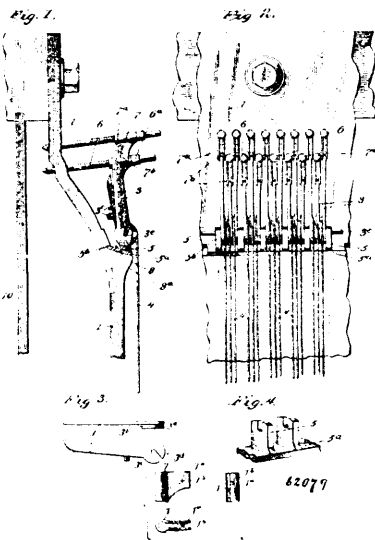


E. N. Heney & Company, assignees of Henry Bruno Malters, all of Montreal, Quebec, Canada, 16th December, 1898; 6 years. (Filed 3rd March, 1896.)

*Claim.*—A powder distributor consisting of a bellows, having a funnel-shaped mouth-piece with a tubular section thereof located in the vent of such bellows and the conical section thereof having a spreader in the form of a cone supported in the interior thereof, for the purpose set forth.

**No. 62,079. Musical Instrument Tuning Device.**

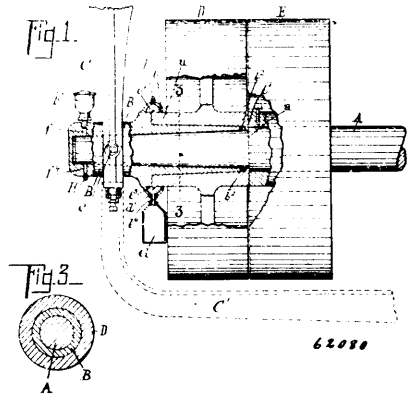
(Appareil à accorder les instruments de musique.)



Frank Lee George, Salt Lake City, Utah, U.S.A., 16th December, 1898; 6 years. (Filed 16th November, 1898.)

*Claim.*—1st. In a piano, or stringed instrument, tuning device, the combination of the string levers, the tension screw or pin, and the sleeve, through which passes said tension screw or pin, having connected lateral extensions or flanges adapted to receive between them the free end of said tension-lever, to hold it against possible lateral displacement, as also to hold it down, substantially as set forth. 2nd. In a piano, or stringed instrument, tuning device, the combination of the string-lever, the tension screw or pin having a fixed collar thereon, and the sleeve, through which passes said pin or screw, having connected lateral flanges or extensions between which is received the free ends of said lever, said sleeve arranged below said collar, substantially as specified. 3rd. In a piano, or stringed instrument, tuning device, the tension-lever adapted to draw upon the wire, and the sleeve having connected lateral flanges or extensions adapted to engage said lever, and means to cause said flanges to bear upon and force said lever downward, substantially as set forth. 4th. In a piano, or stringed instrument, tuning device, the tension-lever adapted to draw the string or wire, the screw or pin having a fixed collar or enlargement, and the sleeve arranged upon said pin or screw below said collar, and having lateral flanges or plates with an intermediary cross-bar or pin adapted to engage said lever at its free end, substantially as specified. 5th. In a piano, or stringed instrument, tuning device, the combination of the lever having a lateral grooved circular portion provided with a radial slot opening through its periphery, the bracket having a rod or pivot held in bearings thereon and passing through the slot of said circular portion of said lever, the pin or screw, a sleeve arranged on said pin or screw and adapted to act upon said lever and said screw or pin adapted to act upon said sleeve, substantially as specified.

**No. 62,080. Lubricator. (Lubrificateur.)**



John Greenwood, Rochester, New York, U.S.A., 16th December, 1898; 6 years. (Filed 26th August, 1898.)

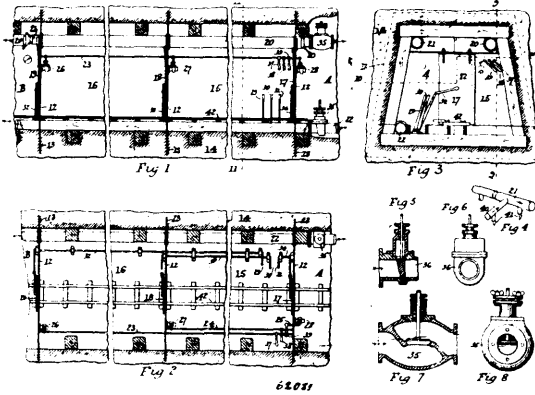
*Claim.*—1st. The combination of a shaft, a non-rotatable box formed internally to fit the shaft and having an external tapered bearing surface, a loose pulley having a hub tapered internally and fitting the external bearing surface of the box, said box having an orifice connecting the interior of the box with the exterior thereof and located at or near the smaller end of the tapered box, and an oil supply to the outer end of the shaft. 2nd. The combination of a shaft having a tapering end, a non-rotatable box tapering internally to fit the shaft, and having an external reverse taper a loose pulley fitting the external taper of the box, said box having an orifice connecting the interior of said box with the exterior thereof, located at or near a point where the interior and exterior surfaces are nearest together, and an oil supply to the end of the shaft. 3rd. The combination of a shaft having a tapering end, a non-rotatable box tapering internally to fit the shaft, and having an external reverse taper, a loose pulley fitting the external taper of the box, said box having an orifice connecting the interior of said box with the exterior thereof, located at or near what is the lowest part of the interior of said box when the said shaft is horizontal, said box having also a longitudinal channel in the interior surface of the box leading from said orifice to the end of the shaft, and an oil supply to the end of the shaft. 4th. The combination of a shaft having a tapering end, a non-rotatable box tapering internally to fit the shaft, and having an external reverse taper, a loose pulley fitting the external taper of the box, said box having an orifice connecting the interior of said box with the exterior thereof, located at or near a point where the interior and exterior surfaces are nearest together, an oil supply to the end of the shaft, and a drip cup to the outer end of the reverse external taper of said box. 5th. The combination of a shaft having a tapering end, a non-rotatable box tapering internally to fit the shaft and having an external reverse taper, a loose pulley fitting the external taper of the box, said box having an orifice connecting the interior of said box with the exterior thereof, located at or near a point where the interior and exterior surfaces are nearest together, a chamber around the said box above the outer end of the reverse external taper of said box, and a drip cup beneath said chamber. 6th. The combination of the shaft A, having a tapering end, the non-rotatable box B<sup>1</sup>, tapering internally to fit the shaft and having an external reverse taper, the loose pulley D, fitting the external taper of the box, said box having the orifice b<sup>2</sup>, connecting the interior of said box with the exterior thereof located at or near the point where the interior and exterior surfaces are nearest together, said box having also the longitudinal channel b<sup>7</sup>, in the interior surface of the box leading from said orifice to the end of the said shaft, and an oil supply to the end of the shaft.

**No. 62,081. Method of Controlling Noxious Gases in Mines. (Méthode de contrôler les gaz pernicieux.)**

John Davy Williams and Louis Denhame Gibson, both of Creswick, Victoria, Australia, 16th December, 1898; 6 years. (Filed 10th May, 1897.)

*Claim.*—1st. In the treatment of mine air, in order to control noxious gases, the method which consists in forcing air into an enclosed chamber or chambers formed in such mine, so as to artificially maintain therein an increased atmospheric pressure whereby the aforesaid exudation of foul gases from the ground will be restrained, substantially as set forth. 2nd. In the treatment of mine air, in order to control noxious gases, the method which consists in forcing air into an enclosed chamber or chambers formed in such mine, so as to maintain therein an increased atmospheric pressure, whereby the aforesaid exudation of foul gases from the ground will be restrained, and in allowing portions of the air within such chamber or chambers to escape automatically when the pressure exceeds a predetermined amount, substantially as set forth. 3rd. In apparatus for treatment of mine air, in order to control noxious gases, an air lock or locks (having doors and valves operated by

suitable levers) whereby the open part A of the mine is separated from the enclosed chamber B, in combination with piping for the



compressed air supply to chamber B, and for the escape of compressed air therefrom through a valve as 35, which is adapted to open at a predetermined pressure, substantially as set forth. 4th The general combination and arrangement of the apparatus as a whole for treating mine air in order to control noxious gases, substantially as and for the purposes set forth.

**No. 62,082. Waterproof Glue.** (*Colle à l'épreuve de l'eau.*)

Christian Wilhelm Luther, Reval, Russia, 16th December, 1898; 6 years. (Filed 29th June, 1897.)

*Claim.*—The method of manufacturing a waterproof glue, consisting of thoroughly drying an albumine such as casein and reducing same to powder, soaking the powder in about three or four times its weight of water, until the hard particles of casein becomes a jelly, admixing such jelly substance with an alkalic material such as lime pulp, the proportions employed being from 15 to 50 per cent. of alkalic substance and 85 to 50 per cent. of albumine when used for joining pieces of wood, in an ordinary temperature, or from 5 to 20 per cent. of alkalic substance to 95 to 80 per cent. of albumine when used in joining pieces of wood in artificial heat, substantially as described.

**No. 62,083. Method of Treating Hydrous Rock.** (*Méthode de traiter la roche aqueuse.*)

Archibald Anderson Dickson, Toronto, Ontario, Canada, 16th December, 1898; 6 years. (Filed 24th September, 1897.)

*Claim.*—1st. The art, method or process of treating a hydrous material (as gypsum rock) to enable it to be hardened and polished, which consists, essentially, in first shaping the block or piece; second, dehydrating the same by the action of heat; third, cooling it gradually; fourth, immersing the cooled material in a single solution of ammonia alum, whereby a combined mordant and hardening influence is simultaneously obtained, and finally drying it previous to polishing, substantially as set forth. 2nd. The art, method or process of treating a hydrous material (as gypsum rock) to enable it to be hardened and polished, which consists, essentially, in first, clamping the shaped block or piece; second, dehydrating it by the action of heat; third, cooling it gradually; fourth, immersing the cooled material in a single solution of ammonia alum to impart the hardening and mordant element; fifth, drying it by the action of the atmosphere, and finally removing the clamps previous to polishing, substantially as set forth.

**No. 62,084. Nutricious Products from Yeast.** (*Produit nutritif du levain.*)

John Goodfellow, 198 High Road, Leyton, Essex, England, 16th December, 1898; 6 years. (Filed 28th August, 1897.)

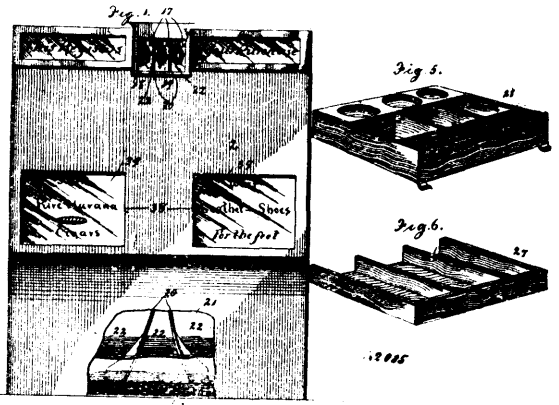
*Claim.*—1st. The herein described process for the manufacture of nutritious products from yeast, which consists in cleansing the yeast, digesting it for about 24 hours at 120° to 140° Fahrenheit, with weak lactic acid or hydrochloric acid or caustic alkali solution, and filtering and concentrating the product. 2nd. As a new article of manufacture, a food product obtained from yeast having its albumen converted into albuminates.

**No. 62,085. Cash Register and Advertising Device.** (*Régistre de monnaie et appareil d'annoncer.*)

Solomon Marcella Cutter, Montreal, Quebec, Canada, 16th December, 1898; 6 years. (Filed 11th August, 1898.)

*Claim.*—1st. A cash-register, comprising a framework, a compartment formed therein, said compartment being adapted to receive a cash receptacle and a check receptacle, a series of slideways formed in said framework, said slideways communicating with said check receptacle, a cover pivotally mounted above said compartment and

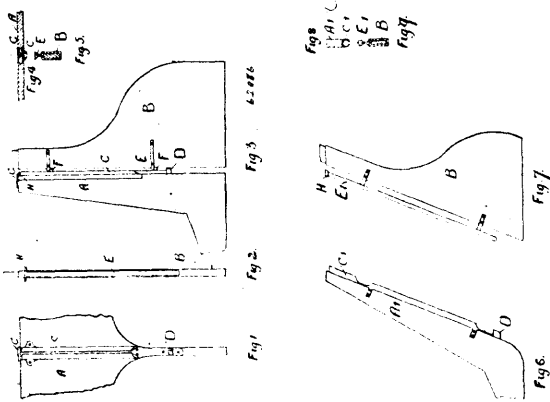
adapted to close the same, and means operated by the insertion of the check within any of said slideways, for automatically raising



said cover, whereby access may be had to said receptacles. 2nd. A cash-register, comprising a framework, a compartment formed therein, a cover hingedly secured in said framework and adapted to close said compartment, slideways formed in said framework and having communication with said compartment, said slideways being adapted to receive checks, means operated by the insertion of a check in any of said slideways for raising said cover, and means located in the path of movement of said check for holding it in a fixed position after it has passed within said slideways. 3rd. A cash-register, comprising a framework, a compartment formed therein, a cover hingedly secured in said framework and adapted to close said compartment, slideways formed in said framework and having communication with said compartment, said slideways being adapted to receive checks, means operated by the insertion of a check in any of said slideways for raising said cover, means located in the path of movement of said check for holding it in a fixed position after it has passed within said slideways, and means operated from without the framework, for releasing said check from its fixed position. 4th. A cash-register, comprising a framework, a compartment formed therein, a cover hingedly secured in said framework and adapted to close said compartment, slideways formed in said framework and having communication with said compartment, said slideways being adapted to receive checks, means for holding said cover in a closed position, and means located in the path of movement of said check for releasing said cover holding mechanism. 5th. A cash-register, comprising a framework, a compartment formed therein, a cover hingedly secured in said framework and adapted to close said compartment, slideways formed in said framework and having communication with said compartment, said slideways being adapted to receive checks, a rocking frame pivotally mounted on said framework, said rocking frame being adapted to hold said cover in its closed position, and means connected to said rocking frame and located in the path of movement of said check, for releasing said cover. 6th. A cash-register, comprising a framework, a compartment formed therein, a cover hingedly secured in said framework and adapted to close said compartment, slideways formed in said framework and having communication with said compartment, said slideways being adapted to receive checks, a rocking frame pivotally mounted on said framework, said rocking frame being adapted to hold said cover in its closed position, and rollers mounted in said framework and normally resting within said slideways, whereby the passing of a check into said slideways and past said rollers will cause said cover to be raised. 7th. A cash-register, comprising a framework, a compartment formed therein, a cover for said compartment, said cover being pivotally connected to said framework, slideways formed in said framework and having communication with said compartment, said slideways being adapted to receive checks, means connected to said framework and located in the path of movement of said checks for automatically raising said cover when a check is inserted, and a pawl mounted in juxtaposition to each of said slideways, said pawl being adapted to hold and retain said check in a fixed position within said slideway. 8th. A cash-register, comprising a framework, a compartment formed therein, a cover for said compartment, said cover being pivotally connected to said framework, slideways formed in said framework and having communication with said compartment, said slideways being adapted to receive checks, means connected to said framework and located in the path of movement of said checks for automatically raising said cover when a check is inserted, a pawl mounted in juxtaposition to each of said slideways, said pawl being adapted to hold and retain said check in a fixed position within said slideway, and means operated from without the framework for operating said pawls, whereby the check will be released from contact with said pawls. 9th. A cash-register, comprising a framework, a compartment formed therein, a cover pivotally mounted in said framework, said cover being adapted to close said compartment, slideways formed in said framework and having communication with said compartment, said slideways being adapted to receive checks, cover-releasing

mechanism connected to said framework and located in the path of movement of said checks, an opening formed in said framework in front of said slideways, and means for holding said checks in rear of said opening after said checks have operated said cover-releasing mechanism, whereby the characters on said checks will be exposed to the purchaser. 10th. The combination with a cash-register, of a series of advertising cards located therein, and means operated by the opening of said register for successively exposing said cards. 11th. The combination with a cash-register having the purchase price-indicating mechanism, of a series of advertising cards mounted in said register, and means for successively exposing said cards, said means being operated by the mechanism for giving access to the cash receptacle, whereby said purchase price and said advertising cards will be indicated contemporaneously. 12th. The combination with a cash-register of a series of advertising cards mounted in said register, and means for successively exposing said cards, said means being operated by the mechanism for giving access to the cash receptacle. 13th. The combination with a cash-register having a compartment and a pivotally mounted cover for said compartment, of a series of cards mounted in said register, and means operated by the movement of said cover for successively exposing each of said cards. 14th. The combination with a cash-register of a series of cards located therein, a carrier mounted at the rear of said cards, said carrier being adapted to receive the rearmost card, means for moving said carrier to take said card out of its position, said movement being operated by the mechanism for giving access to the cash receptacle, and means for passing said moved card from said carrier to a position in front of the last-exposed card.

**No. 62,086. Rudder for Boats.** (*Gouvernail de vaisseau.*)



Francis Hull, Auckland, New Zealand, 16th December, 1898; 6 years. (Filed 23rd September, 1898.)

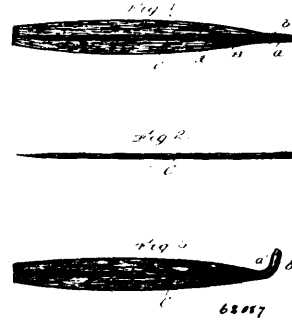
*Claim.*—1st. The slot or groove C fastened on to or let into the stern of a boat, the angular bar E connected to the hinges F which are fastened to a rudder, the manner of connecting the angular bar E to the slot or groove C and the connection of the same, the catch D and the button or catch G for holding the angular bar E rigidly in the slot or groove C, the hinges F for the rudder to turn on, and the flange H for arresting the downward progress of the bar E, all for the purpose herein set forth as before described and as illustrated by the accompanying drawings. 2nd. The slot or groove C I, having side openings, fastened on to or let into the stern of a boat, the rounded bar E 1 rigidly fixed to a rudder and acting as a hinge on which the rudder turns, the manner of connecting the bar E 1 to the rounded slot or groove C 1 and the connection of the same, the catch D for supporting the bar E 1, and the flange H for arresting the downward progress of the bar E 1 all for the purpose herein set forth as before described and as illustrated by the accompanying drawings. 3rd. The round rod E 2 fastened by a cross piece D 1 at its lower end to the stern of a boat and having its upper end detached from the head, the tubular piece C 2 rigidly fixed to the rudder, the manner of connecting the tubular piece C 2 to the rod E 2 and the connection of the same, and the securing the top of rod E 2 to the top of the stern of the boat, all for the purposes herein set forth as before described and as illustrated by the accompanying drawings.

**No. 62,087. Cigar.** (*Cigare.*)

Philip F. Teiser and Arimin Pollak, both of Richmond, Virginia, U.S.A., 16th December, 1898; 6 years. (Filed 14th November, 1898.)

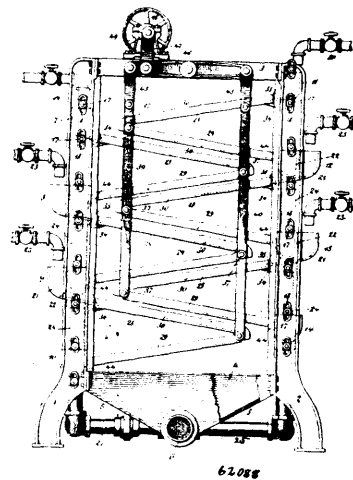
*Claim.*—1st. The improved article of manufacture described, comprising a cigar, and a removable, longitudinally-disposed fragrant

stick arranged in the cigar, substantially as and for the purpose set forth. 2nd. The improved article of manufacture described, com-



prising a cigar, and a removable, longitudinally-disposed fragrant stick arranged in and occupying the longitudinal centre of the cigar and having one of its ends extended beyond an end of the bunch thereof, substantially as specified. 3rd. The improved article of manufacture described, comprising a cigar, and a removable, longitudinally-disposed, fragrant tobacco stem arranged in the bunch of the cigar and having one of its ends extended beyond one end thereof, substantially as specified. 4th. In a cigar, the bunch, the tobacco stem calculated to impart its fragrance to the tobacco forming the bunch, said stem occupying the longitudinal centre of the bunch and extended beyond the mouth end of the same, and a wrapper surrounding the bunch and the extended portion of the tobacco stem, substantially as specified. 5th. The combination in a cigar, of the bunch, a removable stick occupying the longitudinal centre of the bunch and extended beyond the mouth end of the same, and a wrapper surrounding the bunch and the extended portion of the stick, substantially as specified.

**No. 62,088. Pulp Screening Machine.** (*Tamis à pulpe.*)

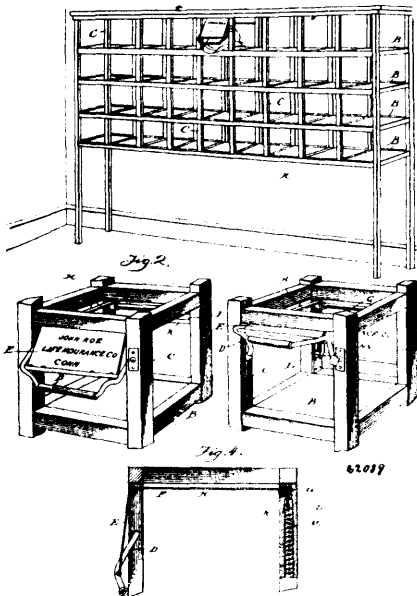


Charles Smith, Belleville, New Jersey, U.S.A., 16th December, 1898; 6 years. (Filed 26th October, 1898.)

*Claim.*—1st. In a machine of the character described, the series of inclined screens, combined with the series of inclined plates, one being below each screen, leading to delivery outlets for the pulp which has passed through the screens, the relation of the screens being such that the pulp which moves over instead of through a screen will pass upon a lower screen to be acted upon by it, substantially as set forth. 2nd. In a machine of the character described, the series of inclined screens, and the series of inclined plates, one being below each screen, leading to delivery outlets for the pulp which has passed through the screens, combined with means for shaking said screens, the relation of said screens being such that the pulp which moves over instead of through a screen will pass upon a lower screen to be acted upon by it, substantially as set forth. 3rd. In a machine of the character described, the series of inclined screens, and the series of troughs at the upper ends of said screens to receive the pulp and deliver the same to said screens, combined with the series of inclined plates, one being below each screen, leading to delivery outlets for the pulp which has passed through the screens, and the receptacle to receive all of the pulp which has passed over instead of through all of the screens, the relation of the screens being such that the pulp which moves over instead of through a screen will pass upon a lower screen to be acted upon by it, substantially as set forth. 4th. In a machine of the character described, the inclined screen leading inward and downward

from one side of the machine, means for feeding said screen with pulp, and the inclined plate extending from the lower end of said screen downward and outward to a delivery outlet for the pulp which has passed through said screen, combined with the inclined screen extending inward and downward from the opposite side of said machine and below said inclined plate, means for feeding pulp to said last mentioned screen, the inclined plate extending from the lower end of said last mentioned screen to a delivery outlet for the pulp which has passed through said screen, the receptacle to receive the pulp which has passed over instead of through said screens, and means for shaking said screens, substantially as set forth. 5th. In a machine of the character described, the series of inclined screens extending inward and downward from the opposite sides of the machine, the troughs for supplying said screens with the pulp, and the series of inclined plates extending downward and outward from the lower ends of said screens to receive the pulp which passes through the screens and direct the same to the delivery for screened pulp, combined with means for shaking said screens, and a receiver for the pulp which has passed over instead of through said screens, substantially as set forth. 6th. In a machine for screening pulp, the series of inclined screens extending inward and downward below one another from opposite sides of the machine, the troughs for supplying said screens with the pulp, and the series of inclined plates extending downward and outward to the opposite sides of said machine from the lower ends of said screens for delivering the pulp which has passed through the screens, combined with straps 39, 40, secured to said screens and plates at their converging ends, the walking beams connecting the upper ends of said straps, the eccentric straps connected to said walking beams, the eccentrics engaging said eccentric straps, and the power shaft carrying said eccentrics, substantially as set forth. 7th. In a machine for screening pulp, the supply trough 7, the inclined screen extending downward and inward therefrom, and the inclined plate extending downward and outward from the lower end of said screen, combined with the trough 8 having the compartments 21, 22, and receiving in the compartment 22 the screened pulp from said plate, the inclined screen extending downward and inward from said compartment 21, the inclined plate extending below said last mentioned screen to receive the pulp which passes through the same, and a receptacle to receive the pulp which passes over instead of through said screens, substantially as set forth. 8th. In a machine for screening pulp, the series of oppositely inclined screens, and the corresponding series of inclined plates, combined with the independently adjustable troughs for supplying the pulp to said screens, the upper and lower troughs having the single compartment and the intermediate troughs having the two compartments, one of which is to supply the pulp to be screened and the other to receive the screened pulp, substantially as set forth.

**No. 62,089. Hat Rack and Advertising Device.**  
(*Porte-chapeau et appareil d'annonce.*)

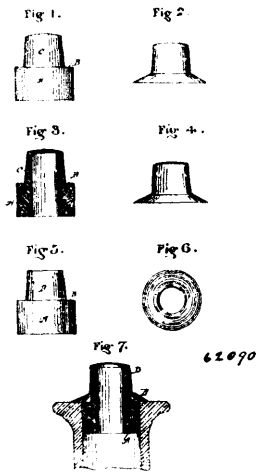


Watson M. Hulburt, Waterbury, Connecticut, U.S.A., 16th December, 1898; 6 years. (Filed 8th October, 1898.)

*Claim.*—1st. In a hat rack of the kind described, a compartment having an advertising curtain or card arranged in the rear thereof, substantially as shown and described. 2nd. In a hat rack of the kind described, a compartment having an advertising curtain or card arranged in the rear thereof, and a movable curtain arranged at the front of said compartment, substantially as shown and

described. 3rd. In a hat rack of the kind described, a compartment having an advertising curtain or card arranged in the rear thereof, and an advertising curtain arranged at the front of the compartment, said front and rear curtains being connected and adapted to operate in unison, substantially as shown and described. 4th. In a hat rack of the kind described, a compartment having a bail pivoted to the front thereof, an advertising curtain attached to the said bail, means for winding the said curtain and elevating the bail, and an advertising curtain or card arranged in the rear of the compartment, substantially as shown and described. 5th. In a hat rack of the kind described, a compartment having a bail pivoted at the front thereof, an advertising curtain attached to the said bail and arranged in the front of the compartment, a spring-actuated curtain arranged in the rear of the compartment, and means for connecting the front and rear curtains, substantially as shown and described. 6th. In a hat rack of the kind described, a compartment having a bail pivoted in the front thereof, the front and rear winding shafts arranged in the compartment, the front and rear curtains attached to the front and rear winding shafts respectively, a connecting strap and spring operating mechanism, all arranged and adapted to operate, substantially as shown and described.

**No. 62,090. Stopper and Orifice for Bottles, etc.**  
(*Bouchon et goulot de bouteilles.*)



George Robinson Warwick, Arthur Frederick Rutter and Charles Ernest Warwick, all of Toronto, Ontario, Canada, assignees of Levi Hoffman Thomas, Jersey City, New Jersey, U.S.A., 17th December, 1898; 18 years. (Filed 27th October, 1898.)

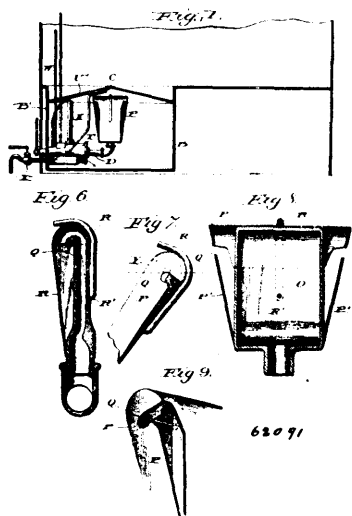
*Claim.*—A bottle-stopper, comprising a ring A of rubber or other yielding material, adapted to fit within the mouth of a bottle to compress the lower portion of the escape-passage and having a top edge adapted to rest flush with the top edge of the bottle-neck, and a tubular extension of less diameter than the ring A closed at its outer end and projecting above the top edge of the bottle-neck to serve as a pour-out, when its top is removed, in combination with the cap fitting over the pour-out tube.

**No. 62,091. Measure.** (*Mesur.*)

Merlin A. Myers, assignee of John H. Martindale, both of Warren, Pennsylvania, U.S.A., 17th December, 1898; 6 years. (Filed 28th June, 1898.)

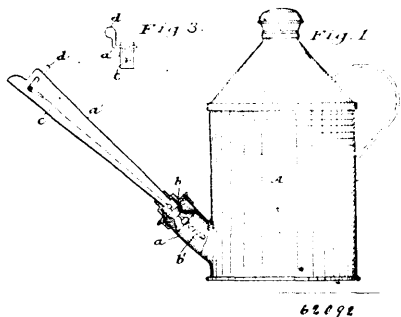
*Claim.*—1st. In a measuring receptacle, a syphon break, as set forth. 2nd. In a measuring receptacle a syphon adapted to regulate the discharge of liquid therefrom, and to break in any position as set forth. 3rd. In a measuring receptacle, a valve mounted therein, and a syphon connected to and operated by said valve, as set forth. 4th. In a measuring receptacle and supply tank connected therewith, a plug valve mounted within the receptacle, ducts in said valve, vent pipes and oil supply pipe communicating between the supply tank and the receptacle, and a syphon mounted on the stem of the valve, as set forth. 5th. In a measuring receptacle, or plug valve mounted therein, passageways in said valve, the liquid supply pipes and ducts, combined with a syphon mounted on and communicating with the valve passageway leading to the exit or spigot, the refilling pipe communicating between the syphon and the measuring receptacle, as set forth. 6th. In a measuring receptacle, a syphon mounted as described, combined with a vent pipe communicating with the interior of the syphon, with the upper end of said vent pipe extending above the highest point of the syphon, as set forth. 7th. In a measuring receptacle, a syphon having an extension or raised portion in the wall of its duct, as set forth and for the purpose described. 8th. In a measuring receptacle, a syphon having an air break located below and to one side of the opening into the duct of the syphon, as set forth. 9th. In a measuring receptacle, a syphon having a shell P con

nected thereto, the ends of which are left open, and a scolloped portion Q below the mouth of the duct, in the mouth of the syphon. 10th. In



a measuring receptacle, having a syphon in combination therewith a shell P extending over the end of the syphon, the flaring sides P' open on corresponding edges, and scolloped away as at Q, as shown and for the purpose set forth. 11th. In a measuring receptacle, the valve having the passageways as described, the refilling pipe T communicating between the upper end of the measuring receptacle and one of the compartments of the valve chamber and with the interior of the syphon. 12th. In a measuring receptacle, a valve with duct therein, the valve casing having pockets with which the said duct is adapted to register, and the vent pipes connected with the casing and communicating with the pockets, as shown and described. 13th. A valve for measuring tanks, having a longitudinal partition therein forming two passageways in the valve, a supply pipe communicating with one of the passageways which communicates with the measuring receptacle, the second passageway leading from a syphon to the spigot, and a spring and packing on the stem of the valve, as shown and described.

No. 62,092. Oil Can. (Bidon à huile.)



Johann Enderli, assignee of Heinrich Dubendorfer, both of Zurich, Switzerland, 17th December, 1898; 6 years. (Filed 28th November, 1898.)

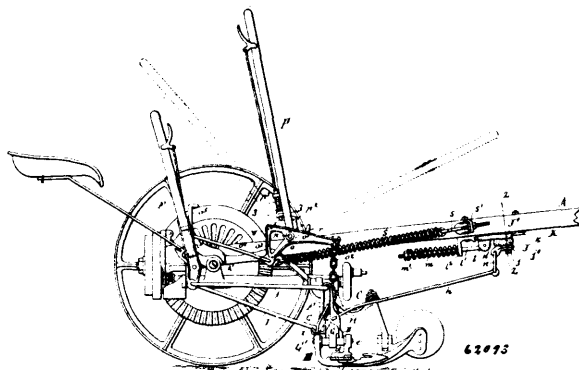
Claim.—1st. A safety can for kerosene and other inflammable oils comprising a spout extending from near the bottom of the can, said spout being of increasing diameter towards its upper end, substantially as described. 2nd. A safety can for kerosene oil and the like, comprising a spout, a spring closed valve in the lower part thereof, a lever for operating said valve, and a combustible connection between the lever and the valve, substantially as described. 3rd. A safety can comprising a spout composed of a lower part having a contracted opening forming a valve seat, a valve fitted thereto, a spring for closing said valve and an upper part of tapering shape and of increasing diameter towards its upper end, said part carrying a lever and a combustible connection between the lever and the valve.

No. 62,093. Mower. (Faucuse.)

Adriance Platt & Company, assignee of Thomas Stuart Brown, both of Poughkeepsie, New York, U.S.A., 17th December, 1898; 6 years. (Filed 25th November, 1898.)

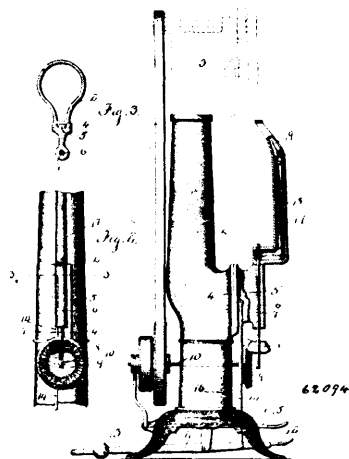
Claim.—1st. The combination with the pole, an evener capable of longitudinal movement on the pole, a draft spring which is strained

by the forward movement of the evener on the pole, and the coupling bar or support of the cutter mechanism, of a draft connection which



extends from the draft evener to said coupling bar or support and which is normally slack, in which condition of the parts the draft is applied through the draft spring to the pole and not to the coupling bar or support, while said connection is tightened by an excessive draft and then applies part of the draft directly to the coupling bar or support, substantially as set forth. 2nd. The combination with the pole, a longitudinally movable slide mounted on the pole, an evener attached to said slide, a draft spring interposed between said slide and the pole, and the coupling bar or support of the cutter mechanism, of a draft connection which extends from the evener to said coupling bar or support and which is normally slack but is tightened by an excessive draft, substantially as set forth. 3rd. The combination with the pole, a longitudinal guide bar secured to the underside of the pole and provided at its rear end with a downwardly projecting lug, a slide mounted on said guide bar and provided with a downwardly projecting pivot, a draft bar mounted on said pivot, a rod extending rearwardly from said slide, and a draft spring applied to said rod and bearing against said lug, of a coupling bar, a draft bar extending forwardly from said coupling bar, a washer provided with an eye and applied to said pivot below the draft bar, and a link connecting said washer with said draft rod, substantially as set forth. 4th. The combination with the coupling bar, of a surrounding sleeve provided along its inner side with a longitudinally recessed expansion rib or channel, substantially as set forth.

No. 62,094. Pegging Machine. (Machine à cheviller.)

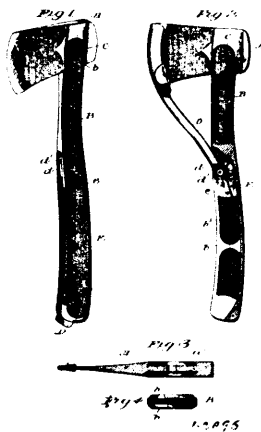


Pierre Larange and Francis Tousignant, both of St. Hyacinthe, Quebec, Canada, 17th December, 1898; 6 years. (Filed 31st October, 1898.)

Claim.—1st. The combination with a pegging machine, having an awl, awl feed and driver, of a revolvably mounted horn, and a rotary trimming knife mounted in the end of said horn, said awl having its downward movement in the centre of said knife. 2nd. A trimming attachment for pegging machines, comprising a support, a knife revolvably mounted therein and removable therefrom, said knife having a movement concentric with the downward movement of the awl, and a cap, forming the supporting table, removably connected to said support, said cap serving to hold the knife in position. 3rd. A trimming attachment for pegging machines, comprising a rotary support, a knife-carrying gear mounted revolvably and

removably on said support, a knife removably secured on said gear, and adapted to have movement therewith, a cap forming the work-support, said cap serving to hold said knife and gear in position, and means for imparting movement to said gear. 4th. A trimming attachment for pegging machines, comprising a support, a gear revolvably and removably mounted on said support, a trimmer mounted on said gear and having movement therewith, and a cap adapted to hold said gear and trimmer in position. 5th. A trimming attachment for pegging machines, comprising a support, a gear revolvably and removably mounted thereon, the path of movement of said gear being concentric with the downward movement of the awl, a trimmer removably mounted on said gear, and a cap adapted to hold said gear and said cap in position. 6th. A trimming attachment for pegging machines, comprising a revolvably mounted support, and a trimmer removably located thereon, said trimmer being formed in sections. 7th. A trimming attachment for pegging machines, comprising a revolvably mounted support, and trimmer removably located thereon. 8th. A trimming attachment for pegging machines, comprising a revolvably mounted support, and a cutting knife removably secured thereon. 9th. A trimming attachment for pegging machines, comprising a revolvably mounted support, and a cutting knife, having an interior cutting edge, secured thereon. 10th. A trimming attachment for pegging machines, comprising a revolvably mounted support, and a cutting knife, formed of a plurality of sections, removably secured thereon. 11th. A trimming attachment for pegging machines, comprising a support, a gear revolvably and removably mounted thereon, a trimmer removably secured on said gear, and a cap, adapted to hold said gear and trimmer in position, the upper face of said cap being on an approximate horizontal plane with the operating edge of said trimmer. 12th. A trimming attachment for pegging machines, comprising a support, a gear revolvably and removably mounted thereon, a knife removably secured on said gear, and a cap adapted to hold said gear and said knife in position, the upper face of said cap and the cutting edge of said knife being on an approximate plane. 13th. A trimming attachment for pegging machines, comprising a revolvable support mounted to have a concentric movement with the downward movement of the awl, and a trimmer removably mounted on said support. 14th. The combination with a pegging machine, having a slide, a horn carrying slide mounted thereon, a horn revolvably mounted on said horn carrying slide, and means for imparting movement to said horn carrying slide. 15th. The combination with a pegging machine, of a horn having a revolvable and slidable movement thereon, trimming mechanism mounted on said horn, means for imparting movement to said trimming mechanism, said means becoming inoperative upon the downward movement of the horn.

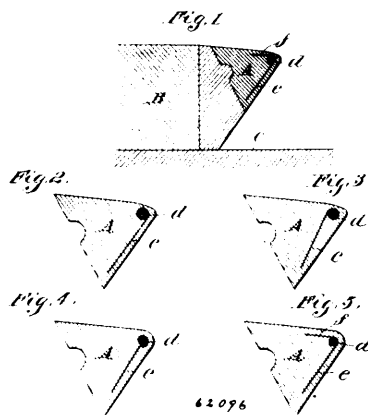
No. 62,095. **Axe Guard.** (*Garde-hache.*)



Webster Lansing Marble, Gladstone, and Frank H. Van Cleave, Escanoba, both in Michigan, U.S.A., 17th December, 1898; 6 years. (Filed 11th November, 1898.)

*Claim.*—1st. An axe having a guard hinged to its helve on an axis transverse thereto, and adapted to cover and enclose its edge, substantially as described. 2nd. An axe having a grooved helve, and a guard hinged to said helve and adapted to enclose the edge when opened, and to lie within the groove when closed, substantially as described. 3rd. An axe having a guard hinged to its helve about midway of the same, the length of said guard being about half that of the helve, so as to enclose the edge when open and to lie parallel with the butt of the helve when closed, substantially as described. 4th. An axe having the handle portion of its helve grooved on the underside, a guard for the edge of the head hinged in said groove, and a spring bearing against the end of the guard near the hinge pin, substantially as described. 5th. An axe having its helve grooved on the underside, a guard for the axe head hinged in said groove, a roller mounted in the end of the guard near the hinge pin, and a spring in the groove bearing against said roller, substantially as described.

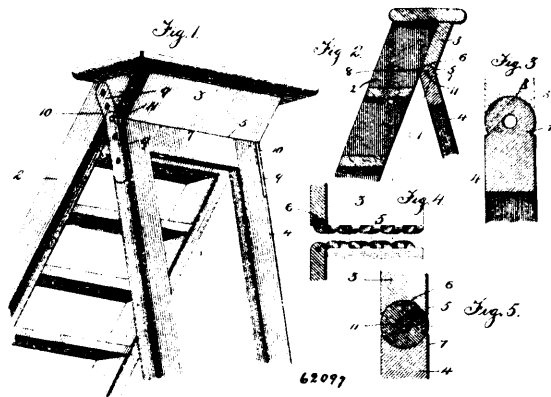
No. 62,096. **Billiard Cushion.** (*Bande de billiard.*)



The Brunswick-Balke-Collender Co., assignee of Moses Bensinger, all of Chicago, Illinois, U.S.A., 17th December, 1898; 6 years. (Filed 15th November, 1898.)

*Claim.*—1st. In a billiard cushion-strip, the combination with the usual moulded mass of a suitable rubber compound of a face-hardening device, or means, comprising a wire located within the moulded cushion-strip, and at the vicinity of the nose, or upper working edge of the cushion-strip, and a ribbon-like strip of canvas, or other non-stretchable textile fabric having its upper edge portion tightly wrapped round about said wire and its main portion extending thence downwardly towards the root of the cushion, all in substantially the manner and for the purposes hereinbefore set forth. 2nd. In a billiard cushion-strip composed of a suitable rubber compound and having incorporated within it a face-hardening device composed of a wrapped wire, the textile wrapping of which extends downwardly towards the root of the cushion, of a supplemental stiffener, or reinforcing device *f*, composed of one or more plies of some suitable woven fabric extending rearwardly from the wire wrapped face-hardening device for a short distance and in a plane substantially parallel with the top surface of the cushion-strip and slightly below the topmost part of the rubber mass, all substantially as and for the purpose hereinbefore set forth.

No. 62,097. **Step Ladder.** (*Echelle à marches.*)

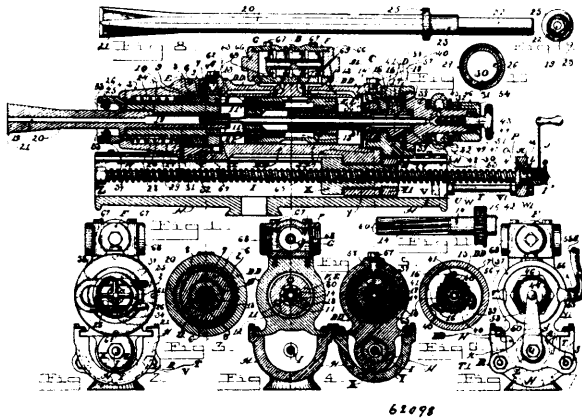


Mary Ethel Grace, assignee of Joseph P. Grace, Montreal, Quebec, Canada, 17th December, 1898; 6 years. (Filed 23rd November, 1898.)

*Claim.*—1st. A step-ladder, comprising a step or ladder portion, a supporting frame, and a pivotal connection between said portion and said frame, said connection forming a continuous bearing. 2nd. A step-ladder, comprising a step or ladder portion, a supporting frame, and a bearing formed between said portion and said frame, said bearing having a continuous contact between said portion and said frame for their entire width. 3rd. A step-ladder, comprising a step or ladder portion, having a top, and a supporting frame, pivotally connected to said top, the adjoining faces of said top and said frame, contacting for their entire width. 4th. A step-ladder, comprising a step or ladder portion, having a top, and a supporting frame, pivotally connected to said top, the adjoining faces of said connection being adapted to fit one another for their entire length. 5th. A step-ladder, comprising a step or ladder portion, having a top, said top having its lower face provided with a groove, and a supporting frame pivotally connected to said top, said frame having its upper end arranged to fit and have movement within said groove. 6th. A step-ladder, comprising a step or ladder portion,

a supporting frame, and a pivotal connection between said portion and said frame, said connection forming a bearing contact between said portion and said frame.

**No. 62,098. Rock Drill. (Foret de mine.)**



John George Leyner, Denver, Colorado, U.S.A., 17th December, 1898; 6 years. (Filed 25th May, 1898.)

*Claim.*—1st. In a rock drilling engine, the combination with the cylinder and the piston, of a front cylinder head comprising an integral, cylindrical member adapted to be threaded to the end of said cylinder, an axial bore through said head, a counterbore at its inner end, a sleeve rotatably seated in said bore, buffer rings in the bottom of said counterbore and a collar or head portion on said sleeve extending into said counterbore and resting between the buffer rings and the end of said cylinder, substantially as described. 2nd. In a rock drilling engine, the combination with the cylinder, the combination with the cylinder, the piston and the cylinder head, of a rotatable sleeve axially supported in said cylinder head, having an axial bore, a portion of which is of polygon cross-section, with a drill bit loosely supported in said sleeve and having a polygonal shaped shank adapted to fit the polygonal bore of said sleeve and having its shank extending normally beyond the sleeve into said cylinder of the drill, and having a hole, passage or conduit extending through or along the drill bit from end to end and adapted to convey a portion of the actuating expansive fluid from the cylinder to the cutting point of the drill and to the bottom of the hole being drilled, substantially as described. 3rd. In a rock drilling engine, the combination of the cylinder, the piston, and the front cylinder head having an axial bore, a counterbore adjacent to its cylinder end of larger diameter than the bore of said cylinder, a sleeve rotatably seated in said cylinder head having a collar portion on its inner end extending into said counterbore and of a larger diameter than the bore of said cylinder, a rubber buffer ring and a steel buffer ring surrounding said sleeve between the collar portion and the bottom of said counterbore and having two or more rods secured at diametrically opposite points, in the collar portion, with said piston head having holes therein adapted to fit freely said rods and adapted to reciprocate on said rods, substantially as described. 4th. In a rock drilling engine, the combination with the cylinder and the piston, of the front cylinder head, the sleeve, the rods, the free holes in the piston in which the rods extend and a bushing at the entrance of said holes adapted to fit slidably the said rods, substantially as described. 5th. In a rock drilling engine, the combination with the cylinder and the piston, of the front cylinder head, the sleeve, the buffer rings, the rods secured to said sleeve, the holes in said piston head, the bushings at the entrance of said holes and the drill bit adapted to be operatively supported by said sleeve and having a passage or conduit from end to end adapted to convey a portion of the actuating expansive fluid from the cylinder to the cutting point of the drill and to the bottom of the hole being drilled, substantially as described. 6th. In a rock drilling engine, the combination with the cylinder and the piston, of the front cylinder head, a sleeve rotatably supported axially therein, a drill bit operatively supported by said sleeve and means connected with the said piston for rotating or turning said sleeve and drill bit step by step, substantially as described. 7th. In a rock drilling engine, the combination with the cylinder, the piston and the front cylinder head, of a drill bit, adapted to be operatively held and supported loosely in said cylinder head so as to be withdrawn therefrom and inserted therein instantly at will, and adapted to extend into the reciprocal path of said piston and be impinged by it in its reciprocal movements in the said cylinder, and having a passage extending through it from one end to the other adapted to convey a portion of the actuating expansive fluid used to operate the piston from the front end of the cylinder to the cutting point of the said drill bit and means for rotating or turning said drill bit step by step at each full stroke of said piston, substantially as described. 8th. In a rock drilling

engine, the combination with the cylinder, the piston, the front cylinder head and the sleeve freely supported by said cylinder head and having an axial perforation round in cross-section for a portion of its length and of polygon shape for the rest of its length, with a drill bit having a shank adapted to fit both portions of the hole in said sleeve loosely, and extending through said sleeve into said cylinder into the reciprocal path of said piston, a counterbore in the outer end of said cylinder head, a collar or projection on said drill bit normally resting in said counterbore and adapted to define the inward movement and the position of the end of the drill bit's shank relative to the said piston, means for rotating said drill bit and sleeve step by step, and an axially arranged hole extending through said drill bit from end to end and adapted to convey a portion of the actuating expansive fluid from the cylinder to the cutting point of said drill bit, substantially as described. 9th. In a rock drilling engine, the combination with the cylinder, the piston, the front cylinder head and the sleeve, of a drill bit adapted to be operatively supported by said sleeve and having a pentagon shaped shank and a round portion adjacent to said pentagon end, a collar or projection adjacent to said round portion and an axial perforation through said drill bit, and means for rotating said drill bit step by step, substantially as described. 10th. In a rock drilling engine, the combination with the cylinder, the piston, the cylinder head and the sleeve, having a square or polygon shaped axially arranged aperture, with a drill bit of any form of cross-section, having a square or polygon shaped striking end adapted to fit freely the polygonal aperture in said sleeve and arranged to be operatively impinged and intermittently rotated by said piston, a collar or projecting portion adjacent to said drill point's striking end adapted to normally rest against the outer end of said cylinder head, and a passage from the striking end of said drill bit to its cutting point adapted to convey a portion of the piston's actuating fluid from said cylinder to the cutting point of said drill bit and to the bottom of the hole being drilled, substantially as described. 11th. In a rock drilling engine, a rock drill bit, having a drill shank of any merchantable form of cross-section and having a cutting point of any desired common form, a polygon shaped striking end, a collar adjacent to said end, and an axial hole from end to end throughout its length, or a closed passage attached to or arranged to form a part of said drill bit extending from its striking end to its cutting point, substantially as described. 12th. In a rock drilling engine, the combination with the cylinder, the piston and the front cylinder head, of a drill-bit resting freely and loosely and not in any way clampingly secured or fastened to the cylinder head but operatively supported in a substantially fixed position relative to the reciprocal movements of said piston and arranged and adapted to be struck intermittently and successively by said piston, means for rotating said drill bit step by step and means for conveying a portion of the piston's actuating fluid from the cylinder to the drill-bit's cutting point, substantially as described. 13th. In a rock drilling engine, a rock cutting drill comprising a bar of drilled steel of any form of cross-section containing an axial hole through it from end to end and a collar or projection or shoulder adjacent to or at a short distance from its striking end, substantially as described. 14th. In a rock drilling engine, a rock cutting drill loosely positioned and supported in and to the drilling engine and arranged to be impinged upon one end by a reciprocal movement of the piston, and arranged and adapted to convey a portion of the piston's actuating fluid directly from the cylinder into and through said cutting drill to its cutting point and to the bottom of the hole being drilled, whereby said actuating fluid is used to expel the rock cuttings from the hole being drilled, substantially as described. 15th. In a rock drilling engine, a rock cutting drill loosely positioned and supported in the drilling engine and arranged to be impinged upon one end by a reciprocal movement of the piston, an axial hole through said rock cutting drill from end to end and arranged and adapted to convey a portion of the piston's actuating fluid directly from the cylinder to its cutting point to blow out from the hole being drilled the rock cuttings, and said drill arranged and adapted to be moved by the expansive fluid against the rock after each recoil from the rock, after each blow of the piston, substantially as described. 16th. In a rock drilling engine for expelling the rock cuttings from holes while drilling them, consisting of an operative drilling engine having rock cutting drills arranged and adapted to extend into the cylinder of the drilling engine and to be struck and actuated to cut rock by the reciprocative movements of the piston impinging against its inner end and in which the cutting drills have an axial hole through them from end to end, and the piston's actuating fluid has at all times, free, direct and unobstructed passage from the cylinder to the cutting point of the drill and to the atmosphere and to the bottom of the hole being drilled, substantially as described. 17th. In a rock drilling engine, a rock cutting drill arranged to be struck by the reciprocal movements of the piston, and provided with a collar, projection, or shoulder adjacent to its striking end, adapted to form an abutment or rest, against the front part of the drilling engine and define the cutting drill's operative relation to the engine's piston and a passage axially through said cutting drill arranged to conduct a portion of the piston's actuating fluid directly from the cylinder to the cutting point of said rock cutting drill, substantially as described. 18th. In a rock drilling engine, a drill bit arranged to project into the cylinder of the drilling engine and arranged to be operatively struck upon its end by the reciprocal movements of the engine's piston and containing a passage or conduit from said engine's cylin-

der to or adjacent to said drill bit's cutting point and a water passage or tube or conduit through said drilling engine to said passage in said drill bit, means to provide a suitable water supply for said passage and said drill bit whereby a commingled supply of the cylinder's actuating fluid and water is conveyed from said drilling engine through said drill bit to its cutting point and to the bottom of holes in rock while drilling them, substantially as described. 19th. In a rock drilling engine, a suitable cylinder a reciprocating piston, a suitable controlling valve and suitable feeding mechanism and drill bit arranged to project into said cylinder into the reciprocal path of said piston and arranged and adapted to be struck directly on their cylinder invading ends by the reciprocal movements of said piston, and containing a passage or conduit for the actuating fluid of said rock drilling engine opening into or communicating with said engine's cylinder and extending through said drill bits to or adjacent to their cutting points, a water conveying tube or conduit connecting with the said passage or conduit in said drill bits, means to provide a suitable water supply and to mingle with it a portion of the cylinder's actuating fluid and for conveying said actuating fluid and water supply through said drill bits to their cutting points and to the bottom of holes while drilling them, substantially as described. 20th. In a rock drilling engine, the combination with the cylinder and the piston, of a drill bit containing an axial hole from end to end and extending into the cylinder and open to the engine's actuating fluid, an axial bore through said piston, and a tube in said bore projecting into the hole in said drill bit, substantially as described. 21st. In a rock drilling engine, the combination of the cylinder, the piston, the cylinder heads, the sleeve and the hollow drill with a liquid or water conveying tube through said piston connected with said hollow drill and a passage from said cylinder adapted to allow the cylinder's actuating fluid to flow into said hollow drill whereby a combined stream of liquid and actuating fluid is caused to flow through said drill bit to the bottom of holes while drilling them, and means including a valve for controlling the volume and pressure of said liquid and actuating fluid stream, substantially as described. 22nd. In a rock drilling engine, the combination with the cylinder, the piston, the front cylinder head, the sleeve and the rods projecting from said sleeve into said piston with a hollow bit keyed loosely to said sleeve and arranged to be instantly withdrawn from or inserted in said sleeve and provided with means for defining its operative position in said sleeve and to said cylinder and piston and with a fixed projection from the rear end of said cylinder freely through said piston and extending into said drill bit, substantially as described. 23rd. In a rock drilling engine, the combination with the cylinder and the piston, of a hollow drill bit projecting into said cylinder into the reciprocating path of the piston and arranged to convey a portion of the piston's actuating fluid to the bottom of holes while drilling them, with a water tube projecting into said drill bit for supplying water under pressure and mingling it with the actuating fluid of said drill bit and discharging into the bottom of holes while drilling them a combined stream of actuating fluid and water, substantially as described. 24th. In a rock drilling engine, the combination with the cylinder and the piston, of the front, the rear, and the supplementary cylinder heads, a hollow drill bit projecting into said cylinder in the path of the piston and a water inlet tube secured to said rear cylinder head and projecting through said piston into said drill bit, substantially as described. 25th. In a rock drilling engine, the combination with the piston, the drill bit, the supplementary cylinder head, the rifle bar and the rear cylinder head having a water inlet tube secured thereto and projecting therefrom loosely through the axial centre of said rifle bar and said piston into the striking end of said drill bit, substantially as described. 26th. In a rock drilling engine, the combination with the drill bit, the piston and the rifle bar, axial holes through said rifle bar and piston, a water inlet tube projecting loosely through said axial holes into said drill bit adapted to conduct a stream of water under pressure through said tubes and drill bit, and a valve for controlling the flow of said water, substantially as described. 27th. In a rock drilling engine, the combination of a piston having an axial bore, a rifle bar also having an axial bore, a cylinder head having a tube projecting through said rifle bar and piston, a water passage to said tube, a valve adjacent to said tube for controlling said passage, means for mingling said water with a portion of the engine's actuating fluid and means for conducting said actuating fluid and water in a combined stream to the bottom of holes in rock while drilling them, substantially as described. 28th. In a rock drilling engine, the combination with the hollow drill bit, of the sleeve, the cylinder, the piston, the rifle bar and the rear cylinder head having a water inlet tube projecting through said rifle bar and piston into said drill bit, and a passage around said tube from said cylinder into said drill bit, substantially as described. 29th. In a rock drilling engine, the combination with the cylinder and the piston of a hollow drill bit mounted to be turned step by step by said piston, a water inlet tube projecting into said drill bit and a passage from said cylinder into said drill bit, substantially as described. 30th. In a rock drilling engine, the combination with the cylinder, the piston, the cylinder head and the sleeve, of a hollow drill bit projecting into said cylinder and adapted to convey a portion of the cylinder's actuating fluid to its cutting point, of a conduit adapted to convey a stream of water under pressure to said drill point, a rear cylinder head, a passage in said cylinder head for said water, a valve adapted to control the admission and volume of said water, and a water inlet coupling adapted to connect with a

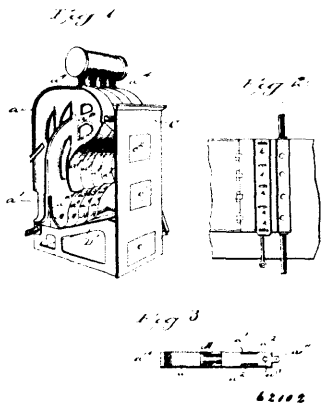
source of water supply on either side of said cylinder, substantially as described. 31st. In a rock drilling engine, the combination with the piston having an axial hole, the drill bit, the rifle bar, having an axial hole and the back cylinder head carrying a water inlet tube projecting through the axial bores of said rifle bar and piston, with a water inlet coupling rotatably mounted on said cylinder head, a passage from said coupling to said tube and means including a nut and thread for packing said coupling against leakage, substantially as described. 32nd. In a rock drilling engine, the combination with the piston and the hollow drill bit, of the back cylinder head, the water inlet tube projecting therefrom through said piston and into said drill bit, a passage through said cylinder head for the admittance of water under pressure to said tube and drill bit, a valve controlling said passage and a suitable packing device for said valve, substantially as described. 33rd. In a rock drilling engine, the combination of the hollow drill bit, the piston, the rifle bar, and the back cylinder head, with a tube projecting loosely through bores in said rifle bar and piston and with a water inlet coupling having a hose or pipe connecting nipple, and a passage from said coupling to said tube, substantially as described. 34th. In a rock drilling engine, the combination with the back cylinder head, of the rotatable water coupling mounted thereon, a shoulder or abutment adjacent to said coupling, a washer between said coupling and said shoulder, a second washer on the opposite side of said coupling, and a nut threaded to said cylinder head adapted to tighten said washers and coupling against said shoulder and thereby pack said coupling against leakage, substantially as described. 35th. In a rock drilling engine, the combination of the supplementary cylinder head, the rear cylinder head secured thereto, the water inlet tube, the rifle bar revolvable on said tube, the piston arranged to reciprocate and turn on said tube and the hollow drill bit surrounding the discharging end of said tube, substantially as described. 36th. In a rock drilling engine, the combination with the back cylinder head of the water inlet coupling rotatably mounted thereon, the washer at its sides and the tightening nut, substantially as described. 37th. In a rock drilling engine, the combination with the cylinder, of the piston, the hollow drill bit, the rifle bar and the water inlet tube projecting through said rifle bar and piston into said drill bit, with the back cylinder head, the water inlet passage therein, the water inlet coupling and the valve for controlling said water inlet passage, substantially as described. 38th. In a rock drilling engine, the combination of the cylinder, the piston, the rifle bar and the pawls, with the supplementary cylinder head and back cylinder head, the pawl trunion supporting ring, a water inlet tube, a threaded hole in said cylinder and into said supplementary cylinder head, a cap-screw in said threaded hole and an oil-hole leading from said cap screw hole to said pawls and rifle bar, substantially as described. 39th. In a rock drilling engine, the combination of a drill bit having a passage to its cutting point, a water or liquid conduit through said engine to said drill bit and means for introducing a portion of the engine's actuating fluid into said water conduit or to said drill bit, and for delivering a combined stream or jet of actuating fluid and water from said drilling engine and drill bit to the bottom of holes while drilling them, substantially as described. 40th. In a rock drilling engine, the combination of the cylinder and the piston with the front cylinder head having a rotative sleeve arranged to be turned step-by-step by said piston, a drill bit operatively supported by said sleeve and arranged to conduct a portion of the cylinder's actuating fluid and a stream of water from the engine's cylinder to its cutting point, a collet surrounding said sleeve, an expensive spring arranged to resiliently hold said collet in normal operative position, an abutment collar on said drill bit arranged and adapted to receive and define the backward thrust of said drill bit and a removable pin in said collet arranged to be engaged by said abutment collar, substantially as described. 41st. In a rock drilling engine, the combination of the cylinder, the piston and the front cylinder head with the sleeve supported therein, a drill bit operatively supported by said sleeve, a collet surrounding said sleeve, means for holding said collet resiliently in operative position in said cylinder relative to said drill bit and sleeve and a suitable pin or key removably arranged in said collet to operatively confine said drill bit to said sleeve, substantially as described. 42nd. In a rock drilling engine, the combination of the cylinder, the piston, the front and rear cylinder heads, the rifle bar rotating mechanism and the feed mechanism, with a water conveying tube projecting from the rear cylinder head through said rifle bar and piston, a drill holding sleeve, revolvably mounted in said cylinder head, an axial bore through said sleeve, a drill bit operatively supported by said sleeve and arranged to be operatively rotated step-by-step by said piston and sleeve, and provided with a conduit or passage communicating with said cylinder and with the discharge end of said water conveying tube and arranged and adapted to convey a combined and commingled stream of water and actuating fluid to the cutting point of said drill bit, and having said drill bit project into the reciprocal path of said piston and arranged to be impinged by said piston, a collet loosely mounted on said sleeve, a spring arranged to hold said collet in operative relation to said sleeve and drill bit, an abutment on said drill bit and a suitable pin or key removably secured in said collet and arranged and adapted to be engaged by the abutment of said drill bit, whereby said drill bit is held in said sleeve against accidental displacement, substantially as described. 43rd. In a rock drilling engine, the combination of the cylinder, the front cylinder head and the piston with the sleeve





angle iron formed integral from end to end and a brace or braces between the vertical portion and the base portion and suitable independent supports sunk in the ground beneath the vertical portion and beneath the end of the base, a clevis embracing the base and provided with a detachable bolt straddling the solid angle, a bar located in the support of cement and a wire connecting the bottom of the clevis with the bar, as and for the purpose specified. 3rd. The combination with the longitudinal wires, of the stay formed of two half round bars, one on each side of the longitudinal wires, the wire loops connecting the bars to the longitudinal wires, the brace supports for the stay provided with notched upper ends and wire loop connecting the same, the intermediate cross wire embracing the longitudinal wire and stay in the centre and the brace support at the ends, and a suitable support sunken in the ground for the bottom ends of the brace, as and for the purpose specified. 4th. The combination with the longitudinal wires, of the stay formed of two half round bars, one on each side of the longitudinal wires, the wire loops connecting the bars to the longitudinal wires, the brace supports for the stay provided with notched upper ends and wire loop connecting the same, the intermediate cross wire embracing the longitudinal wire and stay in the centre and the brace support at the ends, the sunken cement support at the bottom of the brace, the loop bar or plate in the cement block and the hooked bars secured in such loop plate and connected at the top by the bolts to the bottoms of the braces, as and for the purpose specified. 5th. The combination with the uprights consisting of double bars suitably connected, of the longitudinal wires having the ends passing each other and extending through between the bars of each upright and connected to one bar of each opposite upright and spring means for forcing the uprights apart, as and for the purpose specified. 6th. The combination with the uprights consisting of double bars suitably connected, of the longitudinal wires having the ends passing each other and extending through between the bars of each upright and connected to one bar of each opposite upright the metal straps embracing the uprights, the rods extending through them and the spiral springs encircling the rods and extending between the metal straps, as and for the purpose specified.

**No. 62,102. Steam and Hot-water Heater.**  
(*Calorifère à vapeur et eau chaude.*)



John D. Handbury, Pekin, Illinois, U.S.A., 17th December, 1898. 6 years. (Filed 30th November, 1898.)

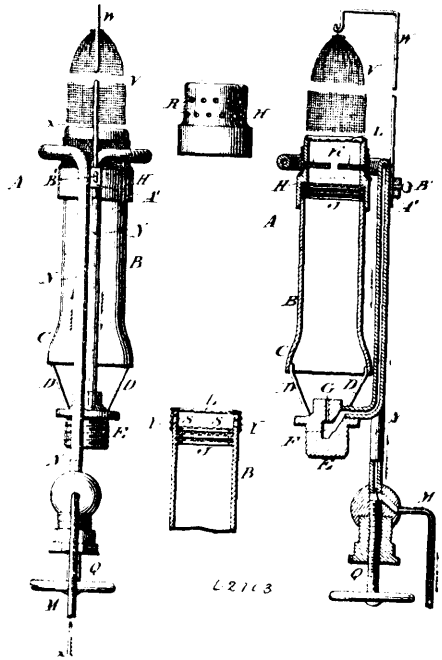
*Claim.*—In a sectional hot water and steam heater, the sections A having front concavities E F for the magazine and fire-spaces, the several openings, a, a', a'', a''', and the return-pipe connections a' in combination with a slide-valve K having holes to register with holes a between the sections and a grate D inclined from front to rear as shown and described.

**No. 62,103. Burner.** (*Brûleur.*)

Harry McMillen Hamrick, Philadelphia, Pennsylvania, U.S.A., 17th December, 1898; 6 years. (Filed 10th November, 1898.)

*Claim.*—1st. In a burner the combination of a tube having a substantially continuous series of openings therein through which flame is adapted to pass and a generator surrounding said tube and located in proximity to said openings whereby flames are caused to impinge on substantially every portion of the adjacent surface of said generator. 2nd. In a burner, a tube having a substantially continuous series of openings therein, a generator surrounding said tube, and located in proximity to said openings and means for forcing a flame against said generator, said openings permitting said flame to impinge on substantially every portion of the adjacent surface of said generator. 3rd. In a burner, a tube having openings therein, a screen covering said openings, a generator adjacent said opening and means for forcing flames against said generator, said screen being located intermediate said generator and openings. 4th. In a burner, a tube having a substantially continuous series of perforations or openings in the periphery thereof, a generator

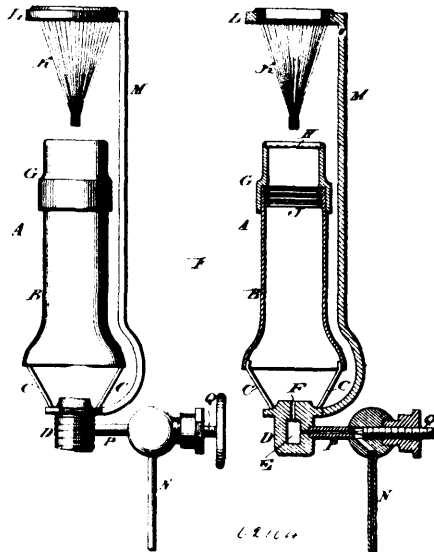
surrounding said tube, and located in proximity to said openings, a chamber communicating with said generator and a screen above



said openings whereby a flame is projected against substantially every portion of the adjacent surface of said generator. 5th. In a burner, a tube, a cap therefor having openings therein, a screen above said openings, a screen below said openings a generator surrounding said openings, and a chamber with an outlet in communications with said generator. 6th. In a burner, a tube, a chamber with an outlet below said tube, a cap for said tube having openings in the side, screens above and below said openings, a generator passing upwards and around said cap in proximity to said openings and down and communicating with said chamber and means for regulating the supply of hydro-carbon. 7th. In a burner, a tube, a chamber for the reception of the hydro-carbon, a substantially continuous series of openings in said tube through which flame is adapted to pass, a generator surrounding said tube and located in proximity to said openings whereby flame is caused to impinge upon substantially every portion of said generator and a pipe leading from said generator to said chamber. 8th. In a burner, the combination of a tube having a substantially continuous series of openings therein, through which the flame is adapted to pass, a generator surrounding said tube and located in proximity to said openings, said flame impinging upon substantially every portion of the adjacent surface of said generator and a mantle supported above said tube. 9th. In a burner, the combination of a tube having openings therein through which flame is adapted to pass, a generator surrounding said openings, and a gauze or screen interposed between said openings and generator. 10th. In a burner, the combination of a tube having openings therein through which flame is adapted to pass, a generator surrounding said openings, a gauze or screen interposed between said generator and openings, and a gauze or screen located in said tube above and below said openings. 11th. In a burner, a tube, a cap supported thereupon, a screen or screens interposed between said cap and tube, a screen supported upon the top of said cap, openings in the latter intermediate said screens, a generator surrounding said openings, a chamber for the reception of the hydro-carbon, and a heat conducting pipe leading from said generator to said chamber. 12th. In a burner, the combination of a tube having openings therein through which flame is adapted to pass, a generator surrounding said openings, and a gauze or screen interposed between said openings and generator, in combination with a mantle supported above said tube. 13th. In a burner, a tube having openings in the upper portion thereof, a gauze located in said tube above and below said openings, a gauze or screen located externally of said tube and surrounding said openings, a generator surrounding said last-mentioned gauze and openings, a pipe leading upwardly along said tube to said generator, a chamber for the reception of the hydro-carbon and a pipe of conducting material leading downwardly from said generator to said chamber. 14th. In a burner, a tube having openings in the upper portion thereof, a gauze located in said tube above and below said openings, a gauze or screen located externally of said tube and surrounding said openings, a generator surrounding said last-mentioned gauze and openings, a pipe leading upwardly along said tube to said generator, a chamber for the reception of the hydro-carbon and a pipe of conducting material leading downwardly from said generator to said chamber in combination with a mantle supported above said tube. 15th. In a burner, a tube, openings in the

upper portions thereof, gauze located above and below said openings, a generator surrounding said openings, gauze interposed between the latter and said generator, a plug having a chamber therein, a tube leading from said generator to said chamber, and supporting devices connecting said plug and tube whereby oxygen is freely admitted to the lower portion of said tube.

**No. 62,104. Burner.** (Brûleur.)



Harry McMillen Hamrick, Philadelphia, Pennsylvania, U.S.A., 17th December, 1898; 6 years. (Filed 10th November, 1898.)

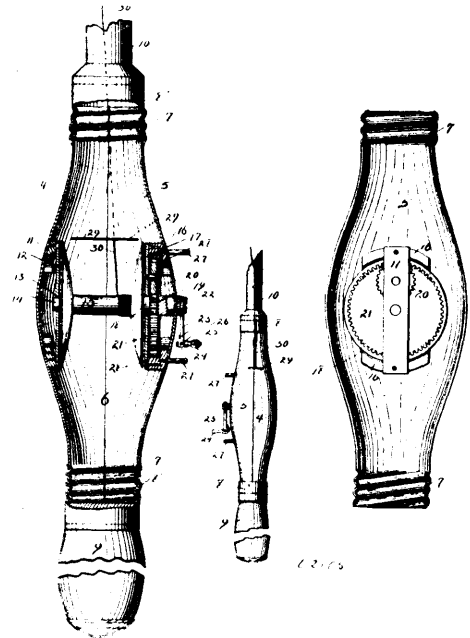
*Claim.*—1st. In a burner, the combination of a vapourizing chamber, a conductor supported thereon, a tube suitably supported above said chamber, air inlet passages intermediate of said chamber and tube, and a mantle sustained from said conductor, whereby heat is conducted from said mantle to said vapourizing chamber. 2nd. In a burner, a tube, a vapourizing chamber, means for introducing hydro-carbon thereinto, a mantle located above said tube, but disconnected therefrom, and an upright conductor independent of said tube and adapted to conduct the heat from a point above said tube to a point below the latter, said mantle being supported upon said conductor. 3rd. In a burner, a tube, a plug or casing having a vapourizing chamber therein below said tube, said tube being suitably supported above said casing, a conductor independent of said tube and leading to said chamber and a mantle supported by said conductor, whereby heat is conducted from a point above said tube to a point below the latter. 4th. The combination of a tube, a vapourizing chamber, a conductor arising from said chamber but disconnected from said tube, and a mantle supported upon said conductor, whereby heat is conducted from the upper portion of said tube independently of the latter to a point below said tube. 5th. The combination of a plug or casing, a vapourizing chamber therein, a tube supported upon said casing and adapted to receive air in its lower extremity, inlet and outlet ports for said casing, screens or gauze in said tube, a conductor arising from said casing, and a mantle supported above said tube by means of said conductor.

**No. 62,105. Fishing Reel.** (Dévidoir de pêche.)

Albert W. Hazebrigg, Indianapolis, Indiana, U.S.A., 19th December, 1898; 6 years. (Filed 12th September, 1898.)

*Claim.*—1st. In a fishing-reel, the combination with a pair of separable hollow sections, arranged to form a portion of the rod, of a bobbin mounted within said sections, and means for rotating said bobbin. 2nd. In a fishing-reel, the combination with a pair of separable hollow sections, arranged to form a portion of the rod, of a bobbin mounted within said sections and entirely enclosed thereby, and means for rotating said bobbin. 3rd. In a fishing-reel, the combination with a pair of separable hollow sections, arranged to form a portion of the rod, of a bearing carried upon the inside of each of said sections, a bobbin mounted between said bearings, one end of the axis of said bobbin extending through one of the bearings and provided with a gear, a gear mounted inside of one of said hollow sections and having its shaft extending through the wall thereof, intermediate gearing between the two gears, and a crank secured to the outer end of the shaft of the second gear, substantially as described. 4th. In a fishing-reel, the combination with a pair of separable hollow sections, arranged to form a portion of the rod, of a bearing carried upon the inside of each of said sections, a bobbin mounted between said bearings, one end of the

axis of said bobbin extending through one of the bearings and provided with a gear at its outer end, an internal gear mounted inside



of one of said hollow sections and having its shaft extending through the wall thereof, intermediate gearing between said gears, and a crank secured to the outer end of the shaft of the internal gear, substantially as described. 5th. In a fishing-reel, the combination with a pair of separable hollow sections, of a bearing carried by one of said sections for receiving one end of the axis of a bobbin, a bearing-plate 17 carried by blocks 16 upon the inside of the hollow section and forming a bearing for the other end of the axis of the bobbin, a bobbin mounted between the two bearings and having an axis projecting through the plate 17, a gear formed upon said projecting end, a gear carried by the bobbin, a gear 21 in mesh with the gear 20 and provided with a shaft extending through the wall of the hollow section, and a crank secured to the outer end of the shaft, substantially as described. 6th. A bobbin for fishing-reel, the said bobbin provided with a pair of studs forming the axis thereof, and a gear, of the same or less diameter than one of said studs, carried by said stud, substantially as described. 7th. A bobbin for fishing-reels, the said bobbin being provided with a stud forming one end of the axis thereof and the said stud having a gear formed therein and of the same or less diameter, substantially as described. 8th. In a fishing-reel, the combination with the bobbin and a support therefor, of a crank for operating the bobbin, a handle pivoted to said crank, a spring for holding said handle either at an angle to or parallel with the said crank, and one or more pins or projections carried by the bobbin-support in position to engage the handle when thrown parallel with the crank, substantially as described. 9th. As an article of manufacture, a reel-support consisting of a pair of hollow registering sections provided, at the ends, with means by which they may be secured in line with and form a part of a fishing-rod, and means carried upon the inside of said sections, for supporting a bobbin, substantially as described.

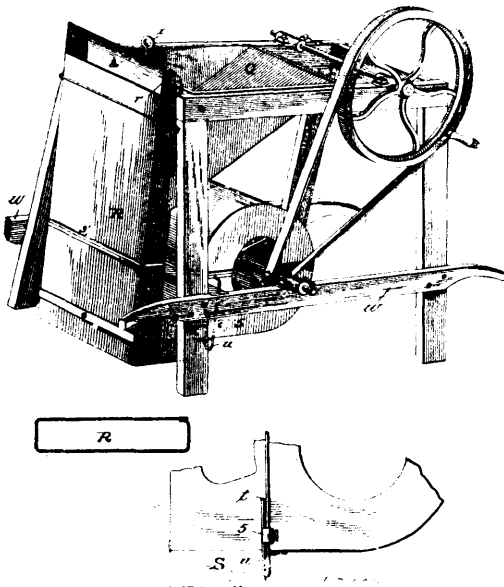
**No. 62,106. Overlay.** (Procédé pour couvrir.)

Samuel E. Dittman, Chicago, Illinois, U.S.A., 19th December, 1898; 6 years. (Filed 12th October, 1898.)

*Claim.*—1st. The process of forming an overlay, consisting in constructing the raised portion thereof from a viscid compound impregnated with wheat flour and hardened, substantially as set forth. 2nd. The process of forming an overlay, consisting in making an impression on the foundation sheet, adding pulverulent material to the substance in which this impression taken, and hardening the compound or paste so formed. 3rd. The process of forming an overlay, consisting in making an impression on the foundation sheet with viscid material, then adding a powder to said material in quantities proportionate to the amounts thereof on different parts of the sheet, and then hardening the compound so formed. 4th. The process of forming an overlay, consisting in making an impression on the foundation sheet, adding a powder to the material of said impression, squeezing the freshly powdered overlay upon the plate or form and baking the overlay, for the purpose set forth. 5th. The process of forming an overlay, consisting in making an impression upon the foundation sheet, adding a powder to the material of said impression, baking the overlay, and then varnishing it for the purpose set forth. 6th. The process of forming an overlay, consisting in applying a paste to the foundation sheet in suitable locations to register with the raised parts of the plate or form

from which an impression is to be taken and in quantities proportionate to the pressure desired upon said parts, for the purpose set forth, then squeezing the overlay upon said plate or form and then hardening the paste. 7th. The process of forming an overlay, consisting in taking an impression from the plate or form in a viscid compound, mixing powder in the compound of the impression by laying the sheet face downward upon a powdered surface, squeezing the freshly powdered overlay, baking it, removing therefrom loose powder, varnishing it, baking again, and then removing any roughness from the surface of the overlay, substantially as and for the purpose set forth. 8th. The process of forming an overlay, consisting in constructing the raised portions thereof by means of a viscid material and a starchy powder, graduating said portions to the intensity of tone desired, and then hardening them, substantially as set forth. 9th. An overlay, consisting of a suitable foundation sheet having raised portions thereon located and formed in a manner to produce the desired intensity of tones in the impression, and consisting of a compound of wheat flours and a viscid substance hardened and having a protective coating applied thereto. 10th. The process of forming an overlay, consisting in making an impression on the foundation sheet with viscid material, then adding a powder to said material in quantities proportionate to the amounts thereof on different parts of the sheet, and then hardening the compound so formed. 11th. An overlay having the raised portions of its surface formed of a viscid ink impregnated with powder compressed and hardened by baking. 12th. An overlay, the raised portions of which consist of a paste or compound formed from a viscid substance and wheat or similar flour. 13th. An overlay, consisting of a foundation sheet, having the raised portions thereof formed of a paste made of wheat flour and a viscid ink compressed and baked. 14th. An overlay, consisting of a foundation sheet having raised portions thereon formed from a viscid compound impregnated with a fine powder and baked and varnished, substantially as and for the purpose set forth. 15th. An overlay, having the raised surface thereof formed from a hardened plastic substance graduated in thickness to correspond to the intensity of the tones in the plate or form through the manipulation of said substance by the said plate or form. 16th. The process of making an overlay, consisting in taking an impression or impressions upon a foundation sheet in a suitable viscid substance, adding a powdered material to said substance, and hardening the mixture so formed, the thickness of the mixture upon different portions of the sheet being graduated by the amount of said viscid substance taken from the plate or form, substantially as set forth.

**No. 62,107. Ore Separator. (Separateur de minerai.)**

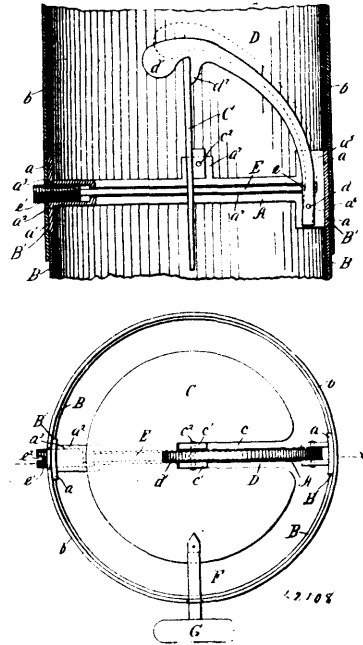


William Gray, Lincoln, Nebraska, U.S.A., 19th December, 1898; 6 years. (Filed 13th July, 1898.)

*Claim.*—1st. A portable air concentrator, comprising a flattened vertical flue, having a clear unobstructed passage, a hopper discharging through an opening into the upper part of said flue, a fan of substantially the same width as the flue, a curved passage of the same width as the flue, leading from the fan to the flue and an evening flap freely suspended at its upper edge in said passage, near the fan, and extending from side to side of the passage, substantially as described. 2nd. A portable air concentrator, comprising a flattened vertical flue, having a clear unobstructed passage, a hopper discharging through an opening of the same width as the flue, into the upper part thereof, a fan of substantially the same width as the flue, a curved passage also of the same width, leading

from the fan to the flue, and an evening flap freely suspended at its upper edge in said passage near the fan and extending from side to side of the passage, and a flaring discharge opening at the upper end of the vertical flue, substantially as described. 3rd. In a portable air concentrator and in combination and arrangement, as shown, a vertical flattened flue having a clear unobstructed passage, and connected by a curved passage with a fan all of the same width as the flue, an evening flap freely suspended near the upper edge in said passage, the lower wall of said curved passage being at the bottom of the flue and being perforated, and a box beneath the perforations. 4th. In a portable air concentrator and in combination and arrangement, at shown, a vertical flue connected to a fan by a curved passage, all of substantially the same width, an evening and indicating flap freely suspended by its upper edge across the passage from side to side thereof, and an indicator arm on the outside of the passage and on the end of the axle of said flap.

**No. 62,108. Damper. (Clef de tuyau de poêle.)**



Elmer Veshslage Rice, Azusa, California, U.S.A., 19th December, 1898; 6 years. (Filed 1st December, 1898.)

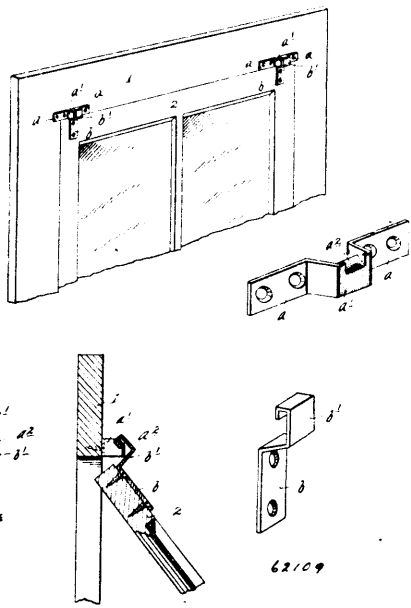
*Claim.*—1st. An improved damper for stovepipes, embodying a cross-bar fixed in said stovepipe, a damper pivoted thereto, a latch adapted to hold said damper in open position, and means for releasing said latch, consisting of an expansible rod adapted to operate said latch, substantially as shown and described. 2nd. An improved damper for stovepipes, embodying a cross-bar fixed in said stovepipe, a damper pivoted thereto, a latch adapted to hold said damper in open position, and means for releasing said latch, consisting of an expansible rod provided with a thread by means of which it may be adjusted, substantially as shown and described. 3rd. An improved damper for stovepipes, embodying the cross-bar adapted to rest upon the upper edge of a section of the stovepipe and be maintained in that position by an upper section of said stovepipe, said cross-bar having a slot therein and an enlarged threaded portion at one end, an expansible rod adapted to work longitudinally in said slot, said rod being provided with an enlarged head adapted to thread in the cross-bar, the free end of said rod contacting with a latch pivoted to said cross-bar, said latch having a weighted end adapted to keep said latch in close contact with the rod, a damper pivotally connected to said cross-bar, said damper being provided with a slot adapted to embrace said cross-bar, and with a stem and handle for operating said damper, substantially as shown and described.

**No. 62,109. Hinge. (Penture.)**

Rudolph G. Winter, Minneapolis, Minnesota, U.S.A., 19th December, 1898; 6 years. (Filed 30th November, 1898.)

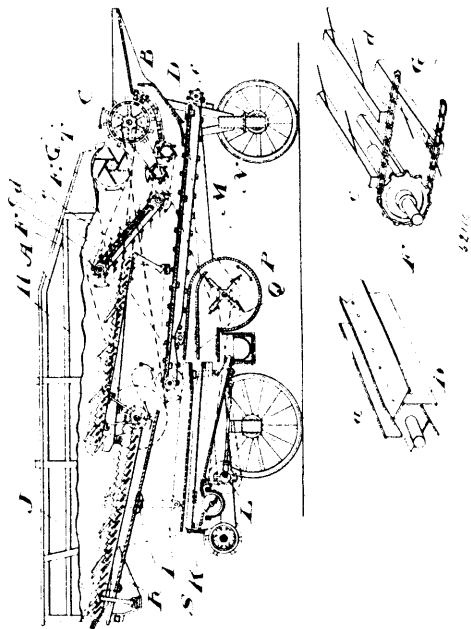
*Claim.*—1st. A separable suspension-hinge, the upper member of which has an outwardly off-set vertical holder approximately of rectangular form in cross-section, and the lower member of which has at its upper end a vertical hook outwardly off-set and approximately of rectangular form in cross-section, whereby when the said holder and the said hook are engaged with each other they will interlock against lateral motion but permit a limited pivotal motion, substantially as described. 2nd. A separable suspension-hinge, the upper member of which has an outwardly off-set vertical holder of

approximately rectangular form in cross-section, and is provided with a lug or tongue projecting inward from the outer wall of said



holder, and the lower member of which hinge has an outwardly off-set vertical hook of approximately rectangular form in cross-section, the down-turned lip of which hook co-operates with said holder lug as a stop to limit the pivotal motion, substantially as described.

**No. 62,110. Threshing Machine. (Machine à battre.)**

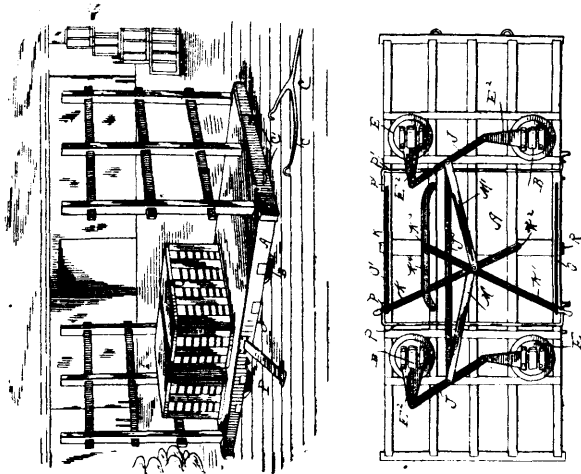


John Abell, Toronto, Ontario, Canada, 19th December, 1898; 6 years. (Filed 26th November, 1898.)

*Claim.*—1st. In a threshing machine, a cylinder and concave, in combination with one or more flanged rollers or grain arresters journalled in proximity to the lower end of the concave, substantially as and for the purpose specified. 2nd. In a threshing machine, a cylinder and concave, in combination with one or more flanged rollers or grain arresters journalled in proximity to the lower end of the concave, an inclined grate into which the straw is thrown, and carriers supported on suitably driven endless chains to move the straw up the grate, substantially as and for the purpose specified. 3rd. In a threshing machine, a cylinder and concave, in combination with one or more flanged rollers or grain arresters journalled in proximity to the lower end of the concave, an inclined grate onto which the straw is thrown, carriers supported on suitably driven endless chains to move the straw up the grate, a vibrating shoe, an

upwardly inclined board extending from a point below the concave to a point above the shoe, and carriers supported on suitably driven endless chains to move grain falling upon the board onto the shoe, substantially as and for the purpose specified. 4th. In a threshing machine, a cylinder and concave, in combination with one or more flanged rollers or grain arresters journalled in proximity to the lower end of the concave, an inclined grate onto which the straw is thrown, carriers supported on suitably driven endless chains to move the straw up the grate, a vibrating shoe, an upwardly inclined board extending from a point below the concave to a point above the shoe, carriers supported on suitably driven endless chains to move grain falling upon the board onto the shoe, and a fan arranged to direct an air blast below the upper end of the board, substantially as and for the purpose specified. 5th. In a threshing machine, a cylinder and a concave, in combination with one or more flanged rollers or grain arresters journalled in proximity to the lower end of the concave, an inclined grate onto which the straw is thrown, carriers supported on suitably driven endless chains to move the straw up the grate, a vibrating shoe, an upwardly inclined board extending from a point below the concave to a point above the shoe, carriers supported on suitably driven endless chains to move grain falling upon the board onto the shoe, and a fan with two outlets arranged to direct a portion of the blast into the shoe, and a portion below the upper end of the board, substantially as and for the purpose specified. 6th. In a threshing machine, a cylinder and a concave, in combination with one or more flanged rollers or grain arresters journalled in proximity to the lower end of the concave, an inclined grate onto which the straw is thrown, carriers supported on suitably driven endless chains to move the straw up the grate, a vibrating shoe, an upwardly inclined board extending from a point below the concave to a point above the shoe, carriers supported on suitably driven endless chains to move grain falling upon the board onto the shoe, and two oppositely vibrating straw decks arranged side by side onto which the straw from the grate is discharged, substantially as and for the purpose specified. 7th. In a threshing machine a cylinder and concave, in combination with one or more flanged rollers or grain arresters journalled in proximity to the lower end of the concave, an inclined grate onto which the straw is thrown, carriers supported on suitably driven endless chains to move the straw up the grate, a vibrating shoe, an upwardly inclined board extending from a point below the concave to a point above the shoe, carriers supported on suitably driven endless chains to move grain falling upon the board onto the shoe, two oppositely vibrating straw decks arranged side by side onto which the straw from the grate is discharged, and two oppositely vibrating straw decks arranged side by side onto which the straw from the aforesaid decks is discharged, substantially as and for the purpose specified. 8th. In a threshing machine a cylinder and concave, in combination with one or more flanged rollers or grain arresters journalled in proximity to the lower end of the concave, an inclined grate onto which the straw is thrown, carriers supported on suitably driven endless chains to move the straw up the grate, a vibrating shoe, an upwardly inclined board extending from a point below the concave to a point above the shoe, carriers supported on suitably driven endless chains to move grain falling upon the board onto the shoe, two oppositely vibrating straw decks arranged side by side onto which the straw from the aforesaid decks is discharged, and a vibrating board located below the rearmost decks, and arranged to discharge onto the forward end of the shoe, substantially as and for the purpose specified. 9th. In a threshing machine a cylinder and concave, in combination with separating mechanism onto which the straw and grain is discharged, a vibrating shoe, an upwardly inclined board extending from a point below the concave to a point above the shoe, and carriers supported on suitably driven endless chains to move grain falling upon the board onto the shoe, substantially as and for the purpose specified. 10th. In a threshing machine a cylinder and concave, in combination with separating mechanism onto which the straw and grain is discharged, a vibrating shoe, an upwardly inclined board extending from a point below the concave to a point above the shoe, carriers supported on suitably driven endless chains to move grain falling upon the board onto the shoe, and a fan arranged to direct an air blast below the upper end of the board, substantially as and for the purpose specified. 11th. In a threshing machine a cylinder and concave, in combination with separating mechanism onto which the straw and grain is discharged, a vibrating shoe, an upwardly inclined board extending from a point below the concave to a point above the shoe, carriers supported on suitably driven endless chains to move grain falling upon the board onto the shoe, and two outlets arranged to direct a portion of the blast into the shoe and a portion below the upper end of the board, substantially as and for the purpose specified. 12th. In a threshing machine a cylinder and concave, in combination with one or more flanged rollers or grain arresters adapted to revolve in an opposite direction to the cylinder in proximity to the lower end of the concave, and a flanged roller or straw arrester journalled above the said grain arrester in proximity to the cylinder and adapted to revolve in the same direction as the cylinder, substantially as and for the purpose specified. 13th. In a threshing machine a cylinder and concave in combination with a flanged roller or straw arrester journalled in proximity to the upper side of the cylinder adapted to revolve in the same direction as the cylinder, substantially as and for the purpose specified.

No. 62,111. Truck. (Camion.)

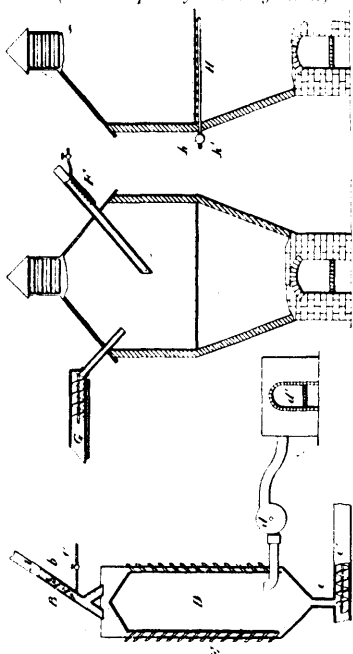


Monroe Blackburn, Bedford, Indiana, U.S.A., 19th December, 1898; 6 years. (Filed 29th November, 1898.)

*Claim.*—1st. In a truck, a frame, a plurality of parallel movable rollers mounted to turn thereon and means for moving the rollers simultaneously either in a position in longitudinal alignment or in transverse alignment with the truck, respectively, substantially as described. 2nd. In a truck, the combination of the frame, suitable casings mounted in said frame, a turn-table having rollers journaled therein working in said casing, arms carried by said turn-table suitably connected together and means in connection therewith for simultaneously turning the rollers in the same direction, substantially as described. 3rd. In a truck, the combination of the frame, the rollers mounted to turn therein, means in connection with said arms for simultaneously turning them, levers for operating said means, and hooks or catches carried by said frame engaging the levers for holding them in position, substantially as shown. 4th. In a truck, the combination of the frame, the rollers mounted to turn therein, arms connected with said rollers, bars connecting the arms in pairs and said bars arranged parallel to each other, a bar connecting said bars so as to cause the rollers to move together, and operating-levers connected to said bars, substantially as shown and described. 5th. In a truck, the combination of the frame, the rollers mounted therein, means in connection with said rollers for turning them and brakes carried in slots in the truck for holding the truck in position, substantially as shown and described.

No. 62,112. Oatmeal Making Process.

(Procédé pour faire du gruau.)

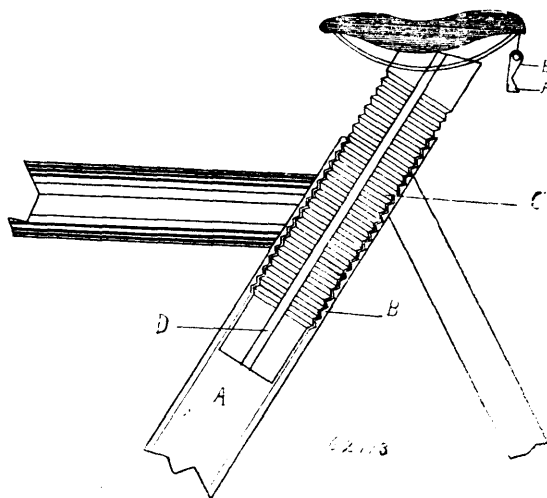


William Inglis, Bonnington, Leith, Scotland, 19th December, 1898; 6 years. (Filed 29th November, 1898.)

*Claim.*—1st. The introduction of steam into oats in the manufacture of oatmeal, oatflour, and rolled oats or flaked oatmeal, after being cleaned and immediately prior to being dried, as described and shown. 2nd. In patent kilns for drying oats in the manufacture of oatmeal, oatflour, and rolled oats or flaked oatmeal, the employment of a coiled steam pipe situated within the feed pipe or chute having nozzles arranged to inject steam into the oats, as described and shown. 3rd. In flat head or American pan kilns, for drying oats in the manufacture of oatmeal, oatflour, and rolled oats or flaked oatmeal, the employment of a steam-pipe or pipes, coiled or straight and arranged within or below the supply chutes or below the kiln floor, bed or pan, having nozzles arranged to inject steam into the oats, as described and shown.

No. 62,113. Bicycle Seat and Handle Post.

(Siège de bicyclette et manche de potreau.)

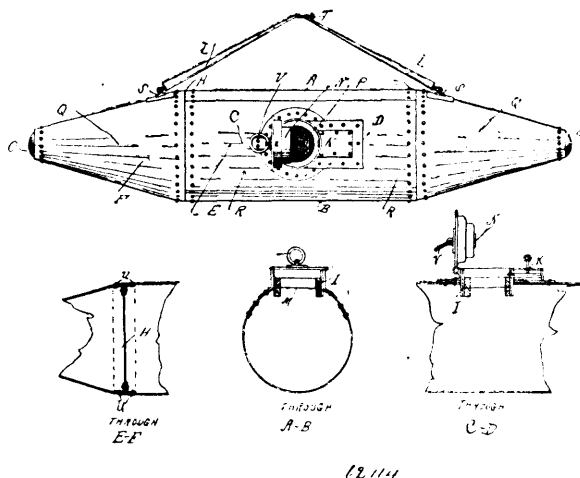


James B. Rittenhouse, assignee of James Henry Cash, both of Toronto, Ontario, Canada, 19th December, 1898; 6 years. (Filed 12th August, 1898.)

*Claim.*—In an adjustable seat and handle post, combination of the threaded upright B, and threaded post C, with slotted grooved surface D, and bolt or key E, as and for the purpose hereinbefore set forth.

No. 62,114. Marine Life Saving Apparatus.

(Appareil de sauvetage marin.)



Joseph M. Cotey and James M. Casey, both of West Superior, Wisconsin, U.S.A., 19th December, 1898; 6 years. (Filed 19th November, 1898.)

*Claim.*—A marine life-saving messenger, cylindrical in form with conicals ends, partitions therein forming a plurality of inaccessible compartments at the ends, a central compartment having a hand-hole opening therein, a lid for closing said hole, a yielding collar against which the lid closes, a lock for holding the lid closed, and an elastic band connected to the device for securing to the person, substantially as described.

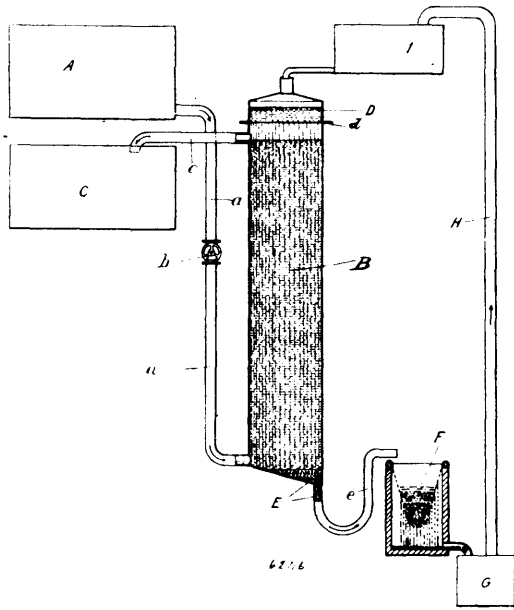
**No. 62,115. Medicinal Compound.** (*Composé médicinal.*)

Alexander Lefebvre and Thomas Henry Boyle, both of Montreal, Quebec, Canada, 19th December, 1898; 6 years. (Filed 11th November, 1898.)

*Claim.*—1st. The herein described medical compound, consisting of sulphur, saltpeter, gum guaicum, jalup and geneva, substantially as described and for the purpose specified. 2nd. The herein described medical compound, consisting of sulphur one half ounce, gum guaicum one half ounce, jalup one half ounce and geneva one pint, substantially as described and for the purpose specified.

**No. 62,116. Metal Precipitation.**

(*Appareil de précipitation de métaux*)



The Gold Extraction Syndicate, 4 Bishopsgate, London, assignee of Martin Bernhard Zenerer, 24 Clement's Mansions, Lillie Road, Middlesex, England, 19th December, 1898; 6 years. (Filed 23rd March, 1898.)

*Claim.*—1st. The process of precipitating precious metals from a cyanide solution, which consists, first, in charging mercury with an alkaline metal and then in passing the charged mercury through the solution in a finely divided state such as a shower or spray or fine streams or films, substantially as specified. 2nd. The process of precipitating precious metals from a cyanide solution, which consists, first, in charging 10,000 parts of mercury with 5 parts of an alkaline metal and then in passing the charged mercury through the solution in a finely divided state such as a shower or spray or fine streams or films, substantially as described. 3rd. The apparatus for use in precipitating gold and silver, comprising the following elements: the reservoir A, supplied with downwardly projecting pipe a controlled by cock b, the precipitating vessel B, provided at its upper end with outlet pipe c leading to reservoir C, the vessel D fitted on top of vessel B for containing mercury charged with alkaline metal, and provided with perforated bottom d, the gold-collecting lower part E, the seal pipe e, the strainer F, leading to reservoir G, the pump or elevator H, the charging vessel I, communicating with top of vessel D, substantially as specified.

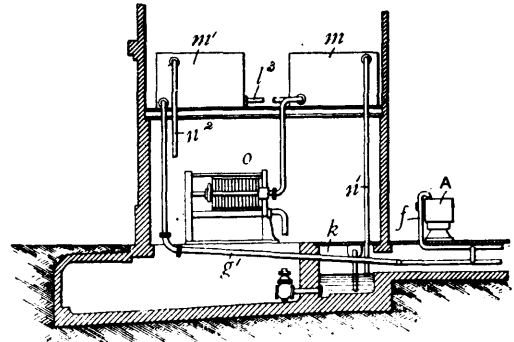
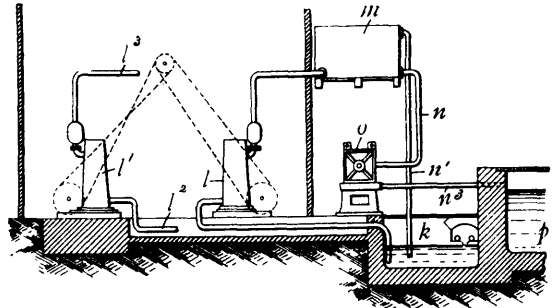
**No. 62,117. Electro Deposition of Metals.**

(*Précipité galvanique de métaux.*)

The Electrical Copper Company, assignee, of Marcel Perreur-Lloyd, all of London, England, 19th December, 1898; 6 years. (Filed 12th January, 1898.)

*Claim.*—1st. The hereinbefore described method of and means for obtaining a smooth and homogeneous electro deposit of metal upon a rotary cathode which consists in arranging animal membranes from which the excess of greasy and fleshy matters has been removed, in light contact with the cathode, substantially as set forth. 2nd. The use of impregnators coming into light contact with rotary cathodes in electrodepositing vats for the purpose set forth, such impregnators being composed of animal membranes freed from excess of fatty matters and from matters which are or can become soluble or adhesive at or below 60 deg. F., and consisting of unaltered albumen gelatine and fibrine, substantially as set forth. 3rd. The use of impregnators being composed of membranes freed from excess of fatty matters and from matters which are or can become soluble at or below about 60 deg. F., and rendered more insoluble by treatment with a solution of potassium bichromate and solarisation or by equivalent treatment,

substantially as hereinbefore described. 4th. In apparatus for the electrodeposition of copper and other metals, in which rotary cathode

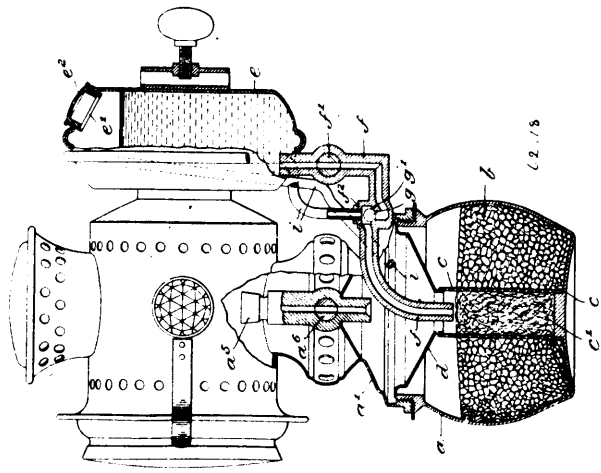


moves in contact with impregnators, the hereinbefore described means for imparting to the impregnators a compound longitudinal reciprocation, substantially as set forth. 5th. In apparatus for the electro deposition of copper and other metals, aluminium anode supports constructed, substantially as and for the purpose hereinbefore described. 6th. The hereinbefore described method for the electrodeposition of copper and other metals derived from granular or pulverulent anodes such as Rio Tinto precipitate which consists in an aluminium support lined with suitable pervious or perforated material, substantially as set forth. 7th. The hereinbefore described method for the electrodeposition of alloys of copper and aluminium, which consists in using an aluminium anode support and in adding to the copper anode a suitable quantity of aluminium, and (or) adding to the electrolyte a suitable proportion of an aluminium salt substantially as set forth. 8th. The hereinbefore described method for facilitating the removal of electrodeposited metals from rotary mandrels, which consists in coating the mandrel with an adhesive insulating material and covering that material with finely powdered plumbago, substantially as set forth. 9th. In apparatus for the electrodeposition of copper and other metals on rotary cathodes, the hereinbefore described means and appliances whereby the mandrel is suspended between two adjustable spindles, one or both of which is or are pressed against the mandrel by springs, and one or both of which is or are capable of being withdrawn longitudinally for the removal of the mandrel, substantially as set forth and as described. 10th. In the electro-deposition of copper and other metals, the method of circulating and cooling the electrolyte, which consists in creating a circulation through the vats containing the electrolyte by allowing the liquid to overflow through suitable connections into a tank at a level lower than that of the vat, pumping the liquid from such lower level to a tank at a higher level than the vats, and returning same by gravity through a vessel having a serpentine pipe containing a refrigerating fluid, to the vats, substantially as set forth. 10a. In the electrodeposition of copper and other metals, the means for circulating the electrolyte, consisting in the combination with the series of vats, of an overflow pipe h for each vat joined by a pipe h' to the main pipe i, which discharges into the tank k on a lower level than the vats, pump l, tank m on a higher level than the vats, overflow pipe n<sup>1</sup>, reserve tanks p, p<sup>1</sup>, pump l<sup>1</sup>, suction pipe l<sup>2</sup>, delivery pipe l<sup>3</sup> to the tank m<sup>1</sup> on the same level as tank m, overflow pipe n<sup>2</sup>, return pipes g<sup>1</sup>, g<sup>2</sup>, f<sup>1</sup>, f<sup>2</sup>, perforated pipes f<sup>3</sup>, suitable valves and cocks, cisterns g having vertical partition g<sup>1</sup>, outlet r, depositing chamber r<sup>1</sup>, pipe t, and outlet pipe t<sup>1</sup>, all substantially as shown and described. 10b. In the electrodeposition of copper and other metals, the means for circulating and cooling the electrolyte, consisting in the combination with the series of vats, of an overflow pipe h for each vat joined by a pipe h' to the main pipe i, which discharges into the tank k on a lower level than the vats, pump l, tank m on a higher level than the vats, overflow pipe n<sup>1</sup>, reserve tanks p, p<sup>1</sup>, pump l<sup>1</sup>, suction pipe l<sup>2</sup>, delivery pipe l<sup>3</sup> to the tank m<sup>1</sup> on the same level as tank m, overflow pipe n<sup>2</sup>, return pipes g<sup>1</sup>, g<sup>2</sup>, f<sup>1</sup>, f<sup>2</sup>, perforated pipes f<sup>3</sup>, suitable valves and cocks, cisterns g having vertical partition g<sup>1</sup>, outlet r, depositing chamber r<sup>1</sup>, pipe t, and outlet pipe t, and a vessel con-

taining a serpentine pipe *w*, through which a refrigerating fluid is passed. 11th. In the electrodeposition of copper and other metals, the method of circulating, cooling and filtering the electrolyte, which consists in creating a circulation through the vats containing the electrolyte by allowing the liquid to overflow through suitable connections into a tank at a level lower than that of the vats, pumping the liquid from such lower level to a tank at a higher level than the vats, and returning same by gravity through the filter, and a vessel having a serpentine pipe containing a refrigerating fluid, to the vats, substantially as set forth. 11a. In the electrodeposition of copper and other metals, the means for circulating and cooling the electrolyte, consisting in the combination with the series of vats, of an overflow pipe *h* for each vat joined by a pipe *h'* to the main pipe *i*, which discharges into the tank *k* on a lower level than the vats, pump *l*, tank *m* on a higher level than the vat, overflow pipe *n*<sup>1</sup>, filter *o*, and connections, reserve tanks *p*, *p'*, pump *t*<sup>1</sup>, suction pipe *t*<sup>2</sup>, delivery pipe *t*<sup>3</sup> to the tank *m*<sup>1</sup> on the same level as tank *m*, overflow pipe *n*<sup>2</sup>, return pipes *g*<sup>1</sup>, *g*, *f*<sup>1</sup>, *f*, perforated pipes *f*<sup>2</sup>, suitable valves and cocks, cisterns *q*, having vertical partitions *q*<sup>1</sup>, outlet *r*, depositing chamber *r*<sup>1</sup>, pipe *t*, and outlet pipe *t*<sup>1</sup>, and a vessel containing a serpentine pipe *w*, through which a refrigerating fluid is passed. 12th. In an electro-deposition of copper and other metals, the method of circulating cooling oxidizing and filtering the electrolyte which consists in creating a circulation through the vat containing the electrolyte by allowing the liquid to overflow through suitable connections into a tank at a level lower than that of the vats, pumping the liquid from such lower level to a tank at a higher level than the vats insuflating or spraying air into the electrolyte and returning same by gravity through the filter and a vessel having a serpentine pipe containing a refrigerating fluid, to the vats, substantially as set forth. 13th. The hereinbefore described method for the purification of the electrolyte used in the electrodeposition of copper and other metals, which consists in injecting air therein, substantially as set forth. 14th. In an electro-deposition of copper and other metals on rotary cathodes with which animal membranes are in contact, maintaining the temperature of the electrolyte in the vats at or below about 60° F, substantially as and by the means set forth. 15th. The hereinbefore described means for the filtration of an electrolytic fluid, which consists of the tank *O*<sup>1</sup>, with inclined grating in one end having on its under side the filtering medium *O*<sup>2</sup>, and suitable inlet and outlet with the necessary pipe connections, substantially as shown and described. 16th. In apparatus for the electrodeposition of copper and other metals, a partitioned cistern having the top edge of its partition level with the normal level of the electrolyte, having one side in communication with the bottom of the vat and its other side in communication with the circulation pipe, and having or not having a by-pass connection between the up-flow and the down-flow pipes, constructed substantially as and for the purpose hereinbefore described. 17th. In apparatus for the electrodeposition of copper and other metals, a switch for the control and direction of the electric current, constructed and operating, substantially as hereinbefore described.

No. 62,118. Acetylene Gas Generator.

(Générateur de gaz acétylène.)



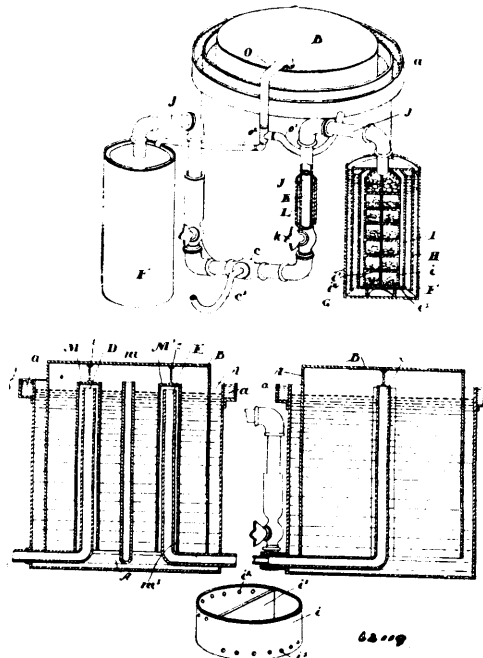
The Helios-Carbide Specialty Company, Atlantic City, New Jersey, assignee of Henry Wilson Wells, Philadelphia, Pennsylvania, 19th December, 1898; 6 years. (Filed 18th May, 1898.)

Claim.—1st. An acetylene gas generator, comprising a lamp provided with a burner, two chambers, one for fluid secured in rear of said lamp and the other for carbide located below said lamp and detachably connected therewith, a pipe connection from said fluid chamber with said carbide chamber, a ball check-valve seated in said pipe connection and elevated by the flow of fluid from said

fluid chamber, and a branch gas-pipe from the upper part of said ball check-valve encircling said fluid chamber and connected with said carbide chamber and adapted to depress or seat the ball of said valve in said pipe connection to cut off the supply of fluid to the carbide in its chamber by the pressure of the generated gas therefrom against said ball, substantially as shown and for the purposes specified. 2nd. An acetylene gas generator, comprising a lamp provided with a burner, two chambers, one for fluid secured in rear of said lamp and the other for carbide located below said lamp and detachably connected therewith, a perforated tube in said carbide chamber adapted to contain an absorbent material, a deflector-plate interposed between the lamp base and carbide chamber and extending into the same, and the throat of said pipe fitting into said perforated tube, a pipe connection from said fluid chamber with said carbide chamber, means in said pipe connection actuated by the fluid of said fluid chamber to permit of the flow of the fluid to the carbide in its chamber, and a branch gas-pipe from said pipe connection about said means and connected with said carbide chamber to cut off the supply of fluid to the carbide in its chamber by the pressure of the generated gas therefrom, substantially as shown and for the purposes described.

No. 62,119. Acetylene Gas Making Machine.

(Machine à faire le gaz acétylène.)



Alvin Gardner, Montreal, Quebec, Canada, 19th December, 1898; 6 years. (Filed 5th October, 1898.)

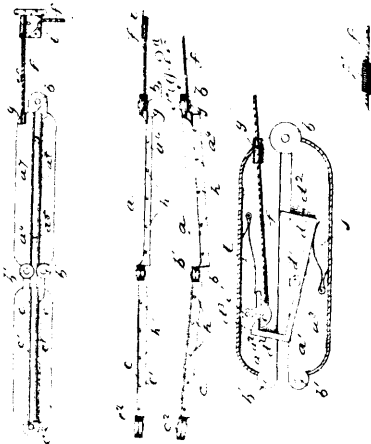
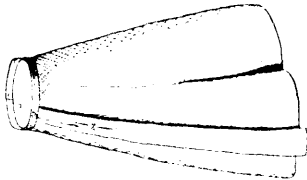
Claim.—1st. In a gas generator, the combination with the gasometer and trough surrounding the same, of a support connected to the dome, a flexible tube leading from the trough to the support and a flexible tube leading from the aforesaid tube and a receptacle into which the water flows and a carbide holder located in such receptacle designed to allow the water to come into contact with the carbide as such water rises in the receptacle, as and for the purpose specified. 2nd. In a gas generator, the combination with the carbide holder, of a gas pipe leading therefrom and having a depending end, a supplemental pipe having the upper end thereof extending into the depending end, a water jacket formed around the supplemental pipe, a cock therefor and the inlet pipe extending into the gas holder and communicating with the supplemental pipe, as and for the purpose specified. 3rd. In a gas generator, the combination with the carbide holder, of the gas pipe leading therefrom and having a depending end, a supplemental pipe having the upper end thereof extending into the depending end, a water jacket formed around the supplemental pipe, a cock therefor, the inlet pipe extending into such gas holder and communicating with the supplemental pipe and a syphon pipe connected to such pipes, as and for the purpose specified. 4th. The combination with the lower cylinder and dome of the gas holder, of the outlet pipe and the tubular cover therefor provided with holes at their upper end and secured to the top of the dome, as and for the purpose specified. 5th. The combination with the lower cylinder and dome of the gas holder, of the overflow pipe and tubular cover therefor connected to the dome of the gas holder and provided with holes at the lower end thereof, as and for the purpose specified. 6th. In a gas generator, the combination with the gas holder and trough and flexible tube, of the outer receptacle to receive the water, the gas dome fitting in same, the innermost receptacle and a series of carbide holding cups



fitting within the inner receptacle one on top of the other and having perforations in the same, whereby the carbide is kept separated and the water rises and produces gas by contact with the same, beginning at the lowermost, as and for the purpose specified. 7th. In a generator, a carbide holding cup comprising a cylindrical cup with a suitable bottom, a dividing plate, a series of perforations around the bottom of the cup at one side of the plate and a series of perforations around the top to the opposite side of the plate, as and for the purpose specified.

**No. 62,120. Skirt Pocket Fastener.**

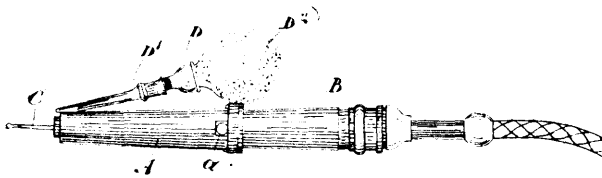
(*Attache de poches de jupes.*)



Auguste Braun, 11 and 12 James Street, Haymarket, London, England, 20th December, 1898; 6 years. (Filed 3rd October, 1898.)

*Claim.*—1st. In a pocket-closing device, the two hinged plates  $a^1$ , having raised edges  $a^2$ ,  $a^3$ , perforated flanges  $a^4$ ,  $a^5$ , and covers  $a^7$ ,  $a^8$ , in combination with two other hinged plates  $c$ , hinged to the said covered plates and provided with perforated flanges  $c^1$ , substantially as described and illustrated. 2nd. In a pocket-closing device, the combination with four hinged plates of the pivotted locking lever  $d$ , capable of projecting through openings in the flange  $a^2$ , and an opening in the opposing flange  $a^4$ , the pivotted catch  $e$  operated by the cord  $f$ , passing over the pulley  $h$ , and springs  $j^1$ , all arranged combined and operating substantially as described and illustrated.

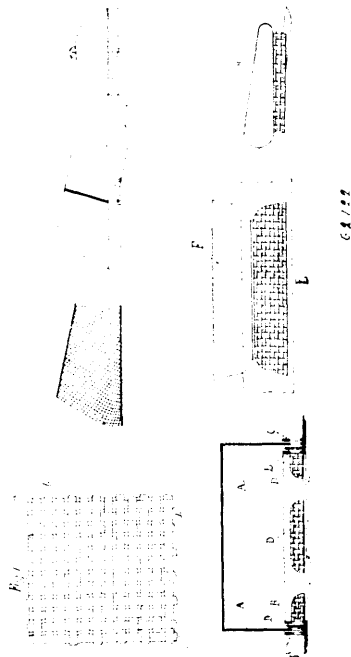
**No. 62,121. Dental Engine.** (*Machine dentaire.*)



Edward Thomas Cleveland, Richmond, Quebec, Canada, 20th December, 1898; 6 years. (Filed 11th November, 1898.)

*Claim.*—1st. An attachment for dental engines comprising a device connected to the hand piece and having attached thereto a blower the discharge nozzle of which extends in proximity to the drill or end of the hand piece as and for the purpose specified. 2nd. An attachment for dental engines comprising a sleeve, a blower consisting of the bulb and nozzle having such nozzle extending in proximity to the drill and locking means for connecting such sleeve to the hand piece, as and for the purpose specified. 3rd. The combination with the hand piece having a pin extending laterally therefrom, of a sleeve having a blower secured thereto, the discharge end of which extends into proximity with the drill, a substantially L-shaped slot formed at the inner end of the sleeve, and a ring revolvably connected to the end of the sleeve and provided with a suitable inwardly extending stop arranged as shown and for the purpose specified.

**No. 62,122. Rattan Tissue.** (*Tissue de rotin.*)

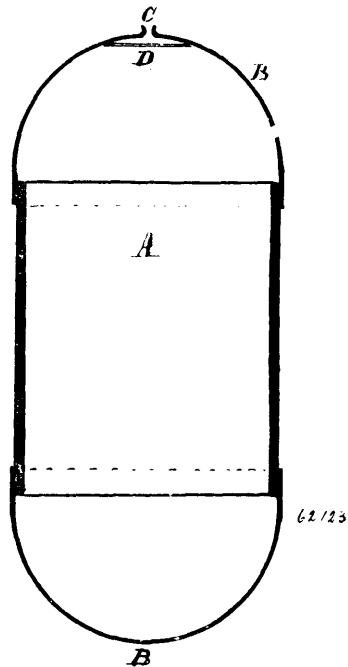


Victor Flosse, Epernay, France, 20th December, 1898; 6 years. (Filed 17th January, 1897.)

*Claim.*—A hat body consisting of a perforated crown and a rim integral therewith, with a band made of fibrous material, the component threads of which extend in weft and warp and form a suitable ventilating medium, and an adjustable incised coverlet attached to the hat body for varying the degree of ventilation, substantially as described.

**No. 62,123. Method of Packing Food.**

(*Methode d'emballage d'aliment.*)

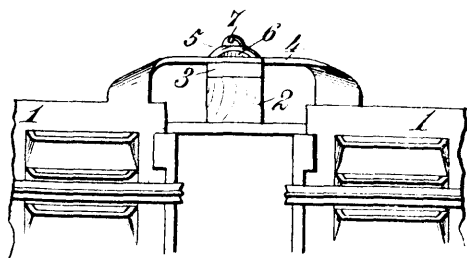


Charles Edward Fitzgerald, M.D., and George Prescott, both of Dublin, Ireland, 20th December, 1898; 6 years. (Filed 29th April, 1898.)

*Claim.*—A method of packing food by enclosing same in a packing can and heating the food until the bacteria are killed, but not the spores, injecting into the can aerated liquid until the internal pressure is sufficient to prevent the growth of the spores and hermetically sealing the can, substantially as described.

**No. 62,121. Storage Battery Plate Connectors.**

(*Plaque de liaison pour accumulateurs électriques.*)



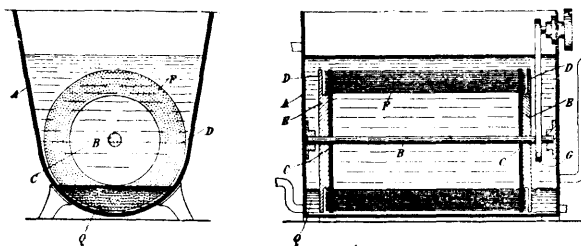
62/121

Gilbert Hart, Detroit, Michigan, U.S.A., 20th December, 1898; 6 years. (Filed 16th June, 1898.)

*Claim.*—1st. In a connector for storage battery plates, the combination of an insulating base bar, a lead or metallic plate superimposed upon the said base bar, connector plates alternately extending in opposite directions and resting at one end upon the lead or metallic plate, and screws passing through the connector plates and the superimposed lead or metallic plate into the insulating base bar, substantially as described. 2nd. In a connector for storage battery plates, the combination of an insulating base bar, a lead or metallic plate superimposed upon said base bar, connector plates alternately extending in opposite directions and resting at one end upon the lead or metallic plate, washers arranged upon the ends of the connector plates which rest on the lead or metallic plate, and screws passing through the washers, the connector plates and the lead or metallic plate into the insulating base bar, substantially as and for the purpose described.

**No. 62,125. Apparatus for Washing Alkali Amalgams.**

(*Appareil à laver les amalgams alcalis.*)



62/125

Henrik C. F. Stormer, Christiana, Norway, 20th December, 1898; 6 years. (Filed 22nd June, 1898.)

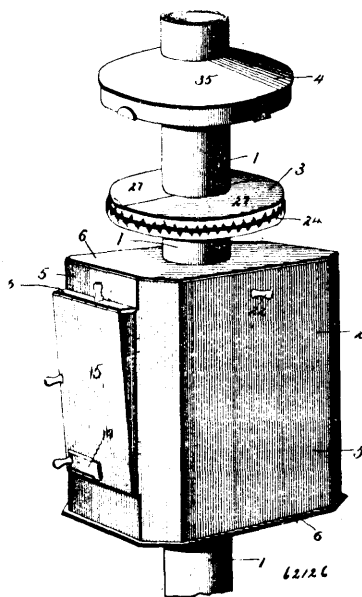
*Claim.*—1st. In an apparatus for washing alkali amalgam, the combination with a rotating shaft of a great number of bars, wire cloth, plates or strips passing during their rotation partly through amalgam, partly through the washing fluid. 2nd. In an apparatus for washing alkali amalgam, the combination of a rotating shaft, discs fastened thereto, and a great number of bars, wire cloth, plates or strips placed between the said discs, passing during their rotation partly through amalgam, partly through the washing fluid. 3rd. The combination of two or more apparatuses essentially as described, the amalgam circulating in one and the washing fluid circulating in another direction through all the receptacles.

**No. 62,126. Fruit Evaporator.** (*Évaporatoire à fruits.*)

Joseph Henry Holland, Centreton, Ontario, 20th December, 1898; 6 years. (Filed 27th July, 1898.)

*Claim.*—1st. The combination with a stovepipe of a series of evaporators located in and forming part of said stovepipe, substantially as described. 2nd. The combination with a stovepipe of a series of evaporators located in and forming part of said stovepipe, and an auxiliary evaporator removably secured to the periphery of said stovepipe, substantially as described. 3rd. The combination with a stovepipe of an evaporator located therein and forming a part of said stovepipe, said evaporator comprising a casing, an enclosed evaporating chamber formed in said casing, flues formed on opposite sides of said evaporating chamber, means for admitting heated air to said evaporating chamber in regulated quantities, and means for passing the steam from said evaporating chamber in regulated quantities, substantially as described. 4th. An evaporator comprising a casing, an enclosed evaporating chamber formed in said casing, flues formed on opposite sides of said evaporating chamber, means for admitting heated air to said evaporating chamber in regulated quantities, and means for passing the steam from said evaporating chamber in regulated quantities, substantially as described. 5th. An evaporator comprising a casing, an evaporating

chamber located within said casing, flues formed on opposite sides of said evaporating chamber, said flues having a casing common



62/126

inlet and outlet to and from said casing, a sinuous passage-way formed at the bottom of said chamber and independent thereof, said passage-way having its front end connected to the outer air, and having its inner end connected to said chamber, a door for said chamber, a slide door mounted in said door, in juxtaposition to said sinuous passage-way, said slide door allowing of a regulating of the amount of air passed into said chamber, and a hinged door secured to the top of said door to allow of the escape of the steam formed in said chamber during evaporation, substantially as described. 6th. An evaporator comprising a casing, an evaporating chamber located within said casing, said chamber being formed at an upward inclination toward the front of said casing, flues formed on opposite sides of said evaporating chamber, said flues having a common inlet and outlet to and from said casing, a sinuous passage-way formed at the bottom of said chamber and independent thereof, said passage-way having its front end connected to the outer air and having its inner end connected to said chamber, a door for said chamber, a slide door mounted in said door in juxtaposition to said sinuous passage-way, said slide door allowing of a regulating of the amount of air passed into said chamber, and a hinged door secured to the top of said door to allow of the escape of the steam formed in said chamber during evaporation, substantially as described. 7th. The combination with a stovepipe, of an evaporator located therein and forming a part of said stovepipe, said evaporator comprising a flared portion having a downwardly extending flange adapted to be removably secured to the stovepipe, a plate removably secured to the stovepipe, a plate removably mounted on said flared portion, said flared portion having an upwardly extending flange adapted to co-act with an independent section of said stovepipe, and a sectional top adapted to be removably located on said plate, substantially as described. 8th. An evaporator comprising a flared portion adapted to be secured to the stovepipe, said flared portion having an upwardly extending flange formed at its outer periphery, said flange being provided with corrugations, a plate removably located on said flared portion, said plate having a connection with an independent portion of said stovepipe, said plate being provided with corrugations, and a sectional cover having its periphery provided with a downwardly extending corrugated flange, which flange is adapted to rest on said plate and within the upturned flange of said flared portion, substantially as described. 9th. An evaporator comprising a flared portion hving an upwardly extending flange formed at its outer periphery, said flange being provided with corrugations, a plate removably located on said flared portion, said plate having a connection with an independent portion of said stovepipe, said plate being provided with radial corrugations, and a sectional cover having its periphery provided with a downwardly extending corrugated flange, which flange is adapted to rest on said plate and within the upturned flange of said flared portion, substantially as described. 10th. The combination with a stovepipe, of an evaporator removably secured to the periphery thereof, said evaporator comprising a series of radially extending arms removably secured about said stovepipe, sectional evaporating trays or pans removably mounted on said arms, and a flared cover removably located on said stovepipe and adapted to close said sectional trays, substantially as described. 11th. The combination with a stovepipe, of an evaporator removably secured to the periphery thereof, said evaporator comprising a series of radial extending arms removably

secured about said stovepipe, sectional evaporating trays or pans removably mounted on said arms, the bottom of said trays or pans being provided with corrugations, and a flared cover removably located on said stovepipe adapted to close the top of said trays, substantially as described. 12th. The combination with a stovepipe, of an evaporator removably secured to the periphery thereof, said evaporator comprising a retaining band removably secured about said stovepipe, radial arms removably located between said retaining band and said stovepipe, sectional trays or pans removably located on said radial arms, the bottom of said trays or pans being provided with corrugations, and a flared top removably secured to said stovepipe and adapted to move into and out of an operative connection with said pans or trays, substantially as described. 13th. The combination with a stovepipe, of an evaporator removably secured to the periphery thereof, said evaporator comprising a retaining band removably secured about said stovepipe, radial arms removably located between said retaining band and above said stovepipe, sectional trays or pans removably located on said radial arms, the bottom of said trays or pans being provided with radial corrugations, and a flared top removably secured to said stovepipe and adapted to move into and out of an operative connection with said pans or trays, substantially as described.

**No. 62,127. Process of Preparing Aluminium Sulfid.**

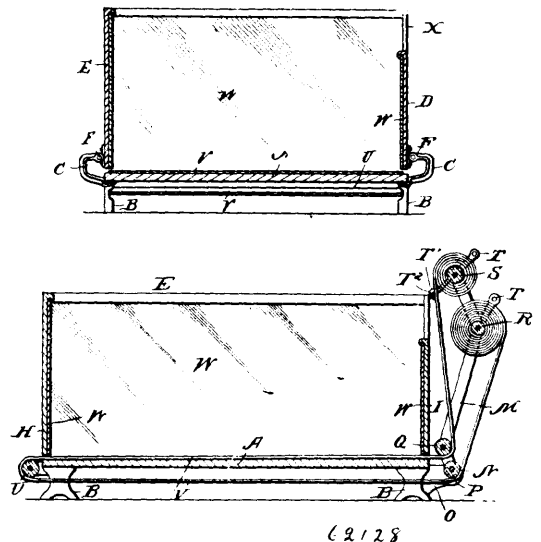
(*Procédé pour préparer le sulfure d'aluminium.*)

Henry Spencer Blackmore, Mount Vernon, New York, U.S.A., 20th December, 1898; 6 years. (Filed 8th September, 1898.)

*Claim.*—1st. The process of producing aluminium sulfid and reduction of the same to metallic state which consists in simultaneously converting insoluble aluminium oxid into soluble aluminium sulfid while in a molten bath and dissociating the soluble aluminium sulfid by electrolytic action, substantially as described. 2nd. The process of producing aluminium sulfid and reducing the same to metallic state which consists in dissolving aluminium sulfid in a molten bath not capable of dissolving aluminium oxid, and mixing aluminium oxid in the same, then subjecting the mass to electrolytic action whereby the aluminium sulfid is dissociated, metallic aluminium being produced and insoluble aluminium oxid converted into soluble aluminium sulfid by secondary reaction, substantially as described. 3rd. The process of producing aluminium sulfid and reducing the same to metallic state which consists in exposing aluminium oxid to the action of a molten bath of alkali salts capable of dissolving aluminium sulfid, having dissolved therein sulfids of alkali bases containing the combined elements of carbon bisulfid and subjecting the same to electrolytic action, substantially as described. 4th. The process of producing aluminium sulfid and reduction of the same to metallic state which consists in transforming aluminium oxid into aluminium sulfid by action of thiocarbonates of alkali bases, then dissociating the sulfid by electrolysis simultaneously producing metallic aluminium at the cathode and thiocarbonate of alkali bases, at the cathode by secondary reaction, and then adding more aluminium oxid and continuing the electrolysis, substantially as described. 5th. The process of producing aluminium sulfid and reduction of the same to metallic state which consists in supplying aluminium oxid to a molten bath of sulfid of alkali bases during process of electrolysis while employing carbon anodes, substantially as described. 6th. The process of producing aluminium sulfid and reduction of the same to metallic state which consists in introducing aluminium oxid into a molten bath of sulfid of alkali bases containing the combined elements of carbon bisulfid and electrolyzing the aluminium sulfid produced, thus producing metallic aluminium and regenerating the bath with the combined elements of carbon bisulfid, substantially as described. 7th. The process of producing aluminium sulfid and reduction of the same to metallic state which consists in simultaneously concerting aluminium oxid into sulfid by chemical action while suspended in a molten bath of alkali salts, containing sulfid of alkali bases and combined elements of carbon bisulfid, and dissociating the sulfid produced by electrolytic action and employing carbon anodes, substantially as described. 8th. The process of producing aluminium sulfid and reduction of the same to metallic state which consists in producing aluminium sulfid in a molten bath of sulfid of alkali bases during electrolytic action by adding insoluble aluminium acid to said bath substantially as described. 9th. In the process of producing aluminium sulfid and reduction of the same to metallic state the process for producing aluminium sulfid which consists in transforming aluminium oxid into aluminium sulfid by chemical action of this carbonate of alkali bases and reduction of aluminium and reproduction of thiocarbonate of alkali bases by electrolysis of aluminium sulfid substantially as described. 10th. In the process of producing aluminium sulfid and reduction of the same to metallic state the process producing aluminium sulfid which consists in introducing aluminium oxid into a molten bath of sulfid of alkali bases containing thiocarbonates, and separating the aluminium from the sulfid produced by electrolysis, substantially as described. 11th. In the process of producing aluminium sulfid and reduction of the same to metallic state, the process of transforming aluminium oxid into sulfid by chemical action of thiocarbonates or sulfid of alkali bases containing combined carbon bisulfid and finally eliminating the metallic aluminium from the product by process of electrolysis, substantially as described. 12th. In the process of producing aluminium sulfid and reducing the same to metallic state the process of subjecting a mol-

ten bath containing dissolved aluminium sulfid to electrolytic action at a temperature sufficient to produce carbon bisulfid at the anode while in a molten bath capable of taking up the combined elements of carbon bisulfid so produced at the temperature employed and suspending aluminium oxid in said bath, said bath being maintained at a temperature sufficient to permit reaction, substantially as described. 13th. In the process of producing aluminium sulfid and reduction of the same to metallic state, the art of producing tricarbo-nate of alkali bases which consists in dissociating aluminium sulfid by electrolysis while dissolved in a molten bath of sulfid of alkali bases at a temperature sufficient to produce carbon bisulfid but not so high as to prevent the absorption of the same by the sulfid of alkali bases, substantially as described. 14th. The herein described process of converting metallic oxid into sulfid and effecting final elimination of metallic base which consists in introducing said oxid into a molten bath, containing thiocarbonate of alkali bases and subjecting the product to electrolytic action, substantially as described. 15th. The process of producing aluminium sulfid herein described, which consists in exposing aluminium oxid to the action of tri-carbonate of alkali bases in a heated state.

**No. 62,128. Myrioscope. (Myrioscope.)**

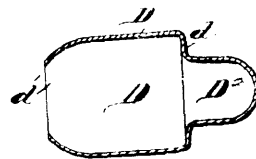


Adolphus Peterson, Lansdowne, Pennsylvania, U.S.A., 20th December, 1898; 6 years. (Filed 10th September, 1898.)

*Claim.*—1st. A display apparatus consisting of a suitable collapsible member such as a box, mirrors lying in the inner walls thereof, a belt for carrying samples, suitable rolls upon which said belt is mounted, and means for bringing about the movement of the belt, as and for the purpose set forth. 2nd. A display apparatus consisting of a suitable collapsible member such as a box, mirrors lying in the inner walls thereof, a belt for carrying samples, suitable rolls upon which said belt is mounted, and automatic mechanism for bringing about the movements of the belt, as and for the purpose set forth.

**No. 62,129. Artificial Ear Drum.**

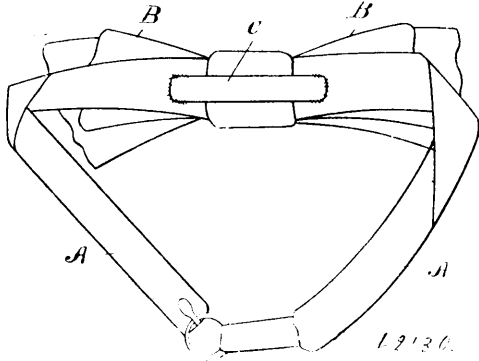
(*Tympanum d'oreille artificiel.*)



George P. Way, Detroit, Michigan, U.S.A., 20th December, 1898; 6 years. (Filed 24th August, 1898.)

*Claim.*—1st. In an ear drum an enlarged portion and a contracted portion, substantially as described. 2nd. In an ear drum an annular supporting wall, substantially as described. 3rd. An ear drum consisting of an enlarged portion, an annular wall and a contracted portion, substantially as described. 4th. An ear drum consisting of an enlarged portion, a closed contracted portion at one end and an open contracted portion at the opposite end, substantially as described. 5th. In an ear drum, an enlarged portion having an annular wall adapted to rest against the tympanum and a contracted portion adapted to extend into the tympanic cavity and support and rest against the tympanic ossicles, substantially as described.

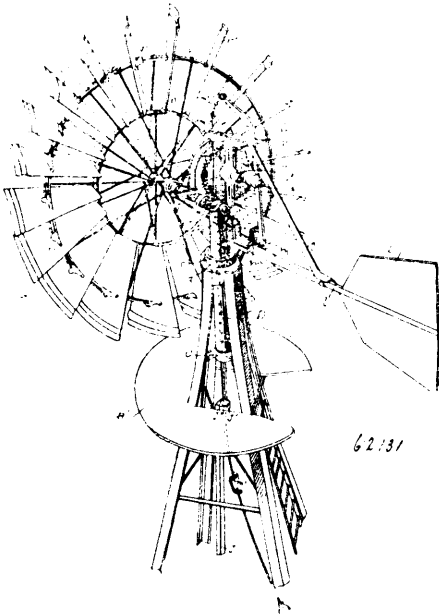
**No. 62,130. Necktie. (Ficlu.)**



Charles Wade Tudor Davies, San Francisco, California, U.S.A., 20th December, 1898; 6 years. (Filed 12th July, 1898.)

*Claim.*—1st. An attachment for a necktie consisting of a connection C, secured to the inner side of the neckband A, immediately behind the knot B, and to each side thereof to relieve the knot from strain. 2nd. An attachment for a necktie consisting of a connection C, secured to the neckband A, behind the knot B, and to each side thereof to complete the neckband independent of the knot. 3rd. An attachment for a necktie consisting of a connection C, secured to the neckband A, behind the knot B, and to each side thereof to complete the neckband independently of the knot and adapted to engage the collar button to prevent the rise of the tie.

**No. 62,131. Windmill. (Moulin à vent.)**

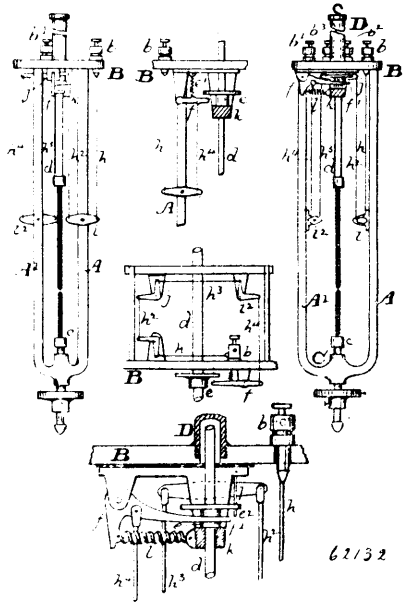


William Spencer O'Bryan, Parkville, Illinois, U.S.A., 20th December, 1898; 6 years. (Filed 9th September, 1898.)

*Claim.*—1st. In a windmill, the combination of the wind-wheel, a horizontal shaft driven by the latter and having a ratchet-wheel, a crank-disc loosely mounted on said shaft and carrying a pawl in engagement with said ratchet-wheel, a horizontally-extending slotted arm engaged with the crank-pin of said disc and pivoted at one end to the frame of the machine, and a plunger-rod connected with said arm and depending therefrom. 2nd. In a windmill, the combination with the wind-wheel and the reciprocatory plunger-rod, of a gear-wheel driven by the said wind-wheel and recessed in one side and having a ratchet-section at its centre on that side, a disc journaled concentrically with the said gear and having a marginal flange entering the recess in the latter, one or more pawls carried by said disc in engagement with said ratchet-section, and suitable connections between said disc and the plunger-rod for converting rotary movement of the former into reciprocations of the latter. 3rd. In a windmill, the combination with the wind-wheel and the driving-shaft operated thereby, of a friction-brake associated with said shaft so as to normally rotate therewith, and a laterally-swinging vane having a projection adapted to enter the path of said brake when the vane is shifted to throw the windmill out of action, substantially as described. 4th. In a windmill, the combination with a driving-

shaft, a support therefor and a wind-wheel for rotating said shaft, of a bar pivoted to said support and having a vane secured thereto, a bracket carried by the bar, means for moving the bar on its pivot, together with a frictional brake normally rotating with the driving-shaft adapted to engage the bracket when the machine is thrown out of gear so as to assist in preventing rotary motion of the wind-wheel, substantially as described.

**No. 62,132. Electric Arc Lamp. (Lampe électrique à arc.)**



John Mueller, Cleveland, Ohio, U.S.A., 20th December, 1898; 6 years. (Filed 17th August, 1898.)

*Claim.*—In an arc-lamp, the combination with the carbon-holding devices and a feeding-clamp having sliding engagement with the upper-carbon holder, of a lifting-lever adapted to engage and lift said clamp, a spring acting on said lever to cause it to engage said clamp, a cross-lever pivoted on the lamp-frame, auxiliary levers  $a^2$ , and thermo-expansive strips connecting the auxiliary levers respectively with the cross-lever and the lifting-lever, and with the cross-lever and a binding-post to which the main circuit is connected, substantially as described.

**No. 62,133. Explosive. (Explosif.)**

Harold Boyd, Fair View, Wigginton, Tamworth, Stafford, England, 20th December, 1898; 6 years. (Filed 28th September, 1898.)

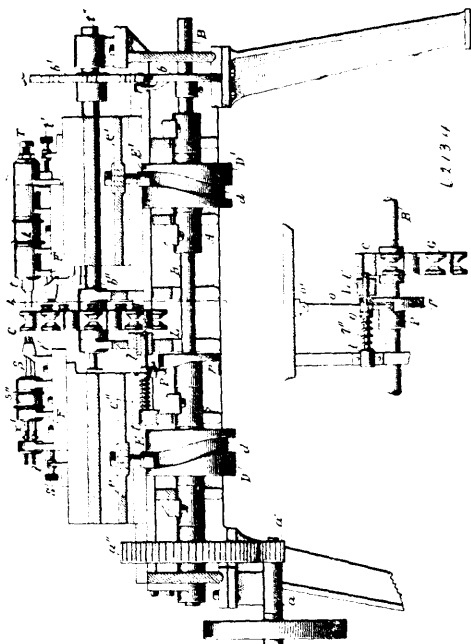
*Claim.*—1st. A fumeless explosive consisting of a mixture of nitrate of soda, sulphur, picrate of ammonia, bichromate of potash, a substance to serve as a "buffer" and a substance to serve as a fume absorbent. 2nd. A fumeless explosive consisting of a mixture of nitrate of soda, sulphur, picrate of ammonia, bichromate of potash, peat dust to serve as a "buffer" and commercial lime to serve as a fume absorbent, substantially as described. 3rd. A fumeless explosive consisting of a mixture of nitrate of soda, sulphur, picrate of ammonia, bichromate of potash, peat dust to serve as a "buffer" and commercial lime to serve as a fume absorbent, the whole incorporated with cotton seed oil, substantially as described.

**No. 62,134. Button Making Machine. (Machine à faire des boutons.)**

John Hornby, Brooklyn, New York, U.S.A., 20th December, 1898; 6 years. (Filed 16th September, 1898.)

*Claim.*—1st. In a machine for manufacturing buttons from slabs of vegetable ivory, or the like, having an irregular outline but approximately parallel faces, a grip carrier consisting of a pair of jaws for laterally holding the slabs during said manufacture, each jaw being suitably apertured to give access to the operating tools, one of said jaws being fixed to the carrier, and the other movable, means for rigidly locking the movable jaw against the slab, means for automatically opening said jaws, during the intermittent movement of the carrier, and means for intermittently moving said carrier. 2nd. In a machine for manufacturing buttons from slabs having approximately parallel faces, a multiple grip carrier consisting of a disc upon which is mounted a plurality of grip-carriers each consisting of a pair of jaws, one fixed in relation to the disc and the other movable in relation thereto in a direction at right angles to the faces of the slabs, and means for automatically opening and for rigidly but not automatically closing said jaws, and means for intermittently rotating the disc in a plane at right angles to the axes of

the operating tools. In a machine for making buttons from slabs of vegetable ivory having approximately parallel faces, a grip



carrier consisting of a pair of jaws provided with suitable apertures to give access to the operating tools and means for opening and closing the said jaws consisting of a pinion mounted upon a screw adapted to engage with a threaded aperture in the fixed jaw and actuating a fork rigidly secured to the movable jaw, in combination with a segmental gear whereby the pinion may be rotated. 4th. In a machine for making buttons from slabs of irregular outline and having approximately parallel faces, a multiple grip carrier consisting of a series of grips adapted laterally to hold the slabs and mounted at uniform intervals upon a moving head, each grip consisting of a pair of jaws, one of which is connected with a pinion, in combination with means for moving the head and with a hand-moved segment for closing the jaws, and with a fixed segment for automatically opening the same. 5th. In a machine for manufacturing buttons from slabs of vegetable ivory of irregular outline and approximately parallel faces, a grip carrier for laterally holding the slabs and adapted to give access to the operating tools, and means for moving the said carrier intermittently, in combination with a series of facing tools consisting of a rough-shaping cutting tool, a fine-finishing tool and a drilling and countersinking tool mounted on one side of said carrier, and a series of backing tools consisting of a rough-shaping cutting tool, a drilling and countersinking tool and a fine-finishing and cutting-out tool mounted on the other side thereof, and means for intermittently reciprocating the said tools. 6th. In a machine of the class described, a multiple grip carrier adapted to laterally hold a series of slabs and means for intermittently actuating the same, in combination with a series of facing tools mounted on a carriage on one side of said carrier and a series of backing tools mounted on a carriage on the other side thereof, and means for simultaneously bringing the tools in operation against opposite sides of the slabs held in said carrier, so that the tool on one side of the slab serves as a support for that slab as against the pressure of the tool on the opposite side thereof. 7th. In a machine of the class described, the combination with a multiple grip carrier adapted to laterally hold a series of slabs to be operated upon at uniform intervals by cutting and drilling tools mounted in series upon two reciprocating carriages, one on each side of the carrier, of means for intermittently moving the carrier, and intermittently moving the tool carriages whereby tools are brought to operate upon both sides of the same slab simultaneously and upon each slab in the series successively. 8th. In a machine for manufacturing buttons from slabs of vegetable ivory having approximately parallel faces, a grip carrier for laterally holding the slabs during said manufacture, which consists of a pair of jaws each having a suitable aperture to give access to the operating tools, one of said jaws being moved in relation to the other by means of a fork actuated by a pinion mounted upon a screw adapted to engage with a threaded aperture in the fixed jaw. 9th. A machine for producing a completed button from a slab, comprising a moving carrier provided with grips and a series of tools for rough-cutting and finishing the front and back of the button, the said tools being placed in pairs opposite each other, the component members of each pair rotating in opposite directions, and each of the sets of tools upon one side of the carrier being carried upon the same carriage so that the slabs will be operated upon both sides simultaneously with the minimum amount of strain. 10th. In a machine of the class

described, the combination of a grip carrier consisting of two jaws adapted to hold a slab of material during the operation of suitable tools thereon, and means for closing said jaws, with means for automatically opening said jaws and discharging the waste material therefrom brought into action through the waste material itself. 11th. The combination in one mechanism of a series of facing tools, consisting of a rough shaping tool, a fine finishing tool and a drilling and countersinking tool mounted on a carriage, a series of backing tools consisting of a rough shaping tool, a drilling and countersinking tool and a finishing and cutting out tool mounted on a carriage, means for actuating the tools and moving the carriages and the tools to and from an intermittently moving carrier centrally placed between the two series, whereby slabs of material, held in the said carrier, are successively operated upon first simultaneously by the two rough shaping tools, second, simultaneously by the fine finishing facing tool and the drilling and countersinking backing tool, third, by the drilling and countersinking facing tool, and fourth, by the finishing and cutting out backing tool. 12th. The combination in one mechanism of a series of facing tools, consisting of a rough shaping tool, a fine finishing tool and a drilling and countersinking tool, mounted on a carriage, a series of backing tools, consisting of a rough shaping tool, a drilling and countersinking tool and a finishing and cutting out tool mounted on a carriage, means for actuating the tools and moving the carriages and the tools to and from an intermittently moving carrier centrally placed between the two series, whereby slabs of material, held in the said carrier are successively operated upon first, simultaneously by the two rough shaping tools, second, simultaneously by the fine finishing facing tool, and the drilling and countersinking backing tool, third, by the drilling and countersinking facing tool, and fourth, by the finishing and cutting out backing tool, and means for simultaneously performing said operations upon successive slabs held by the carrier. 13th. In a machine of the class described, the combination with an intermittently actuated carrier adapted to hold a series of material slabs, of a series of facing tools R, T, and U mounted on a carriage on one side of the carrier, and a series of backing tools, Q, S, and V mounted on a carriage on the other side of said carrier and means for actuating and reciprocating the said carriages and tools whereby each slab in succession is operated upon, first, simultaneously at its face by the tool U and at its back by the tool Q, secondly, simultaneously at its face by the tool T and at its back by the tool S, thirdly, at its face by the tool R, and fourthly at its back by the tool V. 14th. The combination with the main frame, of the series of facing tools U, T, R, and the series of backing tools Q, S, V, and means for reciprocating and actuating them, the intermittently moving rotary carrier provided with pinion actuated jaws, a segmental gear adapted to mesh with the jaw pinions, and a locking pin intermittently moved, at right angles to the plane of rotation of the carrier and engaging in suitable apertures therein. 15th. The combination with the main frame, of the series of facing tools U, T, R, and the series of backing tools Q, S, V, and means for reciprocating and actuating them, the intermittently moving rotary carrier provided with pinion actuated jaws, and a segmental gear adapted to mesh with the jaw pinions. 16th. In a machine of the class described, a gang of parallel spindles, and means for actuating the same each spindle being provided at its forward end with a recess in which is pivotally mounted the rear of a drill, the axis of which is at an angle to and not parallel with the axis of the spindle, a universal joint being formed by said pivot between the spindle and the drill. 17th. In a machine of the class described, the combination of a gang of parallel spindles adapted simultaneously to drill all of the button holes in each piece of material, and means for rotating the same, of means for adjusting their longitudinal position, consisting of independent bars abutting against the rear ends of the spindles and mounted in suitable bearings, and having their axes coincident with the axes of the spindles, and means for moving the bars and rigidly holding them in position after adjustment. 18th. In a machine of the class described, the combination with a gang of parallel spindles each carrying a pivotally mounted drill at its forward end, and means for rotating the spindles, of independent means for longitudinally adjusting the position of each spindle, in combination with a disc suitably mounted in front of the spindles and provided with tapered apertures for the passage of the drills.

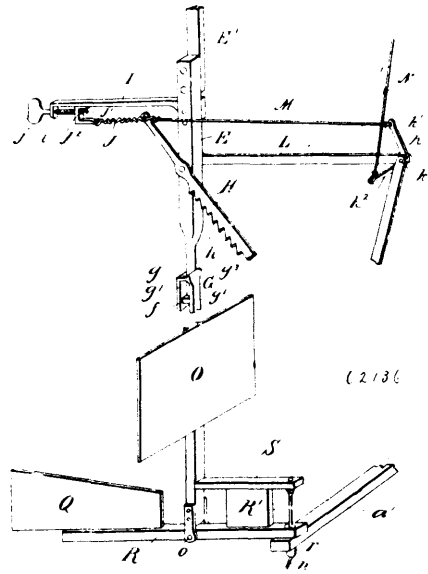
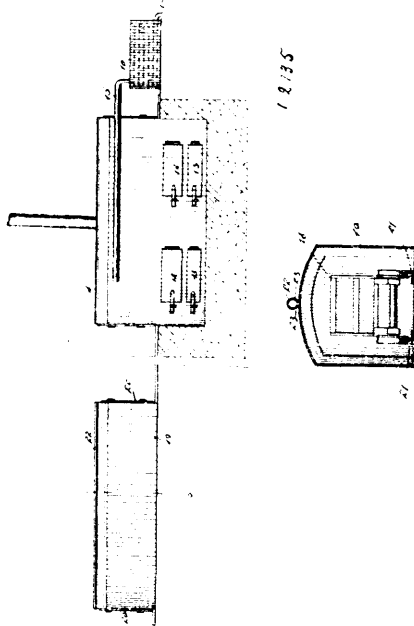
**No. 62,135. Machine for Making Wood Alcohol and Acetate of Lime. (Machine à faire de l'alcool du bois et de l'acétate de chaux.)**

Martin Francis Quim, Straight, Pennsylvania, U.S.A., 20th December, 1898; 6 years. (Filed 10th September, 1898.)

*Claim.*—1st. An apparatus for the manufacture of wood alcohol and acetate lime, comprising an elongated retort, a housing having its inner surface spaced from the retort upon every side, doors at each end of the retort, doors in the ends of the housing, the openings of which register with the openings of the doors of the retort, a furnace or furnaces below the retort, a central pier to which the retort is rigidly affixed, piers between the central pier and the ends of the retort and upon which the retort may slide, and being at a distance from the walls of the housing track rails extended through the retort and housing, and pipes leading from the retort to carry off the products of the wood distillation, substantially as specified. 2nd. An apparatus for the manufacture of wood alcohol and acetate

of lime, comprising an elongated metal retort having doors at its ends, track rails extended through said retort, a housing surround-

ing a connecting rod secured to the top section and having a sliding connection with the lower section and a pivotally-



ing the retort and spaced therefrom upon every side, a central pier extended from the bottom of said housing and to the upper end of which the centre of the retort is rigidly attached, piers between the said central pier and the ends of the retort, metal plates on said piers, rollers between the plates and the bottom of the retort, grate bars arranged below the retort between the piers, pipes leading from the upper portion of the retort to a condenser and through which the products of the wood acted upon are carried, and a charcoal cooler comprising a housing having tracks extended through it, the said tracks connecting with the tracks in the retort, substantially as specified. 3rd. An apparatus for the manufacture of wood alcohol and acetate of lime, comprising a housing of masonry having a furnace in its lower portion, a metal retort extended longitudinally through said housing and spaced therefrom, the said retort and housing having door closed openings at the ends, track rails extended longitudinally through the retort and housing, cars for running on said tracks, pipes for carrying off the products of distillation from the retort, and a charcoal cooler comprising a housing having door closed openings at its ends and also having tracks connecting with the track rails in the retort, substantially as specified. 4th. An apparatus for the manufacture of wood alcohol and acetate of lime, comprising a retort, tracks thereon, a charcoal cooler consisting of a housing separated and at a distance from the retort and having tracks extended through it, and connections with the tracks extended through the retort, and a water spraying pipe extending along the roof of the cooler, substantially as specified. 5th. An apparatus for the manufacture of wood alcohol and acetate of lime, comprising a housing of masonry having door closed openings at its ends, means for holding said doors in a closed position to prevent the entrance of air, a retort extended longitudinally through the housing and having door closed openings at its ends, means for holding the doors closed in a practically air tight condition, means for allowing the free expansion and contraction of the retort longitudinally, and track rails supported on the floor of the retort, substantially as specified.

mounted ratchet bar adapted to engage and actuate the lower section, spring devices for throwing the ratchet bar out of engagement with the lower section, connecting cords or rods extending between the ratchet bar and a controlling mechanism, and a controlling mechanism for drawing upon said cords or rods to cause the same to actuate the ratchet bar against the tension of the spring, substantially as and for the purpose set forth. 4th. An improved windmill comprising a divided pitman or pump rod embodying two sections, a joint mechanism permanently connecting said sections but permitting an independent movement of the lower section with relation to the upper section and embodying a device for intermittently bearing upon the lower section, mechanism for retaining said intermittently bearing device out of engagement with the lower section, devices connected with said intermittently-bearing device and adapted to draw against the action of said retaining mechanism, and means for operating said connection devices, substantially as and for the purpose set forth. 5th. As an improvement in windmills, a divided pitman or pump rod comprising upper and lower sections, a joint mechanism permanently connecting said sections and comprising a connecting rod or device having a movable connection with the lower section and permitting an independent movement of the same with relation to the upper section and a device intermittently bearing upon the lower section, and means for governing the operation of said intermittently operating device, substantially as and for the purpose set forth. 6th. An improved windmill, comprising a divided pitman embodying an upper section and a lower section, the upper section being connected to the main operating mechanism of the windmill, devices supporting the lower section independently of the upper section, a sliding joint connecting said sections, devices for intermittently engaging the lower section, and means for operating the devices which engage the lower section in their intermittent movement, substantially as and for the purpose set forth. 7th. An improved windmill, comprising a divided pitman embodying an upper section and a lower section, the upper section being connected to the main operating mechanism, devices supporting the lower section independently of the upper section, a sliding joint connecting said sections, a ratchet bar pivotally carried upon the upper section and adapted to engage the lower section, and mechanism for throwing said ratchet bar into and out of engagement with the lower section substantially as and for the purpose set forth.

**No. 62,136. Windmill. (Moulin à vent.)**

John Coates, Garden Grove, California, U.S.A., 20th December, 1898; 6 years. (Filed 7th October, 1898.)

*Claim.* 1st. As an improvement in windmills, a divided pitman or pump rod comprising two sections, a joint mechanism comprising a connecting rod secured to the top section and having a sliding connection with the lower section and a pivotally-mounted ratchet bar adapted to engage and actuate the lower section, and mechanism for controlling the operation of the ratchet bar, substantially as and for the purpose set forth. 2nd. As an improvement in windmills, a divided pitman or pump rod comprising two sections, a joint mechanism comprising a connecting rod secured to the top section and having a sliding connection with the lower section and a pivotally mounted ratchet bar adapted to engage and actuate the lower section, spring devices governing the ratchet bar, and mechanism for actuating the ratchet bar against the tension of said spring devices, substantially as and for the purpose set forth. 3rd. An improved windmill, comprising a divided pitman or pump rod embodying an upper and lower section, a joint mechanism connecting said sections

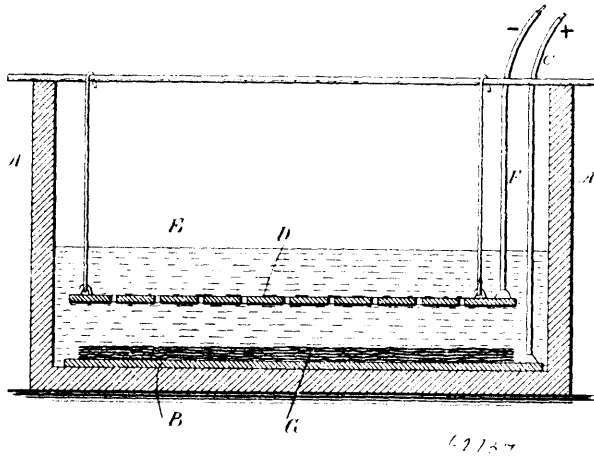
**No. 62,137. Manufacture of Peroxides.**

(Fabrication de peroxydes.)

Henry Blumenberg, Wakefield, New York, U.S.A., 20th December, 1898; 6 years. (Filed 16th September, 1898.)

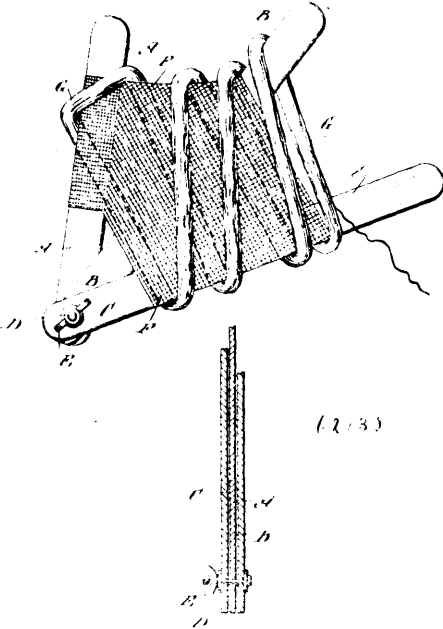
*Claim.* 1st. The method herein specified of producing a peroxide of lead or other metal, consisting in introducing a metallic oxide into a vessel containing an acid solution, the oxide being in contact with the positive pole, and passing an electric current through the electrolyte for decomposing the water and combining the oxygen thereof with the metallic oxide to form a peroxide, substantially as set forth. 2nd. The method herein specified of producing a peroxide of lead or other metal, consisting in introducing the metallic

oxide into a vessel containing an electrolytic solution, the oxide being in contact with the positive pole, and passing an electric



current through the electrolyte for decomposing the same and combining the oxygen thereof with the metallic oxide to form a peroxide, substantially as set forth.

**No. 62,138. Skein-Holder. (Porte-écheveau.)**



Mary Anna Arrowsmith, Freehold, New Jersey, U.S.A., 20th December, 1898; 6 years. (Filed 1st October, 1898.)

*Claim.*—1st. A skein-holder, comprising radiating fingers provided with a clamping or securing mechanism, and having a flexible connecting web stopping short of the outer ends of the fingers, substantially as described. 2nd. A skein-holder, consisting of radiating fingers adjustably secured by a bolt and thumb-nut at one end, and having a flexible connecting web stopping short of the outer ends of the fingers, substantially as described.

**No. 62,139. Railway Ticket. (Billet de chemin de fer.)**

Frank E. Hodgins and Alzina V. Young, both of Toronto, Ontario, Canada, 21st December, 1898; 6 years. (Filed 24th October, 1898.)

*Claim.*—1st. A railway ticket, having printed on the face thereof the letters A, M, P, and two series of letters N, S, E, W, arranged relatively thereto for the purpose specified, a series of numerals indicating the days of the month from 1 to 31 inclusive, and a series of numerals indicating the fractions of hours from 1 to 12 inclusive, the said numerals being arranged in series in line with the first twelve numerals which indicate the first twelve days of the month, in substance as and for the purpose specified. 2nd. A railway ticket of a suitable material, and one face thereof divided by printed lines into spaces, the spaces at the end B having printed thereon the letters N, S, E, W, P, M, and the spaces directly at the left of the

letter M containing the letters N, S, E, W, A, the remaining spaces having affixed thereupon numerals indicating the days of the month

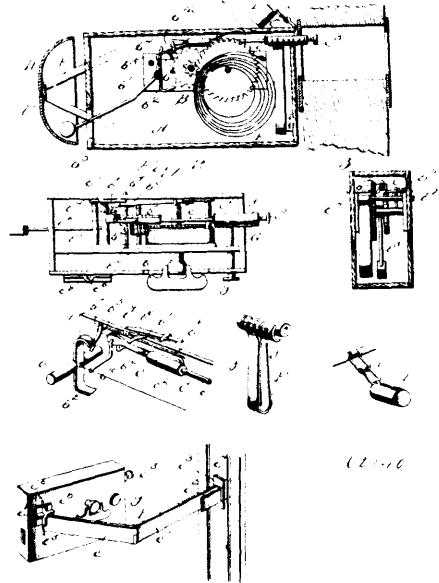
A

	25	26	27	28	29	30	31	N°	S	E	W	A	M
	13	14	15	16	17	18	19	20	21	22	23	24	P
C	1	2	3	4	5	6	7	8	9	10	11	12	W
	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	E
	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	S
	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	N

B

from 1 to 31 inclusive and the fractions of the hours from 1 to 12, the arrangement being such that the numerals 1 to 12 indicate the first 12 hours of the month, and in connection with the letters the twelve hours of the morning and the twelve hours of the evening, substantially as described.

**No. 62,140. Burglar Alarm. (Appareil à sonnerie.)**

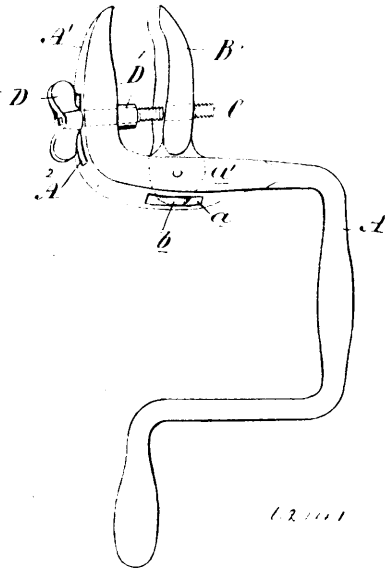


John P. Towler, Waterbury, Connecticut, U.S.A., 21st December, 1898; 6 years. (Filed 6th September, 1898.)

*Claim.*—1st. In a portable burglar-alarm, the combination with a suitable casing, of a bell-clapper pivoted therein, an escapement controlling said clapper, a locking device for said escapement, a spring for releasing said locking device, a crank-shaft for operating said spring, a trigger connected to said crank-shaft and projecting from the casing, and means for securing said casing in position so that the trigger will be engaged by an opening door or window to set off the alarm, substantially as described. 2nd. In a portable burglar-alarm, the combination with a suitable casing, of a bell-clapper mounted therein, an escapement mechanism connected to said clapper, a catch for said escapement, a trigger for controlling said catch and projecting from the casing, and a clamp attached to said casing and adapted to be applied within the keyhole to hold the casing in position, and the trigger in the proper relation to be engaged and operated by the insertion of a key in said keyhole, substantially as described. 3rd. In a portable-burglar alarm, the combination with a suitable casing, of a bell-clapper mounted therein, a spring-actuated escapement mechanism connected to said clapper, a catch for locking said escapement a trigger connected to said catch and extending out of the casing, an expansion-spring mounted upon said casing and supporting the trigger-rod and adapted to be expanded within a keyhole to hold the casing in position, substantially as described. 4th. In a portable burglar alarm, the combination with a suitable casing, of a spring-actuated escapement, mounted therein, an alarm device, connected to said escapement, means for setting said catch from the exterior of the casing, a trigger connected to said catch for setting off the same, and a clamping device attached to the casing and adapted to be inserted within a keyhole to secure said casing in position, substantially as described. 5th. In a portable burglar-alarm, the combination with a suitable casing of a spring-actuated escapement mounted therein, an alarm device connected to

said escapement, a locking catch for said escapement, a trigger for setting off said catch, attaching means for securing the casing in position, and a protecting cap adapted to be applied over the portion of the trigger extending from the casing when the alarm is not in use, substantially as described.

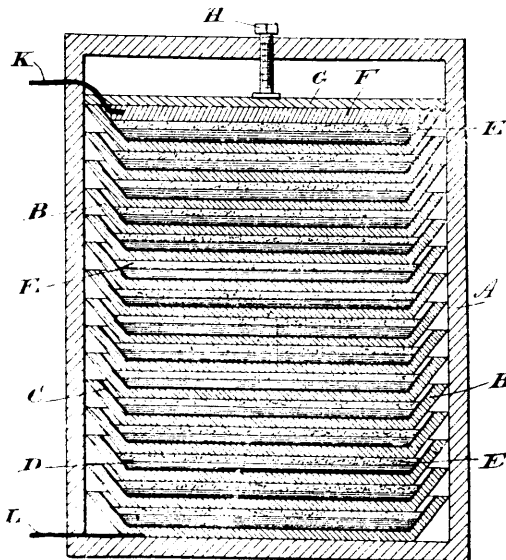
**No. 62,141. Axle-Nut Wrench.** (*Clé à écrou.*)



Harris L. Wallace, Halifax, Nova Scotia, Canada, 21st December, 1898; 6 years. (Filed 2nd November, 1898.)

*Claim.*—1st. The stock A, having a fixed jaw A', and a movable jaw B pivoted thereto, said jaws connected by a screw bolt C, as set forth. 2nd. A wrench comprising the stock A, having a fixed jaw A', the movable jaw B loosely secured thereto, and the screw bolt C connecting both jaws, as set forth.

**No. 62,142. Storage Battery.** (*Accumulateur électrique.*)

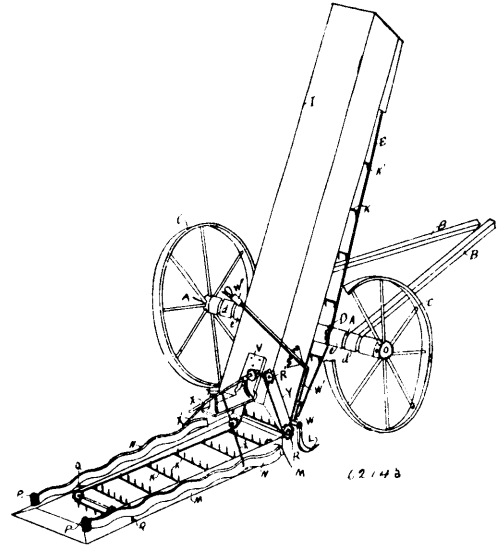


Nathan Huntley Edgerton, Philadelphia, Pennsylvania, U.S.A., 21st December, 1898; 6 years. (Filed 16th November, 1898.)

*Claim.*—1st. A secondary battery comprising a pan or plate, composed of two dissimilar metals suitably secured together, active material superimposed upon the metal in the interior of the pan and supporting a material for absorbing and retaining the electrolyte, as set forth and for the purpose specified. 2nd. A secondary battery comprising a plurality of pans or plates, composed of two dissimilar metals, suitably secured together, one side forming a conducting plate, and the other side forming an oxidizing plate, active material superimposed upon the conducting plate and absorbing material

supported thereon for retaining the electrolyte, as set forth and for the purpose specified. 3rd. A secondary battery comprising a pan or plate having one side composed of zinc or its equivalent, and the other side composed of lead, a coating of red lead superimposed upon the lead, and a layer of granulated charcoal supported upon the red lead, as set forth and for the purpose specified. 4th. In a storage battery of the high tension type, the combination with a plurality of zinc pans having their upper surfaces provided with lead, red lead, and pulverised charcoal, in the order specified, of the plates F and G, threaded stem H, conductors K and L, and casing A, all arranged as set forth and for the purpose specified. 5th. A secondary battery, comprising a series of superimposed composite pans or plates, consisting of dissimilar metallic electrodes in contact forming a couple, a layer of granulated charcoal interposed between each plate, the space above said charcoal being filled with an insulating cement or liquid, as set forth and for the purpose specified.

**No. 62,143. Turnip Loader.** (*Charge-navets.*)



Arthur Thomson, Bendale, Ontario, Canada, 21st December, 1898; 6 years. (Filed 3rd December, 1898.)

*Claim.*—1st. In a turnip loader, in combination the head, a tongue, loosely mounted on said head, two supporting wheels, means for locking that part of the axle on which is the sprocket-wheel D with respect to the supporting wheels so as to cause its rotation with the rotation of the wheels, and the elevator comprising a box with slats in the bottom, a pair of chains with cross pieces provided with spikes, said elevator provided with a casing at the top, substantially as described. 2nd. In a turnip loader, in combination the axle, the supporting wheels, the elevator and the lower horizontal structure comprising a longitudinal box, two sides of which form inclined planes, the two slides, NN, the supporting piece QQ, and means whereby the elevator chains are carried along to the rear end of the horizontal structure, substantially as described. 3rd. In a turnip loader, in combination, the axle, the tongue, the supporting wheels the elevator, the blades, means for raising or lowering said blades, the mechanism comprising the sprocket-wheel R, the bevel gear, the rod T and means for making the slides N N move up and down, substantially as described.

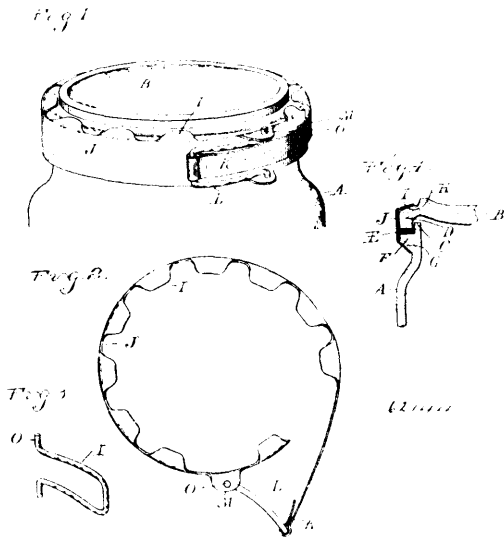
**No. 62,144. Jar Closure.** (*Fermeture de jarres.*)

George W. Burkhart, Detroit, Michigan, U.S.A., 21st December, 1898; 6 years. (Filed 3rd December, 1898.)

*Claim.*—1st. The combination with a jar and cap having bearing faces for a clamping ring, of a clamping ring of sheet metal having inwardly bent lips and outwardly bent apertured ears and a tongue provided at its end with a hook, and a wire link held at one end by said hook on the tongue and at the other end by said apertured ears. 2nd. In a jar closure, the combination with the jar and its cap having bearing faces for the clamping ring, of the clamping ring made of sheet metal with overlapping ends and a link connected at its opposite ends directly to the opposite ends of the clamping band. 3rd. In a jar closure, of the kind described, the clamping band formed of sheet metal with overlapping ends, a link having its opposite ends connected directly to the ends of the band, such connection being formed at one end by bending a hook in the band and at the other end by separate arms provided with pins engaging apertured ears on the band. 4th. A clamping band for fruit jar covers, formed of sheet metal with overlapping ends, the tongue K having a hook formed at

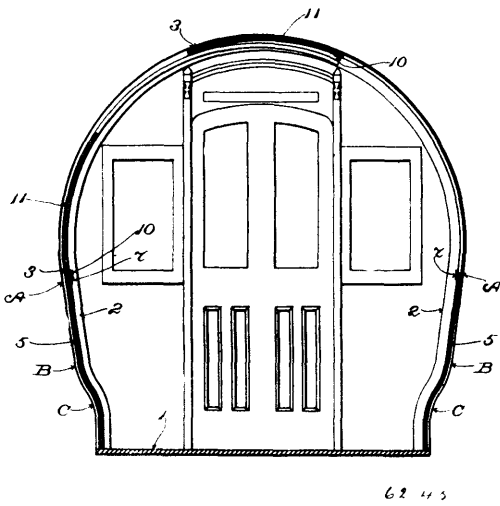


its end, the apertured ears M at or near the other end of the band, and a U-shaped spring link L having its middle portion secured by



the hook on one end of the band and having oppositely extending pins O at the other end sprung into the apertures of the ears M, the parts being arranged, substantially as shown and described.

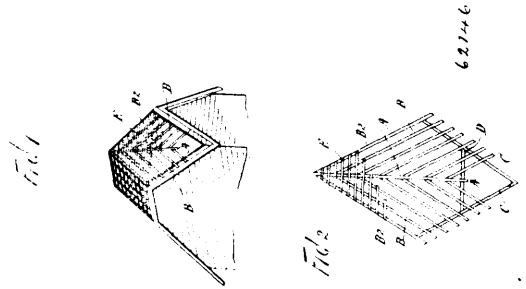
**No. 62,145. Street Railway Car. (Char de rue.)**



George Moore, Boston, Massachusetts, U.S.A., 21st December, 1898; 6 years. (Filed 5th December, 1898.)

*Claim.*—1st. In a railway car, the combination of grooved upright frames located in the sides and top of the car body, the upper portions of said frames being curved in the arc of a circle and the grooves thereof extending across the top of the car with movable side sections, each consisting of a curved window sash, having its side-edges fitted to the curved portions of said grooves and adapted to slide therein, and a flexible lower portion sliding in the same grooves with said sash below the latter and filling the space below the sash, substantially as described. 2nd. In a railway car, the combination of grooved upright frames located in the sides and top of the car body, the upper portions of said frames being curved in the arc of a circle and the grooves thereof extending across the top of the car, with movable side sections, each consisting of a curved window sash having its side edges fitted to the curved portions of said grooves and adapted to slide therein, and of a flexible lower portion, sliding in the same grooves with the sash, below the latter, filling the space below the sash, and having a catch to connect the said sash and flexible portion together in a separate manner, substantially as described.

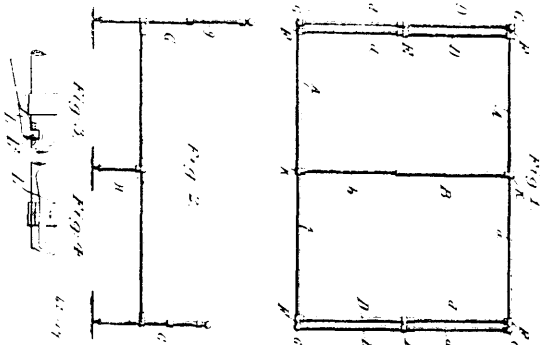
**No. 62,146. Roof. (Toit.)**



William Woods, Cold Spring, New York, U.S.A., 21st December, 1898; 6 years. (Filed 5th December, 1898.)

*Claim.*—1st. The herein described improvement in roofs of buildings and other structures, which consists in providing the corners with diamond shaped frames which extend below the lower edge of the main side of the roof and which are constructed, substantially as shown and described. 2nd. A diamond shaped frame for the corners of roofs of buildings and other structures, consisting of a central rafter or support, a plurality of parallel rafters secured to each side thereof and arranged in the form of a diamond, the lower or outer ends of said rafters being secured to inclined plates or supports, substantially as shown and described. 3rd. A diamond shaped frame for the corners of roofs of buildings and other structures, consisting of a central rafter or support, a plurality of parallel rafters secured to each side thereof, and arranged in the form of a diamond, the lower or outer ends of said rafters being secured to inclined plates or supports and said frames being provided with sheeting which is secured thereto transversely of the central rafter, and the parallel inclined rafters which are secured thereto, substantially as shown and described. 4th. A frame for the corners of the roofs of buildings which is diamond shaped in form, and which consists of a central piece A, which extends in a line from the intersection of two gables at the corners of the building and to the opposite sides of which are secured parallel inclined rafters as B, the lower ends of which are secured to inclined plates or supports as C, substantially as shown and described. 5th. A frame for the corners of the roofs of buildings which is diamond shaped in form, and which consists of a central piece A, which extends in a line from the intersection of two gables at the corners of the building and to the opposite sides of which are secured parallel inclined rafters as B, the lower ends of which are secured to inclined plates or supports as C, said frames being also provided with a sheeting which is secured thereto transversely of the central piece and said rafters, substantially as described. 6th. A roof for dwelling and other structures, the angles or corners of which have a diamond shaped form, and consists of a frame constructed as herein described.

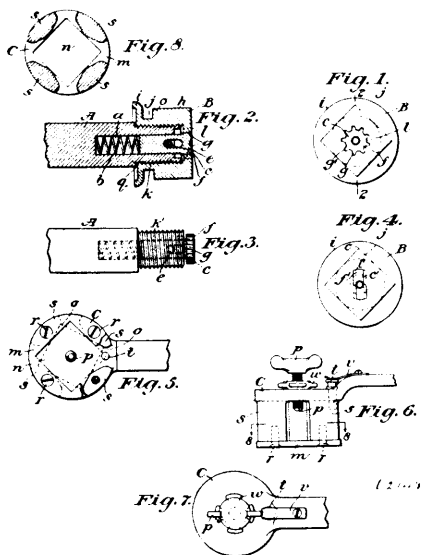
**No. 62,147. Bedstead. (Bois de lit.)**



Helen Ashland Kean, West Haven, Connecticut, U.S.A., 21st December, 1898; 6 years. (Filed 5th December, 1898.)

*Claim.*—1st. The combination with a bedstead constructed as herein described, and adapted to be contracted into a substantially square form, of a mattress and frame therefor, composed of four parts hinged together and adapted to be folded into a similar form within the bedstead, and whereby engagement with the bedstead when folded is maintained, substantially as shown and described. 2nd. The combination with a bedstead, the sides and ends of which are composed of telescopic sections, whereby it is adapted to be contracted into a substantially square form, of a mattress-frame which is composed of four hinged sections attached to said sections of the adjustable bedstead, which sections are adapted to be folded one upon the other within the bedstead-sections, substantially as shown and described.

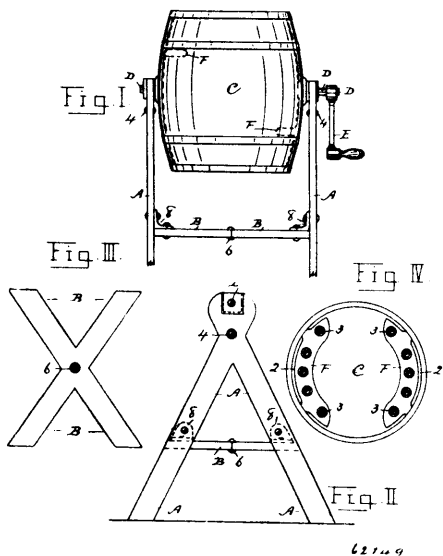
No. 62,148. Nut-Lock. (Arrêt-écrou.)



Louis C. Werner, Louisville, Kentucky, U.S.A., 21st December, 1898; 6 years. (Filed 5th December, 1898.)

*Claim.*—1st. In a nut-lock for axles, the combination of the axle provided at its end with an exterior screw-thread and a central chamber, and the spring-actuated sliding bolt retained in said chamber and adapted for limited longitudinal movement therein, and having a head provided with locking projections, with the nut provided with the square portion, the circular flange and the intermediate recess adapted for the locking attachment of the wrench to the nut, and a screw-thread fitting the screw-thread of the axle and having at its outer face an opening which loosely fits the locking projections of the head of the sliding bolt, and serves to prevent the accidental backward rotation of the nut, substantially as described. 2nd. In a nut-lock for axles, the combination of the axle provided at its end with an exterior screw-thread and a central chamber, and the spring-actuated sliding bolt retained in said chamber and adapted for limited longitudinal movement therein, and having a head provided with locking projections formed at an inclination with the plane of the axis of the bolt, with the nut provided with a screw-thread fitting the screw-thread of the axle, and having at its outer face an opening which loosely fits the inclined locking projections of the head of the sliding bolt and serves to cause the proper full seating of the nut without backlash and prevents the accidental backward rotation of the same, substantially as described.

No. 62,149. Churn. (Baratt.)

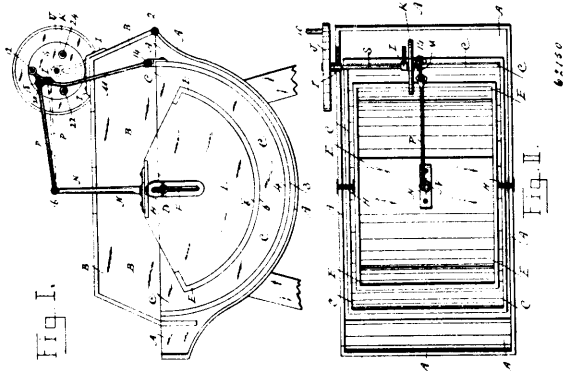


George B. Dowswell, Hamilton, Ontario, Canada, 21st December, 1898; 6 years. (Filed 9th December, 1898.)

*Claim.*—1st. A churn of the character described, comprising a barrel churn mounted on a frame by means of side trunnions in suitable ball bearings in the upper part of the upper crossed and gained

and bolted sides of said frame, and capable of revolving by means of a crank handle at one end of said trunnion, a crossed and gained brace bolted together at the middle and secured to the four legs of said sides of frame, by means of brackets, substantially as described. 2nd. A barrel churn framework consisting of two sides, each composed of two pieces crossed near the top, as bearings for the churn, a crossed brace being secured to said sides by brackets as described, and the churn having blades with openings as set forth, located and secured in opposite position in the interior, for the purposes herein set forth and specified.

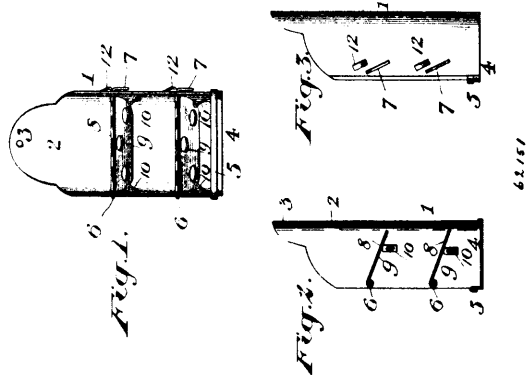
No. 62,150. Washing Machine. (Machine à laver.)



George B. Dowswell, Hamilton, Ontario, Canada, 21st December, 1898; 6 years. (Filed 9th December, 1898.)

*Claim.*—1st. A clothes washing machine of the character described, consisting of a water-tight casing, having hinged cover, a semi-circular clothes supporter in and pivoted to the sides of said casing, a segmental clothes distributor in said supporter and suspended from side pivots projecting from the inner sides of said hinged cover and capable of vertical adjustment in vertical slots, said supporter capable of an oscillating movement by means of the journaled upper shaft, provided with crank driving wheel and centrally located crank-wheel connected to said clothes support by means of a bent and vertically inclined connecting rod, and the clothes distributor capable of diverse oscillating movement by means of a horizontally inclined connecting rod having pivotal connection with the upper part of the vertical connecting rod and the upper part of the standard on said distributor, as described. 2nd. A clothes washer comprising a casing having hinged cover, a semi-circular clothes supporter suspended therein on side pivots, a transverse shaft in bearings, on the top of said cover, and provided with an outer drive-wheel, and a central crank-wheel which is connected to said supporter for oscillation by means of a vertically inclined and bent connecting rod capable of connection to said crank-wheel at a variable distance from its centre, a segmental clothes distributor suspended in said supporter on side pivots projecting inwardly from the hinged cover, and capable of vertical adjustment and diverse oscillation, by means of a horizontally inclined rod connecting the standard of the distributor with one of the upper parts of said bent and vertically inclined connecting rod, as described.

No. 62,151. Soap Holder. (Porte-savon.)

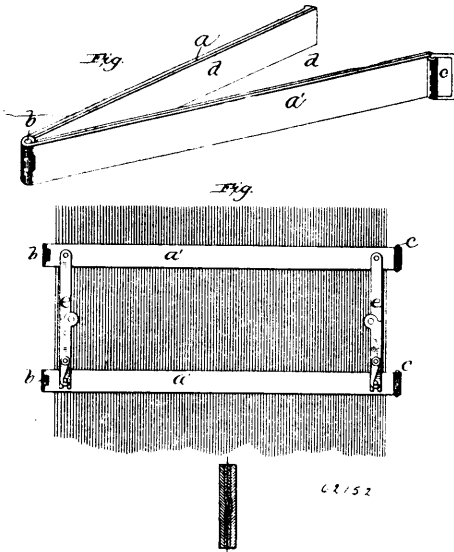


James Cornelius Baker, Blue Grass, Iowa, U.S.A., 27th December, 1898; 6 years. (Filed 5th December, 1898.)

*Claim.*—1st. In a soap-holder the receptacle and the lugs secured to the interior thereof, in combination with a rotatable shaft journaled to said receptacle near the edges thereof, an inclined plate or shelf secured to the shaft, a crank at the end of the said shaft and a stop on the outside of said receptacle for limiting the movement of the crank, substantially as and for the purpose specified,

2nd. In a soap-holder, the combination with the receptacle, and the lugs secured to the interior thereof, of the rotatable shafts journaled to said receptacle near the edges thereof, the inclined plates or shelves, the cranks at the ends of said shafts and the stops on the outside of said receptacle for limiting the movement of the cranks, substantially as described. 3rd. In a soap-holder, the combination with the approximately U-shaped receptacle, the bottom thereof, the plate at the lower end of said receptacle, the lugs secured to the interior of said receptacle, and the stops secured to the exterior thereof, of the rotatable shafts, the perforated inclined plates or shelves secured thereto, and the cranks at the ends of the shafts, substantially as described.

**No. 62,152. Warp Yarn Clamp.** (*Fichoïr pour fils de chaîne.*)



Charles Dewick Lanning, Boston, Massachusetts, U.S.A., 27th December, 1898; 6 years. (Filed 28th February, 1898.)

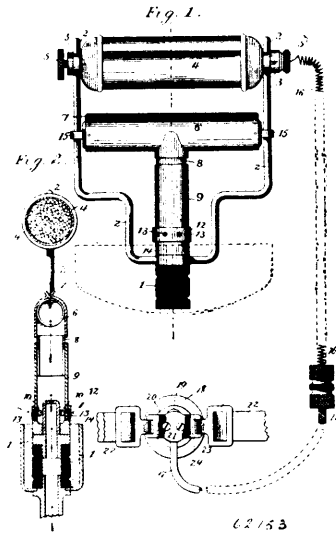
*Claim.*—A pair of clamps adapted to extend across a warp from side to side and to engage the warp threads on different lines across the same and to hold them clamped in the position in which they may happen to be when engaged by the clamps, said clamps being arranged at an appreciable distance apart, and means for connecting the ends of the clamps, combined with removable stretching links or devices attached to the clamps, whereby the portion of the wraps or warp threads between the clamps may be equally stretched or put under equal tension.

**No. 62,153. Apparatus for Utilizing Natural Energy.**  
(*Appareil pour utiliser l'énergie naturel.*)

Hercules Sanche, New York City, New York, U.S.A., 27th December, 1898; 6 years. (Filed 13th July, 1897.)

*Claim.*—1st. Placing a living organism in the attitude of a galvanic arrangement and in electrical relation to the plates of a galvanic pair together with any source of the lower or higher temperature or with any substance in an electrical state corresponding to the same by being its electro-negative or electro-positive through an electrical connection of the two without circuit by a moderate electrical conductor or inductor for the purpose of invigorating living organism or of preventing or curing disease in the same as described and set forth. 2nd. An electrical conductor of any length employed without forming a circuit with an enlarged electrical contact surface at each end one terminal suited in material and formed to apply contact with the organism under treatment and the other terminal adapted in material form and extent to a sufficient contact with any source of cold, heat or electrical condition, or with any gas, fluid, or chemical or other substance, which is electro-negative or electro-positive to the organism under treatment, substantially as described and for the purposes set forth. 3rd. In an apparatus for the treatment of diseases, the combination of a cylindrical shell, containing a series of metal rods or plates, packed therein, of a heating device, means of applying heat thereto, a cable connected therewith and having electrical conductivity, and a contact plate electrically connected to the cable and provided with means whereby it may be applied to any part of the human body, substantially as described. 4th. In an apparatus for the treatment of disease the combination with a cylindrical shell packed with metallic rods, or plates, of a heating device, consisting of a cylinder having a narrow slot, said cylinder being adjustable on a yoke frame which supports the cylindrical shell, a tube communicating with the adjustable shell and having an insulating tip adapted to screw upon the gas burner, said

tube having air openings and a collar provided with similar openings and adjustable circumferentially, whereby the air inlet may be



wholly or partly closed or opened, substantially as described. 5th. In an apparatus for the treatment of diseases, the combination with a cylindrical shell packed with metallic rods, or plates, of means substantially as described, for imparting heat to said shell, an insulating conducting cable connected to one end of said tube by an intermediate coil of conducting wire, separable from the cable, by means of duplex binding screws and caps, the end of the cable being inserted through the points of the screws and its stripped terminals let out beside the screw, and laid between the cap and the head of the screw and a contact plate having a head upon its back and a seat therein to receive the terminal of the cable which is fastened by a plate screwed down upon the head and binding the stripped wire terminals, substantially as described. 6th. In an apparatus of the character specified, a conducting cable connection at its separable points by a binding screw, having an axial opening through which the stripped wire of the cable is inserted by way of the point of the screw, and brought out beneath the head of the screw, and a cap loose upon the cable and having a female thread which receives the hollow screw and compresses the terminals against the head of the binding screw, substantially as described. 7th. In an apparatus for the treatment of diseases, the combination with a metallic shell filled with a substance, which is electro-positive relatively to the body under treatment, of a cable electrically connected to one end of said shell and to a local application plate, consisting of a metallic disc slightly concaved in one direction, and a strap by which said disc is secured to the ankle, or other part of the body, substantially as described. 8th. In an apparatus for the treatment of disease, the combination with a metallic shell containing a substance which is electro-negative relative to the body under treatment, said shell being electrically connected with the patient, of a clasp enclosing said shell and clamped thereon by means of a set-screw engaging lugs on said clasp of unequal length, the longer one being bent to form an eye, and a chain and weight attached to said eye, substantially as described. 9th. In an apparatus for the treatment of disease, the combination with a metallic cylindrical shell packed with an electro-negative material, such as fused sulphur, etc., of a cable electrically connected to both the shell and to the metallic disc, slightly concaved in one direction, and an elastic strap having a buckle, the side strap of which lies in a closed hook on one side of the disc and provided with a similar buckle, the side bar of which engages an open hook on the other side of the disc, substantially as described. 10th. In combination with an apparatus for the treatment of diseases, the coupling substantially as described for connecting two persons sleeping in one bed when one only is being operated upon. 11th. The process hereinbefore set forth for the establishment in a distant objective terminal of a dynamic potential of positive or negative character, said process consisting in subjecting the objective terminal to the gradual action of a dynamic field, or electrode, of proper potential, by means of one or more connectors without circuit, substantially as described. 12th. The process set forth for establishing in a distant objective terminal a dynamic potential of positive or negative character, said process consisting in acting gradually upon the objective by a dynamic fluid of energy or an electrode, connected by one or more filaments, or connectors, with the objective and insulating the latter to open the dynamic circuit, substantially as described. 13th. The process set forth the same consisting in connecting together two bodies, or masses, of matter, by means of one or more filaments, or connectors

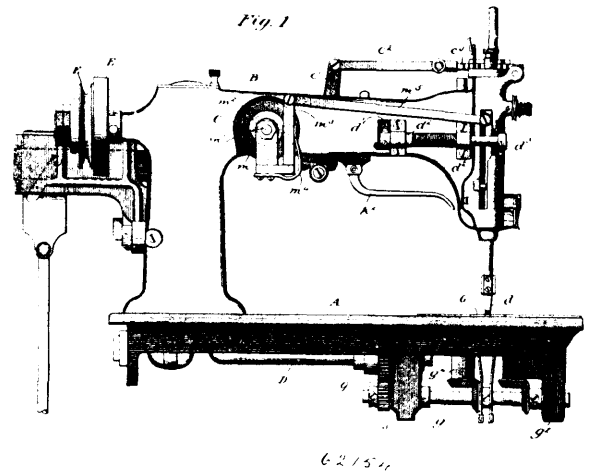
one of said bodies being a dynamic field, or electrode, isolating the other body, which constitutes the objective terminal, in such a manner as to open the dynamic circuit, and gradually establishing in said terminal a potential of the required character, substantially as described. 14. The process hereinbefore set forth, the same consisting in connecting two bodies of different potential energy, by one or more connectors without circuit, and transforming the type of potential in one body by the gradual action of the body of more intense potential, substantially as described. 15th. An apparatus for the utilization of thermo-electric and electro-static energy, consisting of an objective terminal of suitable surface area, a dynamic field, or electrode consisting of a body capable of receiving and responding to terminal influences, and one or more connecting filaments by which dynamic inter-communication may be carried on, substantially as described. 16th. The combination of a plate for a thermo-electric or electric-static battery composed of a sheet of some relatively thermo-electro-positive substance, a relatively thermo-electro-negative substance in the form of a connector, and again a thermo-electro-positive substance connected to the first by the connector, substantially as set forth. 17th. The combination of a plate electrode for a thermo-electric battery, a terminal mounted on a support where it is adapted to become in contact with the person, and one or more connectors without circuit, connected at one end to one of said parts and having their other exposed to contact with the other of said parts, substantially as described. 18th. the combination with a series of electrodes exposed individually to heating or cooling influences, of a switch-arm, connectors without circuit by which inductive communication may be had between said electrodes and the switch-arm, a series of contacts connected to said connectors, and a series of terminals, each connected to one of said connectors, substantially as described. 19th. The means of producing physiological, chemical and physical changes and effects in living organisms in the atmosphere, in chemical compounds and inanimate matter in any form, substantially as and for the purposes hereinbefore set forth, described and illustrated. 20th. A therapeutic apparatus, consisting of a connecting filament of porous or bibulous material, a weight at one end thereof and a pad of bibulous or absorbent material at its opposite end, the said weight and pad forming terminals to the filament, substantially as described. 21st. A therapeutic apparatus, consisting of a connecting filament of porous or bibulous material, a weight at one end thereof, and a pan of absorbent or bibulous material at its other end, the said weight and pad forming terminals to the filament, together with means for attaching one terminal to the body under treatment, substantially as described. 22nd. A therapeutic apparatus consisting of a filament of bibulous material, a weighted terminal at one end, and an absorbent or bibulous pad forming a terminal at the other end, a pair of plates between which the pad and filament end are placed and secured together and a tape or band applied to the absorbent pad to enable it to be attached to the body under treatment, substantially as described. 23rd. The combination with absorbent terminals of a fluid column forming a connection between said terminals substantially as described. 24th. The combination with suitable contact terminals of a bibulous or absorbent filament connecting said contact terminals and capable of being charged with moisture, or fluid, substantially as described. 25th. The combination with two contact terminals at a bibulous, or absorbent filament connecting the same and capable of being charged with a body of fluid and means for attaching one of said terminals to a body under treatment, substantially as described. 26th. The instrument for the cure of disease comprising a contact plate or member adapted to be attached to the body to be treated, a second plate or member adapted to be placed in or under the influence of a temperature higher or lower than the body to which the other plate is attached, or under the influence of matter which is electro-positive or electro-negative to the body having said other plate or member attached to it, and a flexible conducting or transmitting medium connecting said two plates or members, said medium being of a relatively small size to said plates or members and of a length sufficient to permit said two plates or members to be placed at such distances apart that the body having one plate or member attached thereto will be removed beyond the range of influence transmitted by direct radiation, conduction, or contact from said other plate or member, substantially as described. 27th. A flexible connector between human beings or living organisms and other matter which is at a lower or higher temperature, or in a different electro-static or magnetic state, for the purposes of treating disease or of invigorating, or of in any way changing the conditions of said human beings or living organisms, substantially as described. 28th. A flexible metallic, or fibrous, dry or wet connector between living organisms and other matter which is colder or warmer or in a different static condition than said living organisms for the purposes of invigoration or the cure of disease, substantially as described.

**No. 62,154. Sewing Machine.** (*Machine à coudre.*)

George Holliar Colley, Jackson, Michigan, U.S.A., 27th December, 1898; 6 years. (Filed 16th November, 1898.)

*Claim.*—1st. In combination with a single needle adapted to operate alternately with two shuttles or loopers, and means for actuating the same, of the two loopers, and mechanism for operating said loopers, each looper being provided with a rotary bobbin, and means for automatically re-winding the bobbin-thread so as to

adapt the loopers to take up the under thread, substantially as described. 2nd. A sewing machine having two loopers and mechan-



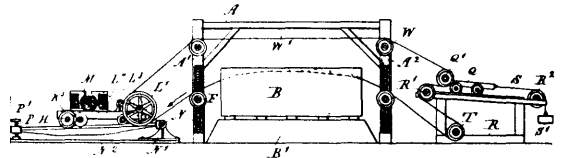
ism for driving the same, in combination with a single needle arranged for conjoint action with said loopers, means for causing the needle to operate with either looper independently of the other or with both in alteration informing successive stitches, and mechanism for actuating the needle, substantially as described. 3rd. A sewing-machine having a single needle and two loopers arranged for conjoint action, means for actuating the needle and simultaneously driving both loopers, means for automatically shifting the needle so that it shall operate first with one looper and then with the other in forming successive stitches, and means for automatically re-winding the bobbin threads so as to adapt the looper to take up the under thread, substantially as described. 4th. A sewing-machine having a single needle and a plurality of loopers, a main driving shaft adapted to impart a reciprocating movement to the needle-bar, a looper driving shaft for simultaneously driving the two loopers, mechanism actuated by said main shaft for imparting a partial rotation to the needle-bar when the needle is lifted, so as to adapt the needle to descend for operation first with one looper and then with the other, and means for causing the needle to operate at will with one looper only, substantially as described. 5th. In a sewing-machine for flossing, the combination with a single needle and means for imparting a reciprocating movement thereto, of means for moving the needle laterally each time it is lifted, a looper driving shaft, a plurality of loopers arranged to be driven by said shaft, and means for re-winding the bobbin-thread, substantially as described, whereby a single needle is adapted to operate alternately with a plurality of loopers and the unused thread paid out by the bobbins is automatically re-wound. 6th. In a sewing-machine, the combination with a reciprocating needle-bar and means for imparting motion thereto, a movable presser-foot, two loopers, means for imparting motion to said loopers, means for lifting the presser-foot when the needle is raised, and mechanism for imparting a vibratory movement to the needle-bar, so as to adapt the needle to operate alternately with the two loopers, and a clutch device for disengaging the needle-bar vibrating mechanism so as to adapt the needle to operate with one looper only, at the will of the operator, substantially as described. 7th. A sewing-machine shuttle comprising a body-portion having a rotary bobbin, and a spring arranged to yieldingly resist the rotation of said bobbin and to reverse its motion so as to re-wind the unused bobbin thread when the pull upon the latter is released, substantially as described. 8th. A sewing machine shuttle comprising a body-portion having a hook, a rotary bobbin, tensioning devices therefor, and a spring arranged to yieldingly resist the rotation of said bobbin and to reverse its motion so as to re-wind the unused bobbin-thread when the pull upon the latter is released, substantially as described. 9th. A sewing machine shuttle comprising a ring-shaped body-portion having a hook, a stationary plate fixed at one side of the said ring and having an arbor projecting centrally from its inner face, a rotary plate journaled on said arbor, a spring adapted to yieldingly resist the motion of said rotary plate, and to restore it to normal position when moved in opposition to the spring, a stop to limit the movement of the latter plate, a bobbin detachably journaled adjacent to said friction-plate and means for causing the bobbin and friction-plate to rotate together until the motion of the latter is stopped, and to permit independent movement thereafter of the bobbin opposed by the frictional resistance, whereby the required length of the thread may be paid out by the bobbin and the unused portion thereof automatically re-wound or taken up, substantially as described. 10th. A sewing machine shuttle comprising a ring-shaped body-portion having a hook, a stationary plate at one side of said ring, having an arbor projecting from its inner face, a rotatable friction-plate or disc journaled on said arbor within said ring, a bobbin encased in said ring arranged to rotate independently of said friction-plate but frictionally geared thereto, so as to rotate

herewith, and a spring arranged to resist the rotation of said bobbin and disc and to hold the disc normally in a fixed position relatively to the hook and to reverse the motion of the disc so as to return the same with the bobbin to normal position, when moved against the force of the spring, said frictional gearing being adapted to cause the bobbin and disc to move together and to permit independent movement of the bobbin when friction is overcome, substantially as described. 11th. A shuttle comprising a ring shaped body-portion having a hook and a stationary plate at one side of said ring having an arbor projecting from its inner side a disc journaled on said arbor, a spring adapted to yieldingly oppose the rotation of the disc and to restore it to normal position when moved against the opposing force of the spring, a friction-ring journaled on the hub of said disc, means for maintaining the proper frictional resistance between said friction-ring and disc to regulate the tension of the thread, means for securing the rotating disc and friction-ring on said arbor, a bobbin locked to said friction-ring so as to rotate therewith, and a stop for limiting the rotary movement of the disc, whereby the bobbin, friction-ring and the disc are adapted to rotate together until the motion of the disc is stopped, whereupon the bobbin and friction-ring may rotate together independently of the disc when the frictional resistance is overcome, so as to adapt the bobbin to automatically re-wind or take up slack or unused thread, substantially as described. 12th. The combination with the rotary hook having the bobbin and the friction-plate journaled within the ring-shaped body-portion thereof, means for regulating the tension of the bobbin-thread, a spring adapted by its recoil to reverse the motion of the bobbin when the thread is released, and means for limiting the rotary movement of the friction-plate while permitting independent rotary movement of the bobbin when the frictional resistance opposing its motion is overcome, substantially as described. 13th. In a sewing machine, the combination with two loopers and mechanism for operating the same, of a needle-bar provided with a single needle, means for vertically reciprocating said bar, mechanism for imparting a partial rotation to the needle-bar when the needle is lifted so as to adapt the needle to descend for operation first with one looper and then with the other, a presser-foot, and means for raising and lowering said foot, together with mechanism for imparting a vibratory movement to the presser-foot while the latter is raised so as to correspond to the vibratory or rotary movement of the needle, substantially as described. 14th. A sewing machine having a single needle and two loopers, means for actuating the needle and loopers and means for automatically shifting the needle so that it shall operate alternately with the two loopers, a presser-foot and means for raising and lowering said foot, mechanism for imparting a vibratory movement to the presser-foot while the latter is raised, and means for causing the needle and presser-foot to operate at will with one looper only, substantially as described. 15th. A sewing machine having two loopers and a needle-bar provided with a single needle, a driving-shaft for actuating said bar, means connected to the driving-shaft for actuating the loopers, mechanism for imparting a partial rotation to the needle-bar when the needle is lifted so as to adapt the needle to descend for operation first with one looper and then with the other, a presser-foot and means for raising and lowering said foot, mechanism for imparting a vibratory movement to the presser-foot while the latter is raised, together with a clutch device for simultaneously throwing the needle-bar and presser-foot vibrating mechanisms into or out of gear with the driving-shaft so that said needle-bar and presser-foot may operate alternately with the two loopers or with one looper only, substantially as described. 16th. A sewing machine looper, comprising a casing having a loop-engaging end or point, a stationary bobbin-casing arranged to said looper casing so as to permit the latter to revolve around said bobbin casing, a rotary bobbin arranged in the bobbin-casing, and a spring arranged to yieldingly resist the rotation of said bobbin and to reverse its motion so as to re-wind the unused bobbin-thread when the pull upon the latter is released, substantially as described. 17th. A sewing machine looper, comprising a casing having a loop-engaging end or point, a bobbin-casing arranged in the looper casing and provided with a lip or projection adapted to engage a portion of the machine so as to permit the looper casing to revolve around said bobbin-casing, and a rotary bobbin arranged in the latter casing, said casing being provided with a spindle or arbor projecting from the lower face thereof, a disc journaled on said arbor, tension devices arranged in the arbor in engagement with the disc and bobbin, and a spring adapted to yieldingly oppose the rotation of the disc and to restore it to its normal position when moved against the opposing force of the spring, substantially as described. 18th. A sewing machine looper comprising a casing, a rotary bobbin, means adapted to engage the needle thread, a spring arranged to yieldingly resist the rotation of said bobbin and to reverse its motion so as to re-wind the unused bobbin-thread when the pull upon the latter is released, and means for adjusting the tension of said spring, substantially as described. 19th. A sewing

machine looper comprising a casing, means adapted to engage the needle-thread, an arbor independent of the casing, a rotatable disc, a rotary bobbin, tensioning devices therefor, a spring having one end secured to the arbor and its other end to the rotatable disc, so as to yieldingly resist the rotation of said disc and to reverse its motion when the pull upon the bobbin thread is released, and means for adjustably securing the arbor to the casing to permit the tension on said spring to be varied, substantially as described. 21st. A sewing machine looper comprising a casing having a loop engaging end or point, a bobbin-casing arranged in said looper-casing so as to permit the latter to revolve around said bobbin-casing, an arbor independent of the bobbin-casing, a rotatable disc arranged on the arbor, a rotary bobbin arranged on said disc, tensioning devices therefor, a spring having one end secured to the arbor and its other end to the rotatable disc so as to yieldingly resist the rotation of said disc and to reverse its motion so as to re-wind the unused bobbin thread when the pull upon the latter is released, means for permitting the rotary adjustment of the arbor, and a screw for holding the arbor and bobbin-casing together, substantially as described.

#### No. 62,155. Stone Sawing Machine.

(Machine à scier la pierre.)



Frank Knobel, Bedford, Indiana, U.S.A., 27th December, 1898; 6 years. (Filed 28th November, 1898.)

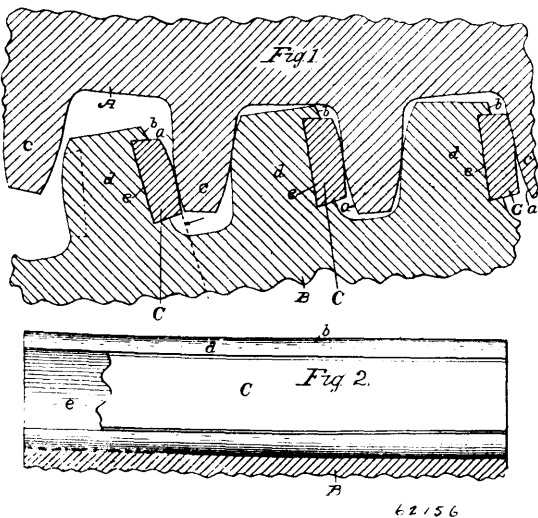
*Claim.*—1st. In a stone-sawing machine, the combination with an endless cutting-cable and sheaves regulating the path of said cable of a driving and automatic tension device for the cable, comprising in combination, an inclined track, a truck thereon carrying a journal-aid driving pulley over which the cable passes, and a motor upon the truck and connected with said driving pulley, substantially as and for the purpose set forth. 2nd. In a stone sawing machine, the combination with an endless cutting cable, and sheaves regulating the path of said cable, of an automatic tensioning device, comprising a track, a gravity-moved truck moved thereon, a pulley journaled in the truck frame about which the cable passes, a rack attached to the track, a pinion engaging therewith carried by a shaft journaled in the truck-frame, and a ratchet and pawl controlling said pinion operating to permit movement of the truck to take up the slack in the cutting cable, but to prevent a return of the truck under an added strain upon the cable, substantially as and for the purpose set forth. 3rd. In a stone-sawing machine, the combination with the main frame, endless cutting-cables, and sheaves directing the path of said cables, of driving and tensioning means for the cables, comprising, in combination, an inclined track at one side of the frame, a movable truck mounted thereon, driving pulleys journaled in the truck-frame about which said cable pass, a motor on the truck connected with said pulleys, and supplementary tensioning devices at the opposite side of the main frame comprising gravity-operated trucks, one for each cutting cable, and each carrying a pulley about which the cable passes, substantially as and for the purpose set forth. 4th. In a stone-sawing machine, the combination with two endless cutting-cables and a motor for driving the same, of supporting posts A<sup>1</sup> and A<sup>2</sup> located between said cables at some distance apart, two laterally-projecting brackets on each of said posts, and extending longitudinally thereof, movable slides upon said brackets, and supporting sheaves for the cables journaled in the slides, substantially as and for the purpose set forth. 5th. In a stone-sawing machine, the combination with two endless cutting cables and a motor for driving the cables, of supporting-posts A<sup>1</sup> and A<sup>2</sup> located between said cables at some distance apart, two laterally-projecting longitudinally-extending brackets C on each of said posts provided with flanges C<sup>1</sup> and on their outer faces with racks C<sup>2</sup>, slides D engaging said flanges pinions G journaled in the slides and engaging the racks, shafts E carried by the slides, guide-sheaves F upon said shafts, and means for adjusting said sheaves laterally for proper alignments substantially as and for the purpose set forth.

#### No. 62,156. Gear Teeth. (Dent d'engrenage.)

William Gleason, Rochester, New York, U.S.A., 27th December, 1898; 6 years. (Filed 4th November, 1898.)

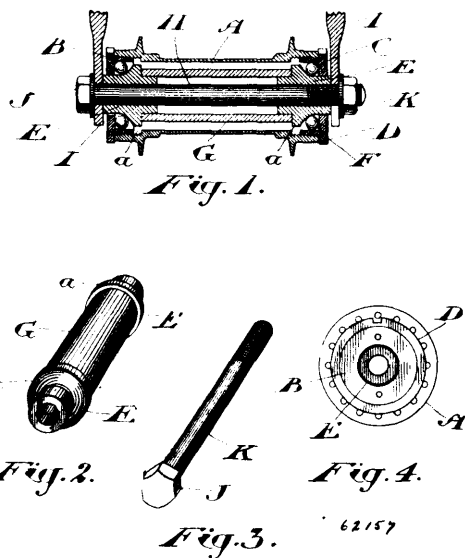
*Claim.*—1st. A gear-tooth, having a longitudinal tapered groove formed in its face, dovetailed in cross-section, and a body of different material in the groove trapezoidal in cross-section and projecting above the face of the tooth, substantially as shown and described. 2nd. A gear-tooth formed with a longitudinal tapered groove in its face, broadest at the bottom, and a bar inserted in the groove out of contact with the face of the tooth and projecting therefrom, having its projecting face curved to the form of a gear-tooth, substantially as specified. 3rd. A thickened gear-tooth, having a tapered groove in one side and a tapered bar or body in said groove

in combination with a holder for said bar or body, secured to the gear-tooth, substantially as shown. 4th. A gear having teeth



formed with longitudinal grooves in their working faces, and bars of material different from the gear inserted in said groove to co-act with the teeth of a companion gear, substantially as specified.

No. 62,157. Bicycle Bearing. (Coussinet de bicyclet.)



Alfred William Waters, Toronto, Ontario, Canada, 27th December, 1898; 6 years. (Filed 19th October, 1898.)

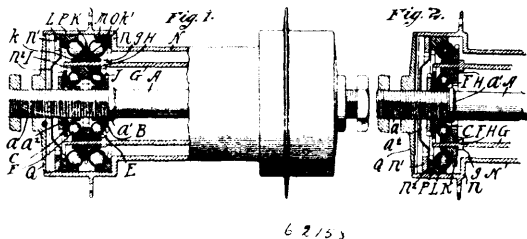
Claim.—1st. In a bearing, a hub having cups secured therein in combination with cones forming with the cups the races for two sets of balls, a sleeve connecting the said cones, and an axle passing through the said cones and sleeve, substantially as and for the purpose specified. 2nd. In a bearing, a hub having cups secured therein in combination with cones forming with the cups the races for two sets of balls and extending outwardly beyond the cups, a sleeve connecting the said cones, an axle passing through the said cones and sleeve, the forks of a bicycle frame embracing the said axle, and means upon the axle for clamping the said forks against the ends of the cones, substantially as and for the purpose specified.

No. 62,158. Ball Bearings. (Coussinet a boules.)

John Peter Thomas, Chicago, Illinois, U.S.A., 27th December, 1898; 6 years. (Filed 15th November, 1898.)

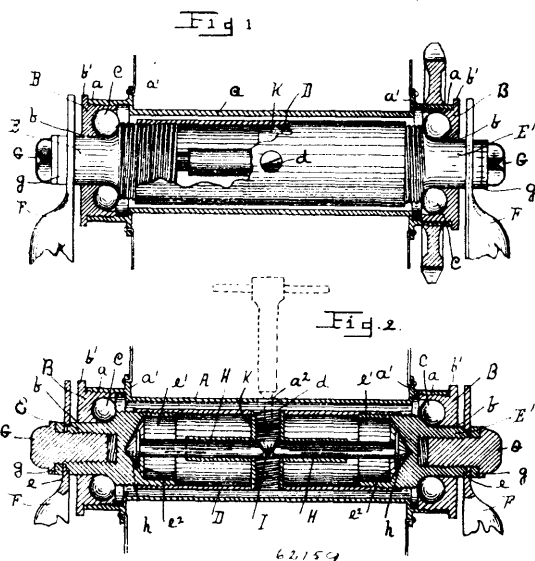
Claim.—1st. The combination with a shaft or axle, of an integral inner cylinder surrounding said axle, an outer cylinder surrounding the inner cylinder and axle, said cylinders extending the length of the bearing and said three parts being concentric and having independent relative motion, divided bearings interposed between said three parts at each end of said axle, and provided with grooves form-

ing raceways arranged in parallel planes perpendicular to the axis of revolution at each end of the bearing, and balls arranged in said



grooves, substantially as described. 2nd. The combination with a shaft or axle, of an integral inner cylinder surrounding said axle, an outer cylinder surrounding the inner cylinder and axle, said cylinders extending the length of the bearing and said three parts being concentric and having independent relative motion, divided bearings interposed between said three parts at each end of said axle, and provided with grooves forming raceways arranged in two parallel planes perpendicular to the axis of revolution at each end of the bearing, balls arranged in said grooves, and caps applied to the axle and closing the ends of the outer cylinder, substantially as described.

No. 62,159. Ball Bearing Mechanism. (Mecanisme de coussinet a boules.)



Otto H. Collmer, South Bend, Indiana, U.S.A., 27th December, 1898; 6 years. (Filed 19th October, 1898.)

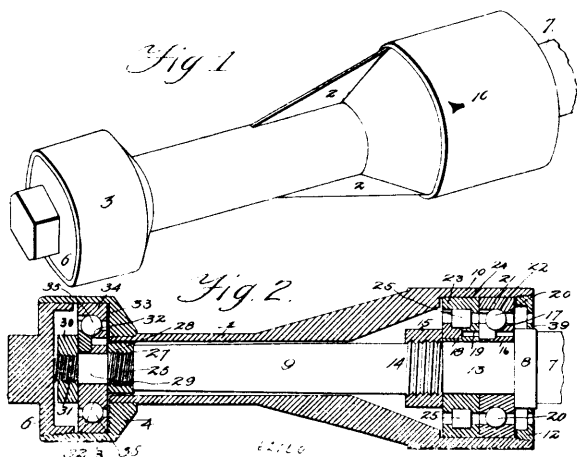
Claim.—1st. A ball bearing axle comprising a sleeve having threads at its opposite ends, bearings correspondingly threaded to fit said sleeve, said bearings being adjustable toward or from each other by the rotation of the sleeve and non-rotatably secured to the frame of the vehicle, and means located within the said axle sleeve for locking both the bearings conjointly therein, substantially as described. 2nd. A hub sleeve having screw-threaded ends and an intermediate pin aperture therein, cup bearings to fit said ends, an axle sleeve threaded at its ends and having a correspondingly intermediate aperture therein, cone bearings to fit the ends of the axle sleeve having cup shaped inner ends, a centrally supported guide tube inside the axle sleeve and outwardly adjustable bolts fitted therein and provided with end bearings to fit the cup shaped inner ends of the cone bearings, and means for adjusting and locking said bolts from the outside of the axle sleeve, substantially as described. 3rd. A hub sleeve having a pin aperture therein and cup bearings fitted upon the ends of said sleeve, an axle sleeve having a pin aperture therein and a threaded central abutment communicating with said pin aperture, cone bearings adjustably fitted in the ends of the axle sleeve and having bearings at their inner ends, bolts supported upon the central abutment and a screw actuated wedge fitted in the central abutment to move the bolts and lock the axle sleeve in the cone bearings, substantially as described.

No. 62,160. Ball Bearing Axle for Vehicles. (Essieu de coussinet a boules pour voitures.)

Burt Lorenzo Rees, Columbus, Ohio, U.S.A., 27th December, 1898; 6 years. (Filed 17th October, 1898.)

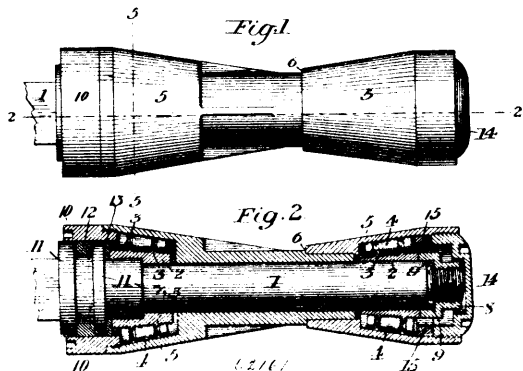
Claim.—1st. In a ball-bearing axle, the boxing 1 and the hood 3 removably secured thereto, in combination with the axle 7 formed

with the integral collar 8, hub section 13, threaded section 14, and spindle 9 formed with the shoulder 27, reduced threaded sections



26, 31 and intermediate plain section the threaded collars 15, 23 and 31, and the ball-bearing cages removably secured thereon, substantially as shown and described. 2nd. The combination with the boxing 1 and the axle spindle 7, 9, of the ball-bearing cages removably secured thereon, and consisting of an inner ring formed with a ball-race, a series of bearing balls, and an encompassing ring formed with an inner annular ball-race, substantially as shown and described. 3rd. In a ball-bearing axle, a ball bearing cage comprising the annular ring 16 formed with an external ball-race 17, a lateral recess 37 communicating therewith and a corresponding plug 39 removably secured in said recess, in combination with an annular series of bearing-balls 20, 20, and an encompassing ring 21 formed with an internal ball-race 22 and a lateral communicating recess 36, substantially as shown and described.

No. 62,161. Roller Bearing. (Cousinet à rouleur.)



Henry Timken and Reginald Heizelman, both of St. Louis Missouri, U.S.A., 27th December, 1898; 6 years. (Filed 30th September, 1898.)

Claim. 1st. A bearing comprising a sleeve fitting on the axle and movably longitudinally thereon and having an annular rib, rollers around said sleeve provided with a groove fitting over said rib, and a box fitting over said rollers, and means for adjusting said sleeve whereby all of said rollers may be advanced and retracted evenly and in operation are without friction on their ends, substantially as and for the purpose set forth. 2nd. A bearing comprising a sleeve fitting on the axle and movable longitudinally thereon and having annular said sleeve provided with grooves fitting over said ribs, and a box fitting over said rollers, and means for adjusting said sleeve whereby all of said rollers may be advanced and retracted evenly and in operation are without friction on their ends, substantially as and for the purpose set forth. 3rd. A bearing comprising a sleeve fitting on the axle and movable longitudinally thereon and having an annular rib or ribs, rollers around said sleeve provided with a groove or grooves fitting over said rib or ribs, and a box fitting over said rollers, said axle having its end reduced and threaded, and a nut on said threaded end having enlarged annular projection adapted to bear against said sleeve, and thin washers intervening between said nut and the shoulder of said axle, whereby all of said rollers may be advanced and retracted evenly and in operation are without friction on their ends, substantially as and for the purpose set forth. 4th. A bearing comprising a bearing-cone, conical rollers thereon and a conical box fitting over said rollers, each of said rollers having a plurality of

grooves, and ribs on one of the bearing-surfaces to co-operate therewith, substantially as and for the purpose set forth. 5th. A vehicle-bearing comprising a conical shell fitting on the axle, conical rollers on said shell and a conical box fixed to the hub of the wheel and bearing on said rollers, said shell having a plurality of annular ribs and said rollers each having a plurality of grooves to co-operate therewith, substantially as and for the purpose set forth. 6th. A vehicle-bearing comprising two conical shells fitting on the axle and tapering toward each other, conical rollers around said shells, and conical boxes in the hub of the wheel and fitting around said rollers, each of said rollers having a plurality of grooves therein and one of said bearing-surfaces having ribs projecting into said grooves, substantially as and for the purpose set forth. 7th. A vehicle-bearing comprising two relatively-adjustable conical shells fitting on the axle and tapering toward each other, conical rollers around said shells, and conical boxes in the hub of the wheel and fitting around said rollers, said shells having one or more annular ribs and said rollers having grooves to receive said ribs, whereby all of said rollers may be advanced and retracted evenly and in operation are free from friction on their ends, substantially as and for the purpose set forth. 8th. A vehicle-bearing comprising two conical shells fitting on the axle and tapering toward each other, conical rollers around said shells, and conical boxes in the hub of the wheel and fitting around said rollers, said shell having a plurality of annular ribs and said rollers having grooves adapted to receive said ribs, and means for adjusting said shells simultaneously, substantially as and for the purpose set forth. 9th. A vehicle-bearing comprising two conical shells longitudinally movable on the axle and tapering toward each other, rollers around said shells, said shells being each provided with a rib or ribs and said rollers being each provided with a groove or grooves to co-operate with the corresponding rib or ribs, and conical boxes fixed to the hub of the wheel, said axle having a shoulder against which one of said shells abuts and having a threaded end and a nut thereon, said nut being arranged to bear against the other shell, whereby, when said nut is tightened, all of said rollers may be advanced evenly and in operation are free from friction on their ends, substantially as and for the purpose set forth. 10th. A bearing comprising an inner bearing-piece and an outer bearing-piece and rollers fitting between the bearing-surfaces thereof, one of said pieces having one or more annular ribs thereon and one of said pieces having reversely-turned parts at its ends constituting grooves at said ends, and said rollers having narrow projections at their ends adapted to enter said grooves, substantially as and for the purpose set forth. 11th. A bearing comprising an inner bearing-piece and an outer bearing-piece and rollers between the same, one of said pieces having reversely-turned end portions fixed thereon or integral therewith constituting grooves, one of said end portions being notched and said rollers having projecting end portions in said grooves, substantially as and for the purpose set forth. 12th. A bearing comprising a conical sleeve with a rib or ribs thereon and having its ends enlarged and provided with grooves in their inner sides, conical rollers bearing on said sleeve and having grooves corresponding with said ribs and having narrow projections at their ends extending into said side grooves, substantially as and for the purpose set forth. 13th. A bearing comprising a conical sleeve having its ends enlarged and provided with annular grooves and a notch in the backturned portion thereof, and conical rollers around said sleeve having projections at their ends within said grooves, substantially as and for the purpose set forth. 14th. A bearing comprising a conical sleeve having its ends enlarged and provided with annular grooves therein, conical rollers around said sleeve having projections at their ends within said grooves, a box around said rollers, said sleeve having raised annular surfaces, and smaller conical rollers arranged alternately with the first-mentioned rollers and upon said raised surfaces and clear of the main bearing-surfaces of the box and the sleeve, substantially as and for the purpose set forth. 15th. A bearing comprising a conical sleeve, a box and grooved conical rollers between the same, said sleeve having an annular rib or ribs co-operating with the grooves of the rollers and having grooves formed at its ends for projections at the ends of said rollers, and having raised annular surfaces in said grooves and smaller conical rollers bearing on said raised surfaces and arranged alternately with said first-mentioned rollers and clear of the box and the main bearing-surface of the sleeve, substantially as and for the purpose set forth.

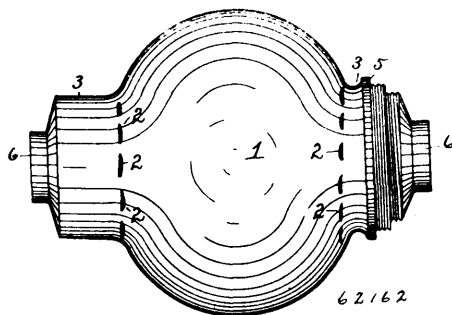
No. 62,162. Bicycle Wheel, Hub and Bearing.

(Moyen et coussinet de roue de bicyclets.)

Patrick Luke Hussey, Dayton, Ohio, U.S.A., 27th December, 1898; 6 years. (Filed 22nd September, 1898.)

Claim. 1st. A hub for a bicycle wheel, having its body made in a spherical form terminating in reduced ends, and having openings in the rounded portion for the attachment of the spokes. 2nd. In a ball bearing for the wheels, the combination of an inner cone, of an outer cone having an integral ball-retaining flange on its inner end, and a detachable ball-retainer on its outer bearing face, the said detachable retainer consisting of a ring of resilient material which is flat throughout its length and has its adjacent ends notched and beveled on their outer surface. 3rd. In a ball-bearing for wheels, the combination of an inner ball cone provided with a conical shape ball-retaining flange on its inner end, and an outer flat

ball bearing surface surrounded by an annular shoulder, a detachable ball-retainer on said shoulder, the said ball-retainer being flat



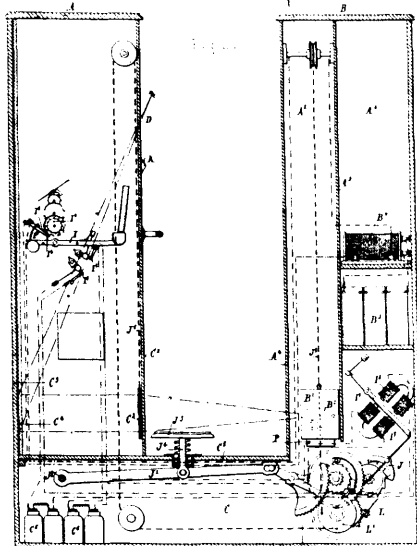
throughout its length, and of resilient material with its adjacent ends notched and beveled as described, so that the balls may be inserted in the cone when the said retainer is in position thereon.

No. 62,163. Process of freeing Drinking Water from Germs. (Procédé pour débarrasser l'eau de germes.)

Dr. Wilhelm Schumburg, Kantstrasse 60, Charlottenburg, Germany 27th December, 1898; 6 years. (Filed 30th September, 1898.)

Claim.—1st. Process for rendering drinking water free from germs characterized by the addition to the water of bromine in the proportion of about .06—12 grammes per litre of water, in order to kill by the said bromine any bacteria contained in the water, and the subsequent addition of ammonia (or other suitable alkalis or alkaline salt mixtures) in such a quantity as will be necessary to absorb all the bromine contained in the water, for the purpose of again rendering the bromine nondeleterious and unnoticeable. 2nd. Process for rendering drinking water free from germs characterized by the addition to the water of bromine in the form of a solution consisting of 2 parts of bromine, 2 parts of bromide of potash and 10 parts of water in order to kill by the said bromine any bacteria contained in the water, and the subsequent addition of ammonia in a 9 per cent solution for the purpose of again rendering the bromine nondeleterious and unnoticeable, of which both solutions an equal quantity (.2—4 cubic-centimetres per litre of water) is employed.

No. 62,164. Radioscope. (Radioscope.)



Jacques Wertheimer, Paris, France, 27th December, 1898; 6 years (Filed 22nd November, 1897.)

Claim.—1st. In apparatus for making observations by means of Roentgen rays, comprising two vertical casings, between which the object to be examined is placed, one of said casings containing a vertically movable vacuum bulb and the other casing containing a correspondingly movable fluorescent screen and a mirror and an observation window or eye-hole, in combination with mechanism for moving said bulb and screens, substantially as described. 2nd. In apparatus for making observations by means of Roentgen rays, comprising two vertical casings, between which the object to be examined is placed, one of said casings containing a vertical movable vacuum bulb and the other casing containing a correspondingly

movable fluorescent screen and a correspondingly movable mirror and observation window or eye-holes, in combination with mechanism for moving said bulb, screen and mirror, substantially as described. 3rd. In apparatus of the character described, in which the mechanism for lighting and extinguishing the bulb, and the vertical movement of the bulb and screen, is effected automatically by the insertion of a coin, substantially as described. 4th. In apparatus of the character described, in which the time during which the apparatus remains in operation is regulated by means of escapement mechanism, substantially as described. 5th. In apparatus of the character described, comprising a casing A provided with a vertically movable fluorescent screen C<sup>2</sup> and mirror C<sup>4</sup>, a casing B provided with a vertically movable vacuum bulb B<sup>2</sup>, a central platform J<sup>3</sup> provided with a spring-controlled raised part J<sup>2</sup> hinged to a pivoted lever J<sup>1</sup> connected to a series of wheels for operating the drums carrying the cords for effecting the vertical movement of the bulb and screen, substantially as described. 6th. In apparatus of the character described, comprising a casing A provided with a vertically movable fluorescent screen C<sup>2</sup> and mirror C<sup>4</sup>, a casing B provided with a vertically movable vacuum bulb B<sup>2</sup>, a central platform J<sup>3</sup> provided with a spring-controlled raised part J<sup>2</sup> hinged to a pivoted lever J<sup>1</sup> connected to a series of wheels for operating the drums carrying the cords for effecting the vertical movement of the bulb and screen, in combination with electrical means for controlling the duration of the movement of the parts, substantially as described.

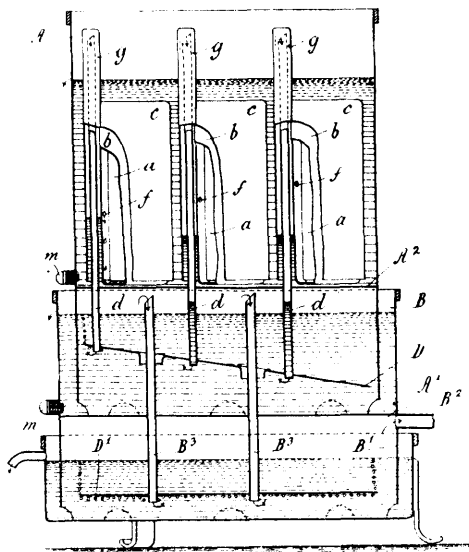
No. 62,165. Paint. (Peinture.)

Hugh Weir Aird and Charles Edgar Felch, both of Montreal, Quebec, Canada, 27th December, 1898; 6 years. (Filed 17th July, 1896.)

Claim.—1st. A paint consisting of graphite and feldspar, oil, gum and turpentine compounded together. 2nd. A paint consisting of powdered graphite and feldspar, raw linseed oil, turpentine, litharge, manganese oxide and gum compounded together, substantially in the proportions specified. 3rd. The improved method of applying paint, composed of graphite and japan, which consists in first applying the paint, then dusting powdered graphite over such paint before dry, and finally rubbing same, for the purpose set forth. 4th. A paint consisting of a liquid vehicle composed of linseed oil, spirits of turpentine, litharge, manganese oxide, and kauri copal gum, to which has been added Canadian graphite in the proportions specified, for the purpose set forth.

No. 62,166. Acetylene Gas Generator. (Générateur de gaz acétylène.)

(Générateur de gaz acétylène.)



Ernest Heinrich Julius Schulke, Berlin, Germany, 27th December, 1898; 6 years. (Filed 4th June, 1898.)

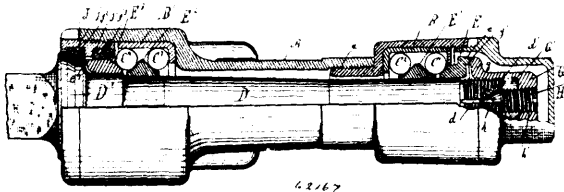
Claim.—1st. An improved acetylene gas generator, comprising the common receptacle, the carbide holders and generators contained therein, the gas delivery pipes, one single water trap for all of the pipes employed for washing and cleaning the acetylene gas, substantially as and for the purpose set forth. 2nd. In an improved acetylene gas generator, in combination the receptacle, the carbide holders and generators contained therein, the gas delivery pipe, one single water trap for all, the plates or walls B B<sup>1</sup> to direct the acetylene gas bubbles through the liquid forming a trap for all pipes, as and for the purpose specified. 3rd. In an improved acetylene gas generator, in combination the generators and carbide



holders, and the inlet openings *f*, of the generators *a* arranged successively step-wise at different heights, according to period of use, substantially as described. 4th. In an improved acetylene gas generator, the arrangement of the delivery tubes *d*, of the generators with progressive different depths of immersion in the water trap, substantially as and for the purpose specified.

**No. 62,167. Anti-friction Bearing.**

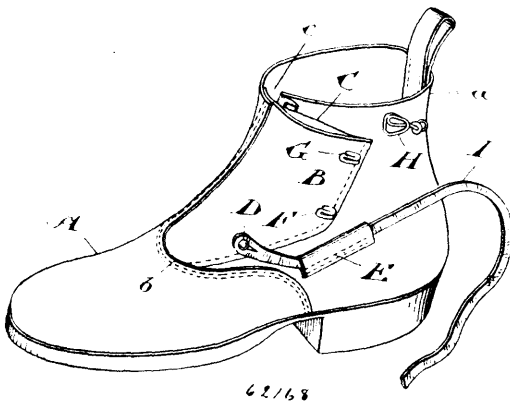
(*Coussinet de tourillon sans friction.*)



Walter Charles Baker, Cleveland, Ohio, U.S.A., 27th December, 1898; 6 years. (Filed 25th August, 1898.)

*Claim.*—1st. In an anti-friction bearing, the combination with an axle or spindle having a slit at its end, adjustable bearing cones, anti-friction balls, and an outer casing, of an adjusting nut threaded to engage the threaded end of the axle or spindle, and having a flange bearing against one of the cones, and a head internally recessed, and provided with a central threaded opening, and a screw passing through the opening in the head of the nut, and provided at its inner end with a wedge adapted to enter the slit in the spindle. 2nd. In an anti-friction bearing, the combination with an axle or spindle having a slit and a conical recess at its end, adjustable bearing cones, anti-friction balls, and an outer casing, of an adjustable nut threaded to engage the threaded end of the spindle, and having an annular flange bearing against the adjacent bearing cone and a head internally recessed, and provided with a central threaded opening, and a screw passing through the opening in the head of the nut and provided at its inner end with a wedge fitting the conical recess in the end of the spindle. 3rd. In an anti-friction bearing, the combination with the spindle threaded at its outer end, and slitted and recessed, of adjustable cones and anti-friction balls, an adjusting nut provided with an annular flange bearing against the outer cone, and having an internally recessed head, provided with an internally threaded opening, and a screw engaging the threads of the threaded opening and having a wedge at its inner end entering the recess at the end of the spindle, said wedge-screw being adjustable and movable independently of the nut.

**No. 62,168. Boot.** (*Chaussure.*)

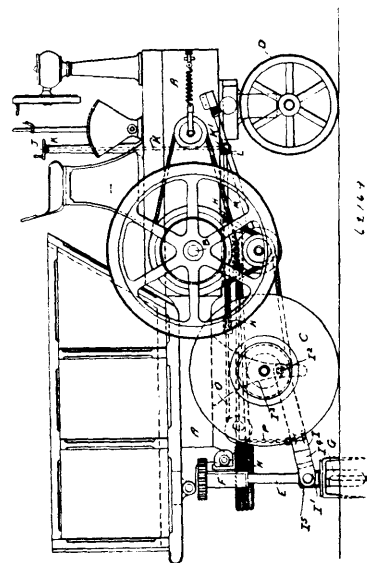


George Leonard Williams, Brampton, Ontario, Canada, 27th December, 1898; 6 years. (Filed 9th December, 1898.)

*Claim.*—1st. In a boot an upper made in two pieces and divided down the front, in combination with an overlap or flap connected at one edge to one edge of the opening, and a bellows tongue connecting the outer edge of the flap with the other edge of the opening, substantially as and for the purpose specified. 2nd. In a boot an upper divided down the front, in combination with an overlap or flap connected at one edge to one edge of the opening, a bellows tongue connecting the outer edge of the flap with the outer edge of the opening, a lace, a hook or stud at or near the bottom of the flap by which one end of the lace is held, an elongated loop secured to the upper substantially parallel to the lower edge of the flap, one or more hooks or eyes upon the upper part of the flap, and a jamb fastener upon the upper opposite the upper hook or eye, the lace being passed through the loop, around the hooks and caught in the fastener, substantially as and for the purpose specified. 3rd. In a boot an upper made in two pieces divided down the front, in combination with an overlap or flap connected at one edge to one edge of the opening, a lace, a hook or stud at or near the bottom of the

flap by which one end of the lace is held, an elongated loop secured to the upper, substantially parallel to the lower edge of the flap, one or more hooks or eyes upon the upper part of the flap, and a jamb fastener upon the upper opposite the upper hook or eye, the lace being passed through the loop around the hooks and caught in the fastener, substantially as and for the purpose specified. 4th. In a boot an upper divided down the front, in combination with an overlap or flap connected at one edge of the opening, a lace connected at one end to the lower portion of the flap, an elongated loop secured to the upper in proximity to the lower portion of the flap, a series of eyelets at the edge of the flap, and a series of hooks connected to the upper at points between the aforesaid eyes, substantially as and for the purpose specified. 5th. In a boot an upper divided down the front, in combination with an overlap or flap connected at one end to one edge of the opening, a lace connected at one end to the lower portion of the flap, an elongated loop secured to the upper in proximity to the lower portion of the flap, a series of eyelets at the edge of the flap, a series of hooks connected to the upper at points between the aforesaid eyes, and a jamb fastener connected to the upper at or near its top, substantially as and for the purpose specified. 6th. In a boot an upper divided down the front, one side being formed of two parts joined at one side, in combination with an overlap or flap connected at one edge to one edge of the opening, a lace connected at one end to the lower portion of the flap, an elongated loop formed from a flap integral with one of said side parts of the upper and located in proximity to the lower portion of the flap, a series of eyelets at the edge of the flap, and a series of hooks connected to the upper at points between the aforesaid eyes, substantially as and for the purpose specified. 7th. In a boot an upper divided vertically, one edge of the opening being provided with a series of eyes, and the other with a series of hooks, substantially as and for the purpose specified.

**No. 62,169. Rotary Cultivator.** (*Cultivateur rotatoire.*)



John Scott, Northfield, Duddingston, Midlothian, Scotland, 27th December, 1898; 6 years. (Filed 9th December, 1898.)

*Claim.*—1st. A rotary cultivator composed of a wheeled carriage framing having a motor built therein and arranged to drive the carriage, the said framing being fitted with a rotary vertical spindle or spindles movable vertically driven by the motor and having secured to the lower end thereof, a cutter or cutters adapted to enter and turn over the soil, substantially as described. 2nd. In a rotary cultivator, a cutter composed of a socket, stud, cross-bar or face plate attached to a rotary vertical spindle and having downwardly projecting blades with sharp cutting edges, substantially as described.

**No. 62,170. Garment Shaping Device.**

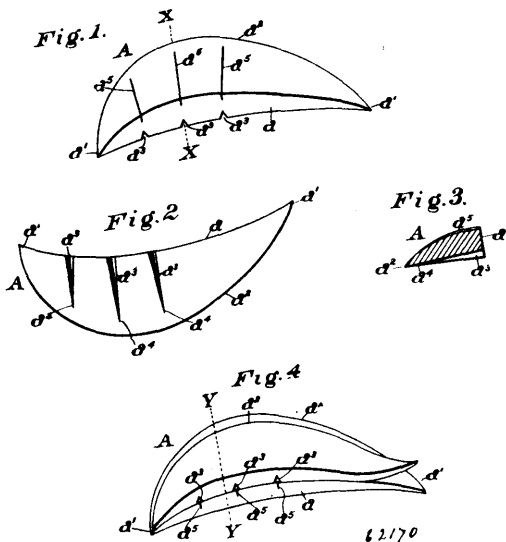
(*Appareil à tailler les vêtements.*)

Gustav Goldman, Baltimore, Maryland, U.S.A., 27th December, 1898; 6 years. (Filed 17th December, 1898.)

*Claim.*—A new article of manufacture for shaping shoulders of garments consisting of a pad, having a lower arched margin and an upper curvilinear margin, each terminating and meeting at opposite ends, one surface of the pad having a series of openings, triangular in cross-section extending upwardly from the lower arched margin

and tapering to a common point, the other surface provided with a series of right line cuts extending upwardly from the lower arched

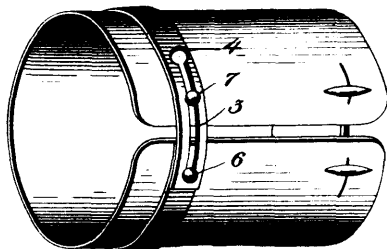
inclined backwardly, at an angle to said horizontal arm and the extremities bent into coils embracing the bolt and confined between



62170

edge a required distance in direction towards the outer margin, substantially as set forth.

No. 62,171. Cuff Holder. (Porte-poignets.)



62171

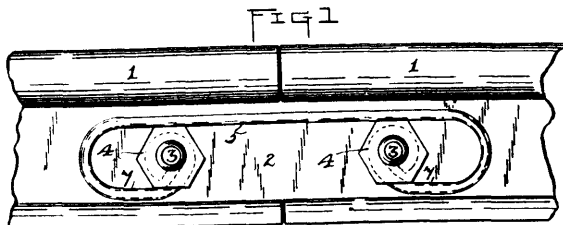
James McBride, Kingston, Ontario, Canada, 27th December, 1898; 6 years. (Filed 7th December, 1898.)

Claim.—1st. A cuff holder comprising a band removably connected to and encircling the cuff. 2nd. A cuff holder comprising a band removably connected to and encircling the cuff, said band having a retaining point or hook. 3rd. A cuff holder comprising a band having its end portions arranged to receive a button, the connection between said end portions being automatically adjustable, said band being removably connected to and encircling the cuff. 4th. A cuff holder comprising a band an opening formed near one end thereof, and an elongated opening formed at the opposite end, the inner end of said elongated opening being enlarged, substantially as described. 5th. A cuff holder comprising a band, an opening formed near one end thereof, an elongated opening, terminating with an enlarged portion, formed at the opposite end, and a hook or point attached to said band, substantially as described. 6th. A cuff holder comprising a band formed of resilient material connected to and encircling the cuff.

No. 62,172. Nut Lock. (Arrête-écrou.)

John T. McMurtry, Conneaut, Ohio, U.S.A., 27th December, 1898; 6 years. (Filed 7th December, 1898.)

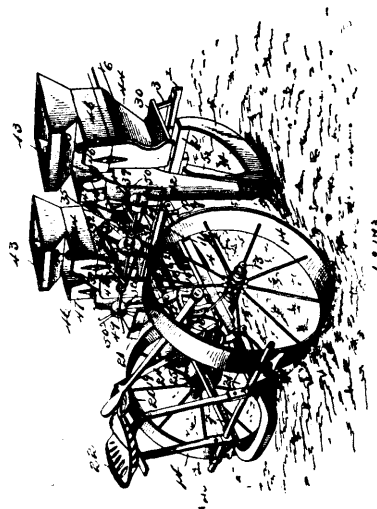
Claim.—In a nut-lock the combination with the rails, the fish-plates, the bolt, and the nut, of the lock consisting of a spring-metal horizontal rod or bar having its ends bent downwardly, and then



62172

the nut and fish-plate and the upper sides of the nut bearing against said horizontal arm, substantially as described.

No. 62,173. Potato Planter. (Semoir à patates.)



62173

William James Thomas and Percival Eby Thomas, Los Angeles, California, U.S.A., 27th December, 1898; 6 years. (Filed 6th December, 1898.)

Claim.—1st. In mechanism for planting seed potatoes, the combination with a disc having spurs to engage with and pick up the seed potatoes, of a pulley, and pairs of spring arms secured to the pulley and adapted to operate upon opposite sides of the disc and disengage the seed potatoes therefrom, substantially as set forth. 2nd. In mechanism for planting seed potatoes, the combination with a disc having spurs to engage with and pick up the seed potatoes, of a pulley, and pairs of spring arms applied to the pulley and arranged to operate upon opposite sides of the disc, and spring arms having their outer ends expanded laterally by being bent to form eyes or coils, substantially as and for the purpose set forth. 3rd. In a mechanism for planting seed potatoes, the combination with a hopper having its lower portion contracted and provided with an opening in its lower rear wall, and having the side pieces of the contracted portion extended rearwardly, a distributing box having the hopper mounted upon its forward portion and having its rear wall vertically slotted, and doors hinged to the top-edge of the rear wall of the distributing box and adapted to close the rear extensions of the hopper, and having their upper inner corners cut away to provide clearance for the seed potatoes, of a pick-up disc operating in the distributing box and through the vertical slot thereof and the opening of the hopper, and a releasing mechanism for disengaging the seed potatoes from the pick-up disc, substantially as set forth. 4th. In combination, a pair of distributing boxes, hoppers mounted upon the front end portions of the boxes, a shaft, pick-up discs secured to the end portions of said shaft and operating in the distributing boxes and hoppers, actuating mechanism for said shaft including a clutch mechanism mounted directly upon the shaft to admit of the seeding mechanism being thrown into and out of gear, a second shaft located in the rear of and parallel with the first-mentioned shaft, pulleys secured to the ends of said second shaft and provided with pairs of spring arms to operate upon opposite sides of the pick-up discs, means for operating the second shaft

directly from the first-mentioned shaft and at a higher rate of speed, and seed tubes for receiving the seed when released from the pick-up discs and conveying it to the furrows, substantially as set forth. 5th. In a potato planter, the combination with a hopper and a distributing box, of a rotary pick-up disc having fingers arranged to transverse the box and hopper, a rotatable releasing disc driven in an opposite direction to, and at higher speed than, said pick-up disc and provided with arms arranged in active relation to the fingers of the pick-up disc to free seed potatoes from the fingers of said pick-up disc, and a seed tube into which seed potatoes may be delivered from said pick-up and releasing devices, substantially as described. 6th. In a mechanism for planting seed potatoes, the combination with a hopper, and a distributing box, of a shaft carrying a rotary pick-up mechanism arranged to operate in said hopper and box, another shaft parallel to the first-named shaft and carrying a series of releasing arms which are arranged in pairs to embrace the pick-up mechanism and force seed potatoes therefrom, gearing between the two shafts for rotating the shaft which carries the release devices at a higher speed than, and in an opposite direction to, the shaft with the pick-up devices, and a seed tube in operative relation to said pick-up and releasing devices, substantially as described. 7th. In a mechanism for planting seed potatoes, the combination with a rotary pick-up mechanism, of an oppositely-rotating releasing mechanism comprising pairs of spring arms arranged to straddle or embrace the pick-up mechanism and expel seed potatoes therefrom, substantially as described.

any conditions, signatures and contracts are written, and provided with a detachable coupon to be affixed to the registered mail matter.

Fig 1

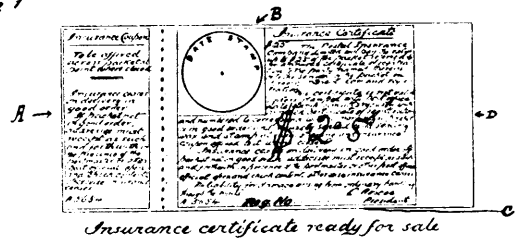
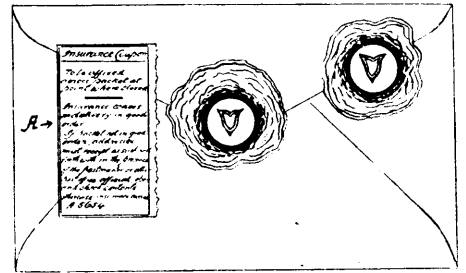


Fig. 2.



**No. 62,174. Insurance Certificate for Registered Mail Matter. (Certificat d'assurance.)**

Andrew Thomas Drummond, Kingston, Ontario, Canada, 27th December, 1898, 6 years. (Filed 15th July, 1898.)

*Claim.*—An insurance certificate of convenient size, to be attached to the ordinary certificate of registration generally issued by post office departments, having spaces upon its face wherein the necessary conditions, signatures and contracts are written, and provided with a detachable coupon to be affixed to the registered mail matter.

said coupon carrying definite information to the receivers of said mail matter, substantially as shown and described.

## TRADE-MARKS

Registered during the month of December, 1898, at the Department of Agriculture—  
Copyright and Trade-Mark Branch.

6690. JOHN ERNEST KENNEDY, Montreal, Que. Clothing, 1st December, 1898.
6691. HATTIE & MYLIUS, Halifax, N.S. A Medicine, 2nd December, 1898.
6692. HAINES & COMPANY, Rochester, N. Y., U.S.A. Pianos, 5th December, 1898.
6693. H. WALTER DORKEN, Montreal, Que. Razors, Scissors, Pocket and Table Cutlery, 5th December, 1898.
6694. THOMAS G. PLANT COMPANY, Boston, Massachusetts, U.S.A. Boots and Shoes, 5th December, 1898.
6695. THE OKANAGAN FLOUR MILLS COMPANY, LIMITED, Armstrong, B.C. Flour, Feed, &c., 5th December, 1898.
6696. W. E. MCKINLEY, Toronto, Ont. A Monthly Publication, 6th December, 1898.
6697. AUGUSTA LOUISE COWAN, Toronto, Ont. An Abdominal Belt, 6th December, 1898.
6698. McDONALD & ROBB, Valleyfield, Que. Flour, 7th December, 1898.
6699. THE BEE STARCH COMPANY, Stanstead, Que., and Derby Line, Vermont, U.S.A. Starch, 9th December, 1898.
6700. ISAAC BLUMENSTIEL, Hamilton, Ont. Cigars, 9th December, 1898.
6701. } DR. LILIENFELD & COMPANY, Vienna, Austria. Pharmaceutical  
6702. } Products, 9th December, 1898.  
6703. }
6704. DR. LILIENFELD & COMPANY, Vienna, Austria. Pharmaceutical and Photographic Preparations and Papers, 9th December, 1898.
6705. CHARLES BLANKSTEIN, Berlin, Ont. Cigars, 9th December, 1898.
6706. W. & F. P. CURRIE & COMPANY, Montreal, Que. Portland Cement, 10th December, 1898.
6707. EDGETT, GARDEN & EDGETT, Vancouver, B.C. Tea, 13th December, 1898.
6708. JOHN P. CARRITTE, St. John, N.B. Soap, 13th December, 1898.
6709. HENRY WADE, Kingston, Ont. A Medicinal Compound, 14th December, 1898.
6710. NAPOLEON CODERRE, Montréal, Qué. Uu Onguent pour Hemorrhoides, 14 décembre, 1898.
6711. KELOWNA SHIPPERS' UNION COMPANY, LIMITED, Kelowna, B.C. Cigars, 14th December, 1898.
6712. HORACE HASZARD, Charlottetown, P.E.I. Tea, 16th December, 1898.
6713. HARRIS H. FUDGER, Toronto, Ont. Requisites for Playing Lacrosse, Cricket and similar games and sports, 19th December, 1898.
6714. SNOWDON, SONS & COMPANY, LIMITED, London, England. Asbestos prepared for preventing the radiation of heat, and other similar goods, 19th December, 1898.
6715. SNOWDON, SONS & COMPANY, LIMITED, London, England. Petroleum Jelly, Lubricants and Oils and other similar goods, 19th December, 1898.
6716. VUILLARD & STRAUSS, Saint-Claude, Jura, France. Pipes pour fumeurs, 20 décembre, 1898.
6717. THE INDIAN CATARRH CURE COMPANY, Montreal, Que. Medicinal Preparations, 21st December, 1898.
6718. MINNIE ANN HEWSON, Bridgeburg, Ont. Hoof Ointment, 22nd December, 1898.
6719. JAMES MONROE MUNYON, Philadelphia, Pennsylvania, U. S. A. Strengthening and Invigorating Medicines, Tonics and Beverages, 28th December, 1898.

6720. B. HOUDE & COMPAGNIE, Québec, Qué. Tabac coupé, Pressé et Cigarettes, 28 décembre, 1898.
6721. THE VASS CHEMICAL COMPANY, Danbury, Connecticut, U.S.A. A Medicine consisting essentially of a Laxative Salt of Lithia, 28th December, 1898.
6722. F. HOFFMANN, LAROCHE & COMPANY, Basle, Switzerland. A Pharmaceutical Product having anaesthetic properties and particularly applicable for local anaesthesia as a substitute for Cocaine, 28th December, 1898.
6723. THE UNITED ALKALI COMPANY, LIMITED, Liverpool, England. Soap, 28th December, 1898.
6724. WILLIAM HARVEY LEE, Toronto, Ont. An Emulsion of Cod Liver Oil, 29th December, 1898.
6725. THE JEYES' SANITARY COMPOUNDS COMPANY, LIMITED, London, England. Medical, Veterinary and Sanitary Preparations, 29th December, 1898.
6726. } THE DUNLOP PNEUMATIC TYRE COMPANY, LIMITED, London.  
6727. } England. Pneumatic Tyres and Fastening devices therefor, 31st December, 1898.

# COPYRIGHTS

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Copyright and Trade-Mark Branch.

10300. FIFTY-TWO WEEKS WITH GOD. A Devout Study of the International Sunday School Lessons for 1899. By Rev. T. S. Linscott. The Bradley-Garretson Co. (Ltd.), Toronto, Ont., 2nd December, 1898.
10301. THE LIVING UNION JACK PICTURE. Sarah Elizabeth Charlton, Hamilton, Ont., 2nd December, 1898.
10302. MOIS DES AMES DU PURGATOIRE. (Livre.) Religieuses Hospitalières de l'Hôtel-Dieu Saint-Vallier, Chicoutimi, Que., 2 décembre, 1898.
10303. CHABOT & COMPANY'S INVESTMENT BOOK. (Suit Clothes or Overcoat.) Chabot & Co., Ottawa, Ont., 3rd December, 1898.
10304. CHABOT & COMPANY'S INVESTMENT BOOK. (Pants or Vests.) Chabot & Co., Ottawa, Ont., 3rd December, 1898.
10305. WINDYHAUGH. (A Novel.) By Graham Travers. (Margaret G. Todd, M.D.) The Copp, Clark Co. (Ltd.) Toronto, Ont., 3rd December, 1898.
10306. SUPPLEMENT TO MESCALL'S SHORT CUT IN FIGURES AND EXPERT CALCULATOR. John Mescall, Montreal, Que., 3rd December, 1898.
10307. EXERCISE BOOK FOR LESSONS IN ENGLISH. A. & W. McKinley, Halifax, N.S., 3rd December, 1898.
10308. THE VISION OF THE SEASONS, AND OTHER POEMS. By Dorothea Wolters Knight, Lancaster, Ont., 3rd December, 1898.
10309. ENVELOPE COMMEMORATIVE OF THE INAUGURATION OF FEDERAL PENNY POSTAGE CHRISTMAS DAY, 1898. The Peterborough Review Printing and Publishing Co. (Ltd.), Peterborough, Ont., 3rd December, 1898.
10310. THE STENOGRAPHER'S COMPANION. Vol. I, No. 9, December, 1898. Robert Goltman, Montreal, Que., 5th December, 1898.
10311. THE ROSE ISLE WALTZ. By L. R. Bock, New Dundee, Ont., 5th December, 1898.
10312. THE ONTARIO LEGAL CHART, 1899. \* H. Cartwright, Toronto, Ont., 6th December, 1898.
10313. THE KNORR-NORRIS COURSE INDICATOR. (Chart.) Mrs. Marie Olga Norris, Philadelphia, Pennsylvania, U.S.A., 6th December, 1898.
10314. GWEN'S CANYON. By Ralph Connor. The Westminster Co. (Ltd.), Toronto, Ont., 7th December, 1898.
10315. MAJOR GENERAL HUTTON'S MARCH. (Two-Step.) By H. H. Godfrey. Whaley, Royce & Co., Toronto, Ont., 7th December, 1898.
10316. SONG OF YESTERDAY. By Edmund Hardy, Mus. Bac. The Anglo-Canadian Music Publishers' Association (Ltd.) London, England, 9th December, 1898.
10317. SONG OF TO-MORROW. By Edmund Hardy, Mus. Bac. The Anglo-Canadian Music Publishers' Association (Ltd.) London, England, 9th December, 1898.
10318. A CRITICAL STUDY OF 'IN MEMORIAM.' By Rev. John M. King, Winnipeg, Man., 9th December, 1898.
10319. THE CANADIAN MAGAZINE. (December, 1898.) The Ontario Publishing Co. (Ltd.) Toronto, Ont., 9th December, 1898.
10320. L'AVENIR. Townships de Durham et de Wickham, Notes Historiques et Traditionnelles, avec Précis Historique des autres Townships du Comté de Drummond. Par J. C. St. Amant, l'Avenir, Que., 9th December, 1898.
10321. THE DOMINION MARCH, By Phillip E. Layton, Montreal, Que., 12th December, 1898.
10322. DIANE OF VILLE MARIE. A Romance of French Canada. By Blanche Lucile Macdonnell, William Briggs, Toronto, Ont., 12th December, 1898.

10323. ALBA. (Dawn.) By Ethelbert Nevin, Op. 25, No. 1. The John Church Co., Cincinnati, Ohio, U.S.A., 12th December, 1898.
10324. GONDOLIERI. (Gondoliers.) By Ethelbert Nevin, Op. 25, No. 2. The John Church Co., Cincinnati, Ohio, U.S.A., 12th December, 1898.
10325. CANZONE AMOROSA. (Venetian Love Song.) By Ethelbert Nevin, Op. 25, No. 3. The John Church Co., Cincinnati, Ohio, U.S.A., 12th December, 1898.
10326. BUONA NOTTE. (Good Night.) By Ethelbert Nevin, Op. 25, No. 4. The John Church Co., Cincinnati, Ohio, U.S.A., 12th December, 1898.
10327. THE DELINEATOR. (A Journal of Fashion, Culture and Fine Arts.) January, 1899. The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 13th December, 1898.
10328. THE GLASS OF FASHION UP TO DATE. (January, 1899) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 13th December, 1898.
10329. METROPOLITAN FASHIONS. (January 1899.) The Butterick Publishing Co. (Ltd.) New York, N.Y., U.S.A., 13th December, 1898.
10330. THE GALT COOK BOOK. (Revised Edition.) By Margaret Taylor and Frances McNaught, Galt, Ont., 13th December, 1898.
10331. TAX NOTICE FORMS, 1898. R. D. Richardson & Co., Winnipeg, Man., 13th December, 1898.
10332. ALMANACH DU PEUPLE, ILLUSTRÉ, 1899. C. O. Beauchemin et Fils, Montréal Qué., 14 décembre, 1898.
10333. NOTES HISTORIQUES SUR SAINT THOMAS DE MONTMAGNY. (Droit Temporaire d'Auteur.) Publié dans "Le Courrier du Livre," Québec. Raoul Renault, Québec, Qué., 15 décembre, 1898.
10334. DWELLERS IN GOTHAM. A Romance of New York. By Annan Dale. William Briggs, Toronto, Ont., 15th December, 1898.
10335. INSURANCE PLANS OF ACTON, BEETON, BELLE RIVER, BETHANY, BRECHIN, BROOKLIN, CASTLETON, CHELTONHAM, CLAREMONT, COBOCONK, FENELON FALLS, FLORENCE, GLEN WILLIAMS, KIRKFIELD, LAMBTON MILLS, LINDSAY, PETROLIA, SPRINGFIELD, STOUFFVILLE, VICTORIA ROAD AND WHEATLEY, IN ONTARIO. Charles Edward Goad, Montreal, Que., 15th December, 1898.
10336. INSURANCE PLANS OF QUÉBEC, VOLUME II, VICINITY AND NORTH SHORE. Charles Edward Goad, Montreal, Que., 15th December, 1898.
10337. COURS DE STÉNOGRAPHIE PAR CORRESPONDANCE. Alex. Clément, Montreal, Qué., 15 décembre, 1898.
10338. AUX JEUNES GENS QUI VEULENT RÉUSSIR. Alex. Clément, Montréal, Que., 15 décembre, 1898.
10339. LA BELLE CANADIENNE. Two-Step. (Golden Moments.) Arranged by Paul Keller. The Nordheimer Piano and Music Co. (Ltd.), Toronto, Ont., 16th December, 1898.
10340. THE GROUND-WORK OF NUMBER. A Manual for the use of Primary Teachers. By A. S. Rose and S. E. Lang. The Copp, Clark Co. (Ltd.) Toronto, Ont., 16th December, 1898.
10341. CONSTITUTION AND GENERAL LAWS OF THE SUPREME COURT OF THE INDEPENDENT ORDER OF FORESTERS. Oronhyatekha, Toronto, Ont., 17th December, 1898.
10342. CHAMPION MARCH. (Golden Moments.) Arranged by Paul Keller. The Nordheimer Piano and Music Co. (Ltd.) Toronto, Ont., 17th December, 1898.
10343. THE MAIL AND EMPIRE, TORONTO, CANADA, CHRISTMAS, 1898. The Mail Printing Co., Toronto, Ont., 17th December 1898.
10344. OFFICIAL TELEPHONE DIRECTORY CITY OF TORONTO AND SUBURBS. The Bell Telephone Company of Canada, (Ltd.) Montreal, Que., 19th December, 1898.
10345. TREVELYAN'S LITTLE DAUGHTERS. By Virna Sheard. With Illustrations by Reginald B. Birch. William Briggs, Toronto, Ont., 20th December, 1898.
10346. CANADA, AN ENCYCLOPEDIA OF THE COUNTRY. Edited by J. Castell Hopkins. Illustrated. Volume IV. The Bradley-Garretson Co. (Ltd.) Toronto, Ont., 20th December, 1898.
10347. MY SAL. (Song.) By Annie I. James, Portage la Prairie, Man., 21st December, 1898.

10348. MONEY INVESTMENT BOOK. Gustave Levesque, Montréal, Que., 21 décembre, 1898.
10349. SNOW'S LEGAL COMPENDIUM AND DIARY FOR 1899. John Lovell & Sons, Montreal, Que., 22nd December, 1898.
10350. THE FARMER'S ADVOCATE AND HOME MAGAZINE, CHRISTMAS. 1898. The William Weld Co. (Ltd.), London, Ont., 24th December, 1898.
10351. ACTA VICTORIANA CHRISTMAS, 1898. The Union Literary Society of Victoria University, Toronto, Ont., 24th December, 1898.
10352. SAINT JOHN, NEW BRUNSWICK, CANADA, TAKEN FROM WEST SAINT JOHN, SHOWING THE CITY PROPER ON THE EASTERN SIDE OF THE HARBOUR. (Engraving.) John R. Hamilton, St. John, N.B., 24th December, 1898.
10353. THE SPIRIT OF '98. (March.) By Wm. C. G. Wright. William Walker, Detroit, Michigan, U.S.A., 27th December, 1898.
10354. I HEARD THE VOICE OF JESUS SAY. (Sacred Song.) Words by Horatius Bonar, D.D. Music by Charles E. Wheeler. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 27th December, 1898.
10355. THE COUNTY CLUB. (Two-Step March.) By F. J. Hatton-Moore. The Anglo-Canadian Music Publishers' (Ltd.), London, England, 27th December, 1898.
10356. CONSTITUTIONAL DEVELOPMENT—ONTARIO AND QUEBEC, — SECTION I, OF A HISTORY OF CANADA ON THE GOODWIN METHOD. (Chart.) Eli Nash Moyer and Ethel Jean Goodwin, Toronto, Ont., 27th December, 1898.
10357. BLANK HISTORY CHART—THE GOODWIN METHOD. Eli Nash Moyer and Ethel Jean Goodwin, Toronto, Ont., 27th December, 1898.
10358. TIME RULER—THE GOODWIN METHOD. (Rule.) Eli Nash Moyer and Ethel Jean Goodwin, Toronto, Ont., 27th December, 1898.
10359. LE GRAND ALMANACH CANADIEN ILLUSTRÉ, 1899. Edouard Zotique Massicotte et Louis Joseph Belliveau, Montréal, Qué., 27 décembre, 1898.
10360. THE EDUCATIONAL MUSIC COURSE. By Alex T. Cringan. Books I and II The Canada Publishing Co. (Ltd.), Toronto, Ont., 28th December, 1898.
10361. CANADIAN SERIES MAP OF DOMINION OF CANADA. The Map and School Supply Co. (Ltd.), Toronto, Ont., 29th December, 1898.
10362. RECORD KEEPER'S POCKET REGISTER, KNIGHTS OF THE MACCABEES. Wellington Wallace, Toronto, Ont., 30th December, 1898.
10363. FINANCIER'S POCKET REGISTER, ANCIENT ORDER UNITED WORKMEN. Wellington Wallace, Toronto, Ont., 30th December, 1898.
10364. FINANCIAL SECRETARY'S POCKET REGISTER, CANADIAN ORDER OF FORESTERS. Wellington Wallace, Toronto, Ont., 30th December, 1898.
10365. LES TROIS LÉGENDES DE MADAME SAINCTE ANNE. Par le Père Paul-Victor Charland. Premier Volume. Wm. Charland et Cie., Montréal, Qué., 30 décembre, 1898.
10366. SALOME. Intermezzo. By William Loraine. F. A. Mills, New York, N.Y., U.S.A., 30th December, 1898.
10367. TABLE FOR FINDING THE HOUR ANGLE WITHOUT LOGARITHMS. Peter John Leech, Victoria, B.C., 30th December, 1898.
10368. INSURANCE AGENTS' PERFECT RECORD. Bruneau Frederick Steben, Montreal, Que., 30th December, 1898.
10369. JOHN BULL'S CHILDREN. A Patriotic Song. By H. H. Godfrey. J. L. Orme & Son, Ottawa, Ont., 30th December, 1898.
10370. LOVELL'S COMMERCIAL COMPENDIUM AND DIARY FOR 1899. John Lovell & Son, Montreal, Que., 31st December, 1898.
10371. BILLS PAYABLE RECORD. John Franklin Brown, Toronto, Ont., 31st December, 1898.
10372. BILLS RECEIVABLE RECORD. John Franklin Brown, Toronto, Ont., 31st December, 1898.



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10373. DEPARTMENT SALES, STOCK AND PROFIT AND LOSS RECORD.  
John Franklin Brown, Toronto, Ont., 31st December, 1898.
10374. PURCHASE RECORD. John Franklin Brown, Toronto, Ont., 31st December, 1898.
10375. SALES RECORD. John Franklin Brown, Toronto, Ont., 31st December, 1898.
10376. THE CANADIAN BOARDS OF TRADE JOURNAL. (November, 1898. Vol. I., No. 2.) Thomas Simpson Jones, Toronto, Ont., 31st December, 1898.