H. E. CLINTON.

Machine for Bottling Aerated Liquids.

No. 160,394. Patented March 2, 1875.

Fig. 1.

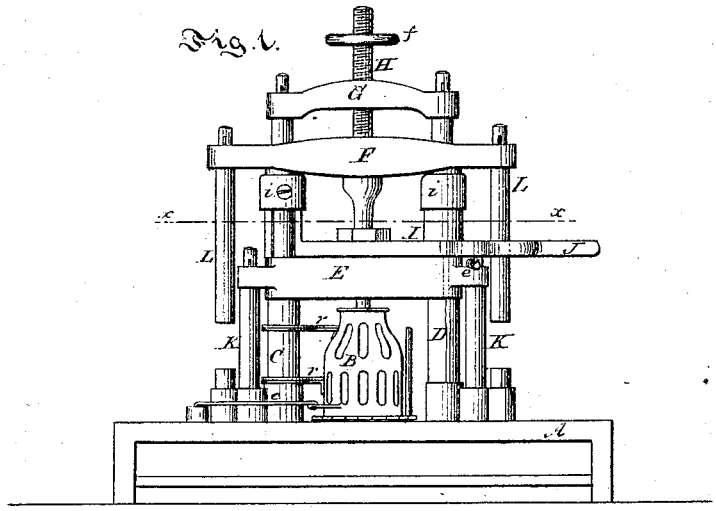


Fig. 2.

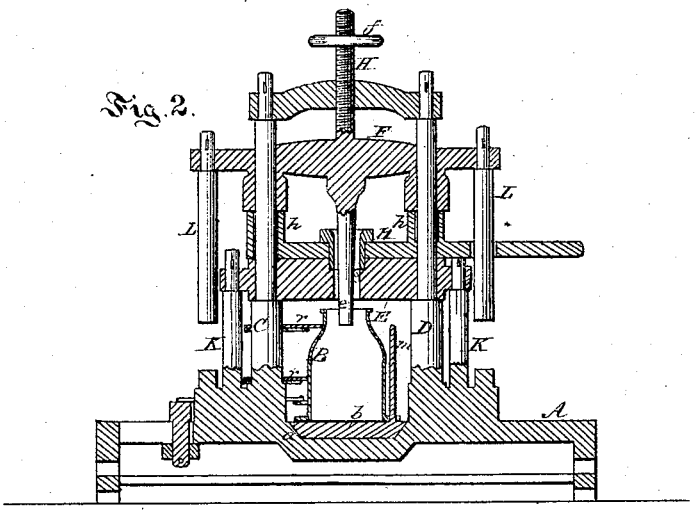
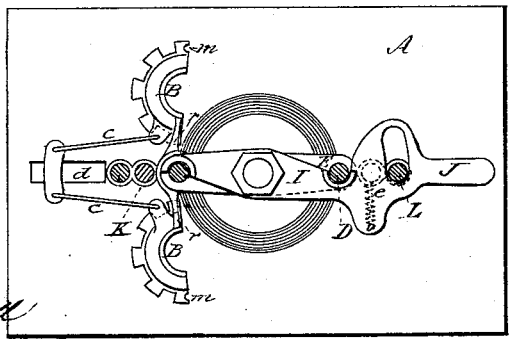


Fig. 3.



Witnesses:

William H Herbert

William B Perry

Inventor:

Henry E Clinton

UNITED STATES PATENT OFFICE.

HENRY E. CLINTON, OF SEYMOUR, CONNECTICUT, ASSIGNOR TO THE FIRM OF JOHN MATTHEWS, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR BOTTLING AERATED LIQUIDS.

Specification forming part of Letters Patent No. **160,394**, dated March 2, 1875; application filed February 4, 1875.

To all whom it may concern:

Be it known that I, HENRY E. CLINTON, of Seymour, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Machines for Bottling Aerated Liquids; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Figure 1 is a side elevation; Fig. 2, a vertical longitudinal section; and Fig. 3, a plan view through the line *x x* of Fig. 1.

My invention relates to machines for bottling aerated liquids; and it consists in, first, constructing the safety-screen casing, which is sectional of such bottling-machine, with arms or extensions, which shall be hinged to a rod or support that is separate from and not joined to the bed-plate upon which the bottle stands, in a manner hereafter described so that one bed-plate can be removed from the machine and another applied without the necessity of fastening and unfastening the screen to each size plate that may be used, or furnishing each plate with a separate screen. The sections of the screen may be worked either with or without levers. By thus constructing and applying the safety-screen to the machine I am enabled to dispense with the pins which have been heretofore used in connecting the safety-screen casing to the adjustable bed-plate upon which the bottles rest, and to save the time and annoyance experienced in adjusting the safety-screen to the bed-plate suitable for the sized bottle being filled, and to gain enlarged space for manipulating the bottles. My invention consists, secondly, in a device for inserting the stoppers into bottles, so that there shall be a uniform or nearly uniform projection of the stopper above the mouth of the bottle, which device consists in a pivoted bar interposed between the filling-head and sliding plunger-bar of the machine, provided with projections, which, in connection with sleeves or shoulders on the sliding plunger bar or uprights of the machine, are for purposes hereinafter to be described, and the construction and operation of said device will be herein more fully described.

In the drawing, A represents the bed of the machine, which has a depression, *a*, for the drainer, and the adjustable bed-plate *b*. The bottle, which stands on this plate, is clasped by a sectional safety-screen casing, B, which has arms *r* that extend to and fit loosely around the standard C to permit the jaws of the casing to be swung to one side by means of the lever or levers *c*, which are shown in Fig. 3, connected to a block that slides in a slot, *d*. Instead of these extensions or arms encircling the standard they may be connected to the same or any other upright by folding hinges, which will permit the same motion to be given to the jaws; and if desired the lever may be dispensed with and the jaws opened by the direct application of the hands to them.

In Figs. 1 and 2 are shown the uprights or standards C and D, which support the sliding filling-head E and plunger-bar F of the corking-plunger *e*, and the cross-bar G, through which the screw H, that imparts motion to the plunger *e*, is worked by the wheel *f*.

The filling-head E and bar I have each an opening, *g*, through which the liquid may pass to the bottle below, and in which the cork-plunger works to force the cork into the mouth of the bottle. To this filling-head E is pivoted the bar I, which has the two semi-cylindrical projections *h*, the concaves of which open on opposite sides of the standards C and D. This bar I extends beyond the machine, as shown at J, Figs. 1 and 2, so as to form a handle. Above these projections *h*, and at times bearing against them, are two sleeves, *i*, which are fastened to collars projecting from the sliding plunger-bar F.

It is apparent that the sleeves *i* might be pinned to the standards C and D instead of to the collars projecting from the sliding bar F without departing from the spirit of my invention.

The pivoted bar I and the sleeves *i* are for gaging the insertion of the stoppers into the bottles, and they operate in this manner, to-wit: The height of the class of bottles to be filled having been first ascertained the sleeves

i are adjusted accordingly—that is, if the bottles are higher than those which were last filled the sliding plunger-bar F is raised so as to bring the sleeves *i* out of contact with the projections on the pivoted bar I, and the sleeves are then lowered by means of the screws or pins *j* until they are again in contact with the projections. This action brings the point of the plunger sufficiently higher than it was before to compensate for the difference in the height of the bottles. With this adjustment the plunger is at that height at which it should be when the stopper is driven to its proper depth in the bottle. That being the case the sliding bar, with its plunger must be raised still higher, so as to permit the bottle with its stopper to be placed in position preparatory to driving the stopper home by means of the screw H. The plunger being now forced down until the sleeves come again in contact with the projections on the bar I, the stopper is driven to its proper depth in the bottle.

In order now to apply the fastening to the stopper, the plunger still pressing against the same, the pivoted bar is grasped with the hand at J, and drawn to one side, freeing the projections *h* from contact with sleeves *i*, and allowing the filling-head E to be raised, it sliding on the standards C D and K K, while the stopper is properly fastened in its place. A spring, *l*, draws the pivoted bar I back to the position it held before it was moved to permit the filling-head to be raised. The adjustable bed-plate *b* has an upright rod or pin, *m*, which is clasped by claws *n* for the purpose of steadying the plate. The pin also facilitates the removal of the plate. The vertical rods L serves to steady the plunger.

I do not claim anything described in the patent of Jean V. Mathivet, August 15, 1871, No. 118,036, as my invention is an improvement on that patent; but

What I do claim as my invention is—

1. In a machine for bottling liquids the sectional safety-screen casing hinged to a support, which is independent of and not joined to the bed-plate upon which the bottle stands, and operated with or without a lever, substantially as and for the purpose set forth.

2. The sectional safety-screen casing B, hinged to the standard C and operated with or without levers *c*, in combination with the bed-plate *b* and pin *m*, substantially as described.

3. The swinging bar I, with projections *h* interposed between the filling-head E and sliding plunger-bar F, as and for the purpose set forth.

4. The swinging bar I and its projections, in combination with the sleeves *i* encircling the standards C and D, and with the plunger-bar F and its plunger *e*, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 14th day of November, 1874.

HENRY E. CLINTON. [L. S]

Witnesses:

WILLIAM H. HERBELL,

WILLIAM B. PERRY.