(No Model.)

J. KLEE.

BOTTLING MACHINE.

No. 264,039. Patented Sept. 5, 1882.

Fig. 1.

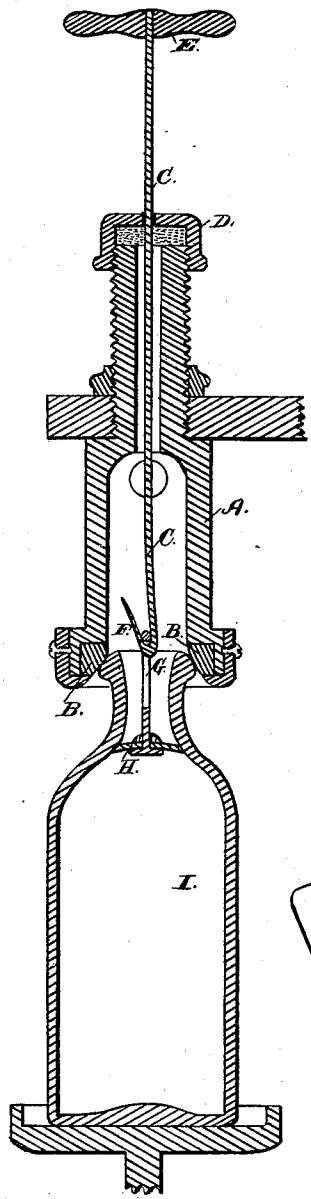
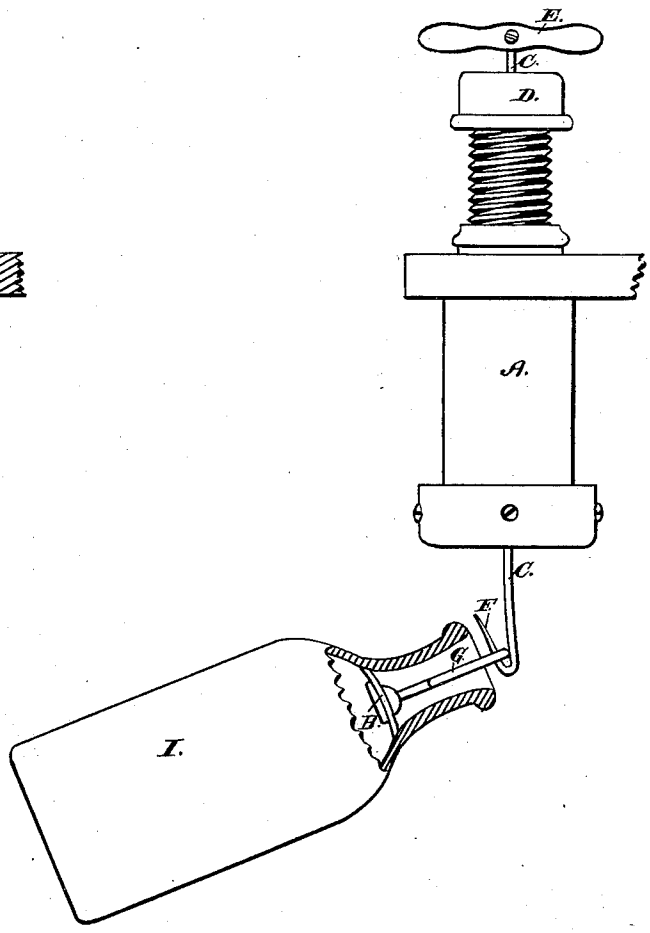


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN KLEE, OF DAYTON, ASSIGNOR TO EDWARD H. EVERETT, OF NEWARK, OHIO.

BOTTLING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 264,039, dated September 5, 1882.

Application filed November 18, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN KLEE, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Bottling-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an improvement in bottling-machines for bottling liquids under pressure.

My device is especially adapted to that class of bottles provided with internal suspended stoppers, which stoppers have wire bails or loops for drawing the valve to its seat, for holding it suspended, and for operating it in opening the bottle; and it consists in applying to the filling-head of a bottling-machine a plunger or rod suitably encompassed by a stuffing-box, and having a hook at its lower end adapted to engage with the bail or loop of the stopper and draw the same to its seat in the neck of the bottle before removal of the bottle from the filling-head.

The novelty consists in the combination, with the filling-head of a bottling-machine, of a plunger inserted through said filling-head, packed by a stuffing-box, and having at its lower end a hook adapted to engage with the bail or loop of a suspended internal stopper, all as will be herewith specifically set forth.

In the accompanying drawings, Figure 1 is a side elevation, in central section through the filling-head, of my improved bottling-machine. Fig. 2 is a side elevation, showing the manner of disengaging the bottle from the plunger-hook.

A represents the filling-head of an ordinary bottling-machine for bottling aerated or gaseous liquids. This filling-head is a metal cylinder with an enlarged bore at its lower end for receiving the mouth of the bottle to be filled, and it is connected with its appliances to the machine in the usual or any suitable way.

B is the customary rubber cushion attached at the lower end or mouth of the cylinder A, to form an air-tight joint with the mouth of the bottle during the filling of the same.

Extending vertically through the filling-head and projecting from its top is a metal rod or plunger, C, preferably round in section and about one-sixteenth of an inch in diameter, or slightly greater.

Upon the upper end of the cylinder or filling-head A is a stuffing-box, D, through which the plunger passes and by which an air-tight joint is effected. The upper projecting end of the plunger is provided with any suitable handle, E, or grasping device for raising and lowering the plunger. The lower end of the plunger is formed into a hook, F, which is adapted to engage with the loop or bail G of the internal suspended stopper H in the bottle I. I prefer to make my plunger-rod of spring metal and slightly bend the lower end, as shown, so that in lowering the plunger the lower end of the hook will clear the top of the stopper-loop. Then as the plunger descends the loop presses the hook sidewise until its point passes the top cross-piece of the loop or bail, when the spring of the rod, reacting, throws the point of the hook under the loop and engages the same, so that by drawing up the plunger the stopper is lifted and brought to its seat in the neck of the bottle. The plunger-rod is free to be turned in the filling-head so as to present the hook properly to the stopper-loop.

I do not propose to limit myself to a spring-rod, as a rigid rod and rigid hook might be used in substantially the same way, only requiring more manipulation, perhaps, to effect the engagement of the hook with the stopper-loop. Again, instead of having a spring-rod, the hook might be so constructed as to have spring action and give in passing the top piece of the loop.

When the stopper is drawn to its seat and the bottle closed thereby, after being filled, the plunger is lowered sufficiently to enable the neck of the bottle to be unsealed from the cushion B, whereupon by tilting the bottle, as seen in Fig. 2, its stopper may be disengaged from the hook, as will be readily understood.

The pipes for conveying the liquid and sirups into the filling-head are not here shown, but are applied in the customary or any suitable way.

I am aware that a plunger has been used with a filling-head for the purpose of drawing internal stoppers to their seats in the neck of

the bottle, as shown in the English Patent of Duncan McCallum, No. 2,417, granted September 27, 1861, and in the United States Patent of John Martheus, No. 41,440, dated February 2, 1864.

Neither of the above devices is capable of use with a suspended stopper, and could not operate as mine does to form a positive lock between the plunger and the stopper while drawing the latter to its seat.

Having thus fully described my invention, I claim—

1. In a bottling-machine, the combination, with the filling-head, of a plunger inserted through said filling-head, packed by a stuffing-box, and provided on its lower end with a hook adapted to engage with the loop or bail of an internal suspended stopper, as and for the purpose specified.

2. In a bottling-machine, the combination, with the filling-head, of a plunger inserted through said filling-head, packed by a stuffing-box, and provided on its lower end with a spring or yielding hook adapted to engage with the loop or bail of an internal suspended stopper, as and for the purpose specified.

In testimony whereof I have hereunto set my hand.

JOHN KLEE.

Witnesses:
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CHAS. M. PECK.