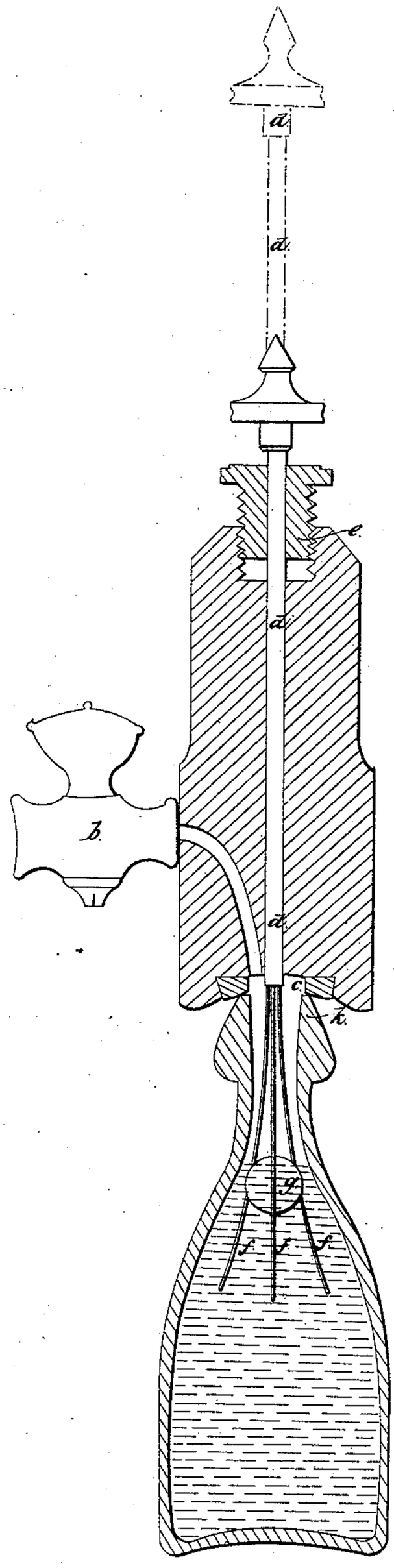
J. Matthews Jr.

Filling Bottles.

No. 41,440. Patented Feb. 2, 1864.



Witnesses

Thomas Hill

Andrew Nally

Inventor.

John Matthews Jr

UNITED STATES PATENT OFFICE.

JOHN MATTHEWS, JR., OF NEW YORK, N. Y.

IMPROVED BOTTLING-MACHINE.

Specification forming part of Letters Patent No. **41,440**, dated February 2, 1864.

To all whom it may concern:

Be it known that I, JOHN MATTHEWS, Jr., of the city, county, and State of New York, have invented a certain Improvement in Machines for Bottling; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to machines for filling bottles which are closed with an internal valve with liquids under pressure, and securing the contents of such bottles by drawing such internal valve to its seat, thus closing the neck of the bottle.

The annexed drawing explain more clearly the nature of the invention.

Figure A represents the filling-head of the bottling-machine, provided with a stop-cock, *b*, communicating with the vessel containing the liquid under pressure. The lower part of the filling-head is provided with the usual elastic packing, *c*, which, when pressed on the mouth of the bottle *k*, prevents the escape of the liquids or gases when the stop-cock *b* is opened and the fluids turned onto the bottle *k*. A rod or plunger, *d*, passes through the center of the filling-head, and leakage is prevented by the stuffing-box *e*. Attached to the lower part of the plunger are prongs or fingers *f f f*, which are constructed of slender rods of metal, so set or formed as to expand when the plunger is lowered, and drawn together when the plunger is drawn up into the filling-head.

The mode of operating with this machine is as follows: The bottle, having an internal valve or stopper, *g*, which floats on the liquid with which the bottle is to be filled, is placed under the filling-head, and its mouth pressed tightly against the elastic packing *c*, which lines the mouth of the filling-head. The liquid is then admitted to the bottle by opening the stop-cock *b*. As soon as the liquid rises high enough in the bottle to float the valve nearly to its seat, the stop-cock is closed, shutting off the liquid. The plunger *d* is then pressed down and the prongs or fingers enter the bottle. In entering the bottle the prongs expand so as to slide against the sides of the neck of the bottle and pass between the side of the bottle-neck and the valve. On withdrawing the plunger the prongs are compressed in such a manner as to grasp the valve and draw it to its seat in the neck of the bottle. The plunger is then drawn entirely up, which act withdraws the prongs or fingers *f f f* from the bottle and leaves the valve wedged firmly on its seat. The bottle may then be removed from the filling-head, the internal pressure sustaining the valve firmly on its seat.

I have represented the fingers or prongs *f f f*, attached to the plunger, as being three in number and as being but slightly curved when expanded, but I do not wish to confine myself to this precise arrangement, as the prongs or fingers may be made in any required form and of any number, which, operating substantially as described, will produce the same result.

I do not claim as my invention a filling-head provided with a stop-cock and packing as described, as that apparatus forms part of the bottling-machine in common use; nor a plunger and stuffing-box in combination with the same, as that has been described in the specification of a previous application for Letters Patent; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

The combination of a plunger, having fingers or prongs which enter the bottle and seize the stopper, with the filling head of a bottling-machine, the whole operating substantially in the manner described, and for the purpose set forth.

JOHN MATTHEWS, JR.

Witnesses:

THOMAS HILL,

ANDREW NALLY.