S. S. NEWTON.

BOTTLES FOR LIQUID BLACKING.

No. 193,381. Patented July 24, 1877.

Fig. 3.

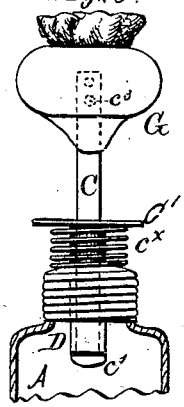


Fig. 2.

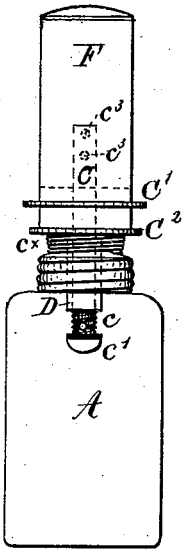


Fig. 4.

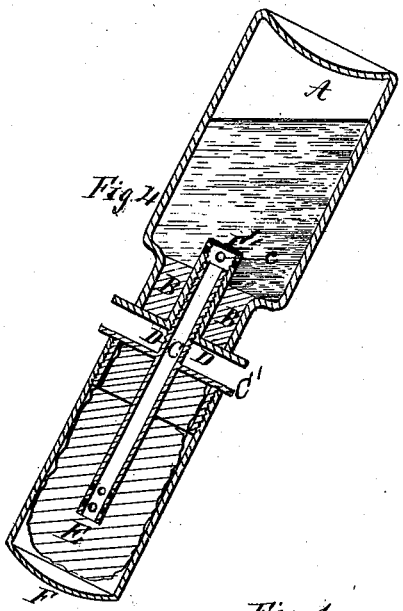
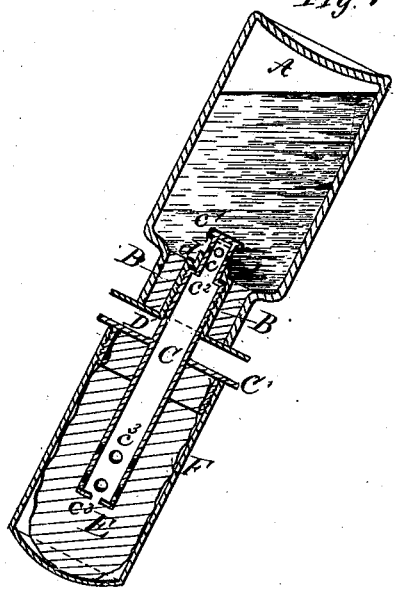


Fig. 1



Witnesses

Henry Orth

H. A. Bliss

Inventor

Stephen S. Newton

per H. H. Doubleday

atty

UNITED STATES PATENT OFFICE.

STEPHEN S. NEWTON, OF BINGHAMTON, NEW YORK.

IMPROVEMENT IN BOTTLES FOR LIQUID BLACKING.

Specification forming part of Letters Patent No. 193,351, dated July 24, 1877; application filed December 1, 1876.

To all whom it may concern:

Be it known that I, STEPHEN S. NEWTON, of Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Bottles for Liquid Blacking; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a vertical section of a liquid-blacking bottle having my invention applied thereto, the bottle being in an inverted position. Fig. 2 is a vertical section of a modified form of the invention. Fig. 3 shows another modification, and Fig. 4 represents another form of the gate at lower end of discharge-tube.

The object of my invention is to provide a bottle in which liquid blacking, liquid bronze, or other similar material may be carried in a traveling-bag, or may be otherwise packed or transported in the same package with clothing or other articles, without incurring liability of soiling the goods through the leakage of the liquid.

To this end one part of the invention consists in a novel combination, with the stopper of a bottle, of a sponge, pad, brush, or other device for applying the blacking, and a valve, gate, or other similar contrivance, whereby the passage or flow of the liquid from the bottle to the sponge, pad, or brush may be interrupted at the will of the operater.

Other parts of the invention relate to certain details of construction, which will be hereinafter explained.

In the drawings, A is the bottle, to the neck of which is applied a stopper, represented by B. This stopper may be either a cork or a screw-cap. Through this cap or stopper a tube, C, extends into the bottle, and is provided at its lower end with ports *c*, and a head or flange, c^1. This discharging-tube C has an external screw-thread, which fits within an internally threaded supporting-tube, D, which is firmly attached to the cork or cap which closes the mouth of the bottle. The upper end of the supporting-tube D is, by preference, made of greater internal diameter than the lower end, thus forming a circular shoulder or seat, *d*, (see Fig. 1,) the lower part of the discharging-tube C being of similar external conformation, so that when the discharging-tube is forced as far as possible into the bottle, its shoulder c^2 will rest against the seat *d*, and thus prevent leakage at that point.

This difference in the diameters of the different portions of the tubes may not be essential, however; hence it may be found best to make each tube of uniform diameter from end to end.

In Fig. 1 I have shown the discharging-tube as extending some distance beyond or above the stopper or cap, and provided with openings c^3, both at the end and through its sides near the end, to permit the liquid to flow from the bottle into the sponge E, which is firmly attached to this projecting end of the discharge-pipe.

The openings c^3 in the side of the pipe or the opening in its upper end may be dispensed with.

Below the sponge or brush E is a flange or collar, C′, attached to pipe C, to turn said pipe with when it is desired to screw it (the pipe) into or out of the supporting-pipe D.

F is a protector screwed to the stopper, the flange C′, or otherwise attached to the bottle in such manner as to cover the sponge, and thus keep the latter from accidental contact with articles.

The operation of the above-described parts will be readily understood, and it will be seen that as soon as the desired quantity of liquid has passed from the bottle into the sponge, the flow of said liquid can be stopped by turning the discharging-tube backward until the posts *c* are drawn within the supporting-tube D, after which the bottle may be held in any position which becomes desirable in applying the blacking without danger of having any excess of blacking flow into the sponge, or of having any undesirable quantity of the liquid left in the sponge.

In Fig. 2 I have shown a modified form of the invention, in which the screw-threads of the tubes are dispensed with, the discharging-

tube fitting closely within the supporting-tube, the discharging-tube being thrust outward or upward by a spring, $c^{\times}$, until stopped by the flange or head C′.

In this construction I prefer to employ a supplemental collar or flange, c^2, upon which to press with the fingers when it is desired to open the valve or gate (formed by the lower ends of the tubes) for the purpose of letting out the liquid.

It will be observed that when pressure is removed from the flange c^2 the spring $c^{\times}$ will close the valve.

Under some circumstances I may prefer to employ a cup or socket to receive and retain the sponge, as indicated in Fig. 3, in which case the discharging-tube need extend only to the bottom of the socket G.

In Fig. 4 I have shown still another modification of the invention, in which I employ a supporting-tube, c^1, having ports c at or near its lower ends, and close these ports by screwing the lower end of the discharging-tube C down or in past these ports. As there are no ports in the tube c^1, (which has only a passage through it from end to end,) it will be readily be seen that the flow of liquid may be easily stopped by thus screwing in this discharging-tube.

Thus it will be seen the hollow stem or tube which supports the sponge serves also to actuate the valve which regulates the flow of blacking or other liquid to the sponge, this being the first construction in which such combination has been employed within my knowledge.

I do not in this patent claim the discharging-tube or a support for the sponge, nor the peculiar construction of the inner ends of the discharging-tube and its supporting-tube, as these features form the subject-matter of an application filed by me as a division of this case. Neither do I claim, broadly, the combination, with the bottle, of a valve opening into the bottle to regulate the outward flow of liquid, a sponge arranged to receive the liquid from said valve, and a stem or other connection between the valve and the sponge, whereby the valve may be opened by pressing upon the sponge, as I prefer to make this above-recited subject-matter the basis of another and separate patent, the application for which I am now preparing.

Having thus described my invention, what I claim is—

In a blacking-bottle stopper, the combination of a sponge-support, a passage through which liquid may flow from the bottle to the sponge, and a valve or gate attached to and operated by the sponge-support, to regulate the flow of the liquid to the sponge or other device for applying the liquid, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

STEPHEN S. NEWTON.

Witnesses:
JEROME DE WITT,
H. H. DOUBLEDAY.