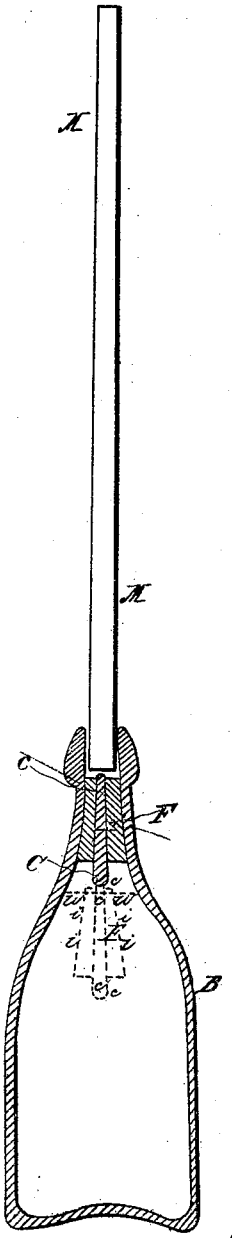
J. MATTHEWS, Jr.

Bottle Stopper.

No. 48,822. Patented July 18, 1865.



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

IMPROVED METHOD OF CLOSING BOTTLES.

Specification forming part of Letters Patent No. **48,822**, dated July 18, 1865.

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 certain new and useful Improvements in Closing Bottles; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing, which is a vertical section of bottle, stopper, and plunger, and similar letters refer to similar parts throughout.

My invention relates to the constructing of an internal floating stopper for a bottle, in such manner that when the liquid is poured into the bottle to the required height—say to the dotted lines W W in the drawing—that the stopper shall present itself in proper position for being seized by an instrument and drawn to its seat in the mouth of the bottle.

It is obvious that if the stopper were an elastic spherical valve no difficulty could be experienced in seizing it in any position and drawing it to its seat in the neck of the bottle; but in practice it has been found difficult to prevent such ball-stopper from losing its true spherical form after remaining for a long time in the neck of the bottle, especially when subjected to a high internal pressure, as would be the case if aerated liquids were inclosed in the bottle. In consequence of the rings and other indentations thus permanently impressed upon such ball-stopper, it has been found difficult to close such bottle perfectly a second time, unless the same part of the ball could again be brought exactly to its former place. This I accomplish by weighting the stopper, or so disposing the materials used in its construction that one part of the stopper shall always be presented toward the mouth of the bottle in a convenient position for being seized by instruments and drawn to its place.

In practice it has also been desirable to secure some ready means of seizing the stopper and drawing it to its seat in the mouth of the bottle.

My invention consists, principally, in accomplishing this by constructing my stopper with a central rod of iron or other metal which is susceptible of being rendered magnetic, or which may be attracted by a magnet, and thus drawn to its seat in the neck of the bottle.

In the drawing, Figure J, B represents the bottle filled with liquid to the dotted lines W W. The red dotted lines *i i i i*, *c*, and F show the position of the stopper while floating on the liquid. C represents the central rod of iron, which projects below the cork-float F and causes it to float in an upright position.

M M represents the magnetic plunger, which, being lowered into the bottle, attracts the central bar, C, with sufficient force to enable the stopper to be drawn to its place in the mouth of the bottle. I have described the plunger M M as being magnetic, and the rod of the stopper as of iron, capable of being attracted by the magnet; but I do not wish to confine myself to this precise arrangement, as the central bar C of the stopper might be rendered permanently magnetic if of steel or other suitable material, and the plunger M M might be simply a piece of iron, which the stopper would attract. It is obvious, also, that the plunger M M might be rendered magnetic by induction, or being excited at proper times by electric or other voltaic currents, so as to produce substantially the same results.

I am aware that an internal floating bottle-stopper has long been known, and that therefore that method is not new. I do not claim that as my invention; but

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

1. Constructing a bottle-stopper with a core of metal either magnetic or capable of being attracted by a magnet, as and for the purpose specified.

2. The employment of a magnetic plunger, M M, or its equivalent, for the purpose specified.

3. The bottle B, stopper F, and plunger M, when operating by magnetic attraction, as described, for the purpose specified.

JOHN MATTHEWS, JR.

Witnesses:

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