

B. HEGELE.
Soda-Water Bottle.

No. 219,723.

Patented Sept. 16, 1879.

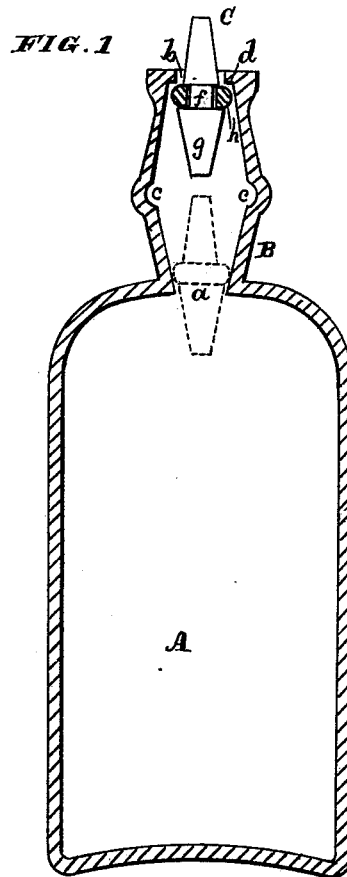


FIG. 2.

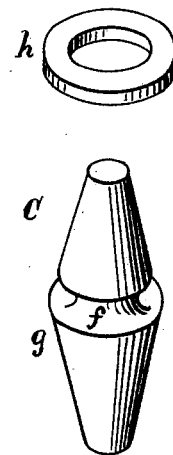
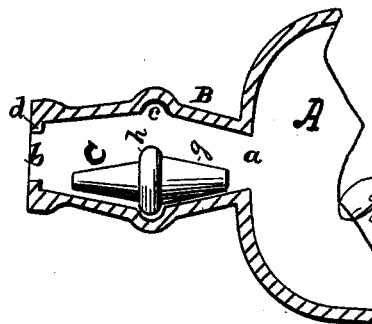


FIG. 3.



WITNESSES

Frank A. Brooks
Geo. H. Strong

INVENTOR

Balthasar Hegel
By Dewey & Co
Attys

UNITED STATES PATENT OFFICE.

BALTHASAR HEGELE, OF SAN JOSÉ, CALIFORNIA.

IMPROVEMENT IN SODA-WATER BOTTLES.

Specification forming part of Letters Patent No. **219,723**, dated September 16, 1879; application filed July 29, 1879.

To all whom it may concern:

Be it known that I, BALTHASAR HEGELE, of San José, county of Santa Clara, and State of California, have invented an Improved Soda-Water Bottle; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to an improvement in soda-water bottles and stoppers; and my improvements consist in certain details of construction whereby the stopper is made to act in a double capacity, closing the bottle both when it is filled and when it is empty, so that in the latter case all dust and dirt are excluded, and the bottle can only be used for effervescent liquor, which is filled into it when said bottle is in a reversed position.

A great deal of expense and annoyance are experienced by the manufacturers of soda-water by the loss of bottles, they being of a size convenient for holding other liquids, and frequently taken for spirits, medicines, &c. Again, as the bottles are always left open after being emptied, flies, dust, &c., collect in the bottles if they stand for some time, and they give much trouble in washing. These defects are irremediable in the present system of stopping or corking the bottles; but I propose to remedy them by not only having the bottle corked when full, but also when empty, so that nothing can be poured in, even if desired, nor can flies or dust enter.

Figure 1 is a section of a bottle with the stopper. Fig. 2 is a view of the stopper and rubber flange. Fig. 3 shows position of stopper when pouring out the liquid.

The bottle A is made of the usual size and shape of soda-water bottles, but the neck B is differently formed. It is made in the shape of the double frustum of a cone. The throat *a* nearest the body of the bottle is comparatively small, expanding outward, and the neck then tapers the other way to the mouth *b*. In the center of the neck between throat and mouth is a groove, *c*, encircling the neck, for the purpose hereinafter described. At the top of the neck is a small flange or rib, *d*, to prevent the outward passage of the cork, as hereinafter described.

The cork or stopper C is formed with a

groove, *f*, encircling its center, as shown, from which point said stopper tapers each way. The lower part, *g*, of the stopper is larger in diameter than the upper end, as shown, so that the rubber ring *h*, resting in the groove *f*, sits, also, on the shoulder formed by the enlarged lower end.

The stopper is inserted in the neck, which is just large enough to receive it without its rubber flange. The rubber flange or rib is then dropped in, and by means of a pair of nippers put in place around the groove *f*. The stopper can then neither drop down into the bottle nor come out.

In filling these soda-bottles with the effervescing soda-water, the mechanism for filling them is arranged so that the bottles are upside down. The expansion of the gas forces the stopper up into the neck, when the rubber ring of the stopper bears tight against the flange or rib *d* at the mouth, so that the contents cannot escape.

When it is desired to draw the contents, the stopper is struck against the under part of a counter, or otherwise driven in, but does not, therefore, drop into the bottle, as is the case with the stoppers commonly in use. It simply drops into the neck, and as the bottle is held horizontally to pour out the soda, the rubber rib or flange drops into the circular groove *c* in the center of the neck, so that the liquid may pass out above it. After the contents are all out and the bottle is set down on its bottom the stopper drops by gravity to the lower part of the neck. The lower end of the stopper, being somewhat larger than the throat of the neck, cannot pass down into the bottle, and the rubber flange bears also on the side of the neck and closes the bottle, so as to prevent flies or dust from entering.

The bottle cannot be used for anything but soda or effervescent drinks, which are filled into the bottle when in a reversed position, since the stopper closes up the throat when the bottle is on its bottom. People will therefore not use such bottles for medicine or spirituous liquors, and as they are of no use except to soda manufacturers, they will be returned to them. No dust can get in, and the bottles are easily and quickly washed.

The cork cannot get out of the bottle, so there is no loss from this source, nor will there be any loss of bottles, for the reasons above given. The stopper is really a double one, closing the bottle both when full and empty.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The soda-water bottle A, with its neck B formed in the double frustum of a cone, and provided with the centrally-placed groove *c* and the rib *d*, in combination with the double stopper C, with its elastic ring *h*, whereby the said stopper closes the bottle either when filled or empty, substantially as herein described.

2. The bottle A, with its neck B, having the groove *c*, in combination with the double stopper C, provided with the elastic centrally-placed flange or collar *h*, arranged as shown and described, whereby when the stopper is dropped into the neck a passage is left for the exit of the soda, substantially as herein described.

In witness whereof I have hereunto set my hand and seal.

BALTHASAR HEGELE. [L. S.]

Witnesses:

M. J. ASHMORE,

F. J. SAXE.