

(No Model.)

2 Sheets—Sheet 1.

F. W. PERRY.
BOTTLE STOPPER.

No. 448,070.

Patented Mar. 10, 1891.

FIG. 1.

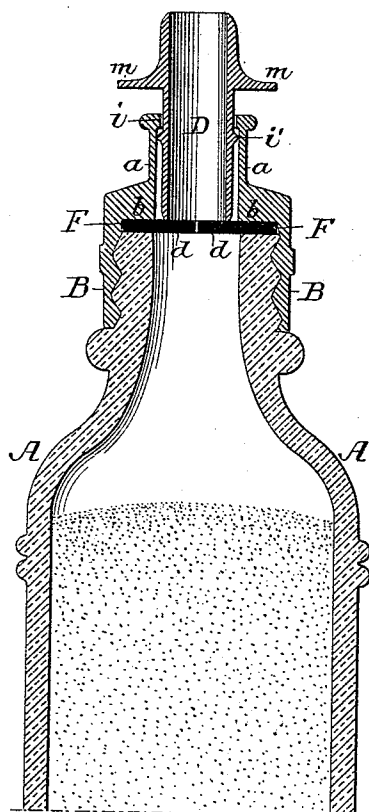


FIG. 2.

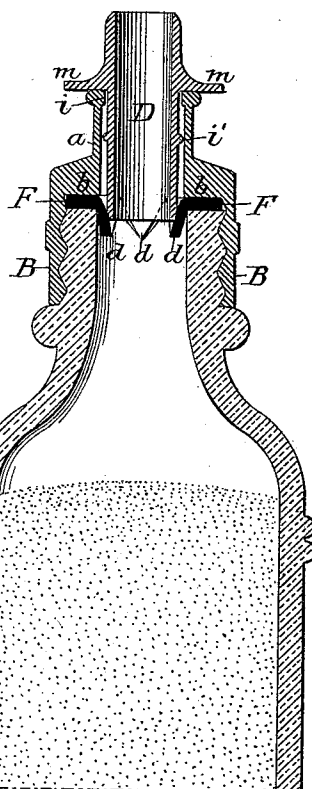
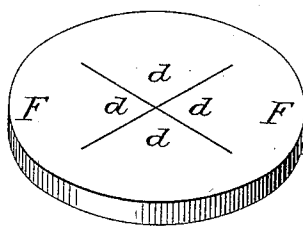


FIG. 3.



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Inventor
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by his Attorneys
Howman & Howman

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FIG. 4.

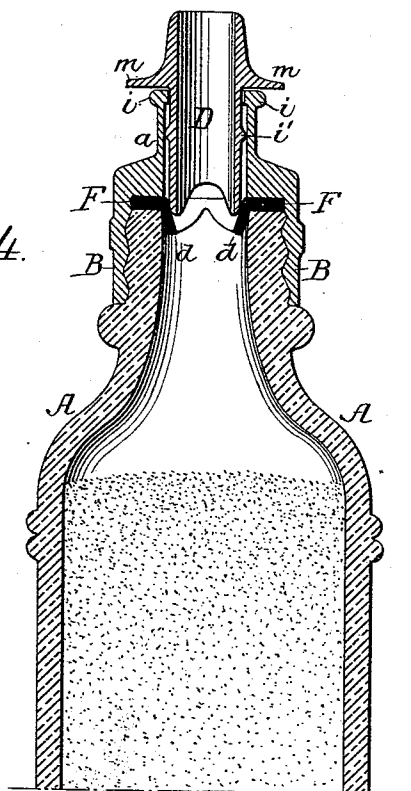
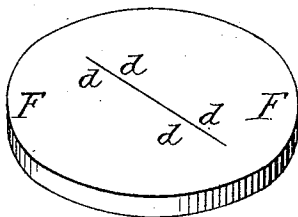


FIG. 5.



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Inventor:
Frank W. Perry
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UNITED STATES PATENT OFFICE.

FRANK W. PERRY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
HERO FRUIT JAR COMPANY, OF SAME PLACE.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 448,070, dated March 10, 1891.

Application filed December 13, 1890. Serial No. 374,561. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. PERRY, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Bottle-Stoppers, of which the following is a specification.

My invention consists of a stopper intended especially for bottles for containing powdered substances, such as tooth-powder and the like, the object of my invention being to provide for this purpose a cheap and simple form of stopper which while normally closed can be readily opened to permit of the discharge of powder from the bottle. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional view of a bottle having a stopper constructed in accordance with my invention, the stopper being closed. Fig. 2 is a similar view showing the stopper opened, and Fig. 3 is a detached perspective view on a larger scale of a valve-disk forming part of the stopper. Fig. 4 is a view similar to Fig. 2, but showing a modified form of valve-disk, Fig. 5 being a perspective view of said modified form of valve-disk.

A represents a bottle, which may be of any size or shape common in bottles for containing powdered substances, such as tooth-powder and the like, the mouth of the bottle having a stopper which comprises the fixed cap B, the movable nozzle D, and the valve-disk F. The cap B is secured to the mouth of the bottle by means of a screw-thread or in any other convenient manner, and this cap is contracted in its upper portion *a*, so as to form a shoulder *b*, between which and the top of the bottle-mouth is confined the outer portion of the valve-disk F, the latter being made of rubber, leather, or like material possessing flexibility, and also a certain amount of elasticity. In the central portion of the disk F is a cruciform incision, which separates the central portion of said disk into a series of flaps *d*, as shown in Fig. 3.

In the contracted portion *a* of the cap B

slides the lower portion of the nozzle D, separation of the parts being prevented by shoulders *i i'*, and the outer portion of the nozzle has a projecting flange *m*. Normally the parts occupy the position shown in Fig. 1—that is to say, the flaps *d* of the valve-disk F are in the same plane and fit snugly one against the other, so as to prevent any portion of the contents of the bottle from escaping, the lower end of the nozzle D resting lightly upon the flaps, as shown in said figure.

When it is desired to discharge a portion of the contents of the bottle, the nozzle is depressed or forced inward, so as to force apart or separate the flaps *d*, as shown in Fig. 2, pressure being conveniently applied to the nozzle through the medium of its flange *m*, without obstructing the mouth of the nozzle. On removing such pressure the flaps *d*, by reason of their inherent elasticity, resume their normal position, Fig. 1, and again close the bottle.

The disk F may, if desired, have more than four flaps, or it may, on the other hand, have but two or three flaps, this being a matter of choice. A disk having but two flaps is illustrated in Figs. 4 and 5.

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

The combination of the bottle, the cap secured thereto and having a projecting tubular portion, the disk secured by the cap and having a central slitted portion, the tubular nozzle supported by the slitted portion of the disk but guided in the tubular projection of the cap and having beyond the same a projecting flange and projecting shoulders on the nozzle and cap for preventing the withdrawal of the nozzle, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK W. PERRY.

Witnesses:

EUGENE ELTERICH,
HARRY SMITH.