

No. 626,235.

Patented June 6, 1899.

W. H. HUTTON.
BOTTLE.

(Application filed Nov. 9, 1898.)

(No Model.)

Fig. 1.

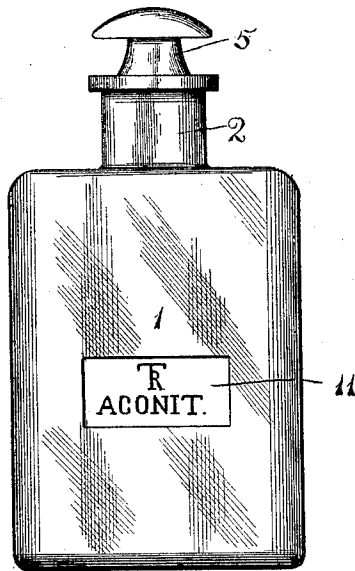


Fig. 2.

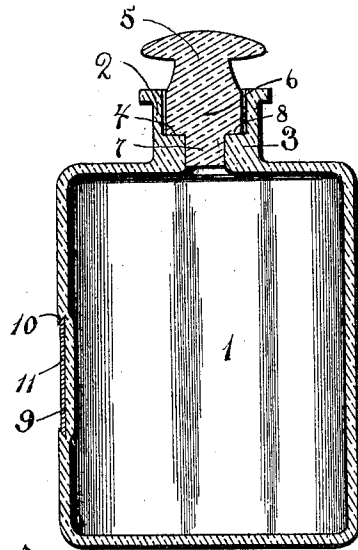
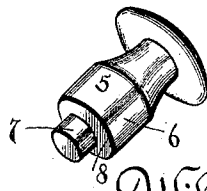


Fig. 3.



Witnesses

W. H. Hutton

A. B. Shepard

By his Attorneys,

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UNITED STATES PATENT OFFICE.

WILLIAM HARRY HUTTON, OF COMMERCE, MISSOURI.

BOTTLE.

SPECIFICATION forming part of Letters Patent No. 626,235, dated June 6, 1899.

Application filed November 9, 1898. Serial No. 695,959. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HARRY HUTTON, a citizen of the United States, residing at Commerce, in the county of Scott and State of Missouri, have invented a new and useful Bottle, of which the following is a specification.

It is a well-known fact that bottles having tapered ground-glass stoppers frequently crack about the neck portion and after a time pieces will break off entirely. This is caused by the unequal expansion and contraction of the thick stopper and the thinner neck of the bottle. As the neck expands when the temperature rises, the tapered stopper does not expand in proportion, and therefore drops or settles farther into the neck of the bottle, and as the neck again contracts the stopper is wedged in the neck and the latter in contracting must necessarily crack and finally break entirely away.

This invention therefore has been designed to obviate the breaking of the bottle-neck by the change of temperature as above described; and it consists in the peculiar shape of the neck and the stopper, whereby the stopper fits loosely within the neck, while at the same time affording sufficient closure of the neck to prevent the evaporation of the liquid contents of the bottle, all of which will be hereinafter more fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is an elevation of the improved bottle. Fig. 2 is a vertical sectional view thereof. Fig. 3 is a detail perspective view of the stopper.

Like numerals of reference denote like and corresponding parts in each of the several figures of the drawings.

Referring to the accompanying drawings, 1 designates the body of the bottle in any desired form, having the usual neck 2. The lower portion of the neck is thickened, as at 3, forming the inner annular stop-shoulder 4. The surface of this shoulder is ground to form a tight seat for the stopper 5. The body 6 of the stopper is somewhat smaller in diameter than the mouth of the bottle, and its lower end is contracted, as shown, forming a stem 7 and the annular shoulder 8. This latter shoulder is ground and adapted to fit tightly upon the shoulder 4, and the stem and the

lower contracted opening of the neck are also ground. When the stopper is placed in the neck-opening to close the bottle, the contacting surfaces of the stem and contracted neck-opening and the shoulders 4 and 8 form a tight joint and prevent evaporation of the contents of the bottle. The body of the stopper being smaller in diameter than the neck permits of the latter expanding and contracting without interference. The thickened portion of the neck may also expand and contract; but as the shoulder 8 of the stopper rests upon the shoulder 4 of the neck the stopper cannot settle down farther in the neck, and therefore will always remain in its proper position, forming an effective closure for the bottle and obviating the cracking and breaking of the neck.

To secure a label to the bottle, I provide a seat or recess 9 in the outer face of the body of the bottle and form the walls 10 of the recess to overhang or dovetailed, so that the label 11 may be retained within the recess without the application of glue or paste. By this construction a new label may be substituted in an easy and efficient manner.

This invention is especially designed for glass bottles commonly used by apothecaries and chemists, but is also applicable to any other character of bottle or jug.

Changes in the form and proportion may be made without departing from the spirit and scope or sacrificing any of the advantages of the present invention.

Having thus described the invention, what I claim is—

1. The combination in a bottle, of a stopper having a body of smaller diameter than the neck-opening of the bottle, and adapted to fit loosely therein, and means to prevent the stopper settling farther into the neck by reason of expansion thereof, whereby the neck is prevented from cracking and breaking, substantially as shown and described.

2. The combination in a bottle having an inner annular shoulder formed in the neck thereof, of a stopper having a body of smaller diameter than the neck-opening of the bottle and an annular shoulder, the body of the stopper being adapted to fit loosely within the neck-opening with its shoulder seated upon

the shoulder of the neck, substantially as and for the purpose set forth.

3. The combination in a bottle having an inner annular shoulder formed in the neck near its lower end, of a stopper having a body of smaller diameter than the neck, and a contracted stem extending below the body of the stopper and forming an annular shoulder, the body of the stopper being adapted to fit loosely in the neck-opening with its stem and shoulder contacting with the annular shoulder of the neck, substantially as and for the purpose set forth.

4. The combination in a bottle having the lower portion of its neck thickened forming a contracted neck-opening and an inner annular shoulder, of a stopper having a body of smaller diameter than the neck-opening of the bottle, and a contracted stem extending downward from the body and forming therewith an annular shoulder, the body of the stopper being adapted to fit loosely within the neck with the surfaces of its stem and shoulder contacting with the surfaces of the contracted opening and the shoulder of the neck,

respectively, substantially as and for the purpose set forth.

5. The combination in a bottle having the lower portion of its neck thickened and forming a contracted neck-opening and an inner annular shoulder, the surfaces of the contracted opening and the shoulder being ground, of a stopper having its body of smaller diameter than the neck-opening and provided with a contracted stem and an annular shoulder, the surface of the stem and shoulder being ground, the body of the stopper being adapted to fit loosely within the neck with its ground stem fitting the ground contracted neck-opening and its ground shoulder seated upon the ground shoulder of the neck, substantially as and for the purpose set forth.

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

WILLIAM HARRY HUTTON.

Witnesses:

R. W. FINLEY,
ARTHUR A. PELL.