No. 618,021. Patented Jan. 17, 1899.

A. H. WRIGHT.

BOTTLE.

(Application filed Sept. 23, 1898.)

(No Model.)

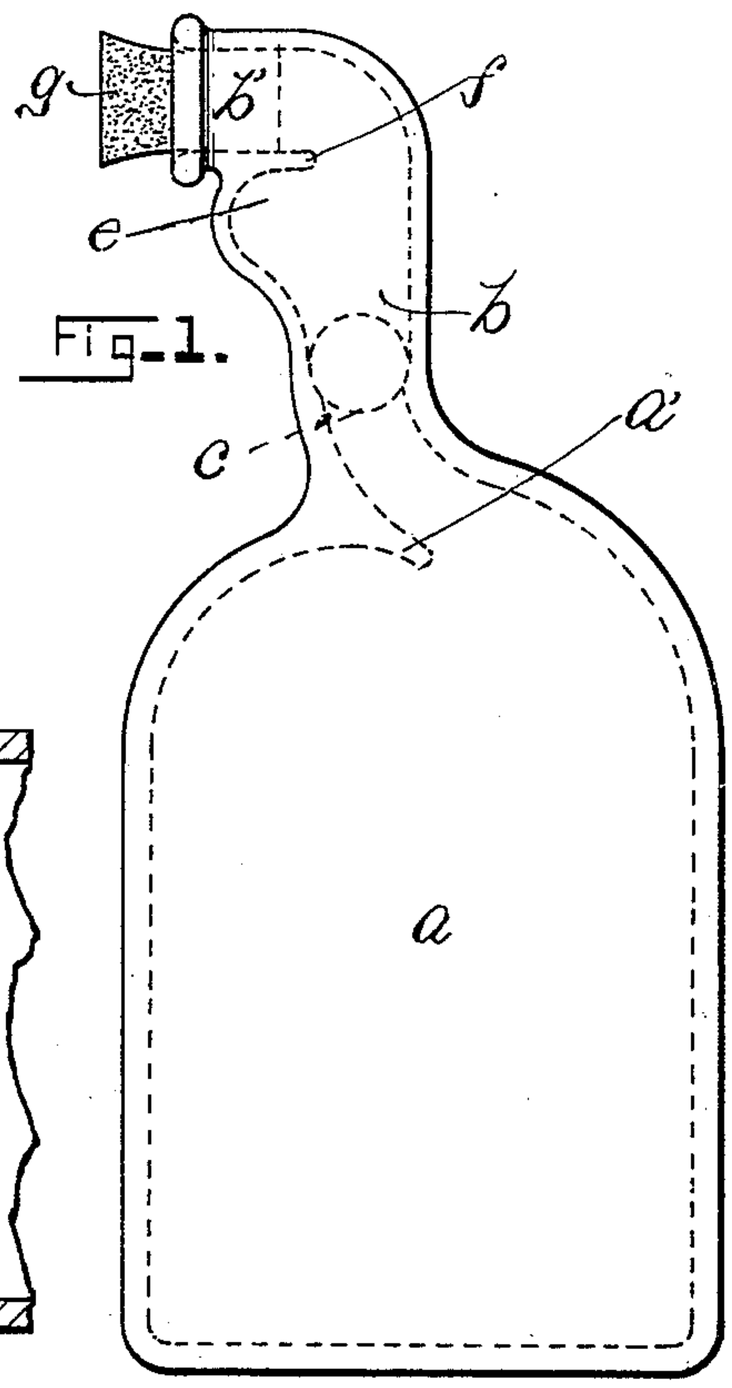

Fig. 1.

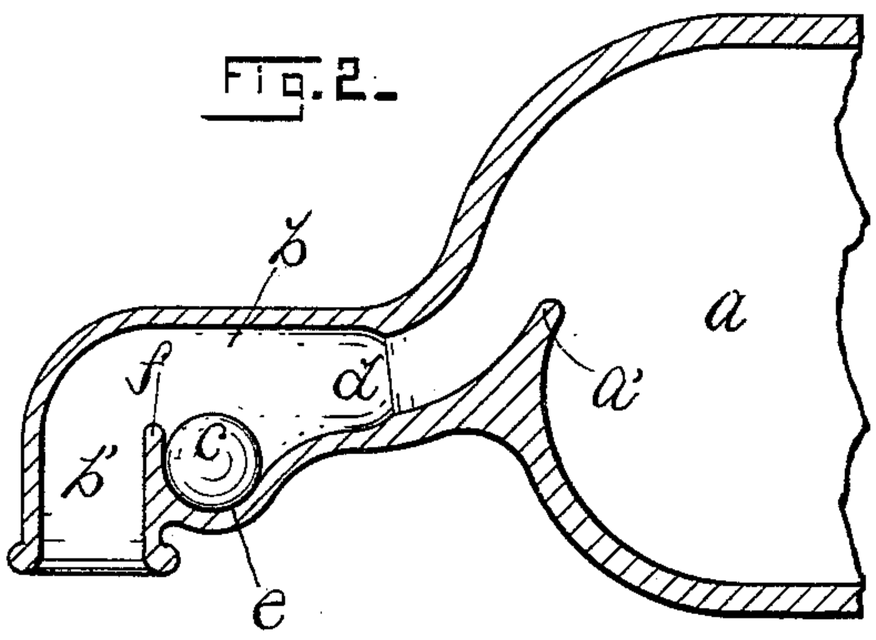

Fig. 2.

WITNESSES

Howard M. Luther.

May F. Ritchie.

INVENTOR,

Alfred H. Wright,

BY

Frank H. Allen

ATTORNEY.

UNITED STATES PATENT OFFICE.

ALFRED H. WRIGHT, OF NORWICH, CONNECTICUT, ASSIGNOR TO SENECA H. THRESHER, OF SAME PLACE.

BOTTLE.

SPECIFICATION forming part of Letters Patent No. 618,021, dated January 17, 1899.

Application filed September 23, 1898. Serial No. 691,742. (No model.)

To all whom it may concern:

Be it known that I, ALFRED H. WRIGHT, a citizen of the United States, residing at Norwich, in the county of New London and State of Connecticut, have invented certain new and useful Improvements in Bottles, of which the following is a full, clear, and exact description.

This invention relates to that class of bottles commonly designated as "non-refillable" bottles which, as their name implies, cannot be refilled after the original contents has been removed.

A receptacle of the kind mentioned is particularly desirable because of the fact that it prevents the refilling of an empty bottle with goods inferior to those which it originally contained, as is now commonly practiced by unscrupulous persons.

The object of this invention is to produce a bottle of the kind mentioned of simple and inexpensive construction that shall be practically non-refillable and that may be easily operated.

In the production of my new form of bottle certain mechanism is placed in the neck portion thereof which, while preventing in no way the emptying of the bottle, prevents the ready introduction of liquid matter thereinto. The chief element of said mechanism is a ball which, when an attempt is made to force liquid into the bottle, enters a suitable seat and provides a valve to check the inflow of the liquid, but which rolls freely out of the way into a pocket provided for its reception, thus leaving unobstructed the passage through the bottle's neck when it is desired to pour out the contents.

To assist in explaining my invention, I have provided the accompanying sheet of drawings, which serve to illustrate the same, as follows:

Figure 1 is a side elevation of a bottle which embodies my invention complete. Fig. 2 is a vertical section of the upper portion of the same, showing the bottle in position to be emptied of its contents.

Referring to the drawings, the letter *a* denotes the body portion of the bottle, *b* the neck thereof, and *c* a ball, preferably of glass, loosely located in said neck portion. Near the point of juncture of the body *a* and neck *b* the passage through the latter is contracted somewhat to provide a valve-seat *d* for the ball *c* and also serving to prevent said ball from entering the bottle. On one side of neck *b* an enlargement is formed, providing a pocket *e*, into which the ball *c* may roll to leave the passage through neck *b* unobstructed during the process of pouring out the bottle's contents. One side of pocket *e* consists of a projection *f*, extending into the neck *b* from the inclosing wall thereof. The free end *b'* of the bottle-neck *b* is preferably turned at a right angle to said neck, which construction renders it more difficult to reach the ball *c* than would be the case were an ordinary straight neck provided. The said free end *b'* of the neck is adapted to receive a stopper *g* in order that the bottle may be "corked" in the usual manner. The passage through the right-angular portion *b'* is sufficiently large to allow the ball to be passed therethrough, and the projection *f*, above referred to, is of such length that said ball by crowding may be forced past the same (between it and the opposite wall of neck *b*) into the pocket *e*. When ball *c* is in the location just described, it is free to move therein, but is limited in its movement in one direction by valve-seat *d* and in the opposite direction by projection *f*, past which it cannot pass without being crowded, which of course cannot be done for the obvious reason that the ball cannot be reached.

A bottle of my newly-invented construction may be filled before the introduction of the ball *c*. The latter is then inserted by being crowded past the projection *f*, as above explained, and the bottle is finally closed by a cork *g*, as usual.

When it is desired to use the contents of the bottle, (the cork *g* having been first removed,) said bottle is so held that the ball *c* is caused to roll from its seat *d* into the pocket *e*, thus permitting the contents of the bottle to pass outward through the unobstructed passage in neck *b*. Should any attempt be made to refill the bottle when the latter is in an upright position, the ball *c* will drop at once into its seat *d*, and thus prevent the passage of liquid into the bottle. Should an at-

tempt be made to force liquid into the bottle while the latter is in a horizontal position, said liquid will effect the forcing of ball *c* before it, the latter seating itself in seat *d* and preventing the entrance of liquid into the bottle, and to insure the action just described the ball *c* may, if necessary, be constructed of material sufficiently light to insure its being carried forward by the incoming liquid.

To still further insure non-refilling of the bottle, a wall *a'* is formed, extending into the body portion of the bottle and in the line of passage through the neck *b*, such wall serving in a measure to prevent the siphoning of the liquid in the bottle even should the ball *c* fail to operate.

I am fully aware that small quantities of liquid could be introduced into my described bottle by means of pipettes and specially-arranged siphons; but the time and labor required in such instances would preclude their general use.

My device as a whole is of extremely simple and cheap construction and performs in a satisfactory manner the office for which it was designed.

Having thus described my invention, I claim—

In a non-refillable bottle, the body, a neck which is placed to one side of the center of the bottle, and which is provided with the valve-seat *d*, pocket *e*, and the wall *f;* and the wall *a'* formed in the top of the bottle at its junction with the neck, and which wall extends inwardly and downwardly beyond the neck, combined with the ball-valve which is freely movable back and forth in the neck, substantially as specified.

Signed at Norwich, Connecticut, this 10th day of September, 1898.

ALFRED H. WRIGHT.

Witnesses:

FRANK H. ALLEN,

MAY F. RITCHIE.