

(No Model.)

N. F. T. HUNT.
NON-REFILLING BOTTLE.

No. 561,228.

Patented June 2, 1896.

Fig. 3.

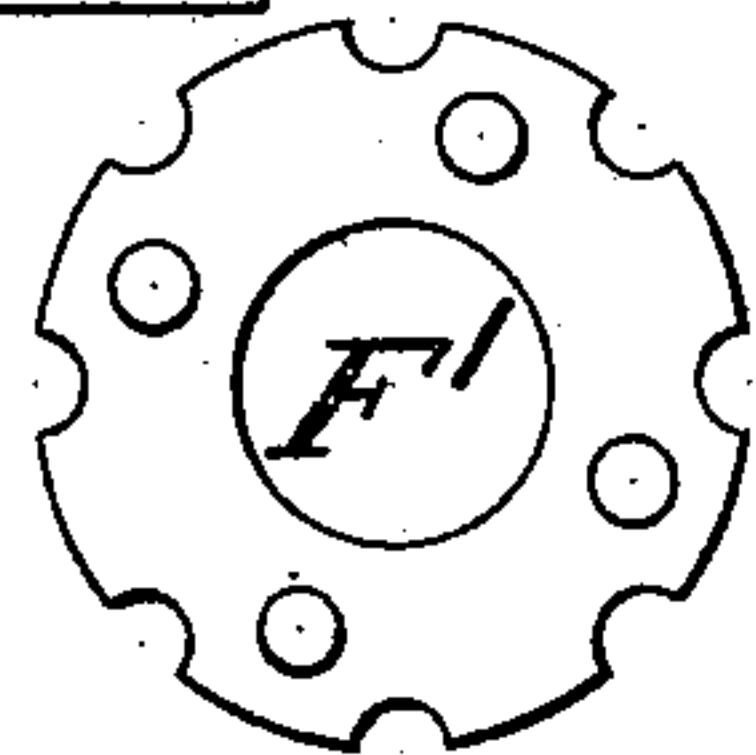


Fig. 2.

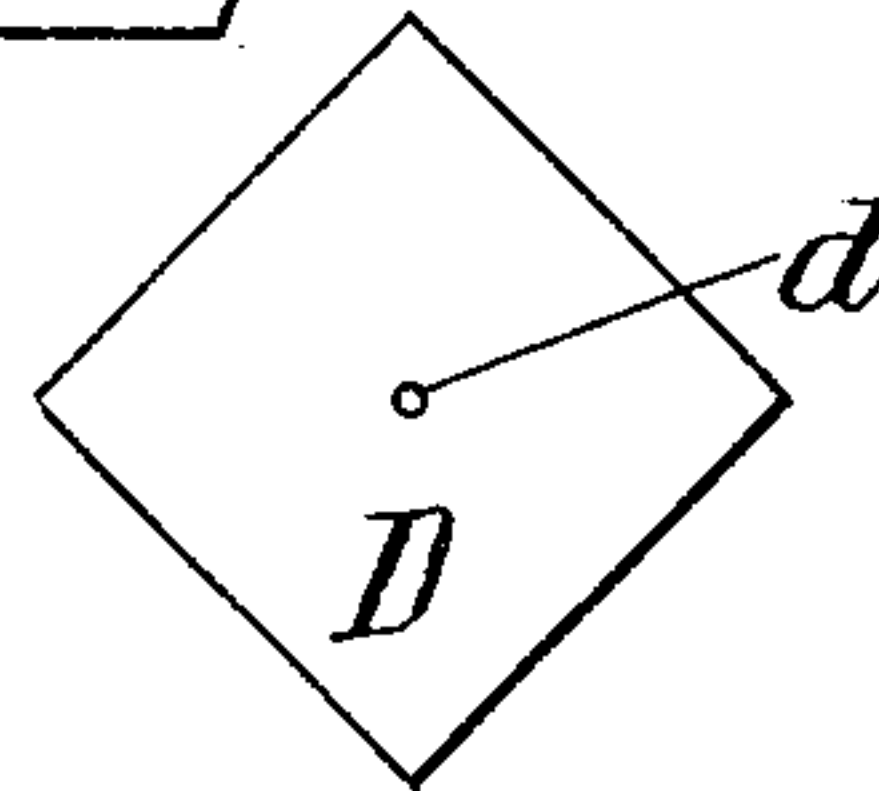
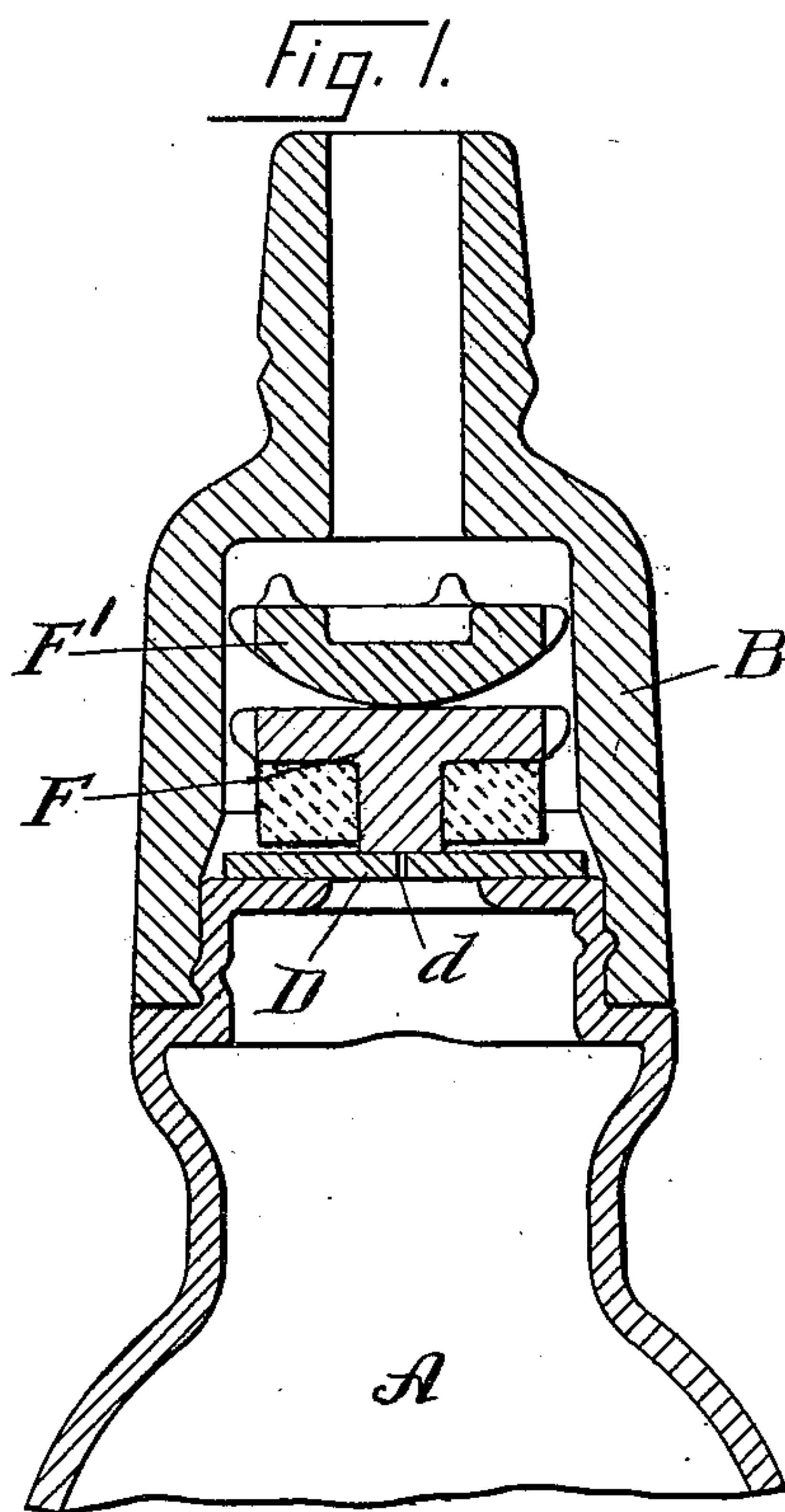
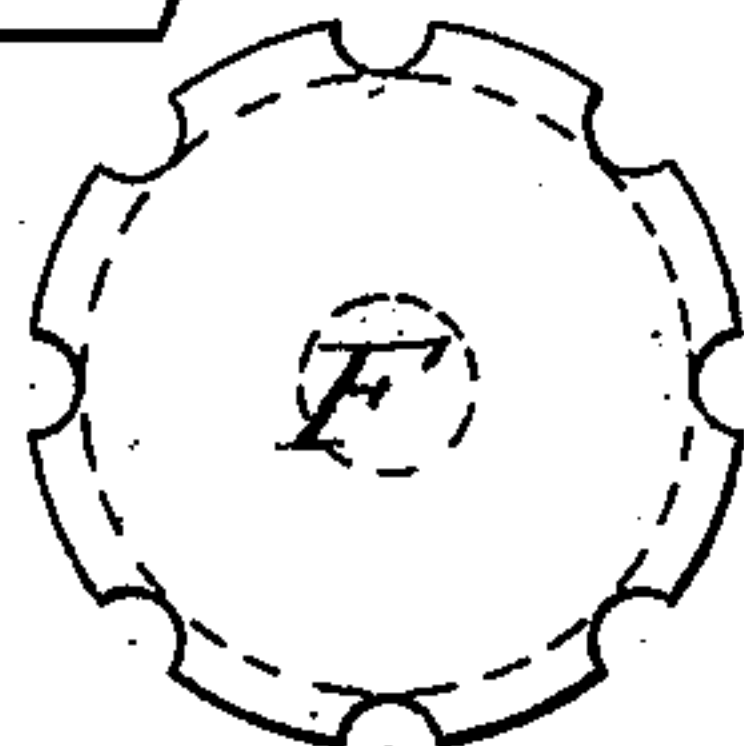


Fig. 4.



WITNESSES:

John R. Snow.
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NATHANIEL FREDERICK THAYER HUNT, OF BRAINTREE, MASSACHUSETTS.

NON-REFILLING BOTTLE.

SPECIFICATION forming part of Letters Patent No. 561,228, dated June 2, 1896.

Application filed August 17, 1895. Serial No. 559,589. (No model.)

To all whom it may concern:

Be it known that I, NATHANIEL FREDERICK THAYER HUNT, of Braintree, in the county of Norfolk and State of Massachusetts, have invented an Improved Non-Refilling Bottle, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional elevation illustrating my invention. Fig. 2 is a plan of the main valve. Fig. 3 is a plan of the tumbler, and Fig. 4 is a plan of the tumbler-valve.

My invention is an improvement upon the invention described in my Patent No. 515,879, dated March 6, 1894, and also upon the invention described in my pending application filed May 23, 1895, Serial No. 550,299. In that application I show a bottle combined with a cap to form a chamber for a valve and two tumblers, and my present invention relates to that class of non-refilling bottles and the like and consists in a bottle closed at its mouth by a valve with a vent-hole through it combined with a valve to close the vent-hole, which valve is also a tumbler—that is to say, is shaped to rest upon an edge when the bottle is held horizontally, so that its weight will then tend to pry it off its seat about the vent-hole; and in its best form my invention is provided with a second tumbler to aid the tumbler-valve to perform its double office of a tumbler to aid in keeping the main valve on its seat and of a valve to close the vent-hole through the main valve, thereby making the difficulty of refilling the bottle so great that it is practically impossible.

By grinding the top of the bottle A and covering it with a valve D, which fits on the ground surface, and using a tumbler for keeping valve D closed it sometimes happens that the valve D will stick to its seat and make it difficult to pour out the contents of the bottle, as the air-pressure below the valve is often a little less than the air-pressure above it; but by making a vent-hole through the main valve this is prevented, because when the bottle is inverted the air-pressure is equalized. On the other hand, if a vacuum be created, purposely, below the main valve and the mouth of the cap be inserted in liquor, the main valve will be instantly closed as soon as the air-pump is disconnected from the

mouth of the cap to allow the liquor to flow in, and no liquor can enter the bottle except through the vent-hole; but any small current through the vent-hole will cause the second valve to close the vent-hole, for the weight of the valves, when the cap is full of liquor, is so much reduced that it is practically impossible to so hold the bottle as to prevent the tumbler-valve from seating itself to close the vent-hole when the cap is filled with liquor and there is materially less than atmospheric pressure inside the bottle.

The tumbler-valve F' may be wholly of pressed glass, but if made partly of cork, as shown in Fig. 1 and indicated in Fig. 4, it is more certain to close vent *d* in case of an attempt to refill the bottle by suction—that is, by having the pressure inside the bottle less than that outside.

In the drawings, A is the bottle; B, the cap, which is preferably secured on the bottle by a screw-thread and suitable cement.

D is the main valve, having the vent-hole *d* through it.

F is the valve for closing the vent-hole, and F' the tumbler.

The valves and the tumbler are formed to permit the liquid to flow around them, as will be clear from Figs. 2, 3, and 4.

I am aware of Patent No. 535,229, dated March 5, 1895, to Stevens, and disclaim all that is shown in it, for the vent-hole in my main valve is closed by a part which not only performs the function of a valve for closing that vent-hole when it should be closed, but is also a tumbler, so that a slight shake will pry it off its seat about the vent-hole when it should be opened.

What I claim as my invention is—

1. In a non-refilling bottle the combination of the main valve D with a vent-hole *d* through it, and the tumbler-valve F', which is both a valve for the vent-hole and a tumbler, substantially as described.

2. In a non-refilling bottle the combination of main valve D with a vent-hole *d* through it, valve F which is also a tumbler, and a second tumbler F', substantially as described.

NATHANIEL FREDERICK THAYER HUNT.

Witnesses:

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