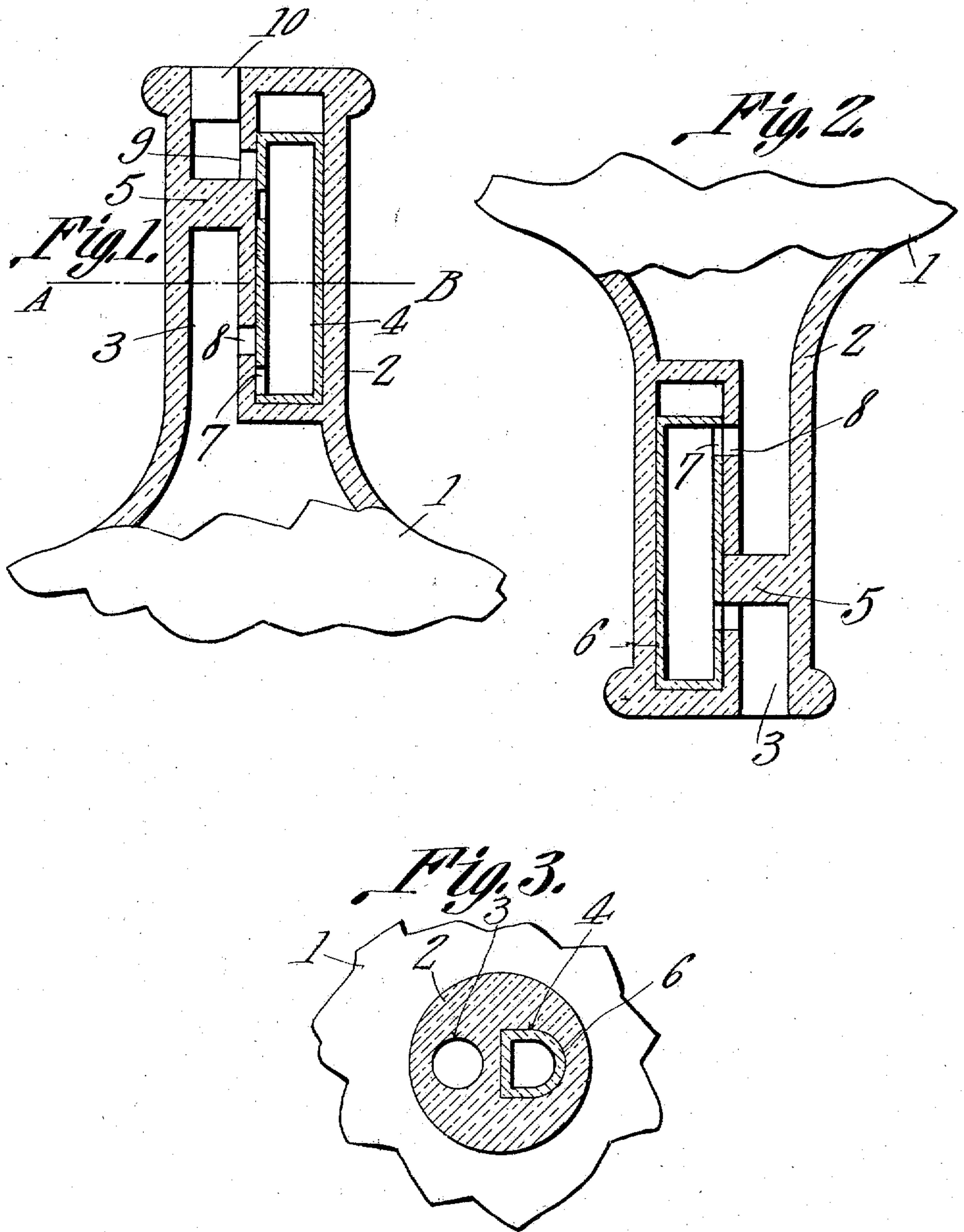


J. VENO.
NON-REFILLABLE BOTTLE.
APPLICATION FILED JUNE 22, 1910.

988,413.

Patented Apr. 4, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES VENO, OF VANCOUVER, BRITISH COLUMBIA, CANADA.

NON-REFILLABLE BOTTLE.

988,413.

Specification of Letters Patent.

Patented Apr. 4, 1911.

Application filed June 22, 1910. Serial No. 568,361.

To all whom it may concern:

Be it known that I, JAMES VENO, a citizen of Great Britain, residing at Vancouver, in the Province of British Columbia, Dominion of Canada, have invented a new and useful Non-Refillable Bottle, of which the following is a specification.

This invention relates to non-refillable bottles and one of its objects is to provide a bottle having a simple form of valve located in the neck thereof, said valve having a plurality of ports designed, when the bottle is inverted, to register with corresponding ports formed within the bottle neck and whereby a tortuous outlet passage is provided for the liquid contained in the bottle.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a central vertical section through the neck of a bottle having the present improvements embodied therein; Fig. 2 is a similar view showing the positions of the parts when the bottle is inverted. Fig. 3 is a section on line A—B Fig. 1.

Referring to the figures by characters of reference 1 designates a bottle having a neck 2 in which are formed parallel longitudinally extending passages 3 and 4, the passage 3 opening into the bottle and also through the free end of the neck but being intersected by an imperforate partition 5.

The passage 3 is preferably cylindrical while the passage 4 has a longitudinally extending flat face, as indicated in Fig. 3.

A tubular valve 6 fits snugly within the passage 4 and is adapted to reciprocate therein, this valve being closed at its ends and being slightly shorter than the passage 4 which is likewise closed at both ends. The valve has a flat face which bears snugly against the flat wall of the passage 4 and in this face is formed a series of preferably two ports 7. A port 8 is formed in the neck 2 between the passages 3 and 4 and between the bottle body 1 and partition 5. Another port 9 is formed within the neck and between the two passages at a point above the partition 5. These ports 9 and 8 are spaced apart the same distances as are the ports 7 so that, when the bottle is inverted the valve

will slide downwardly toward the free end of the neck and one of the ports 7 therein will be brought into register with the port 8. When, however, the bottle is in its normal or upright position, the ports 7 will assume positions removed from the ports 8 and 9 and thus cut off communication between the passage 3 and the interior of the valve 6.

It is to be understood that in filling the bottle the upper end of the passage 4 is to be left open and the valve 6 removed from said passage.

After the bottle has been filled by pouring the liquid into the neck thereof, the valve 6 can be placed in the passage 4 and the outer end of said bottle neck fused together so as to close the passage 4. A stopper, such as has been indicated, for example, at 10, can then be placed in the outer end of the passage 3 and the bottle will thus be completely sealed. When it is desired to remove the contents of the bottle, the stopper 10 is first withdrawn and the bottle is then inverted so as to cause the valve 6 to slide downwardly to bring its ports 7 into register with the ports 8 and 9. The liquid contents of the bottle will then flow through the registering ports and into the valve from the inner portion of the passage 3 and thence from said valve through the lower ports of the inverted valve and neck and into the lower or outer portion of the passage 3. As soon as the bottle is replaced in its normal or upright position, the valve will slide back and close the ports 8 and 9, thus preventing the admission of any liquid to the bottle.

It will be seen that a bottle such as herein described is very simple in construction and the valve therein constitutes efficient means for preventing refilling of the bottle after the removal of its initial contents.

Various changes can of course be made in the construction and arrangements of the parts without departing from the spirit or sacrificing any of the advantages of the invention as defined in the appended claim.

What is claimed is:—

A non-refillable bottle including a neck having non-alining passages therein extending longitudinally of the neck, one of said passages being closed at its ends and the other passage being closed at an intermediate point, there being ports in the walls of the passages for establishing communication there-between, and a hollow valve closed at

its ends and mounted to reciprocate within the closed passage, said valve having a flat face provided with ports adapted, when the bottle is inverted, to register with the ports in the wall of the passage, the walls of said closed passage constituting means for holding the valve against rotation.

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

JAMES VENO.

Witnesses:

A. E. GALPIN,
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