

No. 870,956.

PATENTED NOV. 12, 1907.

D. J. HIGGINBOTHAM.

BOTTLE.

APPLICATION FILED AUG. 4, 1906.

Fig. 1.

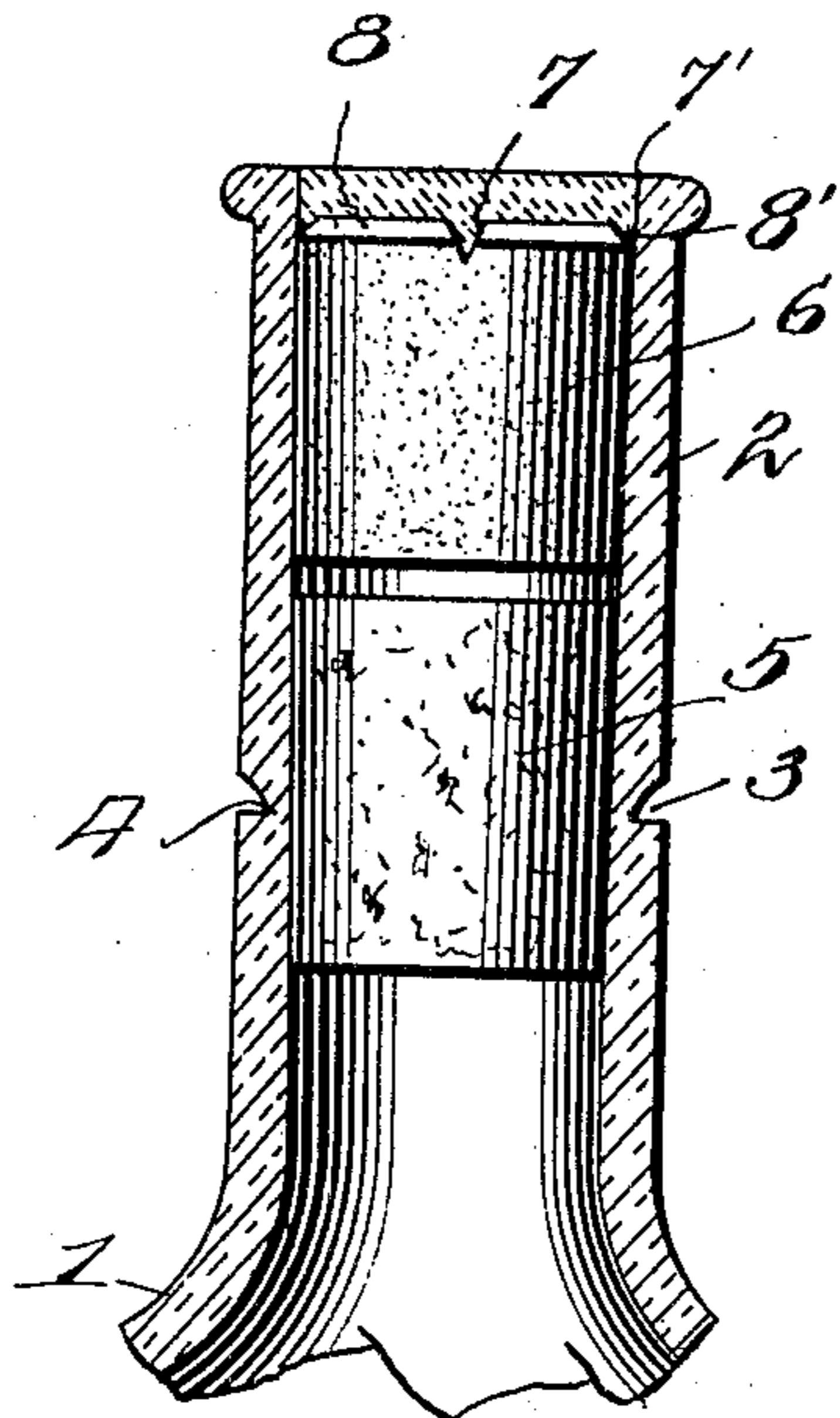


Fig. 2.

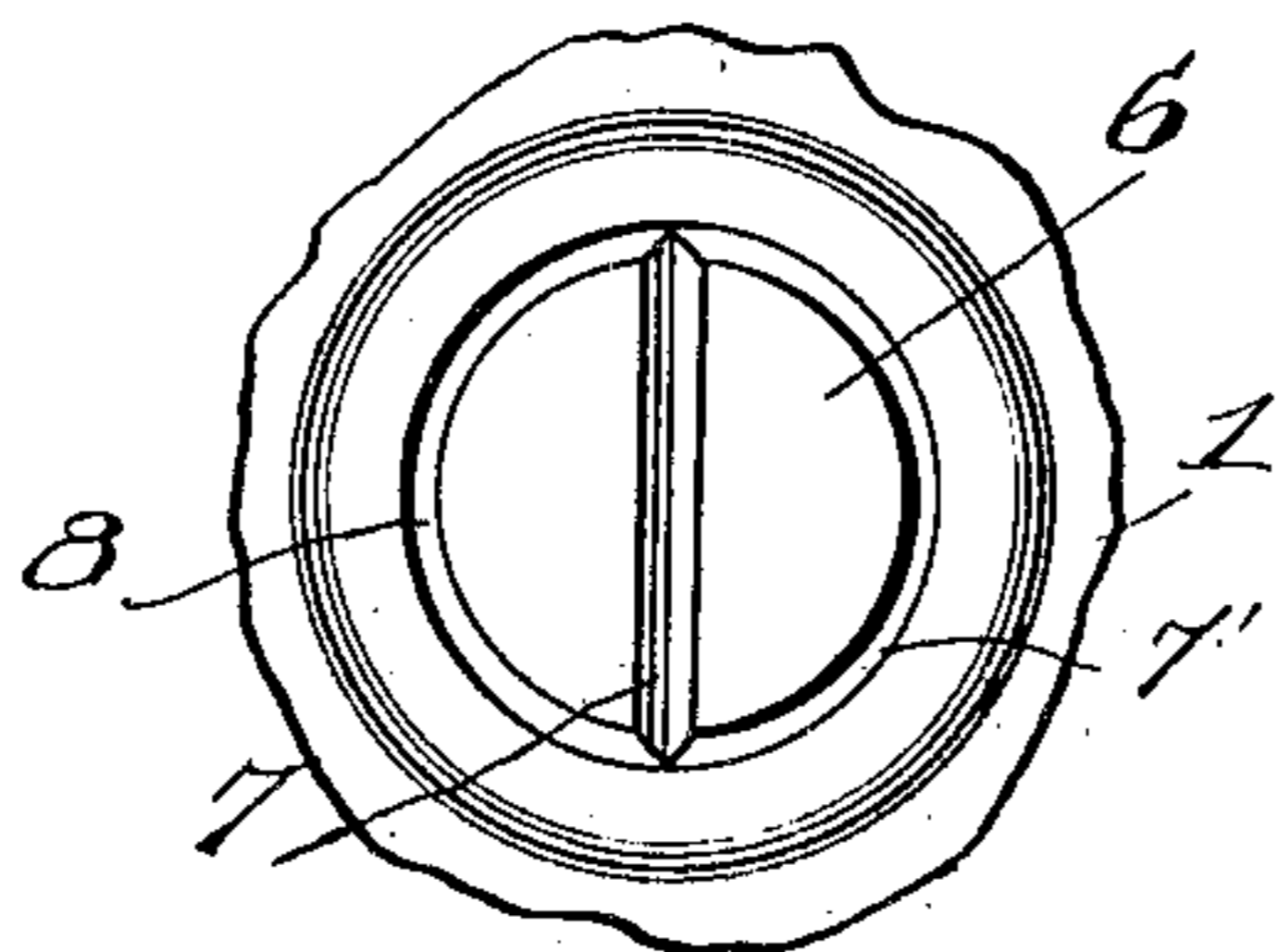
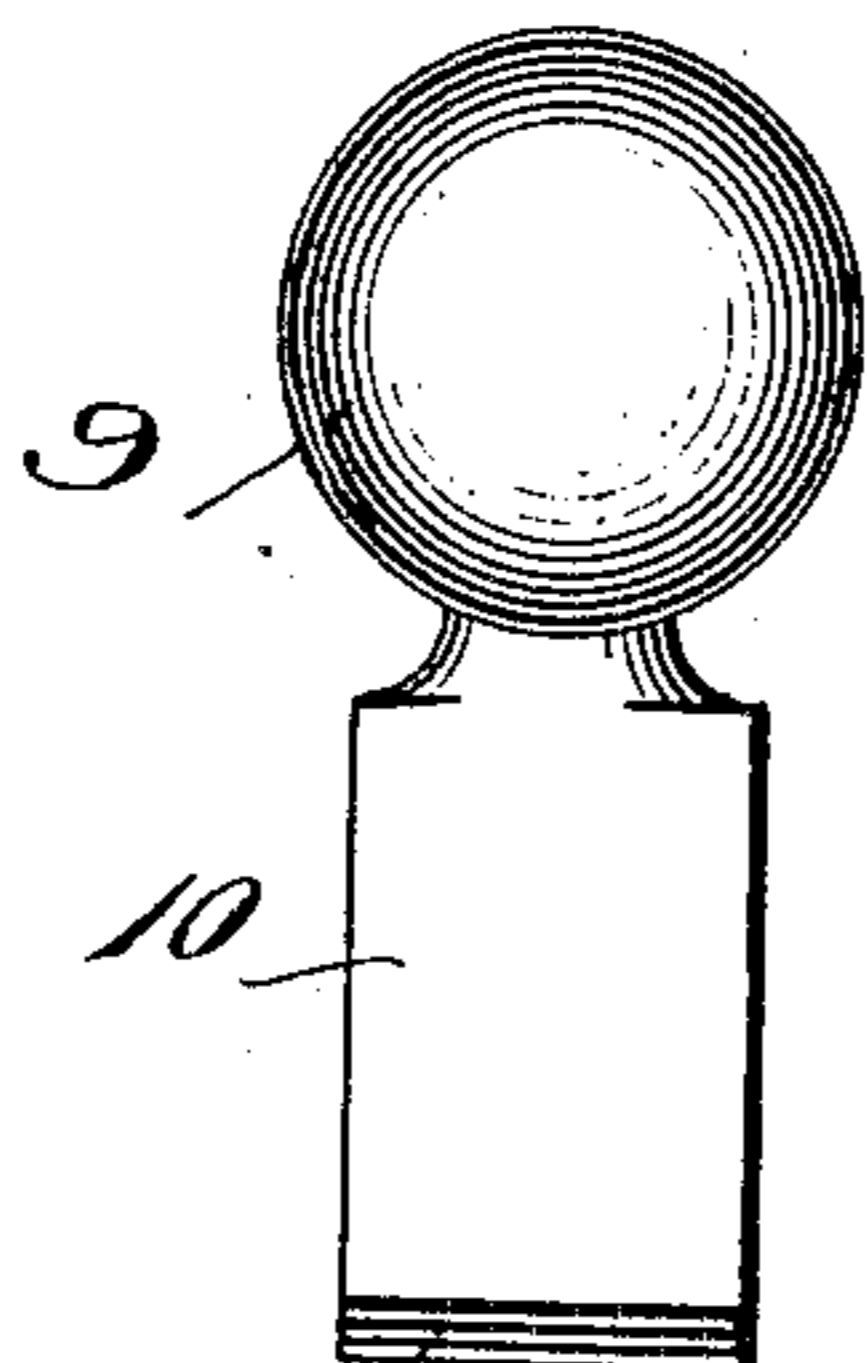


Fig. 3.



Witnesses
Frank Lough

C. C. Hines

Inventor

D. J. Higginbotham

By

Victor J. Evans.

Attorney

UNITED STATES PATENT OFFICE.

DON J. HIGGINBOTHAM, OF RIALTO, FLORIDA.

BOTTLE.

No. 870,956.

Specification of Letters Patent.

Patented Nov. 12, 1907.

Application filed August 4, 1906. Serial No. 329,195.

To all whom it may concern:

Be it known that I, DON J. HIGGINBOTHAM, a citizen of the United States of America, residing at Rialto, in the county of Lee and State of Florida, have invented
5 new and useful Improvements in Bottles, of which the following is a specification.

This invention relates to bottles and analogous receptacles and to protective closures therefor, and particularly to bottles of that character which insure protection both to the proprietor and consumer of a particular brand of goods by the provision of means to prevent fraudulent refilling of the bottle with an inferior article.

The object of the invention is to provide a bottle
15 having simple and effective means to seal the same and secure the desired protection, such means being of a nature to permit the bottle to be made and sealed at a cost but slightly, if at all, exceeding the cost of making and sealing analogous bottles of ordinary construction.

A further object is to provide sealing means which
20 will prevent the bottle from being refilled in any known way, and by which the bottle cannot be opened without giving visual evidence thereof.

The invention consists in the construction and arrangement of parts as will be hereinafter described and particularly pointed out in the claim.

In the accompanying drawing,—Figure 1 is a vertical section through the upper portion of a bottle embodying my invention. Fig. 2 is a top plan thereof, with
30 sealing wax omitted. Fig. 3 is a detail view of the driving and turning tool.

Referring to the drawing, the numeral 1 designates a bottle or similar receptacle of any suitable construction, design and size, and its neck 2 is provided
35 at a suitable point between its upper and lower ends with an annular groove 3, leading to a narrow wall or septum 4 connecting the upper to the lower section of the neck, thus adapting the upper section to be broken off by striking it a smart blow.

The means employed for sealing the bottle comprises
40 stoppers 5 and 6 adapted to fit within the neck, the stopper 6 being provided at its upper end with a transverse nick or groove 7 and having its edge rounded or beveled off, as indicated at 8 so as to form a channel 8',
45 between it and the inner surface of the neck of the bottle. The lower stopper 5 is preferably composed of cork or some other secure sealing material and is adapted to be disposed below the stopper 6 and to extend above and below the groove 3 to break joint therewith
50 and brace the neck against strain at its weakest point.

The stopper 6 is composed of glass, either glass in a roughened state, or having its outer surface ground. It is adapted to closely fit the neck and may be slightly tapered to more firmly engage therewith the further it
55 is forced.

After the bottle is filled, the stopper 5 is inserted, after which the stopper 6 is dropped into position in the neck above the same. A suitable form of tool is then employed for driving and fixing the stopper 6 in position, the tool being fitted in the groove 7 and operated
60 to force the stopper down into the neck, and then turned to rotate the stopper to a desired extent, so that its roughened or ground surface will grind its way into the wall of the neck, and thus without auxiliary fastenings of any kind, lock said stopper in position in such a
65 manner that it cannot be removed without breaking or otherwise injuring the neck to such an extent as to show visual evidence of the fact that the bottle has been tampered with.

I wish it to be understood that the glass cork is forced
70 down below the upper end of the neck to form a space 7' to be filled with sealing means.

One form of tool which may be employed for this purpose is shown in Fig. 3 and comprises a head or handle 9 having a depending blade 10. The lower end of
75 the blade is beveled edged, as shown at 11, to fit within the groove 7 so that upon the arrangement of said tool in position, the head 7 may be lightly struck to force the stopper 6 down into the neck and a rotary movement imparted to the tool by the action of the hand on the
80 head 9 to turn the stopper in an obvious manner, thus effecting the grinding of its surface into the wall of the neck. This grinding action forms myriads of interlocking projections and recesses or tongues and grooves between the stopper and neck which are very small
85 and yet so numerous as to secure a firm locking of said stopper within the neck, so that it cannot possibly be withdrawn or extracted without injury to the neck. The beveled surface 6 of the stopper forms a groove between it and the wall of the neck into which a seal-
90 ing wax or other substance may be placed to secure a hermetically sealed joint. This wax may fill the neck from the stopper up to the top of the neck and the name or trade-mark of the manufacturer may be impressed or embossed therein. It will thus be seen that the inven-
95 tion provides a simple form of closure which obviates the use of cement or other fastening means to secure the guard stopper 6 within the bottle to be manufactured and sealed at a cost exceeding but little, if any, the cost of manufacturing and sealing an ordinary bottle of anal-
100 ogous type. Upon striking the upper portion of the neck against an object or hitting such portion of the neck a smart blow, the neck will be broken at the point 4 below the stopper 6, and upon the removal of the top portion of the neck the stopper 5 may be detached to
105 permit the contents of the bottle to be poured out. The neck of the bottle will, however, show that the bottle has been once used and unsealed or emptied, thus enabling a prospective purchaser to determine such fact at a glance. By this simple departure from the ordinary
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form of bottle and seal, the purchaser is assured of receiving the genuine article, while the proprietor or manufacturer is protected against having the bottle or receptacle filled with an inferior article of goods
5 and sold for the genuine.

Having thus described the invention, what is claimed as new, is:—

10 A bottle comprising the neck portion with an external surrounding groove, a flexible stopper mounted in the neck and extending above the groove, a glass stopper having a roughened periphery, and a transverse groove in the upper surface, said groove serving to permit of the

glass cork being inserted within the neck and below its upper surface so as to form a space, said glass cork being also provided at its upper end with a surrounding beveled edge so as to form a channel between it and the interior of the neck of the bottle, sealing means serving to contact with said space, transverse groove and said channel, substantially as specified. 15

In testimony whereof, I affix my signature in presence of two witnesses. 20

DON J. HIGGINBOTHAM.

Witnesses:

EDWARD PARKINSON,
WILLIAM T. DODD.