

April 20, 1937.

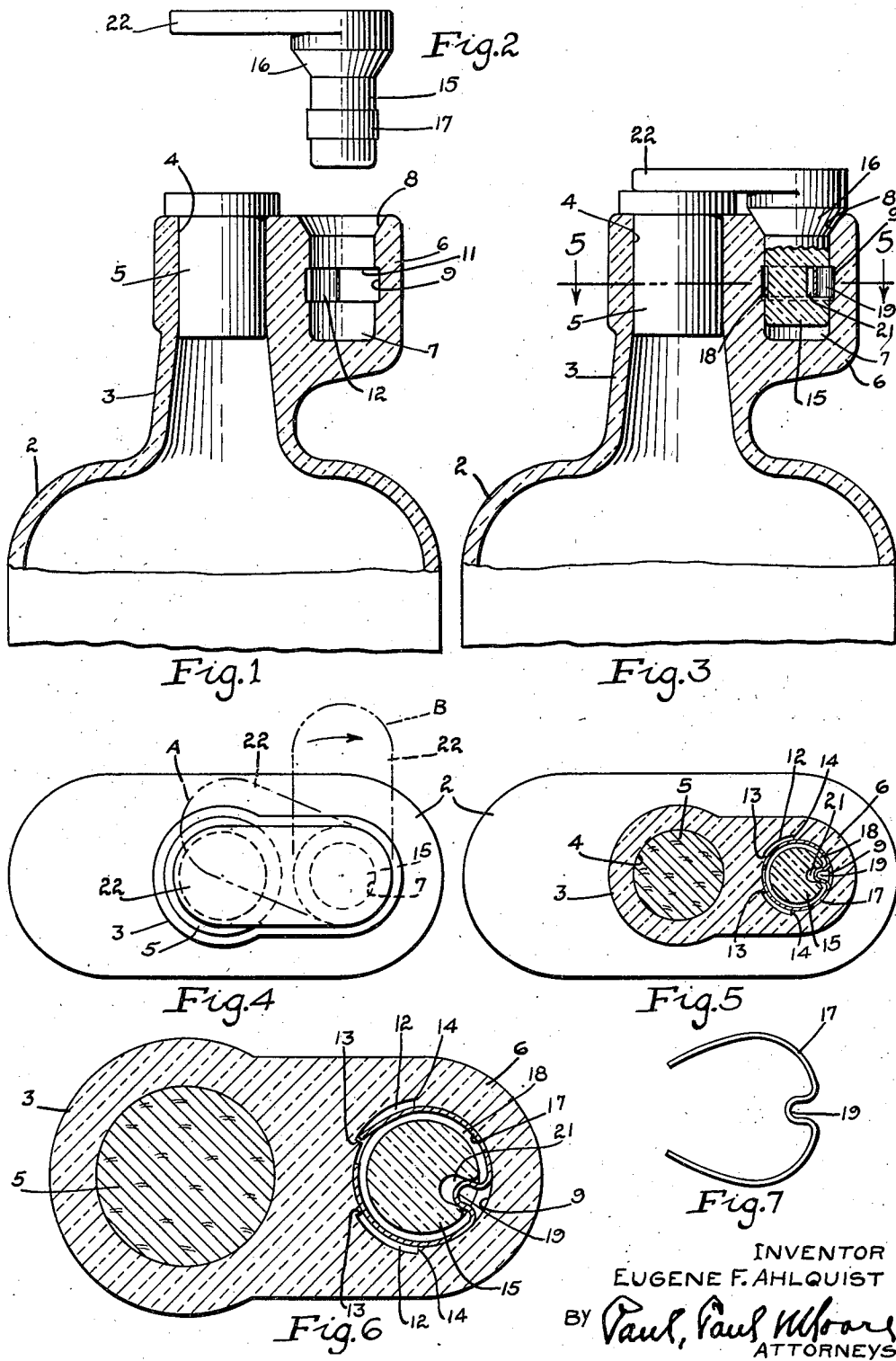
E. F. AHLQUIST

2,077,977

BOTTLE

Filed Nov. 1, 1934

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

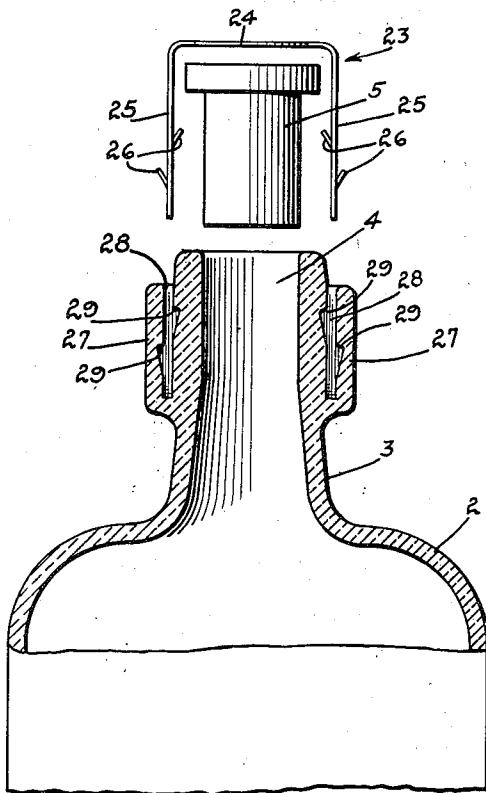


Fig. 8

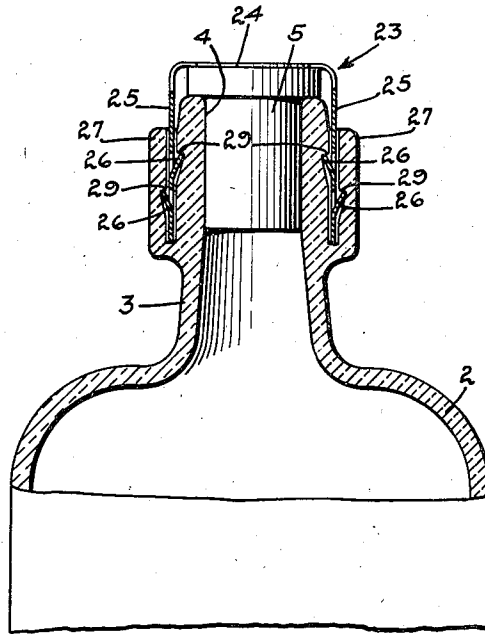


Fig. 9

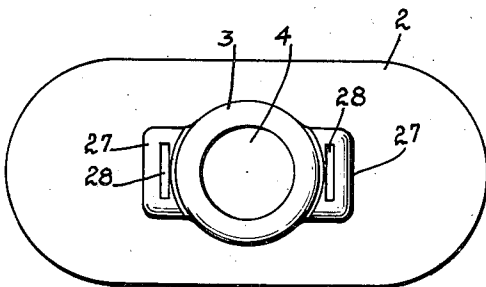


Fig. 10

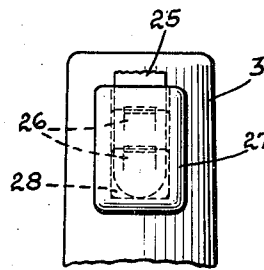


Fig. 11

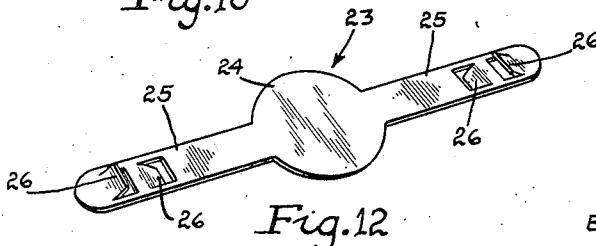


Fig. 12

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UNITED STATES PATENT OFFICE

2,077,977

BOTTLE

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6 Claims. (Cl. 215—7)

This invention relates to new and useful improvements in bottles and more particularly to bottles used for dispensing liquor.

Hard liquors and wines are usually dispensed to the trade in sealed bottles, properly labeled or marked so that prospective purchasers may readily note the particular brand or kind of liquor that each bottle contains. When the bottles are originally filled at the distillery or bottling plant, each bottle is usually closed by applying a suitable cork thereto, and sealed by enclosing the upper end of the bottle neck and the cork in tin foil, or by applying a suitable sticker or label to the top of the cork; the ends of which are usually secured to the neck of the bottle by such means as gumming. To dispense the contents of the bottle, the cork is removed, which necessitates that the above described seal be broken. When the bottle has been emptied of its contents, it is customary that it be either destroyed, or returned to the distillery from whence it was originally received or shipped, as it is well known that it is a violation of the law to refill such bottles with goods other than that specified on the labels thereof.

I am aware that there is now considerable liquor being sold to the public which is not genuine. This liquor is commonly known to the trade as "bootleg" liquor, and is often dispensed in bottles which originally contained a high quality liquor, by persons with fraudulent intent. In many instances, the labels which were originally applied to the bottles when they were originally filled with the genuine liquor, have not been removed from the bottles, and are retained thereon, for the express purpose of deceiving the purchaser. It is therefore desirable that means be provided whereby such fraudulent refilling of bottles cannot be perpetrated without detection.

An important object of the present invention is, therefore, to provide a bottle comprising means for sealing the usual cork or stopper thereof in such a manner that it cannot be removed from the bottle and replaced without leaving a tell-tale mark.

A further object is to provide a seal for the cork of a bottle which is so constructed that when once the seal has been manipulated or broken to permit the withdrawal of the cork from the bottle, the seal cannot again be restored to its normal position in engagement with the cork.

A further object is to provide a seal adapted for use in connection with a bottle to secure the cork in position therein, said seal having means adapted to interlock with a portion of the glass

of the bottle in such a manner that when the seal is broken or manipulated to permit the withdrawal of the cork from the bottle, the seal cannot again be returned to its normal sealing position, and the seal also being so constructed that it cannot be detached from the bottle without mutilation.

A further object is to provide a device for sealing the cork of a bottle in place therein, said seal having a portion adapted to be received in a socket provided in the wall of the bottle, and so interlocked with the walls of said socket that when the seal is broken to permit the withdrawal of the cork from the bottle, the broken portion of the seal cannot be removed from said socket to permit another or new seal to be applied to the bottle.

The primary object of the invention, therefore, is to provide a bottle provided with a seal whereby when once the bottle has been opened and emptied of its contents, it is rendered unfit for further use.

Other objects of the invention will appear from the following description and accompanying drawings and will be pointed out in the annexed claims.

In the accompanying drawings there has been disclosed a structure designed to carry out the various objects of the invention, but it is to be understood that the invention is not confined to the exact features shown as various changes may be made within the scope of the claims which follow.

In the drawings:

Figure 1 is a view showing the upper portion of a bottle with the invention embodied in the construction thereof;

Figure 2 is a side elevation of the seal when removed from the bottle;

Figure 3 is a view similar to Figure 1, showing the seal in operative engagement with the cork;

Figure 4 is a top view of Figure 3;

Figure 5 is a sectional plan view on the line 5—5 of Figure 3, showing the sealing member in its normal locking position;

Figure 6 is an enlarged detail sectional view showing the means provided in the socket, in which the sealing member is inserted, for preventing the sealing member from being returned to its normal position over the cork, when once it has been moved to a position to permit the withdrawal of the cork from the bottle;

Figure 7 is a detail view showing the resilient locking clip removed from the seal;

Figure 8 is a view showing a seal comprising a

strap element having its end portions provided with suitable spurs adapted to interlock with sockets provided in the walls of the bottle neck;

Figure 9 is a view showing the sealing member 5 illustrated in Figure 8, in sealing engagement with the cork;

Figure 10 is a top view of Figure 8;

Figure 11 is a detail view showing the seal broken, and a portion thereof remaining in one 10 of the sockets in the bottle neck; and

Figure 12 is a perspective view of the seal illustrated in Figure 8, before it is shaped for insertion into the sockets in the bottle neck.

In the selected embodiment of the invention 15 here shown, there is illustrated in Figure 1, a bottle comprising a body portion 2 having a restricted neck 3 provided with a suitable dispensing opening 4 adapted to receive a cork or stopper 5 in the usual manner.

20 An important feature of the invention resides in the means provided for securing the cork 5 in the dispensing opening 4 of the bottle, whereby when once the cork has been withdrawn from the opening 4, it cannot again be inserted there- 25 into without leaving a tell-tale mark. To thus initially secure the cork in the bottle, a lateral projection 6 is shown provided upon the neck of the bottle, having a suitable socket 7 therein, preferably terminating at its upper end in a conical seat 8. An annular groove 9 is provided in 30 the wall of the socket 7, intermediate its ends, to provide an abutment shoulder 11, as best shown in Figure 1. Portions of the bottom of the groove 9 are made deeper, as indicated at 12 in 35 Figures 5 and 6, whereby vertical shoulders 13 and 14 are provided in the groove 9, as best shown in Figure 6.

The novel seal herein disclosed, is shown comprising a plug 15 adapted to be fitted into the 40 socket 7, and having a tapered seat 16 at its upper portion adapted to engage the seat 8 of the socket 7, when the plug is inserted thereinto.

To prevent removal of the plug 15 from the 45 socket 7, when once it has been inserted thereinto, a spring clip, generally indicated by the numeral 17, and shown in Figure 7, is fitted into a groove 18 provided in the periphery of the plug 15, as best shown in Figure 6. The spring clip 17 has an inwardly bent portion 19 intermediate 50 its ends, adapted to be received in a recess 21 provided in the bottom of the groove 18 of the plug 15, whereby the spring clip 17 cannot relatively rotate upon the plug, as will readily be understood by reference to Figures 5 and 6.

55 The plug 15 is shown provided at its upper end with a horizontally disposed plate-like portion 22 adapted to overhang the cork 5 of the bottle, as clearly illustrated in Figure 3. By thus overhanging the cork 5, the latter cannot be withdrawn from the bottle until the plug 15 has been rotated sufficiently to move the plate-like portion 22 thereof to a position to free the cork. The spring clip 17 is so constructed that when fitted 60 into the groove 18 of the cylindrical portion of the plug 15, as shown in Figure 2, the plug may readily be inserted into the socket 7, by simply exerting a slight downward pressure thereon. When the clip, which normally is expanded to a diameter which is relatively larger than that of 70 the cylindrical portion of the plug 15, engages the walls of the socket 7, it is contracted into the groove 18 of the plug, whereby the latter may be moved to the position shown in Figure 3, or in other words, to a position in which the groove 18 thereof will register with the groove 9 of the 75

socket. When thus positioned, the spring clip 17 expands into the groove 9 of the socket, whereby the plug 15 cannot again be withdrawn from the socket 7 without breakage, as a result of the clip 17 being interlocked with the shoulder of the 5 grooves 9 and 18 of the socket 7 and plug 15, respectively.

The plug 15, however, is free to rotate in the socket 7, but such rotation is restricted by reason of the terminals of the spring clip 17 impinging 10 against the vertical shoulders 13 and 14 of the groove 9. When the plug is in cork sealing position, as shown in Figures 4 and 5, the terminals of the clip 17 are positioned as shown in Figure 5, wherein they are out of engagement with the 15 shoulders 13 and 14, and whereby the plug 15 may be relatively rotated in the socket 7, in either direction.

Before the cork can be withdrawn from the 20 bottle, the upper horizontal plate portion 22 of the plug must be rotated to a position whereby it does not overhang the cork. When the plug 15 has been rotated to the position indicated by the dotted lines A in Figure 4, one of the terminals of the clip 17 will engage one of the shoulders 13, whereby the plug 15 cannot be returned 25 to its normal position, shown in full lines in Figure 4. The sealing member or plug 15, however, may be rotated to the dotted line position, indicated at B in Figure 4, whereby the plate portion 30 22 thereof will be out of engagement with the cork, and the latter may then be readily withdrawn from the bottle. When the sealing member is in the position shown at B in Figure 4, the other terminal of the clip 17 may engage the 35 shoulder 14 to thereby prevent the sealing member from being further rotated in the direction of the arrow in Figure 4. Thus, by the provision of shoulders 13 and 14, when once the sealing member has been moved out of its normal position, 40 it cannot again be returned to its normal cork sealing position, whereby the bottle cannot be refilled and again sealed without being noted.

The cylindrical portion of the plug 15, preferably snugly fits the socket 7, and the annular 45 shoulder 11 of the groove 9 is so spaced from the tapered seat 8 of the socket, that when the plug is inserted into the socket 7 and the clip 17 expands into the groove 9, the seat 16 of the plug will sealingly engage the seat 8 in such a manner that acid cannot be introduced into the 50 socket to destroy the locking clip 17, should such a move be attempted by a person with fraudulent intent. It will also be noted that if the plug is broken off at the top of the socket 7, that portion 55 thereof remaining in the socket cannot be removed therefrom without destroying the bottle.

Figures 7 to 11, inclusive, illustrate another form of seal which comprises a suitable metallic 60 strap-like seal, generally indicated by the numeral 23, and best shown in Figure 12. The seal here shown comprises an enlarged central portion 24 adapted to be fitted over the cork, and having oppositely disposed strap-like portions 25 provided with suitable spurs 26 adapted for inter- 65 locking engagement with a portion of the bottle.

To accommodate the seal shown in Figure 12, the bottle neck 3 is shown provided with oppositely disposed projections 27 having relatively narrow sockets 28 therein, open at their tops, 70 and each shown having a plurality of oppositely disposed abutment shoulders 29 formed in the walls thereof, adapted to interlock with the spurs 26 of the sealing member 23, as will subsequently be described.

To seal the bottle, the cork 5 is inserted into the dispensing opening 4 thereof, after which the sealing member 23 is fitted over the cork and the strap-like portions 25 thereof inserted into the sockets 28, as clearly illustrated in Figure 8. When the strap-like ends 25 are thus inserted into the sockets 28, the spurs 26 thereof will interlock with the shoulders 29 of said sockets, whereby the seal cannot again be withdrawn from the bottle without destroying it. To open the bottle, the seal must be broken, as illustrated in Figure 10, before the cork can be withdrawn from the dispensing opening of the bottle.

From the foregoing, it will be seen that a bottle provided with a seal such as herein disclosed, cannot be emptied of its contents and refilled without leaving a tell-tale mark, for the reason that when once the seal has been manipulated or broken to permit the removal of the cork from the bottle, the seal cannot again be restored to its original sealing engagement with the cork. Thus, the bottle is rendered unfit for further use.

In other words, a bottle equipped with a seal such as herein disclosed, is adapted to be used but once, as it cannot be used again without detection, and it is therefore discarded or destroyed. It will thus be seen that manufacturers or distillers of high quality goods may dispense their goods in bottles of the character herein disclosed, with utmost safety, as the danger of the bottles being fraudulently refilled with inferior goods and sold to the public with the original labels, or duplicates thereof appearing on the bottles, is substantially eliminated, as such an act cannot be perpetrated without detection. The invention is also comparatively simple and may readily be embodied in the construction of the bottle without materially increasing the cost thereof.

While I have herein described the invention as being used in connection with bottles for dispensing liquor, it is to be understood that I do not wish to be so limited, as obviously the invention may be applied to various other types of containers or receptacles, where such a seal may be found applicable, without departing from the scope of the invention.

I claim as my invention:

1. The combination with a bottle comprising a dispensing opening and a cork, and a wall of the bottle having a socket therein, of a device having a portion insertable in said socket and provided with means adapted to interlock with means on the wall of the socket to prevent removal therefrom; said device having a portion adapted to be positioned to prevent removal of the cork from the bottle, and the locking means of said device being so constructed that when the device is actuated to permit the removal of the cork, it cannot again be returned to cork-securing position without detection.

2. The combination with a bottle comprising a neck having a dispensing opening and a cork fitting therein, of a device non-detachably secured to the neck of the bottle clear of the dis-

persing opening, and having a portion adapted to be positioned over the cork to prevent removal thereof from the dispensing opening, said device being capable of relative rotation, whereby it may be positioned to permit removal of the cork from the bottle, and means whereby when said device has been actuated to permit the removal of the cork, it cannot again be returned to cork-securing position without detection.

3. A bottle having a dispensing opening and a cork fitting in said opening, a wall of said bottle having a socket therein, a device rotatable in said socket and having a portion positioned over the cork, whereby the latter cannot be removed from the bottle without relatively rotating said device, means on said device adapted for interlocking engagement with means on the walls of the socket to thereby prevent said device from being removed from the bottle, when once it has been operatively engaged therewith, and means whereby said device cannot be returned to cork securing position, when once it has been actuated to permit removal of the cork from the bottle.

4. A bottle having a dispensing opening and a cork fitting in said opening, a wall of said bottle having a socket therein, a device having a portion non-detachably received in said socket and capable of rotary movement thereon, said device having a portion adapted to be positioned over the cork, whereby the latter cannot be removed from the bottle without relatively rotating said device, and means on said device adapted to interlock with means on the walls of said socket to thereby prevent said device from being returned to cork sealing position, when once it has been operated to permit the cork to be removed from the bottle, and whereby the bottle cannot be refilled and sealed without detection.

5. The combination with a bottle comprising a neck having a dispensing opening and a cork fitting therein, of a device non-detachably secured to the neck of the bottle to one side of the dispensing opening and having means adapted to be positioned to prevent removal of the cork from the dispensing opening, when the bottle is sealed, and means whereby said device may be actuated to permit the removal of the cork, but whereby it cannot again be returned to cork securing position without detection.

6. The combination with a bottle comprising a neck having a dispensing opening and a cork fitting therein, of a device non-detachably secured to the neck of the bottle to one side thereof and having an overhanging portion adapted to be positioned to prevent removal of the cork from the dispensing opening, when the bottle is sealed, means whereby the device may be operated to move said overhanging portion out of cork securing position, and means whereby said device cannot be operated to return the overhanging portion to cork securing position when once it has been moved to an inoperative position.

EUGENE F. AHLQUIST.