E. F. BERG.

BOTTLE.

APPLICATION FILED MAY 14, 1909.

930,133. Patented Aug. 3, 1909.

Fig. 1

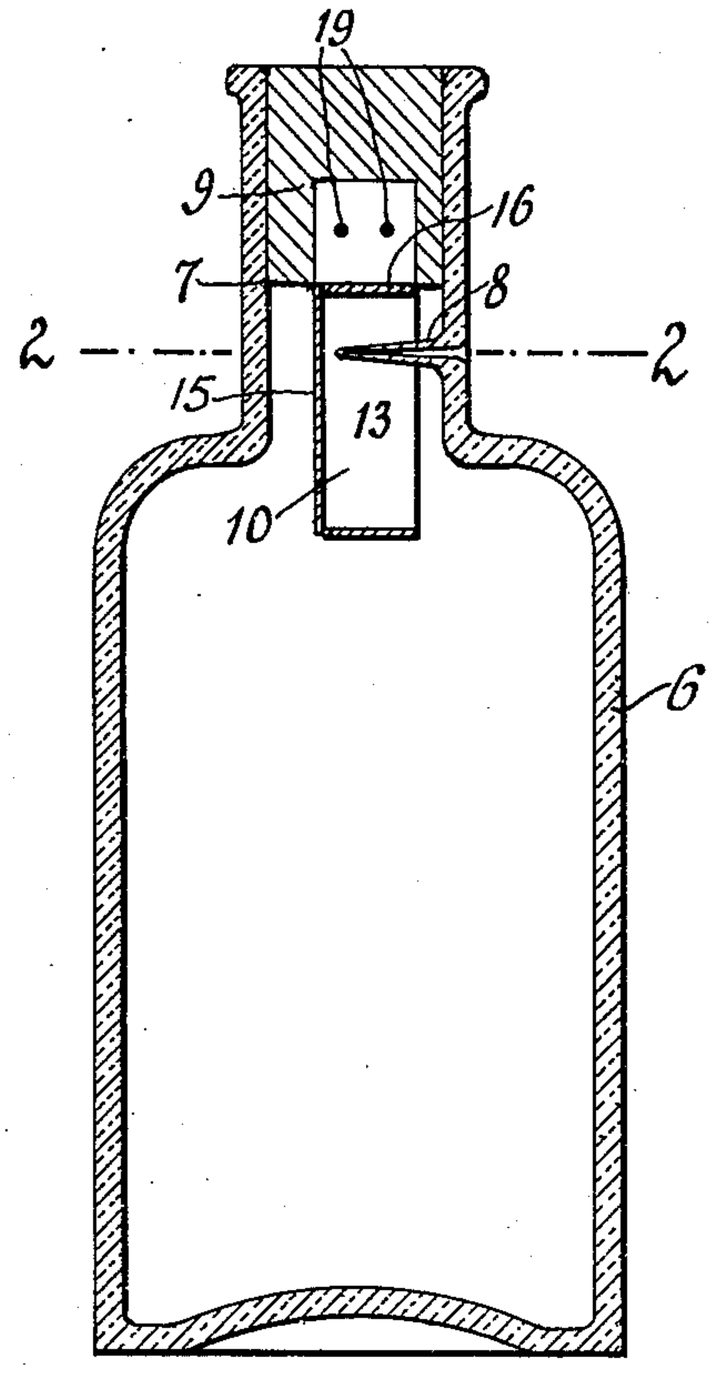
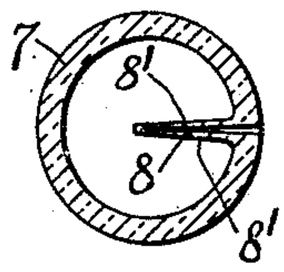


Fig. 2



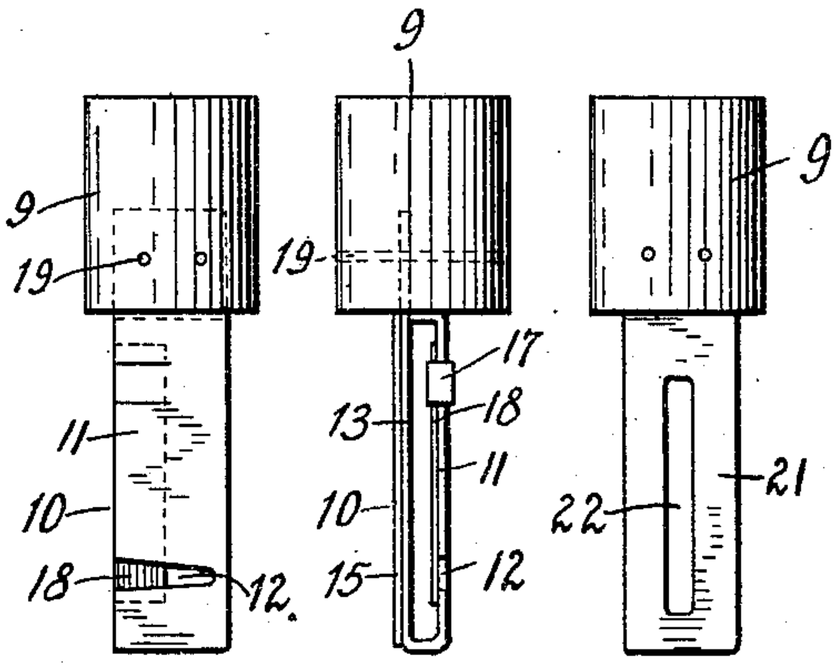


Fig. 3

Fig. 4

Fig. 6

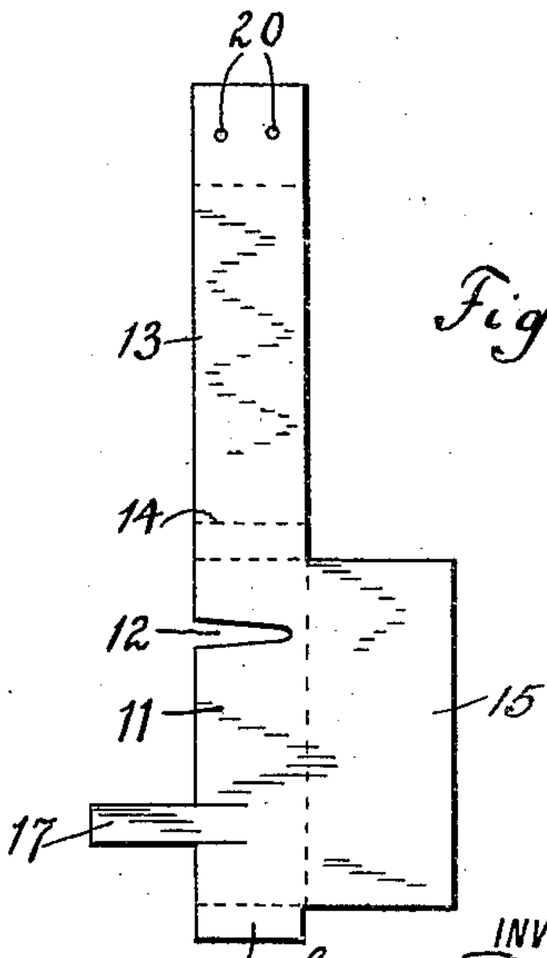


Fig. 5

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UNITED STATES PATENT OFFICE.

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BOTTLE.

No. 930,133. Specification of Letters Patent. Patented Aug. 3, 1909.

Application filed May 14, 1909. Serial No. 496,066.

To all whom it may concern:

Be it known that I, EUGENE F. BERG, a citizen of the United States, and resident of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Bottles, of which the following is a specification.

The present invention relates to bottles, jugs, jars and similar vessels suitable for holding proprietary beverages and other liquids, and the object is to provide a vessel of the class described, which having once been filled, cannot be emptied of its contents without leaving evidence of the fact.

With this and other ends in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described and shown in the accompanying drawings, and particularly pointed out in the appended claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a central vertical section of a bottle and closure, constructed in accordance with the present invention, Fig. 2 is a section taken on line 2, 2 of Fig. 1 with closure omitted, Fig. 3 is a side elevation of the stopper and its attachment, and Fig. 4 is a front elevation thereof. Fig. 5 is a plan view of the blank wherefrom the attachment is formed, and Fig. 6 is a detail view of the stopper and a modified form of construction of the attachment.

The invention is shown in the drawings applied to a bottle, in which the numeral 6 designates the bottle, made of any suitable material and being of any desired shape.

7 denotes the neck of the bottle, which, as shown in Figs. 1 and 2 of the drawings, is provided at or near its lower end with a projection 8, extending, preferably, radially inward and substantially beyond the longitudinal axis of the neck. This projection is made integral with the neck, and may be formed thereon when the bottle is blown by the glass blower by forcing a pointed instrument into the outer wall of the neck, or in any other manner, whereby a hollow, frangible cone is formed, open at its base and closed at its apex. The mouth of the neck may be closed by a stopper or cork 9, to which is attached a U-shaped member 10, preferably, made of a slightly resilient sheet metal. The blank, wherefrom this U-shaped member is formed, is shown in Fig. 5 of the drawings, and consists of a body portion 11, provided with a slot 12, being of a size which is substantially in excess of the size of the projection 8 upon the neck of the bottle. Attached to this body portion, or preferably made integral therewith, is a plate 13, which when bent on the line 14 into a plane substantially parallel to the plane of the body portion 11, forms, together with said body portion, a U-shaped member, the rear end of which is closed by the plate 15, made integral with the body portion 11, when bent into the plane of the plate 13. The body portion is furthermore provided with an extension 16, which is bent substantially at right angles to the body portion 11 and soldered or otherwise secured to the plate 13, whereby a U-shaped member is formed which is open only at its front portion. There is furthermore an extension 17 upon the body portion 11, which, when properly bent, keeps a resilient member or plate spring 18 of suitable length in contact with the inner face of the body portion 11, closing thereby the slot 12, as clearly shown in Figs. 3 and 4 of the drawings. To secure the U-shaped member to the cork, a preferably centrally located recess is formed in said cork, into which the plate 13 is forced until the cork contacts with the extension 16 and then pins 19, 19 driven into the cork and through the holes 20, 20, formed in the plate 13, whereby the U-shaped member is fixedly held in position upon the cork 9.

The bottle is filled through its unobstructed or almost unobstructed neck in the usual way. The stopper 19 is then inserted into the mouth of the bottle in such a manner that the plate 11 of the U-shaped member contacts with one of the sides 8′, 8′ of the conical projection 8, and pushed downwardly until the conical projection is adapted to enter the slot 12 of the U-shaped member and contacts with the spring 18 upon the same. A slight tilting movement will bring the conical member between the plate 11 and the spring 18, and thereafter an upward movement of the stopper brings the projection between the plates 11 and 13 of the U-shaped member. When now the stopper is driven home so that it can only be removed by the means of a cork-screw or its equivalent, it will be seen that it cannot be removed without breaking off the projection 8, whereby,—the projection being hollow,—a hole is formed in the neck of the bottle, thus leaving evidence of the fact that the bottle or vessel has once been filled and

emptied. The broken section of the projection 8 will be kept between the plates of the U-shaped member and taken out with the same as the cork is withdrawn from the bottle.

The purpose of the extension 16 upon the U-shaped member is to prevent the removal of the U-shaped member from the bottle, in case the cork should be cut by a suitable instrument into small parts and taken out without the aid of a cork-screw or other like instrument.

A modification of the device is illustrated in Fig. 6 of the drawings, in which, instead of the U-shaped member, a resilient plate 21 is secured to the cork 9. This plate is provided with a longitudinal slot 22, adapted to be engaged by the projection 8 of the bottle neck, whereby this projection will be broken off when the cork is withdrawn. To insert this attachment into the bottle neck, it is necessary to bring the plate 21 in a plane substantially at right angles to the axis of the hollow projection; the plate 21 being resilient, the same will be forced outwardly, as the stopper is pushed downwardly, until the point of the projection enters the slot 22 when the plate 21 will spring into its normal position, engaging thereby the projection 8.

The present improvements are exceedingly simple and inexpensive since the only addition to the ordinary form of bottle is the provision of the comparatively inexpensive attachment to the cork, and the provision of a projection in the bottle neck. The opening of the bottle may be readily detected by the hole in the neck in the same, showing clearly that the original contents of the bottle have been taken out.

While, of course, the bottle is not rendered entirely unfit for use, it is obvious that the same cannot be used for keeping and shipping proprietary beverages, since, to close the mouth of the bottle the hollow projection of which has been broken off, a rather long stopper is needed, which cannot, however, close the opening at the base of the broken cone airtight.

Changes in the form, proportion, size, and minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit of the invention.

What I claim is:

1. The combination with a necked receptacle, of a projection formed on the inner wall of said neck, a stopper, and a U-shaped member having a slot into which said projection is adapted to enter, whereby the same is brought between the plates forming said U-shaped member and broken off said neck when said stopper is withdrawn therefrom.

2. The combination with a necked receptacle, of a hollow projection formed on the inner wall of said neck, a stopper, and a U-shaped member having a slot into which said projection is adapted to enter, whereby the same is brought between the plates forming said U-shaped member and broken off said neck when said stopper is withdrawn therefrom.

3. The combination with a necked receptacle, of a projection formed on the inner wall of said neck, a stopper, and a U-shaped member closed at its upper end and having a slot into which said projection is adapted to enter, whereby the same is brought between the plates forming said U-shaped member and broken off said neck when said stopper is withdrawn therefrom.

4. The combination with a necked receptacle, of a hollow conical projection formed on the inner wall of said neck, a stopper, and a U-shaped member closed at its upper end and having a slot into which said projection is adapted to enter, whereby the same is brought between the plates forming said U-shaped member and broken off said neck when said stopper is withdrawn therefrom.

5. The combination with a necked receptacle, of a projection formed on the inner wall of said neck, a stopper, a U-shaped member having a slot into which said projection is adapted to enter, whereby the same is brought between the plates forming said U-shaped member and broken off said neck when said stopper is withdrawn therefrom, and resilient means for closing said slot for preventing the disengagement of said projection from said U-shaped member.

6. The combination with a necked receptacle, of a hollow conical projection formed on the inner wall of said neck, a stopper, a U-shaped member having a slot into which said projection is adapted to enter, whereby the same is brought between the plates forming said U-shaped member and broken off said neck when said stopper is withdrawn therefrom, and resilient means for closing said slot for preventing the disengagement of said projection from said U-shaped member.

7. The combination with a necked receptacle, of a projection formed on the inner wall of said neck, a stopper, a U-shaped member closed at its upper end and having a slot into which said projection is adapted to enter, whereby the same is brought between the plates forming said U-shaped member and broken off said neck when said stopper is withdrawn therefrom, and resilient means for closing said slot for preventing the disengagement of said projection from said U-shaped member.

8. The combination with a necked receptacle, of a hollow conical projection formed on the inner wall of said neck, a stopper, a U-shaped member closed at its upper end and having a slot into which said projection is adapted to enter, whereby the same is brought between the plates forming said U-

shaped member and broken off said neck when said stopper is withdrawn therefrom, and resilient means for closing said slot for preventing the disengagement of said projection from said U-shaped member.

9. The combination with a necked receptacle, of a hollow conical projection formed on the inner wall of said neck, a stopper, and means on said stopper for engaging said projection when said stopper is inserted into the mouth of said receptacle for breaking off said projection when said stopper is withdrawn from said receptacle, whereby a hole is formed in the neck thereof.

Signed at New York, in the county of New York and State of New York, this 11th day of May, A. D. 1909.

EUGENE F. BERG.

Witnesses:
SIGMUND HERZOG,
AMELIA F. BERG.