H. F. GRISWOLD.

BOTTLE.

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1,072,606.

Patented Sept. 9, 1913.

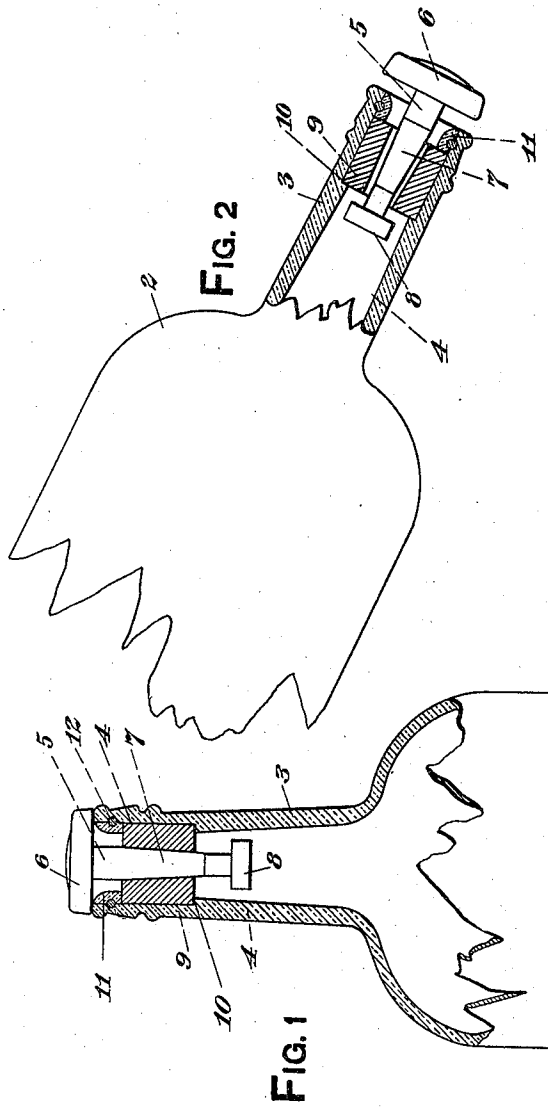


FIG. 1

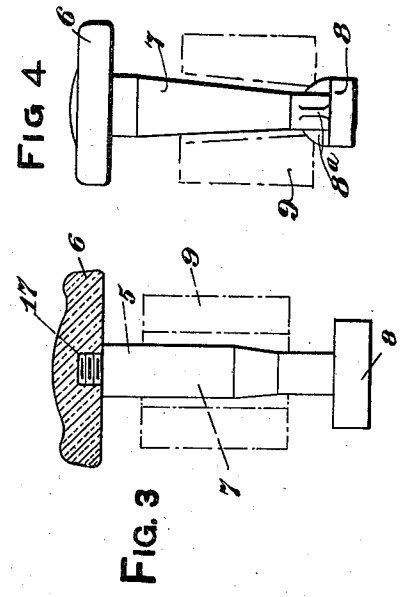


FIG. 4

FIG. 3

FIG. 2

WITNESSES

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BOTTLE.

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To all whom it may concern:

Be it known that I, HORATIO F. GRISWOLD, a citizen of the United States of America, residing at Connellsville, in the county of Fayette and State of Pennsylvania, have invented a new and useful Improvement in Bottles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form part of this specification.

My invention is an improvement in bottles or similar receptacles and its object is to provide a new and simple improved construction therefor in which there is employed a stopper device so formed that it may impart not only a non-refillable capacity to the bottle but which also affords a bottle adapted for delivery or dispensing of its contents in measured discharge, or in other words, a measuring bottle.

I will now describe my invention so that others skilled in the art to which it appertains may understand and construct the same, it being premised, however, that changes may be made in the specific construction and arrangement shown and described, without departing from my invention. It will also be understood that my device is not limited in application to a particular type of bottle but that it is applicable to any suitable bottle.

Figure 1 is an elevational view partly in section, showing a non-refillable bottle embodying my invention, the bottle being in an upright position with the stopper normally closing the neck; Fig. 2 is a similar view showing the bottle in a tipped position for escape of the contents of the bottle; Fig. 3 is a detailed view of the stopper, partly in section, to be hereinafter more fully referred to; and Fig. 4 is a similar view showing a modified form of stopper.

In the drawings the reference numeral 2 indicates a bottle having a neck portion 3, within the aperture 4 of which is mounted to reciprocably operate the tapered stopper or puppet-valve 5. This stopper has a head portion 6 which normally closes the opening in the neck by resting upon the mouth thereof in the manner shown in Fig. 1. The stem portion 7 of the stopper, which depends from the head 6, carries the lower or bottom head 8, and positioned between the head 6 and the head 8 is a cylindrical member or sleeve 9, formed preferably of cork, which surrounds the stem 7 and is disposed within the aperture 4 of the neck 3. This sleeve 9 preferably rests upon the shoulder 10 of the bottle-neck and is held against withdrawal by the fastening ring 11. The ring 11 may be of vitreous material and be cemented to the interior face of the aperture 4. If desired, the neck and the ring 11 may be formed with registering recesses 12 adapted to receive a binding medium such as cement, to more effectually secure the said ring against removal. It will be noted that the stem 7 is in the shape of a true stopper, *i. e.* it is tapered so as to afford a seat within the conical or tapered bore of the member 9.

In certain sauce bottles it is desirable that the reciprocable action of the stopper be such as to prevent undue escape of the contents, and, as in the case of liquor bottles, it is desired to provide for interrupted flow through the bottle-neck, the head 8 may be formed with the ribs or lugs 8^a which serve to space the head from the member 9 when the head shifts under tilting of the bottle. The bottle may be filled and the stopper mechanism then applied to the bottle or the bottle may be provided with a lower opening 14 closable by a suitable stopper 15 which may be non-removably cemented within such opening. Coöperating recesses 16 may also be formed in the wall of the bottle and the stopper 15, as in the case of the ring 11, to assist the binding action in the application of cement or other binding medium.

The stopper mechanism may be assembled in any desirable manner. The ring 9 may be split and placed about the valve 5 or the head 6 may be separately formed and screw-threaded and cemented as at 17, as shown in Fig. 3, to the stem 5 after the stem has been threaded through the member 9.

The advantages of my invention will be found to reside in a device which is simple, durable and inexpensive and which is easily applicable to the bottle and efficient in operation, not being liable to derangement or to become inoperative.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In a bottle, the combination with the neck of a bottle of a cylindrical member fixedly mounted therein and having a conical bore tapering inwardly from top to bottom, a device for preventing the removal of the

cylindrical member from the neck, and a stopper extending through the bore and tapering in the same direction as said conical bore and having a projection on the lower portion thereof to limit the movement of the stopper.

2. In a bottle, the combination with a bottle neck, of a conical stopper mounted therein and having a head portion adapted to normally close the mouth of the neck, a cylindrical member mounted within the neck of the bottle and having a central conical bore to receive the conical stopper, said stopper having a lower head portion adapted to limit the movement of the first-named head from the mouth of the neck.

3. In a bottle, the combination with a bottle neck, a cylindrical member mounted therein and having a conical bore forming a stopper seat, a superposed ring member secured to the neck of the bottle and in abutment with and adapted to hold against removal the cylindrical member, a conical stopper having a stem portion mounted to reciprocate within the cylindrical member and having a head adapted to normally close the mouth of the neck and a second head for limiting the movement of the first-named head from the mouth of the neck.

In testimony whereof, I have hereunto set my hand.

HORATIO F. GRISWOLD.

Witnesses:
MARY A. BARTH,
M. A. KELLER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."