No. 712,645. Patented Nov. 4, 1902.

M. BRADY.

BOTTLE.

(Application filed Apr. 28, 1902.)

(No Model.)

Fig. 1.

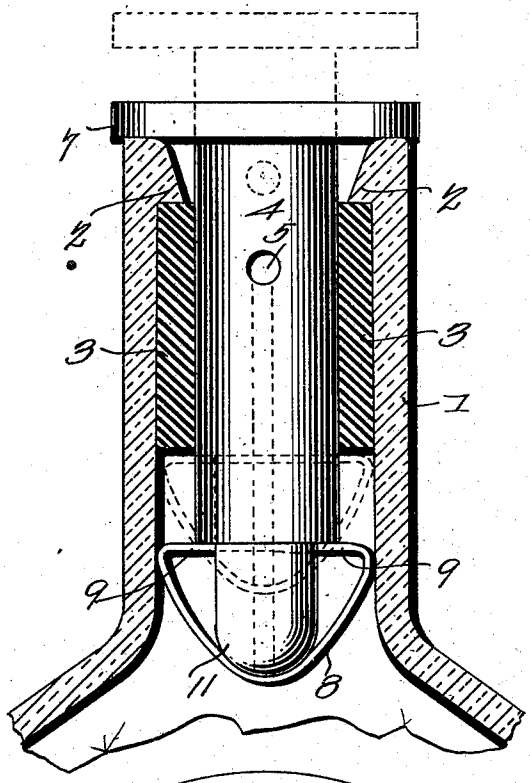
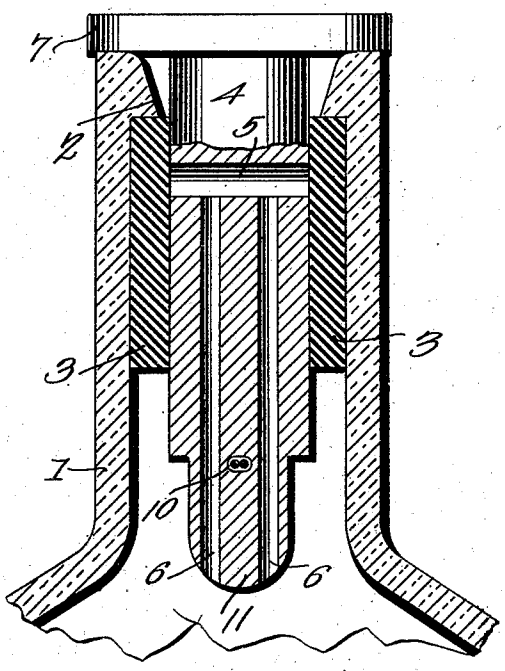


Fig. 2.



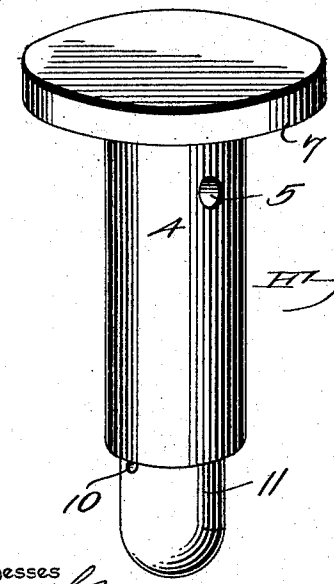
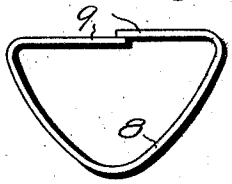


Fig. 3.

Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

MICHAEL BRADY, OF SOUTH BETHLEHEM, PENNSYLVANIA.

BOTTLE.

SPECIFICATION forming part of Letters Patent No. 712,645, dated November 4, 1902.

Application filed April 28, 1902. Serial No. 105,085. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL BRADY, a citizen of the United States, residing at South Bethlehem, in the county of Northampton and State of Pennsylvania, have invented a new and useful Bottle, of which the following is a specification.

The invention relates to improvements in bottles.

The object of the present invention is to improve the construction of bottles and to provide a simple, inexpensive, and efficient one in which the stopper cannot be removed after it has been placed in position and which is adapted to be readily arranged to permit its contents to be freely decanted or for confining the same.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a vertical sectional view of a portion of a bottle constructed in accordance with this invention, the slidable stopper being shown in elevation. Fig. 2 is a similar view taken at right angles to Fig. 2, the stopper being partly in section. Fig. 3 is a detail view of the stopper. Fig. 4 is a detail view of the resilient catch.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates the neck of a bottle, provided at its top with an inwardly-extending flange 2, beveled to form a flaring mouth or entrance to the neck of the bottle and having a lower shoulder for engaging an elastic ring 3. The elastic ring 3, which may be constructed of cork, rubber, or any other suitable material, provides a reduced bore or opening, and it is adapted to receive the body portion of a stopper 4. The elastic ring or sleeve is adapted to be partially collapsed to introduce it into the neck of the bottle or other receptacle, and when expanded within the same at a point below the flange it is effectually prevented from being withdrawn. The stopper, which is provided with a cylindrical body portion, is slidable in the sleeve or ring to cover and uncover a transverse bore 5, which communicates with a pair of longitudinal bores 6, extending from the transverse bore to the inner end of the body of the stopper, as clearly shown in Fig. 2, and these bores form a passage for the contents of the bottle. The stopper is provided at its upper or outer end with a head 7, and it may be constructed of any suitable material, and its outward movement is limited by a catch 8, constructed of resilient material and consisting of an approximately U-shaped body portion and inwardly-extending arms 9, which are arranged in a transverse opening 10. The transverse opening 10 is arranged at right angles to the discharge-passage 5, and it is located near the lower end of the body portion of the stopper, which is reduced to provide an annular recess. The lower reduced portion 11 of the stopper is rounded, and the space or recess formed by reducing the stopper permits the catch to be forced inward within the area of the upper portion of the body of the stopper to facilitate the introduction of the latter into the bottle. When the stopper is introduced into the neck of the bottle, the resilient catch is compressed within the lower recess, and as soon as the catch is carried below the lower end of the sleeve or ring it will automatically spring outward and prevent the withdrawal of the stopper. When the head of the stopper is in engagement with the neck of the bottle, the catch is located below the elastic sleeve or ring and sufficient longitudinal movement is permitted to carry the transverse passage 5 outward beyond the sleeve or ring to permit the contents of the bottle to be freely decanted. The liquid contained within the bottle will flow out through one of the longitudinal bores or passages 6 and air will enter through the other longitudinal bore or passage. The bottle is corked by simply forcing the stopper inward to carry the transverse discharge-passage below the upper end of the ring or sleeve to cover the said discharge-passage. When the stopper is drawn outward to the position illustrated in dotted lines in Fig. 1 of the drawings, the discharge-opening is located beyond the sleeve or ring, but is arranged in the neck.

It will be seen that the stopper is securely fastened within the neck of the bottle and that it has a limited sliding movement to cover and uncover the passages to permit the con-

tents of the bottle to be decanted and to confine the same in the bottle. It will also be apparent that the elastic sleeve or ring may be readily introduced into the neck before the stopper is applied and that after the stopper is placed in position the parts cannot be removed.

What I claim is—

1. The combination of a neck provided near its outer end with an interior shoulder, an elastic sleeve arranged within the neck and having its outer end fitted against the shoulder, a stopper slidably arranged within the sleeve and provided with a passage extending through the stopper from the inner end of the same and terminating short of the outer end thereof and adapted when the stopper is drawn outward to be carried outward beyond the sleeve to uncover it, and a locking device mounted on the inner portion of the stopper and engaging the inner end of the sleeve to limit the outward movement of the stopper, substantially as described.

2. The combination of a neck provided at its mouth with a beveled flange forming an interior shoulder, an elastic sleeve arranged within the neck and engaging the shoulder, a stopper provided with a passage arranged to be covered and uncovered by the movement of the stopper, and a resilient locking device mounted on the stopper and arranged to engage the sleeve or ring, substantially as described.

3. The combination of a neck provided with an interior shoulder, an elastic sleeve arranged within the neck and engaging the shoulder, a stopper having a reduced portion and provided with an opening and having a passage arranged to be covered and uncovered by the movement of the stopper, and a resilient catch arranged on the reduced portion of the stopper and having inwardly-extending arms fitting in the said opening, said catch being arranged to engage the sleeve or ring and being adapted to be compressed into the recess or space formed by reducing the stopper to permit the latter to be placed in position, substantially as described.

4. The combination of a neck, a slidable stopper mounted in the neck and provided near its outer end with a transverse discharge-bore and having longitudinal bores communicating with the same, said transverse discharge-bore being adapted to be covered and uncovered by the movement of the stopper, and means for securing the stopper in the neck, substantially as described.

5. The combination of a neck, and a slidable stopper provided with a transverse discharge-bore, and having longitudinal bores extending from the discharge-bore to the inner end of the stopper, said discharge-bore being carried inward and outward by the movement of the stopper to cover and uncover it, substantially as described.

6. The combination of a neck, an elastic sleeve interlocked with the neck, a slidable stopper having a transverse bore near its outer end and provided with longitudinal bores, said transverse bore being carried outward beyond the sleeve by the sliding movement of the stopper, and means carried by the stopper for engaging the sleeve, substantially as described.

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

MICHAEL BRADY.

Witnesses:
A. L. COPE,
S. H. SNYDER.