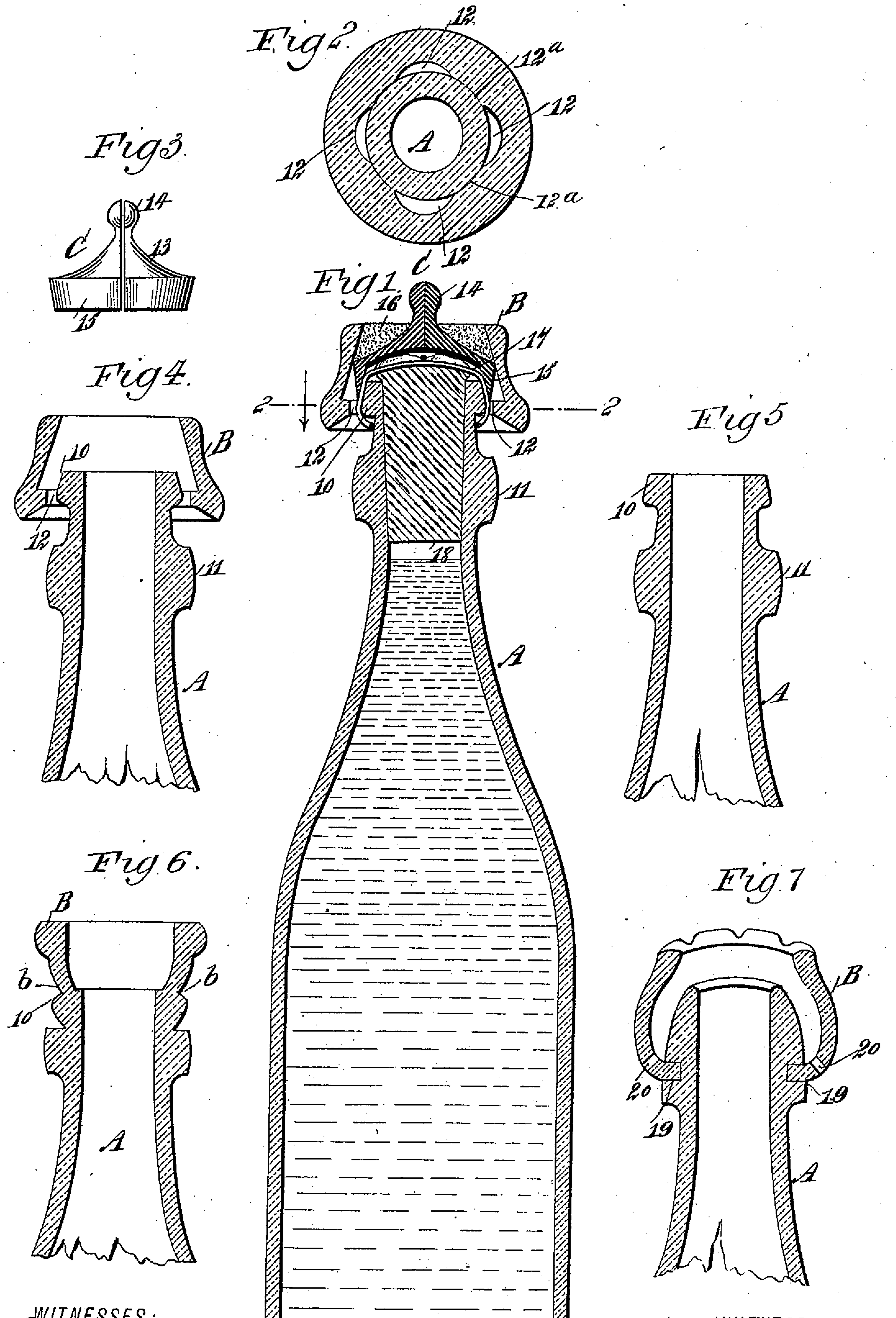
(No Model.)

W. E. COOK.

BOTTLE STOPPER.

No. 563,568. Patented July 7, 1896.



WITNESSES:

Paul Jahst

Fred Acker

INVENTOR

W. E. Cook

BY Munn & Co

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILBER E. COOK, OF MIDDLETOWN, NEW YORK.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 563,568, dated July 7, 1896.

Application filed October 16, 1895. Serial No. 565,828. (No model.)

To all whom it may concern:

Be it known that I, WILBER E. COOK, of Middletown, in the county of Orange and State of New York, have invented a new and useful Improvement in Bottles and Stoppers Therefor, of which the following is a full, clear, and exact description.

My invention relates to an improvement in bottles and stoppers therefor, the bottles and stoppers being especially designed to prevent the refilling of the bottle and presentation of said refilled bottle in a manner to represent the original package.

The object of the invention is to provide a bottle having a double head, consisting, practically, of an inner and permanent head and neck and an outer head or hood, the latter being friably connected with the former, and the two being so connected that before the bottle can be opened the outer head or hood must be separated from the neck of the bottle proper, thereby giving to the bottle an appearance much at variance to that of the original package; and a further object of the invention is to so construct the upper portion of the bottle that the outer hood or head may be expeditiously, conveniently, and cleanly separated from the neck and head proper of the bottle, and whereby also the separated hood or head cannot be replaced after the separation has once been effected.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal vertical section through the improved bottle and stopper therefor. Fig. 2 is a horizontal section taken substantially on the line 2 2 of Fig. 1. Fig. 3 is a detail side elevation of the cap forming a portion of the closing device or stopper of the bottle. Fig. 4 is a longitudinal vertical section through the neck portion of the improved bottle, the stopper being omitted. Fig. 5 is a view similar to Fig. 4, illustrating the appearance of the neck of the bottle after the outer head or hood has been separated therefrom. Fig. 6 is a longitudinal vertical section of the neck portion of the bottle, illustrating a slight modification in its construction; and Fig. 7 is a view similar to Fig. 6, in which a further modification of the construction of the bottle is illustrated.

In carrying out the invention the bottle A may be of any desired shape or size, being provided at the upper portion or mouth of its neck with an exterior collar 10, and also preferably with a second collar 11 nearer the body, being adapted to strengthen the neck. The flange 10 and upper portion of the neck of the bottle may be denominated the "head" thereof, and this head is surrounded by a hood B, which hood is of greater diameter than that of the upper collar 10, to which it is to be attached, and, furthermore, the hood is of greater interior diameter at its bottom than at its top, its inner wall being given an upward and an inward inclination, and the height of the hood is such that it will extend a predetermined distance above the permanent head and neck of the bottle.

The bottom portion of the hood is secured to the outer face of the upper collar 10 of the neck or head of the bottle, being preferably made integral therewith and of the same material as the body and neck of the bottle; but in the bottom portion of the aforesaid head 10 a series of circularly-arranged openings 12 is produced, and these openings may be connected, and usually are, by diamond marks or lines 12^a, (see Fig. 2,) so as to form a cleavage-section for the hood or to render the hood readily separable from the head of the bottle, the apertures 12 and likewise the diamond-cut lines 12^a being coincident with the outer surface of the upper collar 10 of the bottle head or neck.

In connection with the hood a cap C is employed, and this cap is made in two or more sections, as shown in Figs. 1 and 3. The cap may be of metal, tough glass, or other desired material and comprises a conical body 13, at the apex of which body a knob 14 is formed, and at the bottom portion of the body a flange 15 is produced, and said cap is adapted to be placed within the hood and its flange at its lower end to engage with the cleavage-section of said hood, as shown in Fig. 1.

An ordinary cork 18 is placed in the neck of the bottle after it is filled, and the said

cork may be tied down by wires 17 in the usual manner, the wires crossing one another over the cork and being passed down through the openings 12 in the hood, as is clearly shown in Fig. 1, and if in practice it is found desirable a metal plate or disk may be introduced between the top of the cork and the under surface of the body-cap. By making the cap in sections it may be the more readily placed in position within the hood, since the diameter of the flange portion of the cap is much greater than the diameter of the upper portion of the hood.

The cap having been placed in position, the space between the upper edge of the hood and the upper surface of the cap is filled in with a cementing material 16, as shown in Fig. 1, the knob of the cap extending above the said material.

When it is desired to open a bottle constructed as above described, a cloth is preferably thrown over the top of the bottle and a blow with any suitable instrument is struck upon the knob 14 of the cap, thus forcing the flange of the cap violently against the cleavage-section of the hood, and, owing to the openings at the bottom of the cap and the diamond-cut or file lines connecting said openings, the hood will be neatly and cleanly separated from the upper collar 10 of the neck or head of the bottle, leaving the bottle with the stopper firmly in position, the neck of the bottle presenting the appearance shown in Fig. 5. The stopper may then be drawn in the ordinary manner and the bottle used as usual; but it is evident that the appearance of the original package will then be so changed that no one familiar with said original package can be deceived should the bottle be refilled and an attempt made to dispose of the same as the original article.

In Fig. 6 I have illustrated a slight modification in the formation of the hood B, in which the hood rises upwardly directly from the upper collar 10 of the neck of the bottle, and in this event lines *b* are cut with a diamond, file, or similar article upon the exterior of the hood where it connects with the neck or head of the bottle, in order that this modified form of the hood may be readily separated from the aforesaid head.

In the form shown in Fig. 7 the head of the bottle is exteriorly thickened, and an annular recess 19 is made therein, adapted to receive the hood B, and this hood in this event is molded of earthenware, vitrified stoneware, china, or a similar substance, being attached to the neck of the glass bottle in any suitable or approved manner, and this form of hood is also provided with openings 20, omitting the cleavage-surface at its bottom, whereby the hood may be readily separated from the bottle by a blow struck on the cap C, or an equivalent of the cap.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A bottle having a hood formed integral with the neck thereof and connected to the same by a frangible web, and a cap having a flange, the cap being capable of embracing the mouth of the bottle and of having the edge of its flange forced into engagement with the frangible web so as to break said web, substantially as described.

2. A bottle having a hood formed integral therewith, the hood tapering inwardly and upwardly from the neck of the bottle and being connected to the neck by means of a frangible web, and a cap formed in two sections and adapted to be fitted within the hood, the cap being formed with a flange capable of engaging the frangible web and of severing the same from the neck, substantially as described.

3. A bottle having a hood attached to the neck thereof by means of a frangible web, the said web having a series of perforations formed therein to reduce its strength the hood tapering upwardly and inwardly from the web, and a cap the same being formed of two sections and having a flange capable of bearing against the frangible web whereby said web may be severed from the neck, substantially as described.

4. A bottle having a hood formed integral with the neck thereof and connected to the same by a frangible web, a cap having a flange, the cap being capable of having the edge of its flange forced into engagement with the frangible web so as to break said web, substantially as described.

5. A bottle having a hood attached to the neck thereof by means of a frangible web, and a part having a flange, said part being capable of movement at an angle to the frangible web and of severing the same by the direct engagement of the flange and web, substantially as described.

WILBER E. COOK.

Witnesses:
SELDEN H. TALCOTT,
CHARLES SPENCER KINNEY.