

(No Model.)

G. A. SCHWANITZ.
NON-FILLABLE BOTTLE.

No. 583,636.

Patented June 1, 1897.

FIG. 1.

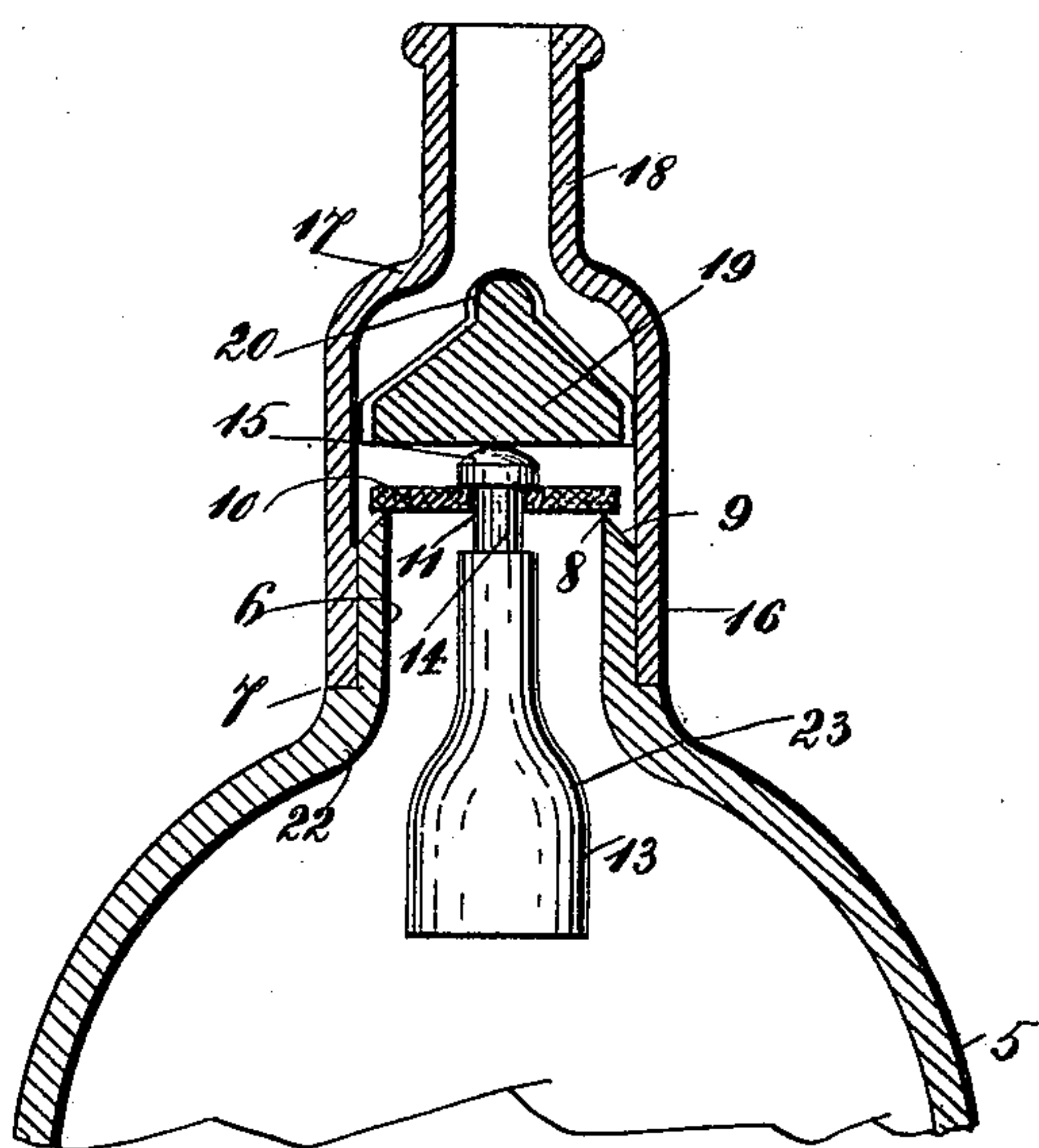
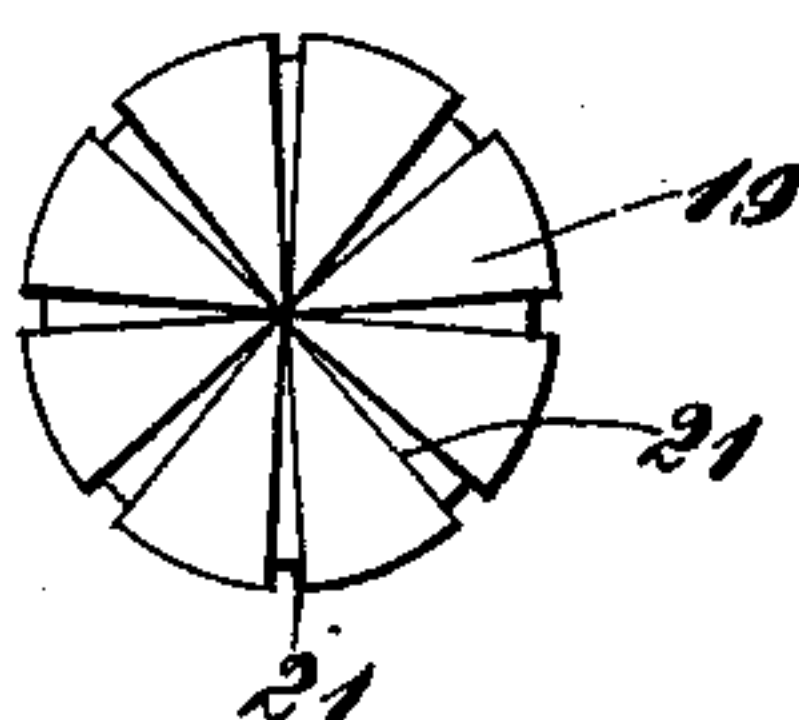


FIG. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

GUSTAV A. SCHWANITZ, OF BROOKLYN, NEW YORK.

NON-FILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 583,636, dated June 1, 1897.

Application filed October 27, 1896. Serial No. 610,240. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV A. SCHWANITZ, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Non-Fillable Bottles, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to bottles, jugs, jars, and similar vessels; and the object thereof is to provide an improved vessel of this class which having been once filled may be emptied of its contents, but cannot be refilled or re-used.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which like figures of reference designate the same parts wherever found throughout both views, and in which—

Figure 1 is a central vertical section of the upper part of a bottle and the neck thereof provided with my improvement, and Fig. 2 a plan view of the vertically-movable plug which forms a part of the improvement.

In the drawings forming part of this specification I have shown my improvement applied to a bottle, and in the practice of my invention I provide a bottle 5, having a neck 6, at the lower end of which is an annular outwardly-directed shoulder or projection 7, and the upper end of the neck is provided with an annular valve-seat 8, the outer side of the neck being beveled, as shown at 9, and mounted thereon is a disk valve 10, in the central portion of which is formed a circular opening 11, and I also provide a weight 13, the lower end of which is cylindrical in form, and the upper end thereof is reduced in size, as shown at 14, and passed through the circular opening 11 in the valve 10, and the upper end of the reduced portion 14 of the weight is provided with a head 15. I also provide a tubular cap or casing 16, which is adapted to be placed upon the neck 6 of the bottle and secured in position in any desired manner, the only object in this connection being to secure the cap in place on the neck so that it cannot be removed.

The upper part of the tubular cap or casing

is abruptly contracted, so as to form an annular inwardly-directed shoulder 17, above which is a tubular extension 18, which is adapted to be closed by a cork or stopper in the usual manner, and within the tubular cap or casing 16, above the neck of the bottle and below the annular inwardly-directed shoulder or projection 17, is a vertically-movable plug 19, which is provided centrally with an upwardly-directed conical projection 20, and which rests on the head 15 of the weight 13, and the upper surface of the plug 19 and the sides thereof are provided with grooves 21. The length of the weight 13 is such that it extends below the neck of the bottle, at the lower end of which is an inwardly-directed annular shoulder 22, and the lower end of said weight is much larger than the central portion thereof, whereby said weight is provided with an annular shoulder 23, and the operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof. The valve 10 is slightly smaller in diameter than the tubular cap or casing 16, and in practice the bottle is first filled with the desired contents. The valve 10, with the weight, is then placed in position, and the cap or casing 16 is then secured to the neck of the bottle, the vertically-movable plug 19 having been first placed in said cap or casing, after which the tubular extension 18 of the cap or casing may be closed by a cork or stopper in the usual manner.

Whenever it is desired to empty the bottle or discharge a portion of its contents, the cork or stopper is removed and the bottle is inverted, and this operation will force the valve 17 from its seat, and the contents of the bottle will flow out around the valve and around the vertically-movable plug 19, as will be readily understood, and this operation may be continued or repeated until the bottle is entirely empty. In this operation the plug 19 drops upon the annular shoulder 17 in the cap or casing 16; but the grooves 21 prevent the closing of the passage through the tubular extension 8, and the contents of the bottle will flow out through said grooves, and when the pouring of the contents of the bottle has ceased and the bottle held in an upright position the valve 10 will at once drop upon its seat, and the ver-

5 tically-movable plug 19 will drop upon the head 15 of the weight 13, and the passage into the bottle or through the neck thereof will be closed and no fluids can be poured thereinto. This operation of the valve will be the same in any position in which the bottle can be held in an attempt to pour liquids thereinto, as the annular shoulder 23 on the weight 13 will come in contact with the annular shoulder 22 at the lower end of the neck of the bottle, and said weight will slide inwardly and hold the valve 10 on its seat even though the bottle is only tilted or held in a horizontal position.

15 The length and form of the weight 12 may be regulated as desired, and in practice all of the parts of the attachment, including the weight 13, the valve 10, the vertically-movable plug 19, and the cap or cover 15, should be made of material which will not corrode or be injuriously affected by fluids or acids.

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

25 1. A bottle or other vessel provided with a neck, at the upper end of which is formed an annular valve-seat, a valve which is mounted thereon, and provided with a central opening, a weight which is suspended from said valve by means of a reduced extension which passes through said central opening, and on the upper end of which is a head, a tubular cap or casing secured to the neck of the bottle, and provided above the neck with a vertically-movable plug, the sides of which are provided

with grooves, and the upper end of said cap or casing being contracted and adapted to be closed by a cork or stopper, substantially as shown and described.

2. A bottle or other vessel provided with a neck, at the upper end of which is formed an annular valve-seat, a valve which is mounted thereon, and provided with a central opening, a weight which is suspended from said valve by means of a reduced extension, which passes through said central opening, and on the upper end of which is a head, a tubular cap or casing secured to the neck of the bottle, and provided above the neck with an inwardly-directed annular shoulder, above which is a tubular extension, said cap or casing being also provided with a vertically-movable plug, which is adapted to rest on the head of the extension of the weight above the valve, and said plug being provided with vertical grooves in the sides thereof, and said weight being enlarged at its lower end, and provided with an annular shoulder which is adapted to operate in connection with a corresponding annular shoulder formed at the bottom of the neck of the bottle, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 16th day of October, 1896.

GUSTAV A. SCHWANITZ.

Witnesses:

THOS. A. AITON,
JOHN BUCKLER.