(No Model.)

G. V. STALLINGS.

BOTTLE.

No. 589,196. Patented Aug. 31, 1897.

Fig. 1.

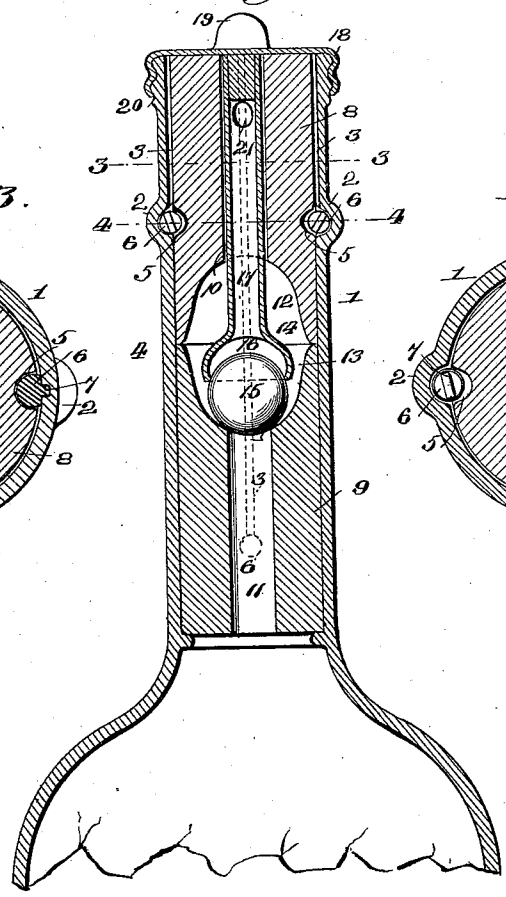


Fig. 3.

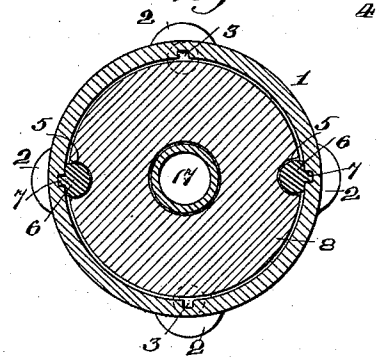


Fig. 4.

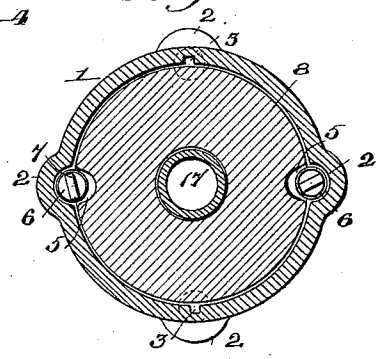


Fig. 5.

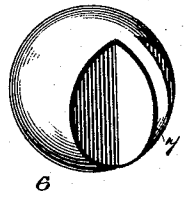
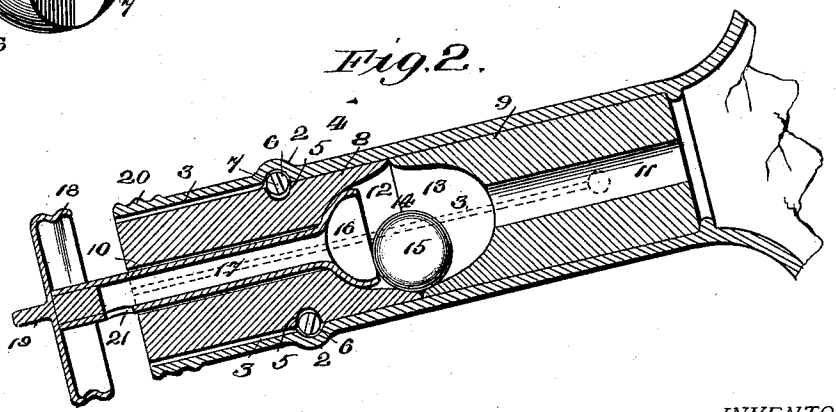


Fig. 2.



WITNESSES

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BOTTLE.

SPECIFICATION forming part of Letters Patent No. 589,196, dated August 31, 1897.

Application filed November 27, 1896. Serial No. 613,601. (No model.)

To all whom it may concern:

Be it known that I, GEORGE V. STALLINGS, a citizen of the United States, residing at Strawn, in the county of Palo Pinto and State of Texas, have invented certain new and useful Improvements in Bottles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to a novel construction in a bottle and the stopper therefor, the object being to provide a bottle and stopper whereby the bottle can be filled in the ordinary manner, but after being sealed by the stopper of novel construction it cannot be refilled after once being emptied without breaking or fracturing the bottle.

The invention also consists in the novel features of construction hereinafter fully described and specifically claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a central vertical section of the upper end portion of a bottle provided with a stopper constructed in accordance with this invention. Fig. 2 is a similar view, but taken at right angles to the section shown in Fig. 1 and with the bottle tilted. Fig. 3 is a transverse section taken on the line 3 3 of Fig. 1 and showing the position of the parts when the stopper is being inserted. Fig. 4 is a transverse section taken on the line 4 4 of Fig. 1. Fig. 5 is a perspective view of one of the keys.

This invention comprises both the novel construction in a stopper and means for fastening it within the neck of the bottle.

I will proceed first to describe the manner in which the stopper is secured within the bottle-neck.

The said neck 1 of the bottle is provided interiorly with a plurality of recesses 2, and has grooves 3 extending from said recesses 2 to the mouth of the bottle. The stopper, which is indicated as a whole by 4, is provided with a plurality of recesses 5, corresponding in number to the recesses in the neck of the bottle and so disposed that when the stopper is situated within said neck they stand opposite the recesses therein. The stopper is held in place within said neck by means of a plurality of keys 6, which consist, preferably, of small balls having on one side a tongue 7. The size of the ball or key is such that it can be placed within the recess 5 of the stopper with the tongue 7 in the groove 3 of the bottle and allow the stopper to be inserted within the neck. It will be seen, therefore, that when the stopper is to be inserted the balls or keys 6 are placed within the recesses 5 of the stopper and with their tongues 7 seated within the grooves 3 of the neck. The stopper is then passed into the neck, and when the recesses of the stopper and neck are opposite the keys will fall into the circular recess made thereby, and by reason of the fact that there are a plurality of these keys and that it is practically impossible to so manipulate them that they will all stand with their tongues opposite the grooves in the neck it is obvious that the stopper cannot be removed. Said stopper 4 consists of an upper section 8 and a lower section 9. These sections are provided with central longitudinal openings 10 and 11. The lower end of the upper section 8 and the upper end of the lower section 11 are each provided with cup-shaped recesses 12 and 13, that form in conjunction with each other a spherical chamber 14. Situated within said chamber 14 is a ball-valve 15, that seats itself within the upper end of the upright opening 11 in the lower section 9, and upon which rests the lower flaring end 16 of a sliding tube 17, situated within the opening 10 of the upper section 8. This tube 17 passes through the upper end of the opening 10 and is provided with a sealing-cap 18, having a handle 19, by means of which it is screwed to the upper end or flange 20 of the bottle. The tube 17 has a slight longitudinal play within the opening 10, which is limited by the flaring portion 16 coming in contact with the ball 15 and the lower end of the upper section 8. When this tube 17 is at the outer limit of its movement, an opening 21 therein stands beyond the end of the section 8 and the mouth of the bottle. It will be understood of course that these two sections 8 and 9 are placed within the mouth of the bottle in the manner above described and after the bottle is filled. The sealing-cap 18 is then screwed upon the end of the bottle to seal the same. The parts normally stand in the position shown in Fig. 1, and when it is

desired to empty the contents of the bottle the sealing-cap 18 is first unscrewed, after which, by tilting the bottle to the position shown in Fig. 2, the tube 17 moves to the outer limit of its movement to bring the opening 21 therein beyond the end of the stopper, while the ball 15 falls to the lower side of the chamber 14. The contents of the bottle can then pass through the opening 11, the chamber 14, and the tube 17. It is obvious that any attempt to refill the bottle is thwarted by the valve 15.

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

1. The combination with a bottle having a neck provided interiorly with a plurality of recesses and grooves extending from said recesses to the mouth of the bottle, of a stopper consisting of two sections, each of which is provided with a plurality of recesses corresponding in number and location to the recesses in the neck of the bottle, and a plurality of keys situated within said recesses.

2. The combination with a bottle having a neck provided interiorly with a plurality of recesses and grooves extending from said recesses to the mouth of the bottle, of a stopper provided exteriorly with recesses corresponding in number and location to the recesses of the bottle, and a plurality of keys situated within said recesses, said keys being provided with tongues, substantially as described.

3. A stopper provided with a chamber, openings leading from said chamber to the ends thereof, a ball-valve situated within said chamber, a sliding tube situated within one of said openings and having one end within said chamber and provided with a flaring end portion, an opening in said tube at the other end portion thereof, and a sealing-cap upon the outer end of said tube, substantially as described.

4. A stopper having a chamber, openings leading from said chamber to the ends thereof, a ball-valve situated within said chamber, a sliding tube situated within one of said openings and provided at its inner end with a flaring end portion situated within said chamber, an opening in the other end portion of said tube, and a sealing-cap upon the other end of said tube provided with a handle, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE V. STALLINGS.

Witnesses:
T. M. RUTLEDGE,
S. E. STALLINGS.