

No. 816,489.

PATENTED MAR. 27, 1906.

I. B. MERCER & H. D. ORCHARD.

BOTTLE SEAL.

APPLICATION FILED APR. 8, 1905.

2 SHEETS—SHEET 1.

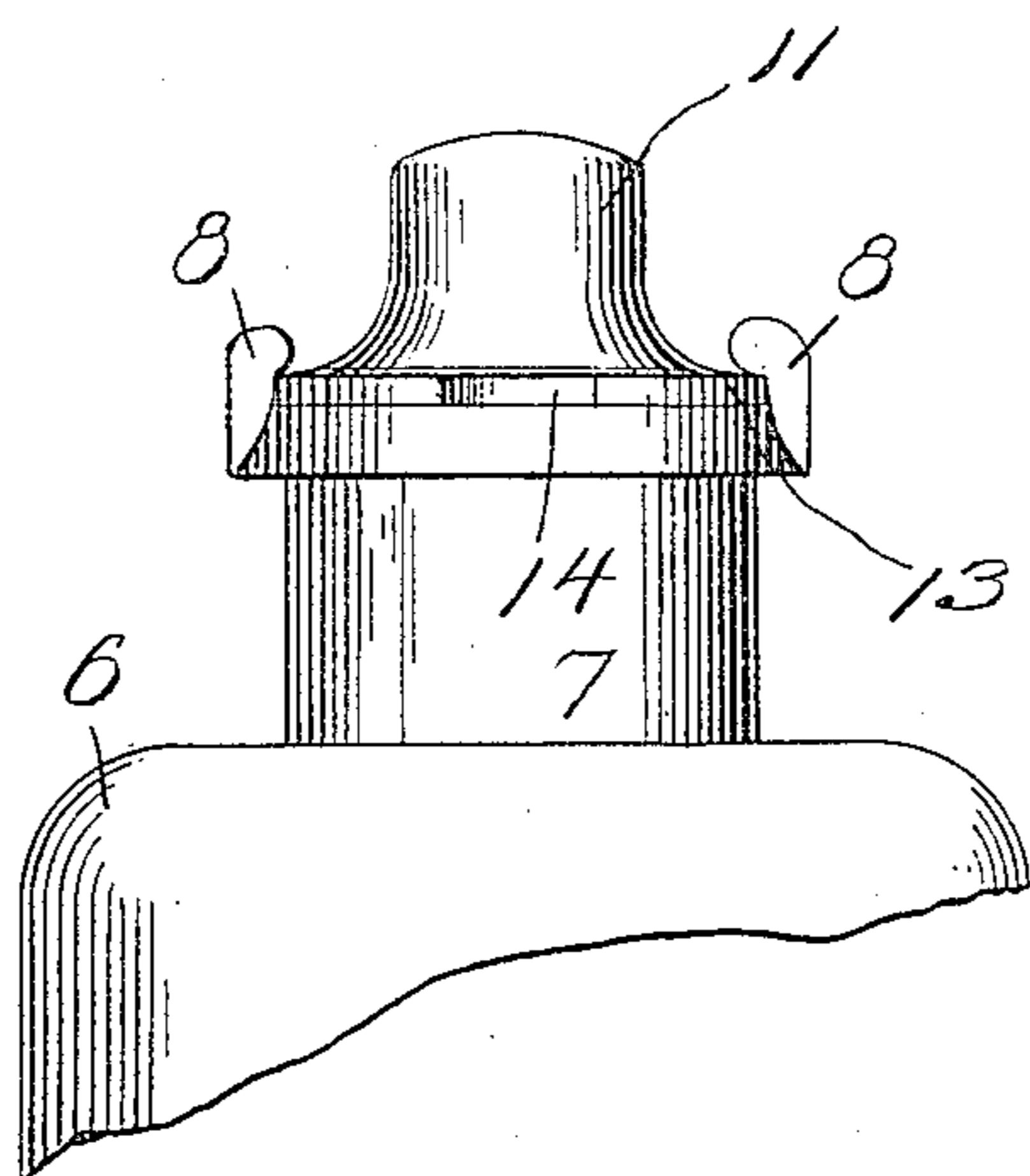


Fig. 1.

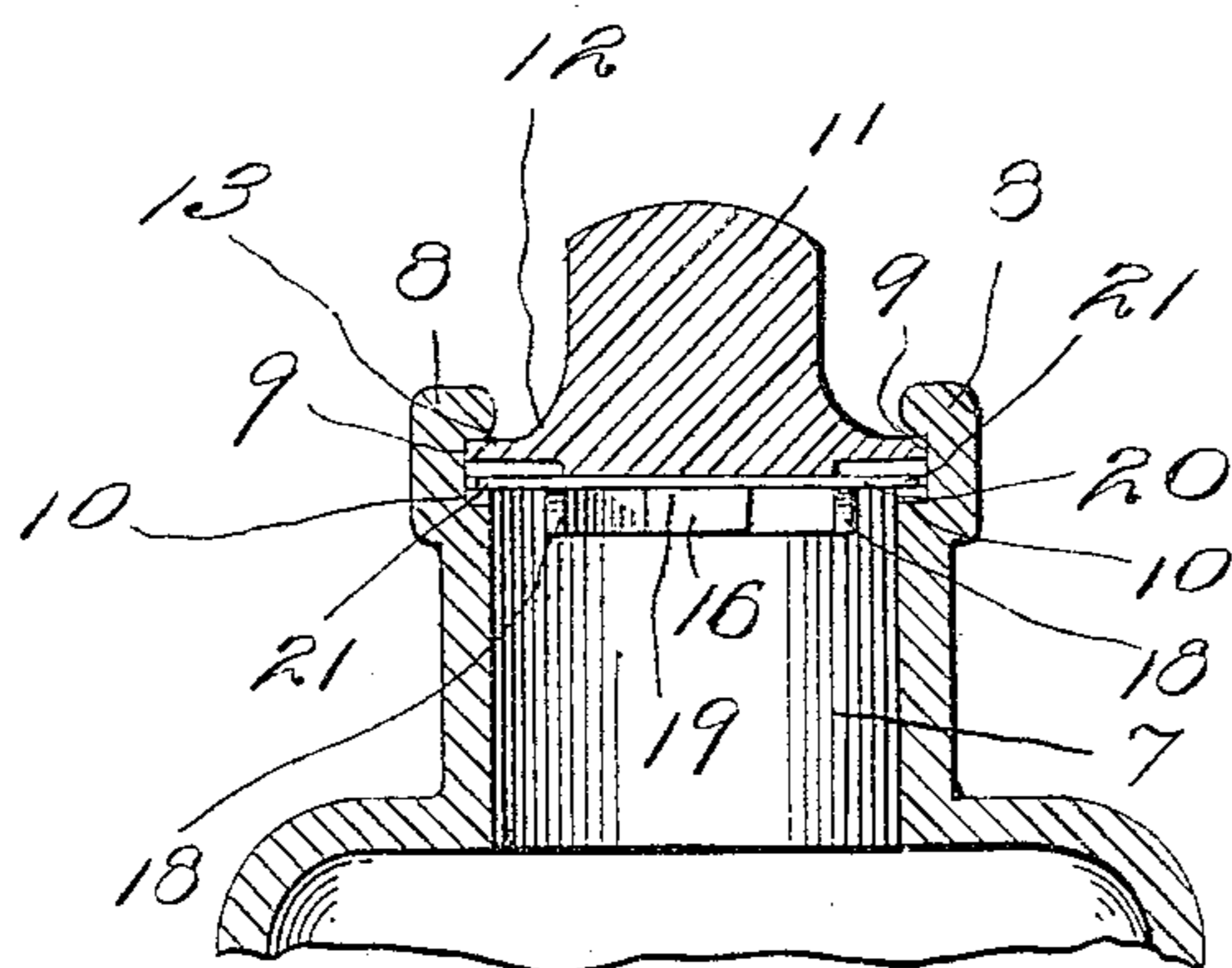


Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

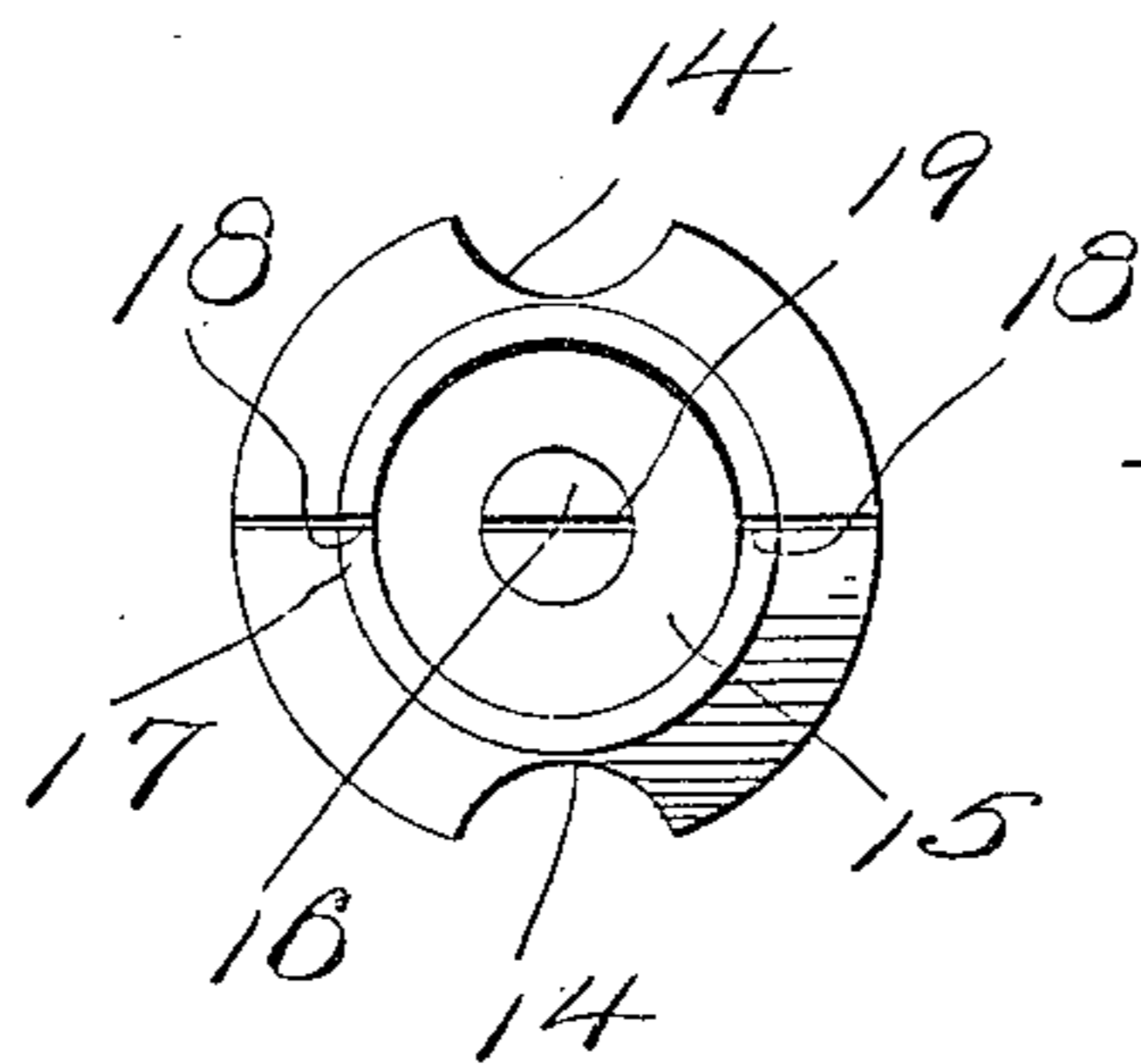
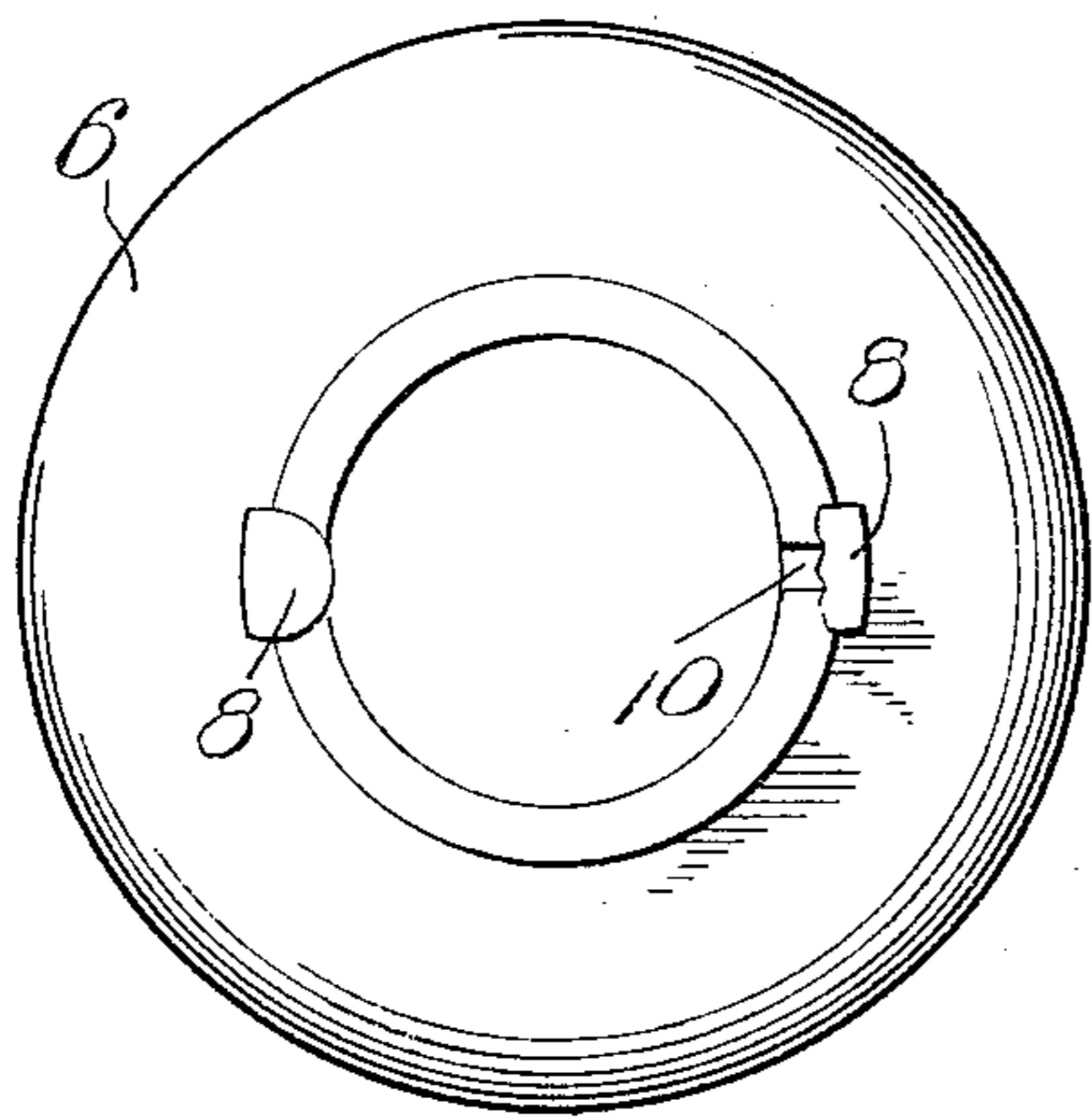
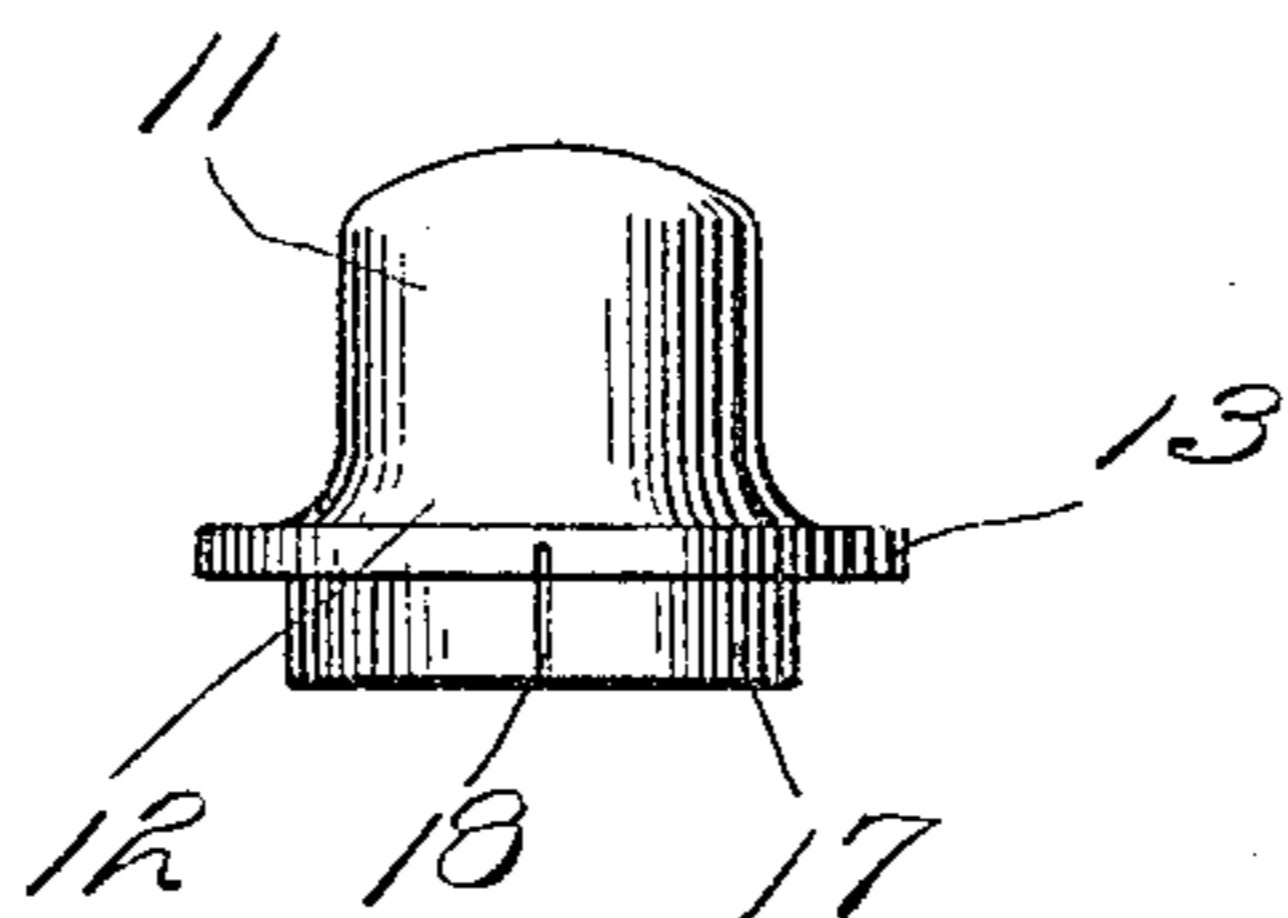


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

ISAAC B. MERCER AND HARRY D. ORCHARD, OF BLOOMINGTON, INDIANA.

BOTTLE-SEAL.

No. 816,489.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed April 8, 1905. Serial No. 254,615.

To all whom it may concern:

Be it known that we, ISAAC B. MERCER and HARRY D. ORCHARD, citizens of the United States, residing at Bloomington, in the county of Monroe, State of Indiana, have invented certain new and useful Improvements in Bottle-Seals; and we 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 relates to bottles, and more particularly to closures therefor, and has for its object to provide a bottle-closure which when once placed in operative position will be held against removal, so that the bottle will have to be broken in order to remove the contents thereof, thus preventing the refilling of the bottle.

Another object is to provide a closure which will embody the above features and which will be simple of construction and cheap of manufacture.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific construction shown and described may be made and that any suitable materials may be used without departing from the spirit of the invention.

In the drawings forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the present invention in operative position. Fig. 2 is a vertical section. Fig. 3 is a top plan view of a bottle with the stopper removed, one of the ears being partly broken away. Fig. 4 is a bottom plan view of the stopper. Fig. 5 is a side elevation of the stopper.

Referring now to the drawings, there is shown a bottle 6, having the usual reduced neck 7. Extending upwardly from the neck at diametrically opposite points thereof are ears 8, having grooves 9 in their inner faces, and the bottoms of these grooves lie flush with the upper face of the neck, the inner faces of the ears lying flush with the inner surface of the neck. Formed in the bottoms of the grooves 9 centrally thereof are recesses 10, which also open through the inner surface of the neck.

A cap 11 is provided for the neck, which consists of a plug 12 of a size to tightly fit within the neck, though not so tightly as to prevent rotation of the cap. The cap also in-

cludes a laterally-extending flange 13, which when the cap is in operative position rests upon the upper edge of the neck and extends into the grooves 9. Formed in the flange 13 at diametrically opposite points thereof are notches 14, which are of a size for the ears 8 to pass therethrough. The plug 12 has a recess 15 in its lower end, and depending from the plug within the recess and centrally thereof there is a boss 16. The formation of the recess 15 results in a depending flange 17, which incloses the boss 16, and formed through this flange 17 at diametrically opposite points thereof are slots 18, these slots lying midway between the notches 14. Formed in the depending boss 16 there is a slot 19, which extends from side to side thereof and which registers with the slots 18. The slots 18 are continued into the flange 13, opening through the lower and outer faces thereof.

Secured at its center in the slot 19 there is a spring-bar 20, which extends outwardly through the slots 18 and lies with its end portions 21 normally below the flange 13, the resilience of the bar permitting of the movement of its end portions to lie in the slots of the flange 13.

When the closure is placed in position upon the bottle, the flange 17 is inserted in the neck of the bottle, the ears 8 passing through the slots 14. This operation brings the end portions 21 of the spring-bar 20 into engagement with the upper edge of the neck, so that these end portions are forced into the slots of the flange 13, as mentioned, after which the cap is rotated to bring the end portions of the bar above the recesses 10, when the end portions will spring downwardly into the recesses and prevent removal of the cap. It will be readily seen that in order to remove the contents of the bottle after the cap has been placed in position it will be necessary to break the neck from the bottle.

What is claimed is—

1. The combination with a bottle having recesses in the upper edge of its neck at diametrically opposite points thereof, and having angular ears formed thereupon, the angular portions of the ears extending inwardly over the edge of the neck above the recesses, of a cap having a notched flange said notches of the flange being arranged for the passage of the ears therethrough said cap being rotatable upon the bottle to bring the portions of its flange between the notches thereof be-

neath the angular portions of the ears, and spring-tongues carried by the cap and arranged for engagement in the recesses when the cap is in its last-named position.

- 5 2. The combination with a bottle having recesses in the upper edge of its neck and having ears extending upwardly and inwardly over the recesses, of a closure for the neck comprising a cap having a flange engaged be-
10 neath the inwardly-extending portions of the ears, said flange having notches for the passage of the ears therethrough, and spring-

tongues carried by the cap and lying with their ends engaged in the recesses, said flange having slots therein for the reception of the 15 tongues.

In testimony whereof we affix our signatures in presence of two witnesses.

ISAAC B. MERCER.
HARRY D. ORCHARD.

Witnesses:

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FRED W. LORD.