

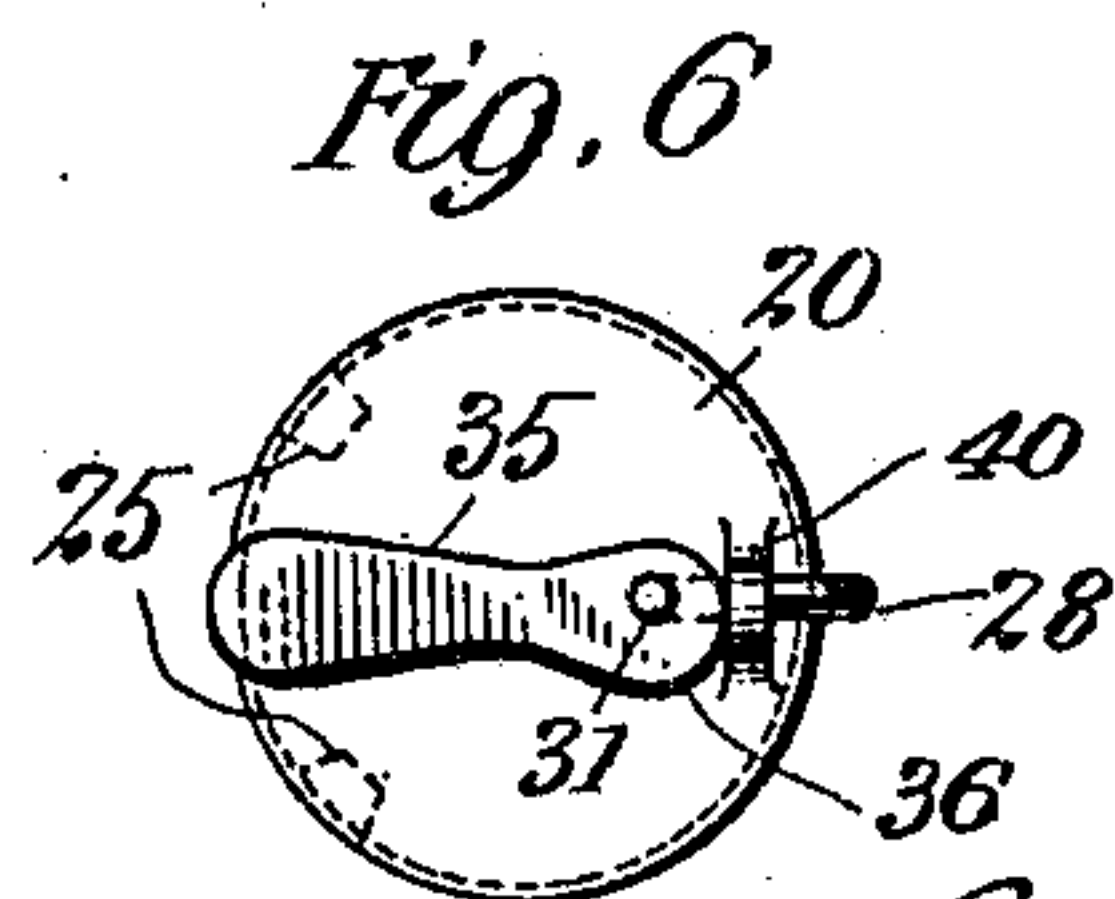
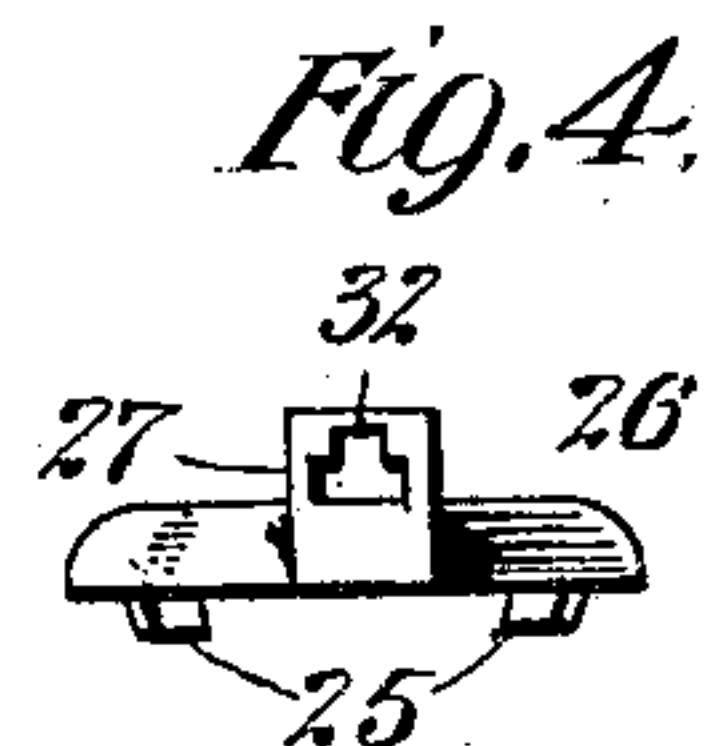
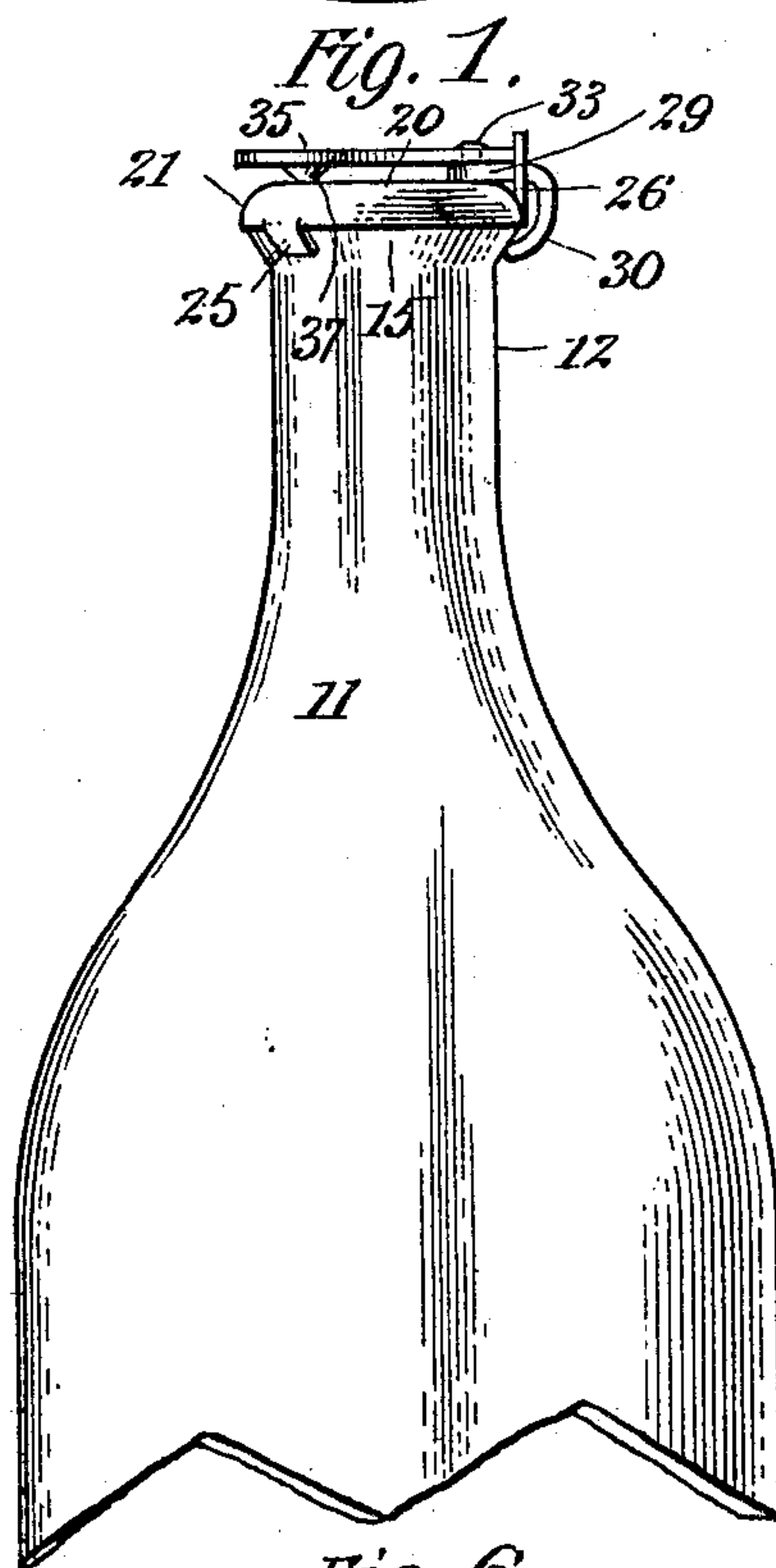
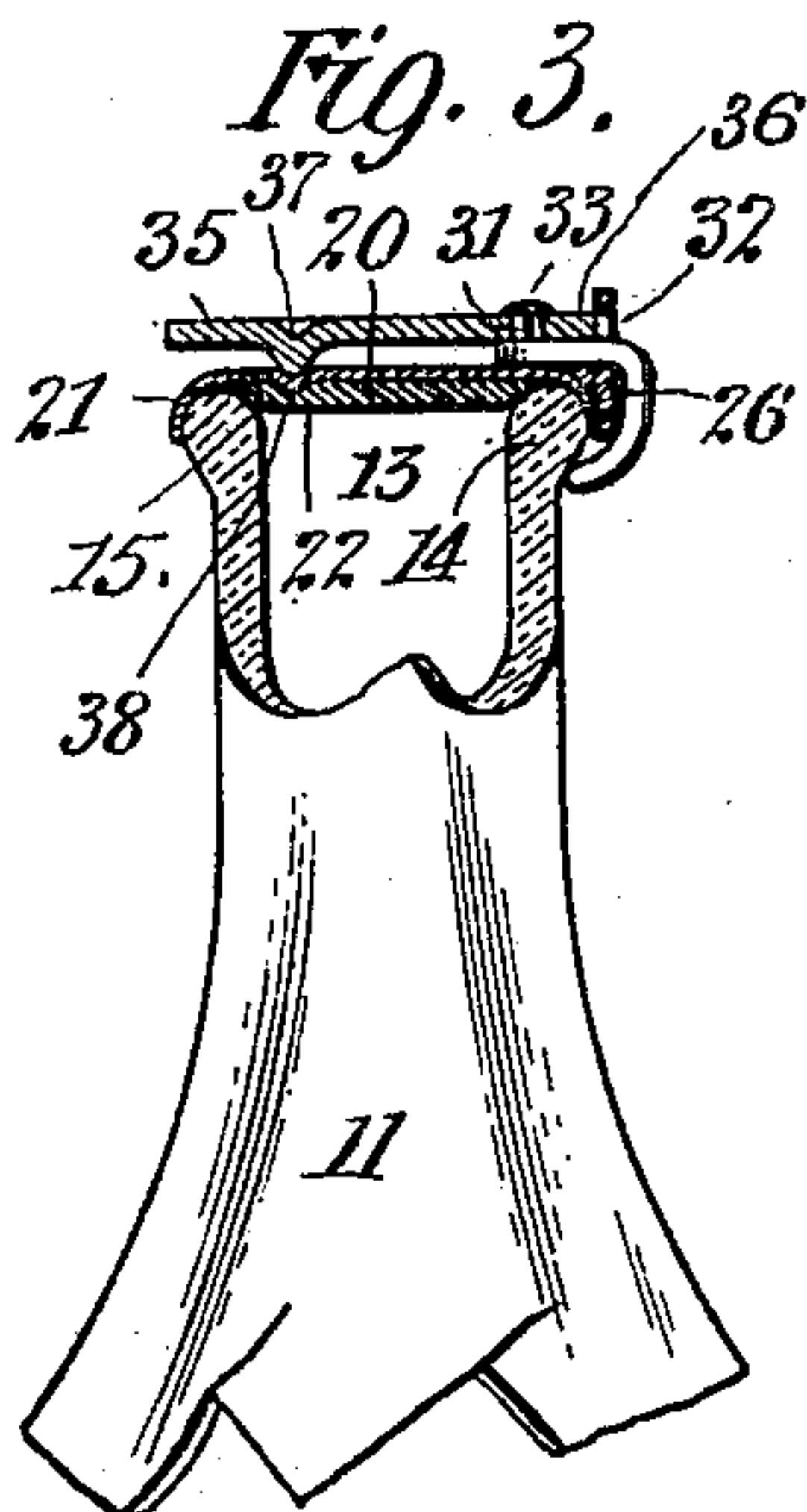
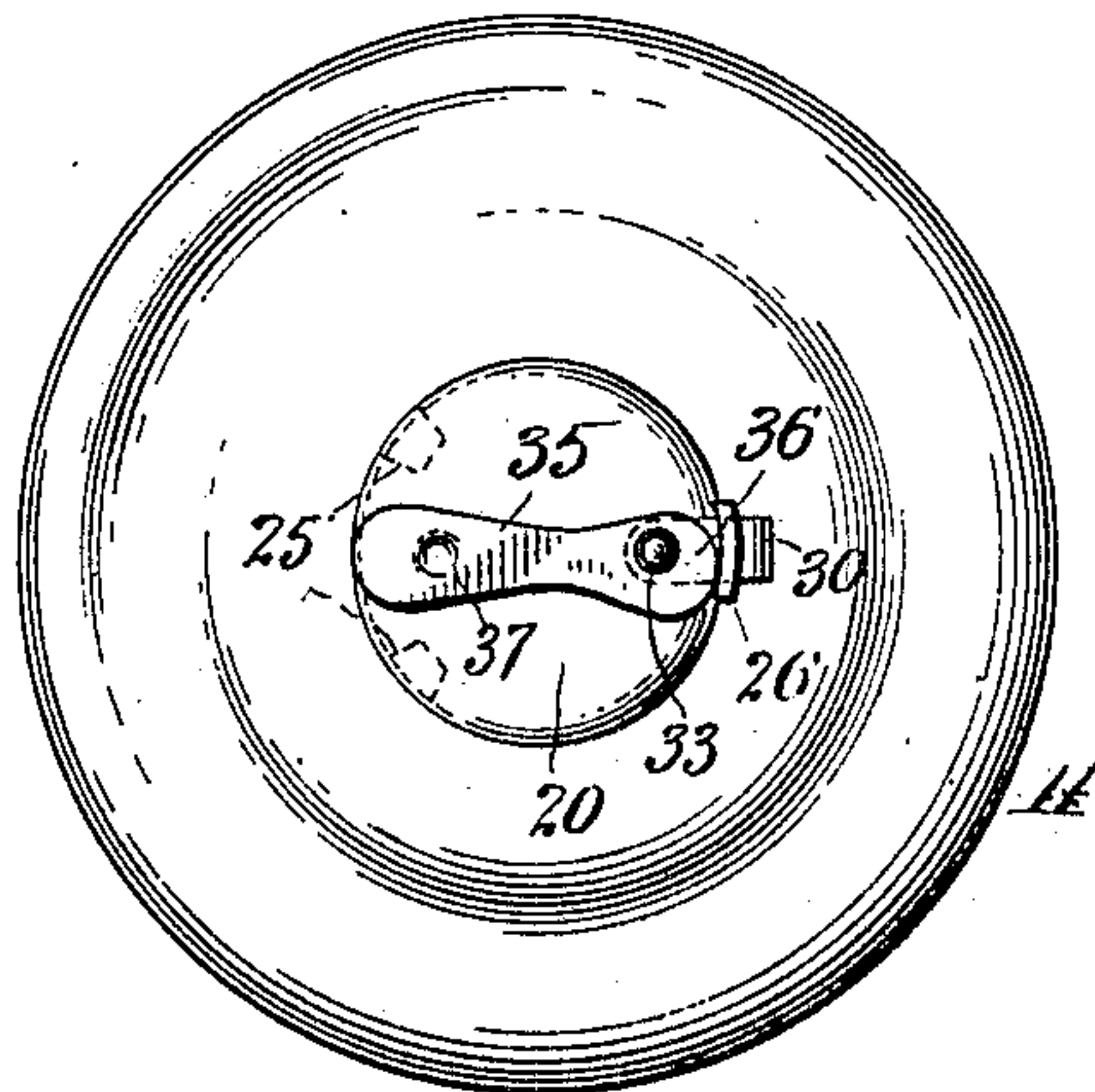
No. 825,603.

PATENTED JULY 10, 1906.

G. KIRKEGAARD.  
BOTTLE STOPPER.

APPLICATION FILED NOV. 10, 1905.

Fig. 2.



Witnesses  
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# UNITED STATES PATENT OFFICE.

GEORG KIRKEGAARD, OF NEW YORK, N. Y.

## BOTTLE-STOPPER.

No. 825,603.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed November 10, 1905. Serial No. 286,662.

*To all whom it may concern:*

Be it known that I, GEORG KIRKEGAARD, a citizen of the United States, residing at the city of New York, in the borough of Brooklyn and State of New York, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a full, clear, and exact description.

This invention relates to improvements in bottle-stoppers, and has for an object to provide a bottle-stopper of improved construction which upon being unfastened may, with its fastenings, be entirely removed from the bottle and may be reapplied to the bottle, the parts being so constructed and organized that their fastening and unfastening does not injure them.

The stopper herein illustrated has a cap or stopper of suitable construction for closing the bottle upon which it is to be employed, and such cap or stopper carries two sets of hooks radially disposed upon opposite sides of the cap for engaging the lower and slanting face of the bead or flange at the bottle-mouth. A lever with an eccentric cam is mounted upon the cap for radially drawing one of the hooks toward the others, causing all the hooks to impinge and ride down the slanting face of the bead, and thereby draw the cap or stopper against the bottle-mouth for closing the same.

In the drawings accompanying and forming a part of this specification, Figure 1 is an elevation of a portion of a bottle, showing an embodiment of a form of my invention applied thereto. Fig. 2 is a top plan view thereof. Fig. 3 is a portion of a bottle-neck broken away and the said improvement shown in central section. Fig. 4 is an elevation of the cap or stopper portion looking at the same from the right-hand side of Figs. 1, 2, and 3. Fig. 5 is a perspective view of the movable engaging member or hook, and Fig. 6 is a top plan view of a somewhat-different form of construction.

The bottle (designated in a general way by 11) has a neck 12, ending in a mouth 13, having a thickened rim or bead 14, the lower side of which slopes inwardly toward the normal neck, a suitable sloping face for the purposes of the present invention being indicated by 15. The stopper or closure comprises a sheet-metal cap portion 20, having a flange 21 for partially overlying the bead on the edge of the mouth and may contain some suitable packing 22, which may be a disk of

cork, the nature of the packing being controlled to some extent by commercial reasons and by the nature of the contemplated contents of the bottle.

The flange 21 may continue, as at 25, at one or more places on one side of the cap and form hooks for engaging the lower or sloping face of the bead. Upon the other or opposite side the flange may be continued, as at 26, and be bent back upon itself and have an opening 27 for guiding a clamping member 28, which comprises a slide portion 29 and a hook 30 for engaging the sloping face of the bead upon its radial movement upon the stopper or cap. The slide portion carries a pivot pin or stud 31, upon which a lever 35 may be pivoted, the lever having an eccentric cam 36 for engaging the abutment 26 and drawing the hook 30 against the sloping face on the under side of the bead 14, the movement in the form illustrated being radial of the cap. The drawing of the hooks inwardly on said face or sloping abutment 15 will cause them to ride downwardly on such face, and thereby draw the cap or stopper down on the bottle-mouth and securely seal the same. The opening 27 may have an extension 32 for the accommodation of the pin 31 in assembling the parts, and after the lever is placed in position the pin may be riveted over, as seen at 33. The lever may have a point 37 for engaging a notch 38 in the cap for stopping the lever at its locked position and holding the same thereat.

In Fig. 6 the clamping member 28 is shown made of wire, whereas in the other views it is made of more substantial form. The said member in this instance is guided by a strap 40, struck up from the cap.

Having described my invention, I claim—

1. A bottle-stopper embodying a cap having a pair of hooks at one side for engaging the bead of a bottle-mouth, a guide and an abutment at the opposite side, and a slide traversing said guide and provided with a hook to engage said bead, and a pivot, a lever carried by said pivot, and an eccentric cam on said lever for engaging said abutment for drawing all said hooks inwardly against said bead.

2. A bottle-stopper embodying a cap having a pair of hooks at one side for engaging the bead of a bottle-mouth, a guide and an abutment at the opposite side, and a slide traversing said guide and provided with a hook to engage said bead, and a pivot, a le-



ver carried by said pivot, an eccentric cam on said lever for engaging said abutment for drawing all said hooks inwardly against said bead, and means for holding said lever in its closed position.

3. A bottle-stopper having a cap provided with a pair of rigid hooks on one side, a radially-movable hook on the opposite side, and a cam and lever for moving said hook.

10 4. A bottle-stopper having a cap provided with a pair of rigid hooks on one side, a radially-movable hook on the opposite side, and a cam and lever for moving said hook, and means for indicating the closed position of  
15 said lever.

5. A bottle-stopper having a cap provided upon one side with rigid hooks for engaging the bead at the bottle-mouth, and movable means at the opposite side for engaging said bead, a fixed abutment, and an eccentric cam reacting on said abutment and said movable engaging means for moving said means and fastening said cap in place.

In witness whereof I subscribe my signature in the presence of two witnesses.

GEORG KIRKEGAARD.

Witnesses:

WALDO M. CHAPIN,  
FRANK S. OBER.