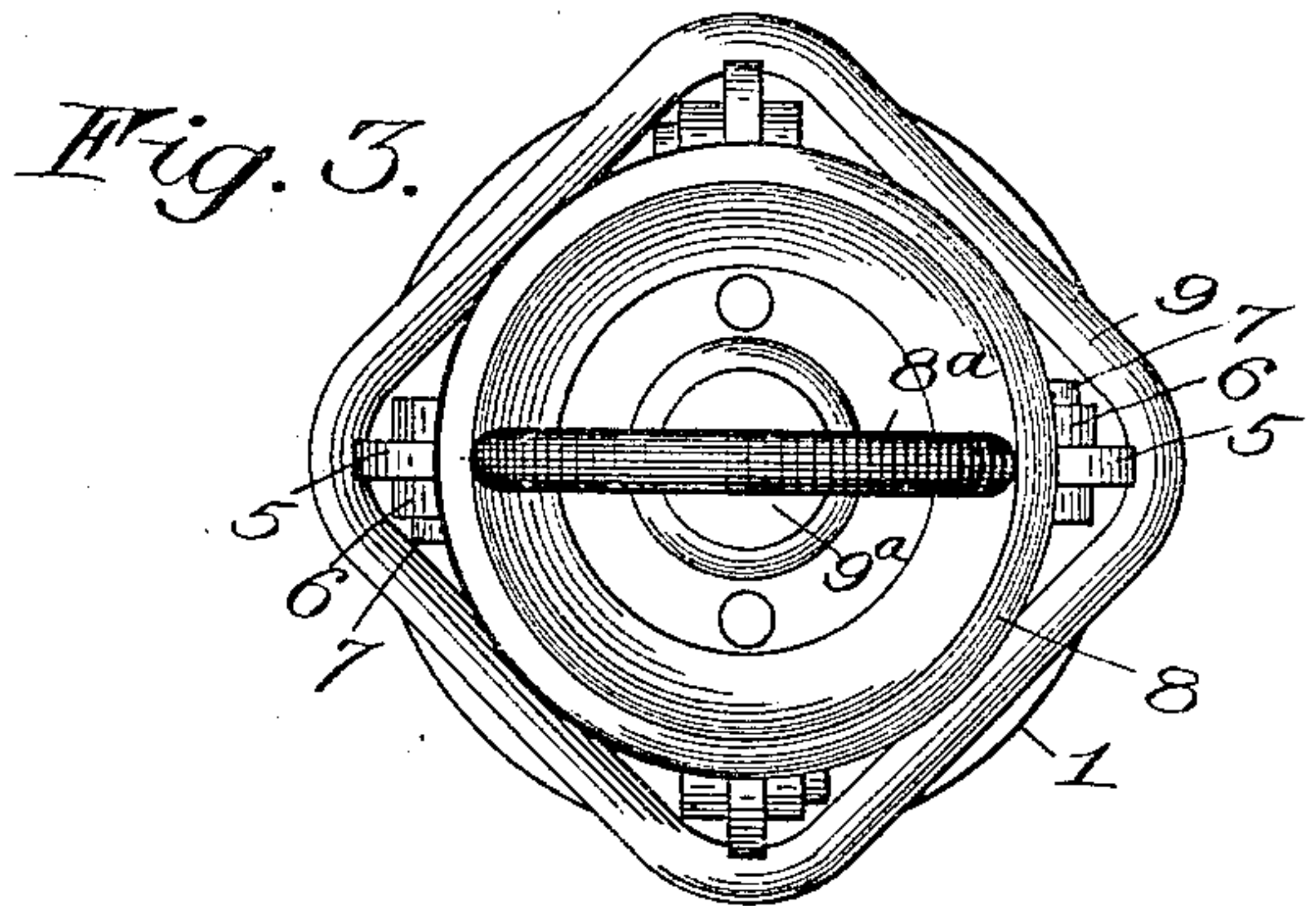
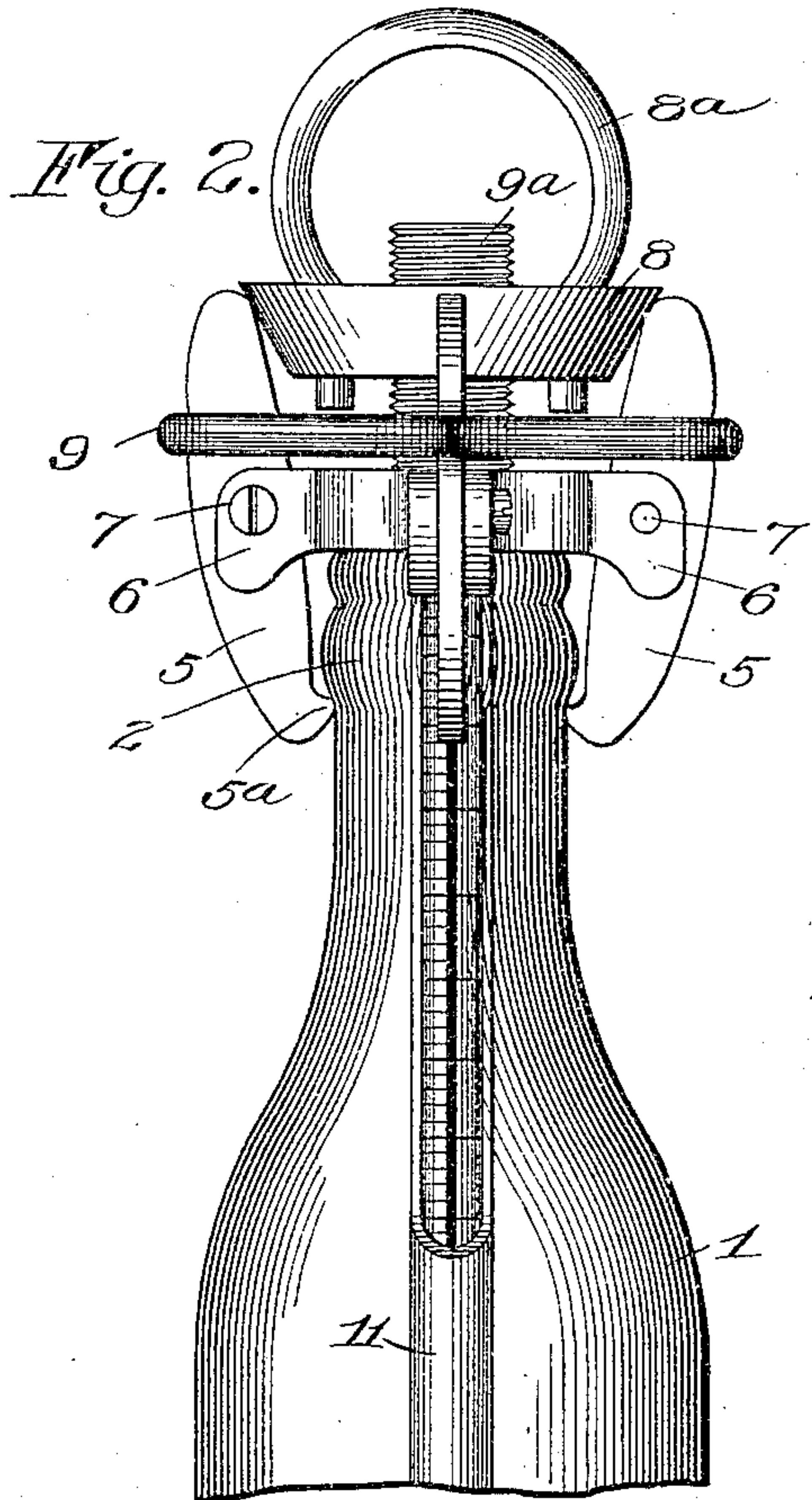
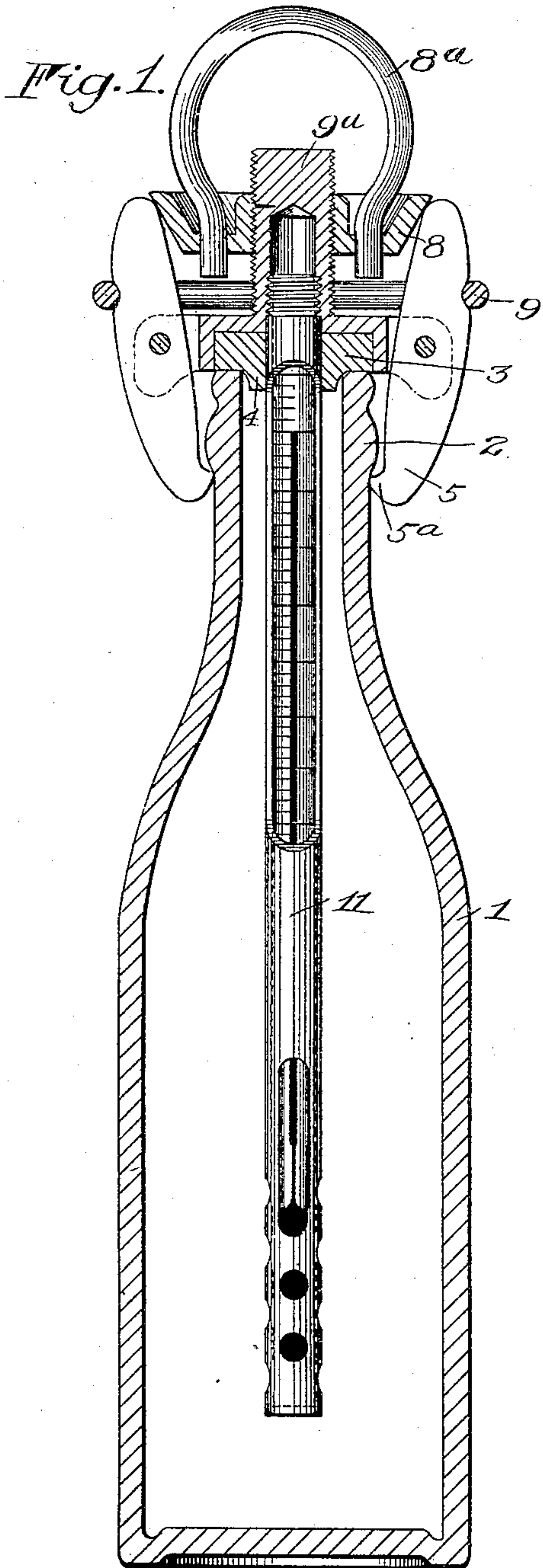


H. W. MAURER,
BOTTLE CLOSURE.
APPLICATION FILED JULY 24, 1908.

936,467.

Patented Oct. 12, 1909.



Witnesses

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J. H. Simms

Inventor

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UNITED STATES PATENT OFFICE.

HENRY W. MAURER, OF ROCHESTER, NEW YORK, ASSIGNOR TO TAYLOR INSTRUMENT COMPANIES, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

BOTTLE-CLOSURE.

936,467.

Specification of Letters Patent.

Patented Oct. 12, 1909.

Application filed July 24, 1908. Serial No. 445,137.

To all whom it may concern:

Be it known that I, HENRY W. MAURER, of Rochester, in the county of Monroe and State of New York, have invented certain
5 new and useful Improvements in Bottle-Closures; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of
10 this specification, and to the reference-numerals marked thereon.

The present invention relates to bottle closures and has for its object to provide an improved means for locking the closure in
15 engagement with the bottle, said means being simple to operate and inexpensive to manufacture.

To these and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more
20 fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 is a view showing the bottle and parts of the holder in vertical section and other parts in elevation; Fig. 2 is a view in elevation of the upper
25 portion of a bottle and the holder; and Fig. 3 is a top view of the holder on a bottle.

The invention is herein shown as embodied in a holder for supporting thermometers on beer bottles 1 having enlargements 2 at their upper ends. The holder comprises a head which on its under side may be formed with
30 a seat consisting in this instance of a pocket containing a resilient ring 3 of rubber or other material having a flange 4 which fits within the upper end or mouth of the bottle. The head is secured to the bottle by a plurality of clamping elements preferably in
40 the form of levers 5 pivotally connected at a point substantially midway of their ends to the periphery of the head which for this purpose may be provided with a number of pairs of ears 6, each pair having a lever 5 pivoted between them on a pivot pin 7, in the form of a removable screw permitting the lever to be removed. A single operating means for the levers is provided and comprises in this instance, a cam member 8 preferably in the form of an inverted frusto-conical member arranged to turn on a screw
50 9^a that projects upwardly from the head. The cam member may be rotated by a removable span wrench 8^a to engage the upper

ends of the lever and separate them to cause their lower ends to be moved toward each other and clamp a bottle on the seat in the head. If desirable a single resilient member in the form of a ring, 9 may surround
60 the upper ends of the levers to press them toward the cam. This ring is inexpensive to install and at the same time may be easily removed to clean the holder.

The thermometer 10 may be of any suitable construction and may be supported in a tube 11 that is closed at its lower end and open at intervals throughout its length in order to permit it to be directly affected by
70 the contents of the bottle and to be visible so that its readings may be taken. The tube is threaded at its upper end and extends through the head to detachably engage threads formed within the hollow
75 screw 9^a.

In operation, the tube 11 with a thermometer therein is inserted into the bottle until the seat on the under surface of the head rests against the mouth. The cam 9 is rotated to force the upper ends of the lever
80 outwardly and their lower ends into engagement with the neck below the enlargement 2, the lower ends being preferably provided with lateral hooks or projections 5^a to prevent slipping. After the holder has been
85 locked or clamped to a bottle, the span wrench is removed so that it will not become heated. When the thermometer has been in the bottle sufficient time to become affected
90 by the contents thereof the holder is removed by rotating the cam in the other direction.

With a holder constructed in accordance with this invention a thermometer may be centered in a vessel and may be quickly and
95 easily fitted to and removed therefrom. After every taking of a temperature the mercury of the thermometer must be "shaken down"; the thermometer being of the type
100 in which a restricted passage is provided between the bulb and the stem. The clamping parts are compactly arranged and do not vibrate during the shaking and the handle being removable makes it necessary that
105 the user shall clasp the holder in such a manner that a firm grip will be maintained during the shaking.

I claim as my invention:

1. The combination with a head formed with a seat for the upper end of a vessel, of
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a plurality of levers pivoted to said head, the lower ends being adapted to engage a vessel engaging the seat, means coöperating with all of the levers to move them simultaneously into engagement with the vessel, and a resilient member coöperating with all of the levers to move them out of engagement with the vessel.

2. The combination with a head having a vessel seat, of levers pivoted to the head between their ends and each having an end adapted to engage a vessel on the seat, a resilient member surrounding the levers on the other side of their pivots, and a single means for moving all of the levers to cause them to engage a vessel on the seat.

3. The combination with a head having a vessel seat, of clamping elements on the head

to engage a vessel on the seat, a single resilient member coöperating with all of the elements to move them in one direction, and a cam coöperating with all of the said elements to move them in the other direction.

4. The combination with a head having an annular seat on its under side, and a screw projecting upwardly therefrom, of a plurality of levers pivoted to the periphery of the head, a resilient member surrounding the upper ends of the levers, and an inverted frusto-conical cam operating on the screw to engage the upper ends of the levers.

HENRY W. MAURER.

Witnesses:

HAROLD H. SIMMS,
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