

(No Model.)

C. H. FOX & M. HEGELE.
BOTTLE STOPPER.

No. 428,248.

Patented May 20, 1890.

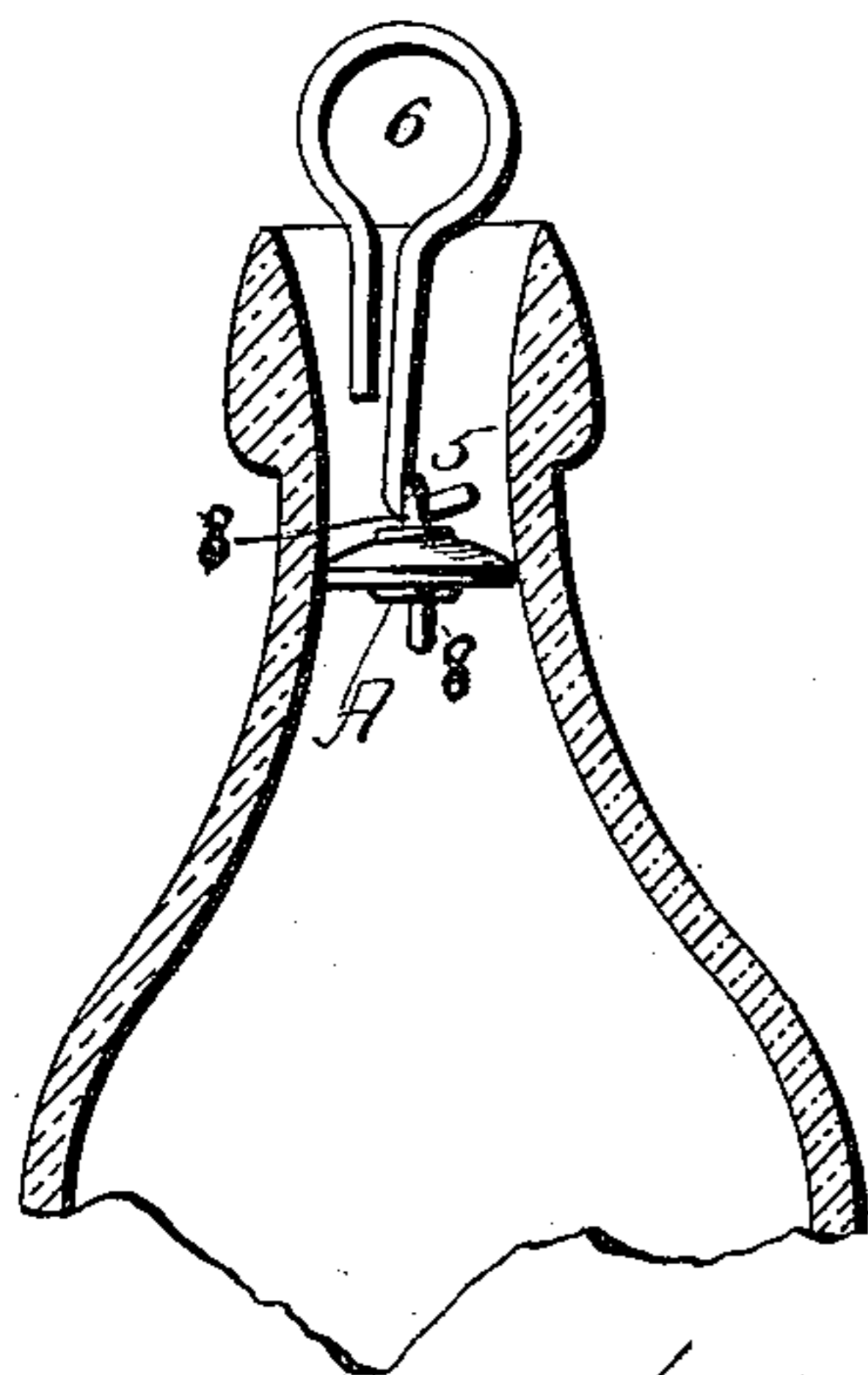


Fig. 1.

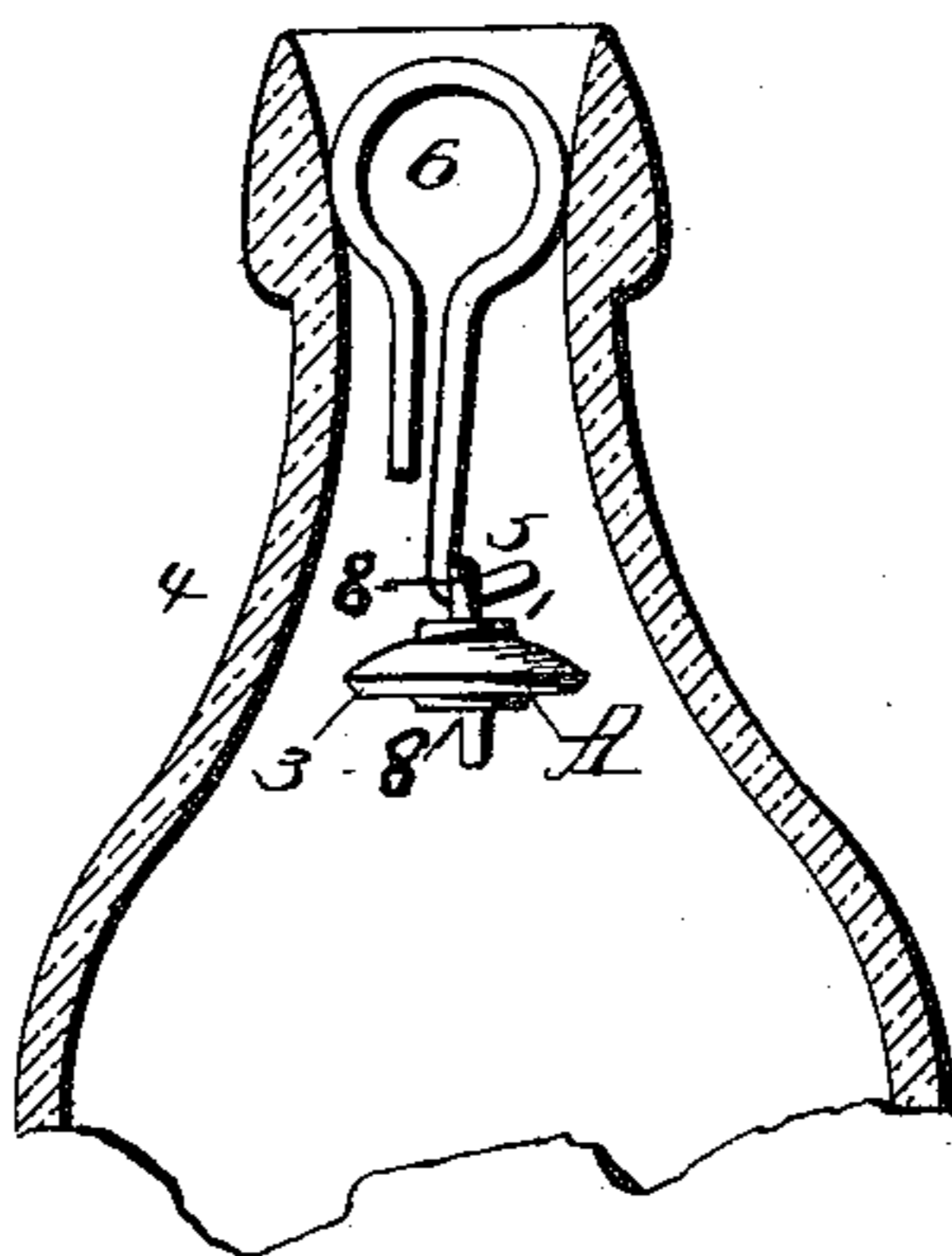


Fig. 2.

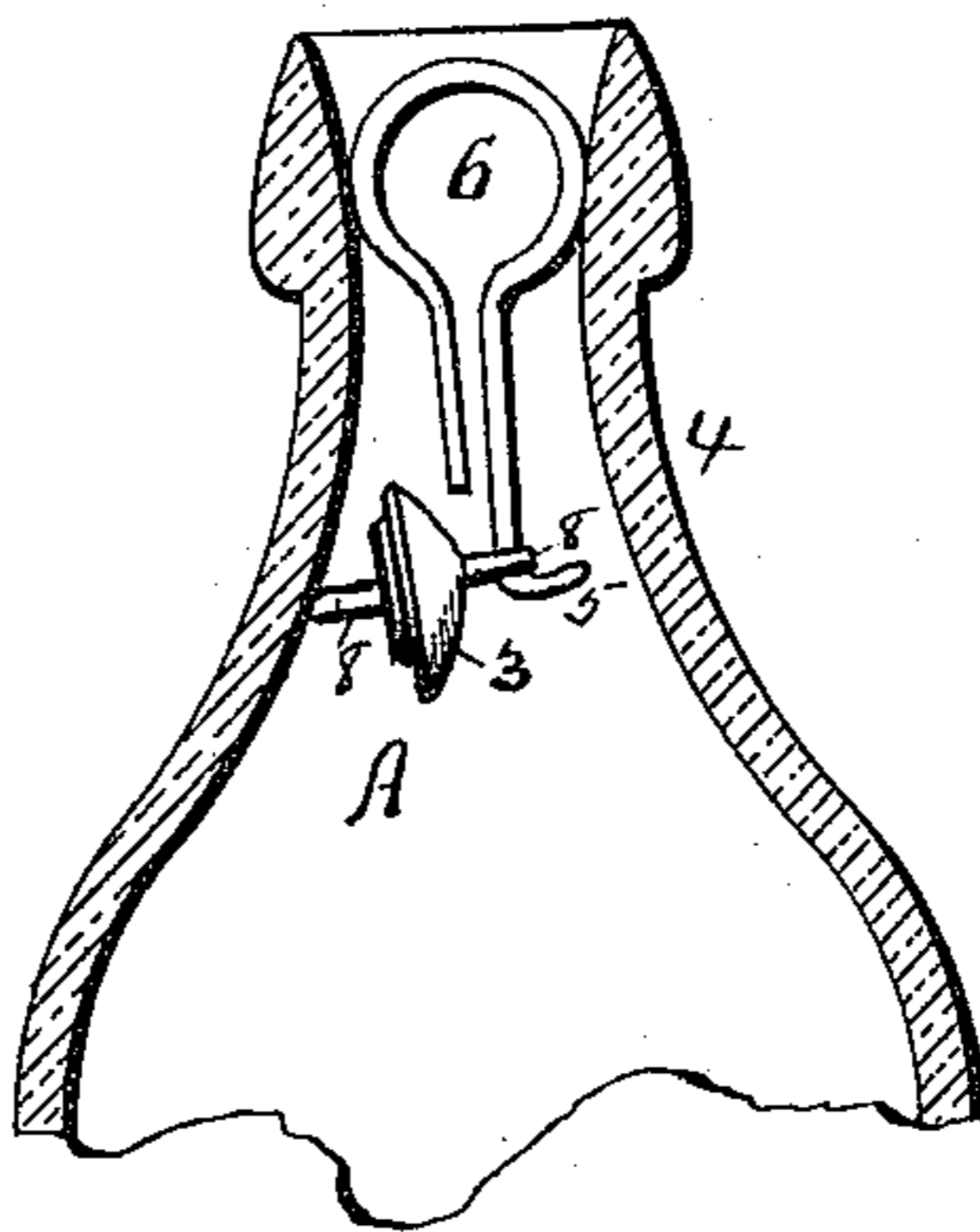


Fig. 3.

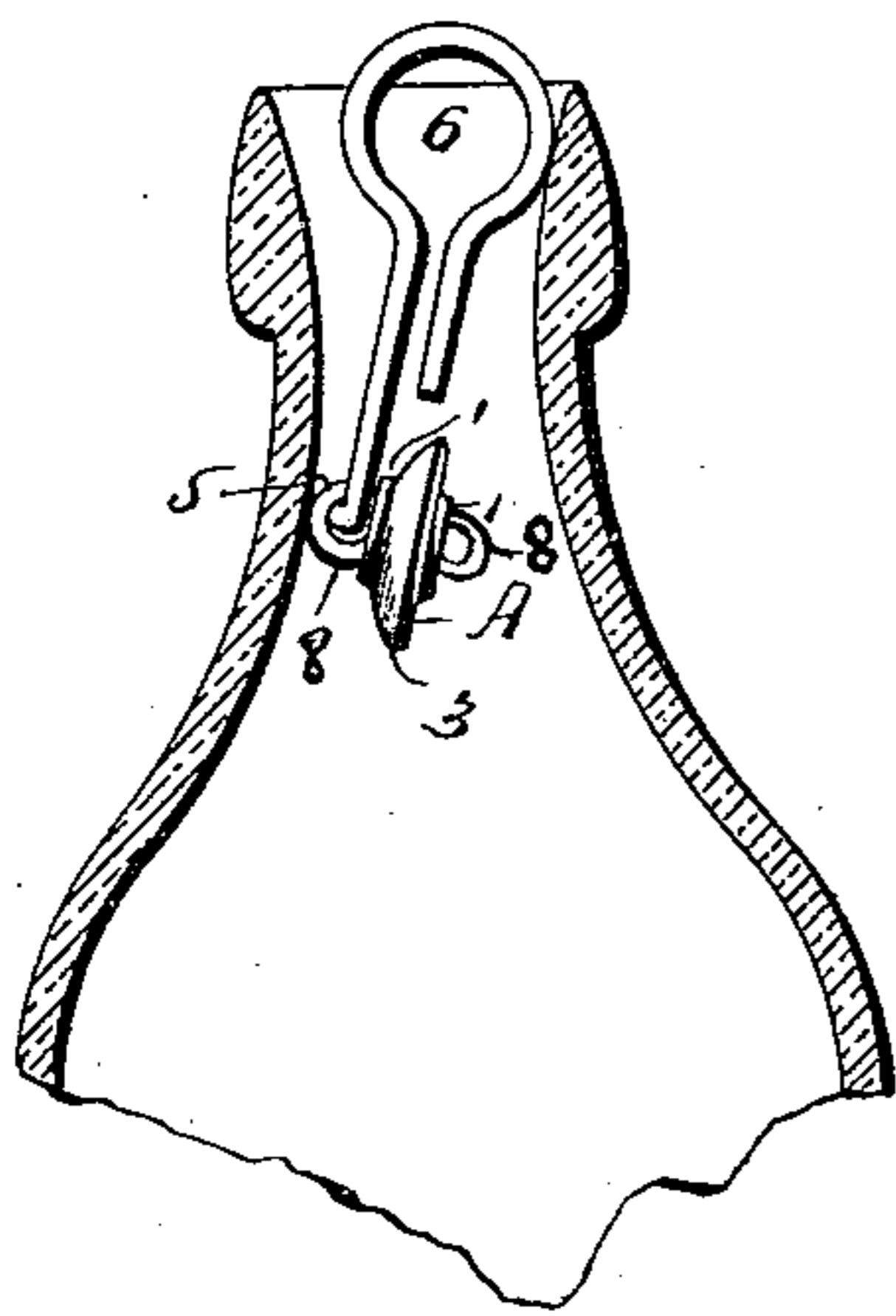


Fig. 4.

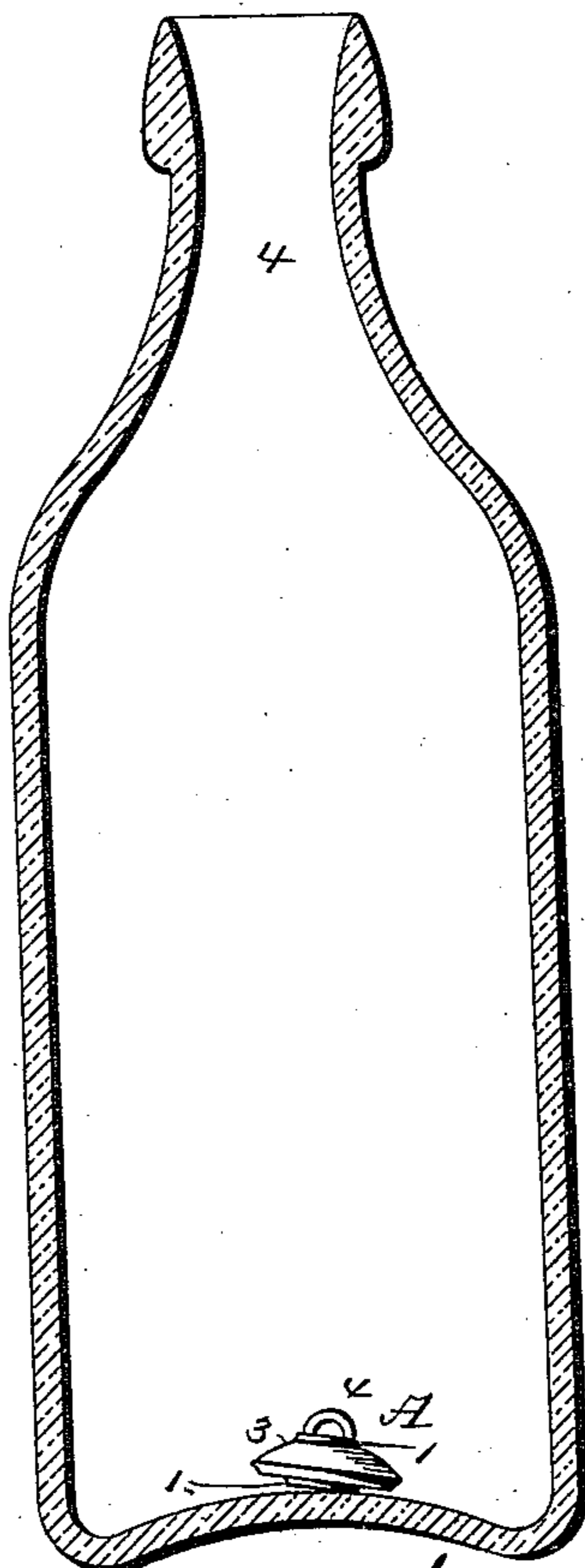


Fig. 5.

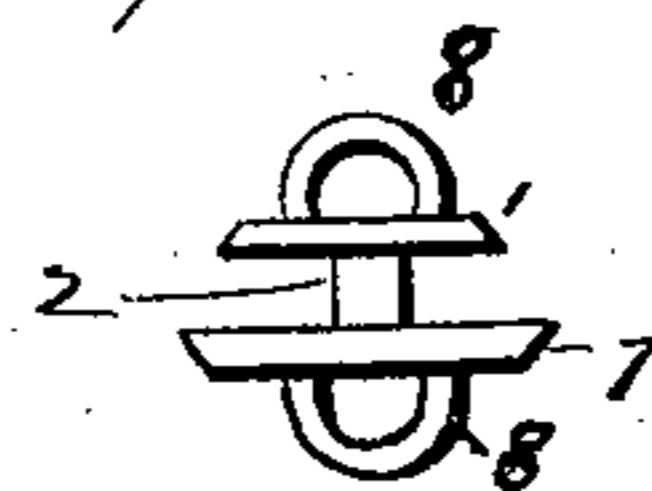
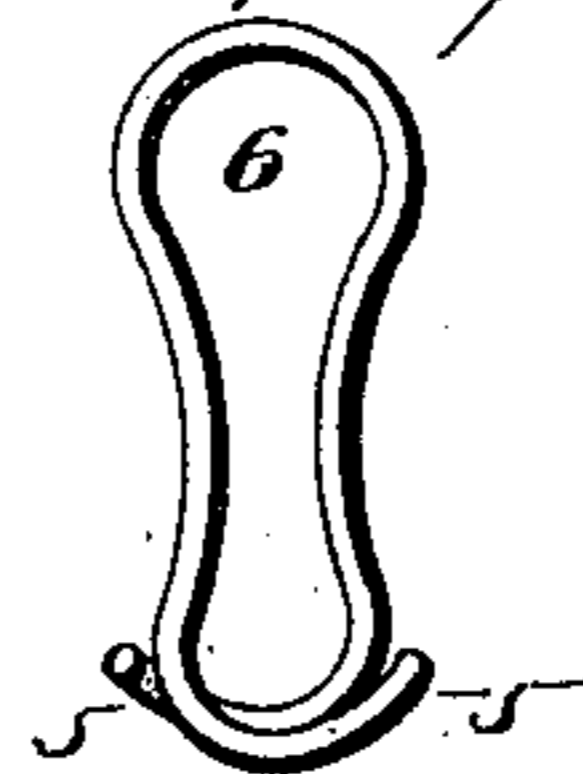


Fig. 7.



Witnesses
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By their Attorney

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UNITED STATES PATENT OFFICE.

CHARLES HENRY FOX AND MATHEW HEGELE, OF DELANO, CALIFORNIA.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 428,248, dated May 20, 1890.

Application filed October 4, 1889. Serial No. 325,986. (No model.)

To all whom it may concern:

Be it known that we, CHARLES HENRY FOX and MATHEW HEGELE, of Delano, in the county of Kern and State of California, have
5 invented certain new and useful Improvements in Bottle-Stoppers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as
10 it appertains to make and use the same.

Our invention relates to an improvement in bottle-stoppers, the object of the invention being to provide a cheap and simple device for stopping bottles, and more especially to
15 provide increased facilities for filling, emptying, and washing bottles; and to this end our invention consists in a stopper-disk having two eyelets therein used in connection with a wire or similar device which works loosely
20 in the neck of the bottle for a limited distance and loosely supports the disk, so that the latter may be easily controlled and held out of the way while the bottle is being filled or emptied, or may be dropped into the bottle
25 while the latter is being cleaned and be easily caught again after the cleaning process is completed, or by catching the lower eye with the hook or handle the stopper can easily be drawn out of the bottle.

30 It further consists in certain novel features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is
35 a sectional view through the neck of a bottle, showing it closed. Fig. 2 shows it open. Figs. 3, 4, and 5 show different positions taken by the disk during the filling, emptying, cleaning, and catching of the disk. Fig. 6 is a detached view showing the plug and disk, and
40 Fig. 7 is a modification.

A represents a plug, preferably cast in one solid piece of tin or other metal, it consisting of two thin heads 11 and a connecting-shank 2.
45 A rubber disk 3 is held between these two heads, where it is securely held against displacement. The rubber disk is of greater diameter than the neck 4 of the bottle, and is adapted to close it or be held tightly in the
50 neck by the pressure of the contents of the bottle. In the first place the plug and disk

is inserted by crowding it into the neck edge-wise or in any convenient manner, and its size is sufficient to retain it in the bottle in spite of considerable internal pressure. The plug 55 is furnished with two eyelets 8 8 in its upper and lower end, respectively, and in this connection it may be remarked that the plug might be cast around a turned or bent eye of wire or other material; but we believe the 60 construction shown to be cheaper and more serviceable.

The holder consists of a wire bent substantially as shown, with a hook 5 at its lower end adapted to enter the eyelets 8 8, and an enlargement 6 at the opposite end to prevent
65 it from dropping into the neck of the bottle beyond a certain point. As shown in Fig. 1, the disk is in the position of closing the bottle, held so by the pressure from within. The 70 holder when in this position performs no function whatever. It does not even sustain the stopper-disk, and when the stopper-disk is in this position in the neck it is impossible to remove the holder from it; but to open 75 the bottle the holder is forced into the neck, as in Fig. 2, by striking it on the end. The holder now supports the stopper-disk and permits it to turn sidewise for the free passage of the contents of the bottle. To remove 80 the holder from the stopper, it may be turned over, or the bottle may be turned until the stopper drops off. Then the holder may be taken out and the bottle may be easily washed. All this is quickly and easily done. In order 85 to again catch the stopper, the bottle is shaken until the stopper is in the position shown in Fig. 5. The holder is then carefully inserted in the neck of the bottle and the end 5 hooked into the upper eyelet to close the bottle, or by 90 hooking it into the lower eye it may be easily drawn from the bottle.

A slightly-modified form of holder is illustrated in Fig. 7. Here two hooks are formed by bending the wire, as shown, so that the 95 catching of the stopper is facilitated, as either hook may be used.

It is evident that slight changes might be resorted to, such as making the holder in different forms or of different material, in the 100 form and arrangement of the several parts described without departing from the spirit

and scope of our invention, and hence we do not wish to limit ourselves to the particular construction herein set forth; but,

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A bottle-stopper consisting of a plug adapted to close the neck of the bottle and be retained in place by pressure from within, and a holder having a hook extending approximately at right angles to the body of the holder, the said holder capable of being detached from the plug when the latter is not in the contracted portion of the bottle-neck, substantially as set forth.

2. The combination, with a bottle having a neck, of a stopper consisting, essentially, of a plug having upper and lower eyes, as described, and a holder hooked to one of said

eyes, said holder having a hook on one end for attachment to the plug and an enlargement on the other end to support the plug in the neck, substantially as set forth.

3. A stopper for bottles, consisting of a plug having two heads, an eye projecting from each head, a shank connecting the heads, a rubber disk on the shank, and a holder having an enlarged upper end and a hook-shaped lower end, the latter being detachably fastened to one of said eyes, substantially as set forth.

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

CHARLES HENRY FOX.
MATHEW HEGELE.

Witnesses:

E. CHANNER,
N. H. DORSEY.