

No. 730,254.

PATENTED JUNE 9, 1903.

J. R. GREENAWAY.  
BOTTLE STOPPER.

APPLICATION FILED SEPT. 29, 1902.

NO MODEL.

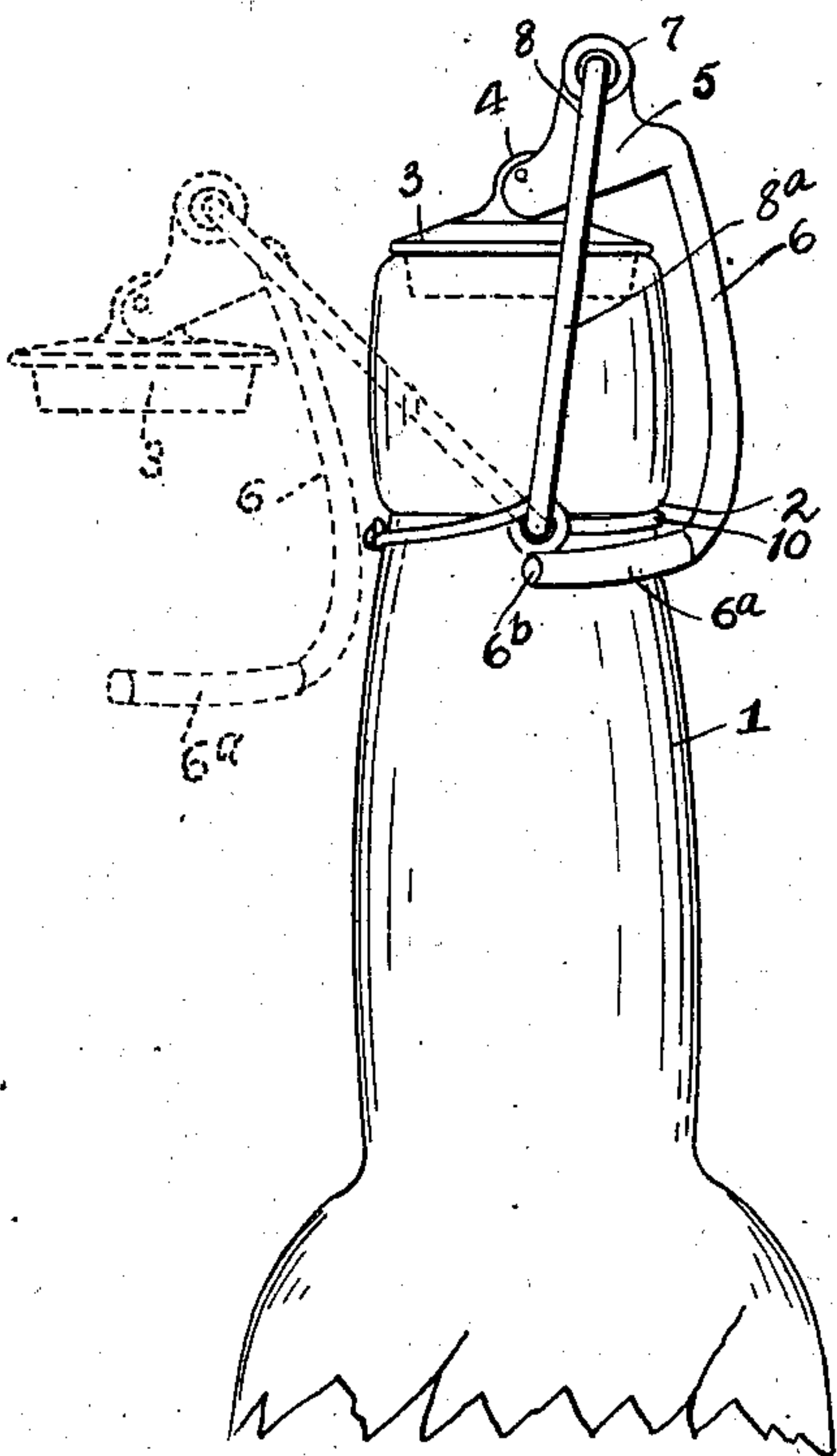


FIG. 1

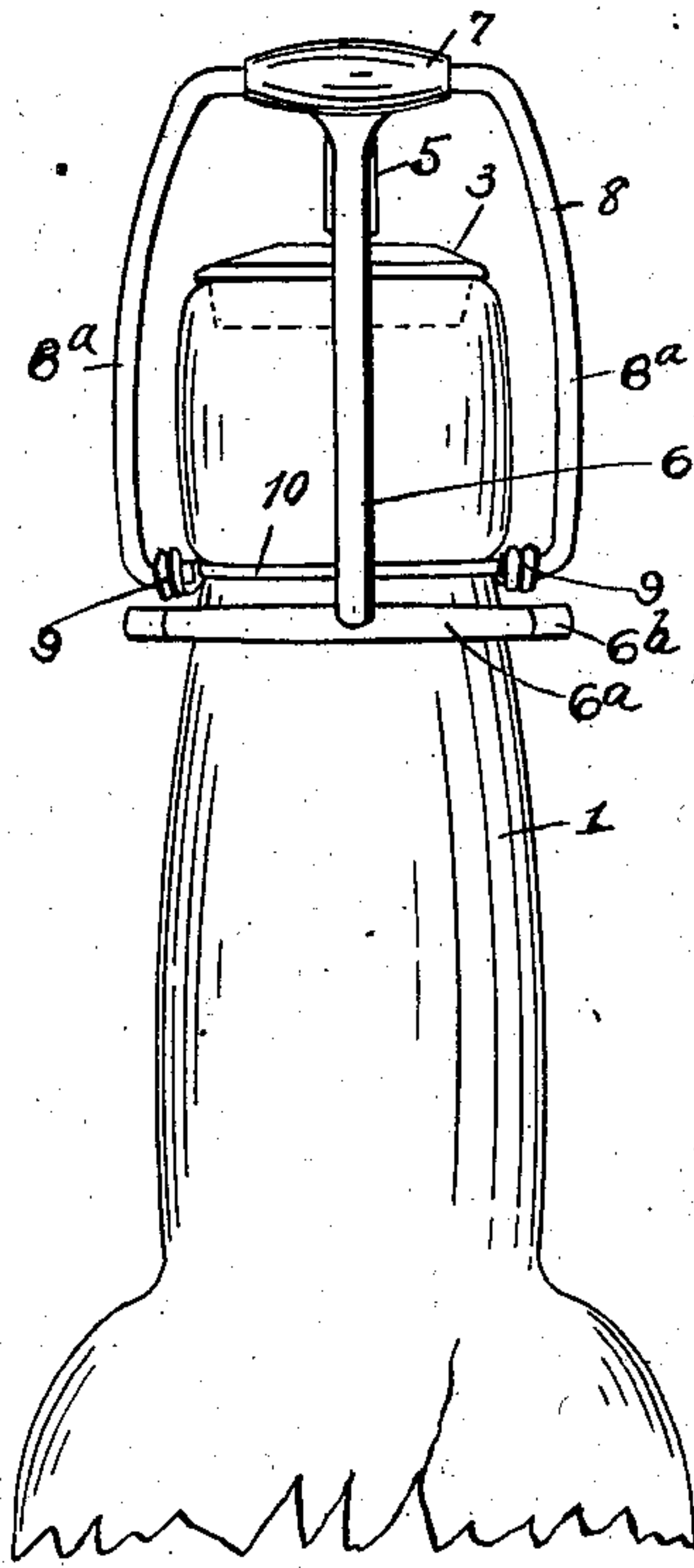


FIG. 2

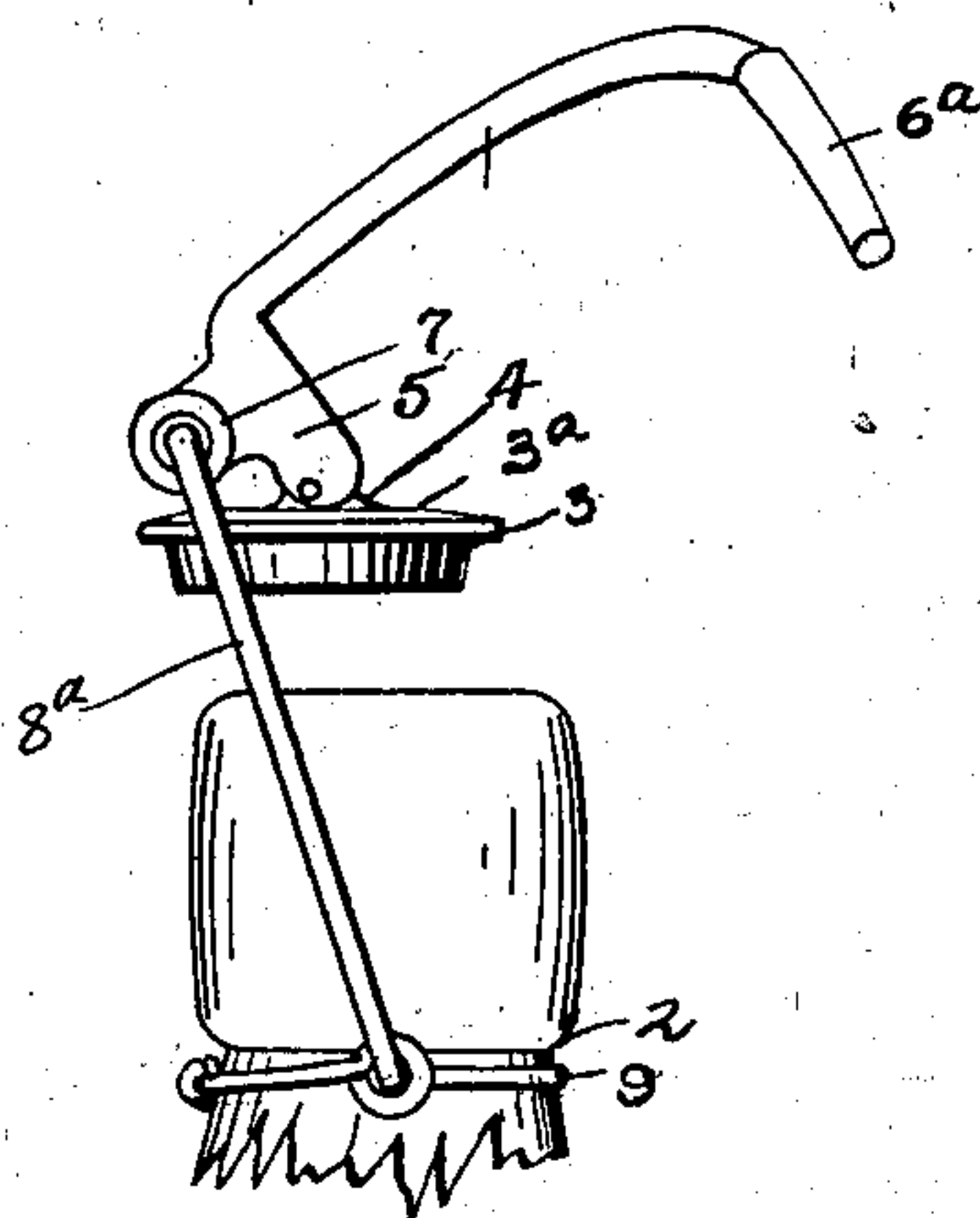


FIG. 3

WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 730,254, dated June 9, 1903.

Application filed September 29, 1902. Serial No. 125,158. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH R. GREENAWAY, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Bottle-Stoppers, of which the following is a specification.

My invention relates to the improvement of bottle-stoppers; and the objects of my invention are to provide a simple and effective stopper for bottles of that class which remain in connection with the bottle-neck, to so construct the same as to permit of the stopper being removed with comparatively slight exertion, and to produce other improvements the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the upper portion of a bottle, showing my improved stopper in a closed position in full lines and showing the same in an open position in dotted lines. Fig. 2 is a view in elevation at right angles with that shown in Fig. 1; and Fig. 3 is a side elevation of a portion of the bottle-neck and my improved stopper, showing the latter in position for insertion within the mouth of said neck.

Similar numerals refer to similar parts throughout the several views.

1 represents a bottle-neck, which is formed in its upper portion with a peripheral shoulder or enlargement 2.

3 represents the stopper-body, which is in the form of a plug having an upper side flange 3<sup>a</sup>, the plug-body being preferably surrounded by a ring of rubber of corresponding shape with said plug. Rising from the metallic top of the stopper-body is a lug 4, to which is pivoted, at a point above its center, the head or short upper arm portion 5 of a lever 6, which extends substantially at right angles with said arm and has a yoke termination 6<sup>a</sup>, the curved arms forming said yoke being outturned at their extremities, as indicated at 6<sup>b</sup>. With the upper side of the lever arm or head 5 is formed a transverse barrel or tubular bearing 7. Through this barrel passes loosely the outer horizontal end portion of a wire yoke 8, each of the parallel side arms 8<sup>a</sup> of which has its inturned end portion

pivotally engaged with one or more coils or loops 9 of a binding-wire 10, which is secured to the bottle-neck immediately below the shoulder 2.

It will be understood that by raising the lever to the position shown in Fig. 3 of the drawings—that is, with the stopper suspended above the mouth of the bottle-neck—said stopper may be made to enter said mouth by pressing the lever downward until its yoke-arms 6<sup>a</sup> embrace the bottle-neck in the manner shown in full lines in Figs. 1 and 2 of the drawings. In this operation it will be understood that owing to the eccentric location of the pivot-point of the lever-arm 5, the continued downward and inward movement of said lever must result in an increased pressure of the stopper against the mouth of the bottle.

In bottle-stoppers of this class wherein the stopper is permanently attached to the bottle and where means are employed for retaining the stopper within the mouth of the bottle under pressure it has been found exceedingly difficult to operate the stopper-controlling device; but it will be readily understood that by the construction herein shown and described the stopper may be readily and easily moved out of its seat in the mouth of the bottle-neck by pressing outward and upward on the outturned end portions 6<sup>b</sup> of the yoke termination of said lever.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a bottle-stopper, the combination with the bottle-body and a stopper therefor, having a projection on its upper side, of a lever comprising a main arm 6, a terminal yoke 6<sup>a</sup>, and a head or upper arm 5 extending substantially at right angles with said main arm and pivotally connected out of center with said stopper projection, said arm 5 having an opening through its upper side and a wire yoke journaled in said opening, said yoke having its inturned end portions secured in pivotal connection with opposite sides of the bottle-neck, substantially as specified.

JOSEPH R. GREENAWAY.

In presence of—

A. L. PHELPS,  
W. L. MORROW.