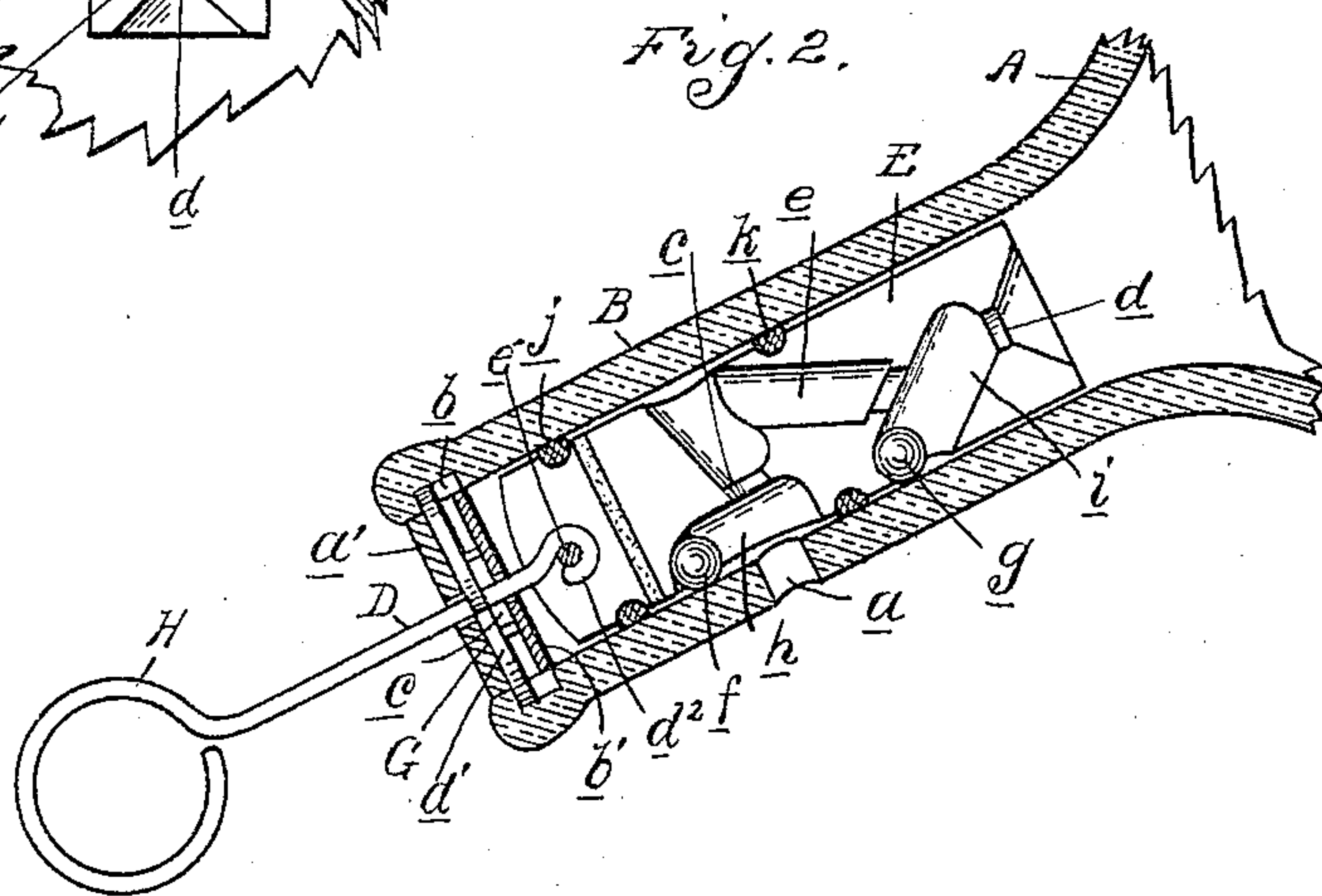
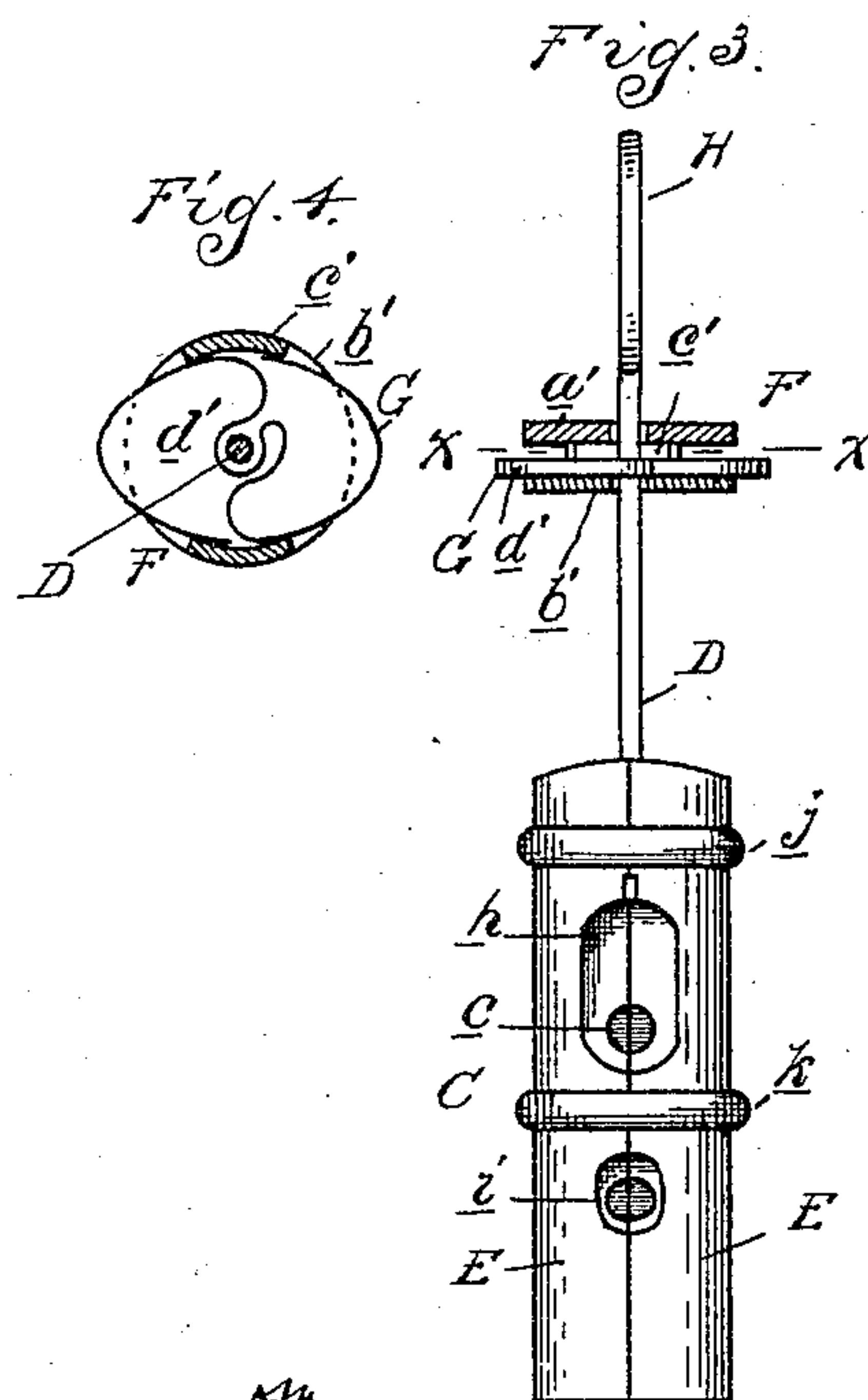
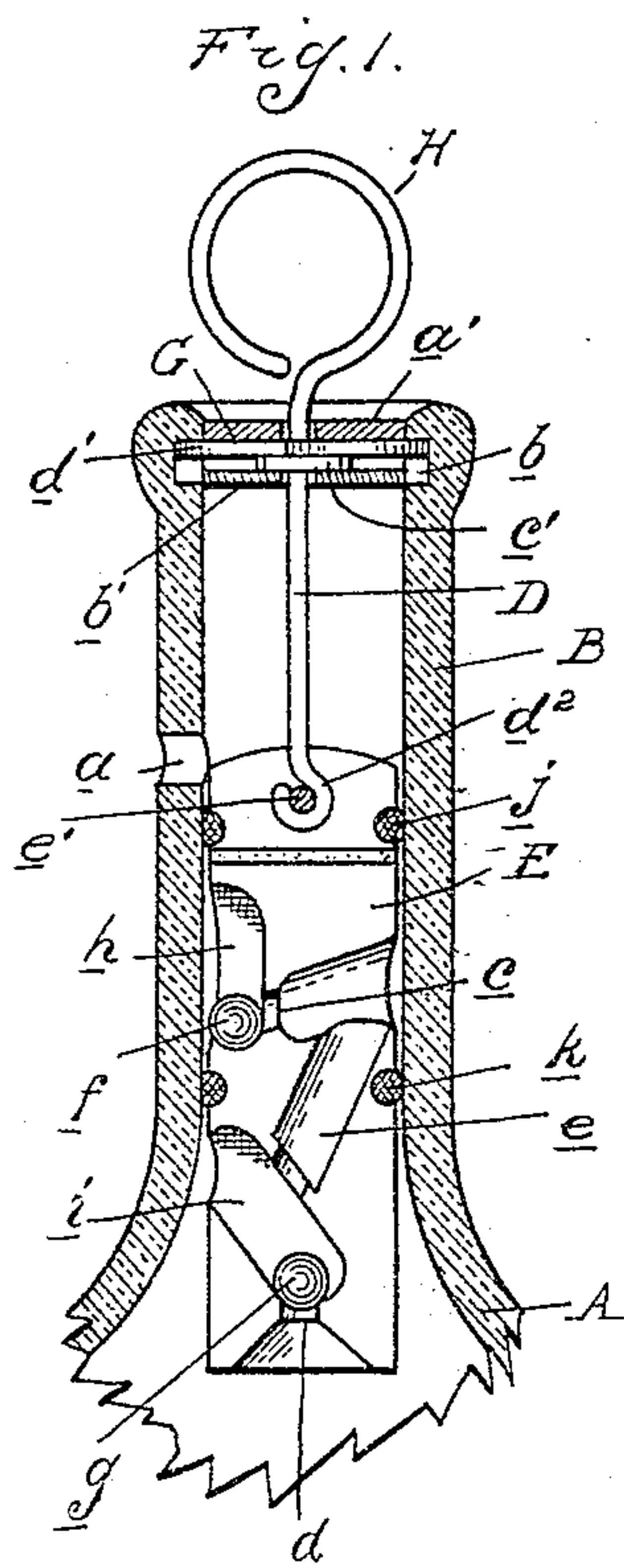


No. 773,623.

PATENTED NOV. 1, 1904.

G. W. BARIAN.
NON-REFILLABLE BOTTLE.
APPLICATION FILED MAY 7, 1904.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE WASHINGTON BARIAN, OF MONROE CITY, MISSOURI, ASSIGNOR
OF TWO-FIFTHS TO FRANCIS D. PROCTOR, OF MONROE CITY, MIS-
SOURI.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 773,623, dated November 1, 1904.

Application filed May 7, 1904. Serial No. 206,939. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WASHINGTON BARIAN, a citizen of the United States, residing at Monroe City, in the county of Monroe and State of Missouri, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to a stopper for bottles designed to prevent the fraudulent refilling of the same; and it consists in the novel and simple construction of the stopper and in the peculiar arrangement and combination of its parts, as will be more fully hereinafter set forth and illustrated.

In the drawings, Figure 1 is a vertical central section through the bottle neck and stopper, the operating-lever for the latter being shown in elevation. Fig. 2 is a similar view illustrating the bottle in pouring position. Fig. 3 is a view in elevation, partly in section, of the stopper detached from the bottle-neck; and Fig. 4 is a section taken on line *x x* of Fig. 3.

In the drawings thus briefly described, A represents the bottle proper, provided with the usual neck portion B, which has a discharge-opening *a* in one side thereof and an internal annular groove or recess *b* near its mouth. Arranged within the neck described for sliding movement is a stopper C, provided with an operating member D, preferably in the form of a rod, by means of which the stopper may be moved into different positions to bring its outlet-port, hereinafter described, into and out of registration with the discharge-opening *a*.

The stopper I preferably employ is composed of two like sections, as E, each of which is channeled in such manner so that when the sections are assembled the channels will form a discharge or outlet port *c*, an inlet-port *d*, and a tortuous passage *e*, connecting the ports. Ball-valves *f* and *g* are arranged within the passages formed within the stopper to control the two ports, and, as plainly indicated, runways *h* and *i* are formed in the stopper

by recessing the complementary sections, as previously described, which allow the balls to move away from the ports sufficiently to permit the discharge of the bottle contents when the bottle is in pouring position. The two stopper-sections are preferably connected by means of packing-rings *j* and *k*, which, as will be obvious, serve, in addition to holding the parts together, to prevent the discharge of the liquid through the bottle-mouth.

Means are provided for limiting the end-wise movement of the stopper, the preferable construction of which is illustrated.

For limiting the outward or upward movement of the stopper I provide a cap F of a diameter equal to the internal diameter of the bottle-neck and adapted to be inserted therein and a locking-spring G for the cap, which when the latter is opposite the groove *b* engages the same and locks the cap in place. The cap is preferably composed of two disk-sections *a'* and *b'*, connected by vertical portions *c'*, and between the disks are arranged springs *d'*, which form the lock.

The means for operating the stopper to seal the bottle or to permit pouring is preferably a wire rod D, looped at its lower end, as at *d''*, to engage the pin *e'*, extending transversely through the stopper-sections. This rod, as shown, passes through the aperture formed centrally within the cap and terminates in a loop H, which affords means for operating the stopper and serves, further, to limit its downward movement.

In Fig. 1 the bottle is shown sealed, the stopper being forced downwardly to the limit of its movement at a point below the discharge-opening *a* in the bottle-neck. When it is desired to pour the contents from the bottle, the stopper is raised, by means of the operating-rod, until its top abuts against the cap, when the outlet-port *c* in the stopper will be in registration with the opening *a*. The bottle is then inclined into its pouring position, causing the ball-valves to move away from the stopper-ports a sufficient distance to permit the liquid to discharge from the stopper and out through the opening in the side

of the neck. To reseal the bottle, the stopper is forced down to the lowermost position.

It will be obvious that the stopper may be made in a number of different ways without
5 in any manner departing from the spirit of my invention, and I do not, therefore, wish to be limited to the exact construction shown, although I deem the same preferable in use.

While a straight passage might be used for
10 connecting the stopper-ports, I find that a tortuous passage, as illustrated, is superior, as it effectively prevents any tampering with the valves by means of a wire.

What I claim as my invention is—

15 1. In a non-refillable bottle, the combination with the bottle-neck provided with a discharge-opening in its side, of a slidable stopper within the neck having connected inlet and outlet ports, and means for operating the
20 stopper to bring its outlet into and out of registration with the discharge-opening in the bottle-neck.

2. In a non-refillable bottle, the combination with the bottle-neck provided with a discharge-opening in its side, of a slidable stopper within the neck having connected inlet and outlet ports formed therein, means for limiting endwise movement of the stopper, and an operating device for moving the stopper to bring its outlet into or out of registra-
30 tion with the discharge-opening in the bottle-neck.

3. In a non-refillable bottle, the combination with the bottle-neck having a discharge-opening formed in its side, of a cap fixed within the neck above said opening, a stopper, having connected valve-controlled inlet and outlet ports, arranged within the neck below the cap for sliding movement, and an operating-rod for the stopper projecting through and
40 beyond the cap.

4. In a non-refillable bottle, the combination of the bottle-neck provided with a discharge-opening in its side, and a slidable
45 stopper within the neck having a discharge-

port adapted to be brought into and out of registration with the opening in said neck.

5. In a non-refillable bottle, the combination with a bottle-neck having a discharge-opening in its side, of a stop within the neck
50 above the opening, a stopper arranged within the neck below the stop for endwise movement in either direction, said stopper having a discharge-port, adapted to be brought into and out of registration with the neck-opening,
55 and an operating member for the stopper.

6. In a non-refillable bottle, the combination with the bottle-neck having an internal annular groove or recess near its mouth and a discharge-opening formed in its side, of a
60 ported stopper arranged within the neck for sliding movement, valves controlling the ports, a cap fitted within the neck and having a spring-lock engaging the groove and an operating-rod connected to the stopper and pro-
65 jecting through and beyond the cap.

7. In a non-refillable bottle, the combination with a bottle-neck having a discharge-opening formed in its side, of a cap fixed within the neck above said opening, a ported
70 stopper arranged within the neck below the cap for sliding movement, and an operating-rod for sliding the stopper.

8. In a non-refillable bottle, the combination with a bottle-neck having a discharge-
75 opening formed in its side, of a cap fixed within the neck above said opening, a stopper having connected inlet and outlet ports arranged within the neck below the cap for sliding movement, and an operating-rod for
80 said stopper, said rod projecting through and beyond the cap and terminating at its upper free end in a loop.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE WASHINGTON BARIAN.

Witnesses:

THOS. J. WHITE,
R. S. McCLINTIC.