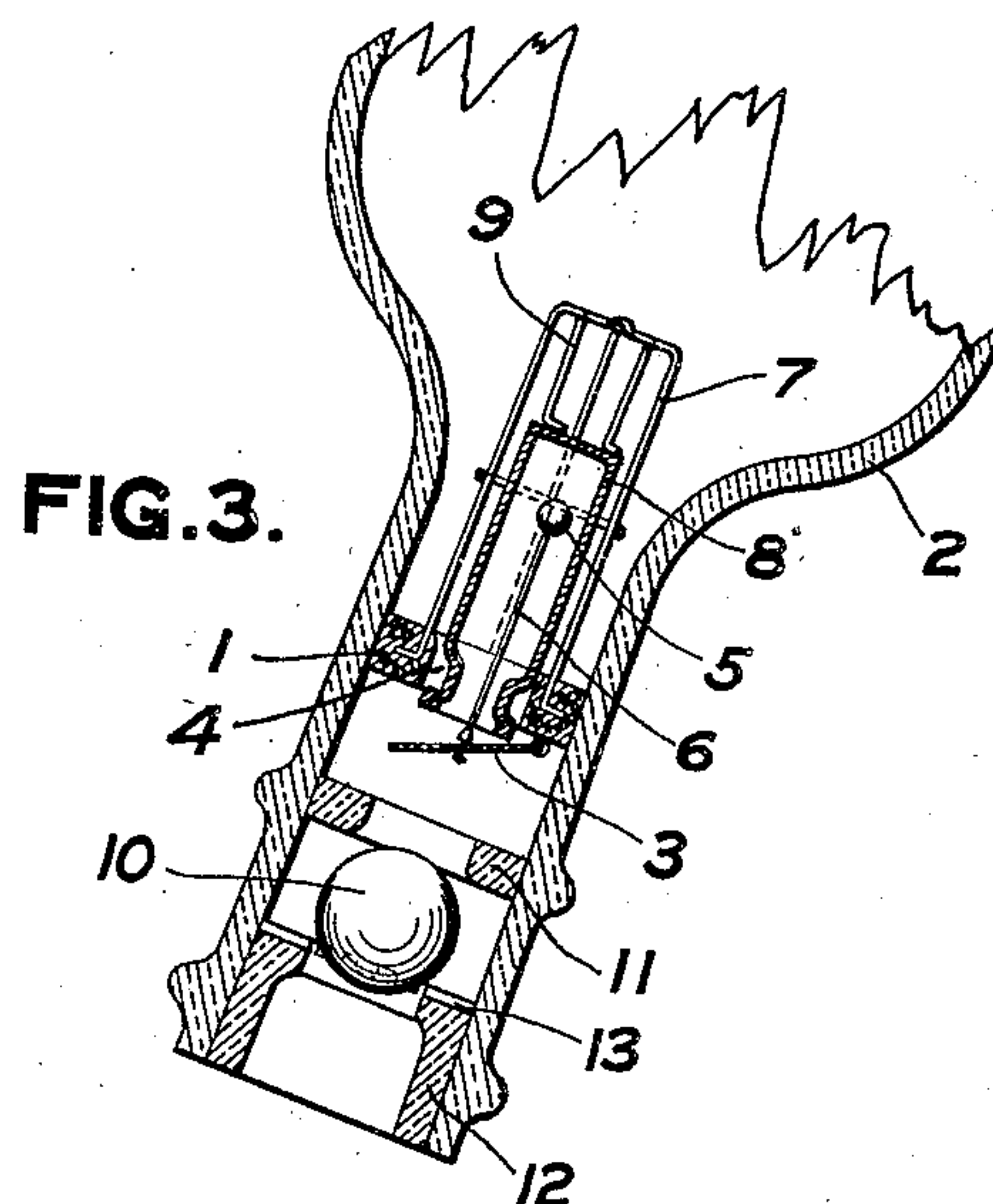
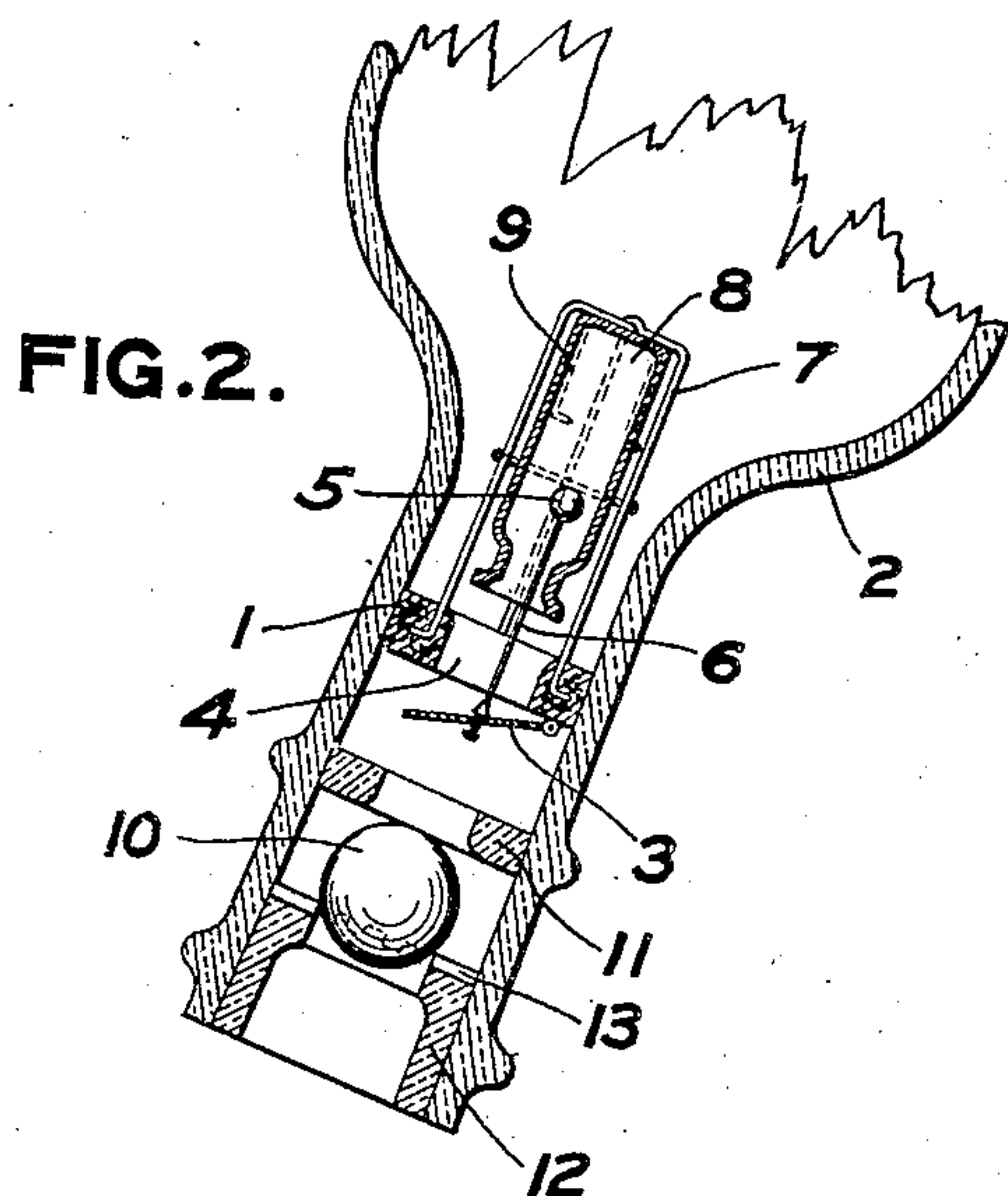
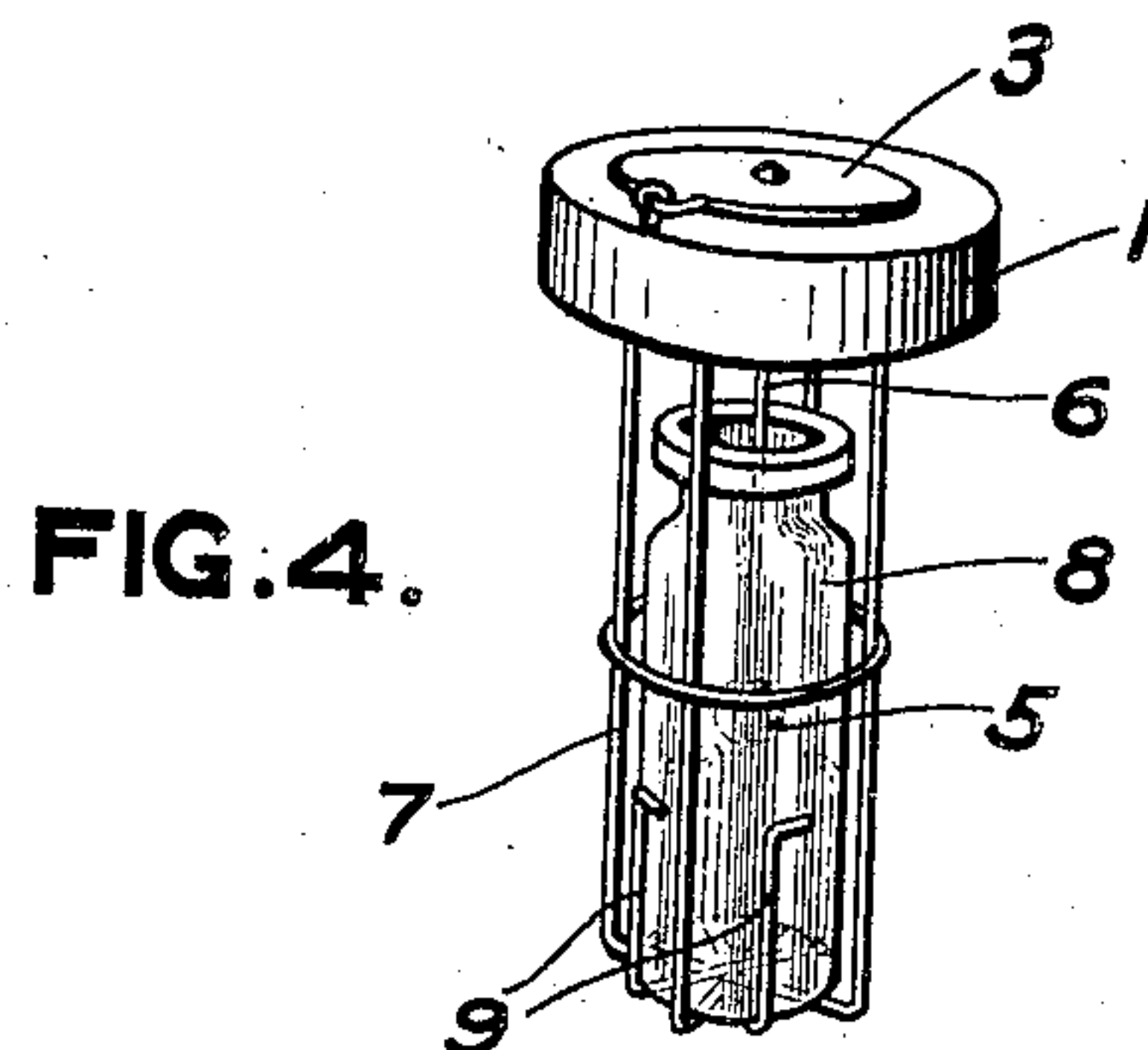
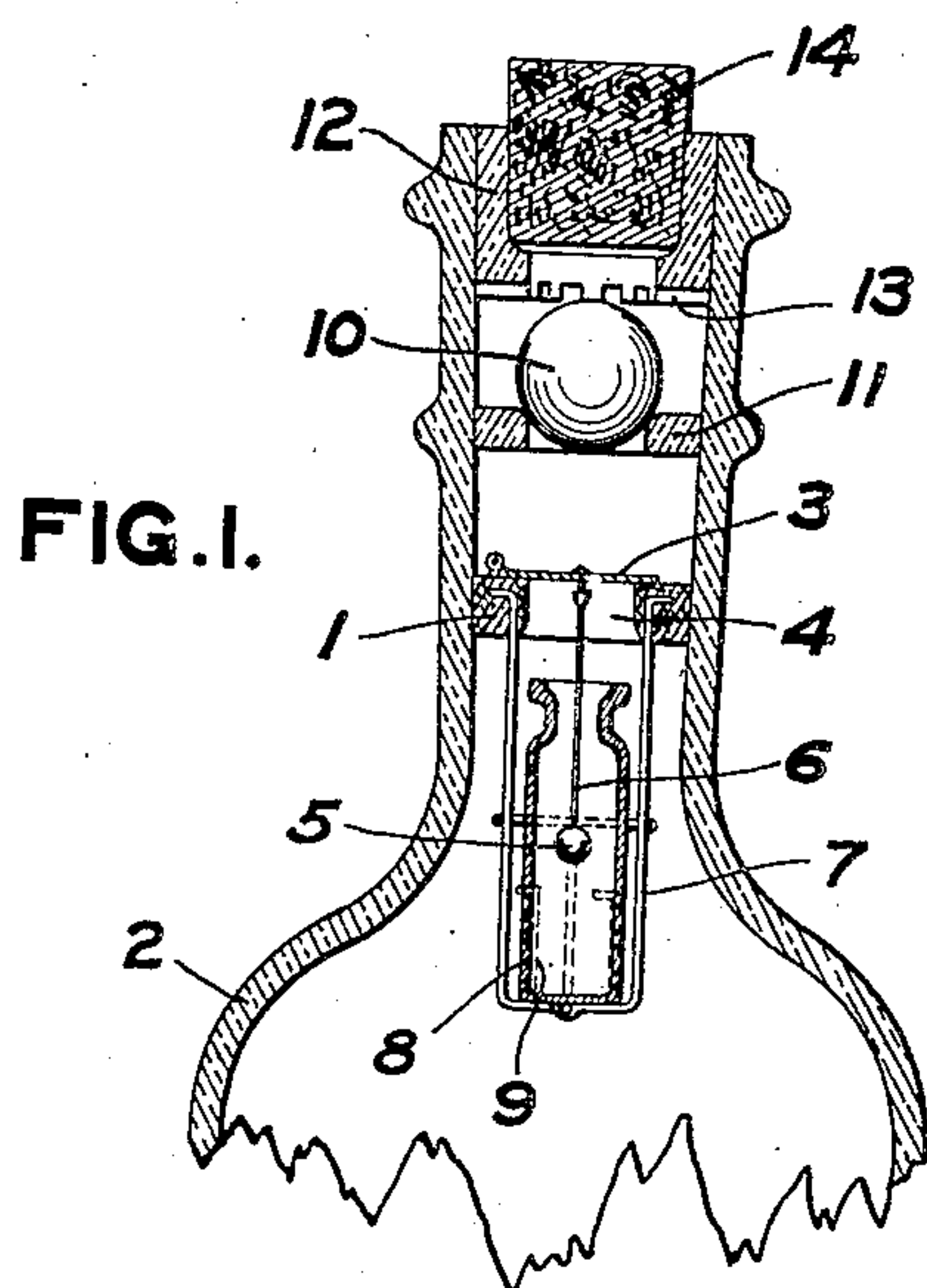


No. 876,468.

PATENTED JAN. 14, 1908.

G. MARTIN.
NON-REFILLABLE BOTTLE.
APPLICATION FILED MAR. 2, 1907.



WITNESSES:

Clarence W. Carroll
L. Thon.

INVENTOR

George Martin
by Osgood & Davis
his attorneys

UNITED STATES PATENT OFFICE.

GEORGE MARTIN, OF ROCHESTER, NEW YORK, ASSIGNOR OF FORTY-TWO-AND-ONE-HALF ONE-HUNDREDTHS TO WILLIAM SELWYN BROWN AND FIFTEEN ONE-HUNDREDTHS TO JOSEPH P. CREEGAN.

NON-REFILLABLE BOTTLE.

No. 876,468.

Specification of Letters Patent.

Patented Jan. 14, 1908.

Application filed March 2, 1907. Serial No. 360,251.

To all whom it may concern:

Be it known that I, GEORGE MARTIN, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to non-refillable bottles, and has for its object the production of a device, positive in action, which may be cheaply constructed, and applied to any ordinary form of bottle, for the purpose of preventing the refilling of said bottle when once emptied.

In the drawings:—Figure 1 is a vertical section of a bottle to which this invention is applied; Fig. 2 is the same in an inverted position, before all the liquid has been discharged; Fig. 3 is a view similar to Fig. 2 showing the bottle when empty; and Fig. 4 is a perspective view of part of the device separated from the bottle.

A ring 1, of cork or other compressible material, is driven into the neck 2 of an ordinary bottle. On the upper side of said ring is hinged a lid 3, large enough to cover the central hole 4. A weight 5 is suspended on a wire 6 from the lid 3, and tends to keep the latter shut when the bottle is in an upright position. The ring 1 also carries a wire cage 7, which extends downwardly in the bottle 2, and incloses a float 8. In the drawings said float is shown as a small glass bottle, this being a cheap and convenient form for the purpose. The weight 5 hangs within the float 8.

Each of the vertical wires of the cage 7 is extended across underneath and turned upward on the opposite side of said cage, (Fig. 4), the loose ends 9 thereby forming springs which press inwardly against the float 8.

When the bottle 2 is filled with liquid, and the ring 1, cage 7, and the inclosed float 8 are inserted in it, the float 8 rises in the liquid until it strikes the lid 3, which it cannot lift, on account of the weight 5 hanging therefrom. In this position the bottom of the float 8 is just below the upper ends of the springs 9.

If the bottle 2 is inverted to pour the liquid out, the lid 3 immediately opens, aided by the weight 5, and the float 8 rises to the end of the cage 7, as shown in Fig. 2. The passage 4 through the ring 1 is thus opened, and the liquid may run out. As soon as the bot-

tle is completely emptied, the float 8, having nothing to support it, will drop towards the mouth of the bottle to the position shown in Fig. 3, passing into the ring 1, and stopping up the passage 4. In so doing, said float will move beyond the ends of the springs 9, which, when thus released from tension, will move toward each other, and pass behind the closed end of the float. If the bottle is now turned upright, the float 8 rests upon the ends of the springs 9, and cannot be pushed downward. The opening 4 is thus closed, so that the bottle cannot be refilled.

As a means to prevent tampering with the lid 3, a ball-valve 10 is placed near the mouth of the bottle 2. When the bottle is upright (Fig. 1) said ball rests on a smooth glass ring 11 cemented in place, and when said bottle is inverted, the ball 10 rests on a glass ring 12. The ring 12 is also cemented in place, and has notches or grooves 13 in its under side to allow the liquid to flow down through it. The ring 12 is suitably formed to receive a cork or stopper 14.

Should the springs 9 fail to close together sufficiently to prevent the return of the float 8 to the end of the cage 7, it would be possible to refill the bottle 2, provided the ball 10 and lid 3 could be held up while the liquid was poured in. But liquid passing into the bottle 2 would drop directly through the opening 4 into the float 8, filling it up before overflowing into the bottle, and so the float 8, inasmuch as it would contain no air to support it, would drop into the opening 4, as soon as the bottle 2 was inverted, and the liquid contained in said bottle could not be poured out.

What I claim is:—

1. In a non-refillable bottle, the combination of a longitudinally movable float; a seat above it and a guide projecting downwardly from said seat; a spring finger adapted to pass beneath said float when the latter is on its seat, and to be held in a retracted position by said float, substantially as shown and described.

2. In a non-refillable bottle, the combination of a longitudinally movable float; a seat above it and a downwardly projecting cage for said float; a spring finger upon said cage, adapted to pass beneath said float when the latter is on its seat, and to be held in a retracted position by said float, substantially as shown and described.

3. In a non-refillable bottle, the combination of a longitudinally movable float; a seat above it and a downwardly projecting cage of spring wire for said float, having the ends
5 of the wire bent inwardly against said float, and adapted to spring beneath it when said float takes its seat; substantially as shown and described.

4. In a non-refillable bottle, the combina-

tion of a valve seat; a valve body hinged upon 10 the upper side thereof; a weight hung from said lid; a hollow float, adapted to receive said weight; and a guide support for said float; substantially as shown and described.
GEORGE MARTIN.

Witnesses:

D. GURNEE,
C. W. CARROLL.