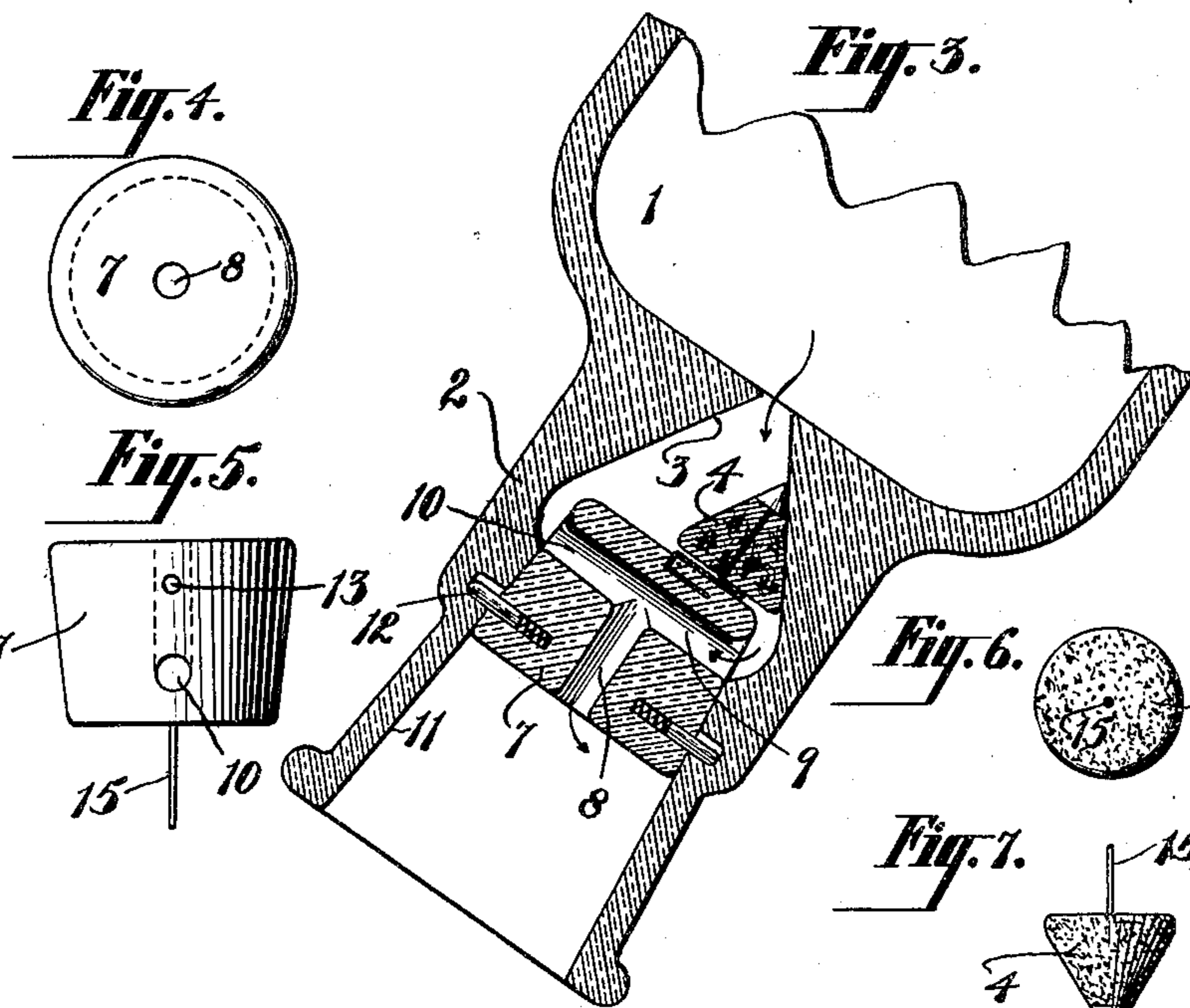
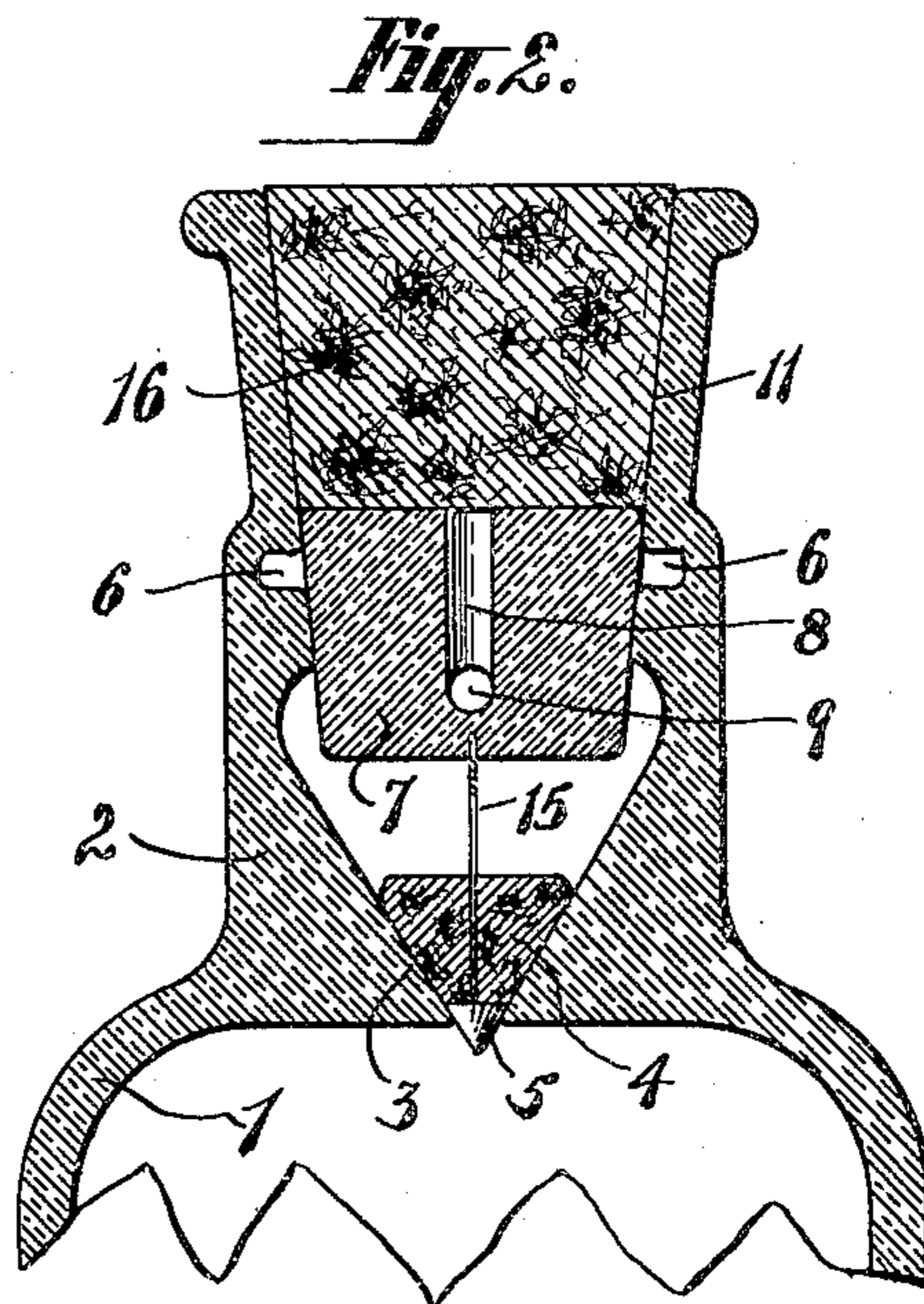
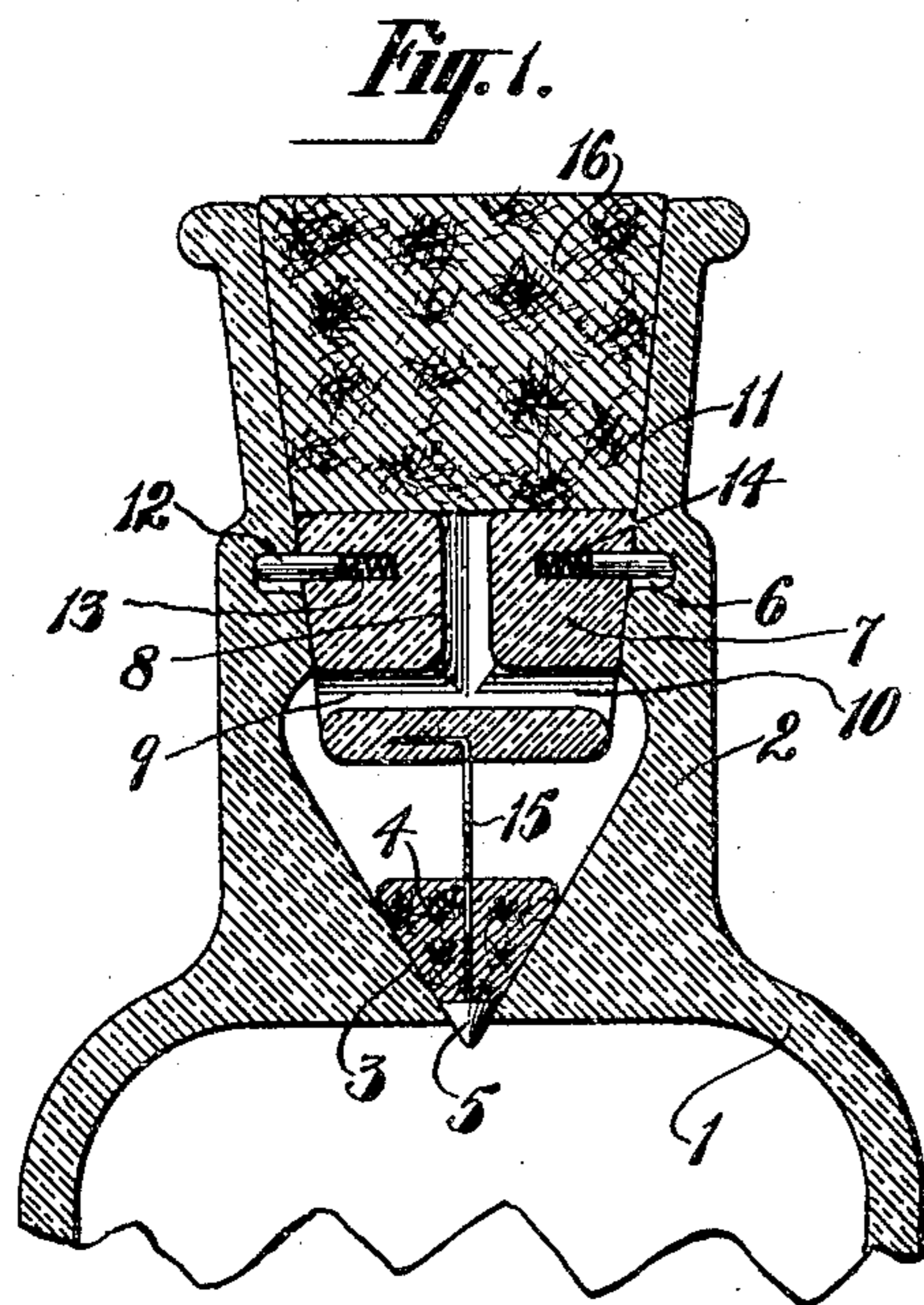


No. 793,643.

PATENTED JULY 4, 1905.

P. H. EDWARDS.
NON-REFILLABLE BOTTLE.
APPLICATION FILED AUG. 29, 1904.



Witnesses:

F. G. Hachenberg.

Henry Thieme.

Inventor:

Percy H Edwards
By Brown & DeWard
his Attorneys

UNITED STATES PATENT OFFICE.

PERCY H. EDWARDS, OF NEW YORK, N. Y.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 793,643, dated July 4, 1905.

Application filed August 29, 1904. Serial No. 222,498.

To all whom it may concern:

Be it known that I, PERCY H. EDWARDS, a citizen of the United States, and a resident of the borough of Brooklyn, in the city and State of New York, have invented a new and useful Improvement in Non-Refillable Bottles, of which the following is a specification.

The object of this present invention is to provide a very simple and inexpensive device for rendering vessels non-refillable, the different parts of the device as far as possible being made of non-corrosive material, so as to prevent any deterioration in the contents of the vessel, owing to its contact with the said device.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 represents in vertical central section the upper portion of a vessel with my improved device in position therein. Fig. 2 is a similar view taken in a plane at right angles to that of Fig. 1. Fig. 3 is a view taken in the same plane as that of Fig. 1, showing the vessel in an inverted position, the parts being shown in the positions which they assume when the liquid is being poured from the vessel. Figs. 4 and 5 are top plan and side views, respectively, of the outer member of the device; and Figs. 6 and 7 are top plan and side views, respectively, of the inner member of the device.

The body of the vessel is denoted by 1 and its neck by 2. The portion of the neck adjacent to the interior of the body of the vessel is provided with a flaring seat 3 for receiving the tapered inner member 4 of my non-refillable device. The opening from the interior of the body of the vessel into the interior of the neck is made quite small and is effectually closed by the inner member 4 when the vessel is in any position other than an inverted position. The principal part of the inner member 4 is made of some material which will float—such, for instance, as cork—and it is provided with a weighted point 5, made of some non-corrosive material—such, for instance, as glass.

The interior of the neck of the vessel, between the seat 3 and the mouth of the vessel, is provided with a circumferential shoulder 6— in the present instance formed by a groove— for the reception of the locking means of the outer member 7 of my device. This outer member 7 is made of some suitable non-corrosive material—such, for instance, as glass— and is provided with a vertical duct 8 and transverse ducts 9 and 10, communicating the first with the interior of the neck above the member 7 and the second with the interior of the neck below said member. The interior of the neck of the vessel is preferably flaring for a distance toward its mouth, as shown at 11, and the member 7 is tapered, so as to fit in the inner end of the flaring portion, as shown, with a part of the member 7 projecting below the flaring portion.

The means which I have shown for locking the outer member 7 against removal from the interior of the neck of the vessel comprises a plurality of spring-actuated pins 12, fitted to slide radially in recesses 13 in the outer member 7, springs 14 being interposed between the inner ends of said pins and the bottoms of the recesses. These springs 14 tend to force the pins outwardly, so that when the member 7 has been inserted in the proper position the outer ends of the pins will be forced into position back of the shoulder 6. The member 7 is prevented from being inserted too far into the interior of the neck of the vessel because of its tapered engagement with the flaring portion 11. The shoulder 6, formed by the upper wall of the circumferential groove, absolutely prevents the removal of the member 7 when once inserted into position.

To prevent the displacement of the inner member 4 with respect to the outer member 7 by the turning of the vessel into different positions, I provide a flexible connection between the two members.

The mouth of the vessel above the outer member 7 may be closed by any suitable cork or stopper 16.

In operation when it is desired to pour liquid from the interior of the vessel the cork

16 is removed and the vessel is inverted. This will cause the inner member 4 to slide away from its seat, thus permitting the liquid to flow outwardly through the ducts in the outer member 7. Should it be attempted to fill the vessel by holding it in an inverted position and forcing the liquid up into the same, the inner member 4 will float upon the surface of the liquid being thus forced into the vessel and will thereby close communication into the interior thereof. The tapered form of the inner member insures an extended seal between the exterior and interior of the vessel when the vessel is in other than an inverted position.

The device as herein shown and described is an extremely simple one. It is also very cheap to manufacture and is effective in accomplishing the result sought for and presents no surfaces to the interior of the vessel which would tend to injure the contents thereof.

It is evident that various changes might be made in the particular construction, form, and arrangement of the several parts without departing from the spirit and scope of my in-

vention. Hence I do not wish to limit myself strictly to the structure herein set forth; but

What I claim as my invention is—

1. The combination with the neck of a vessel having a flaring seat spaced from its mouth, of a tapered inner member composed of a material which will float and a weighted point, said inner member being fitted to move into and out of engagement with its seat and an outer member locked in position.

2. The combination with the neck of a vessel having a flaring seat spaced from its mouth, a tapered inner member fitted to move into and out of engagement with its seat, an outer member, means for locking it in position and a flexible connection between the inner and outer members.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 18th day of August, 1904.

PERCY H. EDWARDS.

Witnesses:

FREDK. HAYNES,
HENRY THIEME.