

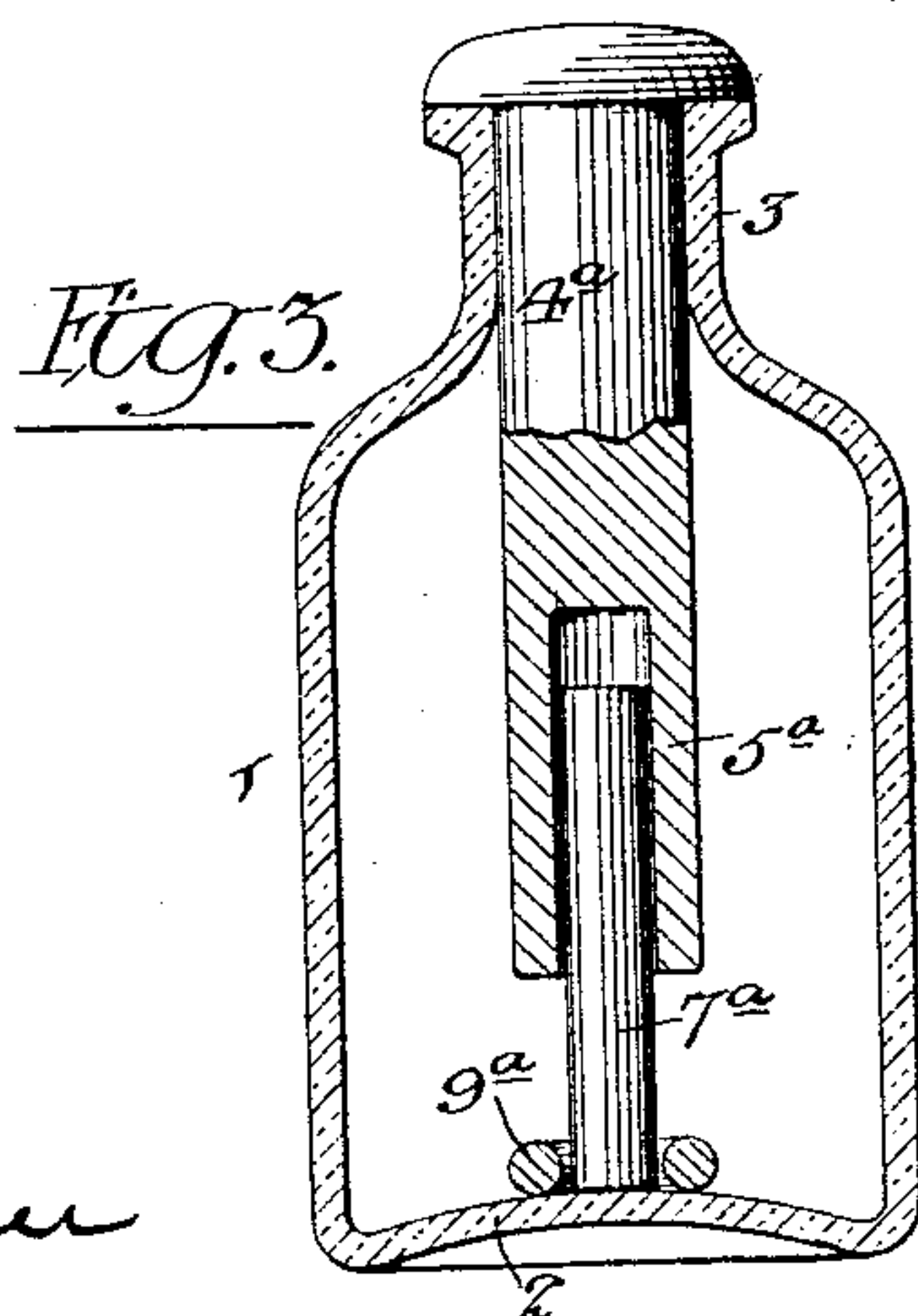
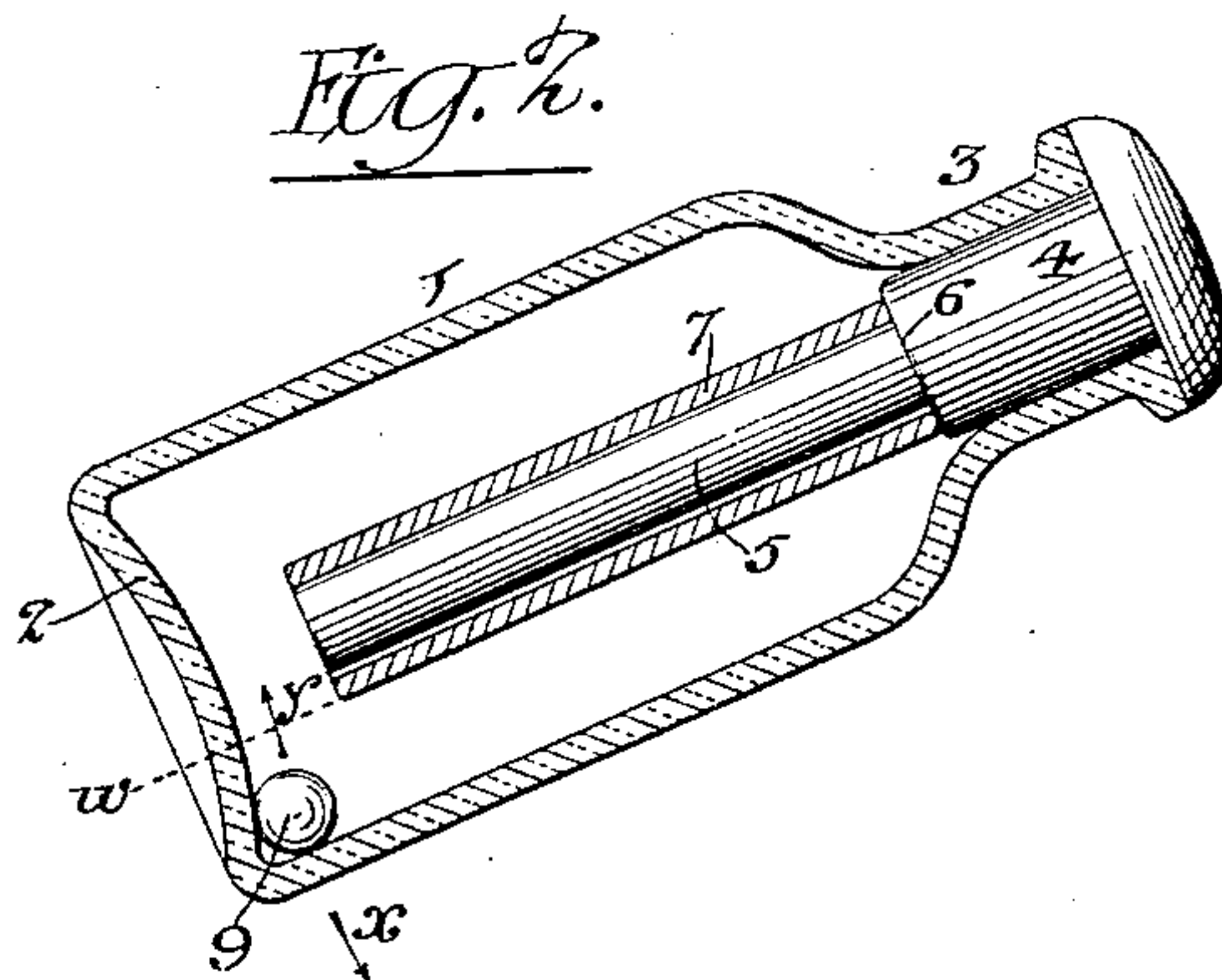
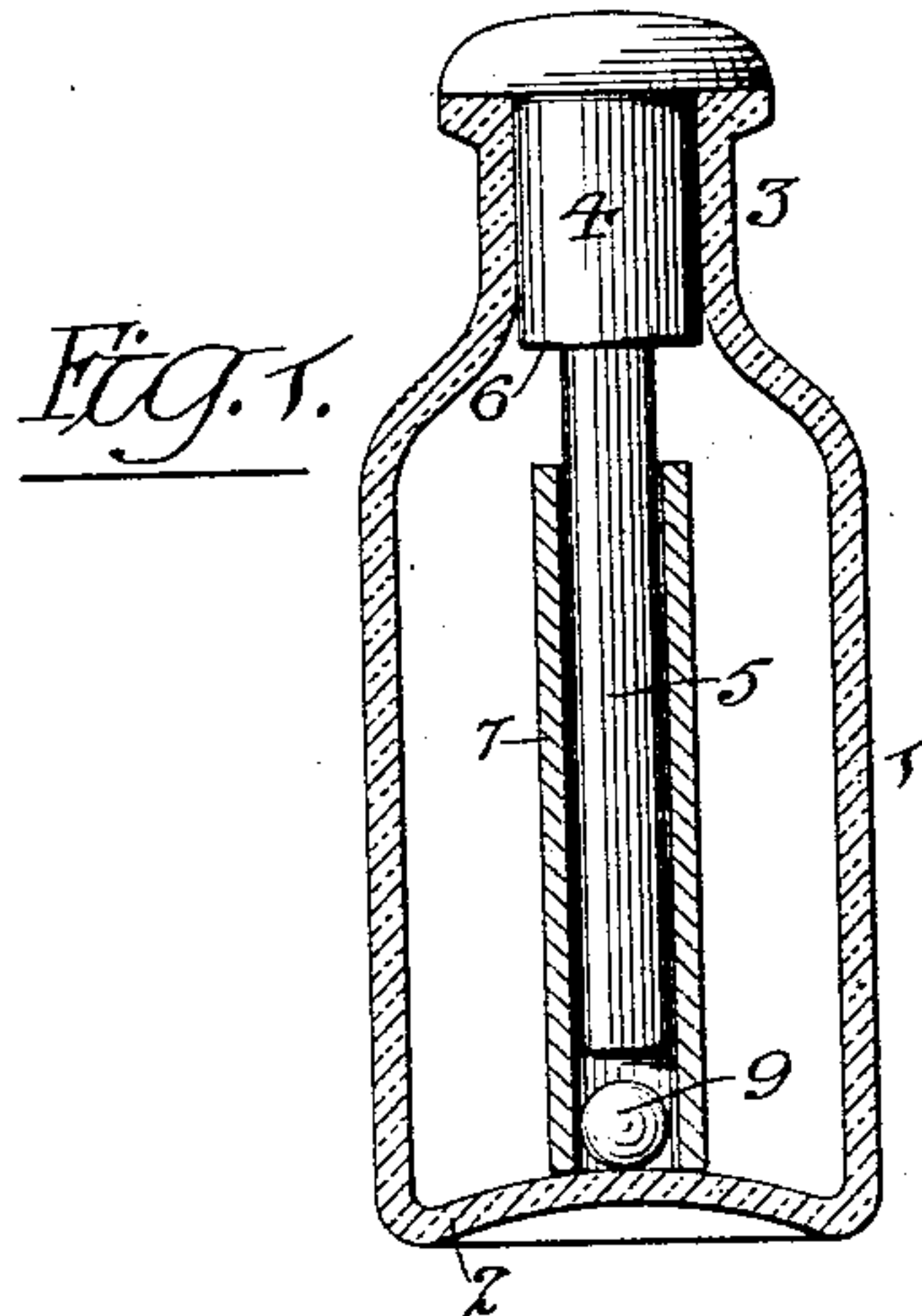
No. 702,861.

Patented June 17, 1902.

W. P. LYLE.
TOY.

(Application filed Sept. 28, 1901.)

(No Model.)



Witnesses:-

Norman E. Metcalf.
Hamilton D. Turner

Inventor:-
William P. Lyle,
by his Attorneys:
Howson & Howson

UNITED STATES PATENT OFFICE.

WILLIAM P. LYLE, OF PHILADELPHIA, PENNSYLVANIA.

TOY.

SPECIFICATION forming part of Letters Patent No. 702,861, dated June 17, 1902.

Application filed September 28, 1901. Serial No. 76,884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. LYLE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain
5 Improvements in Toys, of which the following is a specification.

My invention consists of a toy of that class which comprises a ball or pellet contained in a receptacle to be held in the hand, so that by
10 skilful manipulation of said receptacle the ball is caused to assume therein a certain position rendered difficult of attainment by various means.

The object of my invention is to provide a
15 toy of this class in which the pellet is caught and held by a second movable element of the receptacle, which is so mounted in said receptacle that its own movement tends to interfere with the movement of the pellet into
20 proper position to be trapped.

In the accompanying drawings, Figure 1 is a view of my improved toy, showing the pellet in the trapped condition. Fig. 2 is a view illustrating the relation of the parts before
25 starting to manipulate the toy in order to effect the trapping of the pellet, and Fig. 3 is a view illustrating a modified form of the toy.

The toy comprises a receptacle 1, preferably of cylindrical shape and with a closed bottom
30 2 and contracted neck 3, although this latter feature is not essential, an ordinary glass bottle constituting the best form of receptacle, inasmuch as its transparency permits the ball or pellet to be kept in view except when
35 it is trapped and hidden by the element provided for that purpose.

The neck of the receptacle is provided with a stopper 4, having a depending spindle 5, preferably of less diameter than the stopper,
40 so as to form a shoulder 6 at the junction of the two, and mounted upon said depending spindle 5, so as to be free to move longitudinally thereon, is a tube 7 of metal, wood, paper, or other available material, wood being
45 preferred both for said tube and for the stopper, with its projecting spindle, both because of the cheapness of this material and of the facility with which it can be wrought into proper form.

50 The pellet 9 is preferably of metal and is of such size that when the tube 7 is raised upon the spindle 5, so that its upper end

is in contact with the shoulder 6 of the stopper 4, said pellet can pass freely between the bottom 2 of the receptacle and the lower or
55 inner end of the tube 7, the tube being free to slide upon the spindle 5, so that if it is permitted to drop when the pellet has been adjusted upon the bottom of the receptacle to a point directly beneath the inner end of the
60 spindle 5 it will trap and hide said pellet, as shown in Fig. 1.

In using the toy the receptacle is held in the hand while in the slightly-inclined position shown in Fig. 2, the frictional hold of
65 the tube 7 upon the spindle 5 in this case being such as to prevent it from sliding downward on said spindle. The pellet 9 then lies at the junction at the bottom of the receptacle, at the lower side wall of the same, and
70 by a downward swinging movement of the receptacle in the direction of the arrow *x*, Fig. 2, the pellet is caused to travel over the bottom of the receptacle in the direction of the arrow *y*, and if this movement is skil-
75 fully timed the pellet will reach a position beneath the inner end of the spindle 5 before the tube drops sufficiently to prevent it from reaching this position; but unless the move-
80 ment is very accurately timed the tube 7 will have descended to such an extent before the front of the pellet reaches the dotted line *w* as to strike said pellet and prevent it from approaching farther toward the central po-
85 sition, thereby necessitating the tipping of the bottle until the tube 7 again slides backwardly to the full extent on the spindle 5, so as to permit another attempt to be made.

The difficulty of properly centering the pellet 9 is increased if the bottom of the recep-
90 tacle is convex or beveled on the inner face. Hence this form is preferred.

It will be evident that by the use of the secondary movable element 7, which ob-
95 structs the proper placing of the pellet 9, the difficulty of operating the toy is very much increased as compared with toys of this class in which the manipulation of the receptacle is simply for the purpose of placing the ball in a pocket or other resting-place. Hence
100 the improved toy requires a correspondingly greater amount of skill in its handling.

While I prefer in all cases to use a spherical pellet, a flat pellet may be used, if de-

sired—as shown, for instance, at 9^a in Fig. 3—
and instead of making the secondary movable
element 7 of the toy in the form of a
tube for inclosing the pellet a reverse con-
struction may be adopted—that is to say, the
said secondary movable element may be in
the form of a rod or pin 7^a, guided in a tubu-
lar or other suitable portion 5^a of the stopper
4^a and adapted to engage with an opening
formed in the pellet when the latter is properly
adjusted to its central position on the bottom
of the receptacle before the descent of said
pin, as also shown in Fig. 3.

Having thus described my invention, I
claim and desire to secure by Letters Pat-
ent—

1. A toy comprising a receptacle to be held
in and moved by the hand, a movable pellet
therein, a tube adapted to engage said pellet
when the latter is in its proper position but
serving by its own movement to obstruct the
movement of the pellet to said position, and
a stopper having a projecting spindle serv-
ing as a rigid guide for the tube and restrict-
ing the movement of the latter to a plane
transverse to that of the movable pellet, sub-
stantially as specified.

2. A toy comprising a receptacle to be held
in and moved by the hand, a movable pellet
contained within said receptacle, and a sec-
ondary movable element guided in the recep-
tacle and adapted to engage said pellet when
the latter occupies its proper position in the
receptacle, but serving by its own movement
to obstruct such movement of the pellet, the
portion of the receptacle over which the pel-
let moves being convex or beveled, substan-
tially as specified.

3. A toy comprising a receptacle to be held

in and moved by the hand, a movable pellet
contained in said receptacle, a secondary mov-
able element contained in the receptacle and
adapted to engage the pellet when the latter
is in proper position but serving normally to
obstruct the proper movement of the pellet,
and a rigid guide on the receptacle whereby
the said secondary element can move only in
a plane transverse to that of the movable pel-
let, substantially as specified.

4. A toy comprising a receptacle to be held
in and moved by the hand, a pellet movable
therein, a secondary movable element adapt-
ed to engage said pellet when the latter is in
its proper position, but serving by its own
movement to obstruct the movement of the
pellet to said position, and a stopper having
a projecting spindle serving as a guide for
said secondary movable element, substan-
tially as specified.

5. A toy comprising a receptacle to be held
in and moved by the hand, a pellet movable
therein, a secondary movable element adapt-
ed to engage said pellet when the latter is in
its proper position, but serving by its own
movement to obstruct the movement of the
pellet to said position, and a stopper having
a projecting spindle serving as a guide for
said secondary movable element, and also
having a shoulder for restricting the move-
ment of said element in one direction, sub-
stantially as specified.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

WILLIAM P. LYLE.

Witnesses:

F. E. BECHTOLD,
JOS. H. KLEIN.