

(No Model.)

J. H. POOLE.
ANTIREFILLING DEVICE.

No. 606,026.

Patented June 21, 1898.

FIG. 6.

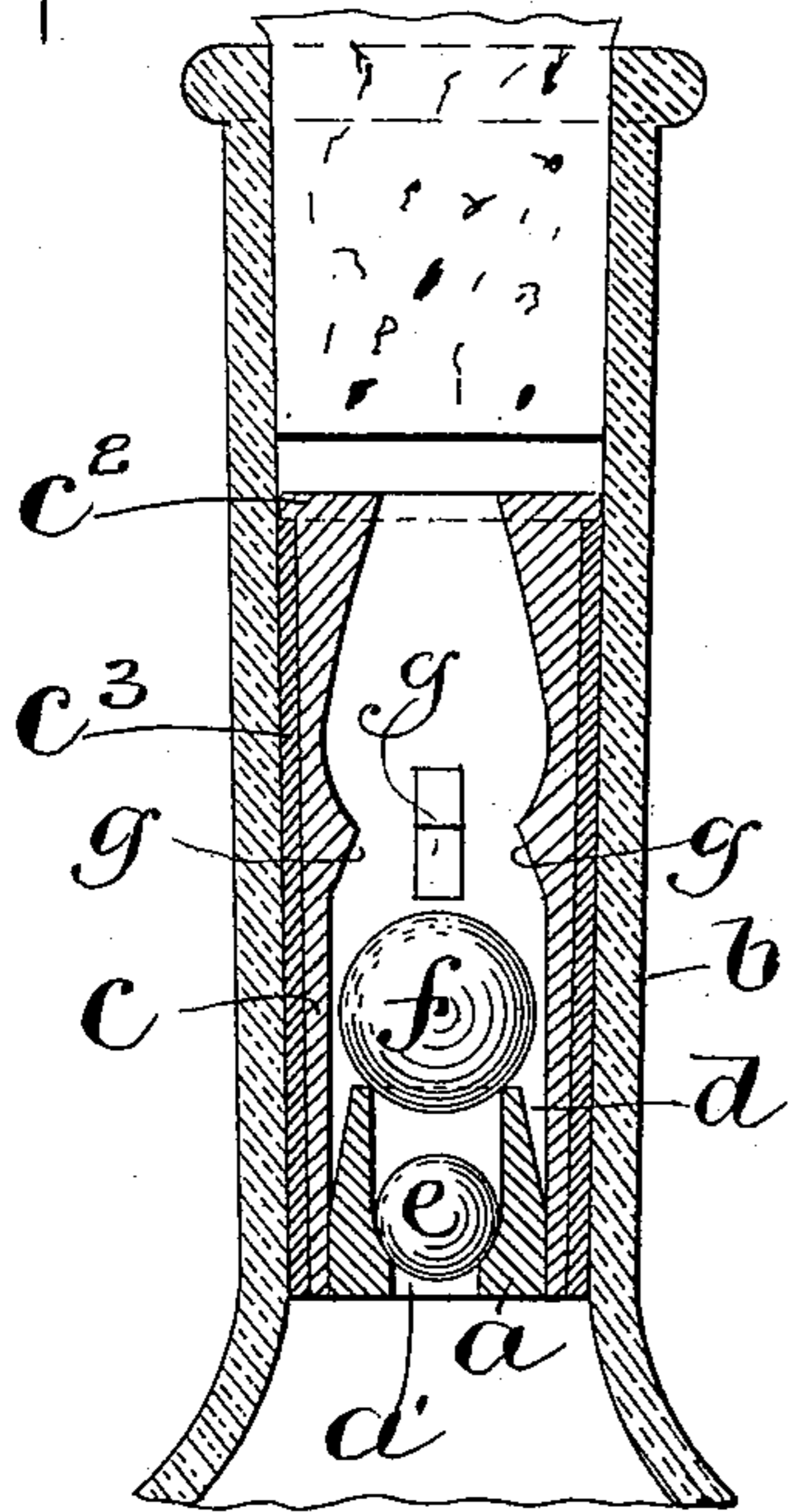


FIG. 1.

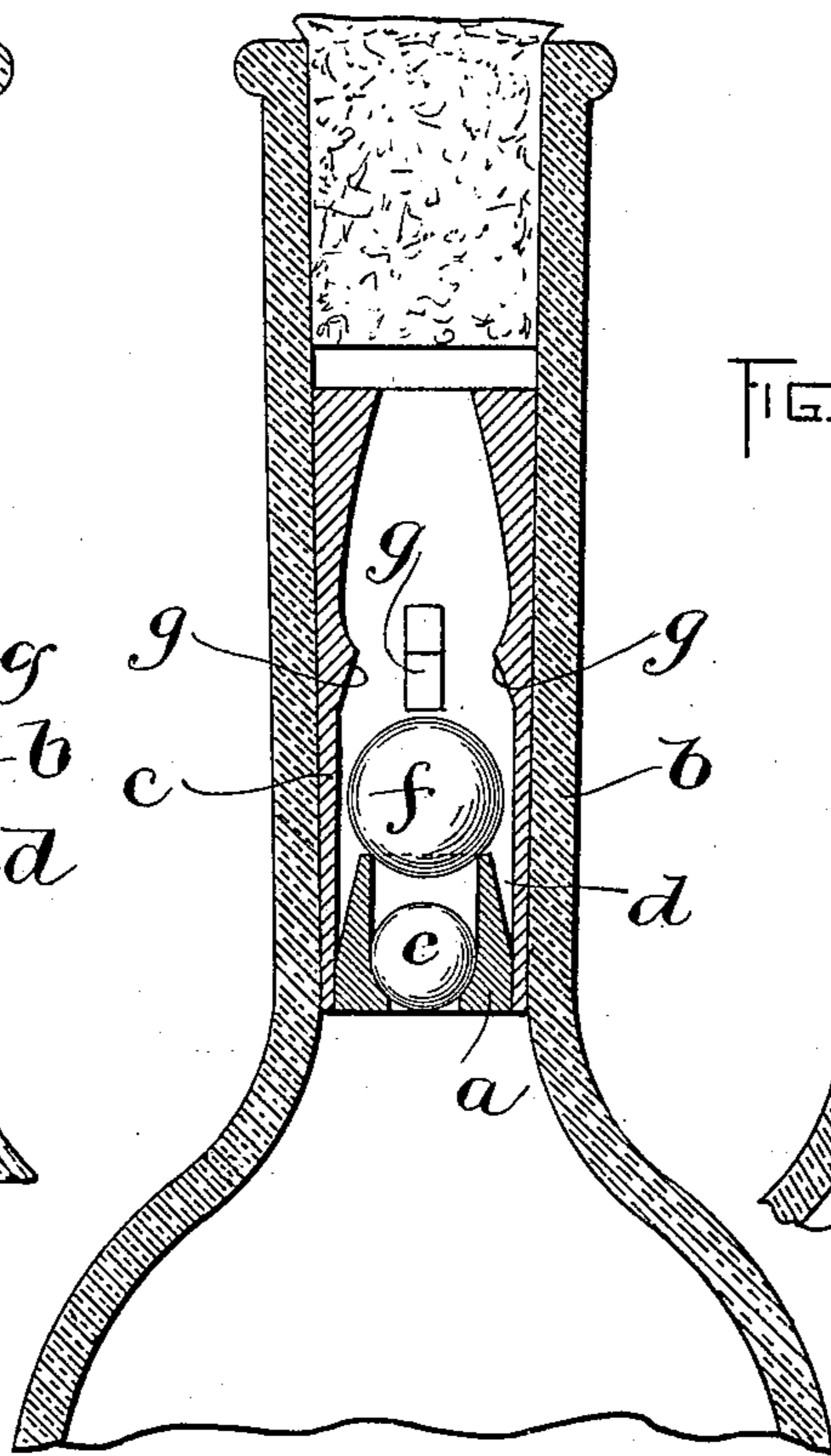


FIG. 5.

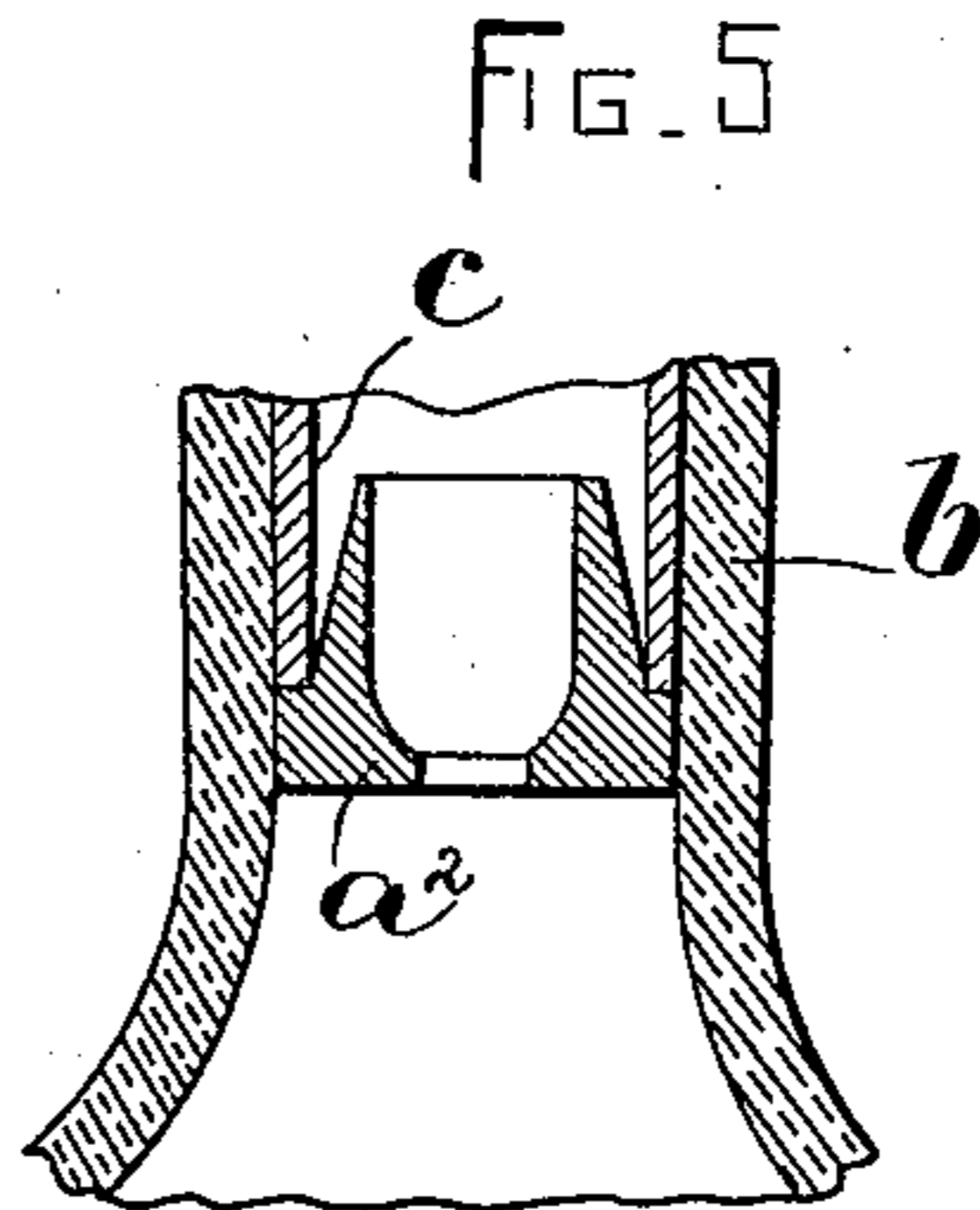


FIG. 4.

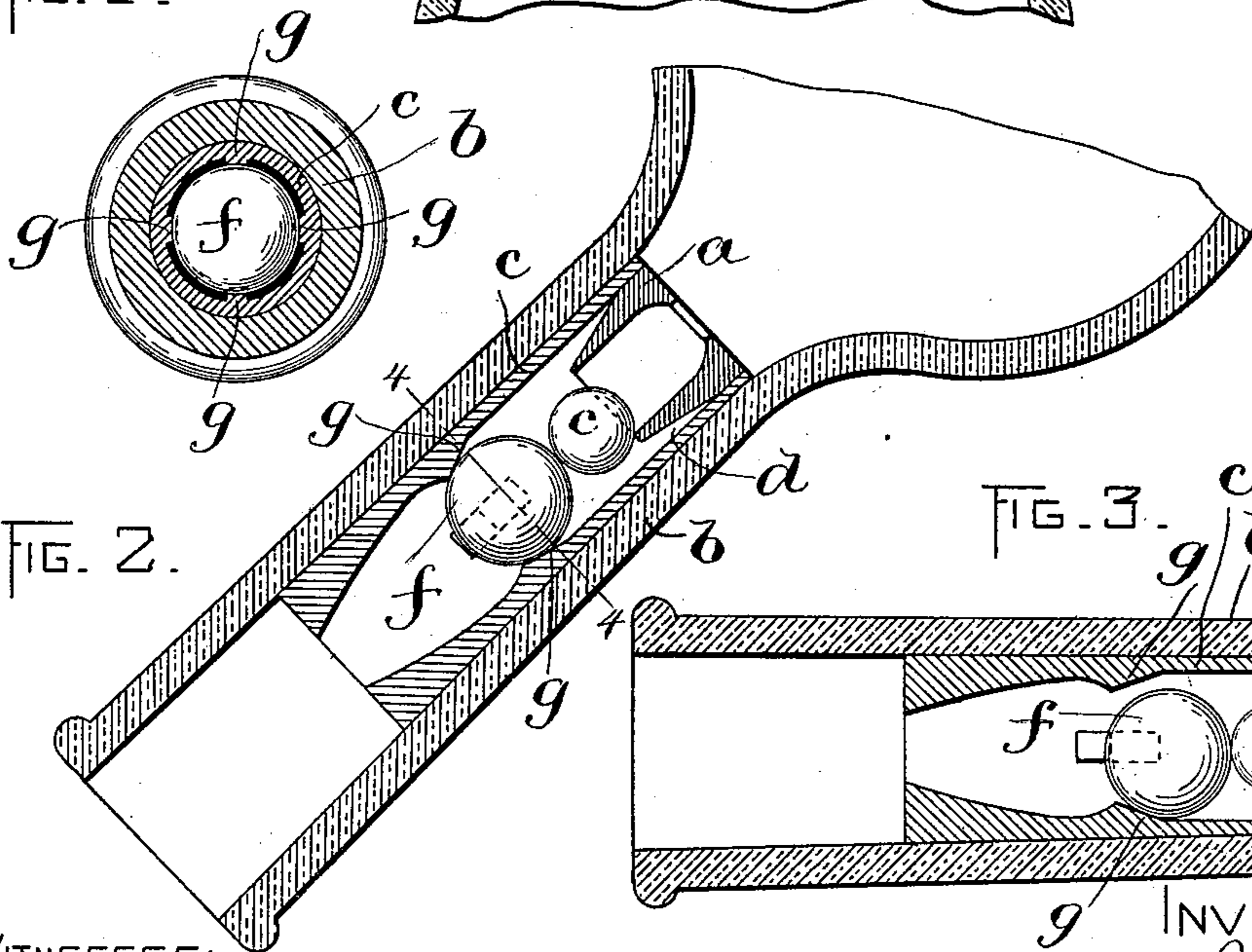


FIG. 2.

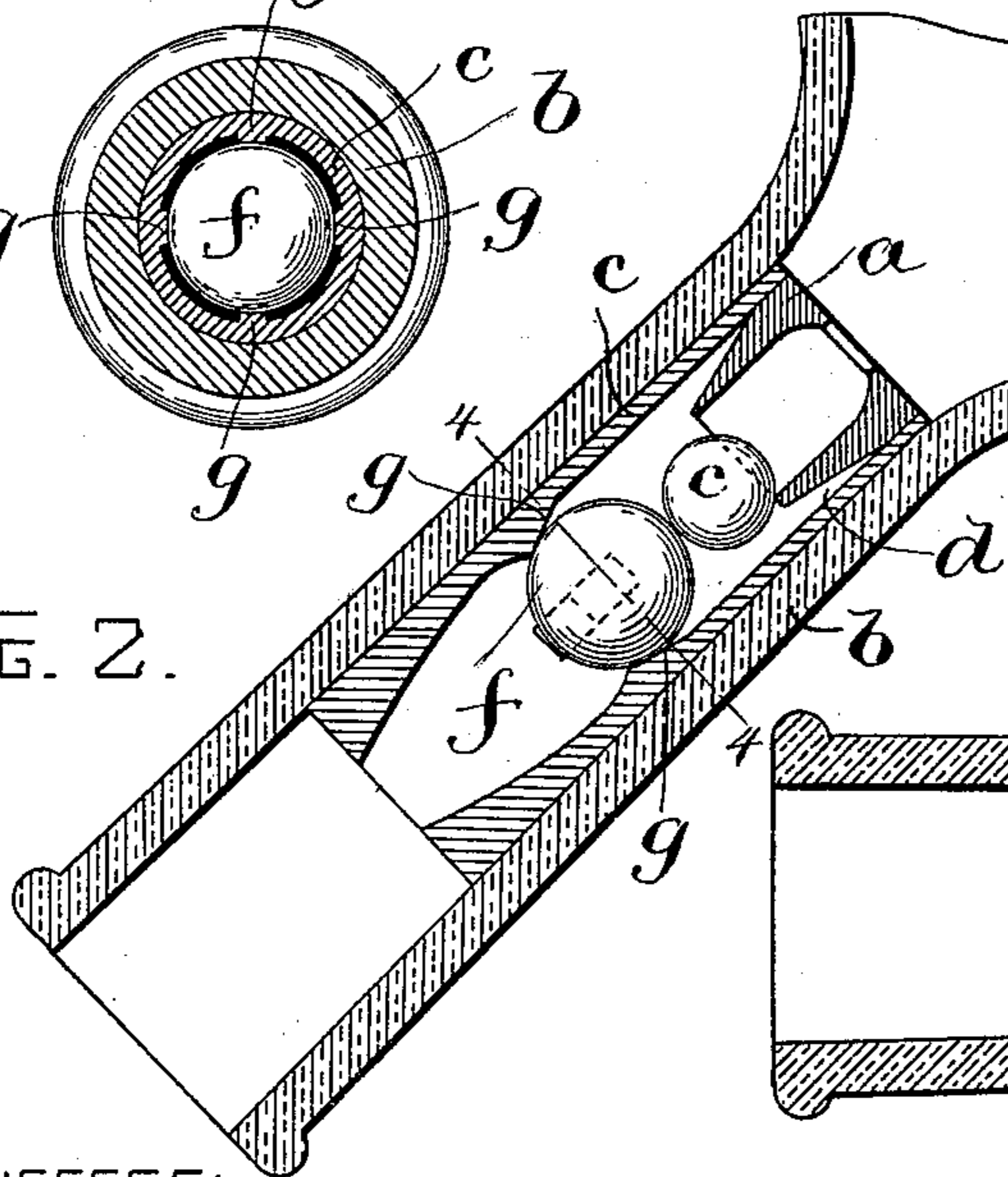
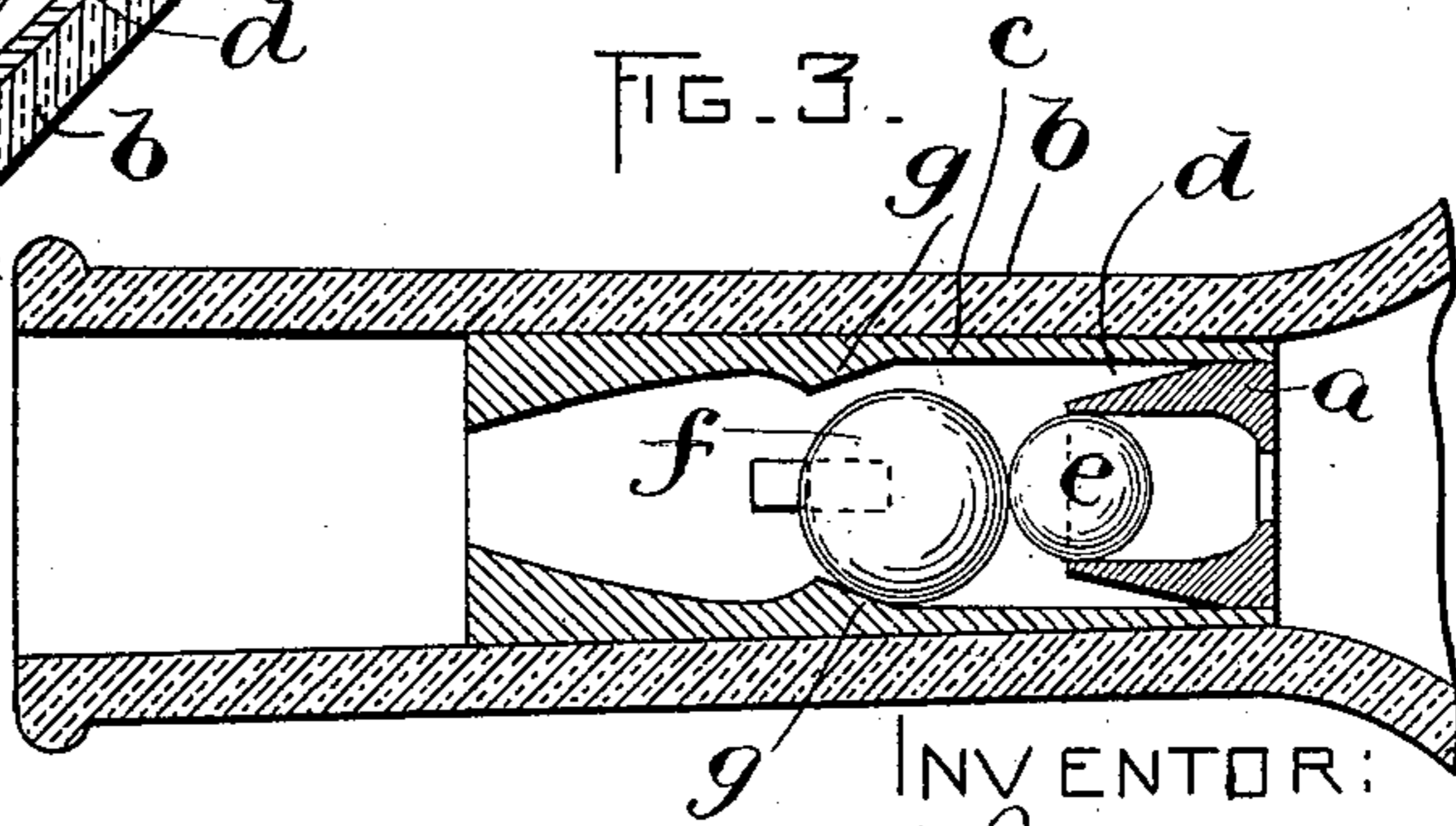


FIG. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN H. POOLE, OF RANDOLPH, MASSACHUSETTS, ASSIGNOR OF ONE-THIRD
TO FRED S. ELWELL, OF MALDEN, MASSACHUSETTS.

ANTIREFILLING DEVICE.

SPECIFICATION forming part of Letters Patent No. 606,026, dated June 21, 1898.

Application filed January 10, 1898. Serial No. 666,167. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. POOLE, of Randolph, in the county of Norfolk and State of Massachusetts, have invented certain new
5 and useful Improvements in Antirefilling Devices, of which the following is a specification.

This invention has for its object to provide a simple and effective means for preventing the refilling of bottles; and it consists in the
10 improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a sectional view of a portion of a bottle provided with my improvements, the bottle being in an upright position. Fig. 2 represents a view similar to Fig. 1, showing the bottle in position for pouring. Fig. 3 represents a similar view showing the bottle-neck in a
20 horizontal position. Fig. 4 represents a section on line 4 4 of Fig. 2. Fig. 5 represents a modification. Fig. 6 represents a view similar to Fig. 4, showing the casing provided with a compressible sleeve.

25 The same letters of reference indicate the same parts in all the figures.

In the drawings, *c* represents a tubular casing, which may be of glass or other suitable material and is adapted to be inserted in the
30 neck *b* of a bottle. At the inner end of the casing *c* is a collar *a*, which is formed externally to close the inner end of the casing and is perforated centrally to form a valve-seat *a'*. The collar *a* projects a considerable distance into the casing *c* and is internally enlarged above the valve-seat to form a valve-guide and is reduced or tapered externally within the casing, so that its outer surface and the adjacent portion of the inner surface
40 of the casing form an annular pocket *d*, surrounding the valve-guide and intended to receive the end of a wire or other device fraudulently inserted in the neck of the bottle, as hereinafter described.

45 *e* represents a ball-valve, which is formed to fit the seat *a'* and close the port surrounded by said seat. The said valve is adapted to roll in the valve-guiding portion of sleeve *a* toward and from the seat *a'*.

50 *g g* represent stops or projections formed on the inner surface of the casing *c* between

the inner end of the sleeve *a* and the outer end of the casing.

f represents a loose spherical ball-guard, which is of larger diameter than the interior
55 of the sleeve *a* and is adapted to play between the inner end of said sleeve and the stops *g g*, the said stops being formed to limit the outward movement of the guard *f*. When the bottle is tipped for pouring, as shown in
60 Fig. 2, the guard *f* rolls outwardly far enough to permit the valve *e* to partly, but not wholly, leave the sleeve *a*, thus permitting liquid to flow from the bottle through said sleeve, the liquid escaping around the ball through the
65 spaces between the stops *g*, said spaces being shown in Fig. 4. When the bottle is held in a horizontal position, as shown in Fig. 3, the guard *f* is caused by the inclination of the stop *g* at the lower side of the neck to roll in-
70 wardly far enough to push the valve into the sleeve *a*, the valve then occupying such position that it will be moved along the guide and pressed against its seat by the pressure of liquid forced into the neck while the bottle
75 is in this position. When the bottle is upright, the guard *f* rests on the upper end of the collar *a* and covers the valve-guide, as shown in Figs. 1 and 6.

It will be seen that while the guard *f* is of
80 lesser diameter than the interior of the casing between the stops *g* and the collar *a* its diameter is such that a wire or other flexible device fraudulently inserted with the intention of displacing the valve *e* is deflected by
85 the guard into the annular pocket *d* and is thus prevented from gaining access to the valve.

I prefer to make the sleeve *a* in a separate piece from the casing *c* and insert it in the
90 casing, a rigid connection being formed between the sleeve and the casing by any suitable means. If desired, however, the sleeve may be formed to bear at its outer portion on the interior of the neck of the bottle, as shown
95 in Fig. 5.

In Fig. 6 I show the outer end of the sleeve *c* provided with an outwardly - projecting flange *c'*, adapted to bear on the interior of the bottle-neck. Below said flange the cas-
100 ing is provided with a sleeve *c'*, of compressible material, such as cork. Said sleeve is

originally of such diameter that when inserted in the bottle-neck it will be compressed, and thus firmly hold the casing in the neck, the flange c^2 preventing the insertion of any instrument between the casing and the bottle-neck for the purpose of removing the casing.

I claim—

A non-refillable bottle having, first, a collar in the inner portion of its neck, said collar being formed internally to present a valve-seat, and a valve-guide above the seat and of greater diameter than the latter, the collar being reduced externally to form the inner wall of an annular pocket surrounding the valve-guide; secondly, a ball-valve formed to move in said guide and fit the valve-seat; thirdly, stops attached to the bottle-neck

above the valve seat and guide; and fourthly, a loose spherical valve-guard adapted to play between said stops and the outer end of the valve-guide, said guard being of greater diameter than the valve-guide and adapted to deflect a wire inserted in the bottle-neck into said annular pocket, the guard being proportioned to permit a liquid-releasing movement of the valve and to prevent the escape of the valve from the valve-guide.

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

JOHN H. POOLE.

Witnesses:

FRED S. ELWELL,
C. F. BROWN.