

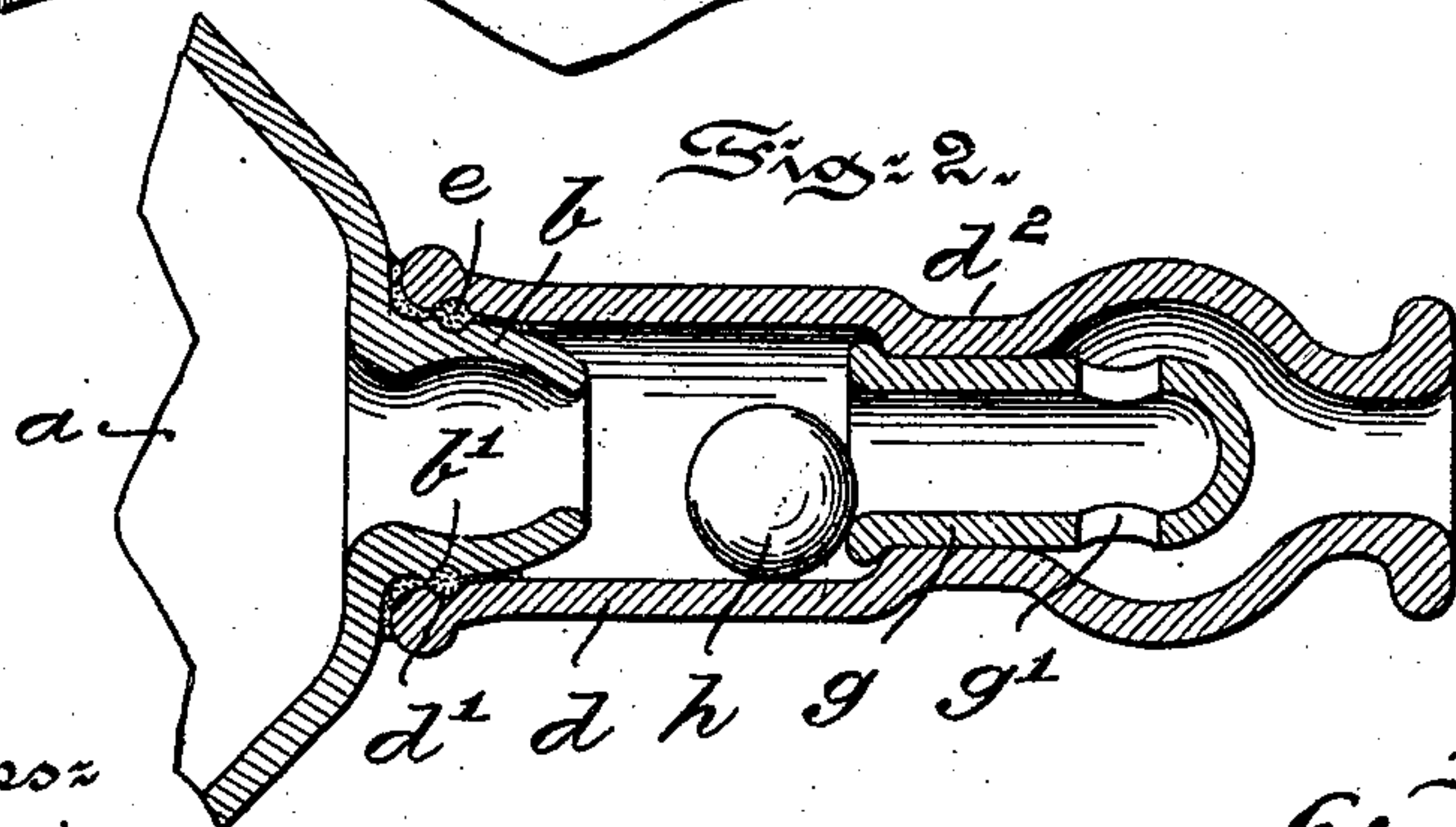
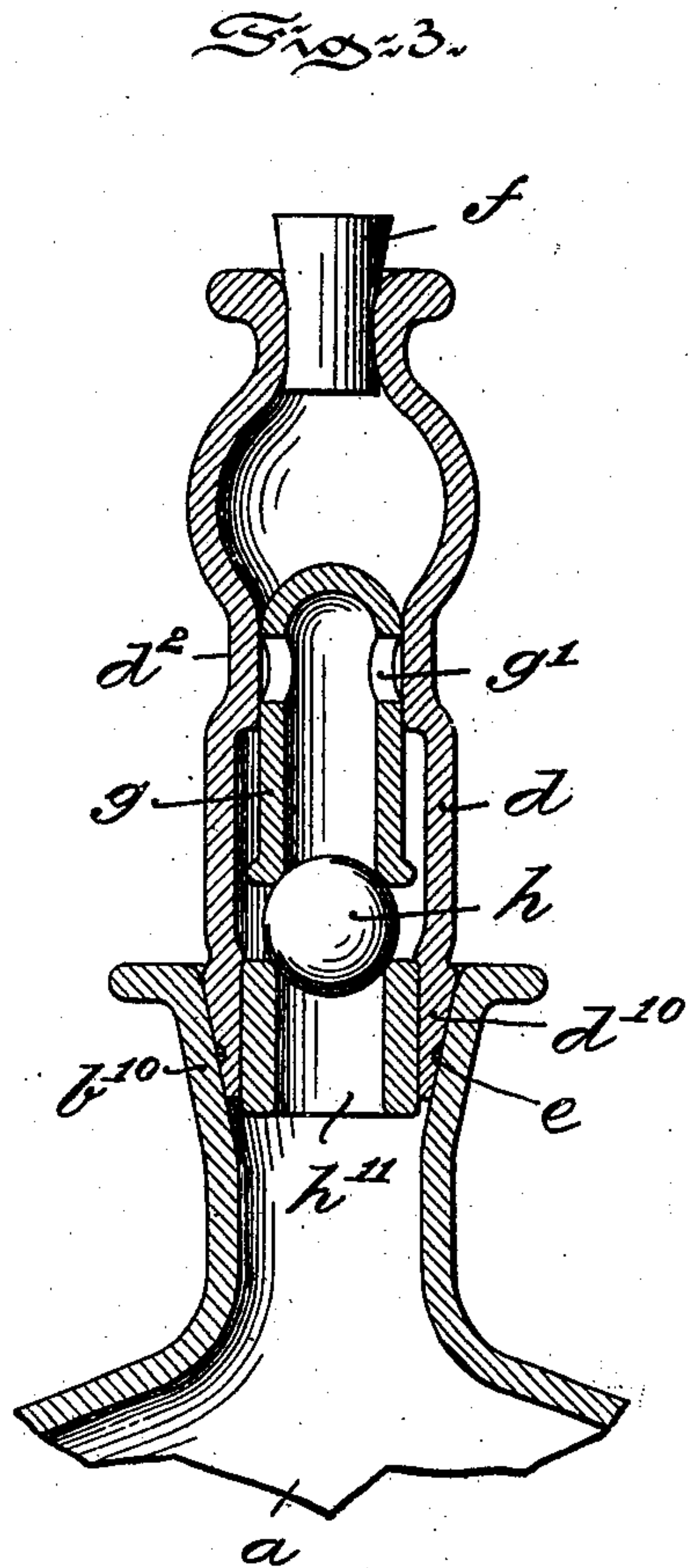
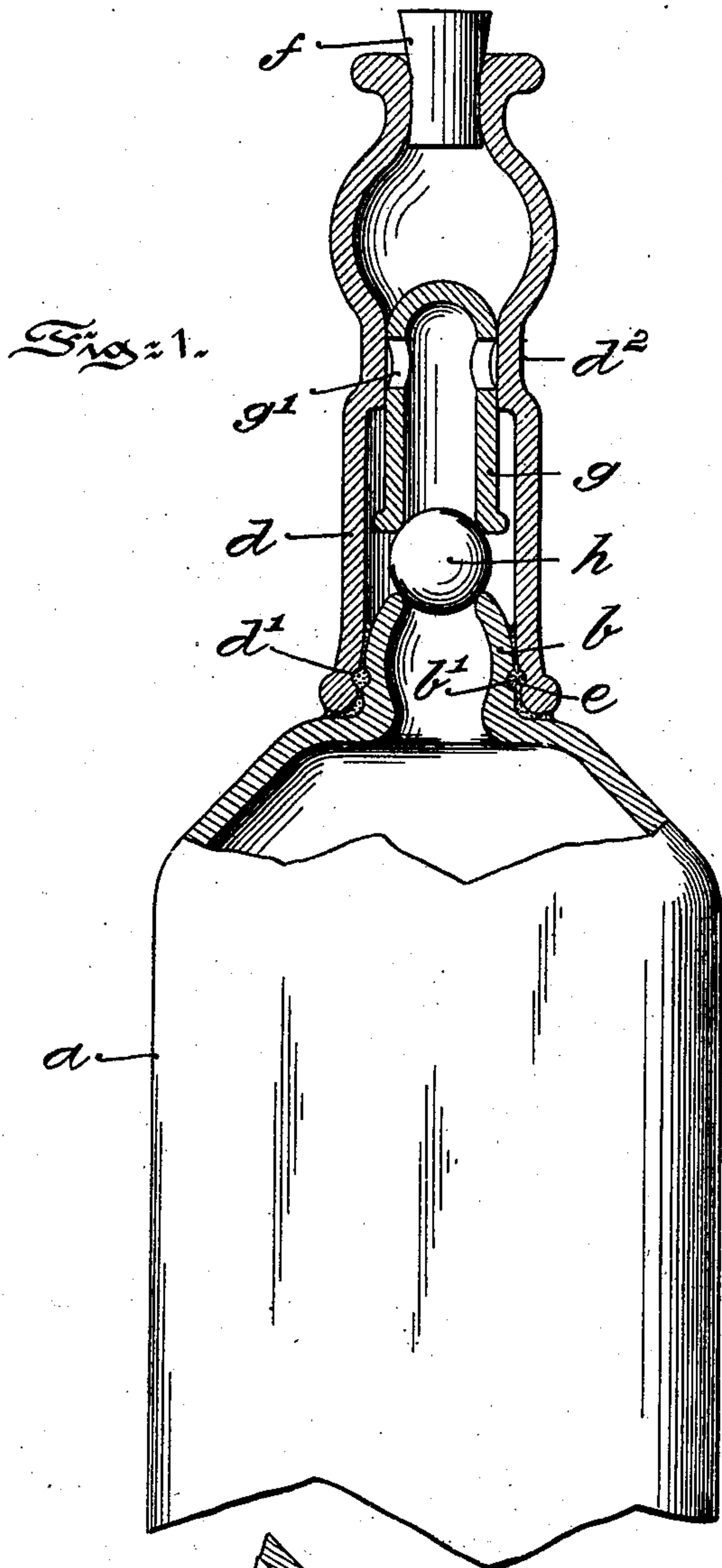
No. 712,172.

Patented Oct. 28, 1902.

E. BARRATH.  
NON-REFILLABLE BOTTLE.

(Application filed Mar. 25, 1902.)

(No Model.)



Witnesses:  
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# UNITED STATES PATENT OFFICE.

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## NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 712,172, dated October 28, 1902.

Application filed March 25, 1902. Serial No. 99,829. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD BARRATH, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

My invention has relation to a non-refillable bottle wherein a ball-valve is adapted to permit the pouring out of the liquid from the bottle and to prevent refilling of the empty bottle, and in such connection it relates to the construction and arrangement of such a non-refillable bottle.

The principal object of my invention is to provide a simple and efficient means for preventing the refilling of bottles; and to this end the invention consists in the construction and arrangement hereinafter described and claimed.

The nature and scope of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a front elevational view, partly sectioned, of a non-refillable bottle embodying main features of my invention, the parts being illustrated in the position they assume when the bottle is upright. Fig. 2 is a view similar to Fig. 1, but illustrating the position assumed by the parts when the bottle is horizontal; and Fig. 3 is a view similar to Fig. 1, but illustrating a modified form of the invention.

Referring to Figs. 1 and 2 of the drawings, *a* represents the body of the bottle, and *b* a short nipple-like neck formed thereon. This neck *b* has an annular groove *b'* formed in its walls and is adapted to be capped by the lower end of a tube *d*, forming the continuation of the bottle-neck. The lower end of the tube *d* is complementally grooved, as at *d'*, in the interior and is preferably affixed to the neck *b* by cement *e*, which enters the grooves *b'* and *d'* to more firmly unite the tube *d* to said neck. The upper end of the tube *d* is formed to receive the cork or stopple *f* of the body, and intermediate of its ends the tube *d* is contracted, as at *d<sup>2</sup>*, into a tube of

less diameter than the main body of the tube *d*. Within the contracted portion *d<sup>2</sup>* and arranged to slide therein is a nipple or thimble *g*, the base whereof being open and the walls near its upper closed end being perforated, as at *g'*. In its range of upward movement within the contracted portion *d<sup>2</sup>* toward the stopple *f* the upper end of the thimble *g* slides past the contracted portion, so that its perforations *g* may open into the tube *d*, as illustrated in Fig. 2; but in the lowermost position of the thimble *g* its perforations *g'* are closed by the contracted portion *d<sup>2</sup>* of the tube *d*, as illustrated in Fig. 1. Seated on the nipple-like neck *b* of the bottle *a* is a ball *h* of a diameter larger than the diameter of the neck and also larger than the diameter of the open lower end of the thimble *g*. When the bottle is vertically arranged, as in Fig. 1, the thimble *g* falls down upon the ball *h* and clamps it down upon its seat on the neck *b*; but when the bottle is horizontally arranged, as in Fig. 2, or inclined to pour out the liquid the ball *h* rolls off of its seat on the neck *b* into the enlarged portion of the tube *d* and helps to push the thimble *g* toward the upper end of the tube *d*, so that the perforations *g'* may slide past the contracted portion *d<sup>2</sup>* to form an opening into the tube *d* from the neck *b*.

In Fig. 3 the construction is practically the same, except that the neck *b<sup>10</sup>* of the bottle is outwardly flaring, as in ground-glass-stopper bottles, and the lower end of the tube *d* is tapered, as at *d<sup>10</sup>*, to fit into the neck *b<sup>10</sup>* and to be affixed thereto by the cement *e*. In this instance the seat *b<sup>11</sup>* for the ball *h* is carried by the tube *d*.

Having thus described the nature and object of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a non-refillable bottle, a tube united to and forming a continuation of the bottle-neck, said tube being open at its upper end and having a contracted portion intermediate of its ends, a thimble having a perforated wall and adapted to slide in said contracted portion of the tube, the base of said thimble being open and its upper end closed, the perforated portion of the thimble being closed when the thimble is in its lowermost position by the contracted portion of said tube, and a

ball-valve arranged within the tube below the base of the thimble and adapted when said thimble is in lowermost position to close both the base of the thimble and the communication between the tube and the bottle-neck proper.

2. In a non-refillable bottle, a bottle having a nipple-like neck, a tube fixed to and forming a continuation of said neck, said tube being contracted intermediate of its ends, a thimble having a perforated wall and an open base adapted to slide up and down in said contracted portion of the tube to open or close

the perforations in the wall of the thimble and a ball-valve normally held down upon the nipple-like neck of the bottle by the thimble when said thimble is in its lowest position.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

EDWARD BARRATH.

Witnesses:

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