

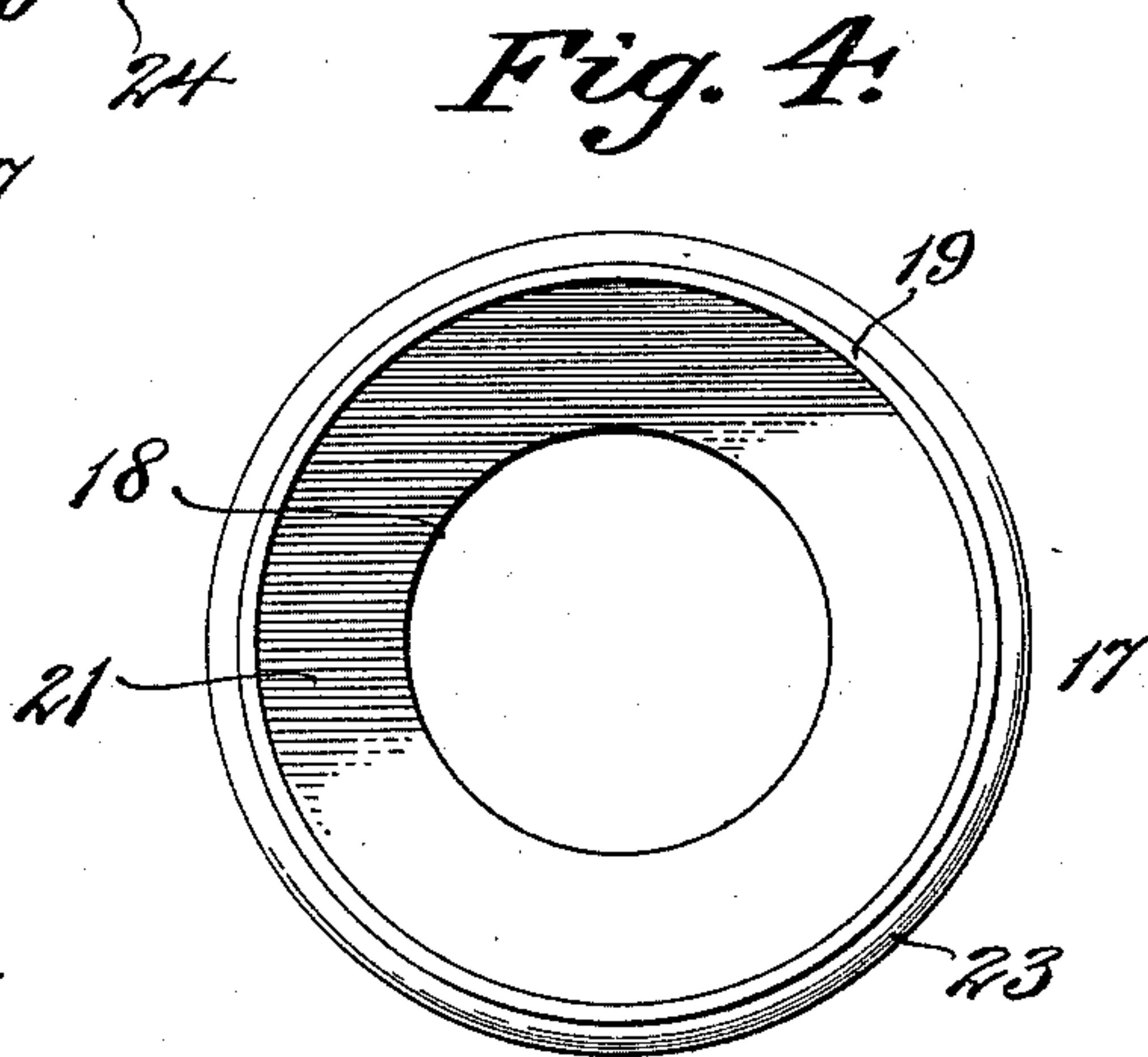
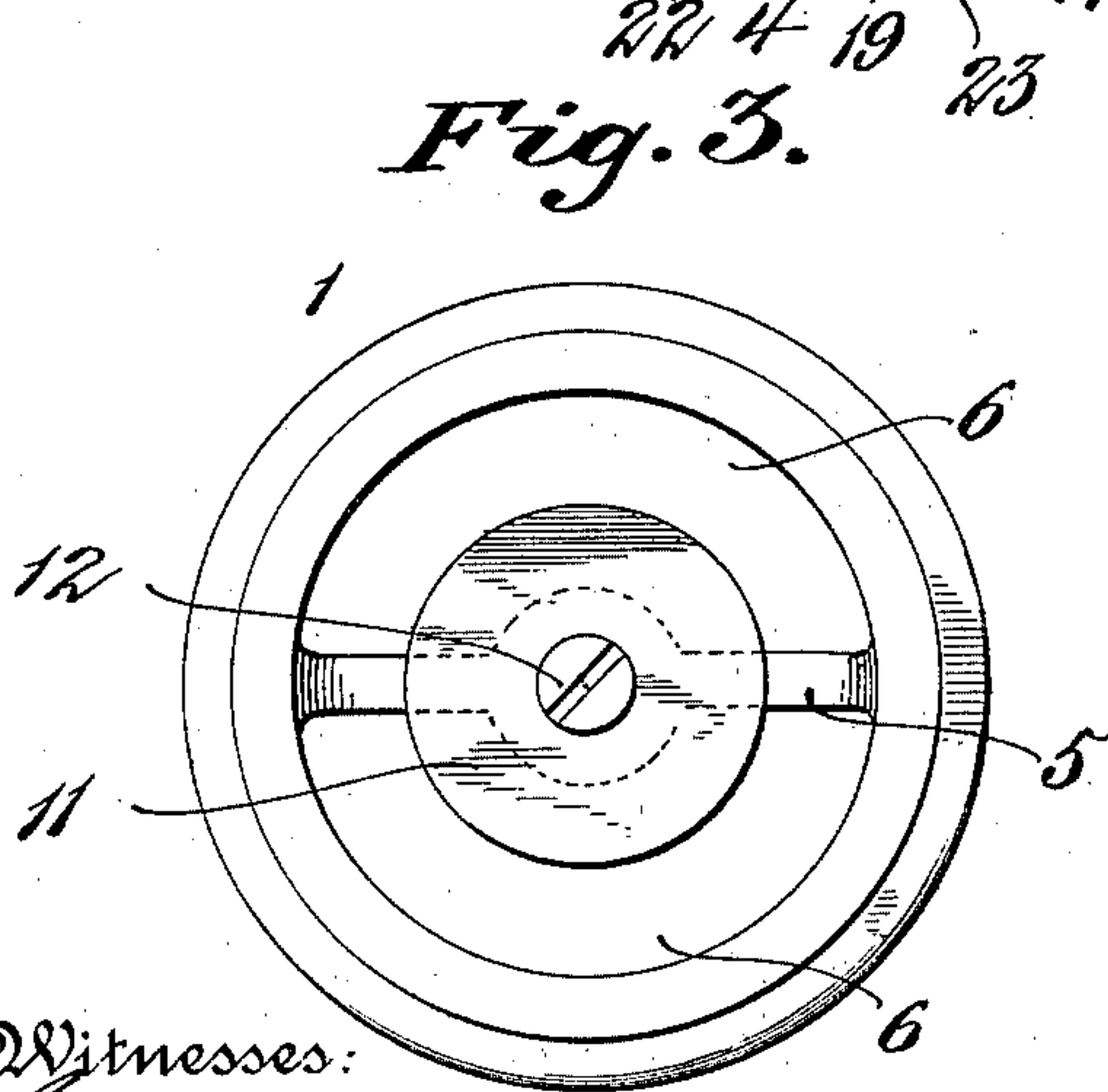
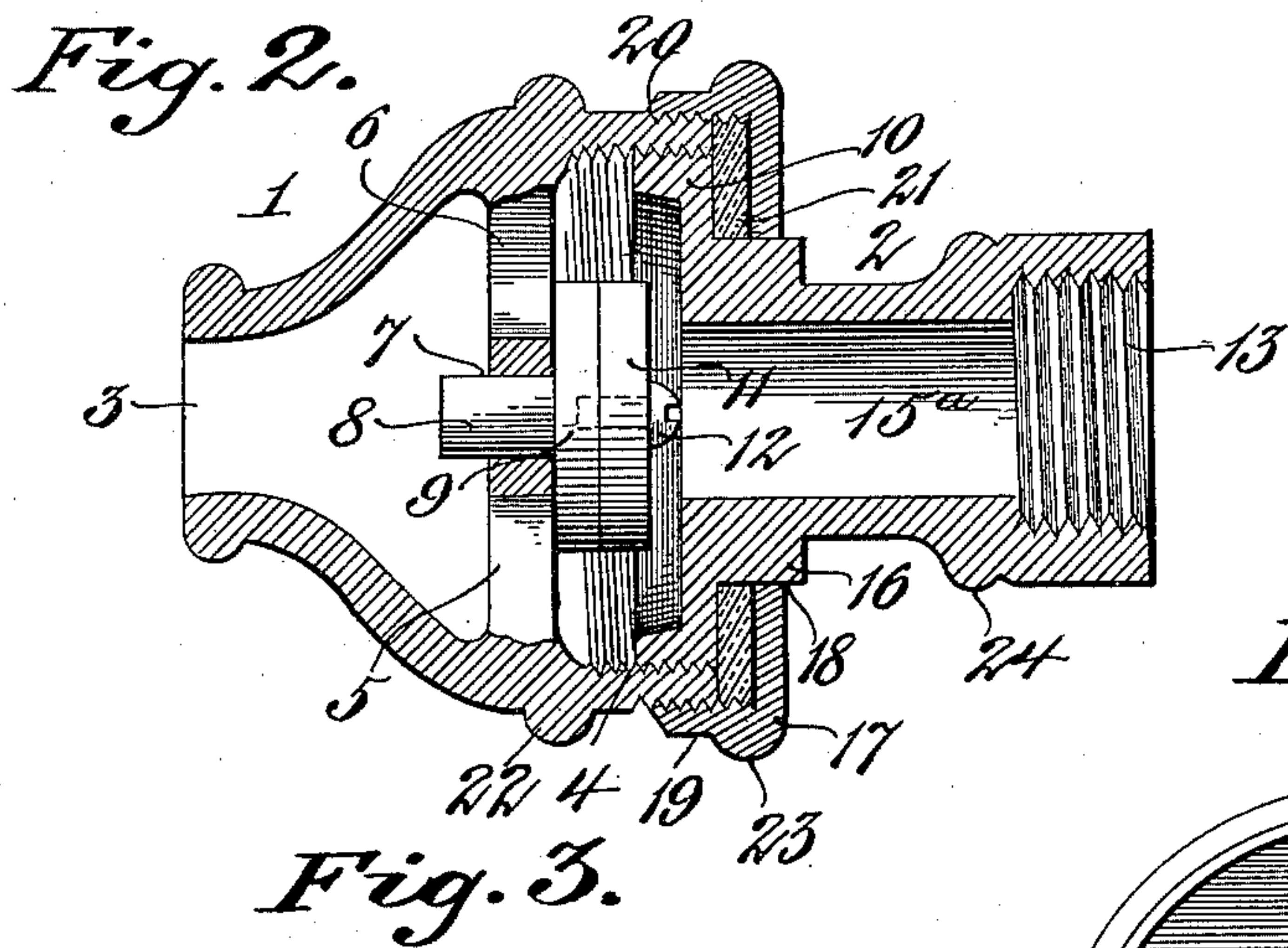
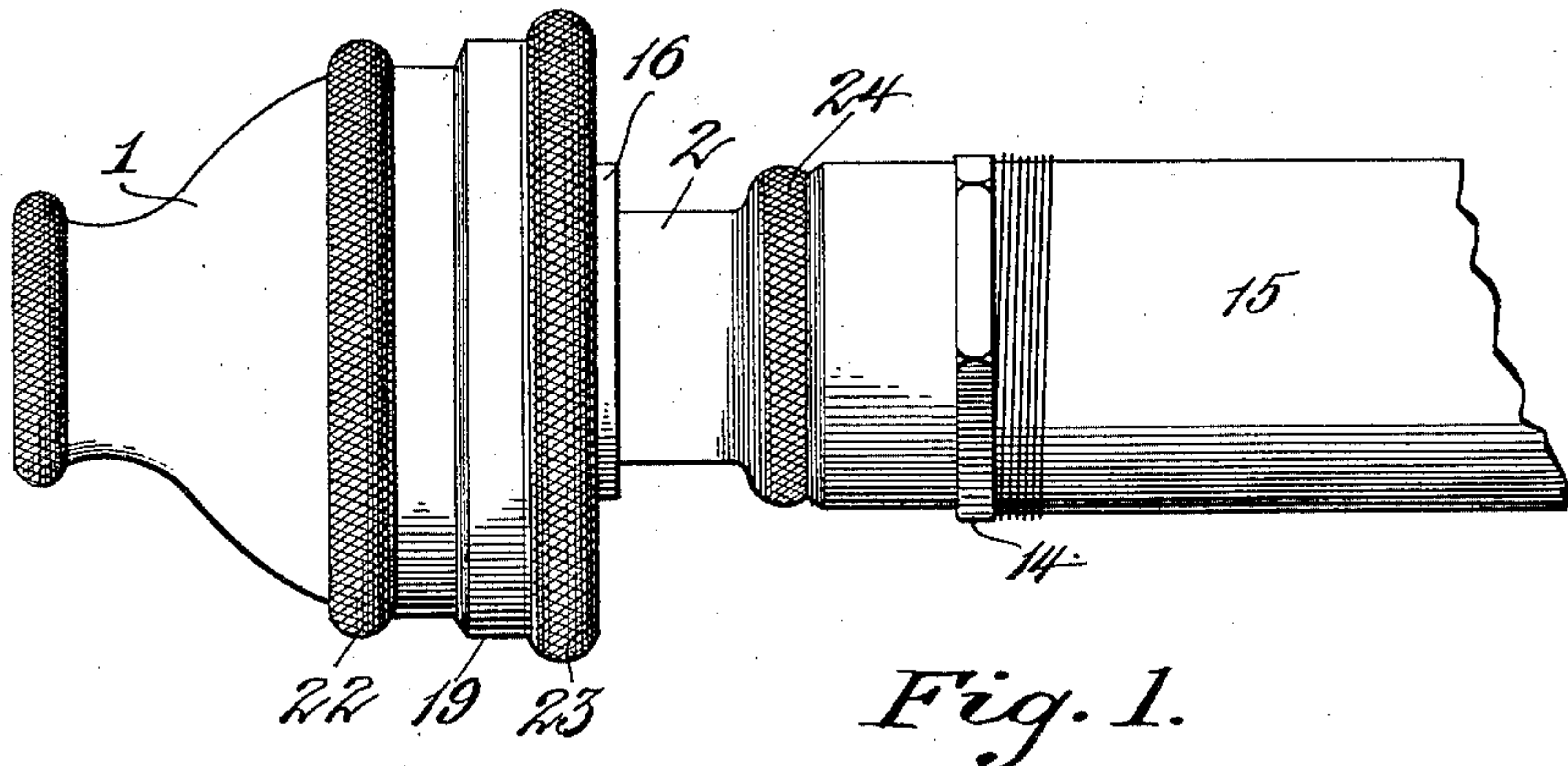
No. 612,934.

Patented Oct. 25, 1898.

G. E. SCHRAUBSTADTER.
HOSE NOZZLE.

(Application filed Mar. 3, 1898.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE E. SCHRAUBSTADTER, OF GALVESTON, TEXAS.

HOSE-NOZZLE.

SPECIFICATION forming part of Letters Patent No. 612,934, dated October 25, 1898.

Application filed March 3, 1898. Serial No. 672,399. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. SCHRAUBSTADTER, a citizen of the United States, residing at Galveston, in the county of Galveston and State of Texas, have invented certain new and useful Improvements in Hose-Nozzles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to hose-nozzles; and the objects in view are to produce a nozzle that is especially adapted for use in breweries and other places where vats, casks, and the like are to be cleaned and where it is constantly necessary to temporarily and completely shut off the flow of water and when shut off to prevent all leakage and waste.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of a nozzle applied to the end of a hose, said nozzle being constructed in accordance with my invention. Fig. 2 is a longitudinal sectional view of the nozzle, the same shown open. Fig. 3 is a bottom plan view of the front or movable member. Fig. 4 is a plan view of the washer-supporting cup.

Like numerals of reference indicate like parts in all the figures of the drawings.

My invention comprises a movable or revoluble member 1 and a stationary member 2, the former telescoping over the latter, upon which it is threaded, as will hereinafter appear.

The movable or revoluble member 1 is preferably of truncated-cone shape externally, and its interior conforms somewhat to its exterior. At its front end it is provided with the reduced or constricted discharge port or passage 3, and its rear end or base is internally threaded, as at 4, said threads being coarse, so that a slight rotation of the movable member will, as will hereinafter appear, serve to open the valve a sufficient distance to afford a desired discharge of water. Between its base and front end the movable member 1 is provided with a transverse dia-

phragm 5, at each side of which occur water passages or ports 6. The center of the diaphragm is provided with an opening 7, and loose therein is a post 8, which terminates at its rear end, back of the diaphragm, in a disk-like head 9, having a central threaded socket. Located upon the rear end of the disk-like head 9 is a rubber or leather washer 11, a screw 12, which passes through the center thereof and is threaded in the disk-like head 9, serving to retain the washer in position. This washer and disk-like head 9 combine to produce a valve.

The stationary member 2 of the nozzle has its rear end reduced and internally threaded, as at 13, to receive the usual hose-coupling 14 of an ordinary hose 15, the usual washer (not shown) being interposed.

The front end of the stationary member 2 is externally enlarged to produce an annularly-flanged valve-seat 10, the same being externally threaded to engage the internal threads 4 of the front movable member 1. The stationary member 2, it will be understood, is bored through and through, as indicated at 15^a, the bore being less in diameter than the diameter of the valve 11, so that by rotating the front or movable member in one direction upon the stationary member it will be seen that a further telescoping of the members occurs, and as a result the valve 11 will be caused to approach and contact with the valve-seat 10 of the stationary member, and a reverse rotation of the movable member will cause the valve to recede from the valve-seat of the stationary member. In the first position described the flow of water will be entirely cut off and in the second position it will be turned on, the flow being graduated as desired.

Immediately in rear of the valve-seat an annular shoulder 16 may be formed on the stationary member 2, and surrounding the same is a packing-cup 17, having a central opening 18, through which the shoulder 16 passes, and an annular peripheral internally-threaded flange 19, the latter receiving and threaded on the external threads 20, with which the member 1 is provided near its inner end or base. Seated in the packing-cup 17, and therefore located immediately in rear

of the annular valve-seat 10 and rear end of the member 1, is a leather or other packing-washer 21, which when the packing-cup is screwed well up in position serves to form a water-tight joint between the members 1 and 2.

To facilitate the operation of turning the water on or off and also of removing the packing-cup when necessary for any purpose, the member 1 may be provided with an external superficial annular milled boss 22 and the packing-cup and member 2 with similar bosses 23 and 24, respectively.

It will be seen that when the valve is against its seat 10 the supply of water is cut off, as previously stated, and therefore the water not reaching the member 1 there can be no leakage between the flange of the valve-seat 10 and the wall of the member 1; but, on the other hand, when the valve is out of contact with the valve-seat the hollow member 1 becomes filled with water and on account of the restricted outlet 3 gives rise to considerable back pressure; hence the desirability of forming a tight joint between the two members. In practice the packing-cup is screwed tightly to position, as it is not loosened except for the purpose of renewing the packing. It will be therefore observed that the packing and cup will travel back and forth with the front member and only effect the tight joint when the water is on full. This of course is the only time a tight joint is required, as when the supply is cut off the valve prevents any escape, and when only partly on the flow will have no difficulty in finding an escape through the discharge 3.

It will be seen that the nozzle may be operated by one hand of the operator, leaving the other free to hold and manipulate such a cleaning device, as a broom or swab, as may be employed, and that the water may be turned on or off instantly, thus effecting a saving in water as well as a saving in labor to the operator; furthermore, that the hose may be dropped or thrown carelessly around without danger of injuring the nozzle or impairing its operative parts, as is often the case with such nozzles as are provided with keys or other cut-off devices that project therefrom.

Having described my invention, what I claim is—

1. The herein-described improved nozzle, the same consisting of two telescoping members threaded together, one member being provided with a discharge-opening and an alining valve-seat, a rigid valve carried by and contained within the other of said members and of less diameter than the wall of the same and combining therewith to produce an intermediate water-passage, and adapted to be brought

against said seat by a telescoping of the sections.

2. In a nozzle, the combination with the front rotatable member, internally and externally threaded at its rear end and terminating at its front end in a discharge-opening, and a rigid valve rearwardly disposed and located in the said member, of less diameter than the same and combining therewith to form an intermediate water-passage, of a rear section internally bored and adapted at its rear end to receive a hose and at its front end flared to form an internal valve-seat in line with the rigid valve and externally threaded to engage the internal threads of the front member, a packing-cup provided with a threaded peripheral flange engaging the external threads of the front member, and provided with a central hole for the rear member, and a packing ring or washer located in said cup and in rear of the valve-seat and front member.

3. In a nozzle, the combination with the front rotatable member, internally threaded at its rear end and terminating at its front end in a discharge-opening, and a rigid valve rearwardly disposed and located in the said member, of less diameter than and inclosed by the wall of the same and combining therewith to form an intermediate annular water-passage, of a rear section internally bored and adapted at its rear end to receive a hose-coupling and at its front end flared to form an internal valve-seat in line with the rigid valve and externally threaded to engage the internal threads of the front member.

4. The combination with the front movable member, 1, having the front reduced opening, 3, and internally and externally threaded at its rear end, the transverse diaphragm 5 having a central opening, the valve-stem therein, and the valve at the rear end thereof, of the stationary member, 2, having the external boss, 16, and rear hose connection, 13, and in advance of said boss provided with the enlarged annular valve-seat, 10, provided with the annular externally-threaded flange engaging the internal thread of the member, 1, the packing-cup, 17, having the central opening, 18, loosely fitting the boss, 16, and having the peripheral internally-threaded flange, 19, engaging the external threads of the member, 1, and the packing-ring, 21, contained in the said cup.

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

GEORGE E. SCHRAUBSTADTER.

Witnesses:

JOHN J. REAGAN,
CHAS. W. O'RILEY.