

H. H. WOODMANSEE.
 FOUNTAIN SHAVING BRUSH.
 APPLICATION FILED SEPT. 4, 1909.

953,452.

Patented Mar. 29, 1910.

2 SHEETS—SHEET 1.

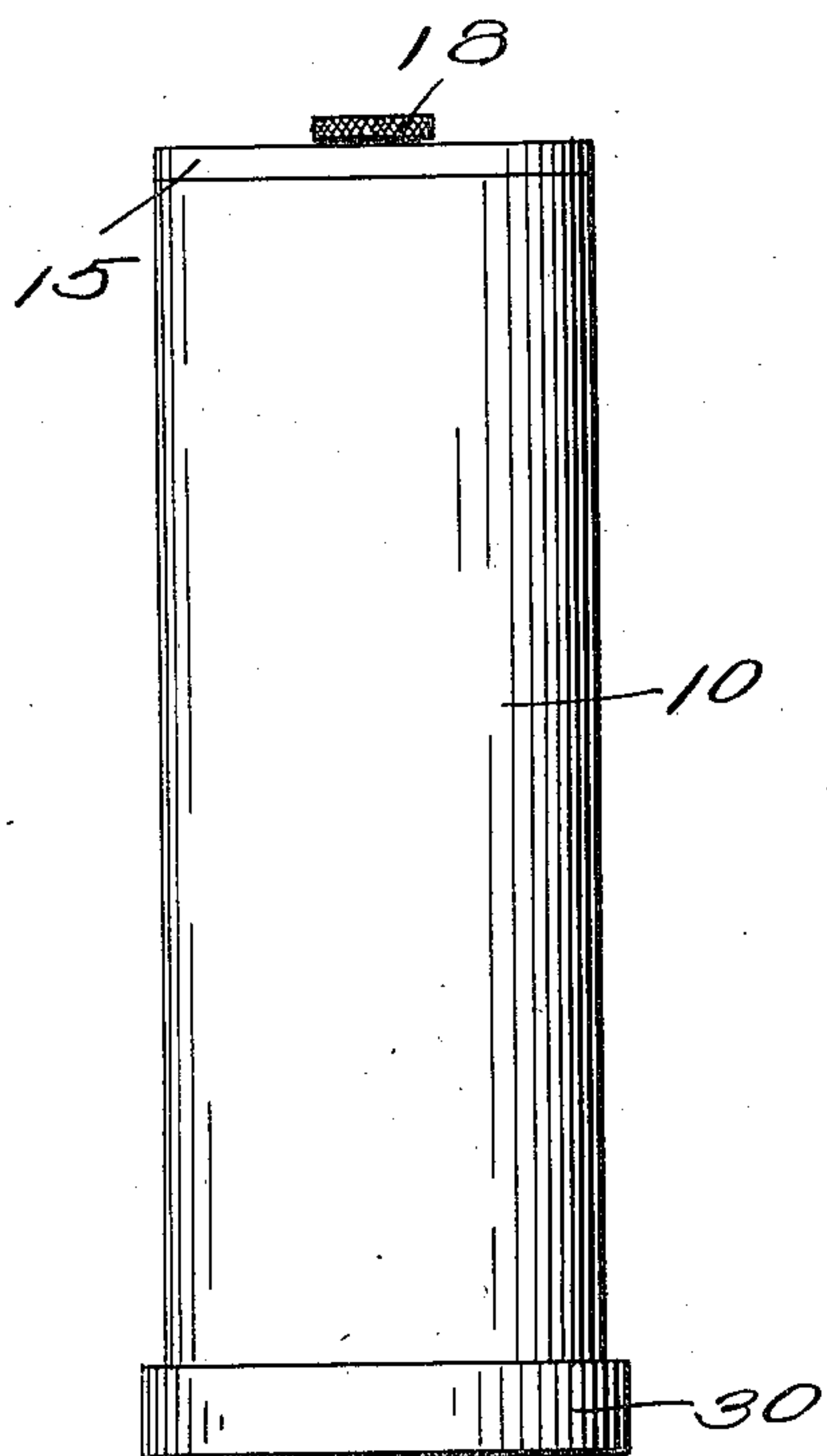


Fig. 1.

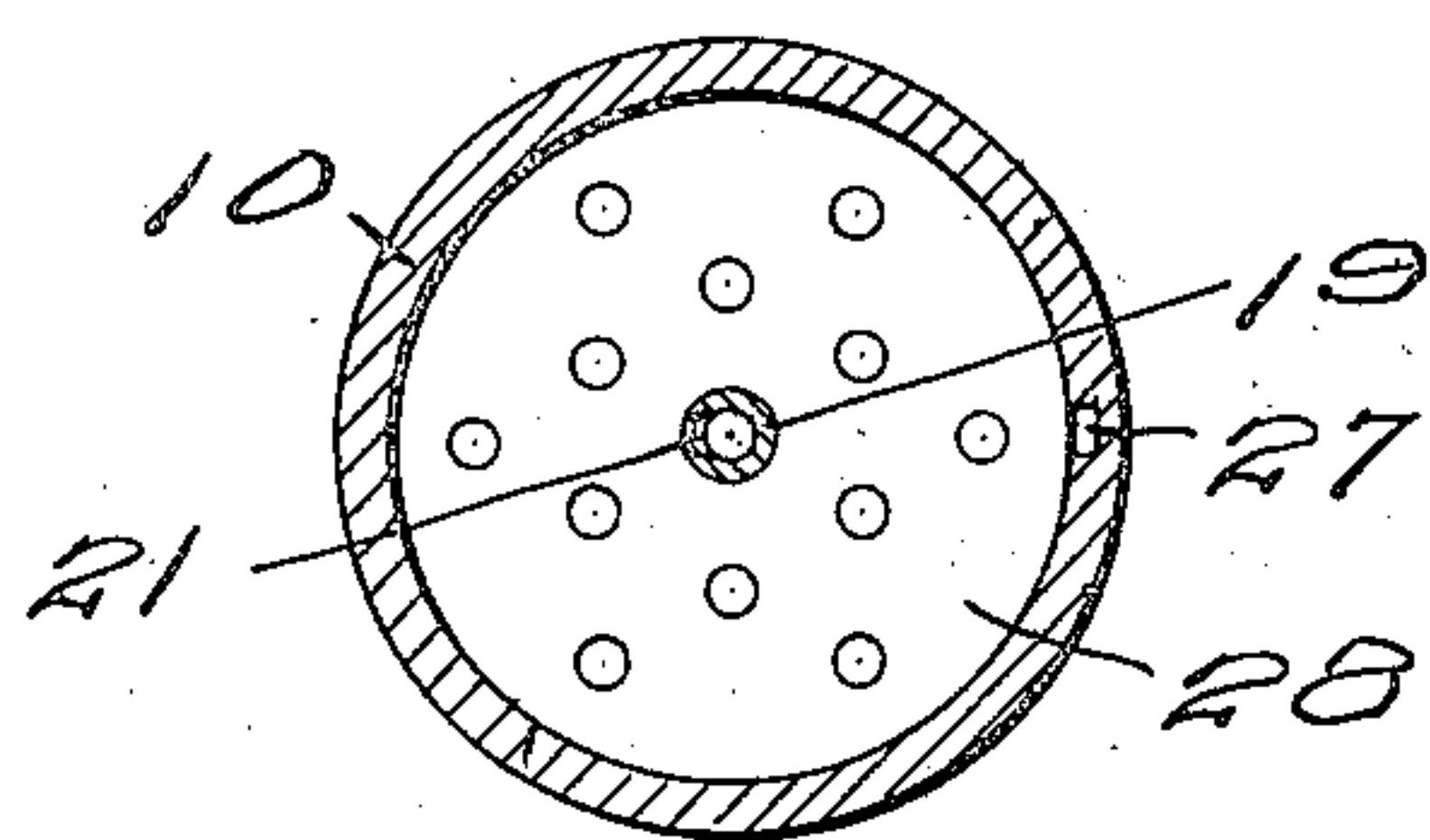


Fig. 3.

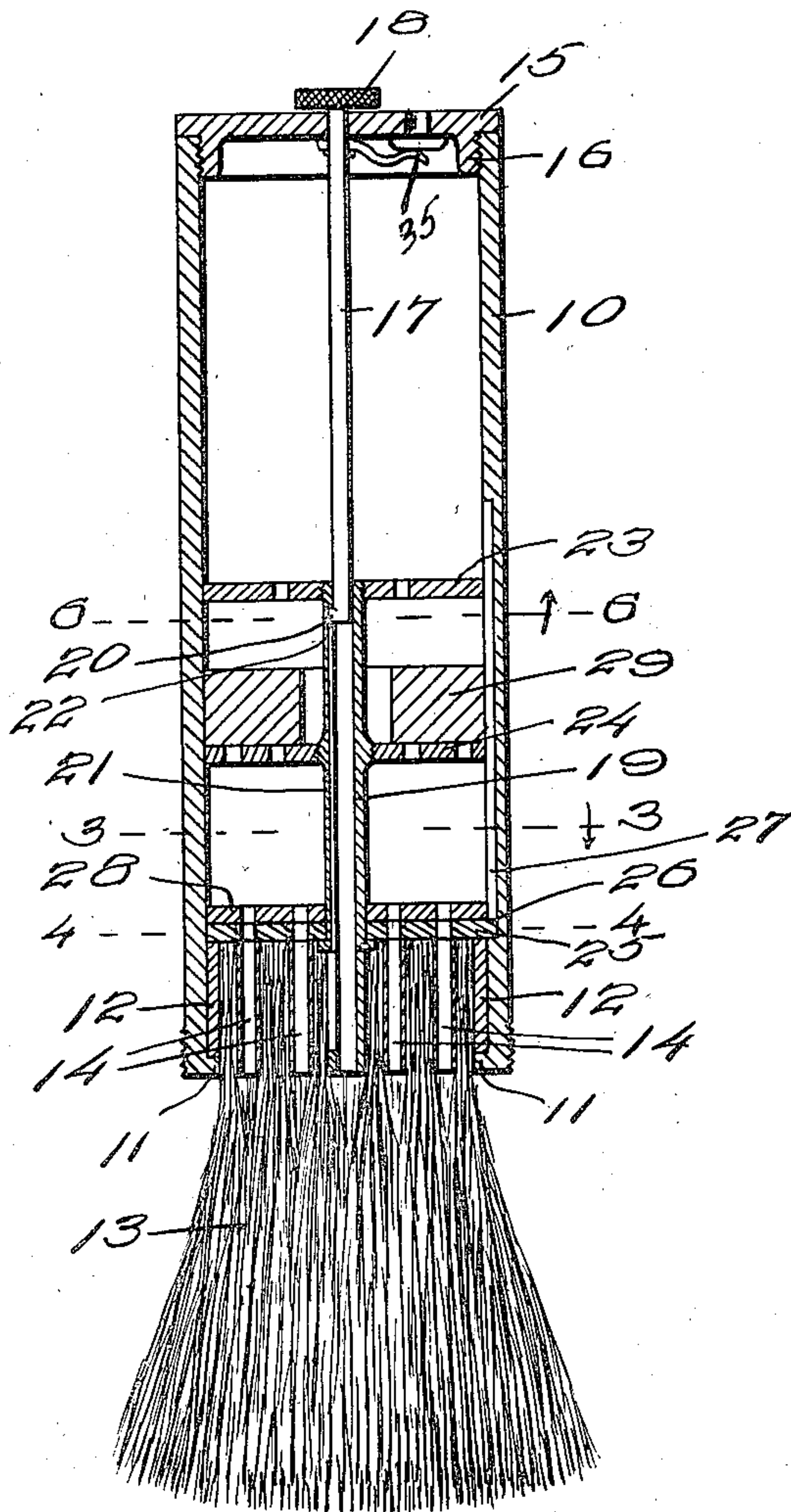


Fig. 2.

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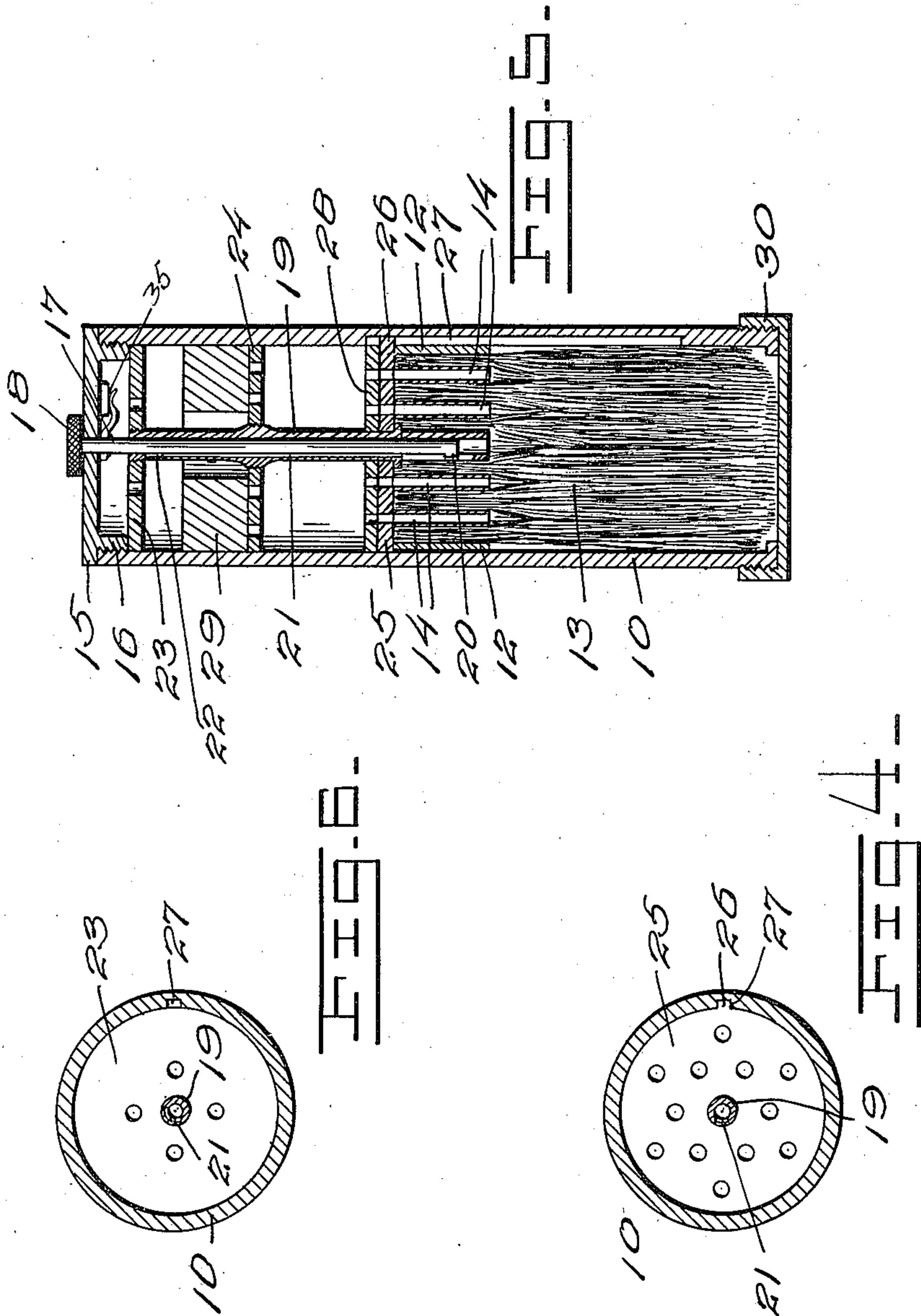
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UNITED STATES PATENT OFFICE.

HUGH H. WOODMANSEE, OF AZUSA, CALIFORNIA.

FOUNTAIN SHAVING-BRUSH.

953,452.

Specification of Letters Patent.

Patented Mar. 29, 1910.

Application filed September 4, 1909. Serial No. 516,256.

To all whom it may concern:

Be it known that I, HUGH H. WOODMANSEE, a citizen of the United States, residing at Azusa, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Fountain Shaving-Brushes, of which the following is a specification.

This invention relates to brushes and has special reference to those devices which are known as shaving brushes.

An object of the invention is to construct a shaving brush which is of the fountain type and in which the soap may be carried and in which the lather may be formed.

The invention has for another object the provision of a brush of this character which may be folded into small space when not in use and one which can be quickly and easily brought into operation when desired.

Other objects and advantages will be apparent from the following description and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the device in a closed position, Fig. 2 is a longitudinal central section, Fig. 3 is a cross section on the line 3—3 of Fig. 2, Fig. 4 is a detailed and enlarged sectional view of the piston employed, Fig. 5 is a sectional view of the device in a closed position, Fig. 6 is a cross section beneath the disk 23 with the device in extended position.

Referring to the drawings, 10 designates a cylindrical casing which is provided at its lower extremity with an annular inturned flange 11 for the purpose of preventing the displacement of a collar 12 slidably positioned within the lower extremity of the casing 10. The collar 12 carries a bunch of bristles 13 which are secured at their upper extremities within the same and which are provided with a plurality of tubes 14 extended therethrough for the purpose of conveying liquid soap into the lower end of the bunch of bristles 13. The upper extremity of the casing 10 is internally threaded to receive a cap 15 which is provided with a depended flange 16 bearing externally threaded for the purpose of securing the

cap 15 upon the casing 10. The cap 15 is apertured centrally through which is passed a rod 17 which is provided upon its upper outward extremity with a knurled head 18 which is adapted to be engaged by the operator to be rotated and reciprocated. The rod 17 extends into the casing 10 where it is engaged in the upper extremity of a tube 19 centrally and longitudinally positioned within the casing 10 and is held therein by means of a lug 20 carried laterally upon the rod 17 at its lower extremity for engagement in a longitudinally formed slot 21 upon the inner face of the tube 19. The slot 21 extends longitudinally of the tube and is provided at its upper extremity with a shoulder 22 against which the lug 20 is adapted to be impinged by partial rotation of the rod 17 when drawn to the upper extremity of the tube 19. The shoulder 22 locks the rod 17 and secures the same in an extended position during the operation of the device. The upper extremity of the tube 19 is externally threaded for the reception of a perforated disk 23 which is adapted to reciprocate upon the actuation of the rod 17.

The tube 19 is slightly enlarged immediately thereof, which enlargement is threaded and about which is secured a second perforated disk 24 which is spaced from the disk 23 and which is adapted to reciprocate in parallel with the same. The lower extremity of the tube 19 has a perforated piston 25 mounted thereon which is provided with a laterally extended lug 26 for engagement in a longitudinally formed groove 27 in the inner face of the casing 10 to prevent the rotation of the piston 25. The tube 19 is rotatably disposed in the piston 25 but is rigidly held from longitudinal movement thereto and carries a plate 28 which is provided with a plurality of perforations adapted for registration with the perforations formed in the piston 25 when rotated into the proper registered position. The plate 28 is so disposed upon the tube 19 as to prevent the free rotation of the plate 28 or of the reciprocation thereof in relation to the tube 19. A cake of soap 29 which is of cylindrical formation and which is centrally apertured is positioned in the casing 10 about the tube 19 between the disks 23 and 24 and is adapted to be reciprocated and alternately engaged upon its opposite sides by the same during the operation of the rod

17. A cap 30 is provided which is adapted to be positioned over the lower open extremity of the casing 10 when the brush is retracted into the closed position. Carried in the cap 15 there is a suitable spring pressed valve 35 arranged to yieldably resist ingress of fluid, and to prevent egress thereof.

The operation of the device is as follows: The cap 15 is removed from the casing 10 and by means of the rod 17 the tube 19 is drawn upwardly to present the disk 23 outwardly of the casing, after which said disk is removed from the tube 19. A cylindrical cake of soap is then disposed upon the disk 24 around the tube 19, after which the disk 23 is again engaged thereon. The cap 15 is then secured upon the casing and the tube 19 rotated by means of the rod 17 to dispose the opening through the disk 28 and the piston 25 in staggered relation, after which the device is submerged in water and the rod 17 forced inwardly. By this means the collar 12 and bristles 13 are forced outwardly of the casing into their normal operative positions, and at the same time water is drawn in through the valve in the cap 15. The tube 19 is then again rotated to bring the opening through the disk 28 and piston 25 into registry, and the lug 20 engaged against the shoulder 22; the rod 17 is then reciprocated rapidly which forces the water from the upper end of the casing through the soap chamber and into the lower portion and backwardly again, a repetition of which movement rapidly produces an efficient lather. The fluid is prevented from being forced outwardly through the tube of the brush by the resistance of the spring engaged valve in the cap 15 and the fact that there is a clear passage through the disks 23 and 24 and the piston 25 so that no forcible suction is induced. After the lather has been properly formed, the rod 17 is again rotated with the soap carrying portion at the upper end of the casing 10 to close the passages through the piston 25. In this position the principal portion of the lather is below the piston 25, and upon inward pressure of the rod 17 the lather is forced downwardly through the brush, making it available for use. When it is desired to close the

device after use, the bristles are forced inward manually, the rod 17 extended into the central tube in the bristles, and the cap 30 engaged over the lower end of the casing 10.

What is claimed is:—

1. A fountain shaving brush comprising a casing, a cap detachably secured upon the casing, a bunch of bristles secured in said casing, tubes extended through the upper extremities of said bristles, a perforated piston in said casing, a plate having perforations formed therein positioned adjacent said piston, a tube extended upwardly through said piston and said plate, disks disposed in spaced relation about said tube, said disks having apertures formed therethrough and a rod extended upwardly through the cap of said casing from said tube for the purpose of actuating the same.

2. A device of the class described comprising a casing, an inwardly turned flange disposed at the lower extremity of said casing, a collar slidably mounted in said casing, a bunch of bristles disposed in said collar, a plurality of tubes placed in said bunch of bristles at the upper end thereof, a tube longitudinally disposed in said casing, a rod engaged in said tube, a lug carried by said rod for engagement with a shoulder formed in said tube to hold the same in an extended position, a disk disposed about the upper extremity of said tube, a disk mounted immediately of said tube, a piston disposed upon the lower extremity of said tube, a lug laterally extended from said piston for engagement in a longitudinal groove formed in said casing, a plate disposed about said tube adjacent said piston, said piston and said plate having apertures formed there- through adapted for registered relation at times and a cap disposed upon the upper extremity of said casing through which said rod is adapted to pass to be held in central relation to said casing.

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

HUGH H. WOODMANSEE.

Witnesses:

JULIUS H. ANDERSON,
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