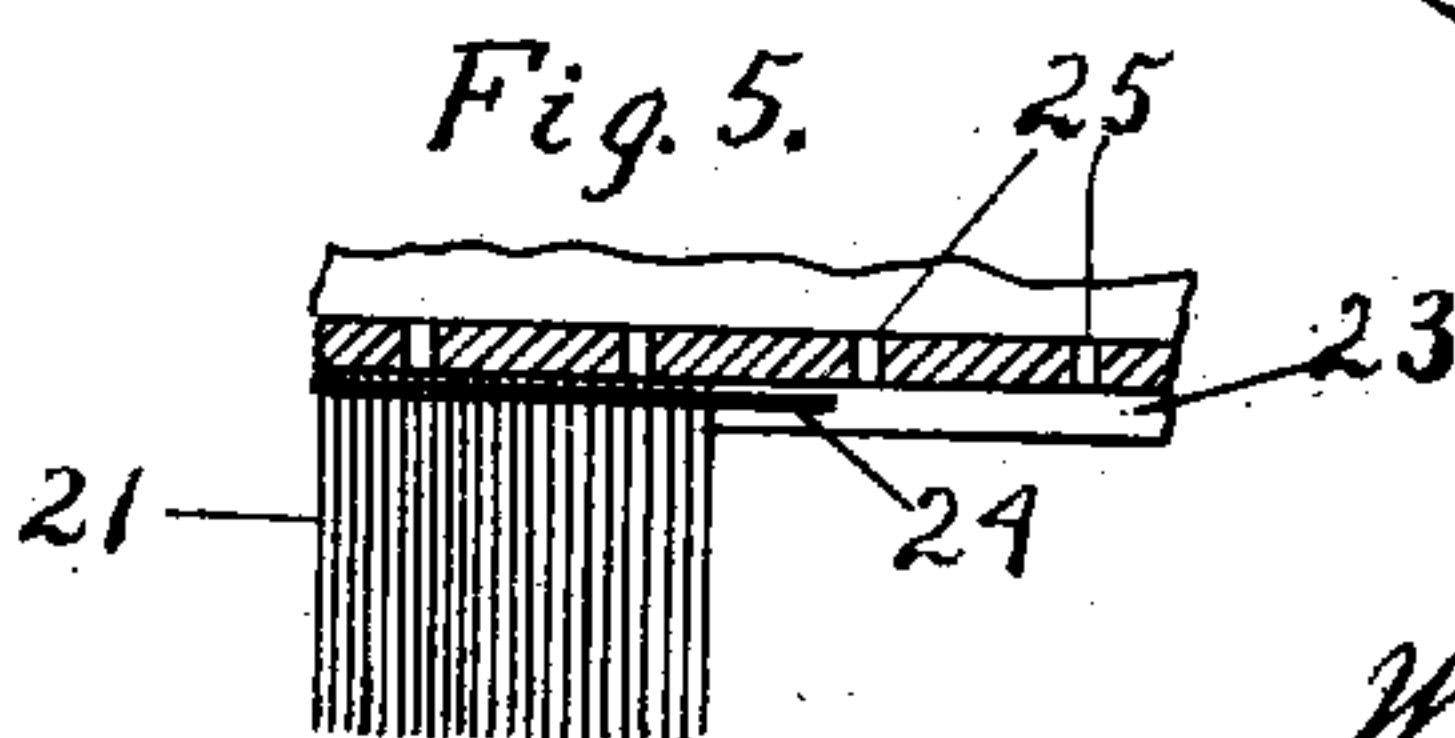
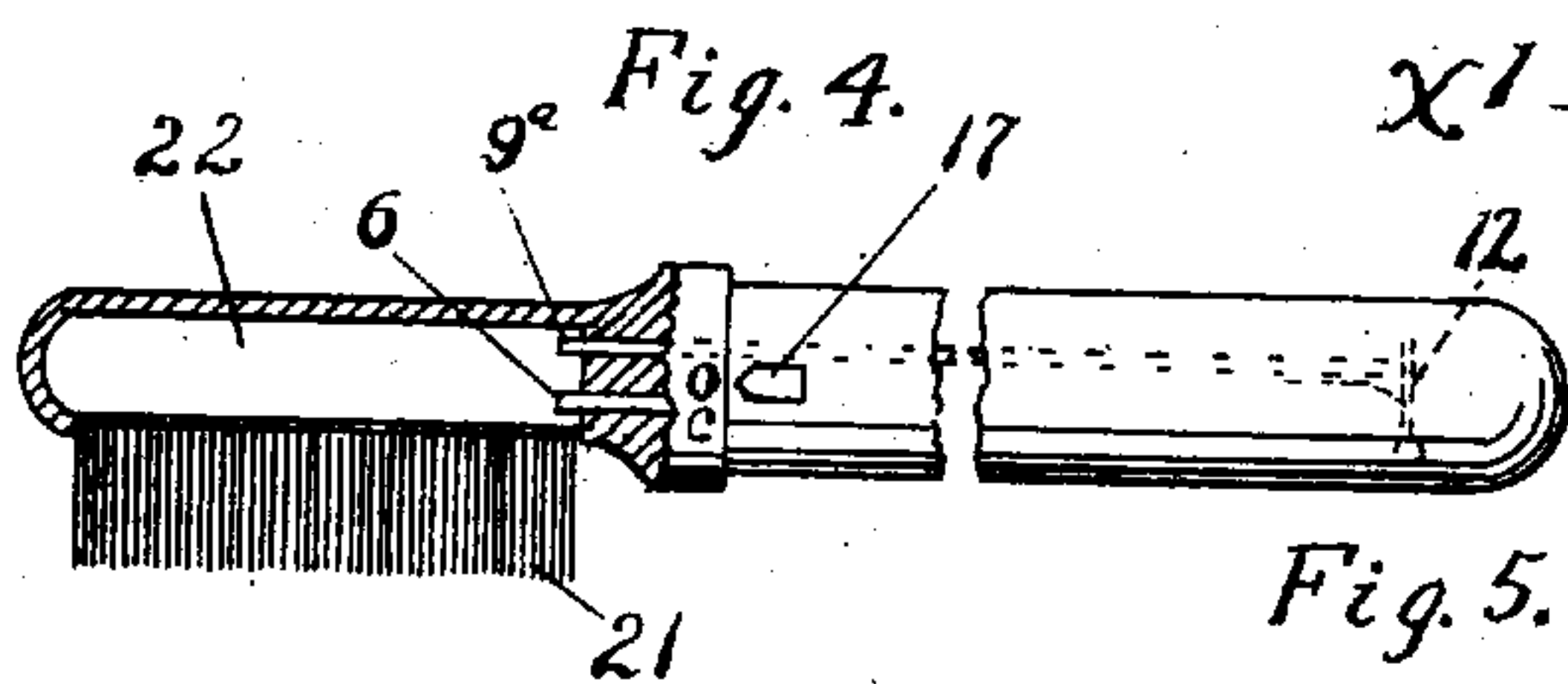
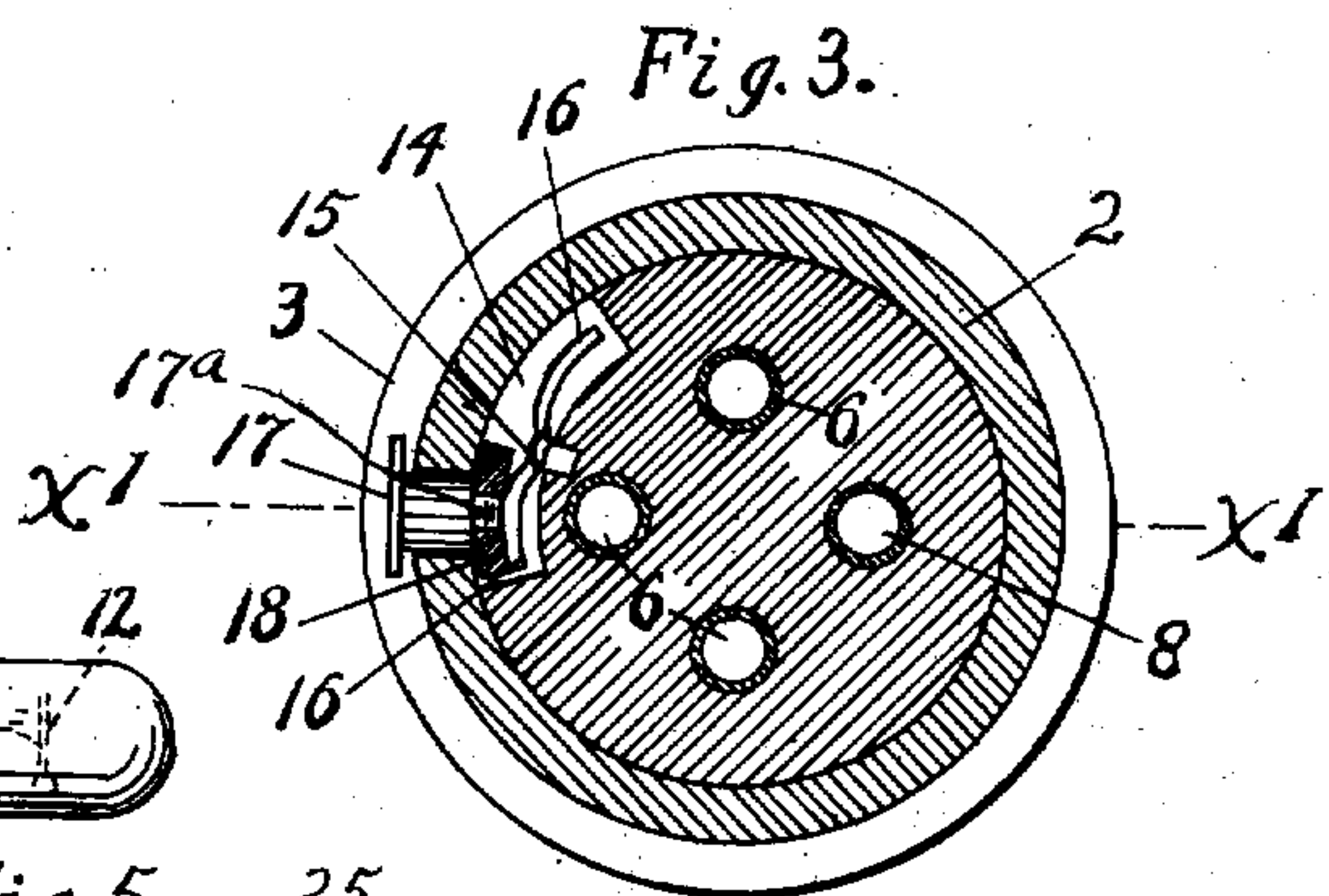
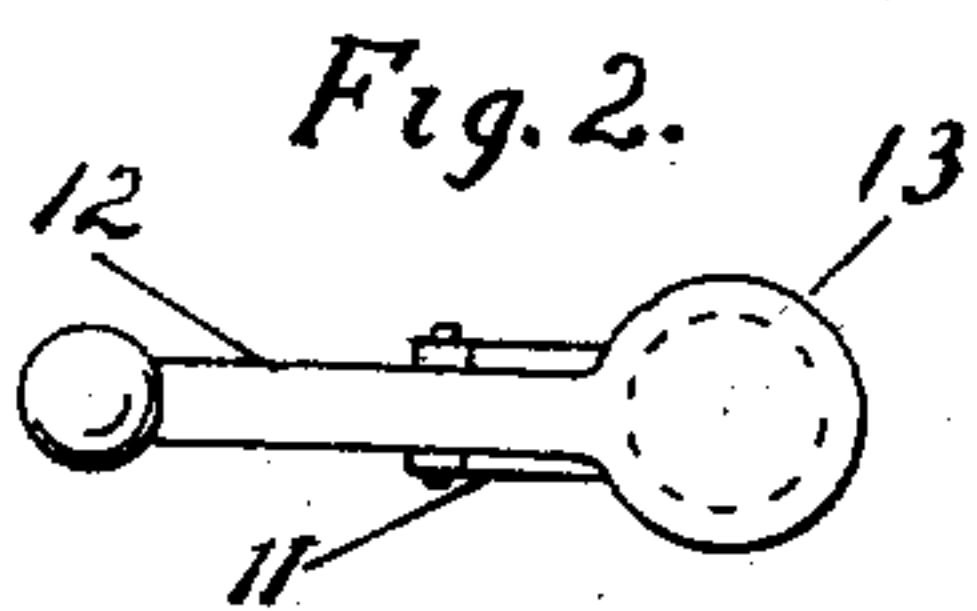
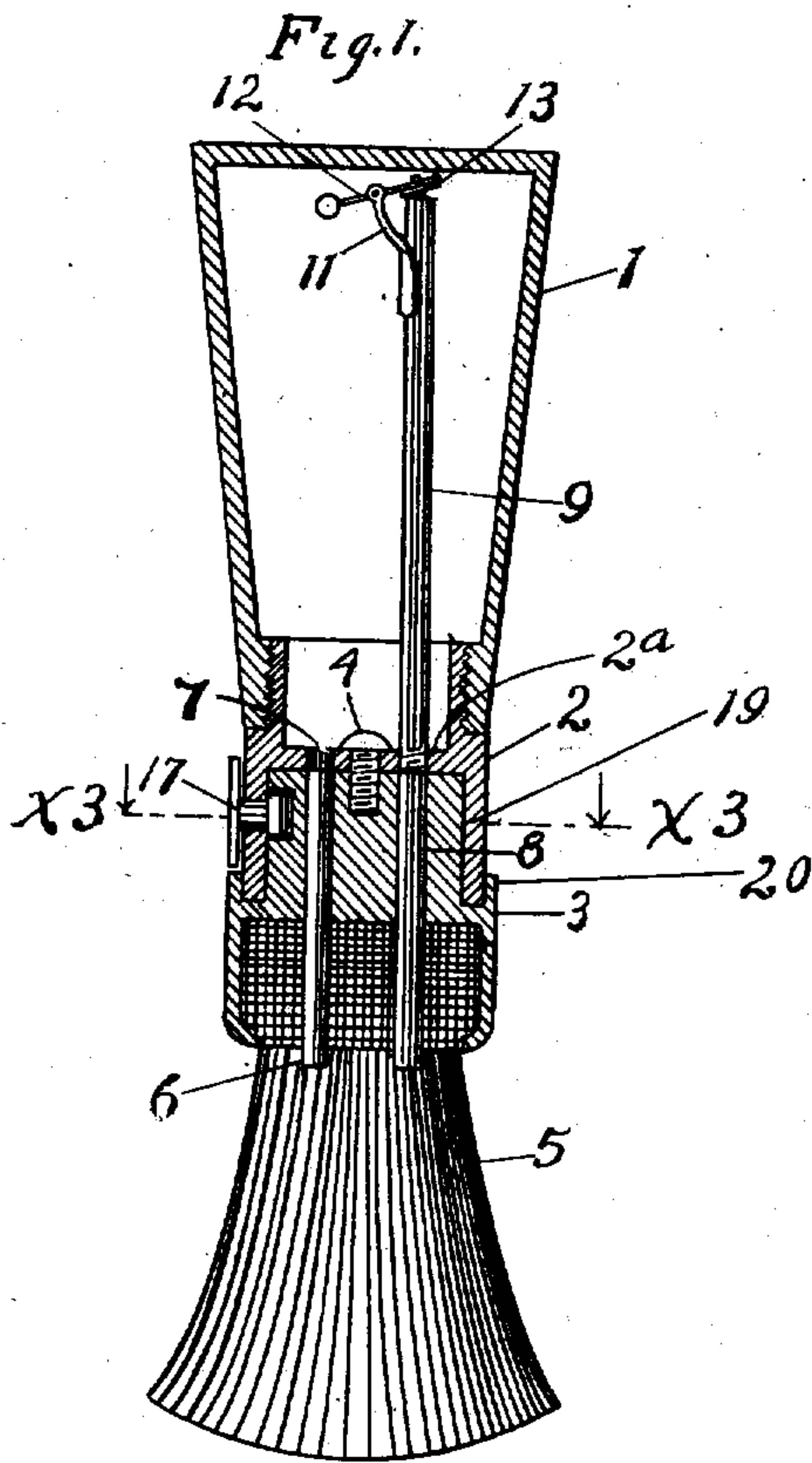


W. T. SCHAEFER & J. E. STEERS.
 FOUNTAIN TOILET BRUSH.
 APPLICATION FILED SEPT. 20, 1909.

974,994.

Patented Nov. 8, 1910.



Witnesses:

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By their Attorney

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 Albert H. Merrill

UNITED STATES PATENT OFFICE.

WALTER T. SCHAEFER, OF LOS ANGELES, AND JOSEPH E. STEERS, OF SAN FRANCISCO,
CALIFORNIA.

FOUNTAIN TOILET-BRUSH.

974,994.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed September 20, 1909. Serial No. 518,694.

To all whom it may concern:

Be it known that we, WALTER T. SCHAEFER and JOSEPH E. STEERS, citizens of the United States, residing, respectively, in the city of Los Angeles, and the city of San Francisco, State of California, have invented a new and useful Fountain Toilet-Brush, of which the following is a specification.

10 Among the objects of this invention are to provide a fountain brush constructed according to principles which may be applied to a shaving brush, tooth brush, or other toilet brush and also to brushes used for
15 cleansing purposes and to fountain brushes in general. In this brush the flow of fluid to the brush is aided by an arrangement which relieves the air pressure in an improved manner.

20 The invention also includes improved means for opening and closing the ducts which supply the fluid to the bristles of the brush, and to improved means for holding the brush with the feed ducts in the open
25 or in the closed position.

Other objects and advantages such as simplicity of construction and compactness of arrangement may hereinafter appear.

Referring to the accompanying drawings which illustrate the invention,—Figure 1 is a longitudinal mid-section on line X¹ of Fig. 3, showing the feed ducts open for supplying liquid soap to the bristles of a shaving brush; Fig. 2 is a plan view of the air valve
35 shown in the upper portion of Fig. 1; Fig. 3 is a cross section on line X³ of Fig. 1; Fig. 4 is a side elevation of a brush constructed the same as the brush shown in Fig. 1, except that the brush is provided with bristles
40 adapting the same for use as a tooth brush; Fig. 5 is an enlarged sectional detail of a portion of Fig. 4.

Referring more particularly to Figs. 1, 2 and 3 of the drawings which illustrate the invention as applied to a shaving brush, the hollow handle 1 forms a container which is provided with a coupling member 2 screwed into one end thereof. To said coupling member is pivoted a brush-holding member 3
50 desirably by means of the threaded bolt or pivot 4, which extends loosely through a hole through the wall 2^a, of slightly greater diameter than said screw, said screw being tightly screwed into the member 3.

55 5 designates the bristles or fiber of the

brush proper, which are attached to the brush-holding member 3, in a well-known manner. The means for feeding the liquid soap from the handle or container 1 to the brush proper desirably consists of a plurality of tubes 6 which may be turned into and out of register with passages 7 through the coupling member 2.

In order to relieve atmospheric pressure within the container 1 the brush is provided with an air tube, one section 8 of which is within the brush holding member, and the other section 9 being preferably screwed into the container as shown in Fig. 1. To the upper end of the air tube 9 is soldered or otherwise fastened an arm or bracket 11 to which is pivoted a weighted arm 12, carrying a closure 13 adapted to close the end of the duct 9 when the brush is in an upright position. When the brush is turned down, the tube is opened and atmospheric pressure within the container is restored. The brush may be set in an upright position upon a flat surface and the closure 13 will then close and prevent the liquid from entering the tube.

Referring more particularly to Fig. 3, the brush holding member 3 is provided with a segmental recess 14, within which is fastened, by means of a rivet 15, a spring having resilient arms 16. The coupling member 2 is provided with a controlling catch 17 having an internal head 18, which slides over the arms 16 when the brush proper and the container are rotated with relation to each other about the pivot 4. Whichever arm 16 is depressed by the rivet 17 when said arms 16 are moved to the limit in one direction or the other, prevents the parts being accidentally moved with relation to each other and maintains the ducts 6 in register with passages 7 (see Fig. 1) and also maintains the two sections of the air tube in register; or else maintains the parts in the reverse position with the air tube and feed ducts closed. The rivet 17 is provided with a reduced threaded portion 17^a which screws into the internal head 18.

The coupling member 2 is preferably provided with a tubular flange 19 which embraces the brush-holding member 3, and said member 3 is provided with the external overlapping flange 20 forming a sheath around the end thereof. This construction forms a neat close fit and prevents lost motion be-

tween the parts. The coupling member is provided with the cross-wall 2^a against which the brush-holding member is snugly held by pivot 4.

5 Referring to the form of the appliance shown in Figs. 4 and 5 wherein the same is adapted for use in connection with a tooth brush, within the portion of Fig. 4, shown in side elevation, the construction is the same
10 as that already described. The air tube 9^a is placed at the side of the appliance opposite the brush 21. The fibers of brush 21 are attached to a receptacle or hollow head 22, in a well-known manner as shown in Fig. 5
15 where 23 designates one of the retaining grooves and 24 is the retaining cord or rod for attaching the bristles within said groove. Holes 25 lead through each groove 23, into the interior of the receptacle 22.

20 In the operation of the tooth brush the movements of the brush in use will tend to throw the liquid preparation through the ducts 6 into the receptacle 22 where it will be distributed and pass through various
25 holes 25 and into the brush proper.

In both the brushes the head of the rivet 17 is desirably formed as an indicator, as best shown in Fig. 4. Said indicator stands opposite the "O", when the feed ducts are
30 open, and opposite the "C" when feed ducts are closed. In both brushes, after the feed-ducts have been turned to the closed position the brush proper may be thoroughly washed out, without any of the preparation
35 in the container being wasted, and without danger of dirt or disease germs getting into said container.

We claim:

1. In a fountain brush, in combination, a
40 hollow handle, bristles, means for feeding liquid from said handle to said bristles, and an air duct leading from the bristles to the interior of the handle.

2. In a fountain brush, a fluid container, a
45 bristle-holding member, bristles attached to said member, fluid supply ducts in said member to supply fluid to said bristles, an air supply duct in said member, an air duct in said container, there being also feed passages
50 in said container, said container and member being movable with relation to each other to bring said air ducts into and out of register with each other and also to bring said feed ducts in said member into and out of register
55 with said feed passages in said container.

3. In a fountain brush, the combination with a container, bristles, and means for delivering fluid from said container to said bristles; and an air duct leading from said
60 bristles into said container, of means, within said container, for closing said air duct when the bristles are in the uppermost position.

4. In a fountain brush, two members movable on a common axis with relation to each other, supply ducts formed in sections in
65 said members, said members being circumferentially movable about a pivot to bring the sections of said ducts into and out of register with each other, and a spring for maintaining said ducts open or closed, said
70 pivot constituting fastening means engaging each of said members and holding them closely together during their relative rotation.

5. In a fountain brush, a container, a
75 bristle holding member pivoted to said container, bristles held by said bristle-holding member there being ducts for supplying fluid to the bristles, said ducts being formed in sections, a spring having oppositely disposed
80 resilient arms carried by said member and extending circumferentially with relation thereto, and a projection carried by said container, to engage said arms to hold the bristle-holding member adjusted with said
85 ducts open or closed.

6. In a fountain brush, in combination, a container, a coupling member screwing thereinto at one end, said member having a tubular flange projecting from the other end
90 thereof and a cross-wall, a bristle-holding member, a pivot holding said bristle-holding member snugly against said cross-wall, said bristle-holding member having an external flange forming a sheath around the end of
95 said tubular flange of the coupling member, bristles carried by said bristle-holding member, there being passages formed in sections within the coupling member and bristle-holding member, said sections being brought
100 into and out of register when said members are rotated to control communication of liquid and air between the container and bristles, and means to yieldingly retain said members in adjusted position with relation
105 to each other.

In testimony whereof I, WALTER T. SCHAEFER hereunto sign my name at Los Angeles, California, in the presence of two
110 subscribing witnesses, this tenth day of September, 1909.

WALTER T. SCHAEFER.

Witnesses for Walter T. Schaefer:

ALBERT H. MERRILL,
FLORA H. FOSS.

In testimony whereof I, JOSEPH E. STEERS hereunto sign my name at San Francisco, California, in the presence of two subscribing witnesses this thirteenth day of September, 1909.

JOSEPH E. STEERS.

Witnesses for Joseph E. Steers:

R. PENE,
J. H. STIRLING.