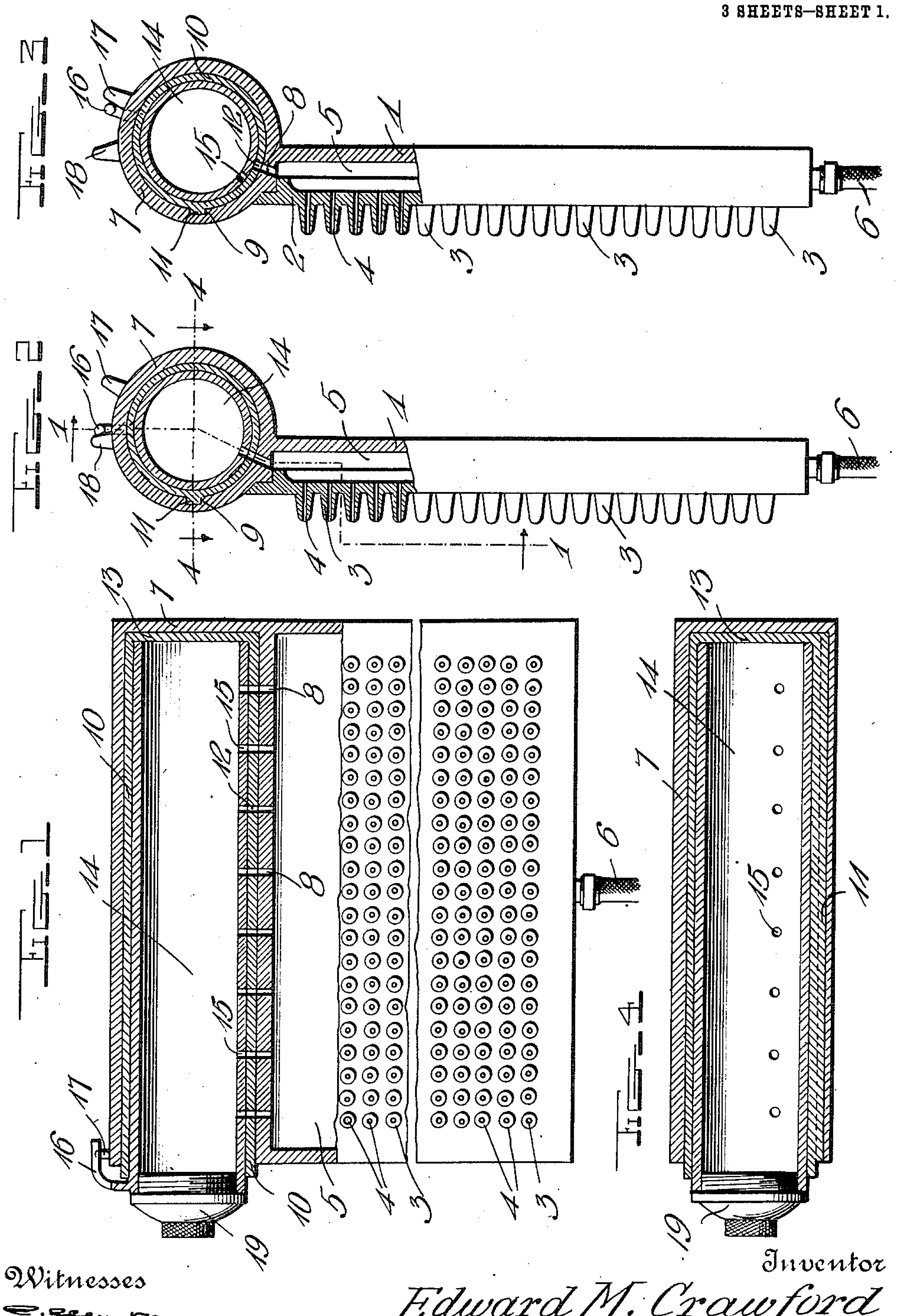
E. M. CRAWFORD.

SPRAY BRUSH.

APPLICATION FILED AUG. 3, 1910.

998,874. Patented July 25, 1911.

3 SHEETS—SHEET 1.



Witnesses

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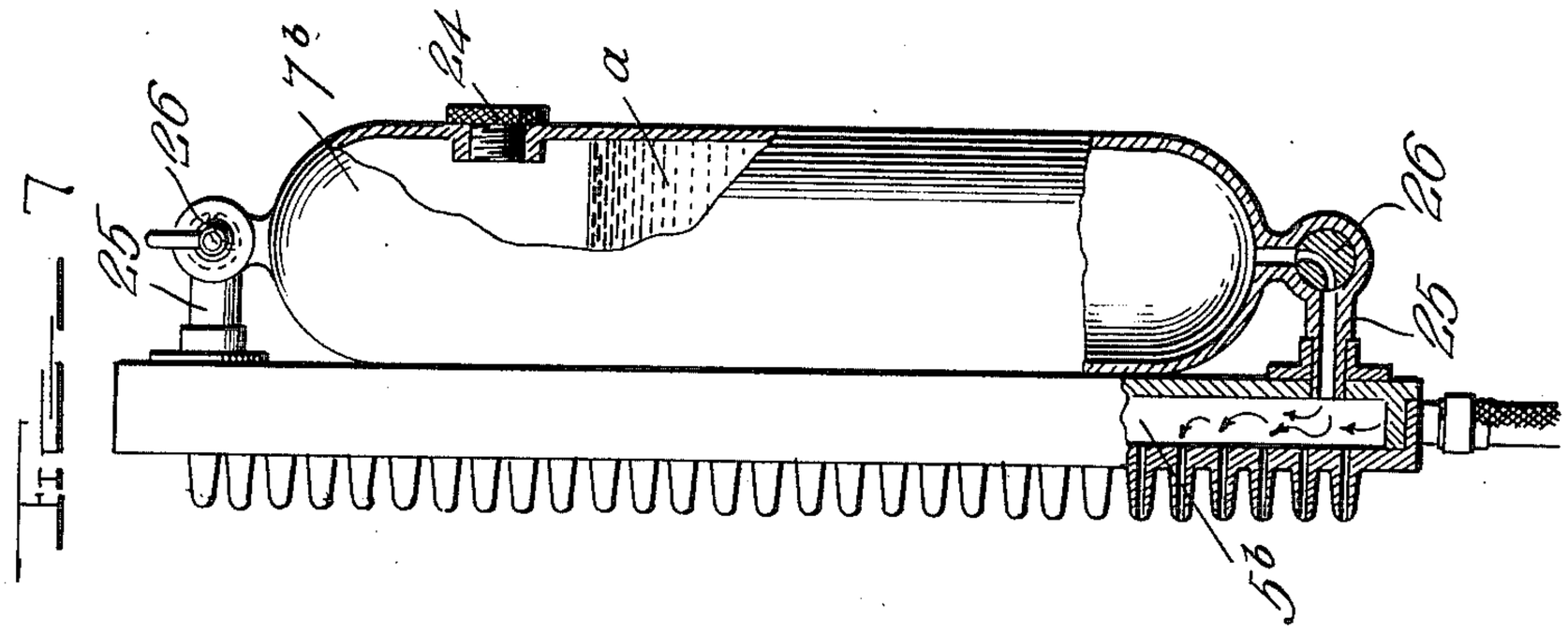

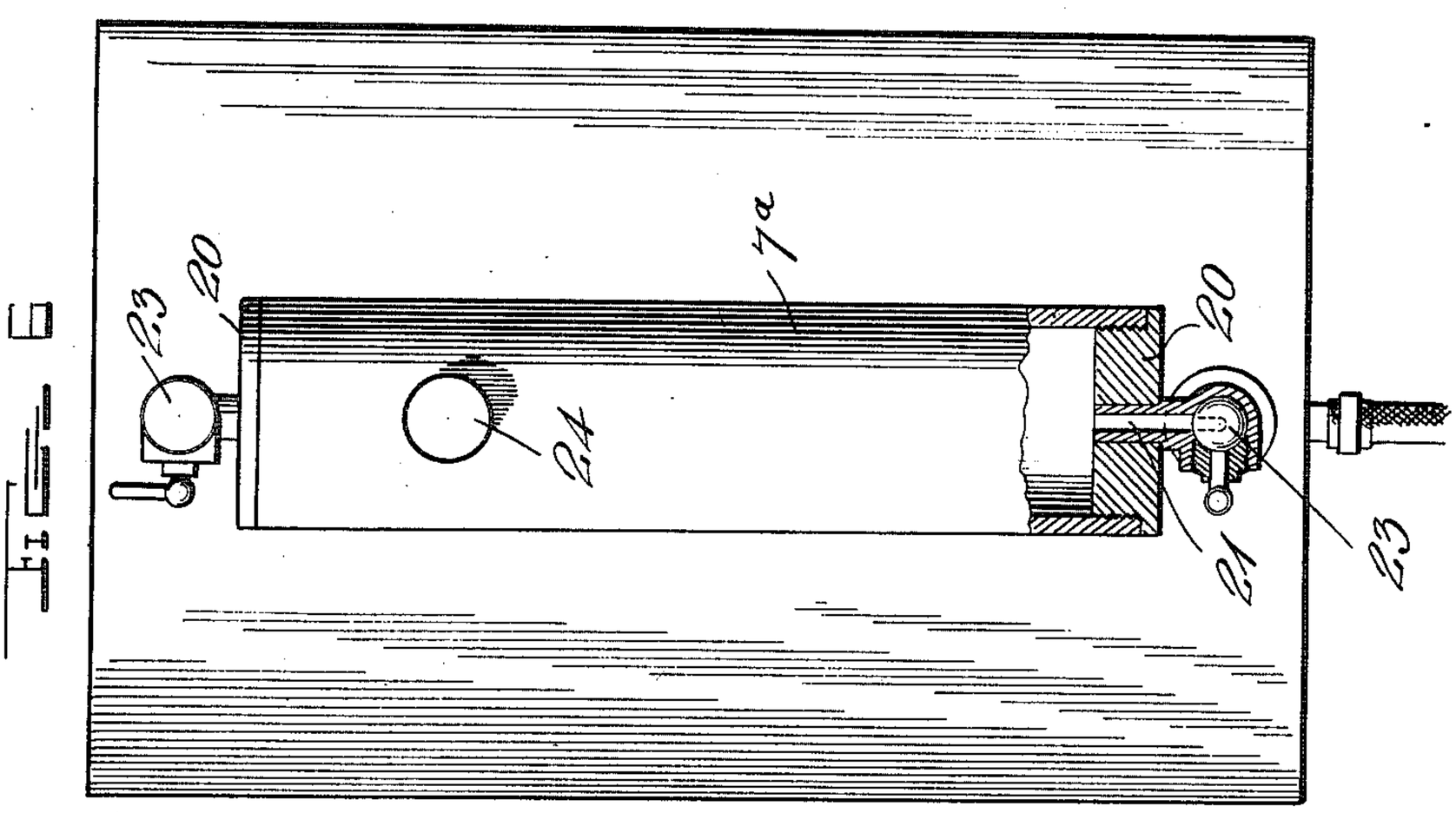

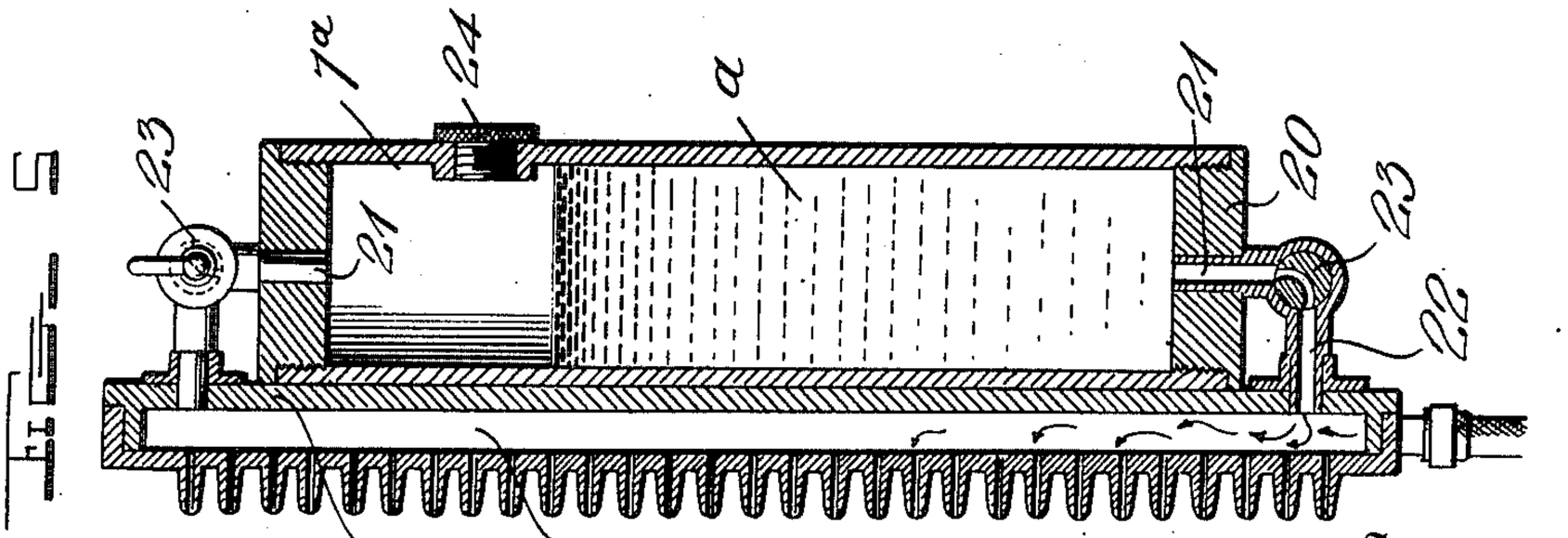

Witnesses

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3 SHEETS—SHEET 3.

Witnesses

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UNITED STATES PATENT OFFICE.

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SPRAY-BRUSH.

998,874. Specification of Letters Patent. Patented July 25, 1911.

Application filed August 3, 1910. Serial No. 575,332.

To all whom it may concern:

Be it known that I, EDWARD M. CRAWFORD, a citizen of the United States, residing at Corozal, Canal Zone, Panama, have invented certain new and useful Improvements in Spray-Brushes, of which the following is a specification.

This invention relates to spray brushes designed more particularly for bath purposes, and one of the principal objects of the invention is to provide simple and efficient means for permitting the insertion in the reservoir of the brush of a foreign substance to be mixed with the bath water as it is projected through the brush, said foreign substance consisting of detergent tablets, or liquid, medicated tablets or liquid, or bay rum, perfume of other compounds.

Another object of the invention is to provide a reservoir to be attached to a fountain spray brush, said reservoir being provided with means whereby a suitable detergent or medicated compound may be inserted to be mixed with the bath water and projected through the perforated nipples and applied to the skin of the bather, said reservoir being provided with means whereby the flow may be regulated and cut off at will.

Still another object of the invention is to provide a fountain spray brush comprising a series of soft rubber nipples having perforations which communicate with the reservoir in the interior of the brush, and means connected to the brush for permitting the insertion of detergent or medicated tablets or compound, or a suitable perfume.

These and other objects may be attained by means of the construction illustrated in the accompanying drawing, in which,

Figure 1 is a longitudinal section taken on the line 1—1 of Fig. 2. Fig. 2 is a view in partial section and partial elevation looking at the side of the brush with the communicating openings leading from the reservoir to the brush disposed in alinement. Fig. 3 is a similar view showing the communicating openings out of alinement for cutting off the flow from the reservoir to the brush. Fig. 4 is a longitudinal section of the reservoir taken on the line 4—4 of Fig. 2 looking in the direction indicated by the arrows. Fig. 5 is a longitudinal section of a slightly modified form of my invention. Fig. 6 is a plan view of the same. Fig. 7 is a side elevation and partial section of a still further modified form of my invention. Fig. 8 is a top plan view of a still further modified form of my invention. Fig. 9 is a detail sectional view taken on the line 9—9 of Fig. 8 looking in the direction indicated by the arrows. Fig. 10 is a plan view of a slightly modified form of my invention. Fig. 11 is a sectional view taken on the line 11—11 of Fig. 10 looking in the direction indicated by the arrows. Fig. 12 is a detail side elevation showing a modified form of closure for the opening to permit the insertion of the foreign substances to the reservoir in the brush body.

Referring to Figs. 1, 2, 3 and 4, of the drawing the numeral 1 designates the back of the brush body, which may be made of vulcanite or other suitable substances, and connected to the back is a brush face 2 having a series of soft rubber nipples 3 provided with perforations 4 which communicate with the interior water chamber 5 in the body of the brush. A hose connection 6 is made with one end of the brush body so that when the hose is connected to a water supply the spray will be projected through the hollow nipples 3.

The back 1 of the brush is provided with an integral cylindrical member 7 having a series of jet openings 8 therein, which communicate with the water chamber 5 in the back of the brush. Formed in the inner wall of the cylindrical portion 7 is a longitudinal groove 9. Fitted within the cylindrical portion 7 is a hollow member 10, said member having a rib 11 which fits within the groove 9. Jet openings 12 are formed in the member 10 and are disposed in alinement with the openings 8 in the cylindrical portion 7. The member 10 is preferably provided with a head 13, which fits against the inner end wall of the cylindrical member 7, as shown more clearly in Fig. 1. Mounted to slightly rotate within the member 10 is a container or reservoir 14 provided with a spray opening 15, which is brought into communication with the openings 12 and 8 to provide ducts for the contents of the reservoir 14 to communicate with the water chamber 5 in the brush body. In order that the jet openings 15 may be brought into alinement with the openings 12 and 8 a finger 16 on the container 14 may be manipulated to rotate the container 14 within the limits described by the stop projections 17, 18. A suitable screw

stopper 19 is provided for opening and closing the end of the container 14 for a purpose which will presently appear.

Referring to Figs. 5 and 6 it will be seen that the brush back 1^a, which is provided with a water chamber 5^a has connected to it, a suitable reservoir 7^a, said reservoir comprising a hollow tube having threaded ends, in which are fitted screw plugs 20, said screw plugs being fitted, each with nipples 21, preferably of the elbow type, one end of each of said nipples communicating through the passageway 22 with the water chamber 5^a in the body of the brush. Suitable valves or cocks 23 are provided for opening and closing communications between the reservoir 7^a and the water chamber 5^a. A suitable screw plug 24 is fitted in the top or side of the reservoir 7^a. As shown in Fig. 7 the reservoir or container 7^b is formed in a single piece with the connections 25, which lead from said reservoir 7^b to the water chamber 5^b in the back of the brush. Suitable valves or cocks 26 are provided and by this construction the plugs 20 in the ends of the reservoir are dispensed with.

Referring to Fig. 8 in which the reservoir is entirely dispensed with, a suitable closure 27 is hinged at 28 to the back 29 of the brush, said closure having beveled edges 30 to fit a corresponding opening in the back of the brush. The closure 27 is provided with a knob 31 for opening the same, and a suitable pivoted latch 32 for holding the closure in closed position.

As shown in Fig. 10 a plug or stopper 33 is fitted in an opening in the back 34, said stopper having a latch 35 pivoted upon the pin 36, said latch adapted to be swung under the keepers 37 for holding the plug or stopper in the opening. A knob 38 is formed on the outer end of the pin 36 for lifting the stopper 33 out.

As shown in Fig. 12 a hinged door 39 is provided in the side of the brush body 40, said door being provided with a catch 41 for holding the door closed. The manner of using my spray brush may be briefly referred to, as follows:

When it is desired to use a detergent tablet, a liquid soap, a medicated tablet or compound, or bay rum or perfume to be mixed with the bath water in the desired quantities, access may be gained to the container 14, shown in Figs. 1, 2, 3 and 4, by removing the plug 19.

In using the brush made in accordance with these views, the finger 16 is moved to bring the communicating openings in alinement, so that a portion of the contents of the container 14 may enter the water chamber 5 to be mixed with the bath water. The finger 16 may be operated to open and close communication between the container and the water chamber 5. As shown in Figs. 5, 6 and 7, the screw plug 24 may be removed for inserting a tablet or liquid *a*, and this liquid or compound may be projected into the water chamber in the brush by opening the valves 23 or 26, as will be obvious. When both of the valves 23 at opposite ends of the container are opened the compound in the container may gain access to the water chamber when the brush is held in desired position for use. The closure shown in the other figures of the drawing may be readily opened for inserting the tablets or compound.

I claim:

1. A fountain spray brush comprising a brush face provided with a series of hollow flexible nipples, a hollow brush back to which said nipples are connected, a water container connected to said brush back, and communicating with the water chamber in said brush back, a plug fitted to the water container for permitting the admission of a tablet or compound to said container, a hose connected to said brush back for supplying water to said water chamber, and means for regulating the flow of the contents of said container to said water chamber in the brush back.

2. A fountain spray brush comprising a brush face provided with a series of hollow flexible nipples, a hollow brush back to which said nipples are connected, a hollow cylindrical member connected to said brush back, a container mounted to rotate in said cylindrical member, said container and cylindrical member being provided with openings, means whereby said openings may be brought into alinement to communicate with said hollow brush back, means for admitting a medicated tablet or a detergent in said container, and a hose connected to said brush back and adapted to communicate with a water supply.

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

EDWARD M. CRAWFORD.

Witnesses:
CHARLES P. CONLAN,
ARTHUR E. START.