

Patented Mar. 30, 1920.

1,335,671.

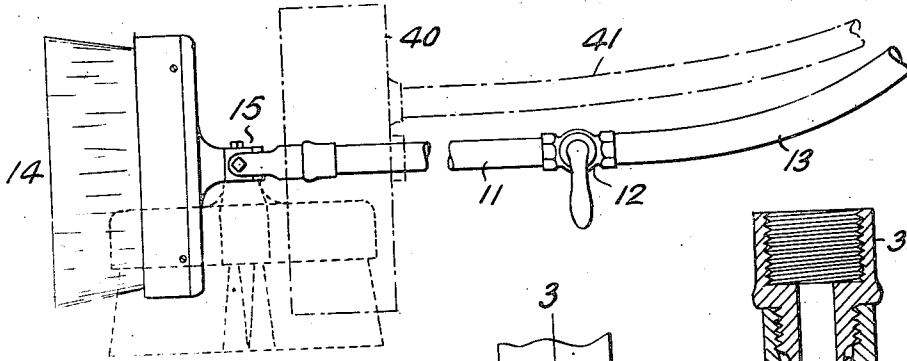


FIG. 1

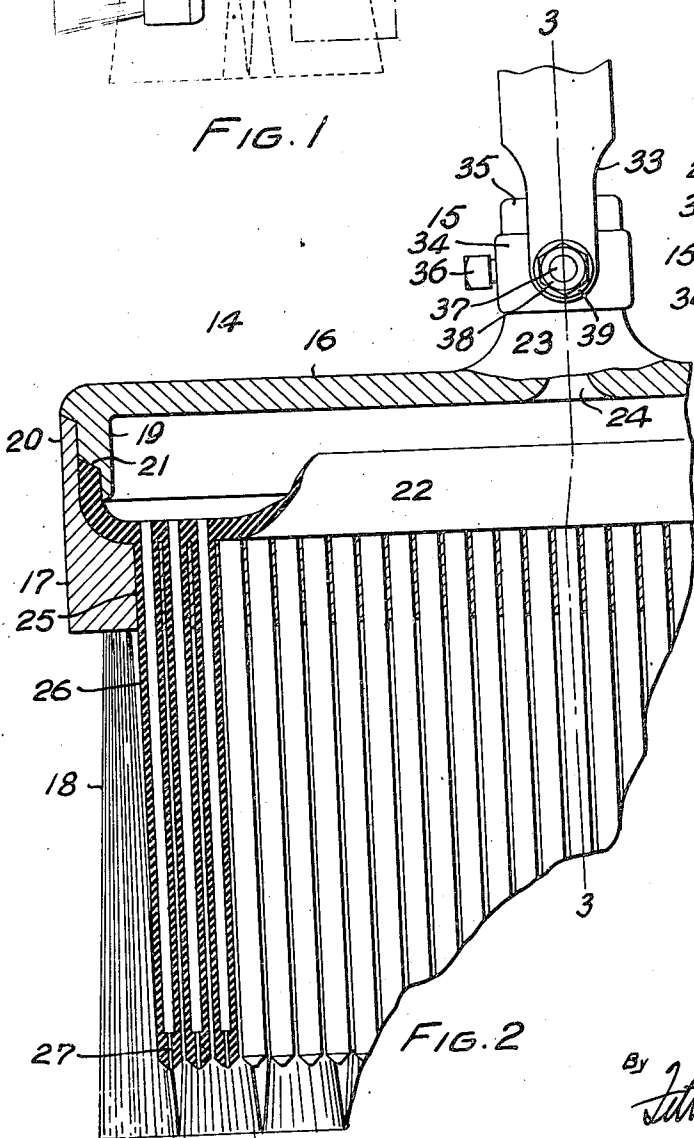


FIG. 2

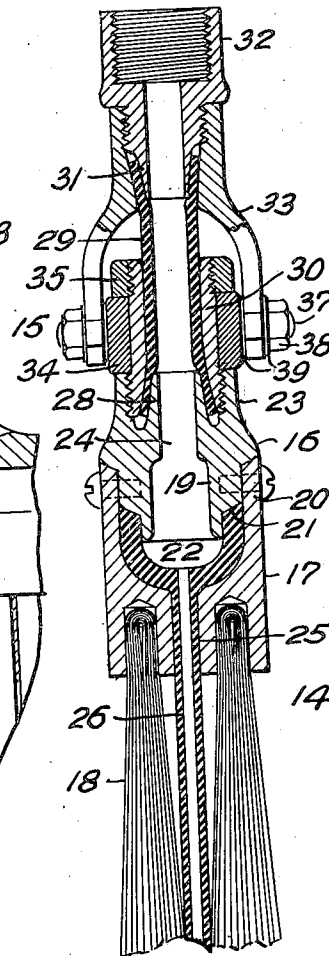


FIG. 3

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FOUNTAIN-BRUSH.

Specification of Letters Patent. Patented Mar. 30, 1920.

1,335,671.

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To all whom it may concern:

Be it known that I, WILLIAM J. DUNN, a subject of the King of Great Britain, and resident of the city of Montreal, in the Province of Quebec and Dominion of Canada, have invented certain new and useful Improvements in Fountain-Brushes, of which the following is a full, clear, and exact description.

This invention relates to improvements in fountain brushes suitable for a wide range of uses, and the object is to provide a brush in which the liquid is delivered at the ends of the bristles uniformly throughout the brush.

A further object is to provide a fountain brush having freely flexible liquid delivering means, which will move with the bristles and which will not work through to the surface of the brush, but will remain surrounded by bristles.

A still further object is to provide a fountain brush in which the head may be adjusted relatively to the handle, according to the use to which the brush is put.

Another object is to provide a brush carrying means for collecting the liquid discharged from the brush.

The device consists of a brush having a hollow back carrying two or more rows of bristles. A flexible trough-shaped member, preferably of rubber, is mounted in the back and is provided with a number of closely spaced outlet passages located between the rows of bristles. The brush back is connected by an adjustable joint to one end of a tubular handle, the opposite end of which is provided with a control valve and fluid supply pipe. A liquid receiver may be mounted on the handle below the brush and provided with a waste pipe to carry away the liquid.

In the drawings which illustrate the invention;—

Figure 1 is a plan view of the brush illustrating its adjustments and the application of a liquid receiver thereto.

Fig. 2 is a fragmentary section at the central longitudinal plane of the brush.

Fig. 3 is a sectional view on the line 3—3, Fig. 2.

Referring more particularly to the drawings, 11 designates the tubular handle of a brush 14 which is connected through a control valve 12 with a fluid supply pipe 13. The handle is connected to a brush 14 by

means of a joint 15, which permits the brush to be adjusted with respect to the handle through 180 degrees in one plane.

The brush itself comprises generally a back 16, a body 17 and bristles 18. The back is provided with a flange 19 which fits inside a similar flange 20 on the body. The back flange is shouldered, as at 21, to accommodate and clamp between itself and the body flange a trough 22 of rubber or other suitable material. The back is provided with a neck 23 having an inlet passage 24 adapted to discharge liquid into the trough. The bristles 18 are arranged in two or more rows suitably spaced apart. Between the bristles rows a series of apertures 25 are provided in the brush body, through which pass a series of small flexible tubes 26 connected with the trough 22. These tubes are preferably arranged as close to one another as possible and are each quite small and extend nearly to the extremities of the bristles, as clearly shown in Fig. 2. For convenience of manufacture and to insure a maximum of flexibility, these tubes 26 are preferably of comparatively large bore from the trough to within a short distance of their extremities, where the bore is very considerably reduced, as shown at 27, so that only a fine stream of liquid will escape from each tube. It is found desirable to make the tubes as small and as great in number as possible, in order to insure flexibility and uniform distribution of liquid, and also to insure that the tubes will remain concealed or buried in the bristles and will not come through to the surface of the brush in use.

The joint connecting the brush and handle may be of any suitable description and is not necessarily confined to the form shown. The neck 23 is internally threaded and provided with a central nipple 28, on which one end of a flexible tube 29 is secured by a short tube 30 and screwed into the neck, so as to compress the flexible tube between itself and the nipple 28. The opposite end of this flexible tube is secured on the nipple 31 of an internally threaded socket 32 by means of a yoke 33, which screws on to the socket and compresses the tube around the nipple. A collar 34 is revolvably mounted on the member 30 and is held against removal by a nut 35 and against revolution when so desired by a set screw 36. This collar is provided with trun-

nions 37, on which the yoke is mounted; the position of the yoke being regulated by means of nuts 38 on the trunnion and friction washers 39 between the nuts and yoke and between the yoke and collar.

When it is desired to catch the drip from the brush, as when washing overhead, a liquid receiver 40 may be mounted on the handle below the brush and may be provided with a flexible waste pipe 41 extending to any suitable receptacle.

As will be seen from the foregoing description and from the drawings, the device is extremely simple in construction with no parts liable to get out of order, and is, moreover, extremely durable. The large number of flexible tubes 26 deliver the liquid at the ends of the bristles and, owing to their small size, flex with the bristles in any direction. The trough carrying the liquid distributing tubes makes a tight joint with the brush back, so that liquid never enters the hollow brush body from which it could leak. If the liquid distributing tubes become broken, they may be easily and quickly replaced. The brush may be arranged either in alinement with the handle or at an

angle thereto, as shown in Fig. 1. The brush shown is of the flat type, but it is obvious that any other shape of brush may be used. When doing overhead work, such as washing ceilings, the collector 40 may be attached to the handle to catch drip from the brush, so that the liquid will flow down the waste pipe 41 instead of dripping on the user and on the floor.

It is obvious that the number and bore of the flexible distributing tubes 26 and also the shape and size of the brush may be altered according to the work for which it is designed without departing from the spirit of the invention as claimed.

Having thus described my invention, what I claim is;—

In a fountain brush, a hollow brush head having liquid outlets, a liquid conducting handle flexibly connected thereto, a revoluble member carried by the brush head, and a yoke carried by the handle and connected to said revoluble member for oscillatory movement.

Signed at Montreal the 14th day of February, 1918.

WILLIAM J. DUNN.