

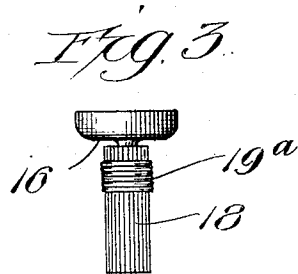
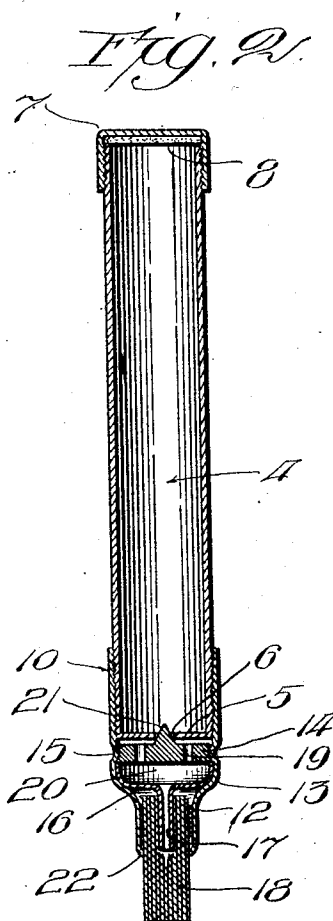
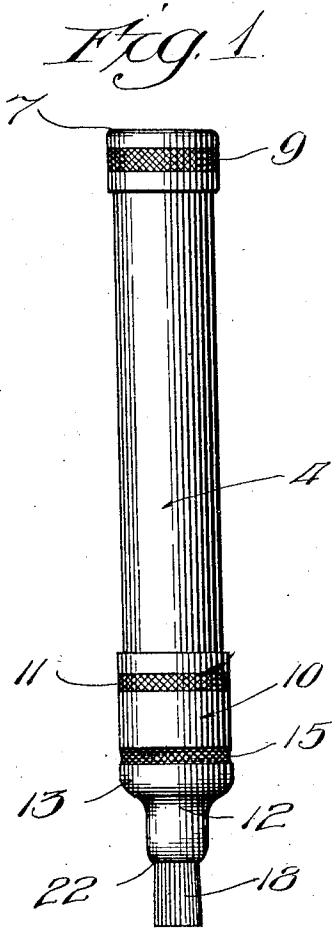
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FOUNTAIN BRUSH

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by [Signature]

UNITED STATES PATENT OFFICE.

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FOUNTAIN BRUSH.

Application filed June 25, 1925. Serial No. 39,411.

The present invention has to do with improvements in fountain brushes such as are used, for example, in cleaning the type of typewriters, adding machines, mimeographs, and for many other purposes. The brush herein disclosed is also especially intended for use as a marking brush, but not in connection with stencils, but it will be understood that I do not intend to limit myself to such services, except as I may do so in the claim.

The main object of the present invention is to provide an improved brush of such construction that the delivery of the liquid to its bristles may be very easily and perfectly controlled by a simple form of valve. Also in this connection I provide an extremely simple construction and one in which the valve itself is so arranged that when closed a very perfect sealing action is established.

In connection with the foregoing it is a further object to provide a needle valve construction wherein the valve and its seat may be easily manipulated with respect to each other by simply turning the cap of the reservoir.

Another feature of the invention relates to the provision of an improved construction of discharge orifice and bristle support which is very simple and at the same time effective for the purpose of ensuring delivery of the cleaning liquid into the body of the bristles.

Other objects and uses of the invention will appear from a detailed description of the same which consists in the features of construction and combinations of parts hereinafter described and claimed.

In the drawing:

Figure 1 shows a side view of a fountain brush embodying the features of the present invention;

Fig. 2 shows a longitudinal view corresponding to Fig. 1, the needle valve being practically closed; and

Fig. 3 shows a detail fragmentary elevation of the nipple and the bristles attached thereto.

The device of the present invention includes a reservoir wherein is contained the cleaning liquid. This liquid may, of course, be of any desired nature and composition; but ordinarily it will be of a very volatile nature, such as benzol or the like. The front

end of the reservoir 4 is closed by the front head 5 within which there is, however, a central orifice 6 through which the liquid is delivered. The back end of the reservoir is closed by a removable cap 7, preferably provided with a gasket 8 to ensure a liquid tight seal, and the outside of this cap is preferably knurled or otherwise roughened as shown at 9, for ease in manipulation. By this means the reservoir may be readily filled from the back end through an ample opening.

Threaded onto the front portion of the reservoir is a cap 10 which is also preferably provided with a knurled surface 11 for ease of manipulation. The front portion of this cap 10 is contracted in size as shown at 12, preferably on an easy curve 13. Within the central portion of the cap is placed a transverse block 14, the edge of which is preferably grooved, so that, after said block has been set into place within the cap 10, the latter may be rolled into the said groove as shown at 15 in Fig. 2 to effectively hold the block 14 in place.

Within the cap 10 at a position in advance of the block 14 just behind the inwardly curved portion 13 is placed a flanged element 16 which is so curved as to seat nicely against the curved inner surface at the cap member and be locked in place thereagainst by means of the partition 14. This will be clearly evident from Fig. 2. Reaching forwardly from the flanged member 16 is an elongated central nipple 17. The bristles 18 are secured to said nipple in any convenient manner as by means of a thread 19^a wrapped tightly around the bristles. Under the circumstances, the cleaning liquid will be effectively delivered into the very body of the bristles.

The partition 14 is provided with one or more openings 19 communicating with the chamber space 20 just behind the flange 16. The partition 14 has also on its front face a tapered needle 21 which reaches into the opening 6; and by tightening up the cap 10 this needle is forced firmly into the opening 6 so as to effectively close the same.

By unthreading the cap 10 the desired amount, the delivery of liquid past the needle valve may be regulated, said liquid being delivered through the partition opening 19, space 20 and nipple 17 to the bristles. Ordinarily the rate of delivery of the liquid is

very slight, and it is unnecessary to provide any special vent for allowing air to replace the liquid so withdrawn. In fact, the vapor generated by the liquid itself is ordinarily
5 sufficient to fill the space thus vacated.

The extreme front contracted end of the cap 10 is preferably turned in as shown at
22 so as to seat firmly against the bristles at a position just in advance of the front
10 end of the nipple 17 so as to give the bristles a more perfect and effective support.

While I have herein shown and described only a certain embodiment of the features of my present invention, still I do not intend
15 to limit myself to the same except as I may do so in the claim.

I claim:

As a new article of manufacture, a fountain brush for the purpose specified
20 comprising a tubular chamber for liquid having its forward end closed by an end partition and having its end portion externally

threaded adjacent to said partition to receive a bristle cap, there being a central perforation in said partition, a bristle cap threaded
25 onto said end portion and having its outer end contracted to establish a bristle neck, a pair of partitions extending across said cap and separated to establish a liquid chamber
30 between them, the outermost of said partitions having a nipple reaching into the bristles to feed liquid thereto, and the innermost partition being provided with a central
35 backwardly reaching cone shaped valve plug adapted to seat into and control the central perforation aforesaid, and also having a perforation establishing communication with
40 the chamber between the two partitions, whereby when said cap is threaded into the closed position said plug effectively seals the central perforation, and whereby said perforation is unsealed by unthreading the cap, substantially as described.

CHARLES A. DOWD.