Jan. 10, 1939. P. RISSMAN 2,143,712

FOUNTAIN BRUSH

Filed May 14, 1936 2 Sheets-Sheet 1

FIG. 1

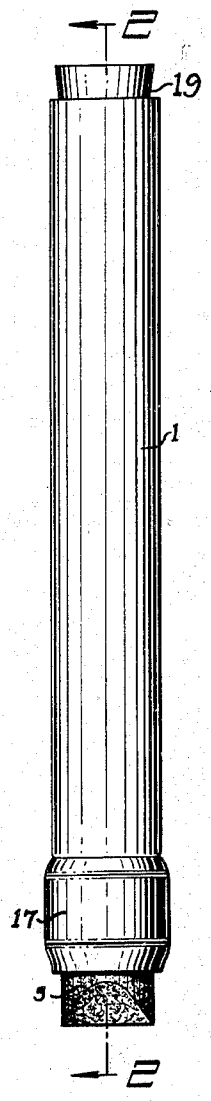


FIG. 2

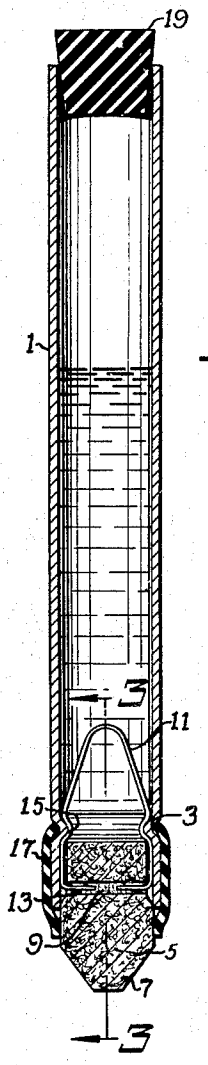
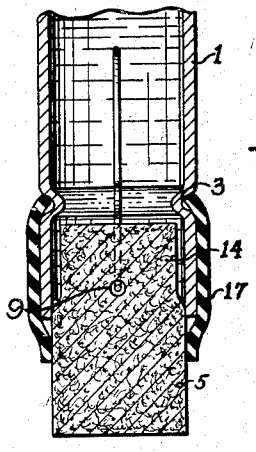


FIG. 3



INVENTOR.

PAUL RISSMAN.

BY Ralph S. Timmons

ATTORNEY.

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FOUNTAIN BRUSH

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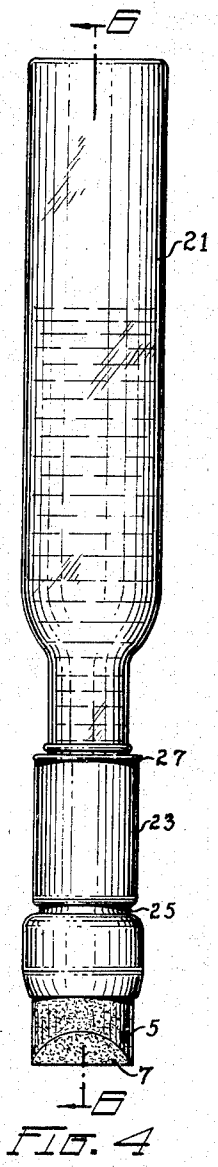


FIG. 4

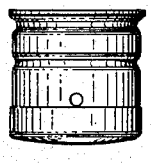


FIG. 5

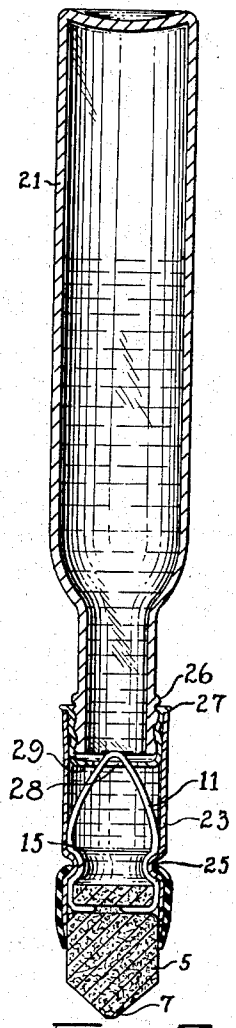


FIG. 6

INVENTOR.
PAUL RISSMAN.
BY Ralph S. Dunn
ATTORNEY.

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UNITED STATES PATENT OFFICE

2,143,712

FOUNTAIN BRUSH

Paul Rissman, Detroit, Mich., assignor to Walter Jaekel, Ben Jaekel, and Waldemar W. Wutzke, doing business as Jakel Company, Detroit, Mich., a co-partnership

Application May 14, 1936, Serial No. 79,807

8 Claims. (Cl. 15—140)

My invention pertains to writing brushes or daubers and more particularly to an automatic flowing fountain brush or dauber in which the writing fluid may be stored for automatically and continuously wetting the dauber.

It is an object of my invention to provide an automatic flow writing brush or dauber of the fountain type which is simple to construct and assemble, which is convenient to fill and refill, and to hold and write in various positions.

It is also an object of my invention to provide a simplified fountain brush or dauber comprising a tubular writing fluid reservoir having an aperture in one end suitable for receiving and retaining a fibrous dauber therein, and open at the opposite end for receiving writing fluid retained therein by a suitable closure member.

It is a further object of my invention to provide an automatic fountain brush or dauber comprising a writing fluid reservoir open at one end for receiving and discharging writing fluid and comprising means for receiving and securing a tubular sleeve thereon having an aperture in its remotely extended portion for securing a fibrous dauber therein, and having an annular baffle flange adjacent the fluid reservoir for storing a quantity of fluid adjacent the dauber, whereby the brush is constantly maintained in a dampened condition, ready to write, even when a small quantity of fluid remains in the reservoir, since it is apparent that the logical resting position of the reservoir is a horizontal one and that some of the fluid is always trapped adjacent the dauber when the brush is held in a position for writing.

Other objects of my invention will become evident from the following detailed description taken in conjunction with the accompanying drawings, where like reference characters refer to similar parts throughout, and in which:

Fig. 1 is a side elevational view of an automatic fountain writing brush or dauber constructed in accordance with my invention;

Fig. 2 is a longitudinal sectional view therethrough on section line 2—2 of Fig. 1;

Fig. 3 is an enlarged sectional view on line 3—3 of Fig. 2 to illustrate the construction of the dauber and its retaining means;

Fig. 4 is a side elevational view illustrating another embodiment of my automatic fountain brush;

Fig. 5 is a side elevational view of a fountain brush cap which is adapted to be slipped over the end of the dauber when the brush is not in use; and

Fig. 6 is a longitudinal sectional view through section lines 6—6 of Fig. 4.

Referring more particularly to Figs. 1, 2 and 3 of the drawings, my fountain brush or dauber comprises an elongated tubular reservoir member 1 of substantially cylindrical conformation which is open at opposite ends. The reservoir member may be of any size and shape to provide a convenient handle for using my fountain brush and it may be made of any suitable material, but is preferably made of glass for the convenience of the user in observing the quantity of ink or other colored writing fluid therein. Adjacent one end of the reservoir tube 1, I provide an inwardly depressed circumferential groove 3 which is spaced a short distance from the end of the tube.

For continuously conducting a suitable quantity of the writing fluid from the tube for writing, making show cards, daubing, retouching, and the like, I provide a dauber member 5 which is of circular cross-section having a suitable diameter for loosely fitting into the end of the reservoir tube adjacent the circumferential groove 3. The dauber 5 is of a suitable fibrous material, such as felt for example, although any other fibrous material may be utilized of suitable texture to provide the desired quantity of writing fluid for the purpose desired. The fibrous dauber is of substantially cylindrical conformation, save that the inner end may be made of lesser diameter as shown in Fig. 3, and where that is not done, the retaining member, hereafter to be described, squeezes opposite sides as hereafter described.

Portions of the dauber are cut away from the peripheral edge of the outwardly projecting end at opposite sides thereof, thus providing a tapered wedge-shaped point 7, as shown in Figs. 1 and 2. The wedge-shaped point 7 of the dauber is a convenient conformation for writing, making show cards and the like, because of the convenience with which it may be utilized for making strokes or lines of varying widths.

For securing the dauber 5 in the end of the reservoir tube 1, I provide a resilient retainer 11 of substantially inverted U conformation, the ends of the retainer comprising inturned claws 13 which project into the dauber, forming apertures 9 in opposite sides of the dauber. The side legs of the retainer 11 are provided with inwardly curved seat portions 15 at an intermediate portion thereof for fitting over the indented groove 3 of the tube which seats therein when the dauber and its retainer are positioned into the end of the tube. This retainer gives to the dauber a substantially floating, pivotal mounting, allowing free flow of

fluid around a portion of the dauber at all times.

To make a snug hermetical seal around the end of the tube and between the dauber and the side walls of the tube, I provide a rubber sleeve 17 of such a size that it can be pulled and stretched snugly over the end of the tube and the dauber, gripping the indented groove 3 as well as the dauber 5.

For expediting the operation of the fibrous dauber 5 in conducting the writing fluid to the point thereof, the inner portion of the dauber, designated at 14, may be made with a smaller diameter less than the inner diameter of the inner walls of the reservoir tube 1, as shown more clearly in Fig. 3, or the side portions of the retainer 11 may be relied upon to squeeze the opposite sides of the inner portion of the dauber to permit fluid to flow down said sides and into the apertures 9.

The opening at the opposite end of the tubular reservoir member is provided merely for convenience in filling and refilling and is closed by a stopper 19 which may be made of cork, rubber or any suitable material for retaining the writing fluid. My fountain brush is readily assembled by applying the retainer 11 to the felt dauber 5 by springing the claws 13 of the retainer into the ends of the apertures 13 in the dauber. The dauber and the retainer are then pushed into the end of the reservoir tube 1 until the seat portions 15 of the retainer snap securely over the inwardly directed groove or ridge 3 in the side walls of the reservoir tube. The resilient rubber sleeve 17 is then stretched and pulled tightly over the lower end of the tube where it provides a hermetical seal around the tube and dauber. By removing the stopper 19 from the other end of the tube, a suitable writing or retouching fluid, paint or other colored fluid is poured into the reservoir member where it is retained by the stopper. This filling operation could otherwise be accomplished in a bottle form of tube by merely filling the bottle prior to inserting the dauber, etc.

The fountain brush is then prepared for use and it is utilized very conveniently for writing, making show cards, daubing, retouching and the like. The fibrous dauber 5 is selected of suitable texture for the writing fluid and the purpose for which it is used.

Referring more particularly to Figs. 4 through 6, in accordance with another embodiment of my fountain writing brush, I provide a writing fluid reservoir which comprises substantially an elongated bottle 21 of a small diameter suitable to constitute a convenient handle for using the appliance. In this embodiment of my invention, the fluid applying dauber 5 and its resilient retainer 11 are firmly secured in the outer end of a tubular sleeve 23, which may be of metal or other suitable material, and is provided with an inwardly pressed groove 25 which is adapted to engage and secure the seat portions 15 of the retainer. In the opposite end of the dauber supporting sleeve 23, I insert a screw-threaded cap 27 which is firmly secured in the sleeve in any suitable manner as by pressing it therein under high pressure. As will be readily understood, further attachment may be provided therebetween as by soldering, or in any other suitable manner. The neck of the reservoir bottle 21 is provided with an external thread 26 of suitable conformation for threadably receiving the cap 27 whereby the dauber supporting sleeve 23 and dauber 5 may be firmly secured thereon.

In order to freely pass the writing fluid from the reservoir 21 into the dauber sleeve 23, a portion of the closed end of the cap 27 is pressed out to provide an aperture 28 of substantially smaller diameter than the sleeve 23 whereby an annular flange 29 is provided adjacent the mouth of the reservoir bottle 1. As shown, the aperture 29 may also serve to receive the inwardly extending end of the retainer 11. The flange 29 also serves as a baffle for the storing at all times of a larger quantity of writing fluid in contact with the dauber than would otherwise be the case, especially when the reservoir is nearly empty. It should be realized that it is of great importance to have the brush kept moist at all times so that one does not have to wait till the dauber becomes saturated before being able to write with it.

In operation, the reservoir 21 is filled with writing fluid and the sleeve 23 carrying the dauber 5 is screwed thereon. My automatic writing brush is then prepared for use and may be conveniently used for writing, daubing, marking, retouching and the like. When the supply of fluid in the reservoir 21 is substantially exhausted so that only a small quantity remains, the annular flange 29 in the dauber sleeve 23 comprises baffle means for retaining a quantity of the fluid adjacent the dauber 5 through which it is drawn by capillary attraction to the point 7. By this arrangement my automatic writing brush may be successfully utilized for writing with the brush in a substantially horizontal position until practically all the writing fluid is used up from the reservoir chamber 21.

When my fountain brush is not in use, the dauber is preferably protected by placing thereon a vented cap such as that shown in Fig. 5. The cap is of a suitable size to fit down snugly over the dauber 5 and it prevents excessive evaporation therefrom and protects the dauber from receiving a deposit of dust whereby the fountain brush is ready for prompt operation.

It will be seen that I have provided an automatic fountain brush which is simple to construct and assemble and which is convenient to fill and use in various positions.

Although I have shown and described certain specific embodiments of my invention, I am fully aware that many modifications thereof are possible, my invention therefore is not to be restricted, except insofar as is necessitated by the prior art and the scope of the appended claims.

I claim:

1. A fountain writing brush having in combination a reservoir member of suitable conformation to provide a convenient handle, an aperture for conducting fluid from said member, a fluid-absorbing dauber loosely mounted in and closing said aperture against free passage of air, means for retaining said dauber in said aperture and a rubber sleeve adapted to be stretched resiliently over the dauber and the adjacent end of said reservoir member for providing a hermetical seal therebetween.

2. A fountain writing brush having in combination a reservoir member of substantially tubular conformation suitable for providing a convenient handle, an aperture at one end of said member for conducting fluid therethrough, a fibrous fluid-absorbing dauber of a suitable conformation for loosely fitting into the apertured end of said reservoir and for preventing

free passage of air therethrough, means for trapping a portion of the fluid adjacent the aperture and in communication with the dauber when the brush is substantially horizontal, means for retaining the loosely mounted dauber in the apertured end of said reservoir, and means preventing the direct flow of fluid around the dauber beyond the apertured end of said reservoir.

3. A fountain writing brush having in combination a reservoir member of suitable conformation to provide a convenient handle, an aperture for conducting fluid from said member, a fluid-absorbing dauber loosely inserted in and closing said aperture against free passage of air, a depression in the side walls of said member adjacent said aperture adapted to trap a portion of the fluid in contact with the dauber when the brush is turned to a substantially horizontal position, and a retainer associated with said dauber for engaging said depression on the inner surface of the reservoir member for securing the dauber therein.

4. A fountain writing brush having in combination a tubular reservoir member of a suitable conformation for providing a convenient handle, a depression in the side walls of said member in adjacent spaced relation from one end thereof, a fibrous dauber adapted to fit loosely into the end of said tubular member, a retainer associated therewith and comprising seat portions suitable for engaging said depression for holding the loosely mounted dauber in the end of said member and a rubber sleeve adapted to be stretched resiliently over the dauber and the adjacent end of said tubular reservoir member for providing a hermetical seal therebetween.

5. In a fountain writing brush the combination of a bottle of transparent material having a conformation suitable to provide a convenient handle, a tubular sleeve adapted to fit the neck of said bottle for conducting fluid from said bottle, baffle means in said sleeve adjacent the neck of said bottle adapted to prevent a portion of said fluid from returning to said bottle when the same is turned to a horizontal position, a fibrous dauber member of a conformation suitable for loosely fitting into the open and of said sleeve and spaced from said baffle means, and means for securing said dauber therein.

6. In a fountain writing brush the combination of a bottle of transparent material having a conformation suitable to provide a convenient handle, a tubular sleeve adapted to fit the neck of said bottle, annular baffle means in said sleeve adjacent the neck of said bottle, a fibrous dauber member of a conformation suitable for loosely fitting into the open end of said sleeve, a circumferential groove depressed in the side walls of said sleeve adjacent the open end thereof, a resilient retainer associated with said dauber for engaging said groove to secure the dauber in the end of the sleeve and a rubber sleeve stretched tightly around the sides of said dauber and the adjacent end of said sleeve for providing a hermetical seal therebetween.

7. In a fountain writing brush the combination of a glass bottle of a size and shape suitable for providing a convenient handle, threads provided externally upon the neck of said bottle, a tubular sleeve adapted to fit over the neck of said bottle, a threaded cap member secured snugly in the end of said sleeve for threadably engaging the threads upon the neck of the bottle for securing the sleeve thereon, an aperture in the closed end of said cap member of a diameter substantially smaller than the diameter of the sleeve whereby the partially closed end of the cap provides an annular baffle flange adjacent the neck of the bottle, and a dauber member adapted to fit loosely in the open end of said sleeve.

8. In a fountain writing brush the combination of a glass bottle of a size and shape suitable for providing a convenient handle, threads provided externally upon the neck of said bottle, a tubular sleeve adapted to fit over the neck of said bottle, a treaded cap member secured snugly in the end of said sleeve for threadably engaging the threads upon the neck of the bottle for securing the sleeve thereon, an aperture in the closed end of said cap member of a diameter substantially smaller than the diameter of the sleeve whereby the partially closed end of the cap provides a baffle flange adjacent the neck of the bottle, a fibrous dauber member fitting loosely into the extended end of said sleeve, a depressed portion in the side walls of said sleeve in spaced relation from the extended end thereof, and a resilient retainer associated with said dauber comprising portions for pivotally and floatingly engaging said dauber portion for holding the dauber in the end of said sleeve.

PAUL RISSMAN.