W. J. WRIGHT.

FOUNTAIN BRUSH.

APPLICATION FILED FEB. 28, 1920.

1,348,681.

Patented Aug. 3, 1920.

Fig. 1.

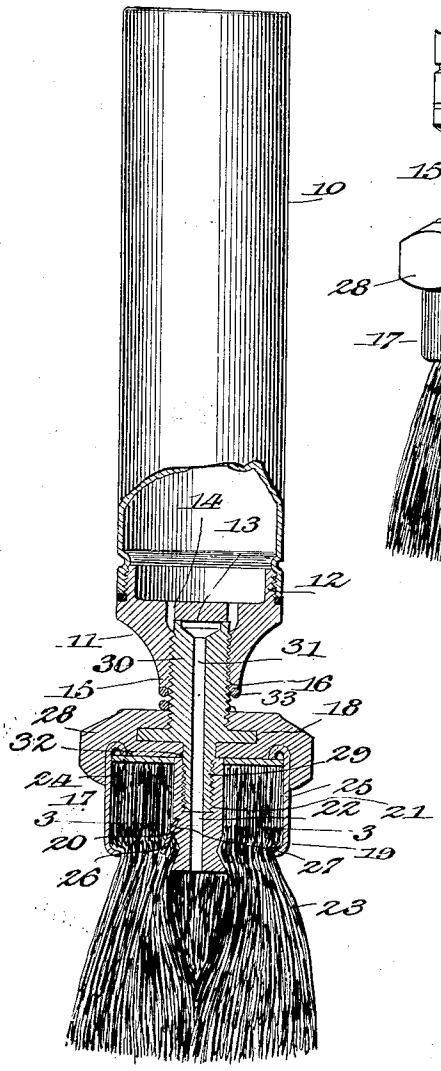


Fig. 2.

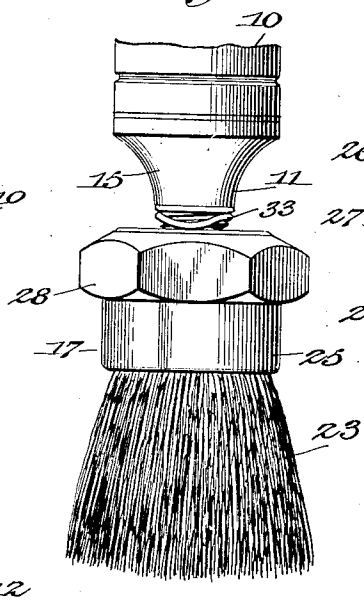


Fig. 3.

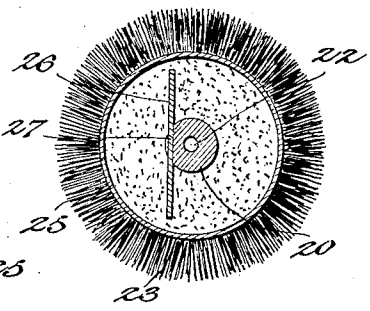


Fig. 5.

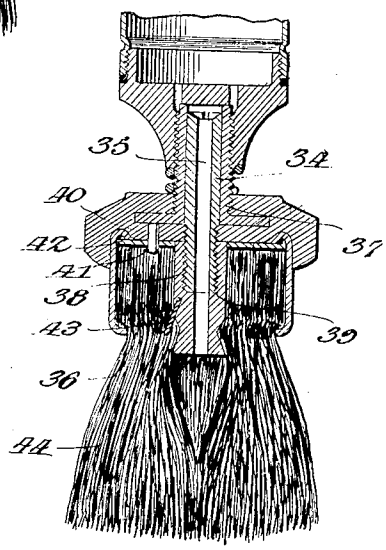


Fig. 4.



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WITNESS:

UNITED STATES PATENT OFFICE.

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FOUNTAIN-BRUSH.

1,348,681. Specification of Letters Patent. Patented Aug. 3, 1920.

Application filed February 28, 1920. Serial No. 362,083.

To all whom it may concern:

Be it known that I, WILFRED J. WRIGHT, a citizen of the United States, residing at Summit, in the county of Union and State of New Jersey, have invented new and useful Improvements in Fountain-Brushes, of which the following is a specification.

This invention relates to fountain brushes.

The chief object of the present invention is to improve the fountain brush disclosed in Letters Patent No. 767,194 granted to me in jointure; to produce a device of this character which is thoroughly efficient and practical, and which is particularly suitable for marking cases and the like with a stencil.

In the drawing accompanying the following specification:

Figure 1 is a sectional election of the brush.

Fig. 2 is a side elevation of the brush structure attached to the handle and illustrating more clearly the application of the convolute spring which forms a part of the means for regulating the flow of liquid such as ink or paint.

Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 1.

Fig. 4 is a perspective view of the spring forming a part of the means for controlling the flow of ink or paint as the case may be.

Fig. 5 is a modified form of the brush structure the same being shown in the vertical section.

Generally the stated device consists of a liquid containing handle; a brush structure including bristles, a passage which leads from the bristles to the interior of the handle; and means for regulating or wholly shutting off the flow of the liquid. A convolute spring is also provided and is used in a manner to render the brush non-leakable and serves as well to maintain the desired flow of the liquid as regulated for either a full or restricted flow. This latter feature being highly desirable in a device of this character when used in the conjunction with a stencil so as to avoid blotting or smearing instead of the obtainment of clear-cut lettering.

Referring now to the drawing it will be seen that the device consists of a hollow handle 10 for the reception of a liquid such as ink or paint. The handle 10 is provided with a cap member 11, the said cap member being provided with the threaded extension 12 adapted for threading engagement with the internal threads at the open end of the handle 10; a fiber washer is used to leak-proof the connection. The member 11 is provided with a transverse wall 13 and this wall is provided with an annular series of perforations 14. The member 11 is extended as at 15 so as to allow for the provision of an internally threaded bore 16 therein.

A brush structure 17 is adapted to be attached to the handle through the intervention of the cap member 11 and this brush structure 17 comprises an attaching member 18 and a brush element 19 comprises a core 20 which is provided with a threaded bore 21, and a passage 22; bristles 23; disk 24; annular member 25 and plate 26 which is arranged in a kerf 27 in the core 20. The bristles 23 are arranged about the core 22 and have their upper ends glued together and these upper ends are confined by the annular member 25 and the disk 24. The plate 26 serves to prevent the loosening up of the core 20, in other words, it prevents the destruction of the attachment of the core 20 to the bristles 23. Experience—in the use of a device of this kind, requiring separable parts, and especially, that the brush element be capable of separation from the remaining parts of the device—teaches that in attaching it considerable twisting strain or force is brought to bear on the brush element which results in the destruction of the attachment of the core with the bristles, rendering the brush element incapable of attachment to the other parts.

The attaching member 18 embodies a cap piece 28, a threaded nipple 29, a threaded nipple 30 and a passage 31. The nipple 29 is adapted to be received by the threaded bore 21 in the core 20 and in screwing the nipple fully into the bore 21 the cap 28 is brought to closely fit the upper end of the annular member 25, the cap 28 being provided with a bore 32 to accommodate the upper end of said annular member. The nipple 30 is adapted to be received in the bore 16 of the cap member 11. The upper end of the nipple 30 is of an exterior diameter slightly smaller than a circle described substantially within the annular series of perforations 14 in the wall 13, which feature is desirable in cutting off the flow of liquid, the upper end of the bore 31 is enlarged to permit the ready flow of the

liquid into the said bore 16. A convolute spring 33 encircles the nipple 30 and is interposed between the top face of the cap 28 and the lower end of the extension 15. The end of the extension 15 is beveled or otherwise recessed to confine a portion of the upper convolution of the spring 33. This spring 33 has a normal tendency to exert pressure to compensate for any inequalities in the threads of the nipple 30 and the threads of the bore 16 to thus prevent leakage of the liquid between the threads of these parts and serves as well, to maintain any adjustment of the upper end of the nipple 30 with respect to the wall 13 in regulating the flow of liquid. It has been found that constant use of the device affects the regulation of the flow of liquid because the threads of the nipple and the bore become worn and consequently the liquid will be permitted to leak out between the threads but this of course as stated is prevented by the spring 33.

In the modified form of the invention shown in Fig. 5 of the drawing use is made of the threaded element 34 which is provided with a central passage 35. This element 34 serves for the attachment of the brush element to the attaching member 37. The element 34 is adapted to be received in a bore embodied by the member 37, the lower threaded end of the screw 34 threads into the threaded bore 38 in the core 39 of the brush element 36. The construction permits the use of the pin 40 which is received in an opening 41 in the circular disk 42 of the brush element 36. The pin 40 augments the plate 43 in preventing the relative movement between the bristles 44 and the core 39.

What is claimed as new is:—

A fountain brush comprising a hollow handle which has removably secured thereto a cap member, said member having a perforated wall and a threaded bore; a brush structure including an attaching member having a threaded nipple adapted for threading engagement with said bore and a passage, a brush element embodying a core, said core having a threaded bore and a passage therein, a second nipple on said attaching member adapted for threading engagement with said bore in the core of said brush element, the end of the first mentioned nipple and the wall of said cap member coacting to control and regulate the flow of liquid.

In testimony whereof I have affixed my signature.

WILFRED J. WRIGHT.