Dec. 19, 1933. G. S. MARTIN ET AL 1,940,002

FOUNTAIN BRUSH

Filed April 3, 1933

Fig. 1.

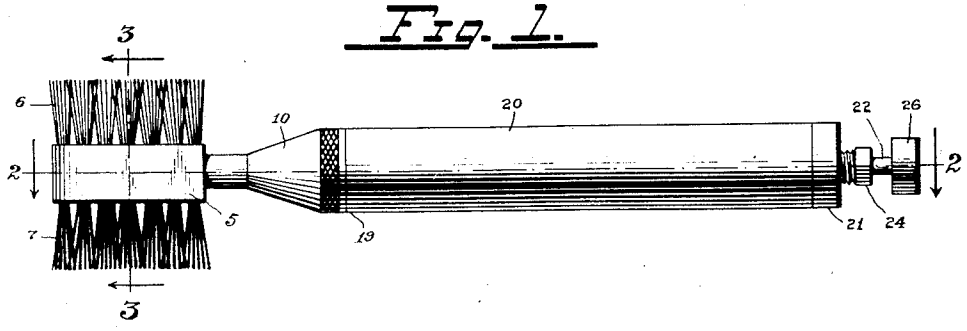


Fig. 2.

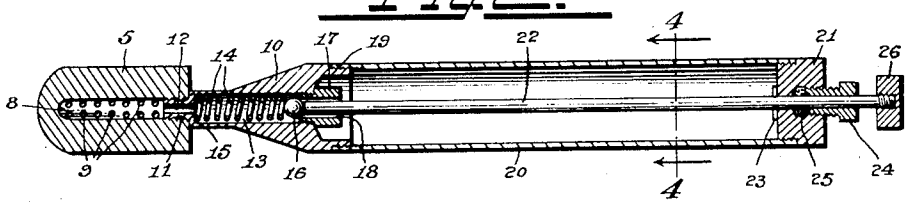


Fig. 3.

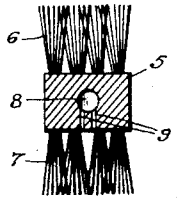
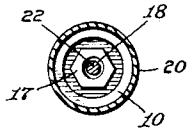


Fig. 4.



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FOUNTAIN BRUSH

George S. Martin and Donald R. McGraw,
Seattle, Wash.

Application April 3, 1933. Serial No. 664,051

1 Claim. (Cl. 15—138)

Our invention relates to fountain brushes and is an improvement over the device embodied in our prior patent entitled "Brush", number 1,099,262, issued June 9, 1914, to George S. Martin and Max Berger. The principal objects of our present invention are to improve and simplify the brush of our prior patent by substituting a ball valve for the stem valve of the prior patent, eliminating one of the springs, making the device direct acting, more durable and more economical to manufacture, and also to substitute a packing gland for the air entry valve of the prior patent.

With the above and other objects in view which will appear as the description proceeds, the invention consists of the novel construction, adaptation, combination and arrangement of parts hereinafter described and claimed. These objects are accomplished by devices illustrated in the accompanying drawing; wherein: Figure 1 is a view in side elevation of the brush; Fig. 2 is a view in longitudinal section taken substantially on a broken line 2—2 of Fig. 1; Fig. 3 is a view in transverse section taken through the brush head on a broken line 3—3 of Fig. 1; and Fig. 4 is a view in transverse section through the brush handle taken on a broken line 4—4 of Fig. 2.

Referring now in detail to the drawing throughout which like reference numerals indicate like parts, the numeral 5 designates a brush head having bristles 6 and 7 respectively fixed into its opposite sides. A central passage 8 extends longitudinally into the brush head from its rear end and terminates slightly short of its forward end. A series of minute orifices 9 extend from one side of said passage through the brush head and out through the side wherein the bristles 7 are fixed.

A tubular cap 10 has a nipple 11 formed on its reduced forward end which nipple is threaded into the outer end of the passage 8. A small passage 12 extends through said nipple and forms a communication between the passage 8 and an enlarged chamber 13 extending from said small passage through the rear end of the cap 10. A coiled spring 14 is housed within said chamber and its forward end seats against an annular shoulder 15 formed at the junction of the small passage and the enlarged chamber. The rear end of said spring bears against a ball 16 and normally holds the ball against the end of a nut 17 that is threaded into the rear outlet end of the chamber 13 thus closing a passage 18 through said nut.

The rear end of the tubular cap 10 is threadedly connected at 19 to the forward end of a hollow cylindrical handle 20 which handle forms a reservoir or container for the liquid cleaning agent as more fully hereinafter set forth. The rear end of the cylindrical handle is closed by a plug 21 which is shrunk, threaded or otherwise fixed thereinto. A push rod 22 extends slidably through said plug and its forward end extends into the passage 18 of the nut 17 and into juxtaposition with the ball 16. A cross pin 23 extends through the push rod and normally engages against the inner forward end of the plug 21 thus retaining the push rod in position and prevent same from being pushed rearwardly through said plug. The rear end portion of the push rod 22 extends slidably through a packing nut 24 which is threaded into the rear end of the plug 21 against a packing gland 25 whereby leakage of the liquid from the hollow handle 20 is prevented at this point by setting up on the packing nut as is understood. A knob 26 is threaded onto the rear end of the push rod.

From the foregoing description it will be apparent that our device may be readily assembled and taken apart. The brush head 5 may be unscrewed from the cap 10, and the cylindrical handle 20 is unscrewed from said cap at 19 for filling with a liquid cleaning agent. The passage 18 through the nut 17 is larger in cross section than is the push rod 22 so that the liquid may pass into said nut against the ball 16 where it is normally stopped by the spring 14 in retaining said ball against the nut and thus closing the passage 18. Said ball is moved away from its seat against the nut by the push rod 22 upon pressing inwardly upon the knob 26. The cleansing fluid then passes from the reservoir in the cylindrical handle through the nut 17, spring chamber 13 and small passage 12 into the brush passage 8 and then through the small orifices 9 and saturates the brush bristles 7. These saturated bristles are first used for removing accumulated dirt and other foreign matter and the dry bristles 6 may then be used as will be understood. Although the device is particularly suitable for cleaning type, it may be used for cleansing fabrics and all materials and objects to which it may be adapted.

Having thus described our invention, what we claim and desire to secure by Letters Patent of the United States is:—

In a fountain brush comprising a head carrying bristles and having a passage extending into the head with orifices leading from the passage to the bristles, a hollow handle, a tubular cap

having a nipple threadedly connected to the passage in the brush head and having its other end threadedly connected to one end of the hollow handle, a plug closing the other end of the handle, a push rod extending slidably through the plug into the tubular cap, a valve mounted within the tubular cap and consisting of a nut threaded into the tubular cap and having a conduit therethrough which conduit is larger than the push rod, a coiled spring within the cap, a ball normally held against said nut by the spring and closing its conduit, and the push rod extending into the nut conduit and into juxtaposition with the ball whereby the ball is unseated from the nut upon inward movement of the push rod.

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