No. 802,627. PATENTED OCT. 24, 1905.

W. L. CHRYSLER & J. W. KAYS.

FOUNTAIN BRUSH.

APPLICATION FILED SEPT. 23, 1904.

Fig. 1.

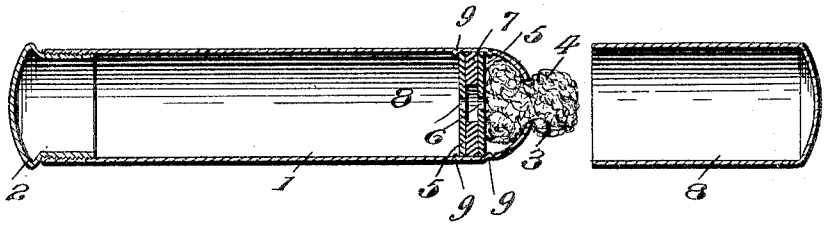


Fig. 2.

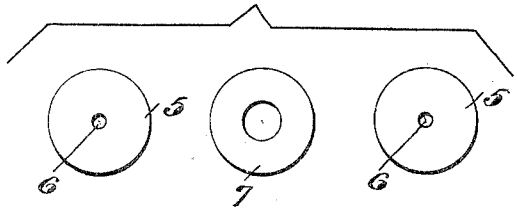
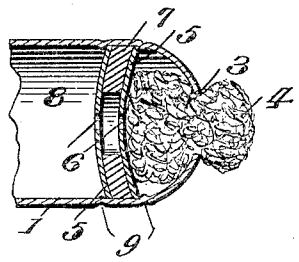


Fig. 3.



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FOUNTAIN-BRUSH.

No. 802,627. Specification of Letters Patent. Patented Oct. 24, 1905.

Application filed September 23, 1904. Serial No. 225,705

To all whom it may concern:

Be it known that we, WILLIAM L. CHRYSLER and JOSEPH W. KAYS, citizens of the United States, residing at Eugene, in the county of Lane and State of Oregon, have invented certain new and useful Improvements in Fountain-Brushes, of which the following is a specification.

This invention comprises a fountain-brush especially designed for use in blackening shoes or for like purposes, though the principle of the invention as regards the construction and operation thereof is applicable in various ways wherein it is desirable to utilize a brush of this class.

The invention embodies, essentially, a reservoir and brush and means for regulating the flow of the liquid in the reservoir to the brush, the latter constituting the essential feature of the invention.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

Figure 1 is a sectional view of the device, embodying the essential features of the invention. Fig. 2 is a view showing the several washers which are carried in the reservoir spaced apart. Fig. 3 is a sectional view of the end portion of the reservoir having the brush, the washers being slightly compressed as shown.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In carrying out the invention the reservoir 1, which is provided, consists, primarily, of a tubular body of suitable form. The body is closed at one end by means of a removable plug 2, which plug is preferably threaded into the body of the reservoir, the liquid contents of the reservoir being introduced through the end closed by the plug 2 aforesaid. At the opposite end of the reservoir 1 the same is provided with a contracted opening 3, said opening receiving a brush 4 of absorbent material, such as sponge or the like. The liquid contents of the reservoir 1 is fed to the brush 4 in the actual use of the invention in suitable quantity, so that as the said brush is passed over a surface a requisite amount of liquid will be distributed.

The means for feeding the liquid in proper quantity to the brush 4 consists of spaced washers 5, suitably disposed within the reservoir 1, said washers being located adjacent the end thereof having the brush 4 therein. The washers 5 are each provided with minute openings 6, through which the contents of the reservoir may pass to the brush 4. Between the washers 5 is interposed another washer 7, and this washer 7 is also provided with an opening about centrally thereof, said opening, however, being of larger diameter than the openings 6 of the washers 5 and forming a space between said washers in a manner readily apparent. Any means may be resorted to for holding the washers in place. As shown, inner ribs 9 are provided and formed by spinning or pressing portions of the reservoir inward. These ribs 9 are spaced apart, and the washers are confined between them, being forced past the outermost rib and permitted to spring outward after clearing the same, so as to be engaged at its outer edge by the ribs 9. The washers 5 and 7 are all made of flexible material, such as leather, and the sponge or brush 4 is so disposed as to rest normally in contact with the outermost of the washers 5. The brush 4 is held in place by means of the contracted end portion of the reservoir at the opening 3, the larger portion of said brush being within the reservoir, said portion being that which is in contact with the washer 5, above mentioned. The flexibility of the washers 5 and 7 is very essential, for the reason that in the use of the device as the outermost portion of the brush 4 is pressed against a surface the portion thereof located in the reservoir 1 will be compressed slightly, effecting an inward movement of the washers 5, due to the pressure thereagainst. As the brush is drawn away from the object or surface which is being operated upon in the usual manipulation thereof the pressure against the parts 5 will be relieved, and since the natural tendency of these parts is to remain in the position shown in Fig. 1 said washers move outwardly, creating a suction which will displace a certain amount of the liquid contents of the reservoir, said contents being absorbed by the brush 4 and finally distributed over the surface operated upon as the device is being used.

The device, as hereinbefore described, is very simple, and for this reason may be manufactured very cheaply.

The operation of the device is such that no likelihood of leakage of the contents of the

reservoir is incurred, this being very advantageous and necessary in order to obtain a practical device of the class to which my invention relates.

A suitable hollow cap 8 is used to cover the brush 4 and close the adjacent end of the reservoir 1 when the device is not in use.

When the washers 5 are pressed against by the brush 4, the innermost of the washers is moved only slightly, whereas the outer one is moved to a greater degree, thus reducing the space between the washers, thereby creating the desired suction as soon as the pressure against the parts 5 and 7 is relieved.

The washer 7 is considerably thicker than either of the washers 5, and the chamber 8 formed by the central cut-away portion is closed by the washers 5, which form flexible sides through which the liquid has ingress and egress. The chamber 8 acts as a receiver to hold a small quantity of material to charge the brush 4, and by reason of its flexibility there is produced a pumping action by the alternate pressure upon and release of the brush when the device is in active operation. The brush 4 is designated in the claims as a "distributer," and the washers 5 and 7 may be considered as a flexible diaphragm provided with the centrally-disposed chamber or receiver 8.

Having thus described the invention, what is claimed as new is—

1. In a fountain-brush, the combination of a reservoir having a distributer at one end, and having a chambered diaphragm separating the distributer from the reservoir and supporting the distributer at its inner end and being movable therewith according as said distributer is subjected to or relieved from pressure.

2. In a fountain-brush, the combination of a reservoir having a distributer at one end, and a flexible diaphragm forming a support for the inner end of the distributer and provided with a chamber having minute inlet and outlet openings.

3. In a fountain-brush, the combination of a reservoir having a distributer at one end, and a flexible diaphragm forming a support for the inner end of the distributer and provided with a chamber having oppositely-disposed flexible sides in which are formed minute openings.

4. In a fountain-brush, the combination of a reservoir having a distributer at one end, and a flexible diaphragm forming a support for the inner end of the distributer, said diaphragm consisting of a comparatively thick middle washer having its central portion cut away to provide a chamber, and other washers at the sides of the middle washer having minute openings forming an inlet and an outlet.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM L. CHRYSLER. [L. S.]
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