

B. D. MILLER.
 FOUNTAIN BRUSH.
 APPLICATION FILED SEPT. 22, 1915.

1,188,971.

Patented June 27, 1916.

Fig. 1.

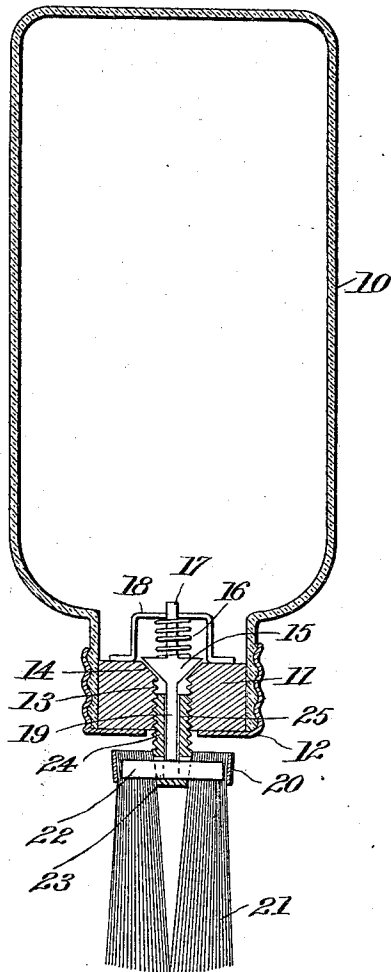


Fig. 2.

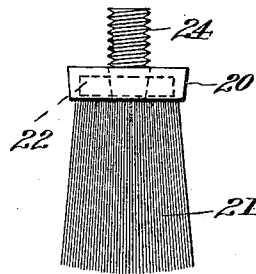
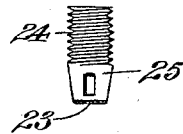


Fig. 3.



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FOUNTAIN-BRUSH.

1,188,971.

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To all whom it may concern:

Be it known that I, BREVARD D. MILLER, a citizen of the United States, residing at Charlotte, in the county of Mecklenburg and State of North Carolina, have invented certain new and useful Improvements in Fountain-Brushes, of which the following is a specification.

This invention is an improved brush of the type employed in connection with a liquid receptacle for the purpose of transferring liquid from the receptacle to any desired surface.

One of the objects of the invention is to provide a brush of simple construction, which may be attached to a bottle or similar receptacle, in such manner that a liquid contained therein may be discharged into the interior of the brush, preparatory to being applied by the brush, to the surface to be covered.

A further object is to provide improved means, for controlling the flow of fluid from the receptacle into the brush, by means of the pressure applied to the brush when in use.

A further object is to provide a valve for controlling the flow of liquid from the receptacle, and means for adjusting said valve to vary the volume of liquid permitted to pass from the receptacle to the brush.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawing:—Figure 1 is a longitudinal sectional view illustrating a bottle with the invention applied thereto. Fig. 2 is a side view of the brush detached. Fig. 3 is a detail view of the adjusting shank.

Referring to the drawing, 10 designates a receptacle, which may be of any desired shape or dimensions, the form illustrated being that of a bottle of the type usually employed to contain liquid blacking. The mouth of the bottle is closed by a stopper or carrier 11, which may be held in position by friction, or it may be retained in place by means of a screw cap 12, as shown. Said stopper or carrier 11 is provided with a threaded bore 13, which is widened at its inner end to form a valve seat 14. Co-operating with the seat 14 is a valve 15, which is held normally seated, by means of a spring 16, encircling a pin 17, projecting from the inner face of the valve, one end of

said spring bearing against the valve and the other end against an abutment 18, attached to the inner face of the stopper or carrier. The valve is provided with a stem 19, extending through the bore 13.

The brush comprises a head 20 in which the bristles 21 are secured by embedding their ends in cement, or in any other suitable or desired manner. Embedded within the bristles at the head of the brush, is a cross bar 22, which is engaged by the slotted end 23 of a threaded shank 24. Said shank is exteriorly threaded to adjustably engage the threads of the bore 13, and is also provided with a longitudinal bore 25. The head 20 is slidable upon the slotted end of shank 24, the bar 22 serving as a coupling between the said head 20 and shank 24, permitting relative movement of the brush and the carrier 11.

In practice, the receptacle 10 is filled with liquid and closed by the stopper 11, the spring 16 acting to hold the valve 15 to its seat. The brush is then attached to the stopper, by engaging the threads of the shank 24, with the threads of the bore 13. When it is desired to use the brush, the shank 24 is screwed up until the end of stem 19 engages bar 22. The cross bar is movable relative to the shank 24, in the slot thereof, and therefore, when the parts are so adjusted, pressure upon the brush will cause said cross bar to unseat valve 15 by inward pressure upon the end of stem 19, permitting liquid to flow from the interior of the receptacle, through the bores 13 and 25, into the bristles, whereupon the latter may apply the liquid evenly to the surface to be coated. It will be readily understood that the volume of outflow from the receptacle will vary with the distance that the valve is moved from its seat. The movement of the valve may be nicely regulated by adjusting the cross bar relative to the stem 19, by means of the threaded shank 24, the closer the cross bar is to the stopper 11, the further the valve will be moved from its seat, and vice versa.

Having thus explained the nature of my invention and described an operative manner of constructing and using the same, although without attempting to set forth all of the forms in which it may be made, or all of the forms of its use, what I claim is:—

1. An improvement in fountain brushes comprising a carrier having a central bore

and a valve seat, a brush-head having a shank provided with means for attachment to said carrier, said shank having a bore coinciding with the bore of said carrier, a
 5 spring pressed valve cooperating with said valve seat and having a stem passed through said bores, said stem and valve being movable independently of the brush head, and means carried by the brush head to effect
 10 unseating of said valve.

2. An improvement in fountain brushes comprising a carrier having a central bore and a valve seat, a brush head having a shank provided with means for attachment
 15 to said carrier, said shank having a bore coinciding with the bore of said carrier, a spring pressed valve cooperating with said valve seat and having a stem passed through said bores, said stem and valve being movable independently of the brush head, and a
 20 movable cross bar carried by said brush head and movable independently of the shank under pressure applied to the brush, to unseat the valve.

3. An improvement in fountain brushes comprising a carrier having a central bore and a valve seat, a brush head having a shank provided with means for attachment to said carrier, said shank having a bore coinciding with the bore of said carrier, a
 30 spring pressed valve cooperating with said valve seat and having a stem passed through said bores, said stem and valve being movable independently of the brush head, and a
 35 movable cross bar carried by said brush head and movable independently of the shank under pressure applied to the brush, to unseat the valve, said shank having a longitudinal slot in its outer end to guide
 40 said cross bar in its movement.

4. An improvement in fountain brushes comprising a carrier having a central bore and a valve seat, a spring pressed valve cooperating with said seat and provided with
 45 a stem, a brush having a shank attached to said carrier, said shank having a bore coinciding with the bore of the carrier, said valve stem being extended through said bores, means carried by the brush to engage
 50 said stem to effect unseating of said valve,

and means for adjusting said brush relative to said carrier to vary the unseating movement of the valve.

5. An improvement in fountain brushes comprising a carrier having a central bore
 55 and a valve seat, a spring pressed valve cooperating with said seat and provided with a stem, a brush having a shank attached to said carrier, said shank having a bore coinciding with the bore of the carrier, said
 60 valve stem being extended through said bores, a cross bar carried by said brush and guided by said shank, said cross bar being movable under pressure applied to the brush, to unseat the valve, and means for
 65 varying the distance between said cross bar and said valve to control the unseating movement of the latter.

6. An improvement in fountain brushes comprising a carrier having a threaded bore
 70 and a valve seat, a spring pressed valve cooperating with said seat and provided with a stem, a brush having a threaded shank in adjustable engagement with said bore, said
 75 shank having a bore coinciding with the bore of the carrier, said valve stem being extended through said bores, and means carried by the brush to engage said stem to effect unseating of said valve.

7. An improvement in fountain brushes
 80 comprising a carrier having a threaded bore and a valve seat, a spring pressed valve cooperating with said seat and provided with a stem, a brush having a threaded shank in adjustable engagement with said bore, said
 85 shank having a bore coinciding with the bore of the carrier, said valve stem being extended through said bores, and a cross bar carried by said brush and movable under pressure applied to the brush, to engage said
 90 stem to effect the unseating of said valve, said shank having a slot engaging said cross bar.

In testimony whereof I affix my signature in presence of two witnesses.

BREVARD D. MILLER.

Witnesses:

J. C. LEAK,

W. C. WARNER.