May 18, 1937. G. U. LE MOINE ET AL 2,080,778

FOUNTAIN APPLICATOR

Filed Sept. 17, 1934

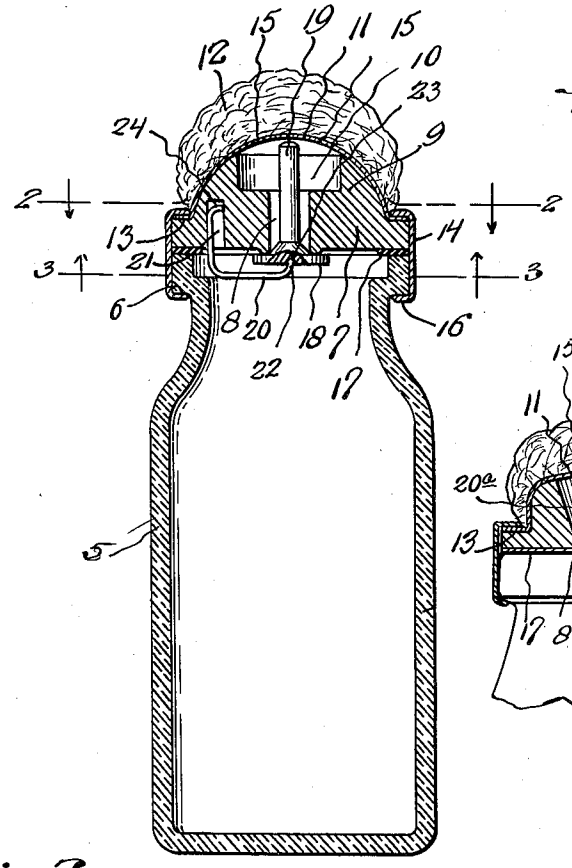


Fig. 1.

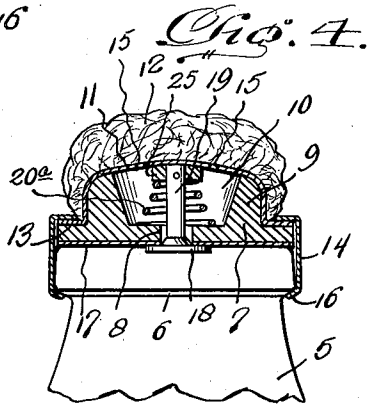


Fig. 4.

Fig. 2.

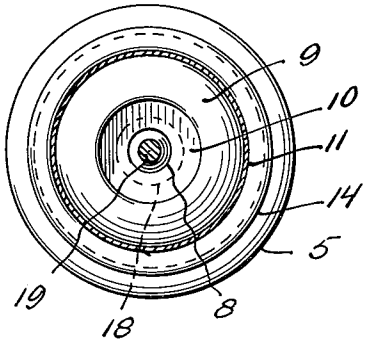
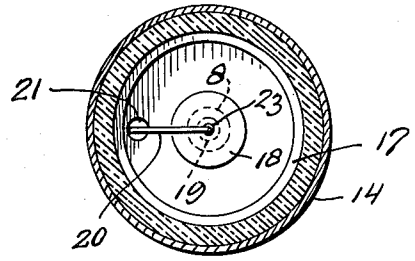


Fig. 3.



Inventors
George U. LeMoine,
Albert J. Gagin,

By J. Stanley Burch
Attorney

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FOUNTAIN APPLICATOR

George Ulric Le Moine, Amesbury, and Albert Joseph Gagin, Lawrence, Mass., assignors to The Brush-On Stove Polish Company, Amesbury, Mass.

Application September 17, 1934, Serial No. 744,442

1 Claim. (Cl. 15—139)

This invention relates to improvements in fountain applicators of the type disclosed in our copending application Serial Number 695,924, filed October 30, 1933, wherein the flow of fluid from a handle forming receptacle to a dauber carried by a closure for said receptacle is controlled by a normally closed spring seated valve having a projecting stem, and wherein the projecting stem is actuated to open the valve and permit a quantity of the fluid to flow to the dauber when the latter is pressed with greater than normal pressure against the surface to which the fluid is to be applied.

The primary object of the present invention is to provide an improved fountain applicator of the above kind in which the dauber is of a character which will smoothly and evenly apply the fluid or liquids to the surface for which it is intended.

A further object of the present invention is to provide a fountain applicator of the above kind which is simple and durable in construction, efficient in use, and capable of economical production.

Other objects and features of the present invention will become apparent from the following description, when considered in connection with the accompanying drawing, in which:

Figure 1 is a central longitudinal sectional view of a fountain applicator embodying the present invention.

Figure 2 is a horizontal section on line 2—2 of Figure 1.

Figure 3 is a horizontal section on line 3—3 of Figure 1; and

Figure 4 is a fragmentary view partly in elevation and partly in central longitudinal section, of a modified form of fountain applicator embodying the present invention.

The fountain applicator embodying the present invention is intended for use in applying various forms of fluids or liquids to surfaces and includes an elongated glass or other rigid receptacle 5 adapted to constitute the handle of the applicator and to be filled with the liquid prior to application of the combined dauber and closure, to be presently described, to the mouth thereof. The neck of receptacle 5 adjacent to the mouth of the same may be provided with a downwardly facing external annular shoulder 6, for a purpose which will presently be described.

The present invention includes a closure consisting of a back member 7, of wood or suitable molded material, provided with a central opening 8 and having a reduced upper portion 9 preferably of substantially segmento-spherical form. The reduced upper portion 9 of the back member is formed with a central cavity or recess 10 communicating with the outer end of opening 8 and adapted to form a reservoir as will be presently explained. The dauber consists of a pelt or fabric 11 with attached hair, wool or nap 12, the skin or base of such pelt or fabric being stretched over the reduced upper portion 9 of the back member 7 with the hair, wool or nap 12 exposed on the outer side thereof. The lower portion of the back member 7 conforms in size and shape to the open upper end of receptacle 5, and is seated at its margin upon the upper edge of the mouth of receptacle 5 to form part of a closure for the latter. The reduced upper portion 9 of the back member 7 provides the latter with an upwardly facing external shoulder 13, and the closure for receptacle 5 further includes a metallic cap 14 whose top wall is provided with a relatively large central opening in which the reduced portion 9 of the back member 7 is snugly fitted and through which the latter projects, the top wall of cap 14 seating flatly upon shoulder 13 and the marginal portion of the skin or base of pelt or fabric 11. The rim of cap 14 extends below shoulder 6 of receptacle 5 and snugly surrounds the edge of the larger lower portion of back member 7 and the portion of the receptacle neck above shoulder 6. The projecting lower portion of cap 14 is crimped or spun inwardly in snug engagement with and beneath shoulder 6 of receptacle 5 so that the back member 7 is tightly clamped against the open upper end of receptacle 5 and the margin of pelt or fabric 11 is securely clamped against the shoulder 13, with pelt or fabric 11 drawn taut over the reduced upper portion 9 of back member 7. The skin or base portion of pelt or fabric 11 is formed with a number of small perforations 15 where it registers with the cavity or recess 10, so that fluid in said cavity or recess 10 may slowly seep outwardly to and saturate the hair, wool or nap 12 of said pelt or fabric. The inwardly spun or crimped lower portion of cap 14 is indicated at 16, and if desired a packing or gasket 17 may be interposed between the back member 7 and the upper edge of receptacle 5 to insure a fluid tight joint.

The central opening 8 of back member 7 is normally closed by a spring seated valve disk 18 arranged to seat against the bottom of back member 7 about the opening 8, and rigid with the valve disk 18 is an elongated stem 19 that

terminates a slight distance outwardly of the reduced upper portion 9 of the back member and in contact with the skin base of pelt or fabric 11 at the inner side of the latter. Thus, when the pelt or fabric 11 is engaged with the surface to be treated under greater than normal pressure, the stem 19 will be pressed inwardly for unseating valve disk 14 and allowing fluid to flow from receptacle 5 to the reservoir forming recess or cavity 10, the fluid slowly seeping from reservoir 10 through perforations 15 and saturating the hair, wool or nap 12 of pelt or fabric 11. The pelt or fabric 11 effectively prevents direct engagement of stem 19 with the surface being treated, and consequently prevents said stem from scratching such surface.

The valve disk 18 may be yieldingly seated by means of a spring 20 formed from an elongated piece of resilient metal bent into angular formation to provide an outer vertical arm and a lower inwardly extending horizontal arm as clearly shown in Figure 1, the vertical arm being positioned in a recess 21 provided in the inner side of back member 7 near one side of the latter, and the free end of the horizontal arm being turned upwardly as at 22 for engagement in a central depression 23 in the under side of valve disk 18. The upper end of the vertical arm of spring 20 is directed laterally to engage the wall of recess 21 so that when the spring 20 is placed under tension, the laterally directed end 24 will bite into the wall of recess 21 and thereby insure retention of the spring 20 in its proper assembled relation to the back member 7.

The form of the invention shown in Figure 4 is substantially the same as that shown in Figures 1 to 3 inclusive, except that in said form of Figure 4 the valve disk 18 is yieldingly seated by means of a helical spring 20*a* surrounding the stem 19 and bearing at its inner end on the bottom of recess 10 and at its outer end against an abutment or collar 25 pinned or otherwise rigidly provided on the outer end of stem 19.

The construction is extremely simple and economical to manufacture, quite durable, and so constituted as to be extremely efficient in use. Minor changes may be made without departing from the spirit and scope of the invention as claimed.

What we claim as new is:

A fountain applicator of the type described comprising, in combination, a receptacle having a neck, a back member having a plane lower surface and seated at the margin of said lower surface on the upper edge of the receptacle neck, said back member comprising a solid circular body provided with a central discharge opening, and having an externally reduced upper portion, a securing cap apertured to fit over the reduced upper portion of the back member and secured to the receptacle neck to securely clamp the back member against the upper edge of the bottle neck, a dauber consisting of a pelt stretched over the reduced upper portion of the back member and clamped at its margin between the securing cap and the margin of the back member, said pelt having hair or nap on the exposed outer face thereof and being provided with small perforations in the skin of the same communicating with the central discharge opening of the back member, and a spring-seated valve normally seated against the lower surface of said back member and closing said central discharge opening of the latter, said valve having a stem projecting through said discharge opening and engaging the inner side of the pelt for unseating the valve when the pelt is pressed into engagement with the surface to be treated under greater than normal pressure, the reduced upper portion of the back member being of segmento-spherical form and provided with a central cavity communicating with the outer end of said central discharge opening and forming a reservoir between the back member and the pelt normally isolated from the receptacle by said valve.

GEORGE ULRIC LE MOINE.
ALBERT JOSEPH GAGIN.