April 6, 1943. M. F. WORKMAN 2,315,996

FOUNTAIN ART BRUSH

Filed July 11, 1941

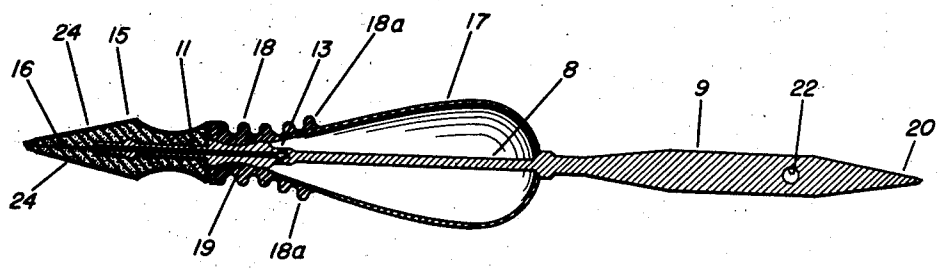


Fig. 1

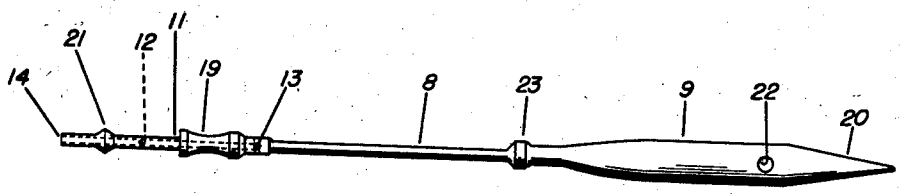


Fig. 2

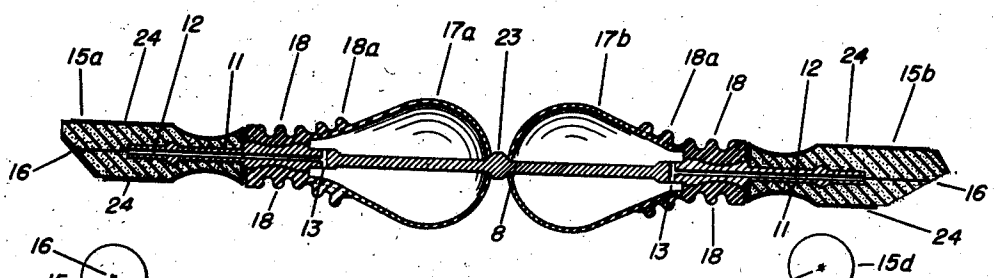


Fig. 3

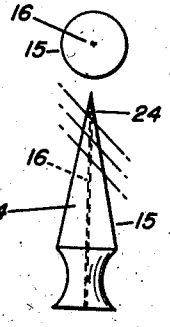


Fig. 4

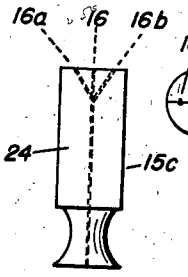


Fig. 5

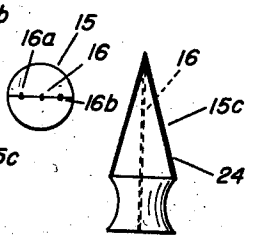


Fig. 6

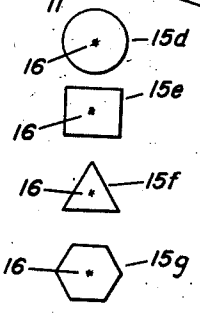


Fig. 7

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FOUNTAIN ART BRUSH

Myrtle F. Workman, San Diego, Calif.

Application July 11, 1941, Serial No. 401,915

6 Claims. (Cl. 15—136)

My invention relates to fountain art brushes, and its objects are to provide a brush having a reservoir from which the color media may be forcibly discharged through the forced opening of an elastically constricted and normally closed passageway in the point of said brush; to employ as a brush point or liner, a spongelike substance capable of taking up color media through saturation and of expelling the same upon pressure being applied to said substance; to provide a protective covering or skin for all sides of the brush except near the applicator end thereof in order to confine and direct the flow of color media therefrom; and to provide a better means for the painting of pictures, marking of packages, athletic equipment or windows, making of charts, signs and placards, lettering of all kinds and sizes on paper, wood, leather or glass, application of hair dye, hair bleach, scalp tonic, and other beauty parlor uses, for application of disinfectants and many other uses for which my invention could obviously be applied. These and other important objects and advantages of my invention will become apparent from the drawing and as hereinafter described and claimed.

One important embodiment of my invention is the construction of a rubber or elastic brush-point having a self-closing elastic passageway therethrough leading to a compressible bulb reservoir containing color media and connected to said brush, said reservoir operating upon manual pressure to forcibly expel said media into said passageway and open an escape therethrough to the end of the brush, where it can be applied to the surface to be painted. In connection therewith, I preferably use a brush point of saturable material such as sponge rubber capable of taking up or absorbing color media, and provided either with or without a protective skin, so that upon compression of the brush point the said media may be expelled upon the surface to be painted, prior to the expulsion of the media in the reservoir, and two colors thereby successively employed. Where a protective skin is provided to the sides of the brush point, the fingers of the painter are protected from stain and the escape of the color media is limited to the end of the brush, and applied by the painter accordingly. When used to apply hair dye or hair bleach, I preferably construct my brush with a pointed handle end for parting the hair so that the dye or bleach can be placed well to the roots thereof and evenly spread therefrom. Also, I may construct my brush point in the form of a wedge leaving two sides thereof without a protective covering or skin so that any surplus dye may be absorbed therethrough and an even application of the dye insured. If desired, my brush may be made in plural or double ended form, so that color media could be supplied from two bulb reservoirs each carrying a different primary color, or could carry water in one reservoir for use with water colors as in outdoor sketching, or if used by a shipping or warehouse clerk, could carry red in ink one reservoir and black ink in the other.

The present application includes part of the disclosure presented in my earlier copending application, Serial No. 315,433, filed January 24, 1940, since abandoned, and entitled "Paint applicators," and I reserve such earlier date for all common subject matter set forth and claimed herein.

Attention is hereby directed to the drawing illustrating a number of preferred forms of my invention in which similar numerals of designation refer to similar parts throughout the several views, and in which—

Figure 1 is a longitudinal section of a preferred form of my improved brush;

Fig. 2 is an elevation of the central support showing the same removed from the brush shown in Fig. 1;

Fig. 3 is a section of a modification of my invention shown in double ended form;

Fig. 4 is an elevation and end plan view of one of the brush points, showing the same in pointed form, and adapted for cutting down into truncated ends;

Figs. 5 and 6 are side and end elevations and end plan view of a chisel end shaped brush point, provided with three discharge openings at the end thereof, and

Fig. 7 is a view of various modifications of brush points embodying my invention and looking at the same at the ends thereof.

Referring to Figures 1 and 2 of the drawing, the support 8 is preferably of plastic or metal but may be made of any suitable material, and is preferably constructed in the form of an elongated rod, having at one end the pointed handle 9 and at the other end the tube or tubular extension 11, provided with the passageway 12 therethrough and openings 13 extending radially therefrom through the wall thereof. Near the discharge mouth 14 of said tube 11 is the annular ridge 21, which serves to secure and hold the rubber or elastic brush point, here shown in the form of an elongated cone, and provided with the normally closed elastic pas-

sageway 16 therethrough, which is sufficiently resilient to be forced open to receive the discharge end of said tube and to embrace ridge 21 thereof. If desired, that part of the passageway 16 adjacent to the wall of the said tube 11, may be made in the form of an open socket sufficiently constricted to form close engagement therewith, but the remainder of such passageway, not embraced by said tube, should preferably be self closing and normally elastically sealed against the passage of any material therethrough except through pressure exerted thereon. Where sponge rubber or other saturable material is used, preferably the outside wall of said brush point should be supplied with a skin 24 covering its entire conical surface except at or near the applicator end thereof. In place of such skin, however, a painted or treated surface could be substituted, provided that such surface was of such a character effectively to prevent the escape of color material therethrough no matter what pressure is exerted thereon through the manual means hereinafter explained.

Engaging with the central portion of said support 8, which extends through opening in each end thereof, is the collapsible bulb shaped reservoir 17, made of rubber or other elastic suitable material, and having one end supplied with finger holds 18 and compressible finger holds 18*a* closely engaging with the neck 19 on support 8, and the other end carrying the larger portion of the bulb closely engaging with the spindle of said support and firmly abutting against the shoulder 23 thereon. At all times, the said bulb 17 is hermetically sealed by constriction at both ends upon said support 8, and is not easily dislodged therefrom. As will be observed the openings 13, provide egress for any fluid contained in said bulb reservoir out through the passageway 12 of the tube 11, and upon pressure of the bulb 17, through the enforced opening of normally closed passageway 16, to the applicator end of the brush.

For the purpose of adapting my invention for use in a beauty parlor in applying hair bleach, hair dye, various scalp tonics and treatments, the application or removal of nail polish, and facial and skin treatments, I find it desirable in preparing the area to which the fluid is applied to employ the tool 20 shown at the end of the handle 9. This tool is preferably in the form of a long pointed instrument, the point of which may if desired be slightly blunted to avoid scratching the skin or scalp. When employed for dyeing or bleaching the hair, it is used for carefully parting the same, preparatory to applying the bleach or dye in successive spots until the entire area is covered. The hole 22 extending through the handle 9 will be convenient to hang up the brush in some location convenient for use.

In Figure 3, I have shown a co-operating pair of brushes embodying my invention. Here the construction of each brush and support is similar to that shown in Figs. 1 and 2, except that the tool 20 has been dispensed with, and the brush points 15*a* and 15*b* are shown of different form. In this form of my invention, the liquid introduced in the bulb reservoirs 17*a* and 17*b* may be different in character, as for different inks or colored paints, or for any purpose where two different liquids might be used. The brush points 15*a* and 15*b* could be in the form shown or in any form desirable for the purpose.

In Figs. 4, 5, 6, and 7, I have shown a number of brush points molded as shown which could be used to advantage in brushes embodying my invention, but as is obvious the different forms and interior constricted passages could be greatly changed and multiplied and shaped to produce multiple lines of same or varying widths or round to produce notes in large music charts for classrooms. For example, the pointed form 15 shown in Fig. 1 could be used in the form shown or could be cut diagonally as shown by the diagonal lines to form truncated cones of various forms and sizes. The brush point 15 could also be made as shown in Figs. 5 and 6, in which case, the point is shown in the form of a chisel-like point 15*c* with central passage 16 and with branching passages 16*a* and 16*b* leading to the applicator end of the brush, the better to spread the paint or fluid passing therethrough. In Fig. 7, I have shown among the many other shaped or molded forms which might be employed, brush points 15*d*, 15*e*, 15*f* and 15*g*, which are respectively round, square, triangular and hexagonal in shape, with a central aperture or outlet.

Generally, in preparing for use the form of my invention shown in Figs. 1 and 2 and starting with the parts unassembled, I first install the bulb reservoir by thrusting therethrough the support 8 until it is seated as shown. I then collapse the bulb 17 by squeezing it in the hand, and introduce the mouth 14 of the tube 11 into the color media or other fluid to be used, and through the suction, brought about by relaxing the pressure on said bulb, I load the reservoir in a manner similar to that employed in filling a fountain pen. Thereupon, firmly grasping the handle 9, I thrust the brush point 15 upon the end of the tube 11 through forced engagement with the constricted passageway 16, and the brush is ready for use. If desired, in those cases where sponge rubber or other saturable material is used to form the brush point, I can, by compressing the same, take up into the body thereof other colored media, which I can afterward expel as needed upon the painted surface, and thereby combine the two colors in any relation desired. With either media, the central passage 16 or by use of the skin or covering 24 flow of the fluid is directed toward the end of the brush, and not permitted to escape or exude from the sides thereof. The parts of the form of device shown in Fig. 3, may be similarly assembled for each member of the pair thereshown.

My invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiments, as hereinbefore set forth, are therefore to be considered in all respects as illustrative and not restrictive; the scope of my invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are therefore intended to be embraced therein.

What I claim and desire to secure by Letters Patent is:

1. In a fluid applicator, the combination of an integral central support having a discharge spout in one end thereof, said spout having a ridge on its outer wall and an inlet through said wall, a sponge rubber brush point mounted upon said spout and secured against displacement by said ridge, and a bulb fluid reservoir mounted upon one end of said support and discharging into said inlet, the said end of said support being located within and extending through the walls of said reservoir.

2. In a fluid applicator, the combination of a

central support having a discharge spout in one end thereof, said spout having a ridge on its outer wall and an inlet through said wall, a sponge rubber brush point mounted upon said spout and secured against displacement by said ridge, a fluid proof covering completely covering the surface of said brush point to the applicator end thereof, and a bulb fluid reservoir mounted upon the other end of said support and discharging into said inlet, the said other end of said support being located within and extending through the walls of said reservoir.

3. In a fluid applicator, the combination of a central support having a discharge spout in one end thereof, said spout having a ridge on its outer wall and an inlet through said wall, an elongated conical sponge rubber brush point mounted upon said spout and secured against displacement by said ridge, the end portion of said point being of sufficient extent to permit truncation thereof, a fluid proof covering completely covering the surface of said brush point to the applicator end thereof, and a bulb fluid reservoir mounted upon the other end of said support and discharging into said inlet, the said other end of said support being located within and extending through the walls of said reservoir.

4. In a fluid applicator, the combination of a central support having a discharge spout in one end thereof, said spout having a ridge on its outer wall and an inlet through said wall, a wedge shaped sponge rubber brush point mounted upon said spout and secured against displacement by said ridge, a fluid proof covering extending solely over the broad faces of said brush point and leaving uncovered the edges thereof, and a bulb fluid reservoir mounted upon the other end of said support and discharging into said inlet, the said other end of said support being located within and extending through the walls of said reservoir.

5. In a fluid applicator, the combination of a central support having a discharge spout in one end thereof, said spout having a ridge on its outer wall and an inlet through said wall, a wedge shaped sponge rubber brush point having branching passageways leading to the applicator end thereof and mounted upon said spout and secured against displacement by said ridge, a fluid proof covering completely covering the surface of said brush point to the applicator end thereof, and a bulb fluid reservoir mounted upon the other end of said support and discharging into said inlet, the said other end of said support being located within and extending through the walls of said reservoir.

6. In a fluid applicator, the combination of a central support having a discharge spout in one end thereof, said spout having a ridge on its outer wall and an inlet through said wall, a sponge rubber brush point mounted upon said spout and secured against displacement by said ridge, a fluid proof covering completely covering the surface of said brush point to the applicator end thereof, a bulb fluid reservoir having a compressible wall mounted upon the other end of said support and discharging into said inlet, finger holds located upon said wall of said bulb and manually serving to compress the same, the said other end of said support being located within and extending through the walls of said reservoir.

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