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(54) **Paint Brush**

(57) A paint brush (1) comprises a stem (3), a set of bristles (5) provided on the end of the stem (3) and light

means (7), associated with the stem and arranged to illuminate the bristle area of the brush (1) and thus the surrounding surface being painted.

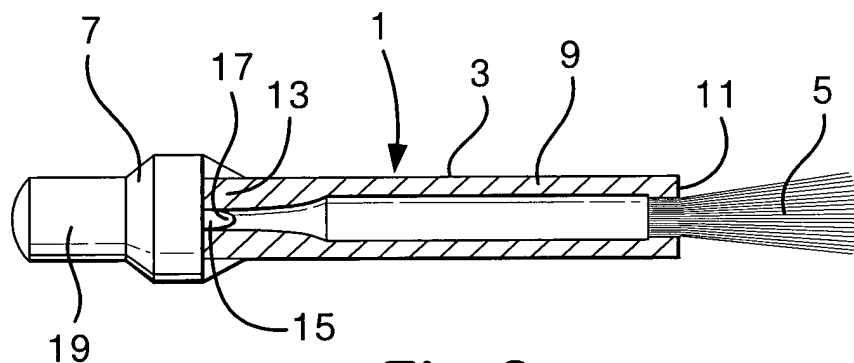


Fig.2

Description

[0001] This invention relates to paint brushes.

[0002] One problem which with paint brushes is where one is trying to carry out delicate work and one ends up in a shadow or the light is failing. In these circumstances, it is very difficult to see accurately the area which one is painting.

[0003] The present invention seeks to reduce or obviate this problem.

[0004] According to the invention, a paint brush comprises a stem, a set of bristles provided on the end of the stem and light means, associated with the stem and arranged to illuminate the bristle area of the brush and thus the surrounding surface being painted.

[0005] In one embodiment of the invention, the stem is transparent and the light means is located at the end of the stem away from the bristles so that the light travels down the stem from the light means to the end provided with the bristles.

[0006] The stem may be a generally hollow cylinder with the bristles secured in an open end thereof. The light means may be arranged such that the light travels within the walls of the cylinder,

[0007] The light means may comprise a housing attached to the opposite end of the cylinder from the bristles. The cylinder may be inserted into the housing and may receive the tip of a light bulb within the end of the cylinder. The internal diameter of the cylinder at this point may be reduced with respect to the bristle end thereof to provide a diameter just greater than that of the tip of the light bulb.

[0008] Suitably, the housing may be screwed on to the stem, thereby allowing it to be detached therefrom. The housing may contain, in addition to the light bulb, a battery for energising the light bulb and a switch connected between the battery and the light bulb for switching the light bulb on or off.

[0009] The switch may be suitably operated by rotating the housing relatively to the stem. Suitably the switch is off when the housing is screwed fully on to the stem and on when the housing is unscrewed from the stem by a predetermined amount.

[0010] In a second embodiment of the invention a transparent or translucent generally hollow head is provided attached to the stem and carrying bristles therein. The head may be detachable from the stem.

[0011] The light means, suitably a light bulb, may be arranged such that light travels within the walls of the head and may be located in the stem adjacent to the head.

[0012] The stem may contain, in addition to the light bulb, a battery for energising the light bulb and a switch connected between the battery and the light bulb for switching the light bulb on or off.

[0013] The head may carry a light refracting module at its outer end for guiding the light travelling through the head on to the area being painted.

[0014] The invention will now be described in greater detail, by way of example, with reference to the drawings in which:-

Figure 1 shows a schematic side view of one form of paint brush in accordance with the invention;

Figure 2 is a view similar to figure 1 but with the illuminating tube in section, and

Figure 3 is a perspective view of a practical form of paint brush

[0015] Referring to figures 1 and 2 of the drawings, a paint brush 1 comprises a stem 3, a set of bristles 5 provided on the end of the stem 3 and a light source 7, associated with the stem 3 and arranged to illuminate the bristle area of the brush 1 and thus the surrounding surface being painted.

[0016] As can be seen particularly with reference to figure 2, the stem 3 comprises a generally hollow cylinder 9 of transparent material, typically a transparent plastics material, having an open front end 11 to provide an aperture to receive the bristles 5. At the opposite end 13, the tube is internally tapered inward so that, while the outer diameter remains the same, the inner diameter is reduced forming a thickened wall which receives light from a light bulb 15 whose tip 17 protrudes into the cylinder 9.

[0017] The light source 7 comprises a housing 19 which houses, as well as the light bulb 17, a battery and a switch, neither of which are shown. Suitably, the housing 19 is screwed on to the stem 3 and the switch is actuated by rotation of the housing 19 relative to the stem 3. Thus, for example, the switch is off when the housing 19 is screwed fully on to the stem 3 and on when the housing 19 is unscrewed from the stem by a predetermined amount.

[0018] As will be appreciated, the construction above described provides a paint brush which, when the light is on, will illuminate an area around the bristles in all directions, enabling painting to be carried out in shadowed or reduced illumination conditions.

[0019] It will also be appreciated that for most purposes, while the above described embodiment has illustrated the invention in one form, it is likely that, in practice, the paint brush will be shaped to follow that of the usual paint brush. One such example of such a paint brush is shown in figure 3.

[0020] Referring to figure 3, the paint brush comprises a stem portion 21 which corresponds to the stem portion 3 in the first embodiment but in this case incorporates the light source and batteries (not shown in detail but generally indicated at 24) therein. It will be also seen that the stem 21 is generally of usual paint brush shape. The stem 21 as shown incorporates a press button 23 for switching on the light. This can be either of the type which needs to be pressed as long as the light is re-

quired, to save battery life, or can be of the one press for "on", one press for "off" type.

[0021] At the front end of the stem 21 is a removable, generally hollow, head 25 which is made of clear plastics material. This head 25 carries the bristles 27 of the paint brush and sits in a socket 29 in the stem 21. To enable the head 25 to be detached, the stem is provided with a pair of sprung arms 31 which extend into the hollow head and have detents 33 which extend outwardly into apertures 35 in the head, thus securing the head in position. The detents 33 are accessible through the apertures so that the can be pushed inwards to release the detents 33 from the apertures 35 to enable the head 25 to be pulled out of the socket.

[0022] With this arrangement, a number of different sets of bristles can be used with the same light by replacing heads. Also, this allows the light bulb and batteries to be accessible for replacement.

[0023] The head 25 is so arranged that the light from the light bulb in the end of the stem is transmitted along the walls of the head 25 around the outside of the bristles 27 so as to provide light in the area being painted. To this end, the head 25 has, at its outer end, a light refracting module 37 for guiding the light passing through the walls of the head 25.

[0024] While the above has described two embodiments of the invention, it will be appreciated that many modifications of or additions to this embodiment may be made without departing from the scope of the invention. For example, in the first embodiment, if desired, the stem 3 could be solid and could be provided with a short recess at one end to receive the bristles 5. the light bulb 15 would then be situated behind the other end of the stem 3.

[0025] The rotary switching arrangement could be replaced by any other suitable switching arrangement, such as sliding or push button, for example, as shown in the second embodiment.

The stem could have a solid non-transparent central portion with the illumination being provided by a transparent sleeve position around the central portion.

[0026] As in the second embodiment, the bristles could be provided in the form of a self-contained brush head which could be removable from the stem to allow other different brush heads to be interchanged therewith. Alternatively, the stem could be formed with the bristles fixedly attached thereto, the light housing being removable from the stem and used with other stems with different sets of bristles.

[0027] In yet a further alternative, the entire stem could be non-transparent, with the housing having an annular aperture of larger diameter than the stem so that the light from a bulb in the housing shines alongside the exterior of the stem.

[0028] In the second embodiment, the head 25 could also be solid with only a recess therein for receiving the bristles 27. Furthermore, depending on the shape of the stem 21, more than one light bulb could be used.

Claims

1. A paint brush (1) comprising a stem, (3, 21) a set of bristles (5, 27) provided on the end of the stem (3, 21) and light means (7, 24) associated with the stem (3, 21) and arranged to illuminate the bristle area of the brush (1) and thus the surrounding surface being painted.
2. A paint brush as claimed in claim 1, wherein the stem (3) is transparent and the light means (7) is located at the end of the stem (3) away from the bristles (5) so that the light travels down the stem (3) from the light means (7) to the end (11) provided with the bristles (5).
3. A paint brush as claimed in claim 1 or 2, wherein the stem (3) is a generally hollow cylinder (9) with the bristles (5) secured in an open end (11) thereof.
4. A paint brush as claimed in claim 3, wherein the light means (7) is arranged such that the light travels within the walls of the cylinder (9).
5. A paint brush as claimed in claim 4, wherein the light means (7) comprises a housing (19) attached to the opposite end (13) of the cylinder (9) from the bristles (5) and carrying a light bulb (15).
6. A paint brush as claimed in claim 1, wherein a transparent or translucent generally hollow head (25) is provided attached to the stem (21) and carrying bristles (27) therein.
7. A paint brush as claimed in claim 6. wherein the head (25) is detachable from the stem (21).
8. A paint brush as claimed in claim 6 or 7 wherein the light means (24) is arranged such that light travels within the walls of the head (25).
9. A paint brush as claimed in any one of claims 6 to 8 wherein the light means (24) is located in the stem (21) adjacent to the head (25).
10. A paint brush as claimed in claim 9, wherein the light means (24) comprises a light bulb.

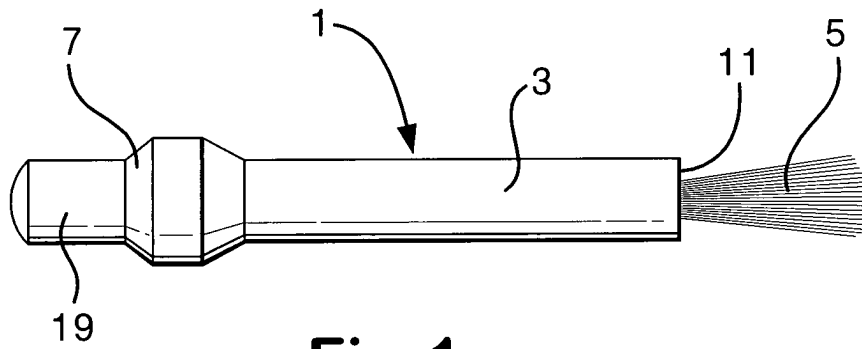


Fig.1

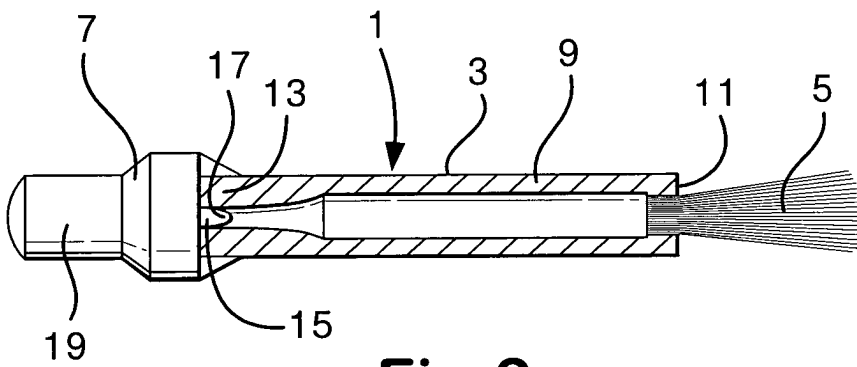


Fig.2

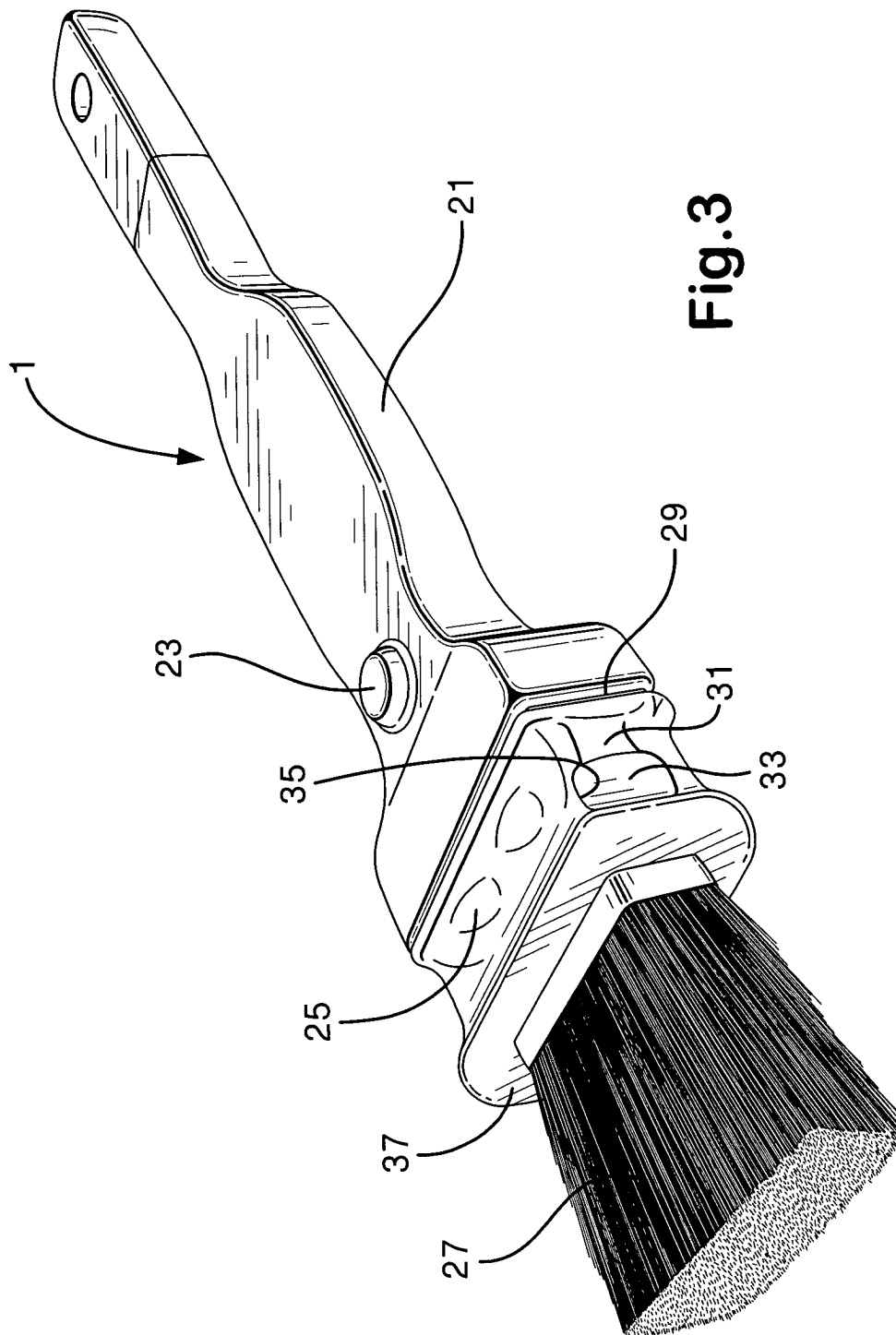


Fig. 3



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EUROPEAN SEARCH REPORT

Application Number
EP 03 25 7720

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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
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Place of search		Date of completion of the search	Examiner
The Hague		26 February 2004	Neiller, F
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EPO FORM 1503 03/82 (P04C01)

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EP 03 25 7720

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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