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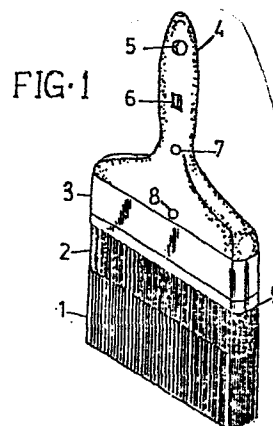
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54 Paint brush.

57 This invention is directed to a surface coatings applicator having a handle (4) provided with an aligned series of openings (6, 7, 8) that aid in the proper cleaning/soaking of the filament cluster (1) of the applicator when used in conjunction with cleaning/soaking containers. The filament cluster (1) may be marked (e.g. by coloured guide filaments (2)) to show a proper dip length for dipping the filament cluster into a container of surface coatings.



TITLE MODIFIED

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see front page

Improved surface coatings applicator

This invention relates to an improved surface coatings applicator which has particular application to its use with a cleaning container. One example of an applicator according to this invention is a paint brush having
5 a bristle or filament cluster comprised of bristles/filaments of specific lengths, colour/shade and/or colour patterns. The brush handle may be of one, or more contoured structural sections and according to the invention has a series of several strategically located openings
10 such that this applicator will be easier to clean when used in conjunction with a described cleaning container (or a household food container) and therefore have a longer useful life. The special cleaning container assembly described herein, is made of a clear or semi-clear,
15 solvent resistant, rigid or semi-rigid material comprising (a) a base structure which holds the cleaning solvent and optional brush-rod support brackets, and (b) a cover that reduces the spillage or evaporation of the solvent.

Most painters, professional and non-professional,
20 severely reduce the life of paint brushes by improper use or cleaning. Several text books on correct painting techniques specifically state that the paint brush should be dipped into the paint supply, no more than one-half the length of the filament-cluster (e.g. bristles).
25 Dipping the brush deeper results in the paint saturating the filaments nearest the brush ferrule; resulting in the potential for the paint to harden in an area of the brush that is difficult to clean. It is accordingly, one principal aim of a preferred embodiment according
30 to this invention to obviate such a problem by the provision of filament lengths colour/shade and, colour patterns that act as a visual aid to reduce the tendency of a painter to improperly dip the paint brush into a paint supply.

Realizing the possibility that any painter can accidentally dip a paint brush too deeply into the paint, another aim of this invention is to provide a paint brush that can be cleaned effectively by proper soaking in an appropriate paint coatings solvent. The strategically
5 located handle openings enable the painter to use a wire or rod to hang the applicator in a number of common household containers filled with solvent to the proper level immediately. Furthermore, these openings are located
10 as to enable several different lengths of filaments to be soaked in the same container of solvent on the same wire or rod.

Other important advantages or aims of this invention will become apparent from the following description read
15 in conjunction with the accompanying drawing, in which:

Figure 1 is a perspective view of the paint brush,

Figure 2 is a sectional view showing two different sizes of this paint brush being soaked in a paint cleaner solvent,

20 Figure 3 is a sectional view of a preferred container assembly, and

Figure 4 is an enlarged end view of some of the several support-rod bracket configurations possible in a container as shown in Figure 3.

25 Referring to Figure 1, a surface coatings applicator is shown having a cluster of filaments (e.g. bristles) 1 inserted part way into one end of a tubular ferrule 3 to substantially seal one end 9 of the ferrule. A hardened mass of cured, resinous cement (not shown) is
30 disposed atop the cluster of filaments 1 in firm adhesive connection with portions of the cluster of filaments

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in the ferrule 3. Also secured into the ferrule 3 is a contoured handle 4 of rigid material the handle extending outwardly from the other end of the ferrule 3. Included in the cluster of filaments 1 are guide filaments 2, the projecting length of the filaments 1 being approximately twice as long as the projecting length of the guide filaments 2. The guide filaments 2 are of a different colour than the main filaments 1 to ensure there is a clear visual line around the cluster of filaments 1 marking the half length position of the latter. For example, black main bristles in the cluster 1 and white guide bristles 2 (or white main filaments 1 and red guide filaments 2) would create the required visual aid to help prevent a painter from dipping the cluster of filaments too deeply into a supply of paint. Equally effective for providing such a visual indication would be main filaments 1 having (via permanent dying, staining, coating, heat discoloration, pigmentation, etc.) a distinct change in colour and/or shade of colour at the approximate midpoint of the bristles/filaments 1. The colour or shade marking can extend up to the edge 9 of the ferrule 3 as a solid colour/shade or as an intermittent pattern such as distinct lines of colour/shade perpendicular to the longitudinal axis of the filaments 1. The filaments for the main cluster and the guide filaments can be natural bristle or any other material suitable for manufacturing a surface coatings applicator.

Based on some of the books cited, the proper way to clean paint-hardened filaments 1 and 2 is to immerse the filaments in a reservoir 13 of paint solvent. Many current designs of brush handle 4 have a single hole 5 located near the extreme upper end of the handle 4. However soaking the filaments of such a brush by supporting it from the rim of a container with a rod passing through the hole 5 would require using a very tall container 12, because the cluster of filaments 1 should

not, while soaking, be permitted to touch the bottom of the container 12 or the filaments 1 could become bent and consequently reduce or destroy their usefulness. It has therefore been proposed to provide an opening
5 8 in the handle 4 of a brush through which a support rod can pass when the brush is hung up in a container of solvent.

In general a larger paint brush 15 has a longer filament cluster 1 and/or 2 and a longer handle 4 than
10 a smaller paint brush 14. However, the proper level of paint solvent during soaking is still just below the ferrule edge 9; regardless of the brush size. Therefore it would not be possible to efficiently soak a large brush 15 and a small brush 14 at the same time in the
15 same container 12, if the only rod-supporting opening provided in each handle was the opening 8 adjacent to the top edge of the respective ferrule 9.

In accordance with the invention, each brush is provided with a series of openings substantially aligned
20 along the length of the handle. As shown in Figure 1 for the purpose of illustration, openings 6 and 7 are positioned different distances from the ferrule bottom edge 9. These distances having been chosen such as to allow correct soaking of the filament cluster 1 in a
25 typical United States three pound and one pound coffee can, respectively. Opening 8 is positioned for bristle 1 and 2 soaking in a United States number 303 can, commonly used as a one pound can in that Country.

By providing a series of openings (6, 7, 8) the
30 opening 8 on the larger brush 15 and the opening 7 in the smaller brush 14 can be used with a common rod 10 to correctly suspend these two brushes in a common reservoir of solvent.

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The rod 10 and any opening 6, 7, 8 may be of any convenient shape. An oval or polygonal cross-section may be preferred, for example, to prevent brush rotation, in those cases where the centroid of mass of the brush
5 is above the rod.

Figure 3 shows one configuration of an applicator cleaning container assembly 16 having a solvent reservoir 13 contained in a base 17, a cover/lid 18 and an assembly carrying handle/strap 19. The base 17 may have integral
10 mounting brackets 20 (four examples of which are shown enlarged in Figure 4) that internally support a rod 10 which in turn, internally supports the applicators 14, 15. The base 17 may also support the rod 10 by way of rod support openings 27 in a side-wall of the base 17.
15 This configuration is easily adapted to common household containers 12 in which a cover 21 (wavy line) could be (for one of several examples) a flexible solvent resistant material affixed to the base 17 by a semi-elastic rubber band-like element 22 which can be readily affixed to
20 the container 16 below a flange 26 integral with the base 17.

Figure 3 also shows possible configurations for the handles 4 and further shows the possibility of having multi-sectioned handles 4. In Figure 3 the handles of
25 brushes 14 and 15 are in two sections 23, 24 that are joined together by screw-thread or compression type fittings 25. The fittings 25 of the brush 14 is preferred, because having a "male" portion on the lower section 24 renders this easier to clean. A facility to remove
30 the upper handle section 23 of a brush, permits the container assemblies 12, 16 to be much shorter since only the filament cluster 1 and/or 2 of the lower section 24 need be housed therein. Also shown in Figure 3 are special handle contours or ribs 28 that give a much better
35 surface for the painter to grip should the handle become

slippery with paint.

Figure 4 shows four different support brackets 20 for rods 10. It will be noted that three non-circular rods are shown and these could be used with openings 5 6, 7, 8 of similar non-circular cross-section.

Various modifications of surface coatings applicator according to the invention are clearly possible within the ambit of the following claims. Three openings 6-8 are shown in Figures 1 and 2 but only two or more 10 than three are clearly possible.

CLAIMS

1. A surface coatings applicator (14, 15) comprising a tubular ferrule (3) having a cluster of filaments (1) inserted and secured part way into one end of said ferrule (3) and an integral handle (4) including a contoured gripping portion extending outwardly from the other end of said tubular ferrule (3); said handle (4) being of rigid material, optionally having a hole (5) close to the upper end thereof, and having an opening (8) that extends through said handle (4) adjacent to said other end of the ferrule such that a rod (10) may be inserted completely through said opening (8); characterised in that a series of vertically aligned openings (6, 7, 8) are provided in said handle (4) located at specific distances from the lower end (9) of the ferrule (3), into which the filament cluster is inserted, such that one rod (10) can be used to support a plurality of applicators of the same or differing length and/or size in a container (12) of solvent, such that the level (11) of solvent only covers the filaments of each applicator up to the lower edge (9) of each ferrule (3) for proper soaking and cleaning of the respective clusters of filaments (1).

2. A surface coatings applicator as claimed in claim 1, characterised in that said cluster of filaments (1) has a visual marking thereon to indicate the correct depth of insertion of the cluster into a surface coatings material.

3. A surface coatings applicator as claimed in claim 2, characterised in that said visual marking is obtained by incorporating some filaments (2) of shorter length in the cluster.

4. A surface coatings applicator as claimed in

claim 3, characterised in that the filaments (2) of shorter length are of a different colour/shade to the main filaments used for applying the surface coatings material.

5 5. A surface coatings applicator as claimed in
claim 2, characterised in that the visual marking is
effected by a permanent dying, staining coating, heat
discolouring or other pigmentation of the filament cluster
(1) at least in a region substantially half way down
the cluster (1) from the lower edge (9) of the ferrule
10 (3).

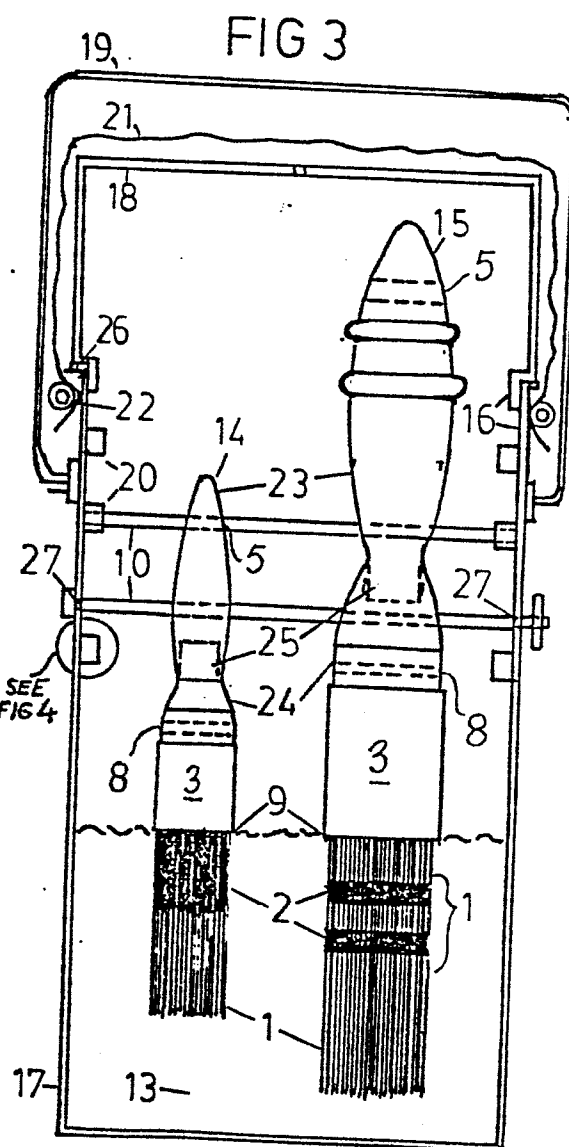
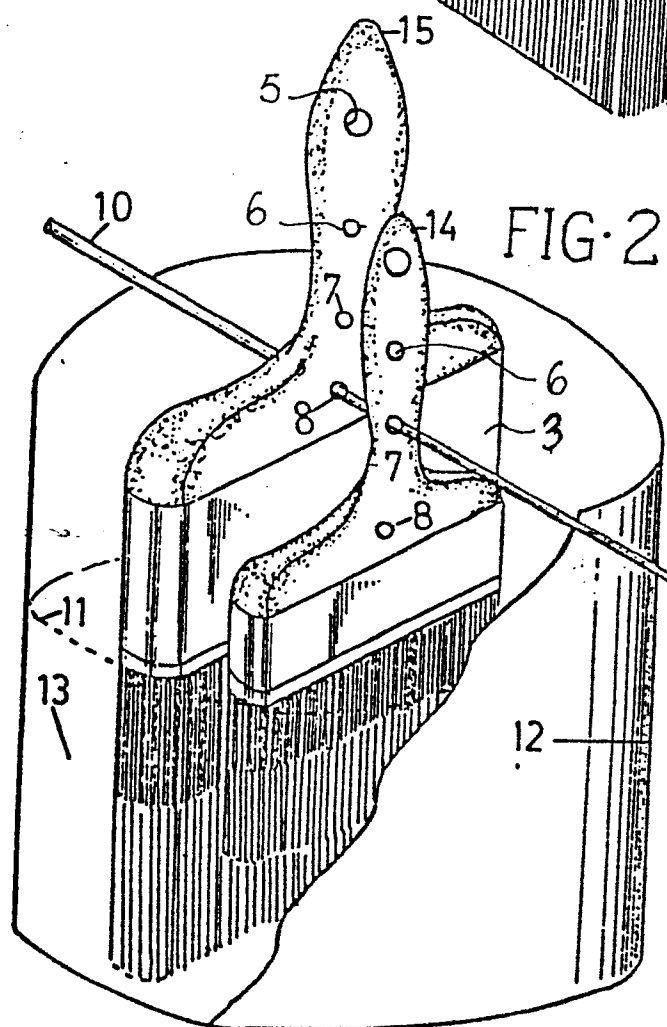
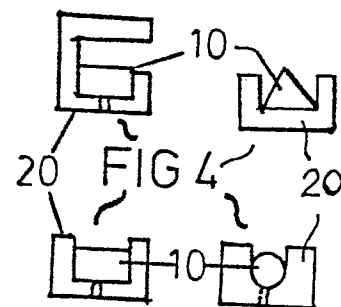
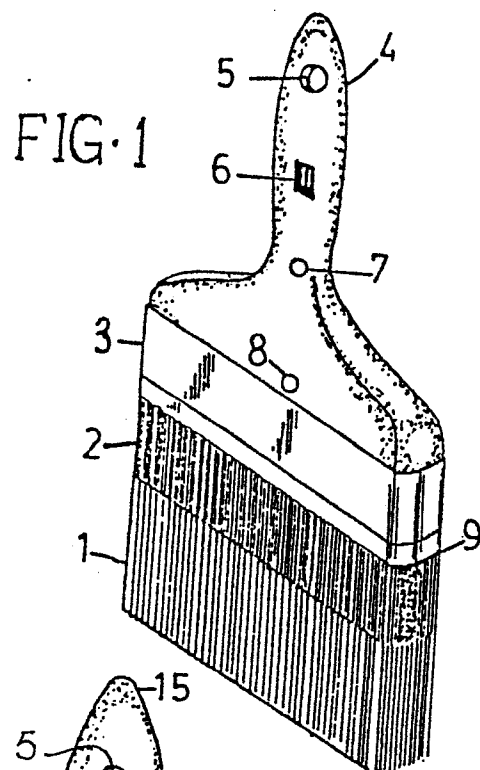
6. A surface coatings applicator as claimed in
any preceding claim, characterised in that the handle
(4) is in two sections (23, 24).

15 7. A surface coatings applicator as claimed in
any preceding claim, characterised in that the handle
(4) is provided with ribs (28) to improve the grip.

8. A surface coatings applicator as claimed in
any preceding claim, characterised in that the openings
(6, 7, 8) are of non-circular cross-section and are adap-
20 ted to receive a rod of similar cross-section.

9. A surface coatings applicator as claimed in
any preceding claim, in combination with a solvent con-
tainer (12) adapted to support a rod (10) passing through
an opening (6, 7, 8) of an applicator suspended in the
25 container.

10. An applicator/container combination as claimed
in claim 9, characterised in that the container includes
a base (17), a removable cover (18) therefor and a carry-
ing assembly (19).

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
Y	US-A-2 646 808 (YENNE) * Column 1, lines 16-20; column 2, line 31 - column 3, line 9; figures 1-3 *	1-10	A 46 B 5/00 A 46 B 5/02 A 46 B 7/04 A 46 B 9/02 A 46 B 9/06 A 46 B 17/06 A 46 D 1/00
Y	US-A-2 952 364 (JACOBSON) * Column 1, lines 15-19, 47-59; column 2, lines 20-27, 42-52; claim 1; figures 1,2 *	1,8-10	A 46 D 9/06 B 44 D 3/24 B 44 D 3/12
Y	CA-A- 884 771 (HREHORICK) * Page 3, line 19 - page 4, line 11; claim 2 *	2-5	
Y	US-A-3 757 376 (COOMBES) * Column 1, lines 53-65; column 2, lines 46-51; figures *	6	
Y	US-A-4 300 258 (BURNS) * Column 3, lines 67-69; figures 5,7 *	7	
A	US-A-2 908 927 (PETERSON) * Column 2, lines 67-69; figures 5,7 *		
A	DE-C- 718 274 (MEIER) * Claim; figures *	2,5	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 10-09-1985	Examiner BOURSEAU A.M.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			



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EUROPEAN SEARCH REPORT

0190369

Application number

EP 84 30 8715

DOCUMENTS CONSIDERED TO BE RELEVANT			Page 2
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	GB-A-1 076 967 (RHODIACETA) * Claims; figures *	2,5	
A	FR-A-1 085 091 (SALVY) * Abstract 1 *	2	
A	GB-A- 374 813 (HAMILTON) * Claims 1,3; figures *	3,4	
A	US-A-2 849 741 (HARDMAN et al.) * Column 1, lines 65-69, 70-72; column 2, lines 1-4; figure 2 *	6	
A	GB-A- 562 430 (COSBY) * Claims; figures *	7	
A	FR-A-2 492 323 (CANIVET) * Claims 1,6,7; figure 1 *	1,9,10	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	US-A-2 926 776 (HILL) * Claims; figures *	1,9,10	
A	US-A-2 469 749 (SPANGLER et al.) * Claims; figures *	1,9,10	
A	US-A-2 270 593 (KURATH et al.) * Claim; figures *	1,9,10	
		-/-	
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DOCUMENTS CONSIDERED TO BE RELEVANT			Page 3
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
E	US-A-4 490 875 (GRUNZ) * Whole document * -----	1-5, 8-10	
			TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
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T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			