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Brennenstuhl

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[54] **BRUSH FOR APPLYING PAINT, VARNISH, LACQUER AND THE LIKE**

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Related U.S. Application Data

[63] Continuation of Ser. No. 128,052, March 25, 1971.

[30] **Foreign Application Priority Data**

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Sept. 22, 1970 Germany ..... 7035025[U]

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[51] **Int. Cl.** **A46b 15/00**; B44d 3/28
[58] **Field of Search** ..... 15/147 C, 148, 150, 176, 15/178, 194, 202, 209 AH, 244 R, 244 A, 244 CH; 401/207

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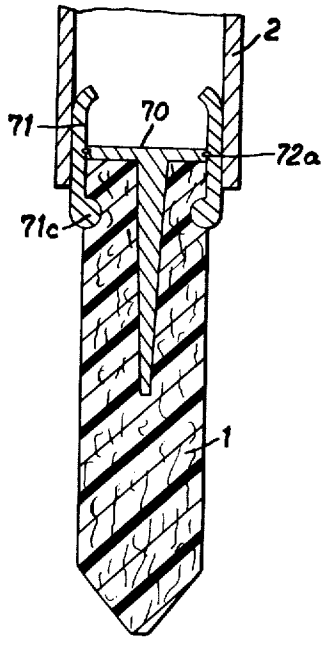
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Primary Examiner—Daniel Blum

[57] **ABSTRACT**

A brush for application of paint or the like is formed of a handle and an applicator envelope. The applicator envelope is an integral piece without bristles formed of soft spongy material. It is connected to a holding extension which is capable of sliding into the handle by a clamping arrangement, such as inwardly bent lateral extensions of a clamping device secured to the holding member which engage the applicator envelope and are clamped against it by the insertion of the holding member into a pocket in the handle.

1 Claim, 7 Drawing Figures



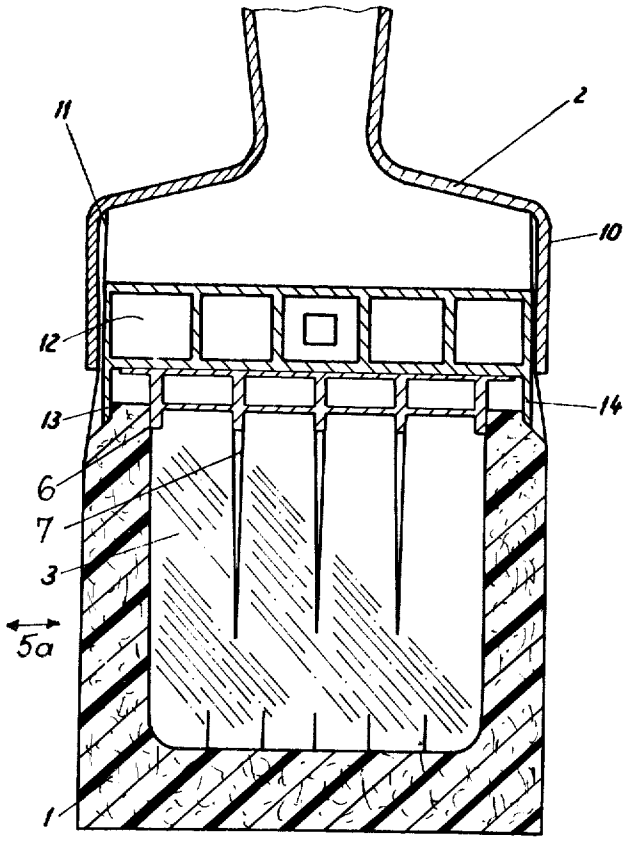


Fig. 1

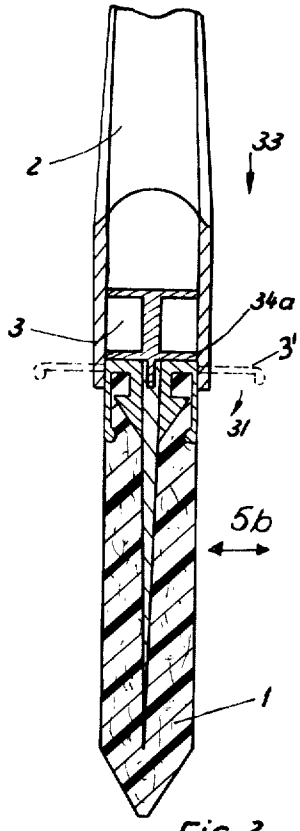


Fig. 2

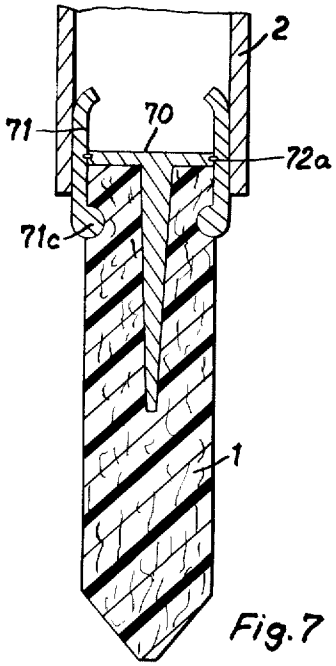


Fig. 7

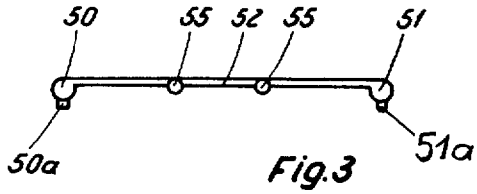


Fig. 3

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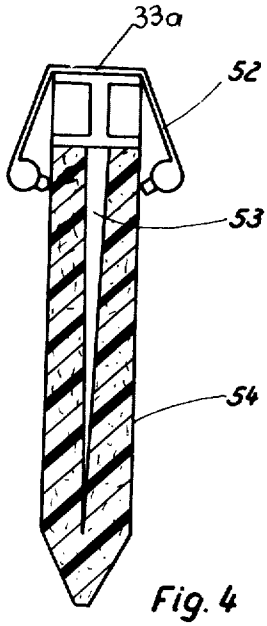


Fig. 4

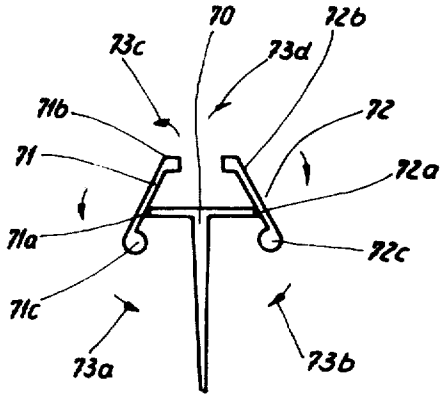


Fig. 6

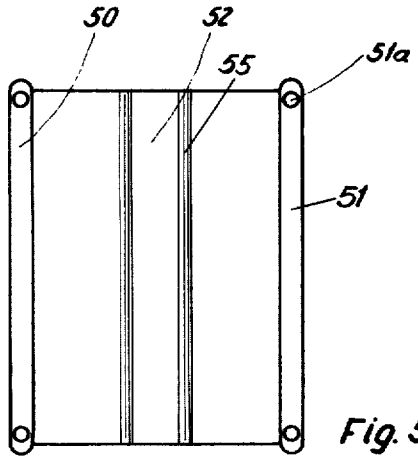


Fig. 5

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BRUSH FOR APPLYING PAINT, VARNISH, LACQUER AND THE LIKE

This application is a continuation of application Ser. No. 128,052, filed Mar. 25, 1971.

The present invention refers to a brush for applying paint, varnish, lacquer and the like and more especially to a brush of the aforesaid kind which consists of a handle and of an applicator envelope, the said handle being composed of an operating portion and of a holding extension on the side facing away from the said operating portion, the said applicator envelope being constructed as an integral piece without bristles and yielding in direction of the thickness, the said applicator envelope being connected to the said holding extension and consisting of a yielding, soft spongy material in the manner of a spongy or foamed material, for example plastic material which takes up the material to be applied and transfers it to the surface to be treated in the form of a thin uniform film.

It is the aim of the present invention to provide a brush of the kind in question with which the condition is avoided that a reliable cleaning of the applicator envelope cannot be performed at all or only with difficulty and that therefore, it is necessary to throw away the applicator envelope and eventually portions connected therewith.

Another object of the present invention is to provide a brush of the kind here in question with which the connection between the applicator envelope and the holding extension is such as to be easily releasable in order that the applicator envelope can be easily cleaned at any time.

A further object of the arrangement according to the present invention is to provide a brush of the general character described with which the handle and the applicator envelope are releasably connected with one another by having the applicator envelope connected with the holding extension and/or the handle with the aid of special mechanically acting means exerting clamping action between the parts to be interconnected.

A still further object of the invention is to provide a brush of the aforementioned kind which has the advantage that the applicator envelope and the holding extension or the handle can easily be detached from one another or connected with one another so that the replacement or the cleaning of the parts after use can easily be performed without it being necessary to throw away any parts. Another advantage of the arrangement according to the invention is that its construction is very simple.

These and other objects, features and advantages of the present invention will become further apparent from the following detailed description thereof, whereby in the drawings several embodiments of the invention are shown.

FIG. 1 shows a sectional front view of a brush,

FIG. 2 shows a sectional side view of the arrangement according to FIG. 1,

FIGS. 3, 4 and 5 show a modified embodiment respectively before use in side view (FIG. 3), during use in side view (FIG. 4) and before use in plan view, as seen from below,

FIG. 6 shows a the preferred embodiment of the invention in a schematical partial side view;

FIG. 7 shows in cross-section the modification of FIG. 6 in the condition of use.

The brush according to the invention, which serves preferably for applying paint, varnish, lacquer and comparable materials on walls or the like, consists of an applicator envelope 1 and of a handle 2, 3. The handle consists in its turn of a holding extension 3 and of an operating portion 2, this latter consisting of a grip and of a holding portion 10 having an excavation 11 into which the upper end of the holding extension can be inserted. The applicator envelope 1 is made of a single integral part without any bristles and has the shape of a flat prismatic body affixed to the handle portion, the length of said applicator envelope being several times greater than its thickness, said flat prismatic body tapering on the side opposed to the handle portion like a wedge. The envelope has a surface which does not present any openings apart from the pores of the material and consists of a sponge like foamed material, for example, of foamed plastic material which is yielding, soft and spongy and which takes up the material to be applied and transfers it to the surface to be treated in form of a thin uniform film. The holding extension 3 is rigid in the direction of its width and, therefore, in the direction of the arrows 5*a*, however, it is yielding in the direction of its thickness according to the arrows 5*b* to which purpose it has several stiffening ribs 6 extending in longitudinal direction and also corresponding slits 7. The holding extension has also on its end facing the handle 2 an enlarged or thickened portion 12 having the shape of a low longish prismatic body the ends of which project laterally from the holding extension and carry two abutment plates 13, 14 which hold the upper end of the applicator envelope between them upon the three parts 1, 2 and 3 being inserted one into another from below or from the sides.

The applicator envelope which is pushed over or inserted onto the holding extension and receives this extension within it, as can best be seen from FIG. 2, can be secured in its position with the aid of a clamping organ which may be designed, for example, as a springy or yielding organ. Such a clamping organ may consist, for example, of a loop or noose of coiled wire which winds wholly round about the applicator envelope and thereby holds this latter securely between its legs, or of spring clamps on the ends or sides of the holding extension, said coiled wire or said clamps clamping the applicator envelope onto the holding extension, thereby connecting the said two parts securely and releasably to one another. In order to secure the applicator envelope to the holding extension there can be also provided rod-like clamping pieces constructed, for example as separate individual part which may have a prismatic or cylindrical shape and may have, for example, a rectangular, circular or triangular cross section. Such clamping pieces in their effective position are jammed between the outer side of the applicator envelope pushed over the holding extension and receiving it therewithin and the inner side of the handle facing the applicator envelope, whereby these clamping pieces under the influence of the handle clamp the applicator envelope against the holding extension. However, the means effecting the clamping action can be provided also on the handle.

The means for providing the clamping connection between the applicator envelope and the holding extension or the handle may be constructed also as clamping jaws. According to FIGS. 1 and 2 there can be provided clamping jaws 3' integral with the holding extension

which in their effective position project horizontally in opposite directions from the opposite longitudinal sides of the enlarged portion of the holding extension, whereby upon inserting the holding extension into the handle according to arrow **33** these clamping jaws are bent according to arrow **31** inwardly towards the holding extension and thereby jammed between the applicator envelope and the inner wall of the handle so as to clamp the applicator envelope against the holding extension. The clamping jaws may be connected with the holding extension in the area of the lower cross rib **34***a* or also in the area of the upper cross rib, they can be provided on their ends with enlarged portions, for example, with ball-like or hemispherical shape to which enlarged portions there are coordinated depressions of corresponding shape on the holding extension into which the enlarged portion are inserted after having been bent according to arrow **31** about an angle of approx. **90°**.

With the embodiment according to FIGS. **3, 4,** and **5** the clamping jaws **50, 51** are carried by a part **52** separate from the holding extension with which part these jaws are integral. The jaws form with this part a longish strip which from above is loosely laid around the holding extension **33***a* in the shape of a U-like flap, whereby the free ends in their effective position are clamped or jammed between the applicator envelope **54** pushed over the holding extension **23, 24** and the handle so as to clamp the applicator envelope **54** against the holding extension **23, 24.** The free ends **50, 51** forming the clamping jaws carry pegs or plugs **50***a*, 51*a* which in the effective position are being pressed into the foamed material **54** of the applicator envelope and ensure a secure clamping also in the case of the plastic material getting soft. In order to determine the position of the body carrying the clamping jaws **50, 51** and to avoid a displacement of this part in the direction of the width of the extension, the one part **52** — the body carrying the clamping jaws or the holding extension — is provided with projections **55** extending in the longitudinal direction and the other part is provided with correspondingly shaped depressions, into which the projections engage.

There can be also provided clamping jaws **71, 72** resiliently movable towards one another or away from one another or clamping jaws which according to FIG. **6** lie oppositely to one another and are constructed as levers which are pivoted to the middle portion **71***a*, 72*a* on the holding extension **70,** whereas their actuated ends **71***b*, 72*b* are removed from one another by means of the handle upon inserting the three parts here in question into one another according to the arrows **73***c*, 73*d* such that their free enlarged ends **71***c*, 72*c* cooperating with the depressions on the holding extension are pressed according to arrows **73***a*, 73*b* against one another in order to hold the applicator envelope between them and to thereby clamp it against the holding extension.

Altough my invention has been illustrated and described with reference to the preferred embodiments thereof, I wish to have it understood that it is in no way limited to the details of such embodiments, but is capable of numerous modifications within the scope of the appended claim.

Having thus fully disclosed our invention, what I claim is:

1. Brush for laying on of paints, varnish, lacquer or the like, which comprises a hollow handle part of substantially greater width than thickness having a downward opening therein and an applicator part including a yieldable porous sponge-like material which receives the coating material on the working surface in the form of a thin film, the applicator part further including a member insertable in the opening with a cross-piece and a downwardly projecting extension thereon extending across the greater part of the width and rigid in the direction of its width, said extension being enclosed within the yieldable material, clamping means for releasably holding the applicator part in the handle part, said clamping means comprising clamping jaws extending widthwise of and hinged along the longer sides of the cross-piece for movement between outwardly projecting and downwardly bent positions, said clamping jaws in released condition being spread apart and by insertion of the clamping means in the handle being positioned and clamped between the yieldable material and the inner wall of the handle part, whereby the yieldable material is held in the handle part and against the extension, the clamping jaws being hinged to the cross-piece intermediate their width, thereby extending above and below the cross-piece.

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