

[54] **STUDENT'S AND ARTIST'S PAINT
BRUSHES**

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1,694,364	12/1928	Albright, 3d.....	15/192
2,122,980	7/1938	Grumbacher	15/192
3,432,874	3/1969	Stiel	15/160 X
3,641,611	2/1972	Schofield	15/190

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[30] **Foreign Application Priority Data**

Dec. 21, 1970 Germany..... P 20 62 815.3

[52] **U.S. Cl.**..... **15/192, 15/DIG. 4**

[51] **Int. Cl.**..... **A46b 3/02**

[58] **Field of Search**..... 15/190, 191, 192,
15/193, 194, 195, 196, 159, 143, DIG. 4; 300/21

[56] **References Cited**

UNITED STATES PATENTS

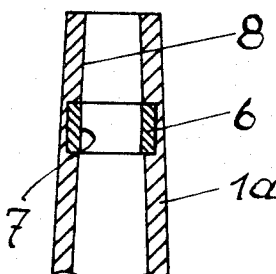
573,711 12/1896 Schuck 15/192

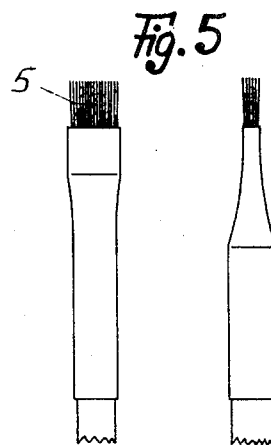
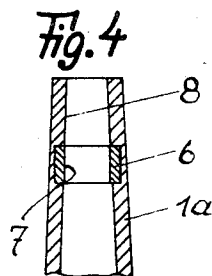
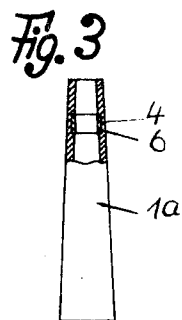
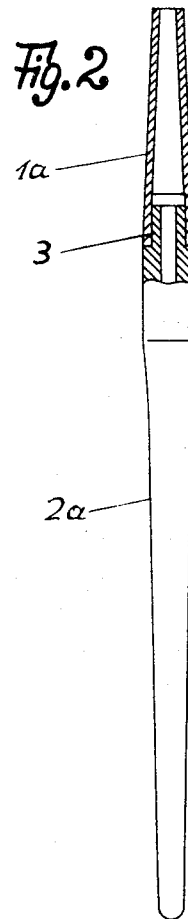
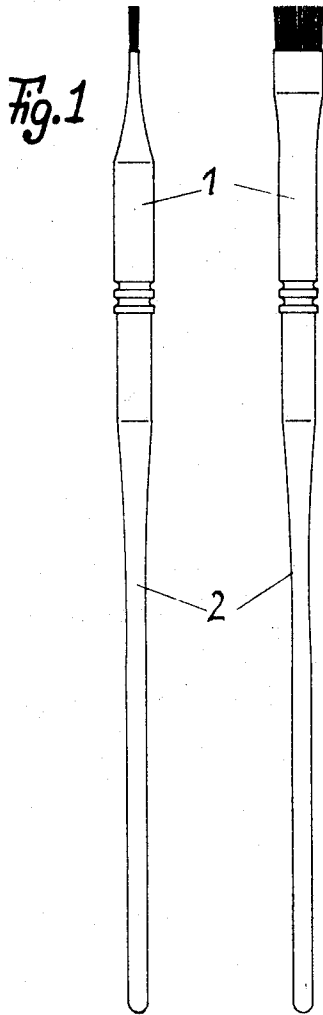
[57]

ABSTRACT

To enable the usual ferrule of a student's or artist's painting brush to be made of a plastics material, and to provide for secure anchorage of the usual hair or bristle tuft into said ferrule, the latter accommodates a metal insert which surrounds one end of the tuft and is firmly located in the ferrule, such insert constituting an element to which the tuft can be reliably adhered.

1 Claim, 5 Drawing Figures





STUDENT'S AND ARTIST'S PAINT BRUSHES

This invention concerns students' and artists' painting brushes.

Students' and artists' painting brushes normally comprise a handle that is comfortable to hold in the hand, a ferrule fastened to the handle and a tuft of hairs or bristles inserted securely in the ferrule. It is usual for the handle to be made from wood and the ferrule to be made from sheet metal. According to the shape, there are two general types, namely round brushes and flat brushes. In the case of round brushes it has already been proposed to produce both the handle and the ferrule from a plastics material. Polystyrene has been used as such material.

Polystyrene ferrules are, however, not resistant to corrosive substances which are often contained in paint. This could be combated by using, for the ferrule, a plastics material which resists the corrosive substances in the paint. Consequently, thought could be given to producing the ferrule from polyethylene or polypropylene. However, this has not been practicable because hitherto it has not been possible to stick the tuft of hair or bristles fast in a polyethylene or polypropylene ferrule. To remedy this and, in addition, to ensure that the plastic ferrule can subsequently be cold-formed to enable it to be brought into the shape of a flat brush, is the object of the invention.

With this object in view, the present invention provides a student's or artist's painting brush comprising a handle, a ferrule of plastics material secured to one end of said handle, a bristle tuft secured by one end into said ferrule, and a metal insert located in said ferrule, and surrounding said one end of said bristle tuft, and serving to anchor said bristle tuft to said ferrule.

The tuft of hair or bristles can be securely anchored to the metal insert by adhesion, that is to say by glueing-in, so that, since the metal insert is located securely in the ferrule, the tuft itself is connected virtually non-releasably to the latter. By means of the metal insert, the prerequisite is provided that the tuft of hair or bristles can be fastened satisfactorily in the plastics ferrule.

Furthermore, if the ferrule consists of a paint-resistant material, for instance of the nature of polypropylene or of the co-polymer known under the trade name "Hostaform," the problem which hitherto seemed insuperable, namely that of providing a corrosion-resistant plastics ferrule in which the tuft of hair or bristles is secured by adhesion, is solved.

A design which is particularly favourable in production is achieved if the plastics ferrule is designed as a body of rotation having at least one tuft-insertion aperture in its free end.

From such a plastic ferrule, formed as a body of revolution, a flat brush ferrule, can be obtained in a simple way, in accordance with a further feature of the invention, by the plastics ferrule, together with the metal insert and the inserted (more especially glued-in) tuft of hair or bristles, is cold-formed to the desired flattened configuration. In this connection it is particularly advantageous if the metal insert is in the form of a circular ring, tube or cylinder.

The invention will be described further, by way of example, with reference to the accompanying drawings,

in which:

FIG. 1 illustrates a conventional or known form of flat brush having a sheet metal ferrule and a wooden handle, the brush being shown in a front view and a side view;

FIG. 2 is a part sectional side view showing diagrammatically, a plastics handle and a plastics ferrule, being components of a painting brush conforming to the present invention;

FIG. 3 is a part-sectional side view, of the ferrule of FIG. 2, this figure showing that the ferrule incorporates, in the holding region of the tuft of hair or bristles (not shown), a circular metal insert;

FIG. 4 is an enlarged fragmentary sectional view showing details of the upper part of the ferrule shown in FIG. 3; and

FIG. 5 illustrates the eventual or finished form of the brush, the upper part of which is shown in a front view and a side view.

Referring firstly to FIG. 1, in conventional or known forms of students' or artists' painting brushes it is customary to work the tufts of hair or bristles into a metal ferrule 1 and to connect the latter securely to a handle 2 made of wood.

This principle of construction has been retained in the case of brushes having plastics handles in accordance with the invention. As shown in FIG. 2, a ferrule 1a is securely mounted, by a spigot and socket connection, on the plastics handle 2a. The ferrule 1a is designed as a body of revolution.

Located securely in the holding region 4 of the tuft 5 of hair or bristles, in the ferrule 1a (which consists, by way of example, of polypropylene or the co-polymer known under the trade name "Hostaform") is a metal ring 6 (FIGS. 3, 4). The inner surface 7 lies flush with the inner surface 8 of the plastics ferrule 1a. By reason of this design, the tuft 5 of hair or bristles, in the holding region 4, is located in direct contact against the inner surface 7 of the ring 6 and is anchored, by means of adhesive, securely to the metal ring 6.

The plastics ferrule 1a which is formed as a body of revolution, as shown in FIGS. 3 and 4, together with the metal ring 6 and the glued-in tuft 5 of hair or bristles, can be cold-formed, by application of pressure at two opposing sides of the free end of the ferrule 1a to form it into the flat configuration shown in FIG. 5.

Although the above description relative to FIGS. 2 to 5 of the drawings disclose a preferred embodiment of the students' or artists' painting brush of the invention, and the manner in which it is made, it is to be understood that variations may be made to the details thereof without departing from the scope of the invention as defined by the following claims.

I claim:

1. A painting brush comprising: a handle, a ferrule of plastics material secured to one end of the handle and having an inner surface provided with an annular ring-receiving recess, a bristle tuft secured by one end into the ferrule, and a metal annular ring located in the recess of the ferrule and having an inner surface flush with the inner surface of the ferrule and surrounding the one end of the bristle tuft and serving to anchor the bristle tuft to the ferrule.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,751,751 Dated August 14, 1973

Inventor(s) Georg Karl

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

On title page, at item 76_7
change "George Karl" to "Georg Karl"

Signed and sealed this 20th day of November 1973.

(SEAL)
Attest:

EDWARD M. FLETCHER, JR.
Attesting Officer

RENE D. TEGTMEYER
Acting Commissioner of Patents