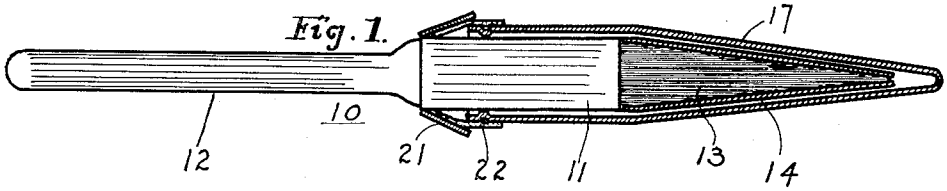
Nov. 7, 1933. E. R. LOOMIS 1,934,316

BRUSH PROTECTING DEVICE

Filed July 8, 1932

Fig. 1.



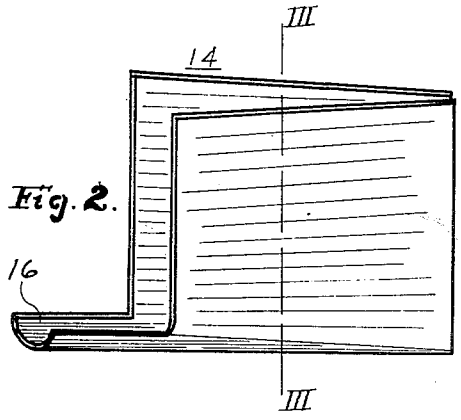


Fig. 2.

Fig. 3.

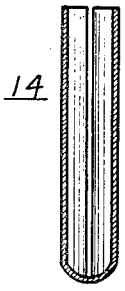


Fig. 5.

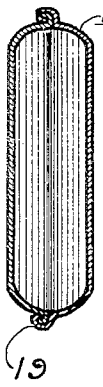


Fig. 4.

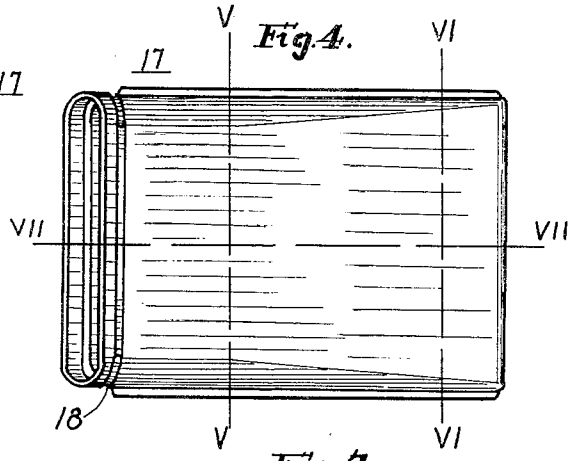


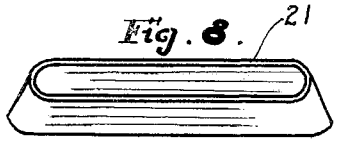
Fig. 6.



Fig. 7.



Fig. 8.



INVENTOR
EARL R LOOMIS
BY Wm Bichel
ATTORNEY

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UNITED STATES PATENT OFFICE

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BRUSH PROTECTING DEVICE

Earl R. Loomis, Oakmont, Pa.

Application July 8, 1932. Serial No. 621,437

6 Claims. (Cl. 206—15.1)

My invention relates to brushes and particularly to methods of and devices for protecting and preserving brushes.

Among the objects of my invention are the following:— To provide a novel and simple device for enclosing and protecting a brush during packing, shipping, display or storage thereof or while being carried in a workman's kit; to provide a simple and easily applied means for holding the bristles of a brush in proper operative position in a used or in an unused brush; to provide a protective enclosure for the bristles of a brush that shall prevent a used brush drying out and becoming hard and stiff; to provide a protective casing for a brush that shall be easily applied thereto and removed therefrom and that shall require but little space and one which can be used repeatedly.

In practicing my invention I provide a sheath of substantially U-shape in section to immediately surround and closely confine the bristles and a baglike casing made of a material impervious to air closely surrounding the sheath and bristles, the mouth portion of the casing engaging the body or head of the brush and a resilient member of band shape covering the joint between the casing and the head. I may provide also a resilient clip or clamp to be slipped over the resilient band.

In the single sheet of drawing,

Figure 1 is a view partially in longitudinal section and partially in side view, of a device embodying my invention as applied to an ordinary painter's brush,

Fig. 2 is a view in perspective, of a sheath constituting a part of the device embodying my invention,

Fig. 3 is a view, in lateral section therethrough, taken on the line III—III of Fig. 2,

Fig. 4 is a view, in perspective, of a casing constituting a part of the device embodying my invention,

Fig. 5 is a view, in lateral section therethrough, taken on the line V—V of Fig. 4,

Fig. 6 is a view, in lateral section therethrough, taken on the line VI—VI of Fig. 4,

Fig. 7 is a view, in longitudinal section taken on the line VII—VII of Fig. 4, and,

Fig. 8 is a view in perspective of a resilient clip.

Referring more particularly to Fig. 1 of the drawing, I have there illustrated a brush 10 of the type usually employed in ordinary painting work and embodying a head 11 with a handle 12 and a plurality of bristles 13. No attempt is here made to show in detail the construction of a brush of this kind as the device embodying my invention can easily be adapted to not only a brush of this kind but to a brush of any kind, so long as the brush includes a set of bristles and a supporting head therefor.

Referring to Fig. 2 of the drawing, I have there illustrated a sheath 14 which is made of substantially U-shape in lateral section as will be noted by reference to Fig. 3 of the drawing, the walls of the sheath being closer together at one end of the sheath than at the other when it is desired to use this sheath on the ordinary kind of brush used in house painting. The sheath includes also a handle portion or extension 16 at its upper end which is of such shape as to fit closely around one edge portion or side portion of the head of a brush.

A casing 17, made of some material impervious to air, is of box shape or of a baglike shape, that is, it is made of a material impervious to air and so constructed that it is substantially airtight at all places except the open end thereof. The open end is of such shape and dimensions as to conform closely to the head 11 of the brush and I prefer to provide a bead 18 extending entirely around the periphery of the casing 17 closely adjacent to the open end thereof. The casing 17 is made tapering in longitudinal section when it is to be used on a brush of the kind shown in Fig. 1, and the dimensions of this casing are such that it will closely surround the sheath 14 in order to entrap a minimum amount of air within the casing.

I have illustrated a specific form of casing, which at present I make of metal, and have illustrated one form of an airtight seam 19 at each side of the casing 17 and at the closed end thereof. While I have illustrated a casing which is made with seams at the sides thereof, I do not desire to be limited to such construction as I may use any other form of baglike casing, for instance, several pieces or parts of proper shape fitting together with an airtight fit, so long as the resultant structure is substantially impervious to air and so long as the walls at or near the mouth of the casing conform closely to the shape and dimensions of the head of a brush and are preferably sufficiently resilient to tightly encircle or surround the head or a leather or a metal band surrounding the head and constitute therewith a substantially airtight enclosure for the bristles.

I have illustrated, in Fig. 8, a resilient clip or clamping means 21 which I may use and which is of a shape to closely surround the head of a brush and is adapted to compress tightly a band 22 of some yielding or elastic material which I place over the joint between the mouth of the

casing and the head of the brush as is shown more particularly in Fig. 1 of the drawing. I have found that an ordinary gum band may be used for member 22, or it is possible to use several superposed layers of ordinary friction tape, but I wish it to be understood that my invention is not limited to the use of either of these two materials.

So far as I am aware, the most frequently used method of preserving a used brush is to clean it by the use of a suitable thinner or vehicle of the coating material which was being worked on or over a surface by the use of the brush. In other words, the attempt is made to remove substantially all of the paint or coating with the idea that the bristles will be left in a substantially clean and uncoated condition so that no hardening of the bristles shall result. So far as I am aware however, this method is not a complete success as it is practically impossible for the ordinary user of a brush to successfully remove all of the hardening or oxidizing vehicle of the paint or coating, so that a considerable degree of hardening or stiffening of the bristles does occur.

In contradistinction to this, the device embodying my invention is so designed, constructed, and used as to locate the bristles in an airtight enclosure having a minimum amount of air entrapped therein, whereby oxidizing of the vehicle is substantially entirely prevented, so that a used brush will remain soft and pliable. This statement applies not only to the particular type of brush illustrated in the drawing, but also to all other types of brushes which are used to spread some kind of a coating such as size, glue, paste, etc. over some kind of a surface and which therefore use a vehicle which, when spread by the brush, gradually dries out or oxidizes and hardens.

In placing the brush in the enclosure constituting my invention I prefer to place the brush within the sheath 14 by a movement laterally of the bristles. As has already been mentioned I prefer to so shape the sheath 14 that the bristles will not only be maintained in substantially straight condition, but also, in the case of a paint brush, so that the free ends thereof will be compressed in order that a minimum amount of air may be entrapped. I prefer to make the sheath of such length as to cover the bristles only and have the upper end thereof abutting against one end of the head from which the bristles extend.

The brush with the sheath over the bristles can then be easily and quickly fitted into the casing 17 by a longitudinal movement of the brush and sheath. The casing 17 will assume the position shown in Fig. 1 of the drawing, in which the inwardly extending annular bead 18 will engage the head over its entire periphery, thereby providing a substantially airtight joint between the casing 17 and the head 11. Or if a leather band or a metal band (not shown in the drawing) extends around the head the walls of the casing at the open end may engage this band.

In order to provide as nearly as possible an enclosure, I prefer to locate over the upper end of the casing 17 a yielding or elastic band, which is made of an airtight material, and which also engages the head of the brush. If desirable or necessary I may further locate a clip 21 over the yielding or resilient band 22 in order to retain the same in its proper operative airtight position.

The device embodying my invention thus provides a novel form of protective casing for a brush which permits of keeping the bristles in soft and pliable condition without appreciable hardening of the painting or coating solution adhering to the bristles of a used brush. This result is obtained by preventing the access of air to the bristles once they have been located in the substantially airtight casing.

My improved casing may also be used on new brushes to ensure their being kept clean with the bristles in their original shape, or to permit of their being carried from place to place without injury to the bristles, the casing taking up a minimum amount of space. My device provides also a substantially airtight protecting casing for a used or for an unused brush, which casing can be used repeatedly.

Various modifications may be made in the device embodying my invention without departing from the spirit and the scope thereof, and I desire therefore, that only such limitations shall be placed thereon as are imposed by the prior art or are set forth in the appended claims.

I claim as my invention:—

1. A protective device for a brush having bristles and a head, said device including a sheath for closely confining the bristles, said sheath being split longitudinally to permit relative lateral movement of the walls thereof, and a bag-like casing of air tight material conforming to and closely surrounding the sheath to maintain the walls thereof against the bristles, the walls of the casing at the open end thereof being resilient to closely operatively engage and surround the head to constitute therewith a substantially air tight casing for the bristles.

2. In a device as set forth in claim 1 wherein a pair of opposite walls of both the sheath and casing are tapered towards each other at points displaced from the open end of the casing.

3. In a device as set forth in claim 1 wherein both opposite ends of the sheath are open, the closed end of the casing providing a closure for the open end of the sheath.

4. A protective device for a brush having bristles and a head, said device including a sheath for closely confining the bristles, said sheath being split longitudinally and open at its opposite free ends, and a casing of airtight material conforming to and closely surrounding the sheath to provide an airtight closure for open portions of said sheath, one end only of said casing being open, the walls of the casing at its open end being resilient and shaped complemental to said head whereby to closely surround and engage the head to provide a substantially airtight casing for the bristles.

5. In a device as set forth in claim 4, an elastic airtight means closely engaging the open end of the casing and the head for preventing access of air to said casing.

6. A protective device for a brush having bristles and a head, said device including a sheath for closely confining the bristles, said sheath being split longitudinally to permit relative lateral movement of the walls thereof, and a bag-like casing of air tight material conforming to and closely surrounding the sheath and operatively engaging same on opposite sides thereof to maintain the walls thereof against the bristles, the walls of the casing at the open end thereof being resilient to closely operatively engage and surround the head to constitute therewith a substantially air tight casing for the bristles.

EARL R. LOOMIS.