Dec. 15, 1953 P. F. NASH 2,662,269

APPLICATOR ROLLER FOR LIQUIDS

Filed Feb. 15, 1951

Fig. 1.

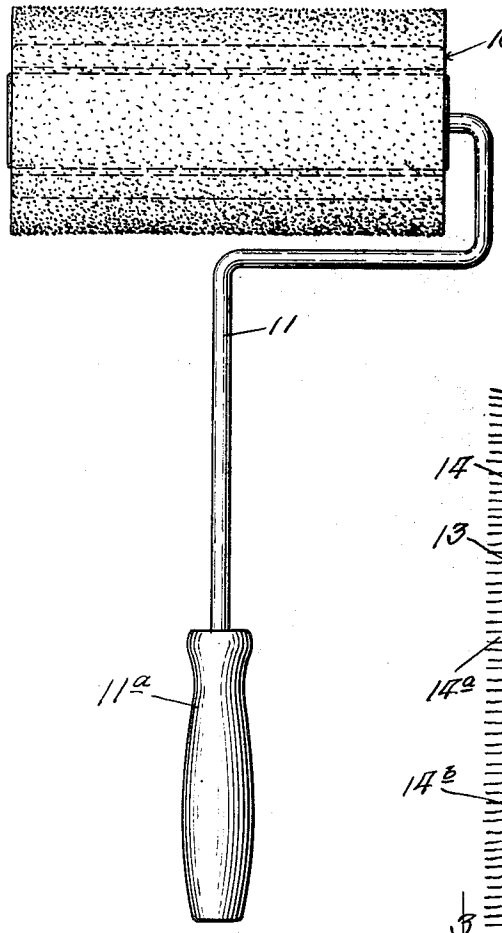


Fig. 4.

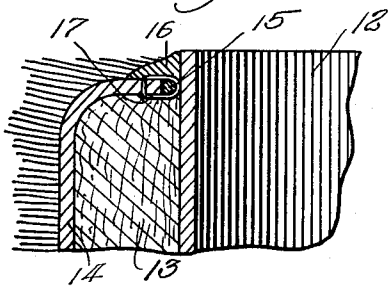


Fig. 2.

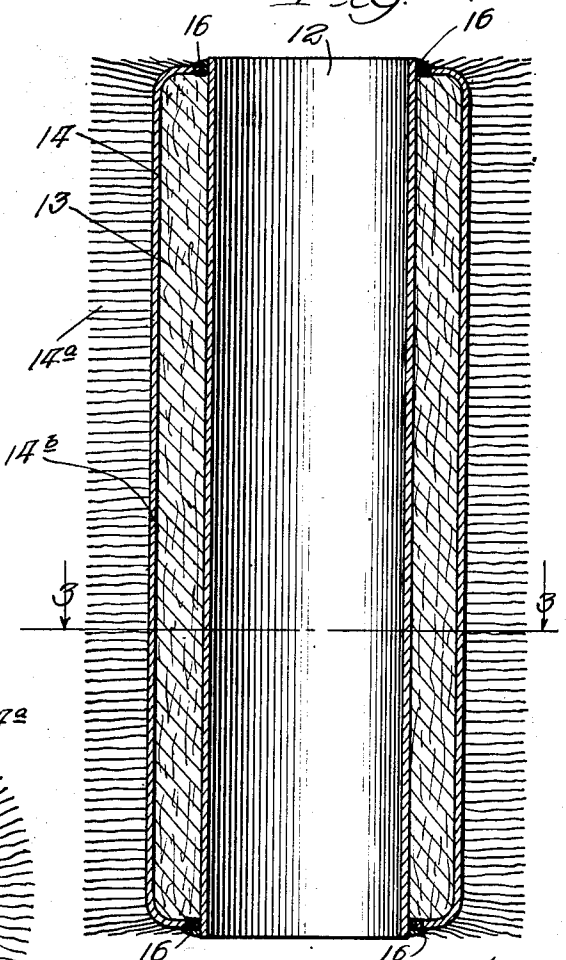
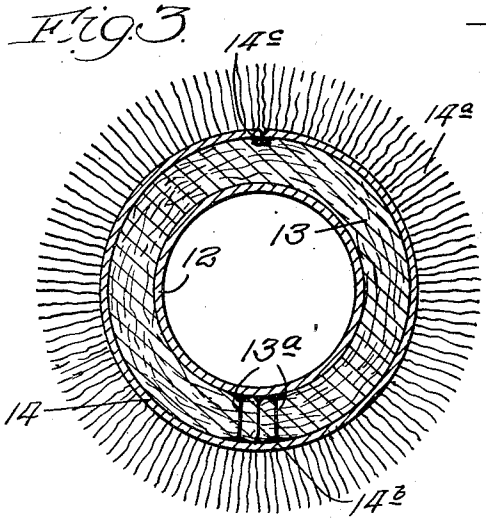


Fig. 3.



Inventor:
Paul F. Nash,
By Schroeder, Merriam,
Hofgren & Brady, Attys.

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APPLICATOR ROLLER FOR LIQUIDS

Paul F. Nash, Glencoe, Ill., assignor, by mesne assignments, to E Z Paintr Corporation, Milwaukee, Wis., a corporation of Delaware

Application February 15, 1951, Serial No. 211,068

1 Claim. (Cl. 29—119)

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This invention relates to an applicator roller for liquids and particularly to such a roller for applying paint to walls and other surfaces.

One of the features of this invention is to provide an applicator roller comprising a tubular core, a resilient padding thereover of substantially uniform thickness with the ends of the core extending slightly beyond the padding, a fibrous liquid-distributing material overlying the padding with each end of the material extending around the corresponding end of the padding and toward the core, a narrow collar at each end of the core closely embracing this core adjacent to the corresponding ends of the padding and the material, means attaching each end of the material to one of the collars and a coating substantially impervious to said liquids covering the ends of the material and the outer surfaces of the attaching means and the corresponding ends of the core to seal the ends of the roller in areas adjacent to the core. A more specific feature of the invention is to provide such a roller wherein the padding is of felt and the liquid-distributing material comprises a tubular piece of natural sheepskin or synthetic material resembling sheepskin having the "hair" or fibers turned outwardly and the "hide" or base overlying the padding and wherein the narrow collar comprises a cord loop with the attaching means being stitching attaching each end of the hide to one of the loops. Other features and advantages of the invention will be apparent from the following description of one embodiment of the invention as disclosed in the accompanying drawings. Of the drawings:

Fig. 1 is a plan view showing one embodiment of the roller of this invention mounted on a conventional handle.

Fig. 2 is a longitudinal section through the roller only of Fig. 1.

Fig. 3 is a transverse section taken substantially along line 3—3 of Fig. 2.

Fig. 4 is an enlarged fragmentary section of one end of the roller at only one side thereof.

Applicator rollers having a surface of a liquid-distributing material are well known for use in applying liquids such as paints to walls and other surfaces. A roller of the type described herein is ordinarily removably mounted on a handle on which said roller is rotatably mounted. In use, the paint or other liquid is held in a shallow tray and the roller is dipped into this liquid by means of the handle and rotated in the liquid or on a surface above the liquid to distribute the liquid substantially uniformly over the roller. This

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liquid, such as paint, is then applied to a surface, such as a wall, by rolling the roller over the surface. In the present invention, applicant has invented an improved roller construction having the ends sealed to prevent or substantially reduce the tendency of the liquid to drip from the end of the roller. The new roller also provides improved means for attaching the liquid-distributing surfacing material to the usual rigid core.

In the embodiment shown in the accompanying drawings, the new applicator roller 10 is rotatably mounted on a conventional combined holder and handle 11 having the usual hand grip portion 11*a*.

The roller 10 comprises a rigid tubular core 12, a resilient padding 13 thereover of substantially uniform thickness with the ends of the core 12 extending slightly beyond the padding and a fibrous liquid-distributing material overlying the padding 13 with each end of this material extending around the corresponding end of the padding 13 and toward the core 12. In order to attach the material 14 in place each end of the core 12 adjacent to the corresponding end of the padding 13 is provided with a narrow collar 15 closely embracing the core. The ends of the liquid-distributing material 14 are then attached to these collars 15 to hold the material in place and draw this material tightly around the padding 13. In order to seal the ends of the roller in areas adjacent to the core, there is provided a coating, indicated at 16, of a material such as an adhesive that is substantially impervious to the liquids with which the applicator is used. This coating covers the ends of the material 14 and the outer surfaces of the collars 15, the means by which the material 14 is attached to the collars 15 and the adjacent end surfaces of the core 12.

In the embodiment shown in the drawings, the resilient padding 13 is a hair felt while the liquid-distributing material 14 is a tubular piece of synthetic sheepskin having the "hair" 14*a* turned outwardly and the "hide" contacting the padding 13. Also in this embodiment the narrow collar 15 at each end of the roller comprises a cord loop drawn tightly around the core 12. The ends of the substantially liquid-impervious hide 14*b* of the synthetic sheepskin are attached to the cords 15 by stitching 17. As is shown most clearly in Fig. 4, the coating 16 seals the ends of the roller by covering the ends of the sheepskin and the outer surfaces of the cords 15, stitching 17 and the adjacent end surfaces of the core 12. This coating also has a binding

action to provide a more sturdy structure as well as preventing or substantially reducing the tendency for liquid to drip from the ends of the roller.

As is shown most clearly in Fig. 3, the felt padding 13 is of tubular shape provided by stitching the sides of the section of padding together in a longitudinal seam as indicated at 13a. The sheepskin liquid-distributing material 14 is also provided in a substantially tubular shape by means of a smaller stitched seam 14c. The seams 13a and 14c are arranged substantially diametrically opposite each other.

As is shown most clearly in Fig. 2, the hair 14a of the sheepskin 14 is clipped so that the individual hairs are of substantially uniform length. The hair at the ends of the roller is clipped to give substantially square ends when the roller is in use.

As explained above, the coating 16 is one that is substantially impervious and non-soluble in the liquids with which the applicator roller is used. One example of such a coating is "Du Pont 5458" cement, comprising a pyroxylin base dissolved in volatile solvents.

In the specification and claim the term "roller" is used to designate the cylindrical member that rolls over the surface when the apparatus is in use, while the term "applicator" is used to designate the assembly of roller and attached handle.

Having described my invention as related to the embodiment shown in the accompanying drawings, it is my intention that the invention be not limited by the details of description unless otherwise specified but rather be construed broadly within its spirit and scope as set out in the accompanying claim.

I claim:

An applicator roller for liquids comprising a tubular core, a resilient felt padding thereover of substantially uniform thickness with the ends of said core extending slightly therebeyond, a tubular piece of fibrous liquid-distributing material having the fibers turned outwardly with the base of said material overlying said padding and each end of said base extending around the corresponding end of the padding and toward the core, a cord loop at each end of the core closely embracing said core adjacent to the corresponding ends of the padding and fibrous material, stitching attaching each end of said base to one of said loops, and a coating substantially impervious to said liquids covering substantially the ends only of said fibrous material and the outer surfaces of said stitching and the corresponding ends of the core to seal the ends of said roller in areas adjacent to the core.

PAUL F. NASH.

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