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PAINT APPLYING DEVICE

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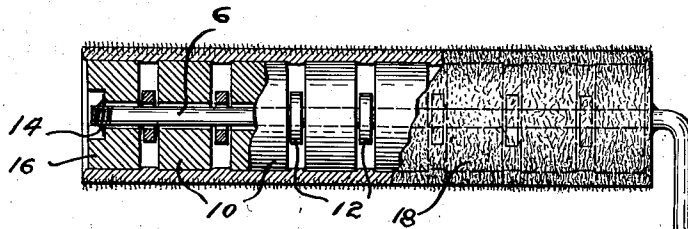


Fig. 1.

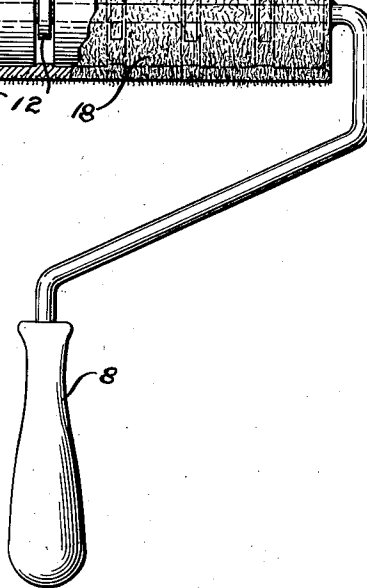
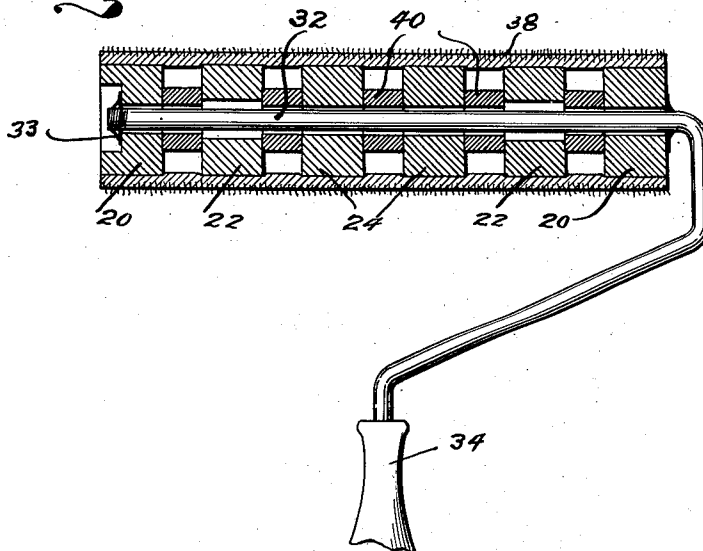


Fig. 2.



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PAINT APPLYING DEVICE

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4 Claims. (Cl. 15-27)

This invention relates to improvements in paint applying devices and is particularly directed to rollers for applying paint, calcimine and other coating materials, to walls, ceilings and other surfaces.

Heretofore rollers employed for applying paint and the like have been made from sponges, sponge rubber, chamois and similar soft materials. Such rollers have been difficult to clean because of the absorbcency of the material employed. Moreover, the supply of sponges and rubber is at present restricted. Rigid one piece rollers also have been employed having coverings of the aforementioned materials. Such rollers have the objection that in applying paint to uneven surfaces difficulty is experienced in covering the depressions because of the spanning or bridging of such depressions by the rigid roller.

The primary object of the present invention resides in the provision of a roller having all of the advantages of former rollers and wherein the disadvantages thereof are overcome.

Briefly the roller of the present invention is made up of a plurality of discs or relatively narrow rollers loosely mounted on a shaft and the shaft provided with a handle. By loosely mounting the discs or rollers on the shaft they are free to rotate and rock laterally thereon as well as to move transversely thereof. By reasons of the fact that a plurality of discs are employed to make up the roller proper, the roller proper will simulate a flexible roller wherein individual discs or adjacent discs will enter depressions or uneven surfaces.

I have found that my improved device, by actual trial and comparison with prior devices such as the solid roller hereinbefore mentioned, is far superior in that it is capable of coating depressions in uneven surfaces which could not be coated by prior rigid rollers of the structures mentioned. One experiment or demonstration consisted in applying paint to a brick surface where the plaster or mortar between the bricks was depressed below the face or surface thereof. In this demonstration the prior rollers used for comparative purposes left the mortar uncoated while my improved roller satisfactorily coated, not only the surface of the bricks but also the intermediate mortar.

My improved device is adapted to receive a sleeve of carpet material for holding the coating material, without absorbing more than is desired, and which readily can be removed for cleaning.

Other advantages of the present invention will

be manifest from the following description and the accompanying drawing, in which drawing:

Fig. 1 is a longitudinal sectional view of one form of my invention; and

Fig. 2 is a longitudinal sectional view of another form of my invention.

Referring to the drawing in detail, and first of all to the form illustrated in Fig. 1, a shaft 6 in the form of a rod of metal or other suitable material is bent at one end at an angle to the longitudinal axis of the rod and provided with a handle 8. This shaft or rod carries a plurality of discs or narrow rollers 10, preferably of wood, but may be of any other suitable material. Each disc has a central bore substantially larger in diameter than the diameter of the shaft 6, whereby the discs will be free, not only to rotate on the shaft, but also to move angularly with respect thereto as well as transversely thereof.

Spacing members 12 are interposed between adjacent discs. These members may be in the form of washers or discs smaller in diameter than the discs or rollers 10 and serve to space the discs 10 from each other to facilitate the varied movement of the discs previously mentioned. These spacing members 12 also may have their bores slightly larger than the shaft to provide greater flexibility of the roller proper.

The free end of the rod or shaft 6 is provided with a nut 14 or other retaining member to retain the discs and spacing members thereon. The end disc 16 is counterbored to receive the nut 14. The end of the shaft opposite the free end also may be provided with a retaining member if desired.

A sleeve or covering 18 of fibrous material is removably applied over the plurality of discs for the reception of the paint. I preferably employ a sleeve of carpet material with the nap thereof on the outside, but any other fibrous material may be employed.

It will be appreciated that when this sleeve is applied over the roller, the same simulates a roller of flexible material and when contacting uneven or rough surfaces the individual discs by reason of their loose mounting on the shaft will permit the roller proper to conform to the contour of the rough or uneven surface whereby the entire surface will be coated evenly.

With respect to the form illustrated in Fig. 2 the same principle applies as in the form illustrated in Fig. 1. In this form however the central openings of certain of the individual discs differ in size. The central openings in each of the end discs 20 and the central discs 24 are all

of the same diameter whereas the openings in each of the intermediate discs 22 are the same size but are larger than the openings in the other discs. In other words the central openings or bores of the discs 20 and 24 as will be seen from the drawing are smaller than the bores of the discs 22. This form permits of greater flexibility of the roller proper intermediate its midpoint and its ends, and has been found to be very efficient in applying a coating material to uneven or rough surfaces.

The form of Fig. 2, as will be seen has a rod 32, retaining member 33 and a handle 34 similar to the rod 6, nut 14 and handle 8 respectively of Fig. 1. A sleeve or covering 38 similar to the sleeve or covering of Fig. 1 is also provided for this form. Spacing members 40 are provided between adjacent rollers in this form for spacing the individual discs as in the form of Fig. 1.

In using my improved device, any suitable container for the coating material may be employed. However, I prefer a flat tray as a container into which the roller may be dipped whereby to provide the sleeve or covering with a supply of the material. The coating material in the tray, however, should not be too deep. A depth of substantially the thickness of the sleeve or covering on the roller will generally suffice and will prevent the coating material from entering the central openings in the discs.

I have found that with the rear end of the tray tipped slightly upward, so that the coating material will flow to the front of the tray and form a well, leaving the portion of the bottom rear of the well free of coating material, that this expedites the roller saturating operation. With the tray in this position the roller is dipped into the well and then rolled rearwardly on the inclined bottom. This permits the presentation of different peripheral surfaces of the roller to the coating material and when the sleeve is sufficiently saturated a further rolling of the roller on the free inclined bottom facilitates smoothing or evening out of the coating material on the sleeve.

When the sleeve has been satisfactorily saturated the same is rolled on the surface to be coated, and as previously mentioned, should an uneven surface be encountered the flexibility of the roller proper due to the novel mounting of the plurality of discs will permit the roller to conform to such surfaces.

After one coating operation the sleeve may be removed from the roller and deposited in a solvent for the particular coating material employed, and thereafter may again be used.

It will be appreciated that when different colors

of coating material are to be used successively, the sleeve may be removed after coating with one color and a clean sleeve applied over the discs for use with the next color, thereby greatly facilitating a multi-color coating operation. This applies also when coating successively with different type coloring materials.

It is to be understood that while I have illustrated in Fig. 1 a roller made up of eight spaced discs or narrow rollers and in Fig. 2 a roller made up of six spaced discs or narrow rollers, I do not wish to be limited to any specific number of such discs or rollers as the number thereof employed may vary as desired.

It is also to be understood that various other changes and modifications may be made in the structures herein illustrated and described without departing from the spirit and scope of my invention.

What I claim is:

1. A device for applying coating material comprising a shaft, a plurality of loosely mounted discs of rigid material thereon, loosely mounted spacing members interposed between adjacent discs a covering of fibrous material on said discs, and a handle carried by one end of said shaft.

2. A device for applying coating material comprising a shaft, spaced end, central and intermediate discs thereon each having a central bore larger than the diameter of the shaft, the end discs and the central discs having bores of equal diameter and the intermediate discs having bores of larger diameter than the end and central discs, and a sleeve of fibrous material covering said discs.

3. A device for applying coating material comprising a shaft, a plurality of discs on said shaft, said discs each having central openings substantially larger than the diameter of the shaft whereby to permit said discs to move transversely and angularly relatively to said shaft and to rotate thereon, spacing members on said shaft intermediate said discs, said members each having a central bore larger than the diameter of said shaft, and a removable covering of fibrous material on said discs.

4. A device for applying coating material comprising a shaft, a plurality of discs on said shaft, said discs each having central bores varying in size with respect to adjacent discs, each bore being substantially larger than the diameter of the shaft whereby to permit said discs to move transversely and angularly relatively to said shaft and to rotate thereon, and a removable covering of carpet material on said rollers.

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