June 25, 1968 H. T. PARRIS 3,389,466

WALL SURFACE SCARIFYING AND PREPARING TOOL

Filed May 25, 1967

Fig. 1

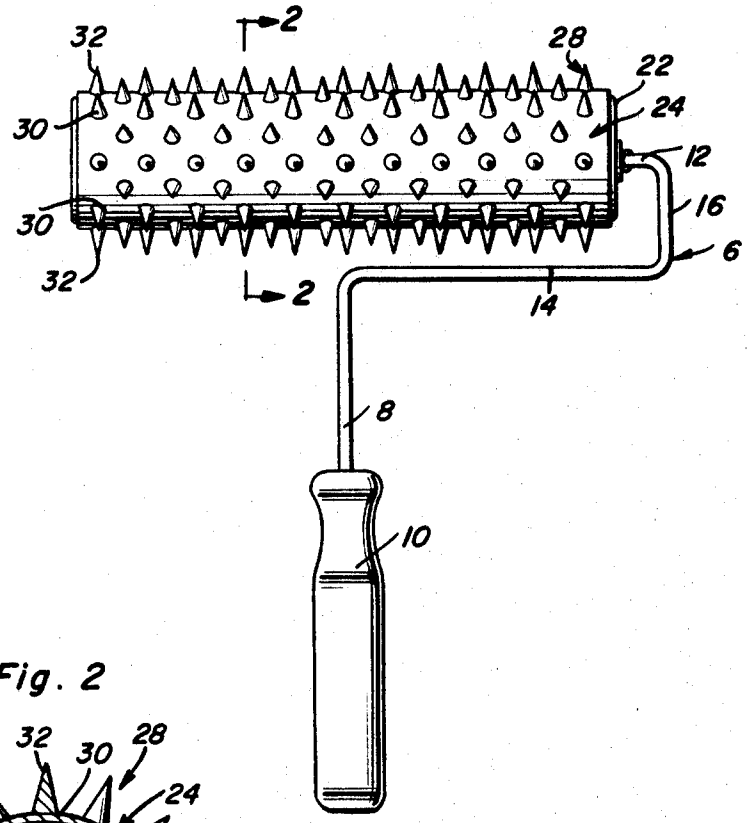


Fig. 2

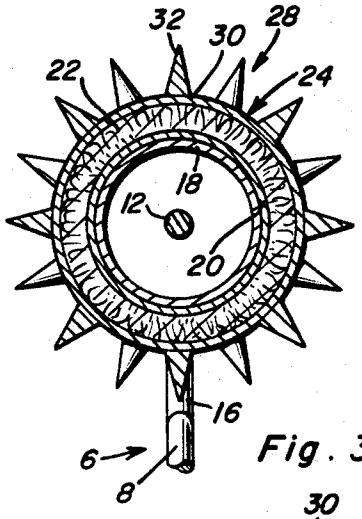
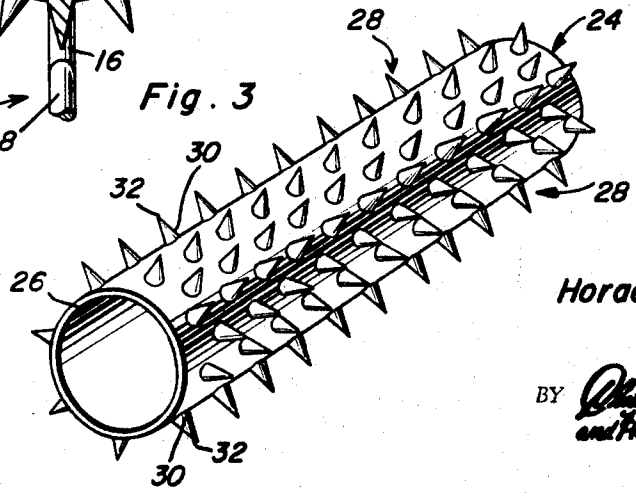


Fig. 3



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WALL SURFACE SCARIFYING AND PREPARING TOOL

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ABSTRACT OF THE DISCLOSURE

The tool disclosed is designed for use by paperhangers, painters, plasterers or assistants when called upon to gouge into and to roughen room wall surfaces (plastered walls and plaster board) and to prepare the same for application of new plaster, inside and outside corner and patching tapes, and for ultimate papering or painting. The tool proper comprises a manually manipulable paint applying roller on a handle-equipped frame and having a cushioned periphery (mohair padding). An adapter sleeve is snugly retentively fitted over the padded surface and has radial distributively arranged conical pointed scarifying prongs, as hereinafter set forth.

Background of the invention

This invention relates to a self-contained attachment which is designed and adapted to be fitted for use over the resiliently padded surface of a freely turnable roller-type applicator and spreader on a conventional-type manually usable paint roller and pertains, more particularly, to a steel or an equivalent rigid wear resisting sleeve which is unique in that its surface is provided with integral radially projecting pointed prongs whose pointed ends penetrate and roughen the wall surfaces and condition the same for plastering, taping and pointing, as the case may be.

Many persons are apparently under the impression that walls, particularly walls which are made of plaster board, are flat but this is not true. When nailing plaster board to furring or joists, the nails draw the edges down tight. There is also a line of nails either 16 inches or 24 inches apart, depending on the separation of the joists or furring. When plaster board is drawn tightly along these lines, it tends to bulge outward in those places where there are no nails. When a surface conditioning roller is rolled with heavy pressure on a non-flat wall surface (side walls or ceiling) it may and often does bounce and jump from from one high spot to another. To cope with this situation it is necessary to have yieldability and to this end the instant tool is designed with the basic problem in mind and with a view toward aptly solving the problem. Cracks usually occur in plaster or in wallboard after several coats of paint have been applied, and since paint fills the pores of the plaster, it will not allow adhesive joint cement to take hold properly. It follows that a purpose of the surface conditioning and roughening tool is to break through this filled surface and let the joint cement anchor to the plaster underneath. In fact, the indentations or holes which result from the use of the tool are deep enough to pierce several coats of paint, the paper covering of plaster board and wallboard and part of the plaster without, however, going entirely through the wallboard.

Prior art

Persons conversant with the field of invention herein under advisement are aware that, broadly speaking, there are many implements and manually manipulable tools which are in use and have been devised for perforating, indenting and acting on wall surfaces in a manner to provide a base for subsequent papering and painting and

plastering as the case may be. It will simplify the presentation of the instant matter to make reference only to the wallpaper perforator covered in the patent to Hall, 2,435,349. At first glance this tool would appear to be quite analogous to the imroved adaptation herein under consideration. It should be noted however that the pin-pointed projections or perforating pins which project beyond the peripheral surface of the cylinder are such that they function when run lightly over wallpaper in a manner to perforate the wallpaper without, of course, damaging the underlying plaster. The Hall perforator would not satisfactorily serve the purposes of the present inventiion and, by the same token, the present invention would not serve, because of the long pointed prongs, for a simple perforating step.

Summary

Briefly summarized, the present invention is characterized by a rigid frame having a shank at its rearward trailing end provided with a handgrip, a shaft at its forward leading end disposed at right angle to the longitudinal axis of said shank, and a substantially L-shaped portion joining said shank and shaft in a common plane. A roller is mounted for free rotation on said shaft and is adapted to be firmly pressed against and rolled over the aforementioned surfaces to prepare the over-all surface for application of new plaster and adhesive-attached tape where necessary. The surface of the roller encompassed by cushioned padding, compressibly resilient mohair for example, and a rigid cylindrical sleeve is fitted snugly over the padding and is turnable in unison with said roller, the outer peripheral surface of said sleeve having distributively arranged integral prongs radiating therefrom, said prongs having outer pointed ends capable of penetrating and digging into the surface traversed, whereby to achieve the rough-finished effect desired.

Novelty is predicated not only on the ready-to-use tool characterized by the conventioinal type paint roller with the prong-equipped sleeve thereon but, in addition, on the prefabricated sleeve or adapter made in different lengths and diameters and capable of use on presently marketed paint rollers.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout.

FIG. 1 is a top plan view of the aforementioined conventional type manually manipulable wall painting roller and wherein the attachment, that is the cylindrical prong-equipped sleeve is fitted over the roller for surface scarifying and preparation use.

FIG. 2 is an enlarged cross-section taken on the plane of the section line **2**—**2** of FIG. 1.

And FIG. 3 is a view in perspective of the adaptable attachment by itself.

Inasmuch as the adapter or attachment of FIG. 3 is intended to be used in conjunction with a conventional-type paint roller the latter will be described first. To this end, the numeral **6** designates a stout substantially rigid rod type frame. This frame embodies a linearly straight rearward or trailing end portion which constitutes a shank **8** and has an appropriate handle or handgrip **10** affixed thereto. The forward or leading end portion is elongated and also straight and defines a shaft **12**. The intervening connecting portion is substantially L-shaped and comprises a long limb **14** joined to the shank and a short limb **16** joining the limb **14** to the shaft **12**. The shaft **12** supports, in a customary manner, a regular free-turning roller. The roller embodies an appropirate drum **18** (FIG.

2) which is moutned on the shaft **12**. This drum supports the hub **20** which carries the yieldable or flexible and resilient mohair or equivalent padding **22**.

The means which functions to implement the padded or cushioned surface of the paint roller comprises an attachment, more specifically, an adapter. Because of the comparatively heavy duty which is involved in gouging indentations into the wall or ceiling surface a substantial and fairly rigid cylindrical sleeve will be needed. This sleeve is denoted, generally speaking, by the numeral **24** and has open ends **26**. This sleeve is intended and designed to fit firmly and retentively around the paint roller pad so that it will stay put when rolled in conjunction with the roller and with a view toward gouging indentations which may be as deep as ⅜ inch. Also this implement may be made in various sizes ranging, let us say, from 3 inches long to 9 inches long, the longer sizes to be used in open areas and the smaller sizes in corners and places difficult of access. The preferred length of the cylindrical sleeve will be approximately 7 inches. The inside diameter of the sleeve or cylinder is 1⅞ inches. The thickness of the wall is 1/16 inch. The pointed prongs for perforating and penetrating purposes are constructed and arranged as illustrated in the several views of the drawing. All of the prongs are the same and each prong is denoted by the numeral **28**. Each prong is cone-shaped and has a tapering height or length of approximately ⅜ inch. The prongs are placed one half inch apart in rows one half inch apart completely around the exterior of the cylindrical sleeve. Stated otherwise, the prongs are arranged in circumferentially spaced rows and are longitudinally spaced apart and the prongs of one row are staggered in relation to the prongs of the next adacent row as brought out in FIGS. 1 and 2. The heavier integrally attached base portion of each prong is denoted at **30** and the penetrating point at **32**. With reference again to the Hall Patent, 2,435,349, it should be pointed out that the conical prongs herein shown and described are many times larger for the reason that heavy pressure is applied thereto when in use so as to forcibly tear up the plaster (not shown) to a depth of approximately ⅜ inch in order to condition the surface for new plaster or the attachment of spackling tape when the latter is used for inside, outside corners and for patching. It will be evident that the size and shape of the projections or prongs is significant and while the prongs or combs are one half inch apart when they are pressed into the plaster board the holes spread out until the holes at the exterior of the plaster board would be approximately one quarter of an inch apart.

The attachment by itself is adequately shown in FIG. 3. In addition, it is applied and shown in use in FIGS. 1 and 2. Accordingly, it is believed that persons conversant with the problem will understand the invention and its manner of use and how, when properly used, it adequately solves the problem.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. For use when called upon to roughen the surfaces of the side walls and ceiling of a room having plaster-coated walls or walls made of plaster board nailed to furring or joists, a manually manipulable wall surface repairing implement comprising: a rigid frame having a shank at its rearward trailing end provided with a handgrip, a shaft at its forward leading end disposed at right angle to the longitudinal axis of said shank, a substantially L-shaped portion joining said shank and shaft in a common plane, a roller mounted for free rotation on said shaft and adapted to be firmly pressed against and rolled over the aforementioned surfaces to prepare the same over-all surface for application of new plaster and adhesive-attached tape where necessary, the surface of said roller being encompassed by yieldable padding, compressibly resilient mohair for example, and a rigid one piece cylindrical sleeve fitted snugly over said padding and turnable in unison with said padding and roller, the outer peripheral surface of said sleeve having distributively arranged integral surface penetrating prongs radiating therefrom, said prongs being conical, of a length to pierce several coats of paint, the wallpaper covering the treatable surfaces and part of the plaster or plaster board without passing entirely through the same.

2. The combination defined in and according to claim **1**, and wherein said prongs are arranged in circumferentially spaced longitudinal rows which are about ½" apart and wherein the prongs of each row are ½" apart and substantially ⅜" in length.

3. For use on the compressibly resilient cushioned surface of a manually manipulable free turning wall painting roller, a wall surface repairing and piercing roller attachment comprising, a snug-fitting friction-retained cylindrical open-ended rigid metal sleeve, said sleeve being of one piece and of a predetermined length and cross-section and the exterior surface being provided with multiplicity of rigid surface penetrating and roughening prongs, said prongs being conical, of a length and cross-sectional dimension to pierce several coats of paint if necessary, the wallpaper covering the treated surface and also, if necessary, a part of the plaster or plaster board without passing entirely through the same, said prongs being arranged in circumferentially spaced longitudinal rows approximately ½" apart and the prongs of one row being staggered in relation to the prongs of the next adacent row.

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