United States Patent

[11] 3,593,361

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[21] Appl. No. 831,503
[22] Filed June 9, 1969
[45] Patented July 20, 1971

[54] **ADJUSTABLE PAINT-ROLLER HOLDER**
6 Claims, 6 Drawing Figs.

[52] U.S. Cl. 15/230.11, 242/55.2
[51] Int. Cl. B44d 3/28
[50] Field of Search 15/27, 230.11; 29/110.5; 401/197, 208, 218, 219, 220; 101/328, 329, 330, 331; 242/55.2

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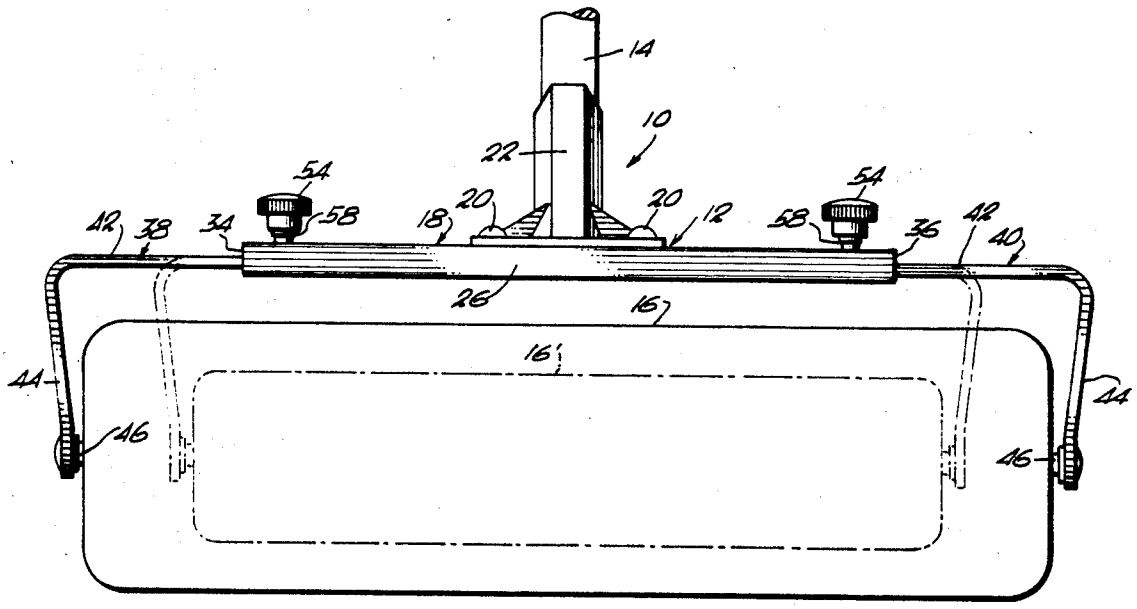
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ABSTRACT: An adjustable paint roller holder for removably supporting relatively large rollers, i.e., 2 feet long and 3 to 4 inches in diameter, which includes a cross frame having a hollow of rectangular cross section defining elongated rectangular trackways for receiving extendable support arms having opposed coaxial trunnions extending from the ends and between which an enlarged paint roller is journaled, this construction being adapted for use in painting floors, walls and ceiling where a two-handed manipulation is feasible and large areas are to be painted, and more particularly where different sized rollers are necessary and can be readily interchanged for different uses.

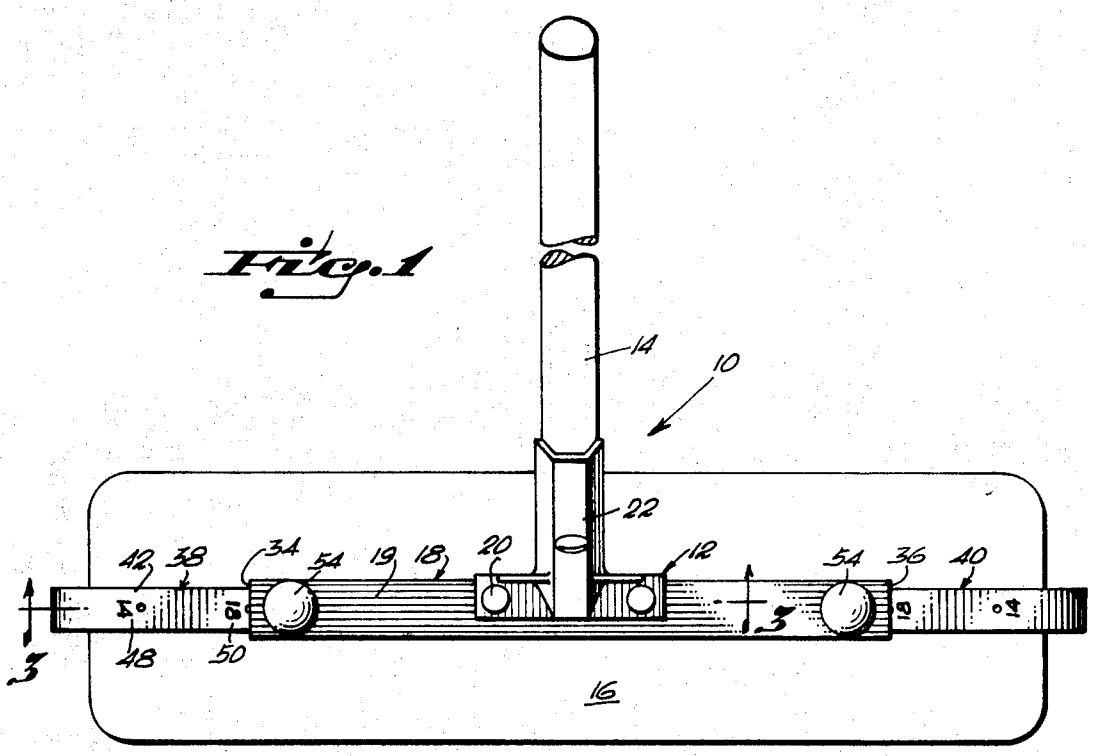


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Fig. 1



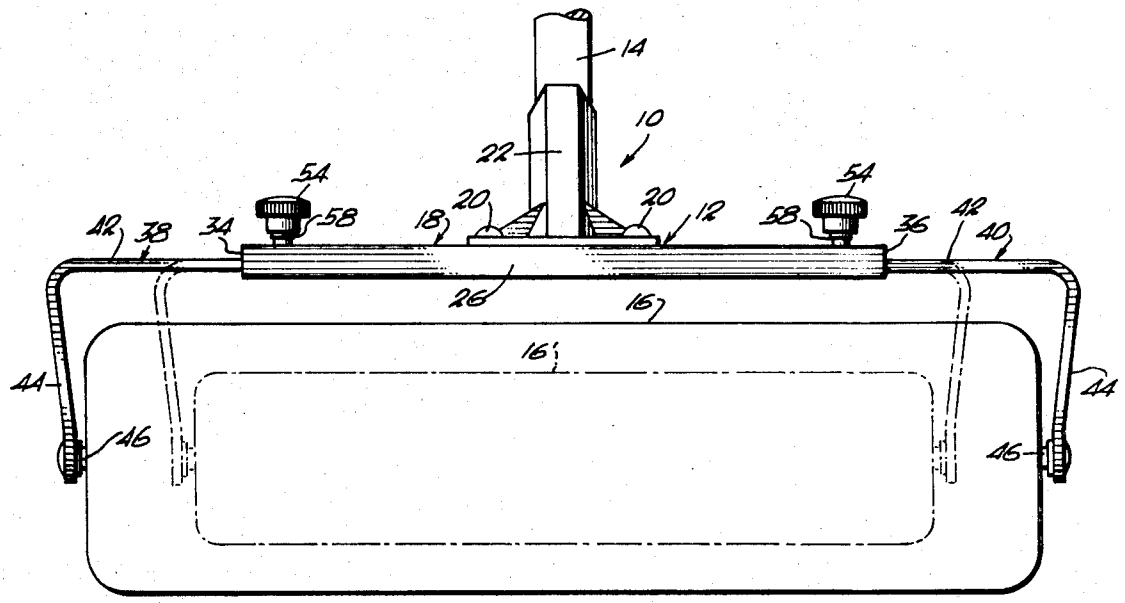


Fig. 2

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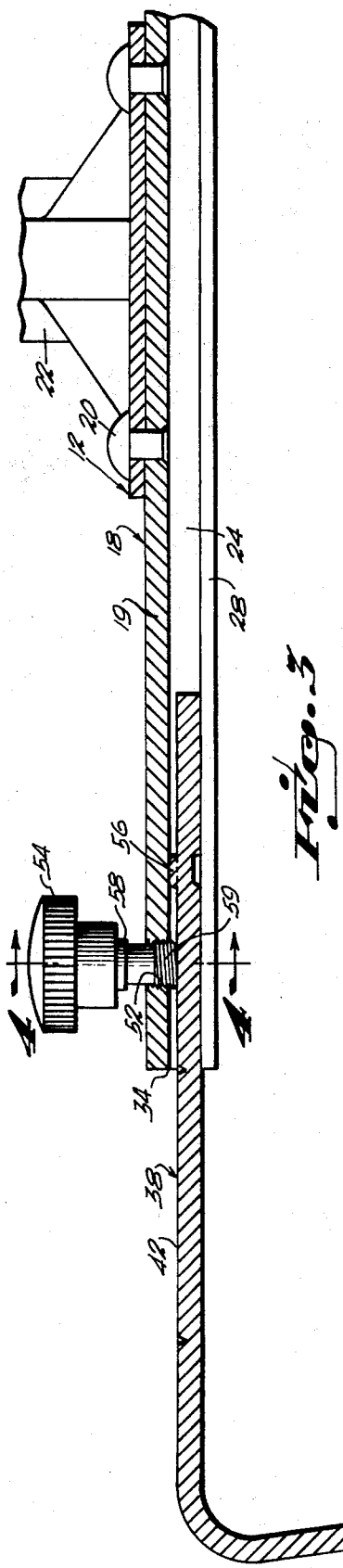


Fig. 3

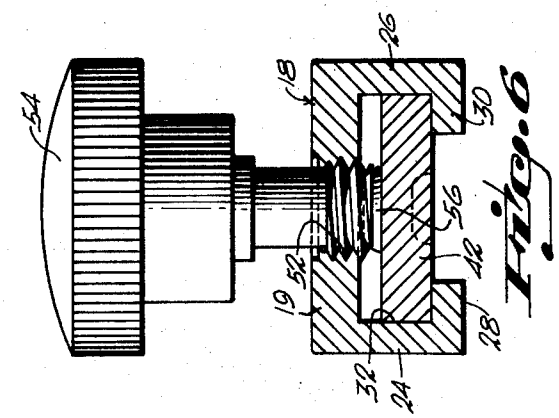


Fig. 6

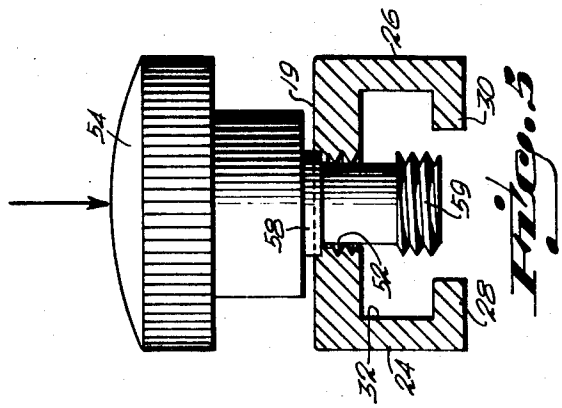


Fig. 3

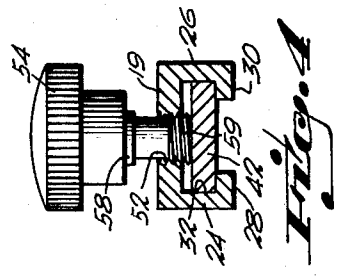


Fig. 4

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ADJUSTABLE PAINT-ROLLER HOLDER

FIELD OF INVENTION

The invention generally relates to paint applicators and more particularly with roller-type applicators, and still more specifically, to an adjustable frame to adjustably journaling different length rollers.

PRIOR ART

Many types of paint rollers have been contemplated in the past, and in the art there have been improvements concerning the roller coverings and the support frames for use with the rollers in applying paint. The prior art generally has involved a one-hand manipulated tool having a generally C-shaped holding frame providing a cantilever shaft upon which a roller of about 10 inches long is adapted to be journaled. A relatively large and long roller cannot be supported conveniently and efficiently on a conventional cantilever rod or shaft of the prior art, since a roller of several feet in length, and about 4 inches in diameter, when soaked with paint, is fairly heavy. On the other hand, if the tool, regardless of weight and dimensions, can be manipulated, more rapid paint application can be accomplished, clearly affording economies of reduced time for application and/or labor time, and since the type paint often applied is relatively "quick-drying," the larger support frame clearly affords definite advantages and efficiency not realized in the prior art.

OBJECTS OF THE INVENTION

The primary objects of the invention are to provide an adjustable support frame providing coaxial support trunnions; to provide a support frame having a flat, rectangular cross section including rectangular trackways supporting L-shaped support arms carrying the trunnions; to provide a support frame as set forth in which the support arms are oriented to their maximum extended position and prevented from accidental removal from the frame, in which retention screws are captivated, and on which orienting indicia are provided.

These together with other and more specific objects and advantages will become apparent from a description of an exemplary embodiment when taken with the drawing forming a part thereof, in which:

IN THE DRAWING

FIG. 1 is a top plan view of a paint roller holder incorporating the invention;

FIG. 2 is a front elevational view of FIG. 1, showing an alternate position in phantom lines in relation to a smaller sized roller also shown by phantom lines;

FIG. 3 is an enlarged vertical section taken substantially on the plane of line 3–3 of FIG. 1;

FIG. 4 is a cross-sectional view taken on the plane of line 4–4 of FIG. 3;

FIG. 5 is a view similar to FIG. 4, on a further enlarged scale, showing the attitude of the retention screw for deforming the uppermost screw thread to captivate the screw in the frame; and

FIG. 6 is a view similar to FIGS. 1, 4 and 5, showing the parts after the uppermost frame threads have been deformed.

DESCRIPTION OF AN EXEMPLARY EMBODIMENT

Referring to FIGS. 1 and 2, a paint-applying assembly is indicated generally at 10 and comprises a support frame 12 to which is secured a handle 14, and upon which is journaled a paint roller 16.

The handle 14 can comprise wood, metal, plastic etc. The roller 16 will incorporate a conventional paint-retaining cover (as is conventional), and will include at the opposite ends thereof axial bore portions (not shown) which can be lined with a metal and/or plastic bearing sleeve.

The frame 12 includes a crosspiece, base or top member 18 having secured to the rear edge by rivets 20, a rearwardly angled, polygonal retention sleeve portion or socket 22 in which the lower end of handle 14 is suitably secured. The top member 18 is an extruded channel element; see FIGS. 3—6, and includes an upper web 19 bordered by depending flanges 24 and 26 terminating in inwardly directed ribs 28 and 30 respectively. The web, flanges and ribs combine to provide a rectangular, cross-sectioned trackway 32; see FIGS. 3—6, which is open at the opposite ends 34 and 36 thereof.

Reciprocably and adjustably supported in the trackway 32, are opposed paint roller support arms 38 and 40, respectively, which are L-shaped and include an upper plate or leg portion 42 extending into the open ends of the member 18, and which have depending plate or arm portions 44 angling inwardly. Secured on the plate portions 44, adjacent the lower ends, are inwardly directed, coaxial trunnions 46; see FIG. 3, upon which the roller 16 is journaled. It will be noted that the roller is journaled at both ends, rather than being cantilever supported, and thus relatively heavy, large paint-soaked rollers are journaled for rotation in a more stable arrangement.

The plates 42 have formed thereon indicia 48 and 50 reading "14" and "18" respectively, indicating the length of the rollers accommodated in the frame 10 when the indicia 48 and 50 are in alignment with the respective ends 34 or 36 of member 18. When the arms 38 and 40 are in the adjusted position shown by phantom lines in FIG. 2, the shorter roller 16', having a 14-inch length, will be journaled between the coaxial trunnions 46, and the indicia 48 i.e. "14," will be aligned with ends 34, 36.

The member 18 has formed adjacent the ends 34 and 36 tapped apertures 52 and captivated in apertures 52 are knurl-headed retention screws 54. The screws engage the upper surface of plates or legs 42 and press them onto the inner surface of ribs 28 and 30 as seen in FIG. 4, for example. The wide legs and rectangular trackway 32 provide a wide stable base or support for the arms 38 and 40 carrying the heavy roller 16. Formed on the plate portions 42, inwardly of the apertures 52 are projections or abutments 56 which prevent the legs from being accidentally withdrawn from the trackway 32.

The screws 54 are very substantial, and can be readily adjusted manually. Attention is called to the lower collar 58 which initially is driven in the direction indicated in FIG. 5 (with arm removed) so that the uppermost thread in opening 52 is deformed, by striking the screwcap while the collar 58 engages the uppermost thread, thus preventing the screws from being threaded out of the tapped openings. The axial length of the threaded end 59 is such as to project into the trackway when thus assembled to engage the abutments 56 and to resist accidental withdrawal of the arm. It will be noted that the plates 42, FIG. 6, are engaged at four sides i.e. on the upper edges of ribs 28, 30, at the sides by inner surfaces of flanges 24, 26 and at the upper surface by a screw 54, which is tightened against it. This arrangement permits a single screw to afford sufficient friction to retain each of the arms in an adjusted position.

What I claim is:

1. A frame for removably supporting paint rollers comprising: a support member having opposite ends, and including handle-securing means at a generally central portion thereof for receiving a handle member; an arm member extendably supported in each of the opposite ends of said support member, each of said arm members being L-shaped and including one portion reciprocally received in the support member and in mutual colinear relation with said one portion of the other arm in assembly and including another portion directed in a common direction away from said support member; means on said support member frictionally and adjustably engaging said one portion of each of the arm members for fixedly adjusting the relative distance between said arm members, and each of the other portions of said arm members including coaxial trunnion portions extending toward each other for removably supporting different length paint rollers,

said support member defining a generally tubular trackway having an opening at each of the opposite ends of the support member, said one portion of each of said arm members being sized for slidable receipt in the trackways of said support member and being substantially complementary to the cross section of said trackway, said means frictionally and adjustably engaging said arm members comprising manually rotatable retention screws threadably, rotatably supported adjacent opposite ends of said support members, said arm members including abutment portions projecting into said trackway inwardly of said retention screws for preventing withdrawal of the arms accidentally from the support member.

2. The structure as set forth in claim 1 including means for trapping the screws on said support member and preventing accidental loss thereof.

3. The structure as set forth in claim 1 wherein said support arms include indicia means therealong for determining the general position of the support frame.

4. The structure as set forth in claim 1 in which said handle-securing means extends angularly from an upward portion of said support member, and the support arms converge angularly away from said support member.

5. The structure as set forth in claim 1 wherein said trackway is rectangular in cross section.

6. The structure as set forth in claim 2 wherein the said one portion of the arm members include indicia means for determining the general position of the support frame.