Sept. 8, 1959 C. F. GAETKE 2,902,706

SPLASH SHIELD FOR PAINT ROLLER

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FIG. 1

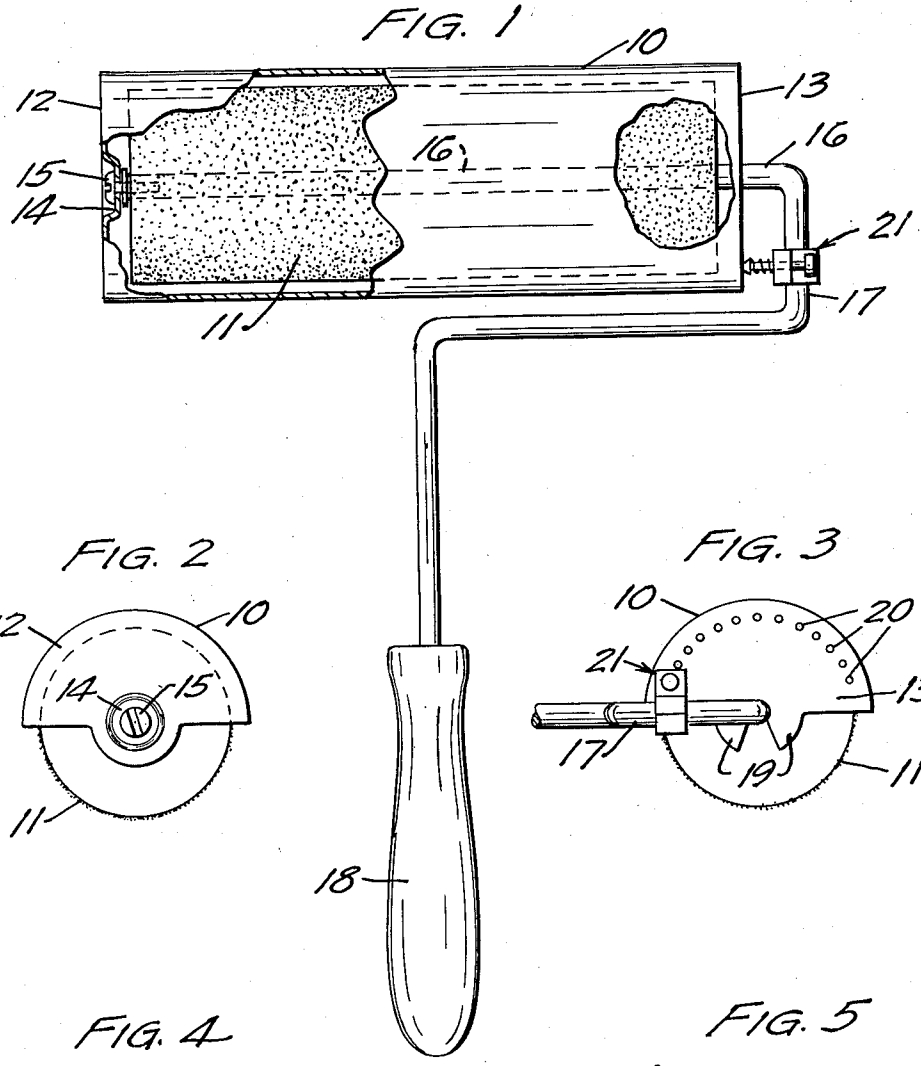


FIG. 2

FIG. 3

FIG. 4

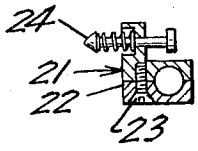
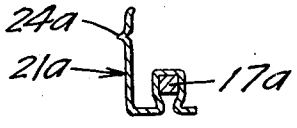


FIG. 5



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SPLASH SHIELD FOR PAINT ROLLER

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5 Claims. (Cl. 15—248)

This invention relates to splash shields for paint rollers. More particularly, the invention relates to adjustable shields which may be applied to existing paint rollers and readily adjusted to provide protection to the operator from splashing or throwing of paint in all positions and under all usual conditions of operation.

Paint rollers provide a rapid and effective means for applying paint to open wall and ceiling areas, and have in many instances replaced brushes for these operations. Since rapidity of application is a major advantage claimed for such devices, the usual tendency is to attempt to operate at high speed, particularly on vertical walls. Under such conditions the roller may rotate so rapidly as to tend to throw surplus paint in all directions. An object of the invention is therefore to provide means for restraining material which may be centrifugally thrown from the roller and for protecting the operator and surroundings from material so thrown.

In painting ceilings and overhead areas, it is desirable to take up as much paint as possible in each dipping so as to reduce the number of movements required. Excessive amounts of paint increase the tendency to drip and throw, with corresponding hazard to the operator. Since the paint roller is necessarily held at a different angle to a ceiling than to a vertical wall, a shield which is in the correst position for one operation is in an entirely incorrect position for the other. A further object of the invention is therefore to provide a paint roller shield which is quickly and easily adjusted to any desired position. Another object is the provision of a shield which may be applied to, and removed from the roller with a minimum of effort and skill, so that the shield may easily and quickly be removed, cleaned, and replaced by the user.

An embodiment of the invention is illustrated in the appended drawing, in which

Figure 1 is a plan view, partly in section, of the splash shield on a paint roller and in position for painting on a vertical wall;

Figures 2 and 3 are end elevations of the assembly of Figure 1; and

Figure 4 is an elevation, largely in section, of a spring fastener assembly as indicated in Figures 1 and 3.

Figure 5 represents an alternate fastener structure.

As illustrated, the splash shield comprises a trough **10** having a semi-circular cross-section with a diameter sufficiently greater than that of the roller **11** to allow adequate space therebetween. The trough **10** terminates in semi-circular end-pieces **12** and **13**.

End piece **12** is centrally extended at the flat edge and is depressed and perforated to form a circular bearing area **14** matching the end of the paint roller core. The screw **15** passes through the perforation and holds the end **12** as well as the roller **11** to the end of the roller shaft **16**, a portion of which is indicated within the roller by dotted lines. The shaft is extended and shaped to provide a handle portion **17** terminating in a handle **18**.

End piece **13** is designed to provide a snap fit over the

shaft **16**, and for this purpose is provided with tabs **19** outlining a central opening into which the shaft is pressed. The segment **13** is also provided with a series of depressions **20** arranged in the form of a semicircle centered on the shaft, i.e., the depressions are equally spaced from the shaft axis.

A spring fastener assembly **21** is fastened to the handle portion **17** at a position facing the series of depressions **20**. This fastener consists of a two-piece body portion **22** held together and in tight frictional attachment to the handle portion **17** by means of a screw fastener **23**, and having a spring-tensioned plunger member **24** for adjustable contact with the end member **13** along the series of depressions **20**.

The semicircular form of shield illustrated is preferred as providing effective shielding with maximum compactness, but angularly or irregularly shaped shields may be used. The shield should cover at least about one-half the circumferential area of the roller to provide full protection while permitting effective application of paint.

The shield is preferably formed of thin sheet metal, but may alternatively be assembled or molded in one piece from plastic material. For molded plastic construction the end pieces, particularly end **13**, may be made of considerably increased thickness in order to provide adequate strength at the bearing surfaces. The end piece **12** may analogously be provided with a thickened rather than a depressed central bearing area.

There are various other alternates. For example, a flat strip spring member may be substituted for the fastener assembly **21** as a means of maintaining the desired relationship between shield and handle and of providing for easy adjustment thereof, and the handle portion **17** may be of square or other non-circular cross-section at the location of the fastener assembly. Figure 5 illustrates such a modification in cross-section. The one-piece spring member **21***a*, formed of a strip of flat spring metal, is retained by spring tension in place on the square-sectioned handle portion **17***a*, the protrusion **24***a* taking the place of the plunger member of Figure 4. In place of the rounded depressions **20**, a series of radial grooves or ridges may be provided. These and other equivalent modifications are contemplated as coming within the scope of the invention.

What I claim is:

1. In combination, a paint roller having a shaft and a handle member rigidly extending radially from one end thereof; a semi-cylindrical shield member over at least about one-half of said roller and supported by end sections rotatably affixed to said shaft adjacent the ends of the roller, one of said end sections including a series of depressions equally spaced from the shaft axis; and a spring fastener attached to said handle member at a position removed from said shaft and adjacent said one end section and having a spring-actuated tip for engaging with said depressions and for adjustably maintaining said shield in any desired angular position with respect to said handle member.

2. A splash shield assembly, for a paint roller having a shaft and a radial handle member rigidly extending in a plane perpendicular to said shaft from one end thereof, comprising; a semi-cylindrical shield member supported by end sections having bearing openings axially of the shield member and fitting onto said shaft, one of said end sections including a series of depressions equally spaced from its hearing opening; and a spring fastener for fixedly attaching to said handle member adjacent said one end at a position removed from said shaft and including a body portion and a spring-actuated plunger for engaging with any one of said depressions.

3. A splash shield assembly, for a paint roller having

a shaft and a radial handle member rigidly extending from one end thereof and having a non-circular segment adjacent an end of said roller at a position removed from said shaft, comprising: a semi-cylindrical shield member supported by end sections having bearing openings axially of the shield member and fitting onto said shaft, one of said end sections having a series of depressions equally spaced from its bearing opening; and a spring fastener for fixedly mounting on said non-circular segment of said radial handle member and having an extended spring leaf portion including a protrusion for engaging with any one of said depressions.

4. In combination, a paint roller having a shaft and a handle member fixedly extending radially from one end thereof in a plane perpendicular to said shaft; a semi-cylindrical shield member enclosing at least about one-half the circular area of said roller and supported in constant spaced position from said roller by closed end sections having axial bearing openings fitted to said shaft closely adjacent the ends of said roller, one of said end sections including a series of depressions equally spaced from the shaft axis; and a spring fastener for adjustably maintaining said shield in any desired position with respect to said handle member and including a body member clamped to said fixedly radially extending handle member, a plunger member supported by said body member in position for meshing with any one of said depressions, and a spring member for holding said plunger member in adjustable contact with said one depression.

5. In combination, a paint roller having an axial shaft, a handle member comprising a radially extended end portion of said shaft in rigid fixed relation to said shaft, a semi-cylindrical shield member enclosing about one-half the circular area of said roller, having a first closed end section rotatably supported at the free end of said shaft on an axial bearing area and a second closed end section rotatably supported at the handle end of said shaft on an axial bearing area, the bearing area of said second end being snap-fit onto said shaft and snap-releasable therefrom, said second end section including a series of depressions equally spaced from the shaft axis, and a spring fastener member attached to the radially extending portion of said handle member in position for meshing with any one of said depressions.

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