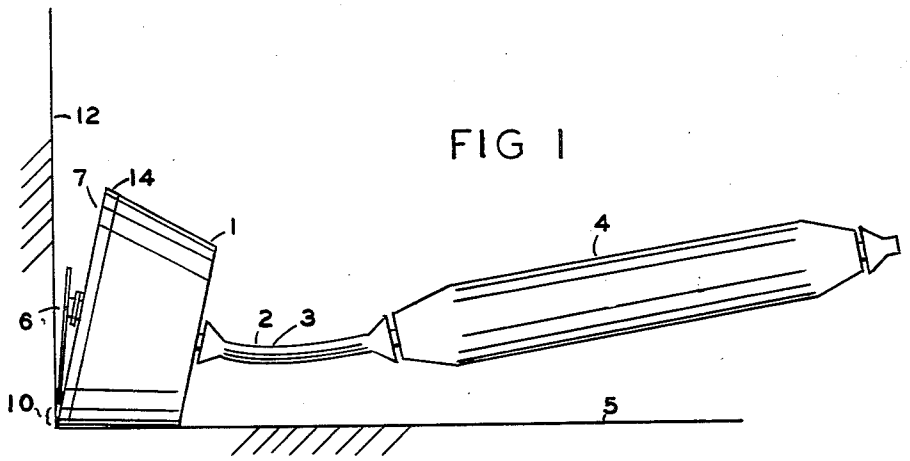
June 3, 1958 W. J. PRATT 2,836,840

PAINT ROLLER MEANS

Filed Sept. 27, 1956

FIG 1



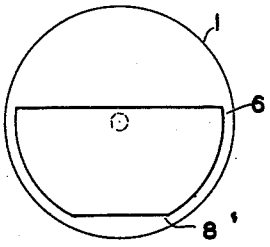


FIG 2

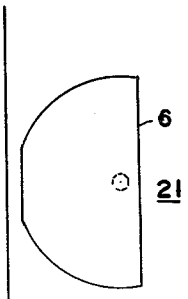


FIG 3

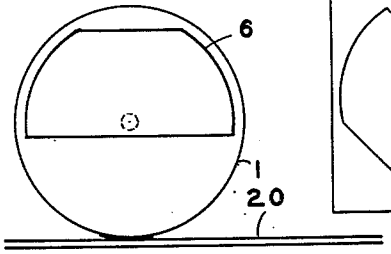
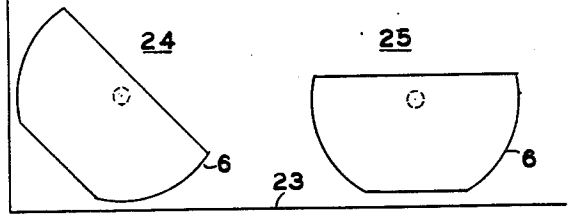


FIG 4



INVENTOR.

WILLIAM J. PRATT

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PAINT ROLLER MEANS

William J. Pratt, North Bellmore, N. Y.

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5 Claims. (Cl. 15—230)

This invention relates to paint rollers and more particularly to such means for edging work at intersecting surfaces.

Painting with roller applicators has become very popular lately due to the ease and speed with which they can cover large surfaces, such as absolutely flat walls. However, conventional rollers are not adequate for getting into the apex of two intersecting surfaces, such as the intersection between walls and the ceiling, or along a window molding adjacent to the glass.

The present invention provides such a means comprising a roller having a frusto-conical shape, and edging guide and a handle shape having a bend therein to allow hand space for holding roller in proper position along an intersection line. These elements cooperate to provide a straight edge along the intersection of surfaces without getting any paint on the other surface. The guide is offset at a small angle to the base of the roller and is shaped similar to the cross section of a boat, i. e., semi-circular and cut off along a chord parallel the diameter. This shape makes it self-orienting over angles or corners without changing the position of the hand. For instance, the roller may cover a horizontal window molding and then the vertical side with the guide automatically turning 90°.

The present invention brings the speed and ease of the roller to this difficult operation which it was necessary to do with a brush since conventional rollers could not perform these edging operations successfully.

Accordingly, a principal object of this invention is to provide new and improved paint roller means.

Another object of the invention is to provide new and improved paint roller means comprising a frusto-conical roller, an offset edging guide, and an offset handle.

Another object of the invention is to provide new and improved paint roller means for edging comprising a handle shaft having a bend, a roller freely mounted for rotation near the end of such shaft, a guide at an angle to the base of said roller and a handle member freely mounted on said shaft.

These and other objects of the invention will become apparent from the following specification and drawings, of which:

Figure 1 is a side view of an embodiment of the invention.

Figure 2 is an end view of the embodiment of Figure 1.

Figures 3 and 4 are diagrams illustrating the operation of the invention.

Referring to the drawings the invention comprises a paint roller 1 having a frusto-conical shape which is freely mounted for rotation on a shaft 2. The shaft 2 has a bend at 3 and a holding or handle member 4 is mounted loosely on shaft 2 so that the handle 4 is free to rotate on shaft 2. The purpose of having a handle free on the shaft is to permit automatic guiding of the invention by preventing the operator from twisting the device.

The purpose of bend 3 is to permit space for the fingers between handle 4 and edge of surface 5. If the shaft 2 was straight or not bent sufficiently, the roller 1 could not be placed in proper position since handle 4 would hit surface 5.

A guide member 6 is fixedly connected to end of shaft 2 near base of the roller and is offset at a slight angle from the base 7 of the roller. The guide 6 is semi-circular in shape and is flattened off at bottom edge 8' along a chord parallel to the diameter of the guide.

The shape of the guide is somewhat like the cross section of a boat with a fairly flat bottom. The guide does not extend quite to surface 5 but there is a slight space 10. The only thing the guide 6 bears against is adjacent surface 12 so that the base 7 of the roller extends into apex of the intersection of the two surfaces. The angle between the guide and the base 7 may be of the order of 10° to 15°. A cloth tape 14 is preferably bound around the base of the roller to prevent any tufts from extending outwardly from the roller base which might come in contact with, and paint surface 12.

Paint is placed on the roller by rolling roller along a paint filled slab 20 with the guide in the position shown in Figure 4. The guide is semi-circular so that the paint may be applied to roller without getting any on the guide.

Figure 3 shows the operation of self-orienting guide 6 around a 90° corner, for instance, a window molding. In the position 21 the guide 6 is shown when painting the vertical molding 22. As the roller is brought down and without the operator changing the position of his hand, the downward force toward the work surface acting through bend 3 turns the guide 6. The bend will always turn into the plane of applied force which is toward the work surface, and the guide is fixed to shaft 2, as shown at 24 and 25. The guide 6 does not touch the surfaces being painted, but the edge 8' thereof rides against the surface perpendicular to the painted surfaces.

Therefore, the guide 6 performs the function of locating the roller edge directly along the line joining two 90° surfaces. It should be emphasized that the guide is not rotatable on the shaft but is permanently connected thereto, and that the plane of the bend in the shaft is perpendicular to the straight edges of the guide.

The guide places the roller in proper position and the operator merely moves the roller along with a slight downward pressure on the surface being painted and a slight forward pressure against the guide. It is not necessary for the operator to twist the handle in order to realign the guide in turning a 90° corner. As a matter of fact, the operator is specifically prevented from twisting the device since handle 4 is freely rotatable on shaft 2.

I claim:

1. Paint roller means for edging comprising a handle shaft having a bend therein, a frusto-conical roller freely mounted for rotation with its base adjacent one end of said shaft, a self-orienting guide member fixedly connected to said one end of said shaft at an angle to the base of said roller, said guide member being generally semi-circular but flattened along a chord of said semi-circle, and a handle member freely mounted on said shaft.

2. Paint roller means for edging comprising a handle shaft having a bend therein, a frusto-conical roller freely mounted for rotation with its base adjacent one end of said shaft, a guide member fixedly connected to said one end of said shaft at an angle to the base of said roller, and a handle member freely mounted on said shaft.

3. Apparatus as in claim 2 wherein said guide member has a semi-circular shape cut off along a chord parallel the larger side, whereby said guide is self-orienting when turning corners.

4. Apparatus as in claim 3 wherein the plane of the bend in said shaft perpendicular to the chord of said guide.

5. Paint roller means for edging comprising a handle shaft having a bend therein, a frusto-conical roller freely mounted for rotation with its base adjacent one end of said shaft, a guide member fixedly connected to said one end of said shaft at an angle to the base of said roller and a handle member freely mounted on said shaft, the angle between said guide and said shaft at their point of connection being approximately 85°.

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