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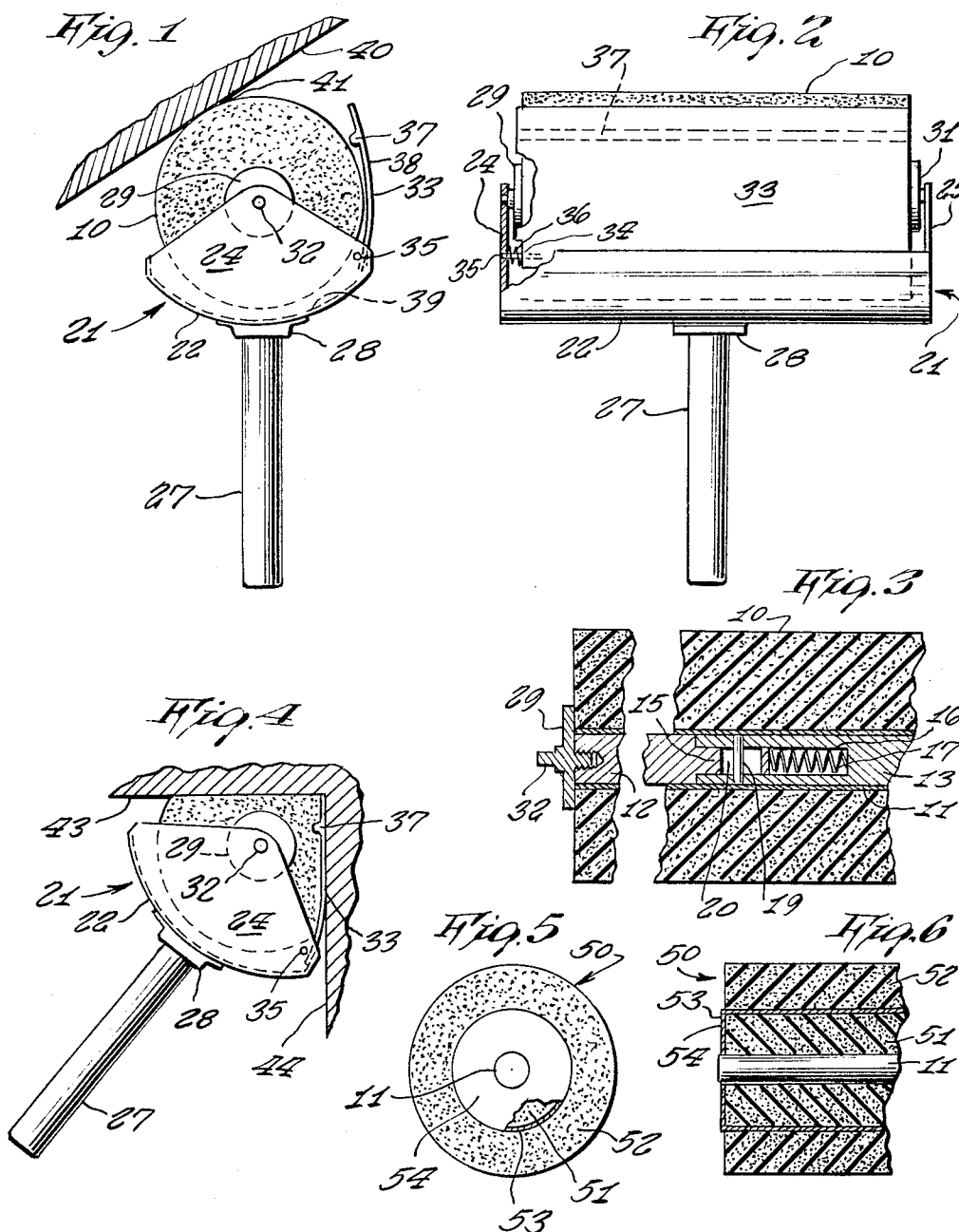
E. G. SCHULZE

3,274,637

PAINT APPLICATOR AND ROLLER THEREFOR

Filed March 11, 1966

3 Sheets-Sheet 1



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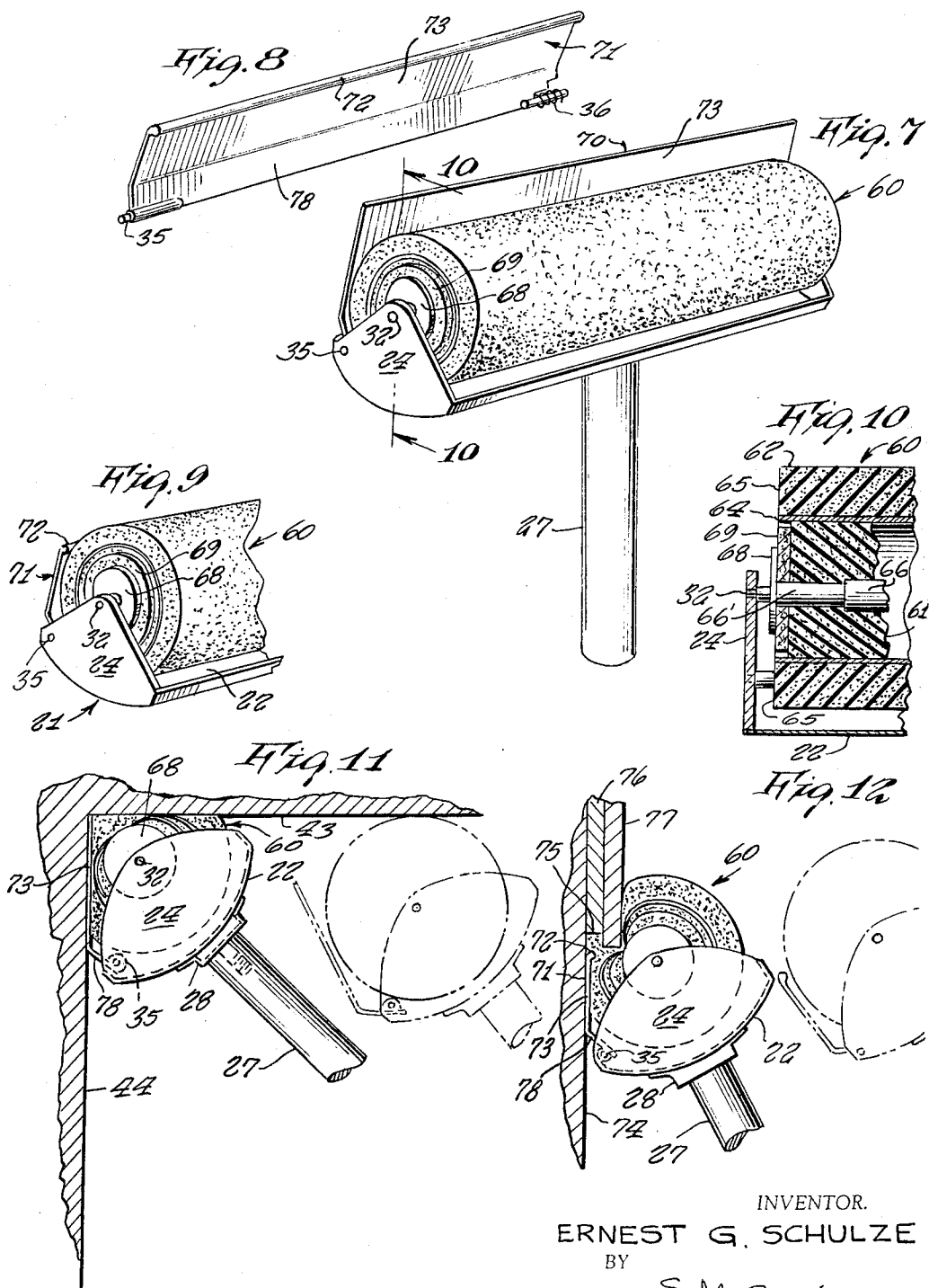
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3 Sheets-Sheet 2



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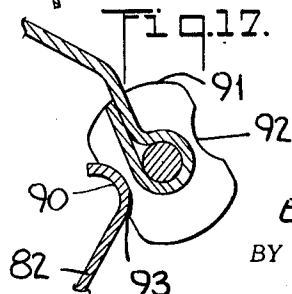
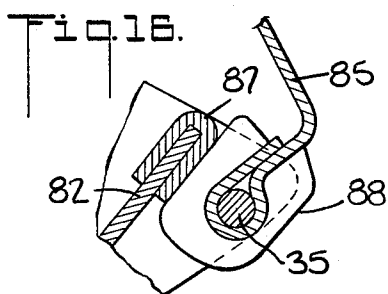
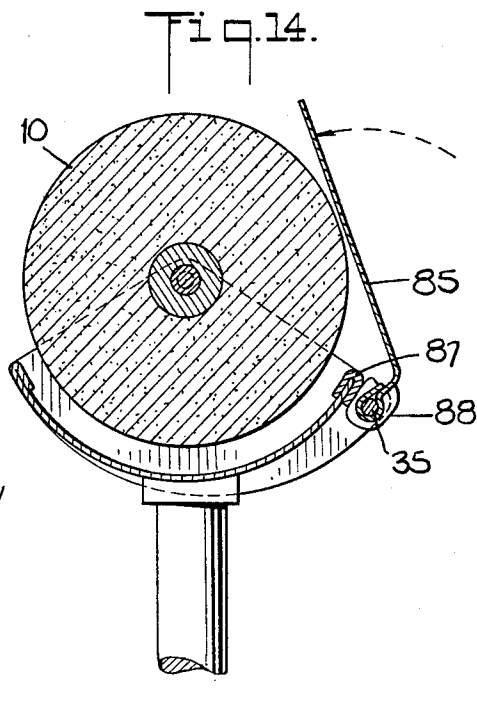
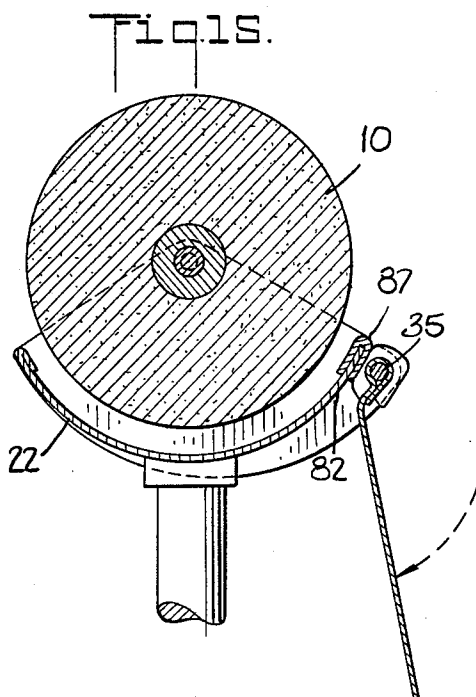
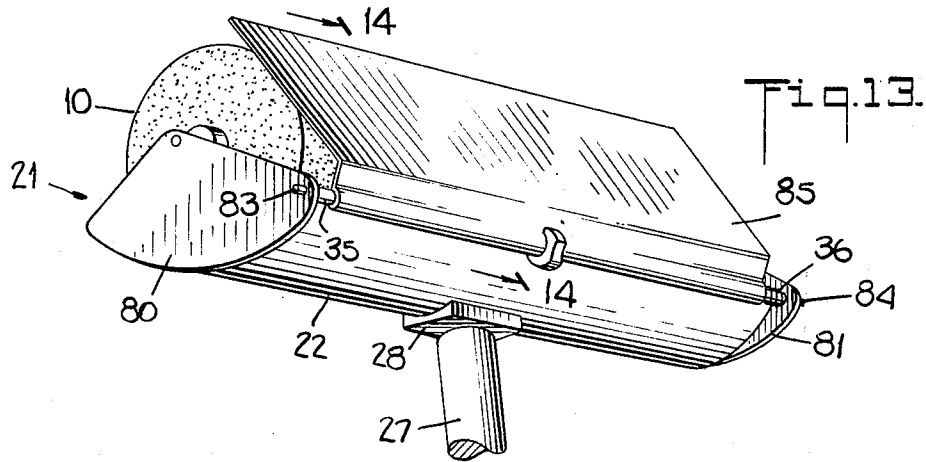
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3 Sheets-Sheet 3



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3,274,637

PAINT APPLICATOR AND ROLLER THEREFOR

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Filed Mar. 11, 1966, Ser. No. 536,563

18 Claims. (Cl. 15—522)

This application is a continuation-in-part of my allowed copending application Serial No. 371,054, filed on May 28, 1964, now forfeited, which application is, in turn a continuation-in-part of my abandoned application Serial No. 325,422 filed on November 21, 1963 and which was previously copending with said application Serial No. 371,054.

The present invention relates to paint applicator rollers and more particularly to a painting roller suitable for use in applying paint to walls, ceilings and similar surfaces of buildings or the like and most surfaces regardless of texture such as cinder blocks, asbestos shingles and other rough and uneven surfaces.

More particularly, the invention relates to paint applicators of this type employing a spongy roller which co-operates, whenever desired, with a hinged flap member for applying paint to only one of two surfaces which meet at a corner and for applying paint in a slot such as that defined under an overhanging shingle, for example.

Conventional rollers of this type have the disadvantage that it is not possible to paint a ceiling, for example, up to its extreme edges. If the edge of the ceiling surface is approached too closely, undesired paint is applied to the wall. Unless the wall and ceiling are of the same color or the wall is still unpainted, this paint must be removed. In any event, there will be an unpainted margin around the entire periphery of the ceiling surface which must be painted by hand using a brush or a separate specially designed roller.

The present invention avoids these disadvantages by providing a flap member which will bear against the wall surface to prevent the application of ceiling paint to the wall adjacent to the corner defined by the junction between the wall and the ceiling. The roller is spongy and resilient which permits it to be forced completely into the corner while the flap member operates as a guard or shield simultaneously deforming the roller into a flat-sided cylindrical configuration and confining the paint to the ceiling surface. In this manner, the entire ceiling, including its extreme edges, may be painted using the roller without the need for subsequently completing the painting at the edges by other means.

A feature of the invention resides in an effectively uniformly resilient spongy roller which is divided into separate inner and outer portions by a flexible impermeable barrier layer. The barrier layer prevents the penetration of paint into the inner core portion of the roller from which it would be difficult to remove when cleaning the roller if the barrier layer were omitted. Unless removed by cleaning, the paint in the inner portion of the roller becomes hardened and impairs the resiliency of the roller.

In one embodiment, as originally disclosed in my application of November 21, 1963, the barrier layer extends over the ends of the inner core portion of the roller, the ends of the core portion being flush with the ends of the outer portion. In practice, however, any paint or moisture which leaks into the inner core portion becomes trapped by the closed ends and fails to evaporate. As a result, it has been found preferable to make the core portion shorter than the outer portion so that ends of the core portion are recessed within the projecting ends of the outer portion and are protected from contact with the paint by pressure distributing end washers.

The roller mounting is used with either of two interchangeable hinged flap members. One flap member is

wider than the other and the wider flap member is used for painting only one of two surfaces which meet at a corner. The narrower flap member has a beaded edge and is used for painting the walls of a slot such as that defined by an overhanging shingle. In either case, the flap member comprises a pressure-applying portion which engages the spongy roller for deforming its normal cylindrical configuration and aiding in compressing it into a corner or slot, as the case may be.

In a further modification, the roller is revolvably mounted in a trough member formed of effectively rigid but somewhat resilient material. The flap member is provided with a cam member which cooperates with an edge portion of the trough to retain the flap member in either of two positions. In one position the flap member is inactive and is maintained clear of the roller. The roller then operates as if the flap member had been removed. In the other position, the flap member is resiliently held slightly spaced from the roller so that the flap member is ready for use in applying paint to corners.

Various additional objects, features and advantages of the invention will become apparent from reading the following specification together with the accompanying drawing forming a part thereof.

Referring to the drawing:

FIGURE 1 is an end elevational view of a paint applicator embodying the invention.

FIGURE 2 is a rear elevational view of the applicator shown in FIG. 1.

FIGURE 3 is a fragmentary view in axial section illustrating the construction of the central portion of the supporting shaft permitting it to be axially shortened for removal and replacement of the roller.

FIGURE 4 is an end view illustrating the operation of the flap or guard member of the applicator shown in FIG. 1 applying paint to the edge of a ceiling.

FIGURE 5 is an end view of a modified form of roller, partly broken away and shown in section.

FIGURE 6 is a fragmentary view in axial section showing one end of the roller of FIG. 5.

FIGURE 7 is a perspective view of the applicator showing a modified form of spongy roller with the wider of two interchangeably mounted flap members operatively positioned in the roller housing.

FIGURE 8 is a perspective view of the narrower flap member removed from the applicator.

FIGURE 9 is a fragmentary perspective view showing the narrower flap member operatively positioned in the applicator.

FIGURE 10 is a fragmentary view in axial section taken along the line 10—10 of FIG. 7 looking in the direction of the arrows.

FIGURE 11 is a view similar to FIG. 4 showing the applicator of FIG. 7 applying paint in a corner using the wider flap member.

FIGURE 12 is a view similar to FIG. 11 showing the applicator of FIG. 8 applying paint within a downwardly opening slot using the narrower flap member.

FIGURE 13 is a fragmentary perspective view showing an applicator wherein the flap member is provided with a cam member for selectively retaining the flap member either in an inactive position or an active position.

FIGURE 14 is a transverse sectional view taken along the line 14—14 of FIG. 13, looking in the direction of the arrows, the flap member being shown in its active position.

FIGURE 15 is a view similar to FIG. 14 but with the flap member in its inactive position.

FIGURE 16 is an enlarged fragmentary sectional view illustrating the cam member.

FIGURE 17 is a view similar to FIG. 16 illustrating a modified form of cam member.

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Referring to FIGS. 1 and 2, the applicator comprises a cylindrical roller 10 formed of spongy material such as a plastic foam. The roller 10 may be provided with a thin central tubular core 11, if desired. The roller 10 is freely revolvably mounted on a supporting shaft which comprises axially aligned portions 12 and 13. The shaft portion 12 comprises an extension 15 of reduced diameter which is freely slidably received in an axial bore 16 formed in the other shaft portion 13. A helical compression spring 17 in bore 16 yieldingly urges the extension 15 away from the closed end of the bore 16 so that the overall length of the supporting shaft 12, 13 may be shortened by compressing the spring 17. A stop pin 19 traverses the bore 16 and passes through an axially elongated slot 20 formed in the extension 15. The pin 19 retains the shaft portions 12 and 13 in assembled relationship while permitting the limited axial movement of the extension 15 in the bore 16.

The applicator comprises a housing designated generally as 21. The housing 21 comprises a cylindrically arcuate trough 22 to which end plates 24 and 25 are secured. A handle 27 is removably attached to the housing 21 by means of a threaded socket 28 fixed to the trough 22.

At its free end, the shaft portion 12 is provided with a flanged end member 29 which is threadably secured thereto to permit replacement of the roller 10 on the supporting shaft 12, 13. A similar flanged end member 31 is attached to the free end of the shaft portion 13. Each of the end members 29 and 31 is provided with a stub shaft projection 32. The two stub shaft projections 32 are journaled in the end plates 24 and 25. By pressing on either end member to compress the spring 17, the shaft 12, 13 may be shortened sufficiently to disengage one of the projections 32 thereof from its associated end plate 24 or 25 thereby permitting the roller 10 and shaft 12, 13 to be removed as a unit from the housing 21.

A flap member 33 is mounted in the housing 21. A pivot shaft 35 extends along one edge of the flap member 33 being fixedly secured thereto. The flap member 33 is cut away adjacent to the ends of the pivot shaft 35 so that the opposite ends of shaft 35 may be freely journaled in the end plates 24 and 25. Adjacent to one end of the pivot shaft 35, the flap member 33 is cut away at 34 to an extent sufficient to permit the mounting of a helical compression spring 36 on the adjacent end portion of the pivot shaft 35. By exerting axially directed pressure on the other end of pivot shaft 35, the spring 36 may be compressed sufficiently to push the compression spring carrying end through the end plate in which it is journaled and withdraw the other end from its associated end plate. The flap member 33 may thus be readily removed from and replaced in the housing 21 for cleaning purposes.

Adjacent to its free edge, the flap member 33 carries a stop rod 37 which extends throughout the entire length of the roller 10. The stop rod 37 is fixed to a pressure-applying portion 38 of the flap member 33 and is normally slightly spaced from the surface of the roller 10. Outward movement of the flap member 33 is limited by engagement of its inner edge portion with the adjacent edge of the trough 22 which serves as a stop member. The flap member 33 may lightly contact the roller 10 during operation of the applicator due to gravitational forces or it may be slightly spaced therefrom.

The radius of curvature of the cylindrical trough 23 is somewhat greater than the radius of curvature of the roller 10 so that there is wiping contact between the trough 23 and roller 10 as indicated at 39. At either side of the contact zone 39, paint may be received and subsequently picked up by rotation of the roller 10. The roller is loaded with paint by rolling it along the bottom of a pan containing a shallow depth of paint in the usual manner.

When painting a surface such as the surface 40 of FIG.

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1, there is a free portion of the roller 10 indicated at 41 which operates to apply the paint.

When painting at a corner such as the corner defined by the surfaces 43 and 44 in FIG. 4, the roller 10 rolls along the ceiling 43. As the wall 44 is approached, the applicator is so manipulated that the free edge of the flap member 33 first enters the corner defined by the wall 44 and ceiling 43 before proceeding further. With the free edge of the flap member 33 held in the corner, the resilient roller 10 is further advanced along the ceiling 43 whereupon the pressure-applying portion 38 deforms the roller 10 into a substantially flap-sided cylindrical configuration and the stop rod 37 engages and becomes embedded in the deformed roller 10 thereby preventing rotation of roller 10. It will be observed that the pressure-applying portion 38 of flap member 33 extends from its free edge portion toward the pivot shaft 35. Further pressure applied to the roller 10 squeezes it against the ceiling 43 to fit the corner with the extreme corner-engaging portion of roller 10 backed up by the stop rod 37 so that it completely engages the peripheral surface of the ceiling 43 adjacent to the corner. Paint is thus applied only to the ceiling portion of the corner as shown in FIG. 4, while the flap member 33 acts as a shield or guard preventing the application of paint to the wall portion of the corner.

The applicator operates in a similar manner for corners other than those defined by a wall and a ceiling.

The roller 10 described above takes up paint throughout its entire volume. In order to confine the paint to the outer portion of the roller, a sectionalized roller may be used as illustrated in FIGS. 5 and 6.

The sectionalized roller, which is designated generally as 50, comprises an inner cylindrical core portion 51 and an outer cylindrical portion 52 coaxially surrounding the inner portion 51. Interposed between the inner portion 51 and the outer portion 52, there is a barrier layer 53. The barrier layer 53 extends over and covers the ends of the inner portion 51 as indicated at 54 so that the barrier layer 53 and tubular core 11 completely enclose the inner core portion 51 and prevent the entry of paint into the inner portion.

Both the inner portion 51 and the outer portion 52 are formed of resilient spongy porous material having effectively the same resiliency. The barrier layer 53 is formed by coating the inner portion 51 with a liquid impervious material which, after hardening, is sufficiently flexible to provide a composite roller of effectively uniform resiliency so that it may be squeezed into a corner as shown in FIG. 4. The barrier layer 53 closes the pores of the inner portion 51 so that it is sealed off from the outer portion 52. As stated above, the barrier layer 53 also extends over and closes the pores at the ends of inner portion 51 as indicated at 54 whereby paint is prevented from entering the ends of the inner portion 51.

The sectionalized roller 50 is easier to clean than the roller 10 because the depth of penetration of paint into the roller 50 is limited by the barrier layer 53. There is no central accumulation of paint which must be removed to prevent its hardening and interfering with the smooth operation of the roller or the squeezing of the roller into a corner.

Referring to FIGS. 8 through 12, the roller which is designated generally as 60, comprises an inner core portion 61 ensleeved within an outer cylindrical portion 62. The inner and outer portions 61 and 62, respectively, are formed of spongy polyurethane and are separated by an open-ended cylindrical barrier layer 64 of rubber or equivalent impermeable flexible material which extends throughout the entire length of the outer portion 62 along its inner surface.

The barrier layer 64 is formed by brushing or spraying the inner cylindrical surface of outer portion 62 with rubber or similar material which is initially in liquid form. While this coating is still wet, the shorter inner

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core portion 61, likewise coated, is inserted within the outer portion 62 and axially centered to produce equal projecting end portions 65 of the outer portion 62 which extend beyond the ends of the core portion 61. The liquid coating subsequently hardens to form the tough impermeable barrier layer 64 which is sufficiently flexible so that the composite roller 60 is effectively uniformly resilient throughout its entire volume.

In the arrangement illustrated in FIG. 10, the shaft consists of a hollow tubular portion 66 and a solid portion 66' which is freely slidable within the tubular portion 66. A collar 68 is fixed to the outer end of each of the shaft portions 66 and 66'. The stub shaft projections 32 are located outwardly beyond the collars 68 and engage the end plates 24 and 25 as described above. The collars 68 are pressed outwardly by the resiliency of the inner core portion 61 of the roller 60, the spring 16 of FIG. 3 being omitted. In order to increase the active compressional areas at the ends of core portion 61, end washers 69 of suitable resiliency are interposed between the collars 68 and the ends of the resilient core 61. The end washers 69 also act as guard members protecting the ends of the core portion 61 from contact with the paint being applied. The recessing of the ends of the core portion 61 prevents engagement between the outer ends of portion 61 and the end plates 24 and 25 the inner surfaces of which are normally coated with wet paint when the applicator is in use.

As illustrated in FIGS. 8 through 12, the applicator may be used with either of two flap members. The wider flap member 70 is shown in FIGS. 7 and 11. The wider flap member 71 differs from the flap member 33 described above in that the stop rod 37 is omitted. Referring to FIG. 11, it will be observed that omission of the stop rod 37 leaves the roller 60 free to resume rotation as the applicator is withdrawn from the squeezing position shown in solid lines to the ceiling painting position shown in dot-dash outline. It is desirable to obtain rotation of the roller 60 accompanied by rolling contact with the ceiling 43 while the edge of the flap member 70 is still engaged in the corner between the ceiling 43 and wall 44. The normal paint applying operation involves rolling contact. With the roller 70 locked against rotation, a wiping rather than rolling contact is obtained near the edge of the ceiling which may result in a non-uniform paint distribution at and adjacent to the corner.

A narrower flap member 71 shown in FIG. 8 may be substituted for the wider flap member 70 illustrated in FIG. 7. The narrower flap member 71 is shown assembled in the applicator in FIG. 9. The free longitudinal edge of the narrower flap member 71 is shown provided with a rounded bead 72 so that the edge will slide smoothly without scratching a surface with which it is pressed into contact. Each of the flap members 70 and 71 comprises a pressure-applying portion 73.

The narrower flap 71 operates in the manner illustrated in FIG. 12. The applicator is brought from the position shown in dot-dash outline until the bead 72 engages the underlying shingle 74 without touching the roller 60. The flap member 71 is then pressed flat against the underlying shingle 74, with the pressure-applying portion 73 squeezing the roller 60. With the flap member 71 held flat against the underlying shingle, the applicator is moved upwardly with the flap member 71 sliding along the surface of the underlying shingle 74. Continued upward movement forces the roller 60 into the downwardly opening slot 75 between an intermediate shingle 76 and an overlying shingle 77. This final position is shown in FIG. 12. In this manner, the applicator of FIGS. 8, 9 and 12 operates rapidly and efficiently for the painting of shingle siding without the need for using a brush to apply paint within downwardly opening slot 75.

It will be observed that the corner painting wider flap member 70 is tangent to the roller 60 in its uncompressed condition about half way between its outer free edge and

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the pivot rod 35. The slot painting narrower flap member 71, however, terminates substantially along its line of tangency with the roller 60 in the uncompressed condition with the beaded edge 72 located slightly beyond the line of tangency. It will also be observed that the pressure-applying portions 73 of the flap members 70 and 71 are flat and that an obtuse dihedral angle is formed between each pressure-applying portion 73 and the flat connecting portion 78 which extends between the pressure-applying portion 73 and the pivot shaft 35. This obtuse dihedral angle offsets the pressure-applying portion 73 so that the housing 22 is clear of the wall 44 or shingle 74 when the roller 60 is deformed as shown in FIGS. 11 and 12, respectively.

Referring to FIGS. 13 through 17, the trough 22 of housing 21 is provided with enlarged end plates 80 and 81 so arranged that the pivot shaft 35 extends along the edge 82 of the trough 22 exteriorly of the trough. The pivot shaft 35 is provided with end portions 83 and 84 of reduced diameter which are both slidably and rotatably journaled in the end plates 80 and 81, respectively.

The helical compression spring 36 yieldingly urges the flap member 85 leftwardly as viewed in FIG. 13 so that the reduced diameter end portion 83 of pivot shaft 35 is maintained continuously but releasably engaged in the end plate 80. The reduced diameter end portion 84 normally projects beyond the end plate 81. The end portion 84 is of sufficient length to permit the flap member 85 to be moved rightwardly as viewed in FIG. 13 against the yielding action of spring 36 for a distance sufficient to withdraw the opposite reduced end portion 83 from engagement with the end plate 80 for removal of the flap member 85 from the housing 21. The edge 82 of the trough member 21 is shown in FIGS. 13 through 16 provided with a U-shaped reinforcing member 87 which increases the rigidity of the edge 82. The flap member 85 is attached to the shaft 35 by being bent around the shaft 35 so that the flap member 85 is firmly secured to the shaft 35. Approximately midway between the ends of the shaft 35, a cam member 88 is so mounted that it embraces the portion of the flap member 85 which is wrapped around the shaft 35. The cam member 88 is thus constrained to follow movements of the flap member 85 between the inactive position illustrated in FIG. 15 and the operative position shown in FIG. 14.

With the flap member 85 in its inactive position illustrated in FIG. 15, the roller may be used without interference by the flap member 85 as if the flap member 85 had been removed. Cam member 88 retains the flap member 85 in the inactive position. With the flap member 85 in its active position shown in FIG. 14, the applicator may be used as described above in connection with FIG. 11 for the application of paint in corners. With a narrower flap member 85, the applicator may be used as described above in connection with FIG. 11 for painting shingles. The cam member 88 permits forced pivotal movement of flap member 85 while preventing free movement caused by its weight.

In FIG. 17, the edge 90 of the trough 22 is rounded and the U-shaped reinforcing member 87 is omitted. A cam member 91 is mounted on the shaft 35 for rotation with the flap member 85. The cam member 91 has arcuate recesses 92 and 93 formed in opposite edge portions thereof. One of the two recesses 92, 93 is engaged by the rounded edge 90 with the flap member 85 in its active position shown in FIG. 14 and the other recess is engaged by the edge 90 when flap member 85 is in the inactive position shown in FIG. 15.

While I have shown and described what I believe to be the best embodiments of my invention, it will be apparent to those skilled in the art that various changes and modifications may be made therein without departing from the spirit and scope of the invention as defined in the appended claims.

What is claimed is:

1. A roller paint applicator comprising a housing, said housing including a trough portion and end members closing the ends of said trough portion; a roller member formed of porous spongy resiliently deformable material freely rotatably journaled in said end members; a flap member carried by said housing and pivoted for rotation about a pivotal axis parallel to the rotational axis of said roller member, said flap member having a free rectilinear edge portion extending parallel to said rotational axis, said flap member comprising a pressure-applying portion spaced from said free edge portion toward said pivotal axis, said pressure-applying portion being engageable with a lateral portion of said roller to compress said roller into a deformed cylindrical configuration, said free edge portion being engageable with a flat surface to maintain said roller in said deformed condition for applying a free portion of said deformed roller against another surface forming a corner with said flat surface; and stop means limiting pivotal movement of said flap member away from said roller member.

2. An applicator according to claim 1, further comprising retaining means acting on said flap member, said retaining means yieldingly holding said flap member either in an inactive position wherein said flap member extends away from said roller member leaving a major portion of the lateral surface of said roller member free or in an active position wherein said flap member is held with said pressure-applying portion positioned to compress said roller and said free edge portion of said flap member positioned for engagement with said flat surface.

3. An applicator according to claim 1, in which said trough portion comprises a straight resiliently deformable edge portion extending parallel to said rotational axis, and wherein said pivotal axis of said flap member is located exteriorly of said trough portion in proximity to said deformable edge portion, said applicator further comprising a cam member connected for rotation about said pivotal axis along with said flap member, said cam member engaging said deformable edge portion intermediate its ends, said cam member yieldingly holding said flap member either in an inactive position wherein said flap member extends away from said roller member leaving a major portion of the lateral surface of said roller member free or in an active position wherein said flap member is held with said pressure-applying portion positioned to compress said roller and said free edge portion of said flap member positioned for engagement with said flat surface.

4. An applicator according to claim 3, wherein said edge portion of said trough portion comprises means defining a flat camming edge and in which said cam member has two flat surfaces located at opposite sides of said pivotal axis, one of said flat surfaces being engageable with said camming edge for holding said flap member in said inactive position, the other flat surface being engageable with said camming edge for holding said flap member in said active position.

5. An applicator according to claim 4, further comprising means carried by said shaft means and engaging said roller member for causing said roller member yieldingly to oppose axial compression of said shaft means.

6. An applicator according to claim 3, wherein said edge portion of said trough portion is rounded, and in which said cam member has two rounded recesses formed therein at opposite sides of said pivotal axis, one of said recesses being engageable with said rounded edge portion for holding said flap member in said inactive position, the other of said recesses being engageable with said rounded edge portion for holding said flap member in said active position.

7. An applicator according to claim 5, further comprising means including spring pressed means detachably securing said flap member to said housing.

8. A paint applicator according to claim 1, wherein

said trough member is in the form of a cylindrical segment which has a radius of curvature greater than said roller member, said roller member engaging said trough member intermediate the lateral edges thereof for picking up paint from said trough member.

9. A paint applicator according to claim 1, further comprising supporting shaft means on which said roller member is removably mounted, said shaft means being axially compressible to shorten its length whereby said shaft means and said roller member may be removed from said applicator as a unit or replaced therein at will.

10. An applicator according to claim 1, wherein said flap member is tangent to said roller member in its uncompressed condition along a line located substantially half way between said free rectilinear edge portion and said axis about which said flap member is pivoted for rotation.

11. An applicator according to claim 1, wherein said flap member is tangent to said roller member in its uncompressed condition along a line located in close proximity to said free rectilinear edge portion.

12. An applicator according to claim 1, wherein said flap member has a rounded bead formed along said free edge portion.

13. A roller paint applicator comprising a housing; said housing including a trough portion and end members closing the ends of said trough portion; a roller member formed of porous spongy resiliently deformable material freely rotatably journaled in said end members; a flap member carried by said housing and pivoted for rotation about a pivotal axis parallel to the rotational axis of said roller member, said flap member having a free rectilinear edge portion extending parallel to said rotational axis, said flap member comprising a pressure-applying portion spaced inwardly from said free edge portion toward said pivotal axis, said pressure-applying portion being engageable with a lateral portion of said roller to compress said roller into a deformed cylindrical configuration, said free edge portion being engageable with a flat surface to maintain said roller in said deformed condition for applying a free portion of said deformed roller against another surface forming a corner with said flat surface; and roller engaging a stop means extending from said flap member toward said roller member from a position adjacent said free edge portion, said stop means extending parallel to the free edge portion of said flap member and backing up said deformed roller member to force said free portion thereof completely into said corner.

14. A paint applicator according to claim 13, wherein said stop means is constituted by an edge portion of said trough portion of said housing which engages said flap member outwardly of its pivotal axis.

15. An applicator according to claim 13, further comprising retaining means acting on said flap member, said retaining means yieldingly holding said flap member either in an inactive position wherein said flap member extends away from said roller member leaving a major portion of the lateral surface of said roller member free or in an active position wherein said flap member is held with said pressure-applying portion positioned to compress said roller and said free edge portion of said flap member positioned for engagement with said flat surface.

16. An applicator according to claim 13, in which said trough portion comprises a straight resiliently deformable edge portion extending parallel to said rotational axis, and wherein said pivotal axis of said flap member is located exteriorly of said trough portion in proximity to said deformable edge portion, said applicator further comprising a cam member connected for rotation about said pivotal axis along with said flap member, said cam member engaging said deformable edge portion intermediate its ends, said cam member yieldingly holding said flap member either in an inactive position wherein said flap member extends away from said

roller member leaving a major portion of the lateral surface of said roller member free or in an active position wherein said flap member is held with said pressure-applying portion positioned to compress said roller and said free edge portion of said flap member positioned 5 for engagement with said flat surface.

17. An applicator according to claim 16, wherein said edge portion of said trough portion comprises means defining a flat camming edge and in which said cam member has two flat surfaces located at opposite sides of said 10 pivotal axis, one of said flat surfaces being engageable with said camming edge for holding said flap member in said inactive position, the other flat surface being engageable with said camming edge for holding said flap member in said active position.

18. An applicator according to claim 16, wherein said edge portion of said trough portion is rounded, and in which said cam member has two rounded recesses formed therein at opposite sides of said pivotal axis, one of said 20 recesses being engageable with said rounded edge portion

for holding said flap member in said inactive position, the other of said recesses being engageable with said rounded edge portion for holding said flap member in said active position.

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