Oct. 9, 1962 J. LIEBERMAN ETAL 3,056,987

APPLICATOR

Filed June 23, 1961

Fig. 1.

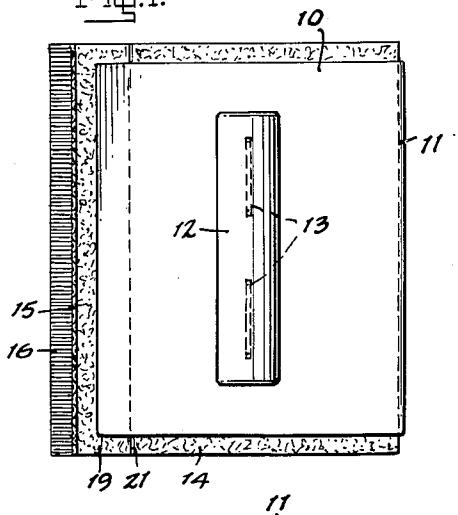


Fig. 2.

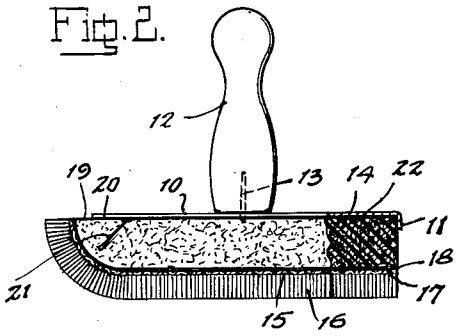


Fig. 3.

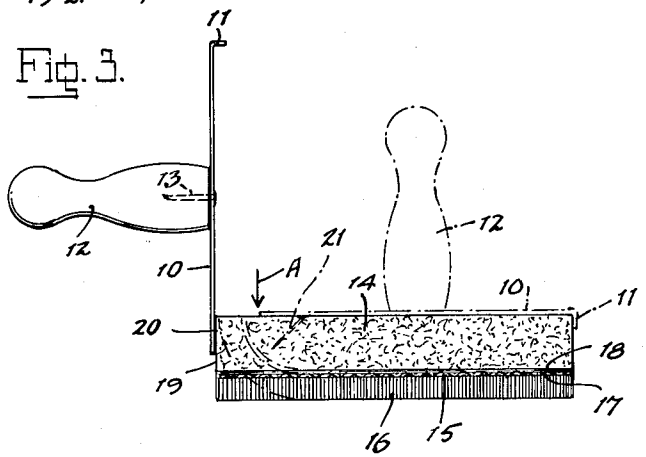


Fig. 4.

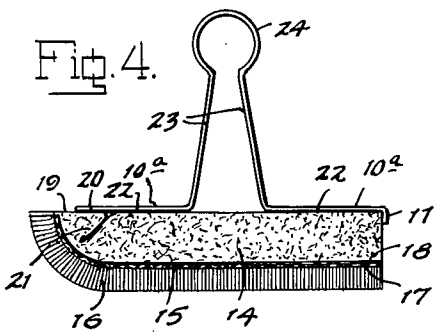
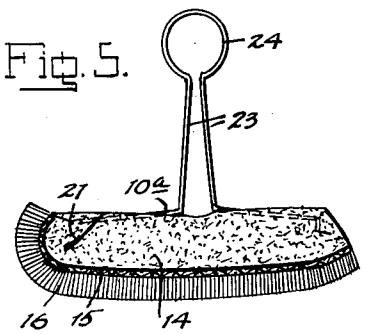


Fig. 5.



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APPLICATOR

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1 Claim. (Cl. 15—210)

The present invention relates to an applicator particularly for applying a liquid coating, as paint or varnish, to flat wall surfaces, narrow edge surfaces, corners, irregular moldings, window frames and mullions, and to suitable exterior surfaces, particular examples being clapboard surfaces and side wall shingles, especially of the shake type where the rough grain makes the coating of such shingles extremely difficult and time-consuming when using the conventional paint brush.

An object of the invention is to provide an applicator comprising a backing plate having a manipulating handle at one side, a brush pile surface at the other side in the form of a piece of woven fabric having a pile of mohair, nylon or other suitable bristle-like fibres, and a resilient cushioning body interposed between the backing plate and the woven pile fabric to enable the pile surface to be readily compressed into conforming relation with irregularities in the surface being coated.

A further object is to provide an applicator having a resilient cushioning body, and which includes a corner formation disposing a relatively wide portion of the pile surface in one plane for application to large area surfaces and a relatively narrow curved portion along one side for application to corners, narrow edge surfaces, moldings, and the like, the arrangement being such that either portion may be used independently of the other, or when desired both portions may be simultaneously used.

A further object is to provide an improved corner structure wherein a flat cushioning body having a base of woven pile fabric adhered to its flat under surface is folded adjacent one peripheral side surface to bring such peripheral side surface into the flat plane of the upper side of the cushioning body where both the peripheral side and upper side surfaces are adhesively secured to the backing plate.

Another object is to provide an applicator having a resilient cushioning body in the form of closed cell foamed rubber or plastic material, as for instance polyethylene, to the end that the cushioning body is non-absorbent and therefore will not absorb the liquid coating material. In previous applicators employing a resilient cushioning body having open cells such body acted as a sponge to absorb liquid material and to eject it when compressed, making for highly unsatisfactory results in the application of the coating.

Another object is to provide an applicator having a guide flange along one edge for guiding the applicator along the edge of a glass window pane or the like, so that the application of the coating is confined to the surface adjacent such window pane or the like.

Another object is to provide an applicator in which the cushioning body is provided with an extended margin along at least three sides of the applicator, to thus provide a protective cushioning means to prevent contact of the edges of the backing plate with a wall, ceiling or other surface adjacent the surface being coated.

Other objects and advantages will become apparent from a consideration of the following detailed description taken in connection with the accompanying drawings wherein a satisfactory embodiment of the invention is shown. However, it will be understood that the invention is not limited to the details disclosed but includes all such variations and modifications as fall within the spirit

of the invention and the scope of the appended claims.

In the drawings:

FIG. 1 is a top plan view of an applicator according to one embodiment of the invention;

FIG. 2 is a side elevation;

FIG. 3 is a side elevation showing the manner in which the backing plate is secured to a peripheral edge of the cushioning body to enable the latter to be folded to form the corner formation as seen in FIG. 2;

FIG. 4 is a side elevation of a modification of the invention having a compressible handle associated with the backing plate; and

FIG. 5 is a side elevation showing the manner in which the compressible handle is compressed to change the contour of the pile surface of the applicator.

Referring to the drawings, and particularly to FIGS. 1–3, the applicator according to the exemplary embodiment of the invention shown therein comprises a sheet metal backing plate **10**, of rectangular form provided along one edge with a downwardly turned narrow edge flange **11**, having a handle **12**, preferably of wood and suitably contoured to provide a convenient finger grip, secured substantially centrally thereof by metal staples **13**, these being of U-shape driven through the plate **10** from its under side and imbedded in the lower end of the handle.

A resilient cushioning body **14** formed of closed cell foamed rubber, or suitable plastic material such as polyethylene, is provided in the form of a rectangular block as seen in FIG. 3, and has secured to its under side a piece of woven pile fabric consisting of a woven base **15** having a fibrous pile **16** secured thereto in the well-known manner of interweaving pile fibres with a woven base as employed for instance in the production of carpets, pile fabrics, etc. The woven base is first coated with a suitable impervious solvent-resistant layer **17** and thereupon adhered to the cushioning body by a suitable adhesive layer **18**. The peripheral edge **19** of the cushioning layer is secured by an adhesive layer **20** to the under side of the marginal edge portion of the backing plate **10** opposite the flange **11**, with the edge of the backing plate spaced a short distance from the woven base **15** for a purpose presently to more fully appear. Thereupon the cushioning body is creased and folded at **21** by swinging the backing plate **10** from the full line position to the dot-and-dash line position overlying the upper surface of the cushioning body where it is secured by an additional adhesive layer **22**, the crease point being inwardly spaced from the peripheral edge **19** as indicated by the arrow A. The dimensions of the cushioning body and the backing plate are predetermined so that the edge flange **11** engages the upper portion of the peripheral edge of the cushioning body opposite its folded edge portion. The resultant folding of the cushioning body as seen in FIG. 2 brings the pile fabric into an upwardly curved position covering and projecting from one side edge of the applicator, with its upwardly disposed edge outwardly spaced a short distance from the side edge of the backing plate **10** to thus provide a protective cushioning means to prevent contact of the edge of the backing plate with a surface being coated.

As seen in FIG. 1 the end portions of the cushioning body also project slightly beyond the end edges of the backing plate **10** to provide a protective cushioning means against contact of the backing plate with wall or ceiling surfaces adjacent the surface being coated.

The folding of the cushioning body, in addition to disposing the woven pile fabric along a side edge of the applicator, also compresses the marginal edge portion of the cushioning body contiguous to the fold to render it somewhat denser than the remainder of the cushioning body to thus give increased stability to the edge portion

of the applicator. As a result the edge portion is sufficiently resilient to allow it to conform to irregularities and at the same time is sufficiently resistant to pressure to prevent the cushioning body from being distorted to the point where the edge of the backing plate **10** might contact the surface being coated.

In FIGS. 4 and 5 there is shown a modification in which the backing plate **10***a* is provided with an integrally formed handle **23** having its sides converging upwardly to a substantially cylindrical bight portion **24**. The backing plate is formed of sheet metal having sufficient resiliency so that upon compressing the sides of the handle together it will resume its original shape after release of such pressure. As seen in FIG. 5 the inward pressing of the sides of the handle causes the sides of the cushioning body and the woven pile fabric surface to be drawn inwardly and to assume a slightly convex contour, the degree of curvature depending upon the degree of compression of the handle. Also the curvature of the folded side portion is thus increased. Such change in the contour has been found desirable in applying coatings to certain types of irregular surfaces, as for instance the porous surfaces of brick or concrete, or the rough grain surfaces of wood shingles, where such manipulation of the contour of the applicator insures better penetration of the coating material.

What is claimed is:

In an applicator for liquid coating materials, a rectangular backing plate, handle means connected to the upper side of said plate, a cushioning body formed of a rectangular block of resilient cushioning material having horizontally disposed parallel upper and lower surfaces and peripheral edge surfaces at right angles to said upper and lower surfaces, and a rectangular piece of pile fabric material comprising a woven base adhered to the entire lower surface of said cushioning body and bristly pile fibres projecting from said base, said cushioning body having one peripheral edge surface adhered to a marginal portion of the under side of said plate with the marginal portion of said cushioning body adjacent said edge surface creased downwardly and folded upwardly to bring said one peripheral edge surface into the plane of the upper surface of said body whereby a portion of said pile fabric material is disposed in a horizontal plane and the marginal portion adjacent said one peripheral surface is convexly curved upwardly from said horizontal plane to the horizontal plane of the upper surface of said cushioning body, and whereby said cushioning body in the area of said creasing and folding is compressed to render it denser than the remainder of said cushioning body, the upper side of said cushioning body being adhered to the under side of said plate in the same plane with said adhered peripheral edge.

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