Feb. 26, 1957 J. T. POSPISZEL 2,782,755

FLUID APPLICATORS

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FIG.1

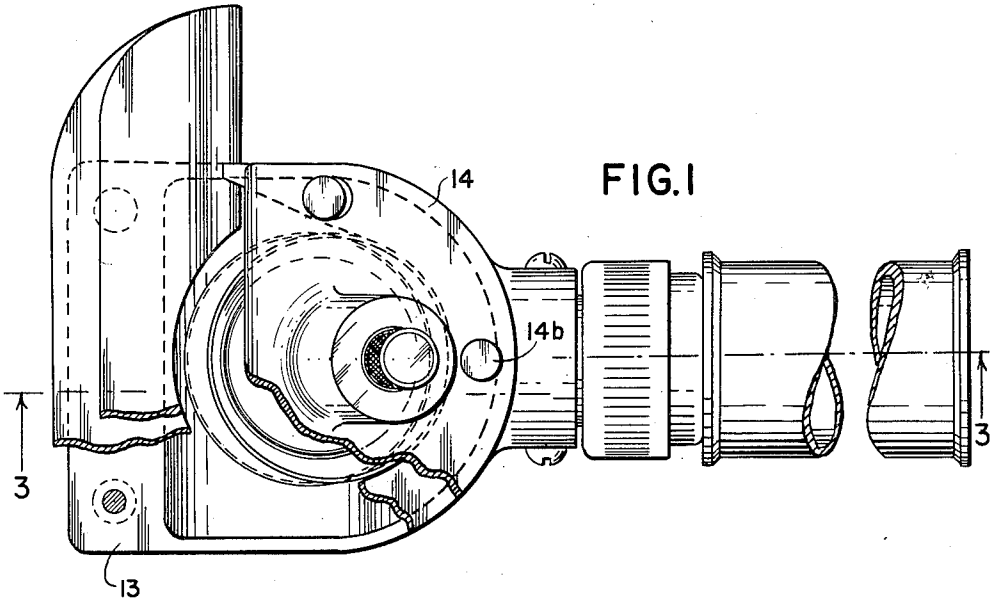
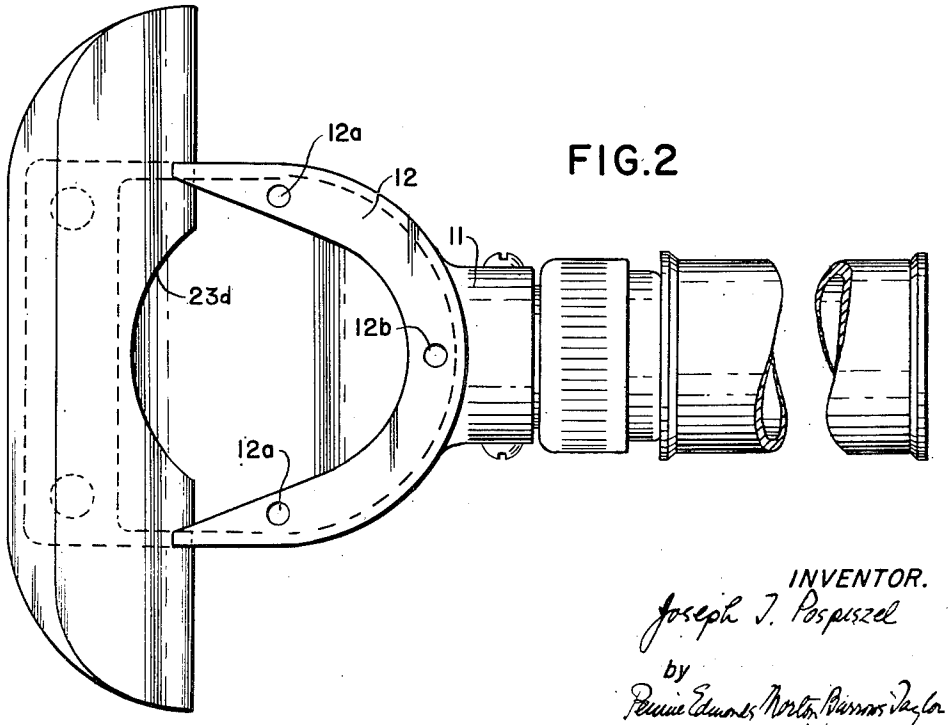


FIG.2



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FIG.3

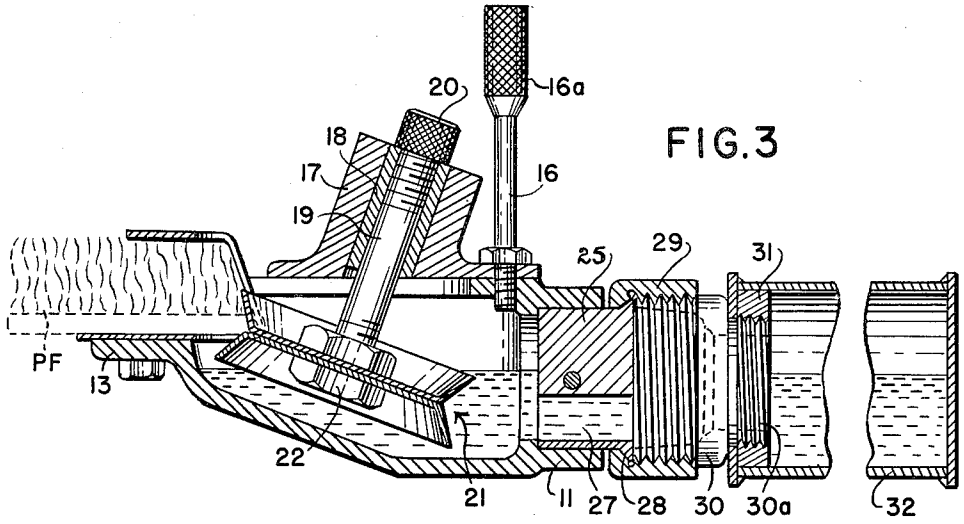
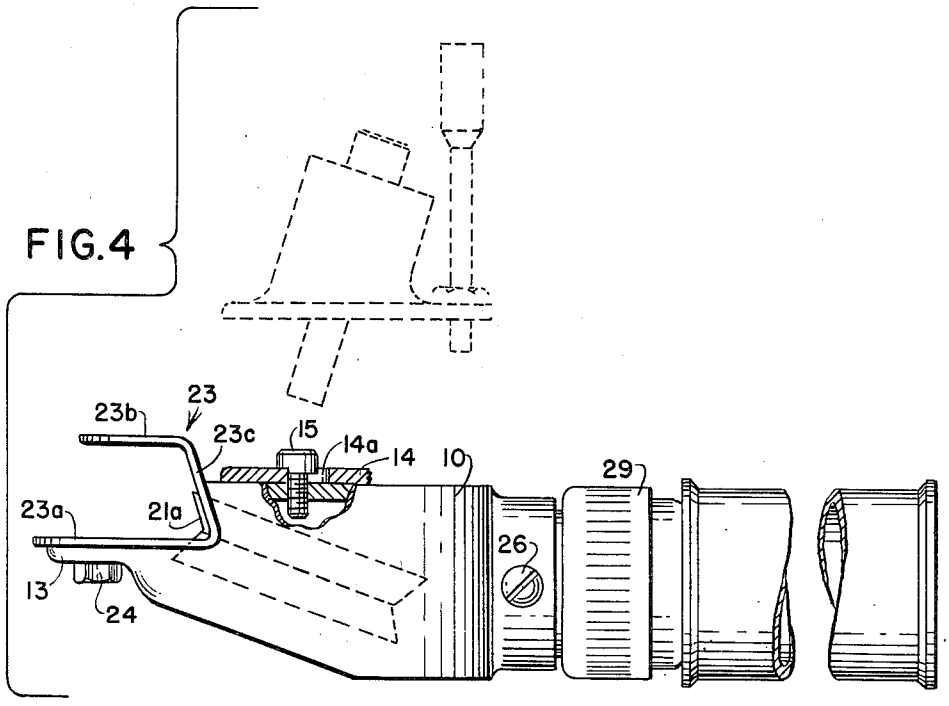


FIG.4



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FLUID APPLICATORS

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5 Claims. (Cl. 118—207)

This invention relates to implements for applying a coating to the edge of a sheet or web and is concerned more particularly with a novel applicator, which is especially adapted for applying a liquid adhesive to the cut edge of carpeting to prevent raveling.

At the present time, pile carpeting is produced in rolls many yards in length and the carpeting is then cut to size according to the requirements of the customer. The raw edge of the fabric can be finished to prevent its raveling either by whipping it by a sewing machine operation or by coating the edge with a liquid adhesive, the latter method being the one commonly used. The application of the adhesive by a brush as is usual is tedious and must be performed carefully to avoid spreading of the coating on areas where it is undesired.

The present invention is directed to the provision of a novel coating tool or applicator for applying a coating of a liquid, such as a cement, to the edge of a sheet or web, and the applicator may be used to great advantage for finishing the raw edge of the pile fabric carpeting. The applicator is provided with a rotary applicator disc mounted for partial immersion in a bath of the liquid in the base of the tool. Part of the edge of the disc is exposed through an opening at the top of the base and the base has a supporting lip for the carpet extending along the edge of the opening. The liquid is supplied to the base from a reservoir detachably secured to the base and the disc is carried by a cover, which is mounted on the base for quick removal. The tool is easy to take apart and assemble, so that it can be easily kept clean, and it can be used by a workman without experience to apply the coating material rapidly and on the desired areas only.

For a better understanding of the invention, reference may be made to the accompanying drawing, in which

Fig. 1 is a plan view of the new applicator with parts broken away;

Fig. 2 is a plan view of the applicator with the cover removed;

Fig. 3 is a view in vertical longitudinal section on the the line 3—3 of Fig. 1; and

Fig. 4 is a view of the applicator in side elevation with parts broken away.

The applicator in the form illustrated comprises a hollow base **10** having a top opening and a hollow cylindrical neck **11** extending outwardly from the side wall of the base. The top opening is defined in part by a flat flange **12** and in part by a lip **13**, which lies at a lower level than the flange. A cover **14** may be mounted on the flange to close part of the top opening and, for this purpose, a pair of screws **15** are threaded into openings **12***a* through the flange to lie with their heads spaced slightly from the top of the flange. The cover has openings **14***a*, through which the heads of the screws may freely pass, and the heads of the screw are slightly undercut, so that, when the cover has been placed on the flange with the heads of the screws extending through the openings in the cover, a slightly lateral movement of the cover causes it to be caught beneath the heads of the screws.

The flange has a third opening **12***b*, with which an opening **14***b* through the cover is brought into registry upon the lateral movement of the cover described. A locking screw **16** having a knurled head **16***a* may then be passed through opening **14***b* of the cover and threaded into opening **12***b* of the flange to hold the cover in place.

The cover has a hub **17** extending at an angle to the plane of the flange **14** and containing a bearing **18**, in which a shaft **19** is mounted for rotation. The shaft has a threaded upper end carrying a nut **20**, which rests upon the outer end of the hub and can be adjusted to vary the position of the shaft lengthwise. At its lower end, the shaft carries an applicator disc **21** held in place by the nuts **22** threaded on shaft **19**. The disc is made of a pair of dished plates secured back to back, so that the disc has a peripheral channel. The diameter of the disc **21** is such that an arcuate portion of its rim projects beyond the edge of the cover and is exposed through the top opening of the base.

The side walls of the base are notched between the lip **13** and the flange **14** and a guide **23** of U-section is mounted in the notches with one leg **23***a* resting upon the top of the lip and secured thereto by screws **24**. The other leg **23***b* of the guide lies parallel to the first and the rear wall **23***c* is cut away as indicated at **23***d*, so that the rim of the applicator disc projects into the space between the legs of the guide as indicated at **21***a*. The legs of the guide are spaced sufficiently to receive between them the material, such as the pile fabric PF, the edge of which is to be coated.

An adapter bushing **25** is telescoped into the neck **11** and held in place by screws **26** threaded into the openings in the neck and engaging the bushing. The bushing has an eccentric passage **27** through it, which lies close to the bottom of the base, when the bushing is properly installed in the neck, and the bushing has a tapered radial flange **28** at its outer end. A sleeve nut **29** encircles the bushing and is threaded on one end of a conduit fitting **30** to hold the end of the fitting against the outer face of the bushing. The fitting has a threaded outer end **30***a* entering the threaded end wall **31** of a tubular chamber or reservoir **32** for the coating fluid.

In the use of the applicator, the reservoir and fitting are rotated to release the fitting from the sleeve nut **29**, after which the reservoir can be filled with the coating fluid to be used. The reservoir is then held in upright position and reconnected to the base and, when the base is turned to horizontal position, the coating liquid passes through the fitting and the passage in the adapter bushing and enters the base to form a bath, in which the applicator disc is partially immersed. When the raw edge of a piece of fabric PF is to be coated, the fabric is placed with its edge lying between the upper and lower legs of guide **23** and as far inward between the guides as possible. In this position of the fabric, its edge lies within the peripheral groove of the applicator disc and, when the applicator is moved along the edge, the disc rolls on the edge and the coating material is carried out of the bath in the base and applied to the edge. The coating may be applied manually with the applicator moved along the edge of the fabric or, if desired, the applicator may be mounted in a fixed holder at the edge of the top of a table or other flat surface and the fabric may then be moved along the surface with its edge entering the applicator guide.

Applicators for applying cementitious material should be thoroughly cleaned after each use in order to avoid clogging and the present applicator can be readily cleaned, since it is a simple matter to remove the reservoir and fitting and the cover. As the cover is removed, it carries the disc with it, so that the disc is fully exposed and all parts of it can be reached for cleaning purposes. Removal of the reservoir and fitting makes it easy to clean these

parts and, with the cover removed, the interior of the base is readily accessible. Any of the coating adhering to the guide may be removed without removal of the guide from the base.

I claim:

1. An applicator for applying a liquid to the edge of carpeting, which comprises a hollow base having a top opening and a hollow lateral neck, the base having a lip extending along part of the edge of the opening, a reservoir for the liquid attached to the neck, a cover mounted on the base and closing the part of the top opening remote from the lip, and a disc mounted on the cover for rotation within the base on an axis inclined to the plane of the cover, the periphery of the disc being exposed through the top opening of the base adjacent the lip.

2. The applicator of claim 1, in which a guide for the edge of the carpeting is mounted on the base, the guide having a top wall lying above and parallel to the lip and a rear wall having an opening receiving part of the periphery of the disc.

3. The applicator of claim 2, in which the guide is of U-section and has one leg resting on and attached to the lip, and both legs of the guide extend laterally beyond the lip.

4. The applicator of claim 1, in which the cover has a hollow hub containing a bearing and the disc is mounted on the lower end of a shaft mounted for rotation in the bearing.

5. The applicator of claim 1, in which an adapter bushing is telescoped into the neck, a threaded conduit fitting is secured to the bushing by a sleeve nut, and the reservoir is threaded on the fitting.

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