April 23, 1957 E. H. PHILLIPS 2,789,637

DRAPERY HANGER AND METHOD OF ITS APPLICATION

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FIG. 1.

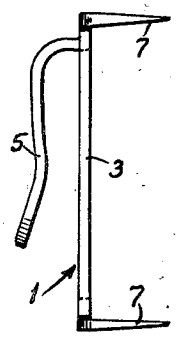


FIG. 2.

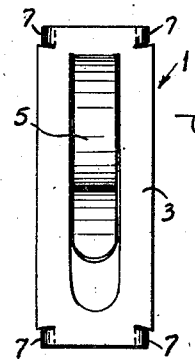


FIG. 3.

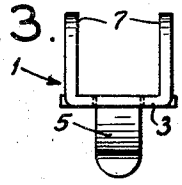


FIG. 4.

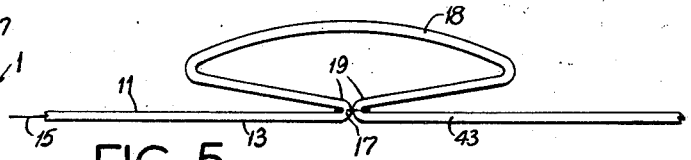


FIG. 5.

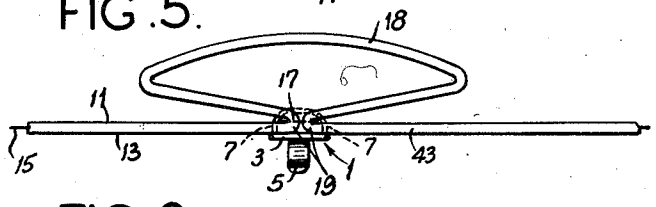


FIG. 6.

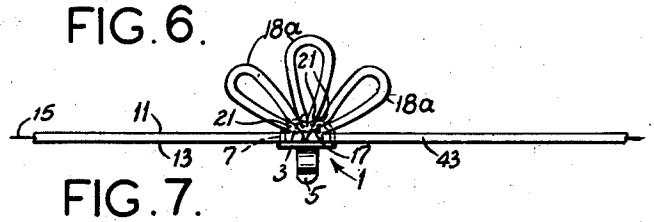


FIG. 7.

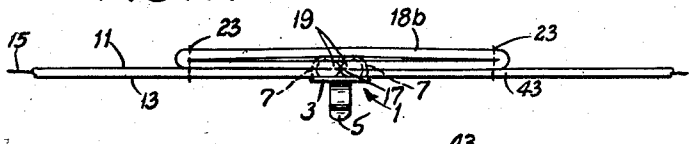
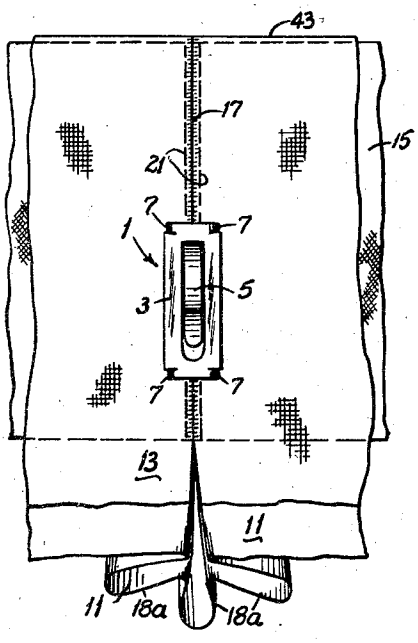


FIG. 8.



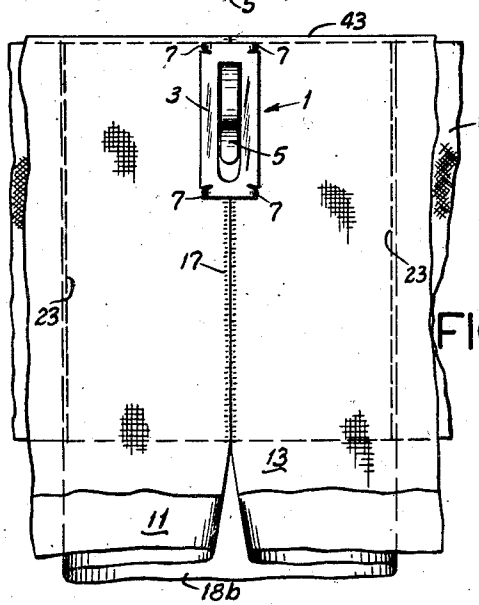


FIG. 9.

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FIG. 10.

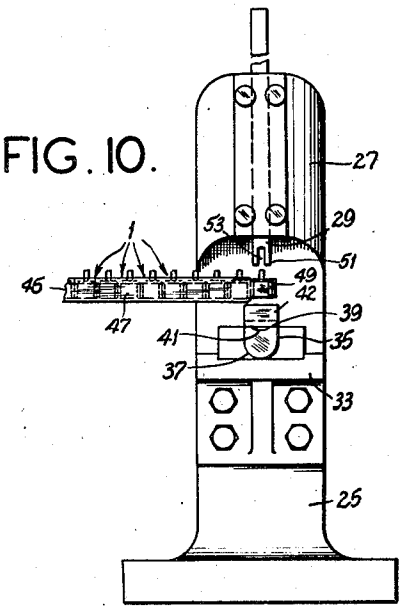


FIG. 11.

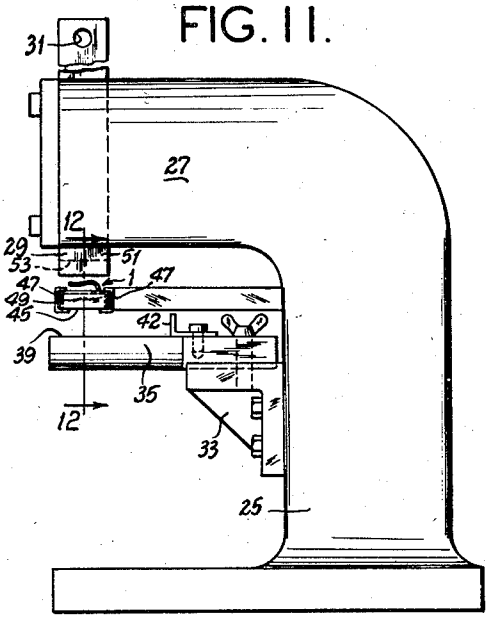


FIG. 12.

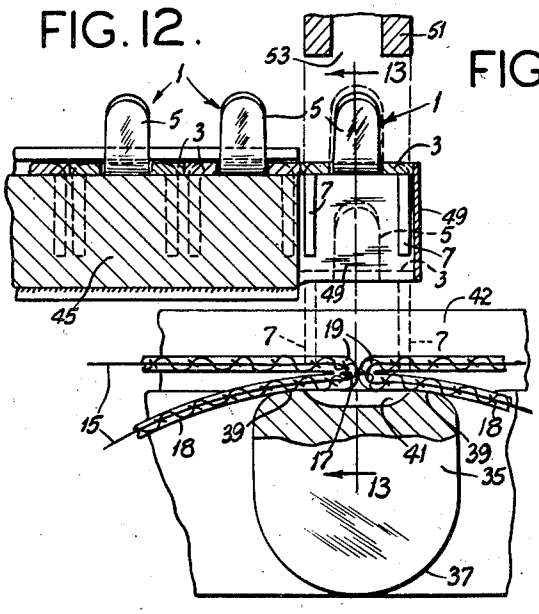


FIG. 13.

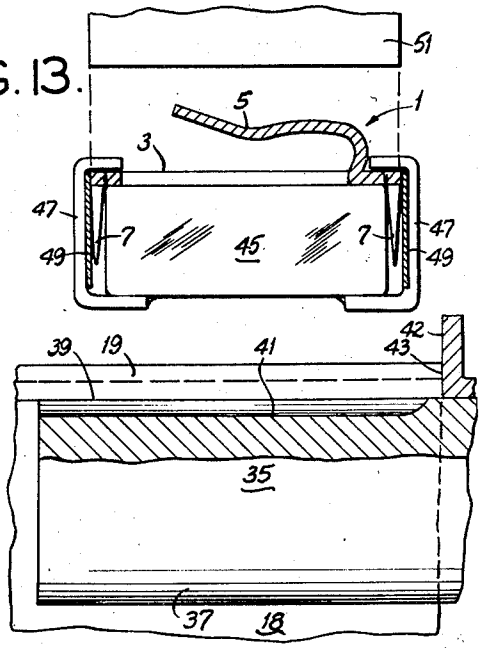
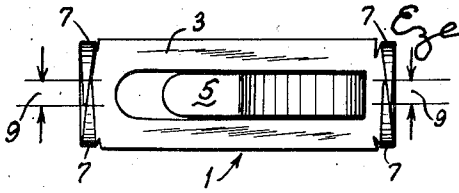


FIG. 14.



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United States Patent Office 2,789,637 Patented Apr. 23, 1957

2,789,637

DRAPERY HANGER AND METHOD OF ITS APPLICATION

Ezekiel Henry Phillips, Memphis, Tenn.

Application September 29, 1954, Serial No. 459,060

2 Claims. (Cl. 160—348)

This invention relates to an improved drapery hanger and its method of application to drapery.

Among the several objects of the invention may be noted the provision of an improved low-cost drapery hanger in the form of a hook adapted rapidly to be stapled to drapery with a strong clinching attachment; and the provision of an improved method and means for applying such hangers to the drapery. Other objects and features will be in part apparent and in part pointed out hereinafter.

The invention accordingly comprises the steps and sequence of steps, elements and combinations of elements, features of construction, and arrangements of parts which will be exemplified in the structures and methods hereinafter described, and the scope of which will be indicated in the following claims.

In the accompanying drawings, in which several of various possible embodiments of the invention are illustrated,

Fig. 1 is a side elevation of a drapery hanger made according to the invention;

Fig. 2 is a left-side elevation of Fig. 1;

Fig. 3 is a top end view of Fig. 2;

Fig. 4 is a diagrammatic top view of a drapery margin showing a partially formed pleat or sleeve;

Fig. 5 is a view similar to Fig. 4 showing application of one of my hangers to said partially formed pleat or sleeve;

Fig. 6 is a view similar to Fig. 5 showing a French pleat made according to the invention;

Fig. 7 is a view similar to Fig. 6 showing a box pleat made according to the invention;

Fig. 8 is a rear view of a drapery margin employing a French pleat according to Fig. 6;

Fig. 9 is a rear view of a drapery margin employing a box pleat according to Fig. 7;

Fig. 10 is a front elevation of apparatus for applying my hangers to drapery;

Fig. 11 is a right side elevation of Fig. 10;

Fig. 12 is an enlarged vertical detailed section taken on line 12—12 of Fig. 11 and showing how a hanger is applied to a partially formed pleat on a drapery margin;

Fig. 13 is a vertical section taken on line 13—13 of Fig. 12; and,

Fig. 14 is a bottom view of a hanger clinched according to the invention but disassociated from the cloth in which it is normally located.

Corresponding reference characters indicate corresponding parts throughout the several views of the drawings.

Heretofore drapery hangers in the form of hooks have either been needled, telescoped or sewn into position in connection with the pleats or the like of drapery which they are intended to support. My invention differs from these in that it provides a hanger which is very economical to make and which may be applied rapidly by stapling to form a very strong pleat arrangement and support for

the drapery, particularly at the pleats, where these are used.

Referring now more particularly to Figs. 1–3, there is shown at numeral 1 a light-gauge sheet-metal stamped hanger of malleable or deformable metal, consisting of a flat plate 3 from one surface of which is struck out a hook-forming tongue 5. Bent down from the corners of the opposite surface of the plate 3 are pointed deformable stapling tines 7. For example and without limitation, the plate 3 may be on the order of ⅜ inch wide and 1 3/16 inch long, with tines ¼ inch long, adapted to effect a ⅛ inch overlap 9 when clinched toward one another as shown in Fig. 14. Standard U. S. sheet-metal gauge 20 is suitable for the size of hanger mentioned. Other sizes and gauges are not excluded, however.

As is known, the upper margins of pleated draperies are often provided with two layers of cloth, i. e., a front decorative material such as shown at 11, a rear facing material 13 with an upper buckram or crinoline interliner strip 15 for marginal stiffening purposes (see Figs. 4–9). In order to prepare a drape for the reception of my new hanger, its margin whether made up as above described or otherwise, is looped at intervals as shown at 18 (Fig. 4) to form abutting folds 19 which are sewn together by stitching 17. Then by means to be described, a hanger 1 is stapled into position as shown in Fig. 5 with its tines 7 piercing through the folds 19, the pointed ends of the tines being clinched and overlapped. The location of the hanger on the drapery margin may be anywhere along the stitching 17; for example, in Fig. 8 it is spaced downward from the upper edge 43 of the drape and in Fig. 9 it is approximately at the upper edge. The Fig. 8 location is for use of the drape without use of a cornice, whereas the Fig. 9 location is for use of the drape behind a cornice (not shown). After stapling of the hanger as illustrated in Figs. 6–9, the loop 18 may be finished to form either a French pleat (as shown in Figs. 6 and 8) or a box pleat (as shown in Figs. 7 and 9). In the case of the French pleat, loop 18 is triple pleated as indicated at 18^a, the bases of the pleats being sewn at points 21 (Figs. 6 and 8). In the case of the box pleat, loop 18 is made flat as shown at 18^b, the edges of the pleat being sewn down as indicated at 23 (Figs. 7 and 9).

Figs. 8 and 9 show rear views of finished drapery margins as hung. It will be understood that hanging is accomplished by inserting the hooks 5 into the usual eyes of runners such as are employed in connection with the usual curtain rods that support the draperies. The runners and rods are not shown, since their construction and use are well known.

In Figs. 10–13 apparatus is shown for stapling the hanger to a prepared drapery loop 18. This stapling apparatus is constituted by a column 25 having an overhanging head 27 in which is a sliding punch 29, the upper end of which is provided with an opening 31 for attachment of the usual appropriate means (not shown) for driving the punch. Attached to the column 25 is a bracket 33 which carries a removable anvil 35. This anvil is rounded on the bottom as shown at 37 and has a more or less flat top 39 with a recess 41 for tine clinching purposes. At numeral 42 is shown an adjustable backstop for positioning the upper edge 43 of a drape which has been provided with a loop 18 preliminarily sewn as above described.

At numeral 45 is shown a feed bar to which are welded sidewise space guide channels 47, for the sliding reception of the hangers. At the end of the bar 45 is a spring loop 49 for receiving and resilliently holding the hangers 1 as they are pushed from left to right off the end of the bar 45. Known biasing spring means (not shown) are employed to feed the hangers from left to right. As indi-

cated at numeral 51, the lower end of the punch 29 is of rectangular form, slotted lengthwise as shown at 53. The size of the rectangle is matched to the size of the plates 3, and the slot 53 clears the hooks 5 so that upon downward movement of the punch 29 a hanger which is held in the spring loop 49 is forced downward, as indicated by dotted lines in Fig. 12. It will be apparent from Fig. 2 that since the struck-out hook 5 leaves a surrounding rectangular frame from the corners of which extend the tines 7, the corners of the slotted punch 29 take a position above the tines for driving them. Moreover, the parts of the punch adjacent the slot can engage the longitudinal sides of said rectangular frame flatly to force down the frame against the drapery cloth, as indicated in Figs. 5–7. Thus, due to the favorable shape of the hanger for punch-setting, it assumes a neat appearance in its firmly set final position on a drape with the unbowed sides of its frame clear of the hook 5.

Before the punch 29 is driven down, one of the loops 18 is telescoped over the anvil 35 until its edge 43 strikes the depth guide 42 (Figs. 12 and 13). The preliminarily sewn folds 19 are located in line with recess 41. Then the punch is driven down and pairs of the tines 7 are driven through the opposite folds 19. The pointed ends of the tines 7 are clinched toward one another by the recess 41 and overlapped (see also Fig. 14). The result is a strong clinching attachment of the hanger to the drapery and a strong attachment between the folds 19 and the loops 18. As is known, draperies are often given very rough treatment in pulling them open and shut, particularly in the cases of large heavy drapes used in public places. The strong and firm metallic attachment of the hangers to the drapes, particularly where the folds 19 are held together by the overlapped clinched metal tines, is of substantial advantage.

It is apparent that after the margin of a drape has been provided with a spaced series of preliminarily sewn loops as shown at 18 in Fig. 5, these loops may be successively and rapidly telescoped over the anvil 35 for clinching application or stapling on of the hangers. The rapidity of application, low cost of the hangers, and the resulting reliable reinforcing holds on the pleats and support for the drapery result in a very desirable form of drapery support.

It will be understood that, although the preferred use of my hanger is for pleated drapes, it is also useful on other types.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As various changes could be made in the above constructions and methods without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. In combination, a drape having an upper margin, a stiffening strip connected with the margin, said margin and stiffening strip being looped at intervals to form abutting pairs of folded edges, lines of connecting stitching joining pairs of folded edges respectively, each line of stitching extending transversely of the stiffening strip, a staple attached at each line of stitching, each staple comprising a plate having a hook extending from the plate in a direction away from the drape and having a group of pointed tines extending in a direction opposite the hook, members of said group of tines piercing said margin including the stiffening strip on opposed sides of adjacent folded and stitched edges, the points of the oppositely positioned tines being angled within the respective loop adjacent the respective line of stitching, angled points on the tines being located and hidden in said loops and the remainder of each staple being hidden behind the drape.

2. In combination, a drape having an upper margin, a stiffening strip connected with the margin, said margin and stiffening strip being looped at intervals to form pairs of abutting folded edges, lines of stitching respectively connecting the pairs of adjacent edges, said lines of stitching extending transversely of said stiffening strip, a staple attached to the margin at each line of stitching, each staple comprising an elongate substantially flat plate, an elongate struck-out hook struck forming an elongate opening lengthwise of the plate, said hook extending in a direction away from the drape and leaving a surrounding elongate frame of metal around the opening, the short sides of said frame straddling the respective line of stitching, corner portions of the plate being struck to form four pointed tines extending in a direction opposite the hook, opposite pairs of said tines piercing said margin including the stiffening strip on opposite sides of the respective folded edges and the line of stitching, oppositely located points of said tines being oppositely clinched toward one another in a direction crosswise of the line of stitching, whereby the margin of the drape when supported by said hooks is stiffened in a substantially vertical plane and any exposed portions of the clinched tines are contained and hidden within said loops, said loops being adapted to be formed as box or French pleats as desired.

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