June 27, 1950 J. S. McCARGO 2,512,957

DISPLAY HOLDER

Filed April 17, 1946 3 Sheets-Sheet 1

FIG. 1.

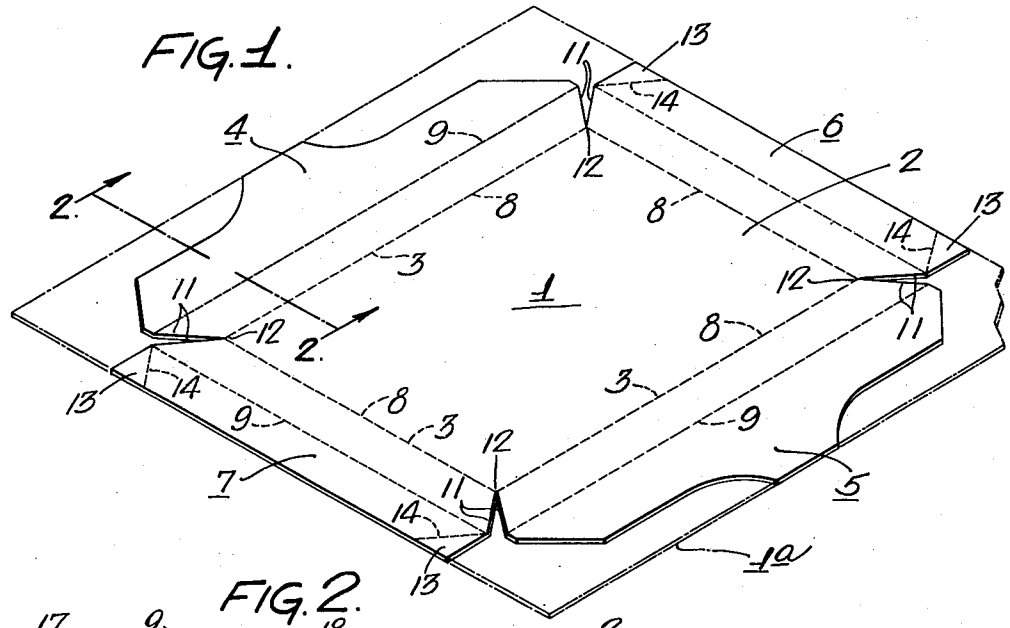


FIG. 2.

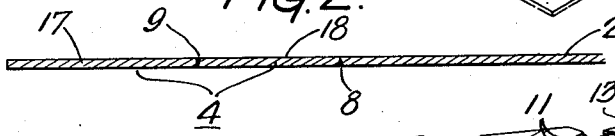


FIG. 3.

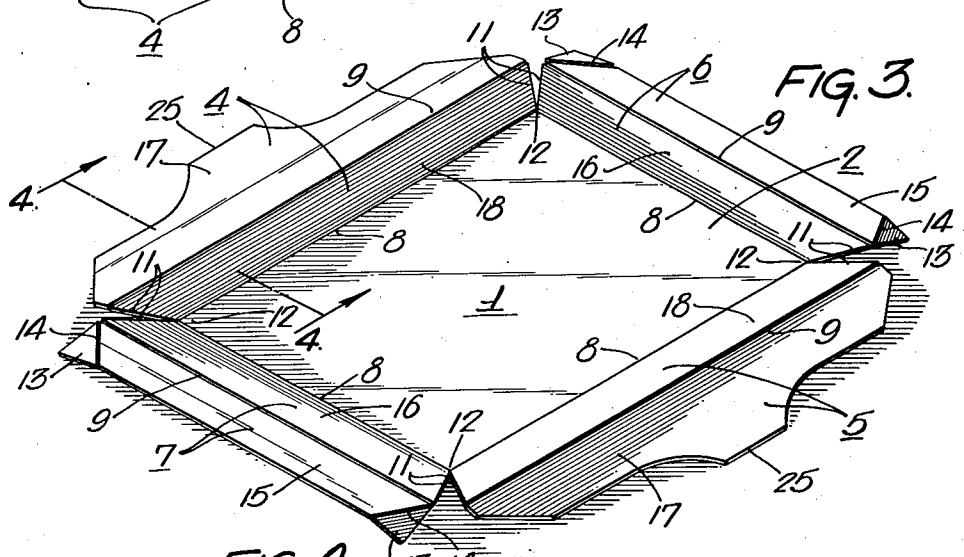
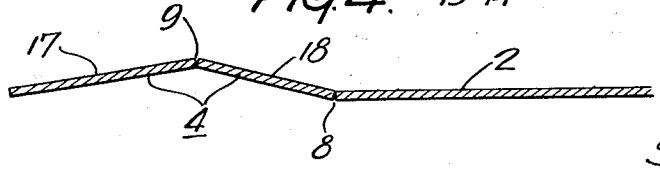


FIG. 4.



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June 27, 1950 J. S. McCARGO 2,512,957

DISPLAY HOLDER

Filed April 17, 1946 3 Sheets-Sheet 2

FIG. 5.

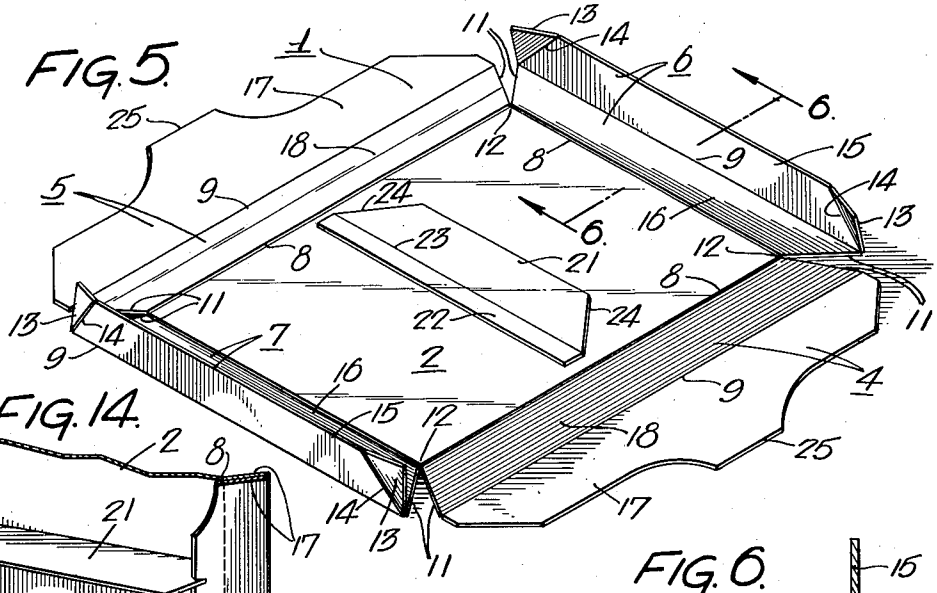


FIG. 14.

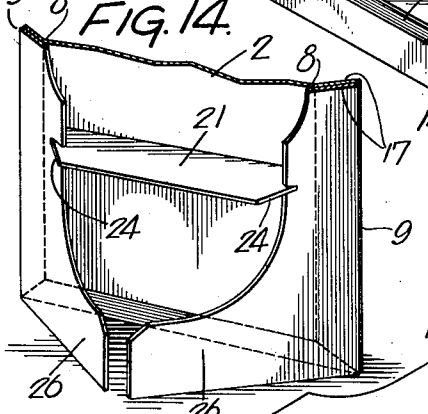


FIG. 6.

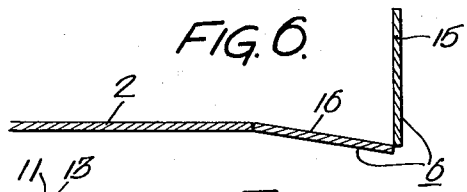


FIG. 7.

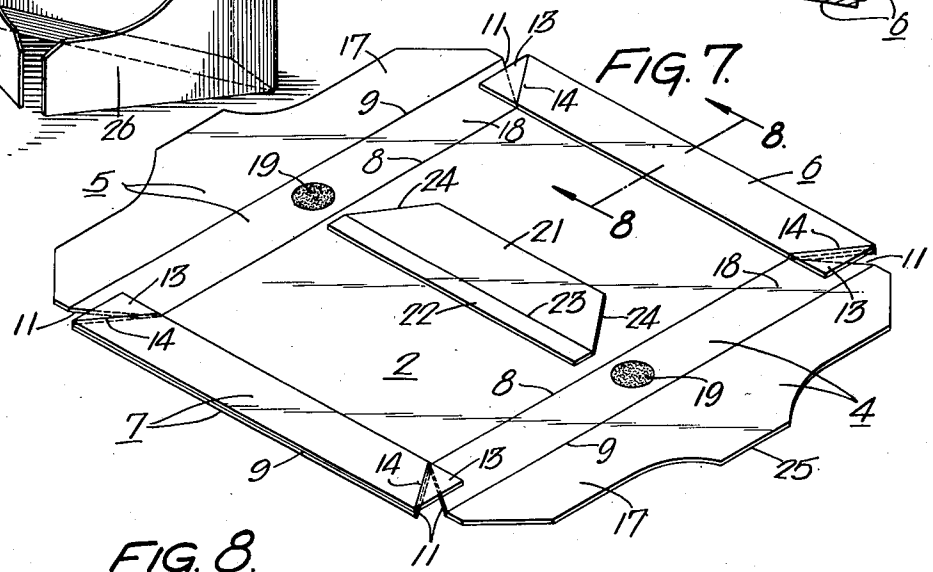
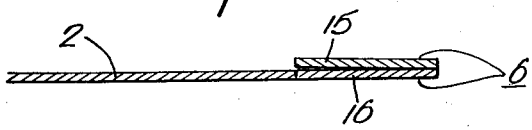


FIG. 8.



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June 27, 1950 J. S. McCARGO 2,512,957

DISPLAY HOLDER

Filed April 17, 1946 3 Sheets-Sheet 3

FIG. 9.

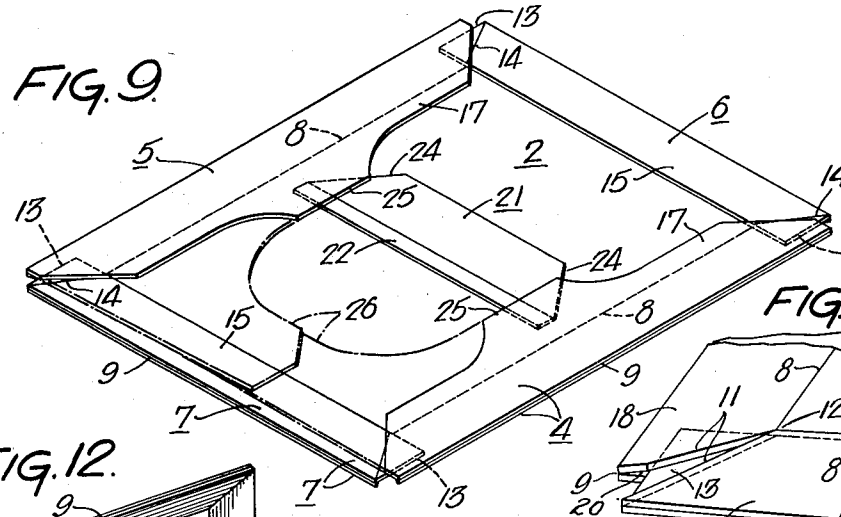


FIG. 10.

FIG. 12.

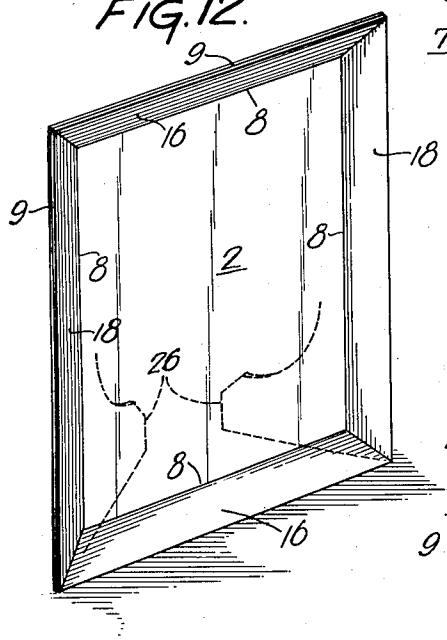


FIG. 11.

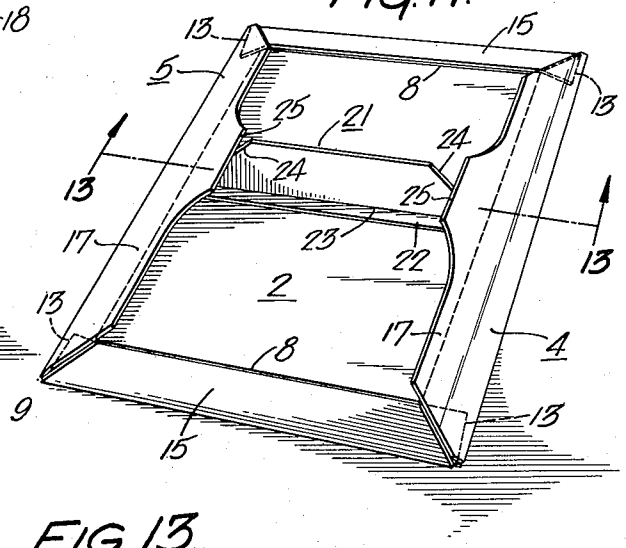
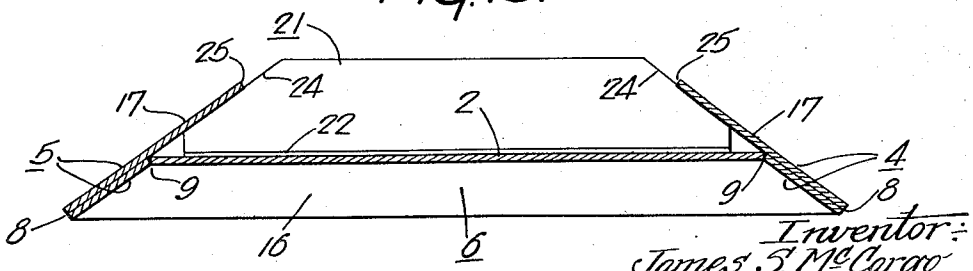


FIG. 13.



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UNITED STATES PATENT OFFICE

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DISPLAY HOLDER

James S. McCargo, Ardmore, Pa.

Application April 17, 1946, Serial No. 662,860

4 Claims. (Cl. 40—154)

1

This invention relates primarily to advertising devices and a principal object of the invention is to provide a display panel of generally improved form.

More particularly, an object of the invention is to provide a display panel which may be die cut or stamped from suitable sheet material such as cardboard, and subsequently folded to the form of a substantially flat blank readily convertible to the finished article by simple manipulation of a single adjustment means.

The invention resides further in certain novel structural details hereinafter described and illustrated in the attached drawings wherein:

Fig. 1 is a view in perspective showing the original cut-out as produced from the component sheet material;

Fig. 2 is a section on the line 2—2, Fig. 1;

Fig. 3 is a view of the cut-out partly folded in the production of the blank;

Fig. 4 is a section on the line 4—4, Fig. 3;

Fig. 5 is a view in perspective showing the cut-out form in a more advanced stage of transformation into the blank;

Fig. 6 is a section on the line 6—6, Fig. 5;

Fig. 7 is a view in perspective illustrating a still more advanced stage in the production of the blank;

Fig. 8 is a section on the line 8—8, Fig. 7;

Fig. 9 is a view in perspective showing the rear side of the completed blank and showing a modification within the scope of the invention;

Fig. 10 is a fragmentary view in perspective illustrating a detail of the blank construction;

Fig. 11 is a view in perspective showing the rear side of the finished panel;

Fig. 12 is a view in perspective showing the front of the panel and showing a modification within the scope of the invention;

Fig. 13 is a sectional view on the line 13—13, Fig. 11; and

Fig. 14 is a fragmentary rear view in perspective of the panel illustrating a modification within the scope of the invention.

With reference to the drawings, a display panel made in accordance with the invention may be die-cut or stamped from flat sheet material of suitable characteristic, such as cardboard, the shape of this cut-out taking the form, for example, shown in Fig. 1 wherein the said cut-out, designated generally by the reference numeral 1, is shown in full lines and the outline of the parent sheet is illustrated in the broken lines indicated by the reference numeral 1a. In the present instance the cut-out 1 consists of a central flat panel member 2, which is outlined by the broken lines 3, and marginal portions at each edge of the member 2 indicated respectively by the reference numerals 4, 5, 6, and 7. Each of the marginal portions is joined to the panel 2 by a flexible joint 8 produced in the present instance by scoring the blank along the broken line 3 as indicated in Fig. 2. Each of the marginal portions 4, 5, 6, and 7 is similarly scored at the opposite face of the blank so as to provide in each case a line 9 parallel to the juncture 8 upon which the portion may be folded on itself as hereinafter described. The ends of the said portions, 4, 5, 6, and 7 are formed so that the proximate end edges 11 of the adjoining marginal portions diverge outwardly from the corners 12 of the panel member 2; and each of the panels 6 and 7 is provided at each end with a corner portion 13 which is flexibly connected on a scored line 14 with the outer foldable part 15 of the said portion of the said diverging edges 11 and the corner portions 13 function for a purpose hereinafter described.

2

As illustrated in Fig. 3, the scorings 8 are such as to permit the marginal portions 4, 5, 6, and 7 to be displaced or adjusted from the plane of the panel member 2 toward the front of the panel as indicated in Figs. 3 and 5, it being noted that both Figs. 1 and 2 show the forward face of the panel. The scoring 9 on the other hand is of a character to permit the outer parts of the marginal portions to be folded rearwardly or toward the back of the panel, this also being indicated in Figs. 3 and 4.

The manner in which the marginal portions are folded in producing the completed blank is best illustrated in Figs. 5 to 10 inclusive which show the rear side of the panel member 2. In the process of thus producing the blank the outer parts 15 of the portions 6 and 7 are folded back against the rear faces of the inner parts 16 of the respective portions. Thereafter the outer parts 17 of the marginal portions 4 and 5 are similarly folded back on the lines 9 so as to lie flatly against the rear faces of the inner parts 18 of these marginal portions. In this operation the corner portions 13 of the outer parts 15 of the portions 6 and 7 are included in the fold of the portions 4 and 5 as indicated in Figs. 7, 9, and 10. The folded-over parts 17 of the portions 4 and 5 are secured to the inner parts 18 by means, for example, of adhesive 19, and the terminal end corners 13 are thus slidably confined within the slots 20 (see Fig. 10) at the ends of these folded portions.

Normally the folded marginal portions 4, 5, 6, and 7 lie substantially flat in or substantially in the common plane of the panel member 2, as illustrated in Fig. 9. It is apparent however, that displacement of any one or more of the marginal portions from this normal flat plane toward the front of the panel member and into an inclined position with respect to the plane of the latter will, by reason of the connection between each adjoining pair of said marginal portions obtained through the corner portions 13 as described above, be accompanied by a corresponding movement of the other marginal portions into the forwardly inclined position shown in Fig. 12. It will be noted that the diverging edges 11—11 of the adjoining marginal portions will, when the said portions are displaced to a sufficient extent from the normal plane, meet one with the other so as to form in effect a continuous beveled frame surrounding the panel member 2. This is most clearly illustrated in Figs. 12 and 13. It is apparent that the edges 11—11 thus constitute stops limiting the extent to which the marginal portions may be displaced toward the front of the panel member 2, and that the ultimate angularity of the said portions with respect to the plane of the panel member will thus be a function of the angle included between the edges 11—11 of the adjoining portions in the original cut-out as shown in Fig. 1.

In order to simplify the operation of displacing the folded marginal portions from the normal substantially flat plane of the finished blank, I provide at the back of the panel member 2 a member 21 which is secured, as by adhesive, at one edge portion 22 to the rear of the face of the panel member, the remainder of the member 21 forming a flap which may be turned out of plane of the panel member along a scored line 23. The beveled side edges 24—24 of the member 21 are positioned for engagement with the inwardly projecting edges 25—25 of the outer folded over parts 17—17 of the marginal portions 4 and 5, so that when the member 21 is turned from the plane of the panel member, the edges 24—24 will act as cams against the edges 25 to displace the portions 4 and 5 from the normal flat plane of the blank into the position shown in Figs. 11, 12, and 13. The member 21, when in a position substantially normal to the plane of the panel member, will then constitute a retaining means to hold the marginal portions in the displaced positions as shown in Fig. 13. The edges 25—25 may be provided with notches to receive the edges of the member 21 when in this position so as to effect a positive interlock.

A modification of the aforedescribed device is illustrated in Figs. 9, 12, and 14. As illustrated in broken lines in Fig. 9 the folded over parts 17 of the portions 4 and 5 are extended at one end toward each other so as to provide extensions 26—26 which, when the flange members 4 and 5 are adjusted into the aforedescribed angular positions with respect to the plane of the panel member, will assume positions illustrated in broken lines in Fig. 12 and in full lines in Fig. 14, the said extensions in this position affording an easel support for the panel as a whole.

For simplification of description, a simple rectangular form of panel is herein illustrated and specifically described. It will be apparent, however, that the invention in principle is applicable to panel devices of polygonal form other than rectangular.

I claim:

1. In a display panel, a polygonal panel member having a marginal portion joined to each edge thereof and adjustable angularly about the line of juncture as an axis, each said marginal portion being folded flat upon itself along a line paralleling said line of juncture toward the rear-side of the panel member and said marginal portions thus folded being angularly offset about the respective juncture lines toward the front of the panel so as to form collectively a forwardly projecting beveled frame for the panel member, the folds of certain of the marginal portions forming a first group being secured together at points intermediate the ends thereof, each of the marginal portions of the remaining group having a terminal end portion flexibly joined to the rearward fold thereof and extending slidably between the folds of an adjoining marginal portion of the first group to thereby operatively connect the marginal portions of the two groups, and means at the rear of the panel member for releasably retaining the said marginal portions in the said angularly offset positions.

2. A display panel according to claim 1 wherein the marginal portions of one of said groups alternate with the marginal portions of the other group around the periphery of the panel member, and wherein further each of the marginal portions of the second group has a flexibly joined terminal end portion at both ends extending slidably between the folds of the respectively adjoining marginal portions of the first group.

3. In a display panel, a polygonal panel member having a marginal portion joined to each edge thereof and adjustable angularly about the line of juncture as an axis, said marginal portions being angularly offset about the respective juncture lines toward the front of the panel so as to form collectively a forwardly projecting beveled frame for the panel member, certain of the marginal portions forming a first group, each having a slot accessible from an end of said portion, and each of the marginal portions of the remaining group having flexibly joined thereto a terminal end portion slidably inserted in said slot to thereby operatively connect the marginal portions of the two groups, and means at the rear of the panel member for releasably retaining the said marginal portions in the said angularly offset positions.

4. A display panel according to claim 3 wherein the marginal portions of one of said groups alternate with the marginal portions of the other group around the periphery of the panel member, and wherein further each of the marginal portions of the second group has a flexibly joined terminal end portion at both ends projected slidably into the slot of the respectively joining marginal portions of the first group.

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