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L. D. YOUNG

3,127,987

DISPLAY BOX

Filed Sept. 21, 1962

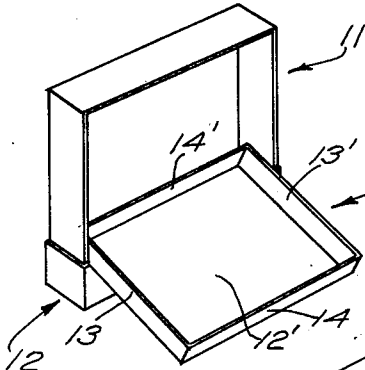


FIG. 1

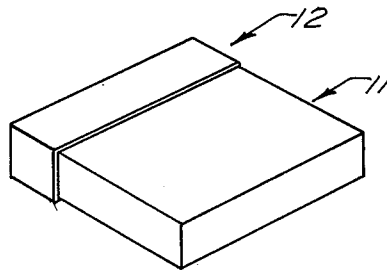


FIG. 2

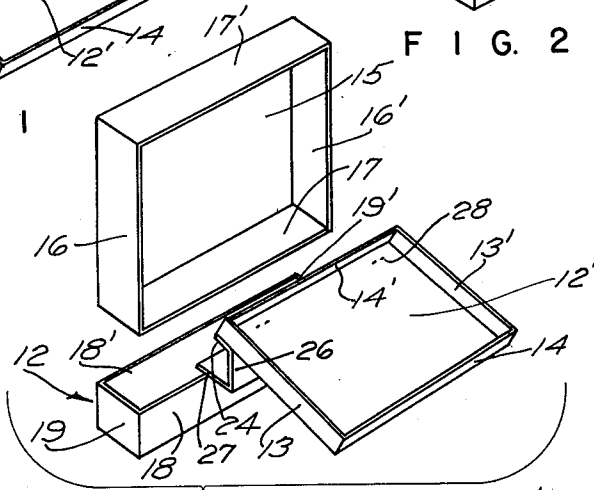


FIG. 3

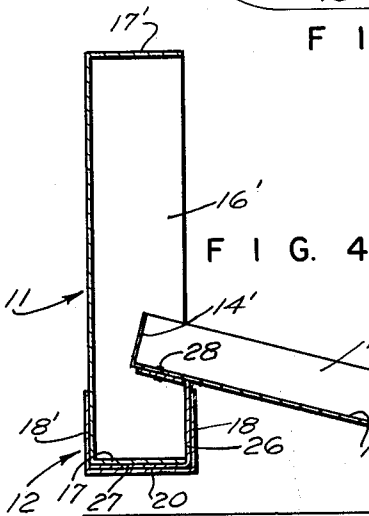


FIG. 4

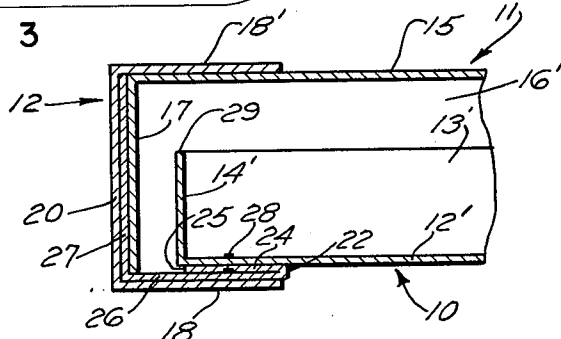


FIG. 5

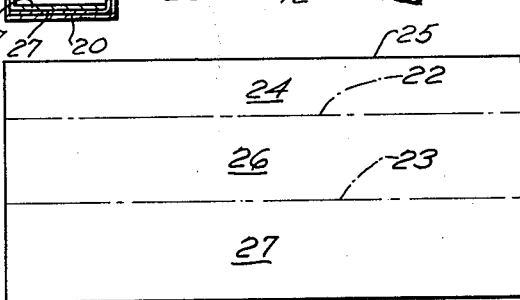


FIG. 6

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3,127,987
DISPLAY BOX

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3 Claims. (Cl. 206-45.2)

This invention relates to a display box of the type which is the subject of my Patent No. 2,219,039.

One of the objects of this invention is to provide an improved hinging relation between the cover member and body member of the box.

Another object of the invention is to provide a means of securing a hinge between the body and cover members without the use of adhesives.

Another object of the invention is to secure a hinge between the body and cover members by the telescoping support member which provides for inclination of the body member when the cover member is opened and holds the body member in inclined position.

With these and other objects in view, the invention consists of certain novel features of construction as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings:

FIG. 1 is a perspective view of the display box in open position;

FIG. 2 is a perspective view of the box in closed position;

FIG. 3 is an exploded view illustrating the three parts of the box and the hinge as attached to the body member;

FIG. 4 is a sectional view substantially centrally through the box in the position shown in FIG. 1;

FIG. 5 is a sectional view of a fragmental portion of the box in closed position; and

FIG. 6 is a plan view of the hinge before being folded and showing the score lines thereof.

In the formation of boxes, it is usual that the rectangular walls of the parts be formed by machine operation, and then when a hinging relation between the parts is desired as here illustrated, the assembly of the parts with the hinge is done largely by hand. Gluing which takes place for securing the hinge in position such as shown in my earlier Patent No. 2,219,039 was a time consuming and consequently costly operation, and in order to reduce this assembly time and cause the box to be less expensive, I have provided a hinge which may be stapled to the body of the box and then held in position in the cover of the box by the simple telescoping of the supporting member onto both body and cover when in assembled position, and I find that friction between the members with the hinge in place provides a sufficiently tight fit between the parts to secure the parts together, thus enabling this simplified operation.

With reference to the drawings, the body member of the box is designated generally 10 and the cover member 11, while a supporting member is designated generally 12. The body member has a bottom wall 12' with opposite pairs of side walls upstanding therefrom. Thus, there is provided the one pair of upstanding opposite side walls 13 and 13' and another pair of opposite side walls 14 and 14'. These side walls are in rectangular relation providing a fence-like enclosure and also are at right angles to the bottom wall 12'.

The cover member has a top wall 15 and depending pairs of opposite side walls 16, 16' and another pair of opposite side walls 17, 17'. These side walls are also in the shape of a fence-like enclosure at right angles to each other and at right angles to the top wall 15. The size of this cover section is such that the side walls

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16, 16' and 17, 17' will telescope over the side walls 13, 13' and 14, 14' of the body member.

The support member 12 is provided with opposite walls 18, 18' and 19, 19' which are also in the shape of a fence-like enclosure and at right angles to each other, while there is a bridging wall 20 extending across these walls 18, 18' and 19, 19' at one of their ends leaving the opposite ends open. This support member is of a size and shape so as to telescope over the cover member and the body member and fit rather snugly therewith. The bridging wall 20 is substantially co-extensive with the side walls 17 of the cover as may be readily seen in FIG. 5.

A hinge designated generally 21 is shown in its blanked out form in FIG. 6 where there is a score line 22 and a second score line 23. The section 24 between the score line 22 and one edge 25 is secured to the bottom wall 12' of the body member (see FIG. 5) such as by means of staples 28 with its edge 25 adjacent the upstanding wall 14'. The score line 22 serves as a hinge so that the hinge section 26 is doubled back upon the section 24 as seen in FIG. 5 where the hinge is then again folded at right angles along the score line 23, and the section 27 of the hinge extends along the bridging wall 20 and between the bridging wall 20 and the depending wall 17 of the cover member. The fit relationship between the support section 12 and the cover section is such that this hinge in the position in which it is shown in FIG. 5 will be held snugly in position without the use of or need of any adhesives or securing other than the friction fit between the parts.

The opposite side walls of the body member are such as to provide a shallow tray and sufficiently shorter than the downwardly depending walls of the cover member so that as swinging occurs between the body member and the cover member from closed position to the open position, the upper edge 29 of the body member will clear the top wall 15 of the cover member.

I claim:

1. In a box, a body member having a bottom wall and upstanding opposite pairs of side wall arranged in rectangular relation, a cover member having a top wall and depending opposite pairs of side walls arranged in rectangular relation and of a size so that the side walls of the cover member telescope over the side walls of the body member, and a supporting member having opposite pairs of walls closed at one of their edges by a bridging wall and with their open edges telescoping both body and cover members with its bridging wall substantially coextensive with one side wall of the cover member and contacting the same with the opposite pairs of walls of the support member extending a fraction of the extent of the top wall of the cover member in one direction and the full extent in a right angular direction, a hinge secured to the bottom wall, thence doubled back on itself and extending along one of the opposite pairs of walls of the support member and thence between the bridging wall and side wall of the cover member and there held in position by a snug friction fit between the telescoped support and cover members.

2. In a box as in claim 1 wherein said hinge is card-board and scored to provide a hinge line where doubled back on itself.

3. In a box as in claim 1 wherein said hinge is card-board and scored to provide a hinge line where doubled back on itself and also scored at its junction between the bridging wall and one of the opposite pairs of side walls.

References Cited in the file of this patent

UNITED STATES PATENTS

2,219,034	Logan	Oct. 22, 1940
2,219,039	Young	Oct. 22, 1940