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**BOX WITH SECTIONS OF CONTRASTING MATERIAL HINGED TOGETHER**

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**ABSTRACT OF THE DISCLOSURE**

An ornamental box having two sections one of which is of cardboard and the other is of metal or plastic with a hinge having one plate adapted to connect to the cardboard and the other plate adapted to connect to the metal or plastic section.

*Background of the invention*

In the manufacture of fancy boxes of two sections both of cardboard, the shape of the sections is substantially limited having walls at right angles to each other. A metal hinge having duplicate plates hinged together is utilized. In the construction of metal or plastic boxes of two sections, the top section may be domed of a shape not possible in a cardboard construction. Usually the bottom section is of the same material as the top section.

*Summary of this invention*

One of the sections of a two-section box is formed of cardboard whereby its expensive construction may be utilized. The other section which is desired to be of more ornamental shape, such as domed or the like, is formed of either plastic or metal, which is molded or struck into the desired shape. Hinges which are utilized for attaching the two sections together usually have duplicate plates to be attached to like sections. However, in a box of the construction of this invention, one of the plates is adapted by means of prongs to be driven into the cardboard section while the other plate is differently formed and is provided with one part of a cooperating means while the wall of the other section to which it is to be attached is provided with the other part of cooperative means so that the differently formed hinge plate may be attached to the metal or plastic section.

*Description of the drawings*

FIG. 1 is a perspective view of a box constructed in accordance with this invention showing a cardboard body and a plastic top or closure section;

FIG. 2 is a perspective view of the hinge which is used;

FIG. 3 is a section on substantially line 3-3 of FIG. 1;

FIG. 4 is a perspective view of a box similar to the one shown in FIG. 1 but showing a metal cover section;

FIG. 5 is a sectional view similar to FIG. 3 showing the manner of attaching the hinge to this metal cover section; and

FIGS. 6 and 7 are perspective fragmental portions showing a hinge plate with a differently formed prong for attaching to the cardboard section.

*Description of the preferred embodiments*

With reference to the drawings, 10 designates generally a body section of the box while 11 designates the cover section of the box, these sections being secured together by a hinge designated generally 12.

The body section has a bottom wall 14, rear wall 15, front wall 16, and side or end walls 17. These are all formed of cardboard sometimes referred to as paper board, and in order to obtain the sufficient rigidity desired are of a thick or heavy construction although being

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of a paper or cardboard stock sufficiently soft so that metal may be driven into the walls. This cardboard construction necessitates a rectangular arrangement of the bottom and upstanding walls 14, 15, 16 and 17 in a right angular relation to each other.

The cover section shown in FIG. 1 at 11 has a domed top wall 20, a back wall 21, front wall 22 and side or end walls 23. The top wall and side or end walls are of a domed construction formed of a plastic material, and this section may be molded into various fancy top shapes. The rear wall is also molded with recesses in order to receive the hinge to hingedly relate the cover and body sections of the box. In one form this back wall of the cover section may be slotted as at 25 along the wall of which a protuberance 26 of the hinge may catch to hold the hinge plate when inserted into the slot 25.

A metal hinge usually formed of brass comprises one plate 30 and a second plate 31, each of which has ears 32 and 33 in staggered relation so as to interleave and receive a pivot pin 34 to hingedly relate the plates 30 and 31 to each other. Lips 35 on plate 30 and 36 on plate 31 receive the C-shape spring 37 with inturned ends serving to swing the plates when in one relative position to the sections or when beyond a certain position relative to alignment will swing and hold the plates to maintain the sections in open position. These plates are each fastened to one of the sections which are to be hingedly related.

The plate 30 is provided with a plurality of openings 40, each of which has about the edge of the opening a plurality of prongs 41, in this case there being a plurality of prongs which are provided from the stock of the plate which stock is deflected to form the opening. These prongs are each pointed and are sometimes referred to as a "rosette" type of fastening. The prongs extend generally at right angles to the plane of the plate but flare outwardly slightly away from the axial center of the opening so that when these prongs are driven into the cardboard stock 15, they tend to spread out or away from each other so as to obtain a very secure fastening in the cardboard. The ends 42 of these prongs are abruptly outwardly deflected to extend over the outer surface of the cardboard wall 15 so as to in effect rivet the plate in position and in fact the striking forces the plate somewhat into the stock of the cardboard wall. Thus, the plate, in effect, is united with the wall, stiffening the wall as well as becoming firmly attached thereto and in fact integrates itself with the back wall, the section wall stiffening the plate and the plate stiffening the wall.

The other hinge plate 31 is of a size and thickness adapted to be inserted in the slot 25 of the plastic rear wall section 21. Offsets 45 engage one of the walls of the slot tending to force the plate 31 against the other wall of the slot, while sharp edge portions 46 will cut into the surface of wall as at 26 so as to secure the plate against withdrawal. Other sharp edges 47 may also be provided or additional securing means. By this arrangement any one of a plurality of different plastic covers may be utilized for the body section 10 by merely sliding the plate into the recesses formed in the back wall of the cover section where it will be held against withdrawal. A recess such as 28 may be provided in the rear wall 21 for the reception of the spring 37.

This same plate 31 is also provided with openings 50 spaced along the plate which adapts this same plate to be utilized in connection with another form of attachment to a metal box such as the cover 51 which is formed of metal and is provided with a domed top wall 52, rear wall 53, front wall 54 and side or end walls 55. This metal cover has its rear wall 53 provided with raised prongs 56 which may pass through the openings 50 and be bent over as at 57 as shown in FIGS. 4 and 5 so as to secure this same plate 31 to the rear wall 53 of a cover of metal

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construction. In some cases where certain alignment is desired, the ears 33 of the hinge plate 31 may be offset as at 53 (FIG. 5) so that when the cover is swung into closed position, its outer surface will align with the outer surface of the cardboard body section 10.

In FIG. 6 I have shown prongs 60 formed from the plate 30 which may extend into and be fastened or cause to fasten the plate 30 to the cardboard section in lieu of the plurality of prongs or rosette type of fastening shown in FIG. 5.

The drawings show the box sections without a covering which may be had in the customary way to hide the hinge or its fastenings as desired.

I claim:

1. A box comprising a body section and a cover section, each section having front, back and side walls abutting edge to edge in the closed position of the box, one of said sections being of cardboard and the other of said sections being of a harder material such as metal or plastic, a hinge connecting the back walls of said sections comprising a pair of plates hingedly connected, one of said plates having prongs adapted to be driven into the cardboard back wall to attach the plate thereto and

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the other plate and rear wall of the other section having cooperating means to lock said other hinge plate to the back wall of the other section.

2. A box as in claim 1 wherein the plate attached to the cardboard section has a plurality of holes with integral projections at the edge of said holes of sufficient stiffness to be driven into the cardboard rear wall of the section and secure the plate thereto.

3. A box as in claim 2 wherein each of the holes has a plurality of projections about its edge to integrate the cardboard back wall and the hinge plate.

4. A box as in claim 1 wherein one of the plates of the hinge is offset to align the sections on their outer surface.

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