

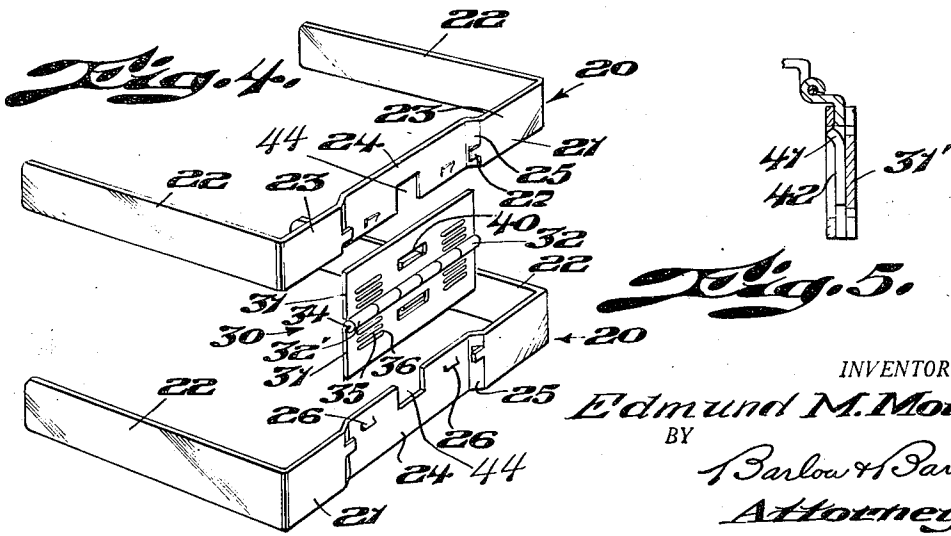
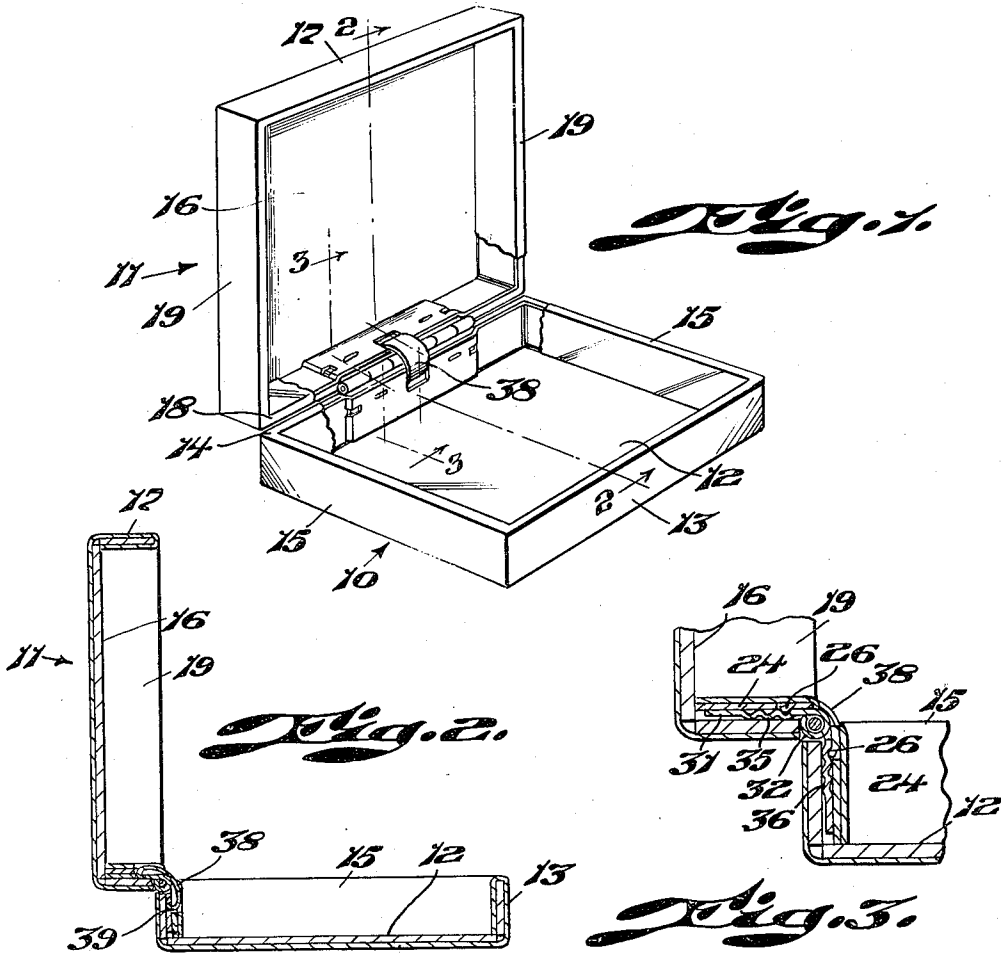
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HINGED BOX

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HINGED BOX

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This invention relates to a box of the type in which there are two sections which may be substantially identical; one serving as a body and the other as a cover with the walls in edge-to-edge abutting relation and the hinging of these two sections together.

Heretofore, it was usual to provide a paper cover over each of the sections and to then assemble on the inner surface of one of the walls one metal plate of the hinge and on the inner surface of the back wall of the other section another plate of the hinge, these plates being secured to the edge of the walls by some means which would protrude through the wall and extend over the outer surface, thus disfiguring the ornamental paper cover over the outer surface.

One of the objects of this invention is to provide a construction wherein the outer back walls of the box will not be disfigured in any manner.

Another object of this invention is to provide a construction in which the hinge as a separate part may be secured to each of the rear walls of the sections by merely pressing the hinge into position.

Another object of the invention is to secure a hinge mounting means concealed within the box.

Another object of this invention is to provide an arrangement whereby the hinge for the box sections may be detached if desired for replacement.

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:

Figure 1 is a perspective view of the box with a portion of the paper cover broken away to expose the hinge which is assembled therewith;

Figure 2 is a sectional view through the hinge portion of the box;

Figure 3 is a section taken across the pivotal axis of the hinge at another location and on a somewhat larger scale to show the insertion of the hinge in position;

Figure 4 is an exploded view showing the parts which go to make up the hinge and its attachment in the box; and

Figure 5 is a sectional view of a modified form of securing means for the plates of the hinge.

In proceeding with this invention I provide a frame for each of the box sections which is assembled in each box section and held in place by the paper cover which extends over the same. This paper cover is slitted along its edge so that

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a hinge consisting of a pair of metal plates may be inserted into the slit and held between the frame and the back wall of the box section.

With reference to the drawings, 10 designates generally one section and 11 another section of the box. The section 10 serves in this instance as the body section and has a bottom wall 12, a front wall 13, a back wall 14, and side walls 15, 15. Section 11 serves as a cover and has a top wall 16, a front wall 17, a back wall 18, and side walls 19, 19. In closed position the edges of the back, front walls and side walls of both sections are in edge-to-edge relation.

In order to hinge these two sections together, I provide frames 20, 20 of ribbon steel which are of identical construction but one reversed with reference to the other, as shown in the exploded view in Figure 4. Each of these frames comprises a bridging wall 21 and two legs 22, 22 extending therefrom at right angles thereto. The length of the bridging wall 21 is substantially the length of the inside extent of the back wall of one of the body sections and lies along this body section with its end portions 23 in contact therewith, while its mid portion 24 is offset as at 25 so as to space this mid portion 24 from the back wall 14 or 18 of the box section and provide a pocket or space between this portion 24 and the back wall of the box section. Protuberances 26 extend from the surface of this portion 24 toward the back wall for holding the hinges in place. Tongues 27 are lifted from the offset portion 25 so as to continue in substantially the plane of the portions 23 of the wall 21 so as to serve as a grip for engaging one end surface along the edges of the plates of the hinge.

Each of these frames 20 is positioned in one of the box sections with its wall 21 contacting the back wall while the legs 22 extend along the side walls such as 15, 15 or 19, 19 and are substantially the length of such side walls and then a paper cover which is usual and forms a decorative or finished surface for the box sections is placed over the outer surfaces of the box sections and folded inwardly over the back, front, and side walls so that by such a covering the frames are covered and held in place in each box section. As this paper cover extends over the bridge wall 21 of each section, a slit is then cut in this paper cover at the location of the pockets formed by the offset portions 24 of the wall and a hinge which is designated generally 30 (see Figure 4) is used for connecting the sections in hinged relation.

This hinge comprises plates 31, 31 which have

rolled eyes 32 and 33 for the reception of a pintle 34 to hinge them together. Ribs 35 are struck on the plates 31 so as to extend on one side thereof and provide abutments 36 with one of which the protuberances or projections 26 may extend engage and lock the hinge in one of several adjusted positions when it is inserted into the pocket. The thickness of the plates 31 is such as to be firmly held between the tongues 27 and the surface of the offset portion 24, the insertion of the hinge depends on the thickness of the stock used and by the adjustment a snug relation of the two sections which are hinged together may be had and yet the hinge may be securely held in position.

An arcuate spring 38 having hook ends 39 (see Fig. 2) extends into slots 40 in each of the hinge plates so as to swing the cover either to open position as shown in Figures 1 and 2 or to closed position when swung beyond an angle of substantially forty-five degrees toward closed position. A recess in each frame wall 21 is located at 44 to receive the spring.

In some cases instead of providing several ribs to form recesses between them in the hinge plates, the plate 31' may have a projection 41 struck out from the plate to extend beneath a cut-out portion 42 in the second wall 43 as shown in Figure 5 so as to lock the hinge plate 31' in position.

I claim:

1. A box comprising two sections each having front, back and end walls, said back walls being in edge-to-edge relation, a second wall spaced from and extending along each of said back walls providing a pocket and having offset portions which lie along and contact the back wall along a portion of the back wall, a pair of plates hinged together, one plate being in the pocket of one section and the other plate being in the pocket of the other section whereby said two sections are hinged together.

2. A box as set forth in claim 1, said contact with the back wall being at either side of the spaced area.

3. A box as set forth in claim 1, said second wall having legs extending along each side wall adjacent thereto.

4. A box as set forth in claim 1, said second wall having legs extending along each side wall adjacent thereto and substantially the length of each of said side walls.

5. A box comprising two sections, each having front, back, and end walls, said back walls being in edge-to-edge relation, a second wall spaced from and extending along each of said back walls providing a pocket, a cover over said walls slitted to provide access to said pocket, a pair of plates hinged together, one plate extending through the slit in said cover and located in the pocket of one section and the other plate extending through the slit in said cover and located in the pocket of the other section, whereby said two sections are hinged together, means to interlock each hinged plate with one of the walls of the pocket in which it is located comprising a projection on one part and ratchet spaced abutments on the other part at different distances from the hinged axis automatically engaging said projection on the first part and holding it in the pocket in one of a plurality of selected positions:

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