C. C. HOLDEN & E. P. HADLEY.

HINGE FOR CELLULOID ARTICLES.

APPLICATION FILED JAN. 31, 1917.

1,260,197. Patented Mar. 19, 1918.

Fig. 1.

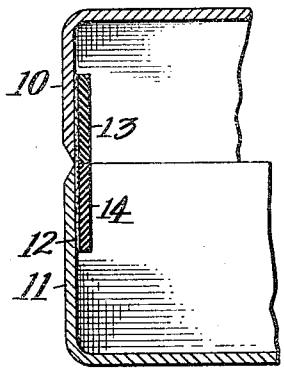


Fig. 2.

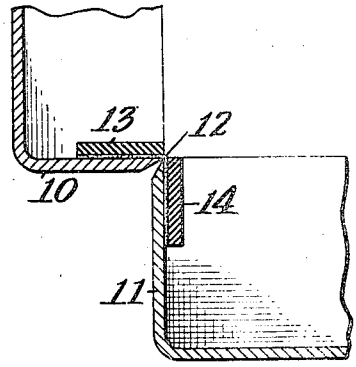


Fig. 3

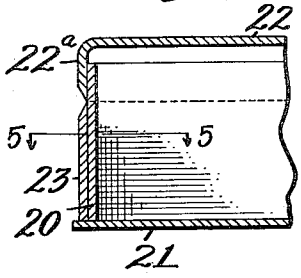


Fig. 4.

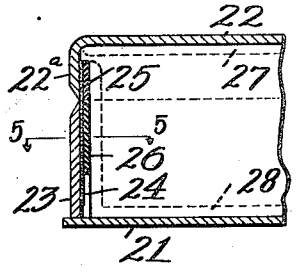
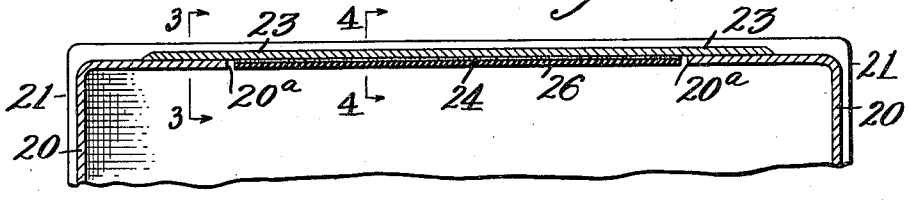


Fig. 5.



Witness:
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UNITED STATES PATENT OFFICE.

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HINGE FOR CELLULOID ARTICLES.

1,260,197. Specification of Letters Patent. Patented Mar. 19, 1918.

Application filed January 31, 1917. Serial No. 145,790.

To all whom it may concern:

Be it known that we, CROFTON C. HOLDEN and EDMUND P. HADLEY, said HOLDEN being a subject of the King of England, said HADLEY a citizen of the United States, both residing at Leominster, in the county of Worcester and State of Massachusetts, have invented a new and useful Hinge for Celluloid Articles, of which the following is a specification.

This invention relates to a hinge particularly designed for use in small celluloid boxes such as jewel cases but also capable of general application to many other articles.

It is the object of our invention to provide a hinge for such purposes which shall be simple and inexpensive in construction, and at the same time extremely durable and satisfactory in use.

To the attainment of this object, we form the hinge of a piece of strong fabric firmly secured to the adjacent portions of the article to be hinged, and we reinforce the fabric by strips of firm material covering the fabric along each side of the joint. The full advantages of our invention are realized in its application to articles formed of celluloid or similar material, in which case we preferably secure these parts together by the use of a cement containing a solvent which softens the celluloid adjacent the fabric. By thereafter applying pressure to the cemented parts we firmly embed the fabric in the celluloid. If the reinforcing strips are also soluble by the same cement we form a substantially unitary structure on each side of the joint, with the fabric embedded in both the article and the strips.

Our invention further relates to certain arrangements and combinations of parts herein described and more particularly pointed out in the appended claims.

The preferred form of our invention is shown in the drawings in which—

Figure 1 is an end elevation of a hinge formed in accordance with our invention;

Fig. 2 is a similar view but showing the parts in a different position;

Figs 3, 4 and 5 show the application of our hinge to a celluloid jewel case or box, Fig. 3 being a vertical sectional view taken along the line 3—3 in Fig. 5 adjacent the hinge;

Fig. 4 is a similar view but taken through the hinge along the line 4—4 in Fig. 5, and

Fig. 5 is a partial horizontal sectional view of the box, taken along the line 5—5 in Figs. 3 and 4.

Referring to Figs. 1 and 2, we have indicated at 10 and 11 portions of two members which are to be hinged together. These members are first united by a piece of strong fabric 12 cemented to said members on their inner faces and covering the line of engagement between them. Strips 13 and 14 are then cemented over the fabric 12 at each side of the joint.

In the preferred embodiment of our invention the members and strips are of celluloid or similar material and the fabric is secured thereto by a cement containing a solvent for celluloid and similar substances. This solvent softens the celluloid adjacent the fabric to such an extent that the application of pressure to the hinge causes the fabric to become firmly embedded in the celluloid on each side of the fabric. The members 10 and 11 are preferably beveled on their adjacent edges so that the hinge may be swung outward to an angle of approximately ninety degrees, as shown in Fig. 2.

This form of hinge is found to have many advantages. If the fabric which forms the flexible member is properly selected, the hinge is extremely durable. Furthermore, the hinge is practically concealed in every position, and it is thus peculiarly adapted for use in jewel cases and other ornamental or fancy boxes.

Such an application of our improved hinge is shown in Figs. 3, 4 and 5 in which 20 indicates the side wall of a jewel case, 21 the bottom, and 22 the cover thereof. In applying our improved hinge to this type of box we find it advisable to cut away the side wall 20, as shown at 20^a in Fig. 5, joining the cut-away portions by a band of celluloid 23 cemented to the outer face of the side wall 20 and completely covering the opening therein. The band 23, is, however, of less height than the wall 20 and is beveled at its upper edge similarly to the strips 10 and 11 previously described. The lower edge or flange 22^a of the cover 22 is similarly beveled.

The fabric 24 is cemented to the inner surface of the band 23 and also to the inner

surface of the depending flange 22ª of the cover 22. As this flange is designed to inclose the side wall 20 this construction brings the flange into substantial alinement with the band 23. Reinforcing strips 25 and 26 are secured to the inner surface of the fabric adjacent the joint, the fabric being embedded in the celluloid as previously described.

When used in a jewel case, a lining of plush or other similar material, as indicated by dotted lines at 27 and 28, may be used to substantially cover the strips 25 and 26.

The term celluloid, as herein used, is intended to include also such other compositions of pyroxylin or similar substances as may be softened by a suitable cementing substance to permit the embedding of a fabric therein.

Having thus described our invention it will be evident that changes and modifications can be made therein by those skilled in the art without departing from the spirit and scope thereof as set forth in the claims, and we do not wish to be otherwise limited to the details herein disclosed, but what we claim is—

1. A hinge for an article of manufacture, comprising a piece of fabric cemented to adjacent portions of said article, and reinforcing strips overlying and cemented to said fabric on each side of the joint and closely adjacent thereto.

2. A hinge for a celluloid article comprising a piece of fabric cemented to adjacent portions of said article, and reinforcing strips of celluloid overlying and secured to said fabric on each side of the hinge, said fabric being firmly embedded in those parts of the celluloid strips engaging each surface thereof.

3. A hinge for a celluloid article comprising a piece of fabric cemented to adjacent portions of said article, and reinforcing strips of celluloid overlying and secured to said fabric on each side of the joint and closely adjacent thereto, the cement by which said article, fabric, and reinforcing strips are secured together containing a solvent effective to soften the celluloid and permit the fabric to become embedded therein.

4. A hinge for a celluloid article comprising a piece of fabric cemented to adjacent portions of said article, and reinforcing strips of celluloid overlying and secured to said fabric on each side of the joint and closely adjacent thereto, said portions, fabric and strips being formed into a substantially unitary structure on each side of the joint through the solvent action of the cement and the subsequent application of pressure to said parts.

5. A hinge for a celluloid article comprising a piece of fabric cemented to adjacent portions of said article, said portions being beveled to present narrow edges adjacent the joint, and reinforcing strips of celluloid overlying said fabric on each side of the joint and closely adjacent thereto.

In testimony whereof we have hereunto affixed our signatures.

CROFTON C. HOLDEN.
EDMUND P. HADLEY.