Jan. 11, 1938. J. LISKIN ET AL 2,105,086

SHIPPING CASE

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Fig.1.

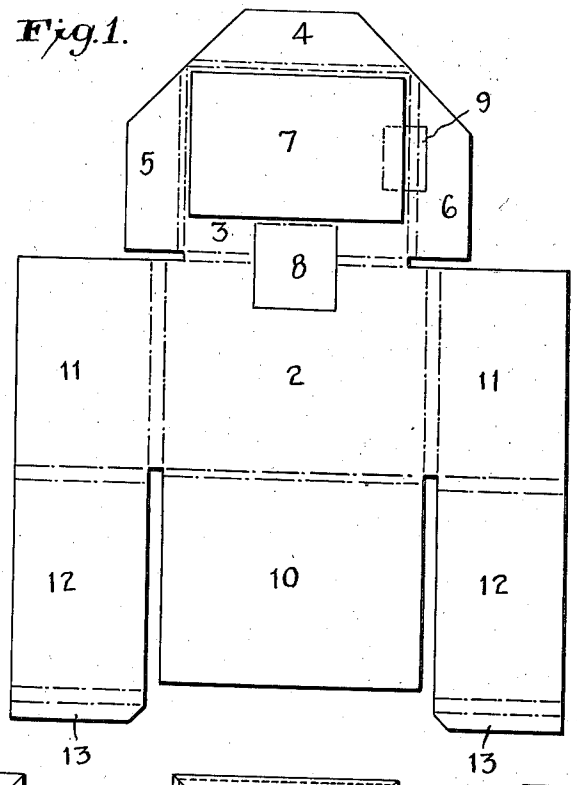


Fig.4.

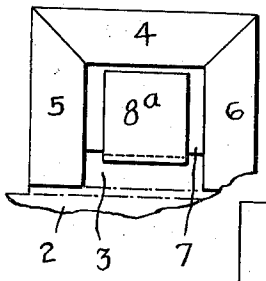
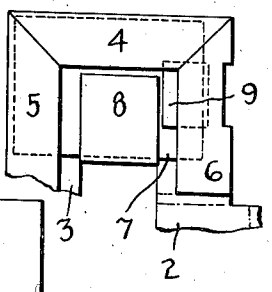


Fig.3.



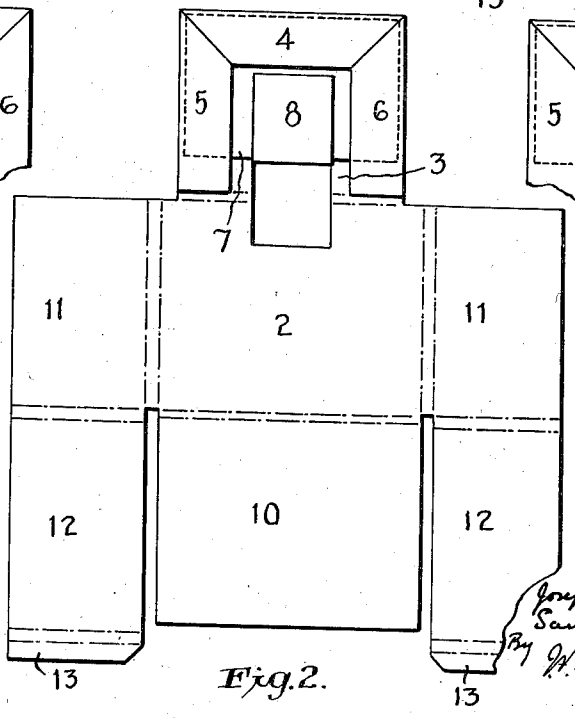


Fig.2.

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Fig. 5.

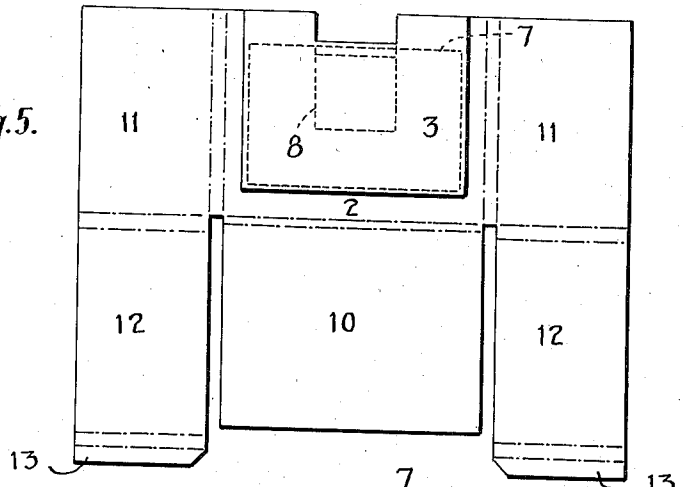


Fig. 6.

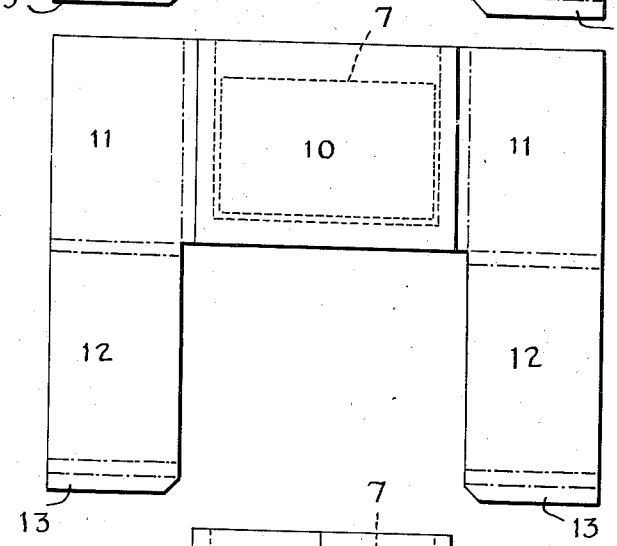
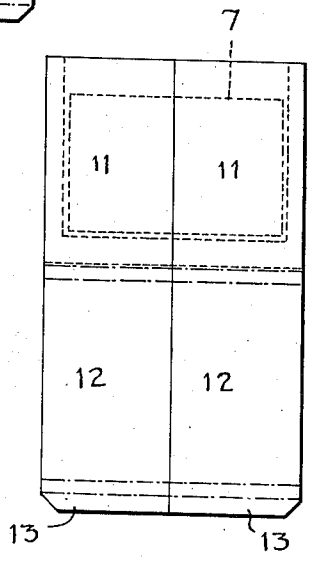


Fig. 7.



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Fig. 8.

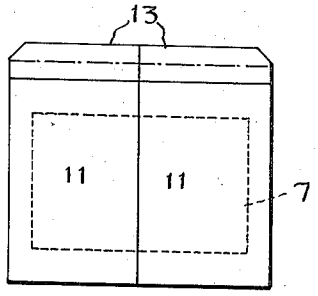


Fig. 9.

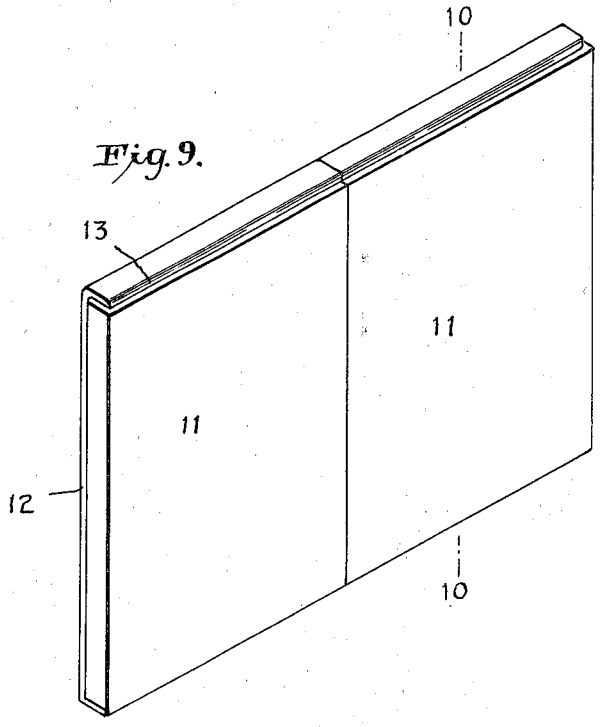
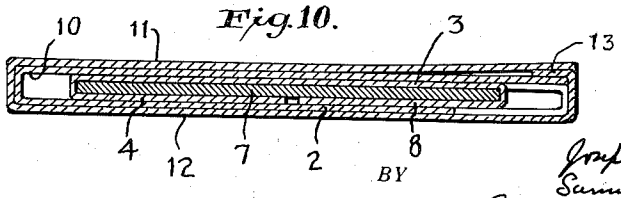


Fig. 10.



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Patented Jan. 11, 1938 2,105,086

UNITED STATES PATENT OFFICE

2,105,086

SHIPPING CASE

Joseph Liskin, Brooklyn, and Samuel Stimmel, New York, N. Y., assignors to Standard Corrugated Case Corporation, Long Island City, N. Y., a corporation of New York

Application January 14, 1936, Serial No. 58,998

4 Claims. (Cl. 229—87.5)

This invention relates to folding shipping cases of corrugated board, paper board, or like material. In this field the invention relates more particularly to shipping cases for flat and easily injured articles, for example electroplates.

In packaging such articles for shipment, whether in folders or in wooden boxes, it has been the practice to use some kind of packing, filler or inside part separate from the folder, box or other enclosure. Electroplates are quite susceptible to injury, and some of the methods of packaging them have been cumbersome and costly; in other instances the plates have not been adequately protected.

The object of this invention is to provide a new type of wrapment for a plate article, which is inexpensive to manufacture, which saves time and labor in packing, which forms a very strong and compact package, and which completely protects the plate from the effects of rough treatment to which the package may be subjected. These advantages are realized by a construction consisting of a single folder having a flap folder for the plate in one piece therewith, with other integral parts adapted to fold over the central portion of the package so as to hold the contents snugly and securely with ample protection for the surfaces of the plate and all edges completely protected from shock.

In the accompanying drawings forming part hereof:

Fig. 1 is a plan view of a folder constituting the preferred embodiment of the invention, the folder being spread out flat and a plate being shown resting on the holder panel of the folder.

Fig. 2 is a similar view illustrating the next step in the use of the folder, the flaps of the plate-holder being folded over on the plate.

Fig. 3 is a fragmentary view showing how an auxiliary flap may be used to retain a smaller plate.

Fig. 4 is another fragmentary view illustrating the fact that one of the flaps, instead of being cut out of the folder, may be applied thereto.

Fig. 5 is a view like Fig. 2, but showing the plate-holder folded on top of the main panel of the folder.

Fig. 6 continues the series of views illustrating the packing operation, by showing a panel flap folded over on the plate-holder.

Fig. 7 shows side flaps folded over on top of the last-mentioned panel flap.

Fig. 8 shows that extension flaps connected with the side flaps have been folded under the main panel.

Fig. 9 is a perspective view on a larger scale showing the completed package.

Fig. 10 is a section taken on the line 10—10 of Fig. 9.

The folder of these views is preferably made of double-faced or single-faced corrugated paper board.

The portion 2 of the folder may be termed the main panel. Integral with one edge of this panel is a plate-holder panel 3, which is smaller in both dimensions, length and breadth, than the main panel. Integral with this holder panel, at three of its edges, are flaps 4, 5 and 6, which are designed to fold over on the plate article 7, as shown in Fig. 2. In addition, there is a flap or tongue 8, cut at three of its sides from the material of the panels 2 and 3, to fold over the fourth edge of the plate. By the holder panel and its flaps the plate is retained in such manner that its edges are spaced from the edges and corners of the complete package, the length and breadth of the final package corresponding to the dimensions of the main panel 2.

Instead of forming the flap 8 from the folder itself, it may be a separate piece 8^a, as in Fig. 4, hinged by a strip of tape or otherwise to the panel 3. An auxiliary flap 9 may be cut from the panel 3 and flap 6 to fold over one end of a shorter plate.

The folding connections between the various panels and flaps of the folder are formed by parallel creases in the paper stock, these creases being represented by the dot-and-dash lines in the several views of the drawings. It will be understood that the distance between such parallel creases varies with the different thicknesses of contents and layers which each part, when folded, must accommodate, and that the material between certain pairs of crease lines forms edge walls of the package.

Opposite to the plate-holder panel 3, that is to say integral with the edge of the main panel 2 which is opposite the edge to which the panel 3 is connected, there is a flap 10. This flap is preferably of such large dimensions that it may be termed a panel. In the drawings it is shown as of the same dimensions as the main panel 2 so as to form a wall commensurate with the wall formed by the main panel. Naturally, however, the panel flap might be cut somewhat smaller, though there would be no real economy in material in doing so. As the description proceeds it will be perceived that an economical use is made of the stock from which the folder is die cut, in such manner as to provide several thick-

nesses of material protecting and cushioning the article 9. In the final package, as preferably constituted, there is a triple thickness of material over the face and under the back of the plate.

Side flaps 11, 11 adjoin the ends of the main panel 2, and extension flaps 12, 12 are integral with these side flaps. In the flat condition the extension flaps extend beside the ends of the flap 10, from which they are separated by slots. The flaps 12 are therefore obtained from what would otherwise be waste material. At the free ends of the extension flaps 12 there are narrow tuck flaps 13.

The width of the flaps 11, 11 and of the flaps 12, 12 are such that they will substantially meet at the center of the package.

The manner of packing is as follows: The plate 7 is placed on the holder panel 3. The flaps 4, 5, 6 and 8 are then folded over on top of the plate, substantially covering the same and retaining it against any, or any undue, slipping movement. Then the pocket thus formed, together with the enclosed plate, is folded over on the main panel 2, as shown in Fig. 5. By virtue of the fact that the holder panel 3 is materially smaller than the main panel 2, all edges and corners of the plate 7 are kept a considerable distance from the edges and corners of the package (Fig. 10). The next operation is to fold the panel flap 10 on top of the holder 3 (Fig. 6). Then the side flaps 11, 11 are folded on top of the flap 10, meeting at the middle (Fig. 7), after which the extension flaps 12, 12 are folded under the main panel 2, where they likewise substantially meet at the middle. The final step is to tuck the small tuck-in flaps 13 into the crevice at the adjacent edge of the package.

The package may be tied, or gummed paper strip may be applied over the crevices.

We claim:

1. A one-piece folder providing a complete shipping package for a plate article, said folder comprising a main panel, a holder panel connected with one edge of said main panel to fold thereon, flaps on said holder panel to fold over and retain the article, two side flaps connected with other edges of said main panel to fold over said holder panel, and extension flaps connected with said side flaps and adapted to fold under said main panel.

2. A one-piece folder providing a complete shipping package for a plate article, said folder comprising a main panel, a holder panel connected with one edge of said main panel to fold thereon, flaps on said holder panel to fold over and retain the article, a flap connected with the edge of the main panel opposite the edge to which said holder panel is connected, said flap adapted to fold on top of the holder panel, two side flaps connected with the remaining edges of the main panel and adapted to fold on top of the last-mentioned flap, and extension flaps connected with said side flaps and adapted to fold under the main panel.

3. A one-piece folder providing a complete shipping package for a plate article, said folder comprising a main panel which serves as a side of the package and a flap hinged to one edge of the main panel to fold thereon and serve as another side of the package, and a holder panel for holding a plate article between the sides of the package, said holder panel having the greater portions of its edges formed into flaps which fold over and form a pocket for retaining the plate article which is to be shipped, and said holder panel being connected with one edge of the main panel to fold thereon into a position with all of the edges and corners of the pocket at a distance from the edges and corners of the shipping package.

4. A folder providing a complete shipping package for a plate article, said folder comprising a main panel, a holder panel in one piece with said main panel and adapted to fold thereon, said holder panel having integral flaps adapted to fold over the plate article and said flaps being so spaced in relation to their fold lines as to form with the holder panel an internal pocket in which the edges of the plate are kept spaced from all edges and corners of the package, and other portions in one piece with the main panel adapted to fold over and cover the pocket formed by the holder panel and its flaps and to complete the package.

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