

July 29, 1924.

1,502,780

J. G. HUYE

BOX

Filed April 25, 1921

2 Sheets-Sheet 1

Fig. 1.

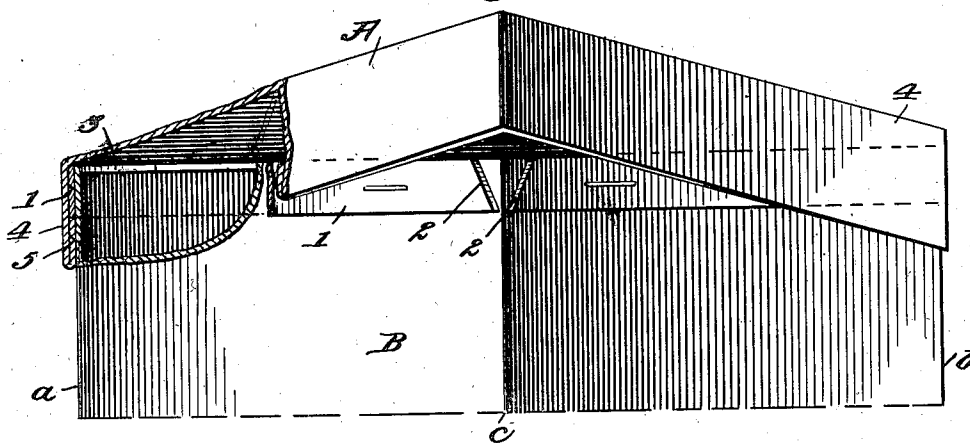


Fig. 2.

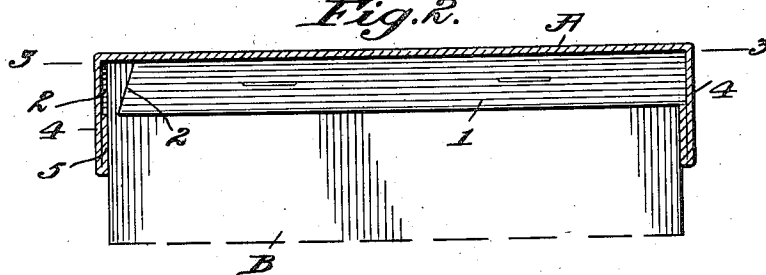
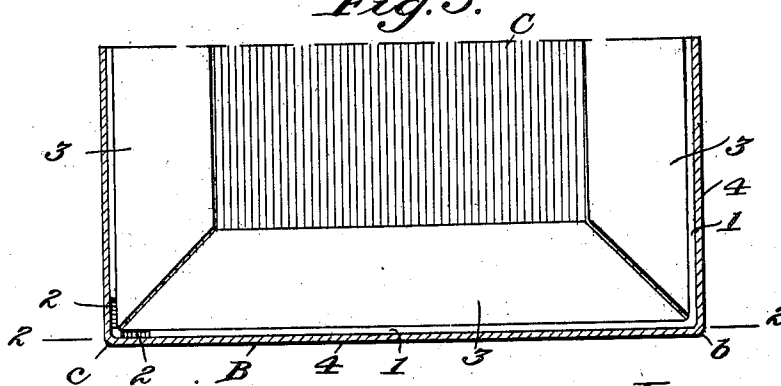


Fig. 3.



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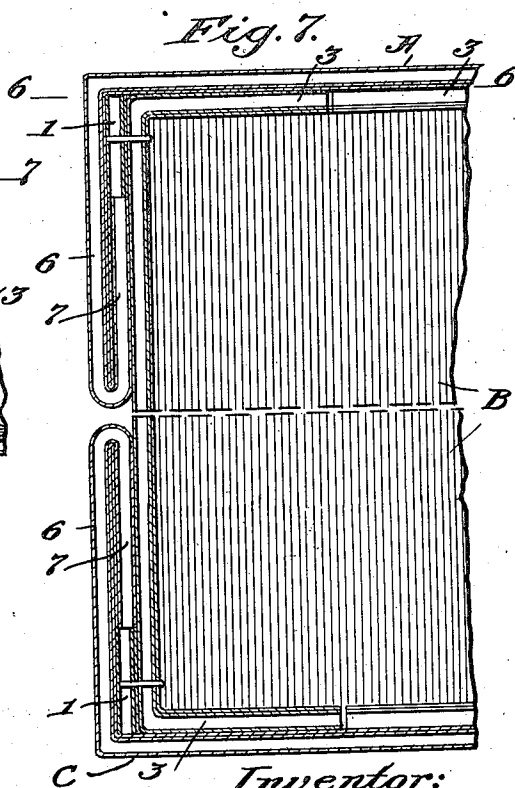
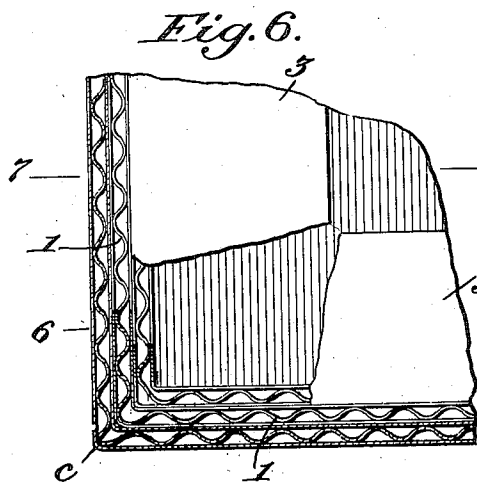
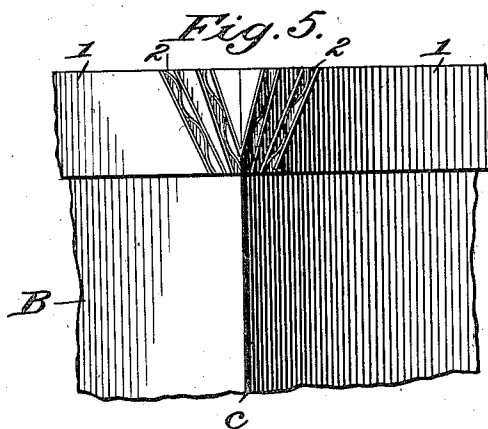
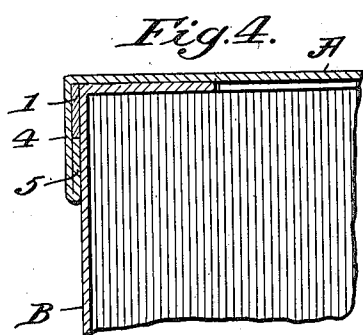
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BOX

Filed April 25, 1921 2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

JOSEPH G. HUYE, OF NEW ORLEANS, LOUISIANA.

BOX.

Application filed April 25, 1921. Serial No. 464,277.

To all whom it may concern:

Be it known that I, JOSEPH G. HUYE, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Boxes, of which the following is a specification.

This invention relates to collapsible set-up boxes, more particularly to paste-board hat boxes, jewelry-trade boxes and heavy boxes or cartons for shipping merchandise in large quantities, of the type shown in Patents Nos. 1,249,097; 1,249,098 and 1,249,099 granted to me December 4, 1917, and also shown in my application Serial No. 265,228 filed December 4, 1918, and may be of any desired form, material and weight, it being understood, of course, that the outline of the top and bottom or end sections shall correspond to the cross-sectional form of the body section.

In boxes manufactured in accordance with all of said above referred to inventions it is necessary to make the lip of the end section such that it will slip over the locking flanges on the body section and so lock the sections together. However, in order to get these sections so assembled it is necessary to make the lip of the end portion of such interior measurements that it will be somewhat loose on the body section when the parts are assembled, in order that it may pass over the locking flanges on the body section and then snap behind them with its own locking flanges. Inasmuch as this locking engagement is an edge to edge engagement and in view of the fact that many of these boxes are called upon to hold considerable weight, requiring unfailing engagement and great strength it is obvious that it is important to have the fit between the body portion and the bottom section, or end sections in the case of the shipping cartons, as tight as possible, and my present invention has for its main object to provide a construction which will permit a much snugger fit between said body section and said end sections than is now possible with known constructions.

A further object of my present invention is to make the overlap of the lip on the body portion beyond the point of engagement of the locking flanges, especially in the sealed shipping cases or cartons, such that it will not be feasible to tamper with the engage-

ment of the flanges without causing injury to the box, which injury cannot be covered up except by returning the carton or case to the factory or a repair station for repairs, and which injury will serve as a visual signal to indicate that the case or carton has been entered. This broad feature of a sealed carton or shipping case is not presented as an improvement on my previous inventions, but as a combination of elements not shown in my said patents.

In the accompanying drawings indicating one form of my invention, only by way of illustration however:

Figure 1 represents a perspective corner view of a box embodying the preferred form of my present invention for use in connection with the millinery and jewelry trades, the bottom or end section being in an intermediate stage of application to the body section, and part of the lip and body section being broken away to contrast the relative positions of different portions of the lip and its locking flange;

Figure 2, a sectional view on the line 2—2 of Figure 3;

Figure 3, a sectional view on the line 3—3 of Figure 2;

Figure 4, an enlarged fragmentary sectional view through one corner of the end section applied to the body section;

Figure 5, a front elevation of a corner of one end portion of a modified form of body section in which corrugated paste-board is used and the corner of the body section as well as the locking flange is cut away;

Figure 6, a section on the line 6—6 of Figure 7, the corner portions of the spreading flanges being broken away; and

Figure 7, a section on the line 7—7 of Figure 6.

Referring now in detail to the drawings, the boxes illustrated consist of three sections, the bottom A, the body B and a top, shown in the modified form of carton or case illustrated by Figure 7, as C.

The body section has its lower or bottom end portion provided with a locking flange 1, preferably formed by a narrow strip of material, otherwise wasted, stapled or otherwise suitably secured to or upon the exterior face of the body section with its upper edge all in, or substantially in, the same horizontal plane, and with its ends adjacent each other at one corner of the body

section B, but cut away as at 2 to form an inverted V when the box is set upon its bottom, see Figure 1.

The body section is also provided with preferably integral extensions 3, which, in the assembled relation of the body section and bottom section, lie against the upper face of the bottom section substantially at right angles to the body sections with their adjacent end edges in engagement or very closely adjacent each other and in the same horizontal plane so as to engage each other in case of any lateral pressure on the body section, as more fully described in my said pending application Ser. No. 265,228, which is directed especially to them. Inasmuch as they do not per se form the subject matter of the present invention it is thought that the brief description of their structure, function and operation above given is sufficient for the purposes of the present application.

The bottom section A corresponds in shape to the cross-sectional shape of body section B and is provided with a continuous lip 4 having the upper portion of its inner face provided with a locking flange 5 intended to have its lower edge engage against the upper edge of locking flange 1 on the body section.

To assemble, the bottom section A is applied to the body section B and moved to the intermediate position shown in Figure 1, wherein the locking flanges of the body and bottom sections are in engaging relation on the two sides of the body section remote from the corner where the ends of the locking flange are cut away, as at 2, with the locking flange 5 pressing tightly against the adjacent faces of the body section B. This results in the bottom section being bent or sprung up from a line extending across the box from the two corners *a* and *b* adjacent the corner *c* where the ends of the locking flange 1 approach each other, so that in such intermediate position three corners of the bottom section A are seated. The remaining corner *c* is then depressed while the adjacent portion of the body section is gently tapped until said remaining corner snaps into locking position, this being permitted by the omission of the locking flange immediately adjacent the corner *c*, as at 2, and the consequently greater amount of room at this point provided by the omission of such material, which otherwise would obstruct the seating of this corner *c*.

This construction results in a very much tighter or snugger fit between the sections than was possible with the constructions heretofore known.

If desired, the corner of the material of body portion B may also be cut away at corner *c*, thus providing for slightly easier application, but this sacrifices strength of

the body section in the usual paste-board. However, where corrugated board or material is used, especially where a broad lipped end section is employed, as in the modified form illustrated, cutting away corner *c* of the body section B results in a very decided increase in the ease of assembly which the decrease in strength with such material is not appreciable and also the broader lip acts as a reinforcement at this corner, as well as at the other corners.

In the modification illustrated in Figures 5, 6 and 7, and immediately above referred to, corrugated paste-board is used for all three sections of the box or case or carton and instead of the low or narrow lip 4 I provide a long or broad lip 6 having a very broad locking flange 7, the lower edge of which engages the upper edge of the locking flange 1. The top section C and the upper portion of the body section B are constructed in the same way as the bottom section and the lower portion of the body section, so that the top and bottom or end sections will lock on the body section and so seal the box or carton against pilfering without damaging the case or carton beyond concealment. With the lip 6 overlapping the body section, as above described, see Figure 7, the engaging edges of the locking flanges 1 and 7 will be so far from the edge of the lip 6 that it will not be possible to pull the middle portion of the lip 6 on one side of the box away from the body portion a sufficient distance to reach and disengage the engaging edges of said flanges without tearing out the adjacent corners of the lip 6 or damaging it intermediate said corners to such an extent as to act as a visual signal that the box has been tampered with. The only way to cover up such evidence of theft is to restaple the corners of lip 6 or otherwise connect them in well known manner, or to supply a new end section, such repairs requiring the facilities of a repair shop or factory, not available usually to the ordinary freight or express pilferer.

It will be understood that various changes and modifications or embodiments differing from those shown and described herein may be made within the spirit of this invention.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A box comprising a body section and a bottom section, the body section being provided with a locking flange adjacent its bottom edge on its exterior face, said locking flange extending around all sides and all but one of the corners of said body section and being cut away at one corner of said body section, and the bottom section being formed with a lip to snugly receive the lower portion of the body section, said lip being provided with a locking flange adapted to

engage said locking flange on the body section.

2. A box comprising a body section and a bottom section, the body section being provided adjacent its lower edge on its interior face with engaging means, said means extending around all sides and all but one of the corners of said body section, but being omitted at said corner and the material of said body section being cut away at said corner, and the bottom section being formed with a lip to snugly receive the lower portion of said body section, said lip being provided with means adapted to lock over said engaging means.

3. A box body section having its lower end provided with a locking flange on its exterior face, said flange extending around all sides and all but one of the corners of said body section and being cut away at one corner, in combination with a bottom section having a lip to snugly receive the lower portion of said body section, said lip being provided with means to interlock with said flange, and means for preventing deformation of said body section to such an extent as to permit disengagement of said flange and interlocking means.

JOSEPH G. HUYE.