

Nov. 6, 1923.

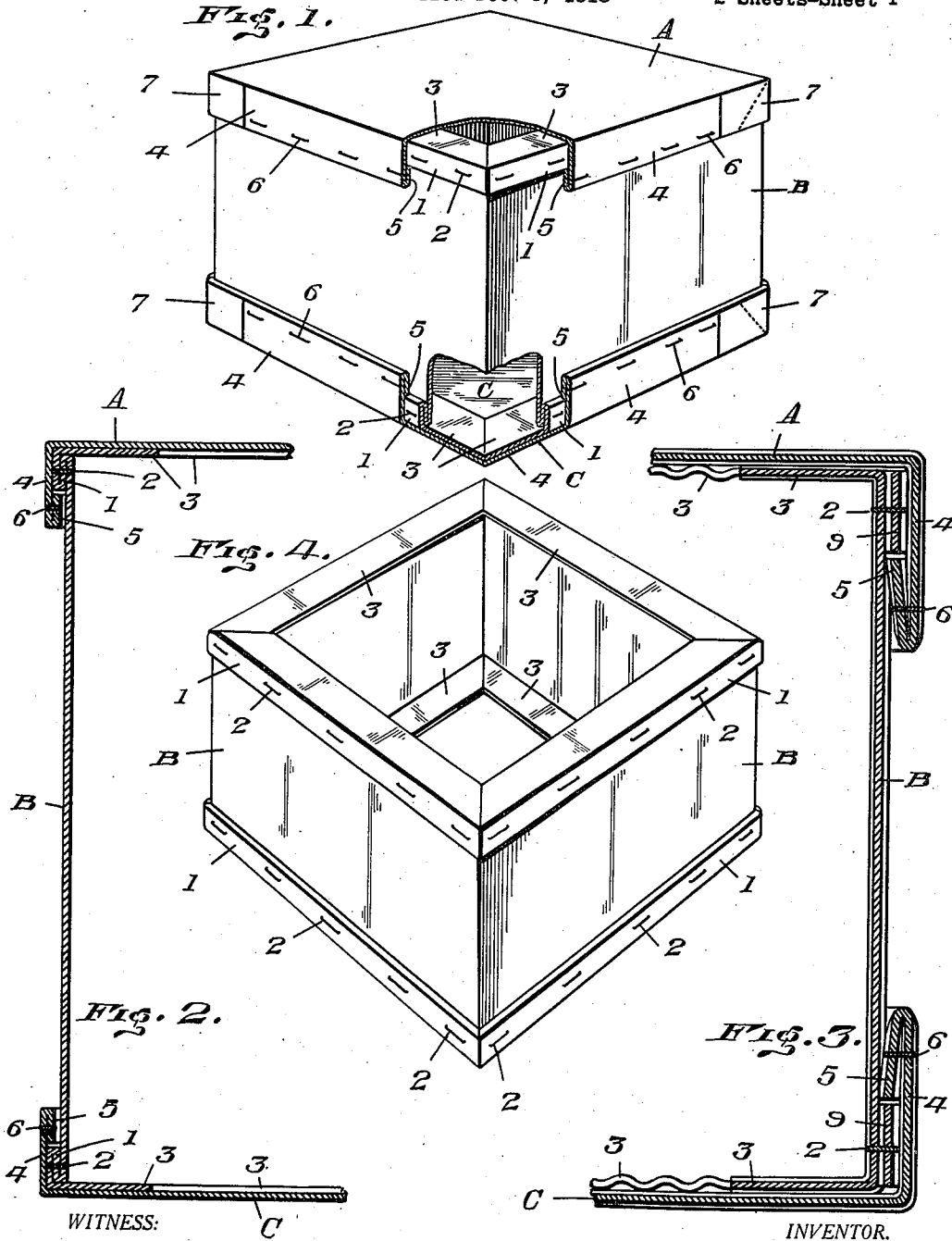
J. G. HUYE

1,473,432

BOX

Filed Dec. 4, 1918

2 Sheets-Sheet 1



WITNESS:
Thorw.aley

INVENTOR.
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Nov. 6, 1923.

J. G. HUYE

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BOX

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2 Sheets-Sheet 2

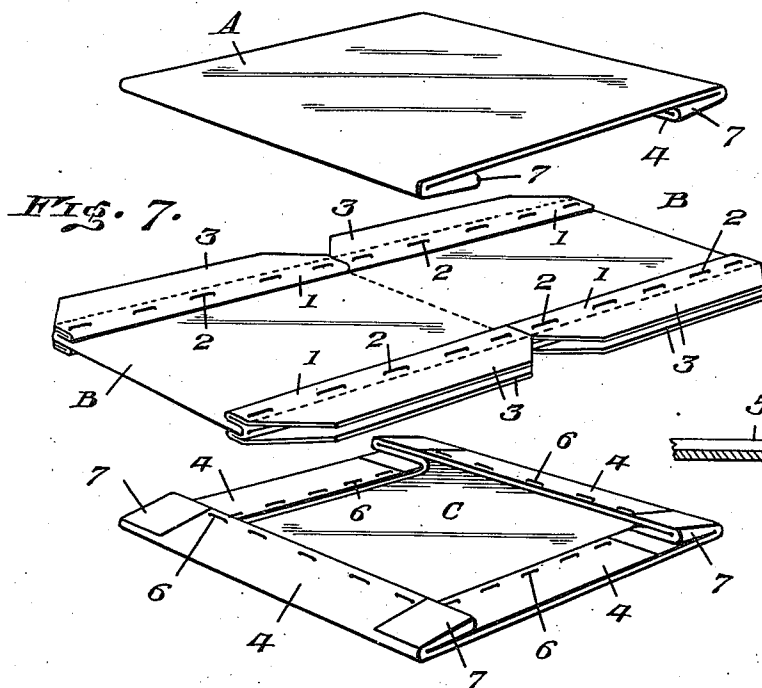
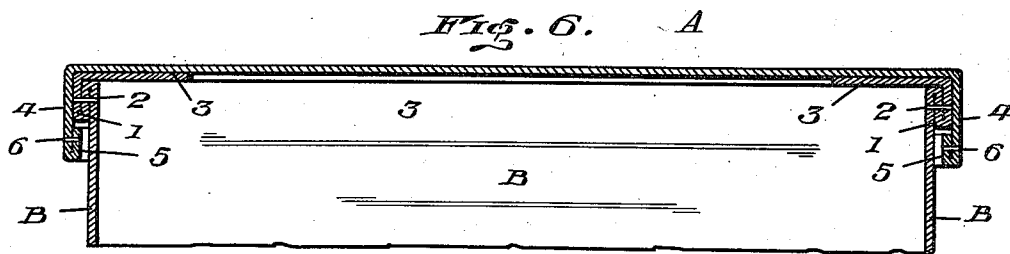
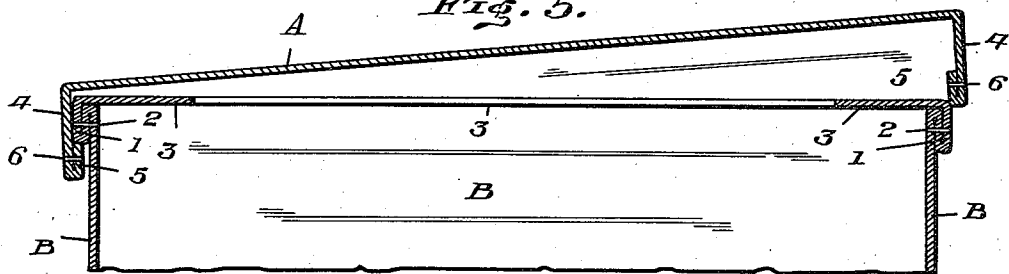
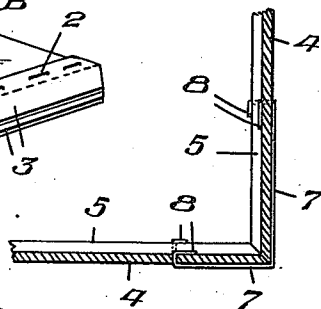


Fig. 8.



WITNESS:

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Patented Nov. 6, 1923.

1,473,432

UNITED STATES PATENT OFFICE.

JOSEPH G. HUYE, OF NEW ORLEANS, LOUISIANA.

BOX.

Application filed December 4, 1918. Serial No. 265,228.

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 is an improvement on my invention forming the subject matter of U. S. Patent 1,249,097 granted December 4th, 1917 and relates to collapsible set-up boxes, more especially to corrugated paste-board shipping boxes or cases, paste-board hat-boxes, candy-boxes, and similar receptacles, and may be made in any desired form, it being understood that the outline of the top and bottom or end pieces or sections shall correspond to the cross-sectional form of the body section.

The primary objects of this invention are to provide means for locking the top of the box to the upper portion of the body section to seal the same in such manner that it cannot be opened without mutilation readily discernible at a glance, giving notice that the box has been robbed or an attempt to pilfer has been made; to provide a sectionable collapsible set-up box consisting of three sections, which may be easily assembled and securely locked together; to provide simple bracing and spreading means for each end of the box to hold it in normal locked position when in assembled relation to the respective end section, and to reduce the cost of manufacture of such boxes, all of which objects are accomplished by the construction, combination and arrangement of parts, all as hereinafter more particularly set forth, described and claimed.

In the accompanying drawings:

Figure 1 represents a perspective view of a box in which my invention is embodied, the upper and lower portions being partially broken away;

Figure 2, a lateral sectional view, on an enlarged scale, broken away, showing the construction and locking action of the locking flanges and the integral construction of the body B, locking flanges 1 and spreading flanges 3;

Figure 3, a similar view of a modified form, wherein corrugated material is used, in order to make a very strong case for shipping goods by freight and express;

Figure 4, a perspective view of the preferred form, both end sections being omitted;

Figure 5, an enlarged vertical sectional view with the end section in intermediate position, the body being broken away;

Figure 6, a view similar to Figure 5, the end section being in final or locked position;

Figure 7, a detail superposed view of the parts of the box in the condition in which they are to be shipped from the box factory; and

Figure 8, a horizontal sectional view, on an enlarged scale, taken through one corner of one of the end sections and looking toward the engaging edge of the locking flange thereof.

Referring now in detail to the drawings, the box illustrated consists of three sections, the top A, the body B and the bottom C.

The body has each end portion cut out at its corners and is folded back on itself and then toward the respective ends of the body section, forming on each end portion of said section a locking flange 1 held securely in place by means of staples 2 or other suitable means passing through the three thicknesses of material thus folded and clenched on the interior face of the body section A. The extreme portion of the ends of the blank of the body section A are then scored to fold right along the outer edge of these locking flanges 1 and at right angles to the vertical sides of the body section to form bracing and spreading flanges 3. As the ends of these flanges 3 are cut at an angle of 45 degrees in a square box the end edge of one will engage the corresponding end edge of the adjacent flange 3 when said flanges are folded at right angles to the body A, thus constituting in themselves spreading and bracing means preventing the collapsing of the sides of the body so long as said spreading and bracing flanges 3 are at right angles to the body B.

The end sections A and C are identical in construction and are each, preferably, made of an integral piece of material having its corners cut out to allow its edge portions to be folded up to form the lip 4, the outer portion of which is folded inwardly on itself to form a locking flange 5, which is held to the inner face of its respective lip 4 by means of staples 6 or any other suitable means.

The corners of these sections A and C are to be stayed by means of a light tin strap 7 having teeth 8 formed on its ends and driven through the lip 4 and the flange

5 and clenched against the inner faces thereof so that the corners thereof cannot be mutilated and then repaired to have the same appearance as before unless the pilferer has unlimited time and a box factory or a large assortment of special tools at his disposal. Any other suitable method of reinforcement having the same advantages and objects in view may be substituted.

10 Preferably the flanges 1 and 5 are throughout of the same width, which will be, preferably, slightly less than one half of the height of the lip 4 of the respective end sections A and C.

15 To assemble, the spreading flanges 3 are folded down on both ends at right angles to the body section B, when the top A is slipped on laterally until it assumes the position shown in Figure 5, with one side of its locking flange 5 in engagement with the inner edge of the corresponding side of locking flange 1, when the opposite side of the top A is to be depressed, snapping into the position shown in Figure 6, wherein it is 20 securely locked. The bottom section C is then applied in the same manner and the box is securely sealed and can only be opened by mutilation easily detected at a glance.

30 The top and bottom sections A and C will be of the same dimensions and identical in construction so as to be interchangeable.

The body section will be creasing scored on its interior face at the corners to facilitate 35 folding while at the same time guarding against cracking at this point on its exterior face.

For the purposes of shipping from the factory the end sections A and C will have 40 their lips 4 folded flat, as shown in Figure 7, and to facilitate this each of the corner straps 7 is scored on one side, as shown in Figure 1, in order that the lip 4 may be folded down at this point. Likewise, the 45 body B for purposes of shipment from the box factory will be flattened out as shown in said figure.

In the modified form shown in Figure 3 the construction and operation are the same 50 as in the preferred form, except that it is not feasible to fold heavy corrugated material twice to make the locking flange on the end portions of the body section B and instead locking flanges 9 formed of separate strips of corrugated material are 55 secured to the exterior side faces of the body section in correct position by means of the staples 2, or in any other suitable manner, and also, as the weight of the goods in these shipping cases will be heavier than 60 in those of the preferred form, and they will have harder wear, I make the locking flanges 5 and 9 wider in proportion to the size of the box or case to withstand this 65 additional wear.

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 an end section, said sections being provided 70 with interlocking means on all sides of its exterior face, the end section receiving the end portion of the body section and having a permanently continuous lip, in combination with spreading flanges extending from 75 the body section and in assembled position lying on the inner face of the end section, the adjacent edges of the ends of said spreading flanges being adapted to engage each other to hold said body portion in lock- 80 engagement with the end section.

2. A box comprising a body section of unbroken area and two end sections, each end section being of unbroken area and 85 having a permanently continuous lip receiving the respective end of the body section in combination with interengaging locking means carried by each end portion of the body section and the lips of the respective end sections for locking the respective end sections on the respective end portions of the body section and preventing 90 removal thereof so long as said elements are in interlocking relation without mutilation of any portion of the box, and spreading 95 flanges extending from each end portion of the body section and having their end edges lying in the same horizontal plane when folded at right angles to said body section, the adjacent end edges being 100 adapted to engage whereby the body portion will be braced against lateral pressure at any one or more points to prevent the body portion being deformed to such an extent as would permit the disengagement of 105 the locking means carried by said body section and said end sections without mutilating at least one of said sections.

3. A body section for a box having one of its end portions provided with exterior locking flanges adapted to be engaged by a cooperating interior flange of an end section and having said end portion extended to form spreading flanges having their ends cut at an angle such that when the spreading 115 flanges are folded at right angles to the body section the adjacent end edges of the respective spreading flanges will be parallel to, and will be adapted to engage, each other. 120

4. A body section for a box having its end portions provided with exterior locking flanges and extended to form bracing and spreading flanges adapted to hold the end portions of said body section spread to hold 125 the respective locking flanges thereof in correct relation to the cooperating interior locking flanges of the respective end sections adapted to be applied thereto.

5. A box comprising a body section and 130

an end section, said sections being provided with interengaging means, the end section receiving the end portion of the body section and having a lip, in combination with
5 spreading flanges formed integrally with the engaging means of the body section and, in assembled position, lying on the inner face of the end section, the edges of the ends of said spreading flanges engaging each
10 other to hold said body section in locking engagement with the end section.

6. A box comprising a body section and an end section, said sections being provided with interengaging means, the end
15 section receiving the end portion of the body section and having a lip, the engaging means of the body section comprising a portion adjacent an edge folded outwardly and upwardly and then back downwardly upon
20 itself, in combination with spreading flanges formed integrally with the last named engaging means and extending inwardly across and beyond the edge of the body section, and, in assembled position, lying
25 on the inner face of the end section, the edges of the ends of said spreading flanges engaging each other to hold said body section in locked engagement with the end section.

30 7. A box comprising a body section of unbroken area and end sections of unbroken area and each having permanently continuous lips, each end section lip and the respective end portions of the body section
35 being provided with interlocking elements for locking the respective end sections on the respective end portions of the body section and preventing removal thereof so

long as said elements are in interlocking relation without mutilation of any portion
40 of the box, in combination with means respectively cooperating with each end portion of the body section to prevent a lateral deformation of the box such as would permit the disengagement of said interlocking
45 elements.

8. A box comprising a body section of unbroken area and end sections of unbroken area and each having a permanently
50 continuous lip receiving the respective end of the body section, said body section and said lips being provided with interlocking means for locking the respective end sections on the respective end portions of the body section and preventing removal there-
55 of so long as said elements are in interlocking relation without mutilation of any portion of the box, and spreading flanges carried by the ends of said body section, and, acting to spread said body section to
60 force and hold its engaging means in locking relation with respect to the cooperating means of the other sections, said flanges, in assembled position, lying on the inner faces of the adjacent end sections, the edges of
65 the ends of said spreading flanges engaging each other to spread and brace said body section and hold the same in locked engagement with both end sections.

In testimony whereof, I have signed my
70 name to this specification in the presence of a subscribing witness.

JOSEPH G. HUYE.

Witness:

W. R. BAUM.