

March 26, 1940.

M. H. MUMFORD

2,194,669

CARTON

Filed Feb. 1, 1939

3 Sheets-Sheet 1

Fig. 1.

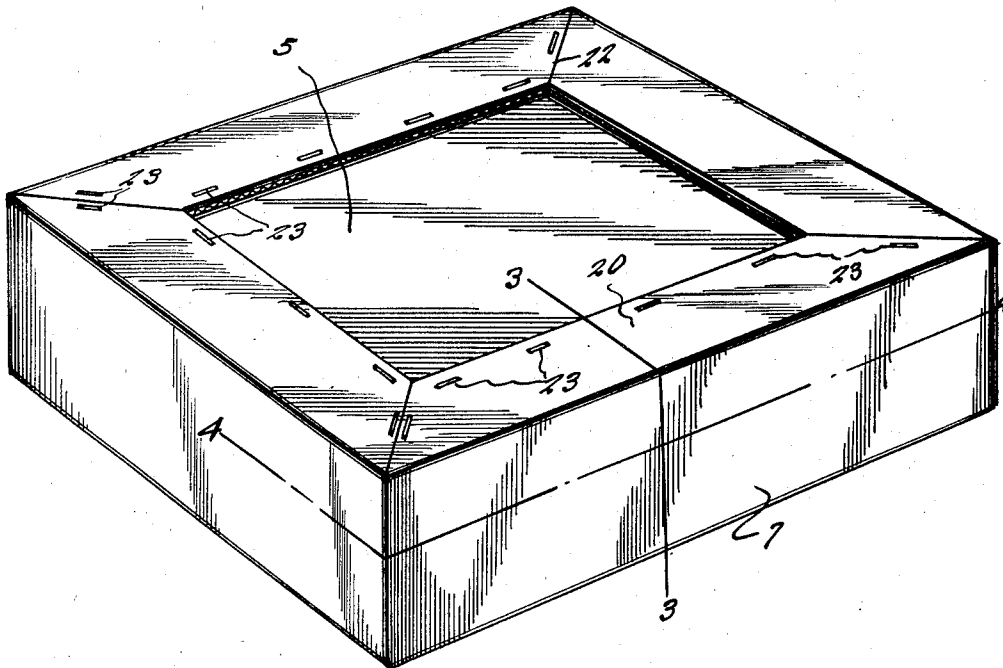
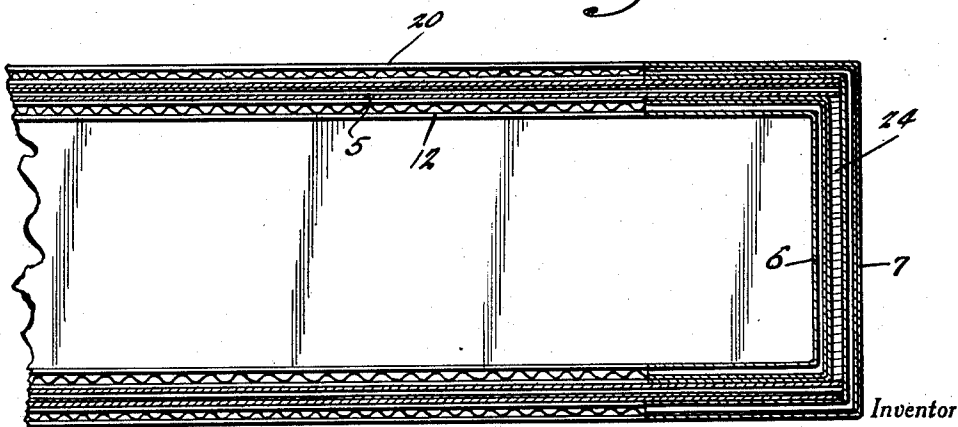


Fig. 3.



Inventor
Melvin H. Mumford

By *Clarence A. O'Brien*
and *Hyman Berman*
Attorneys

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Fig. 2.

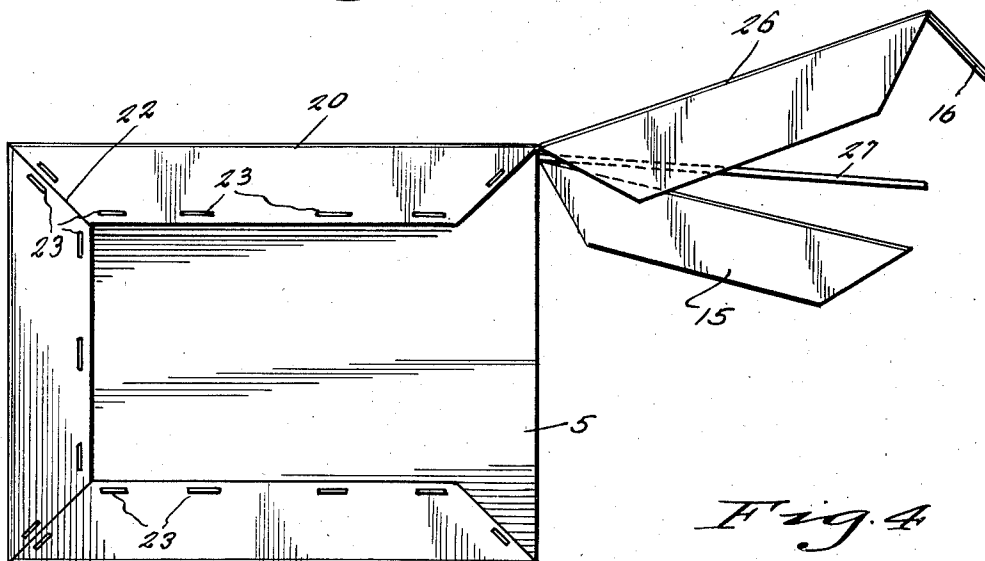
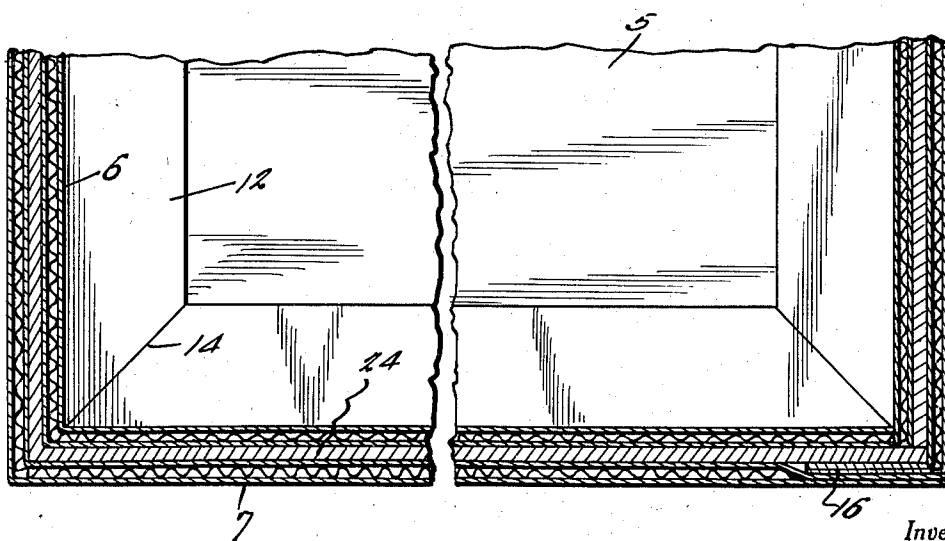


Fig. 4.



Inventor

Melvin H. Mumford

By

Clarence A. O'Brien
and Hyman Berman
Attorneys

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Fig. 7

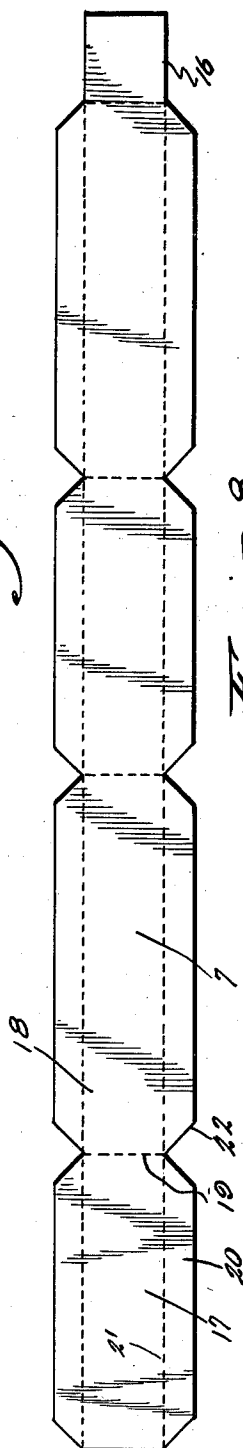


Fig. 8

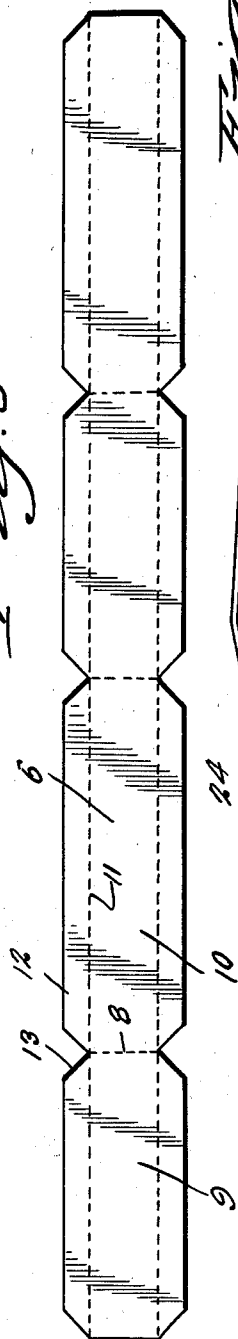


Fig. 9

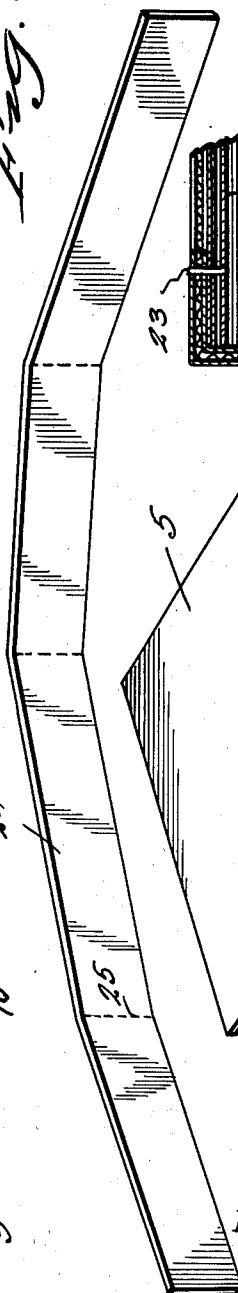


Fig. 6.

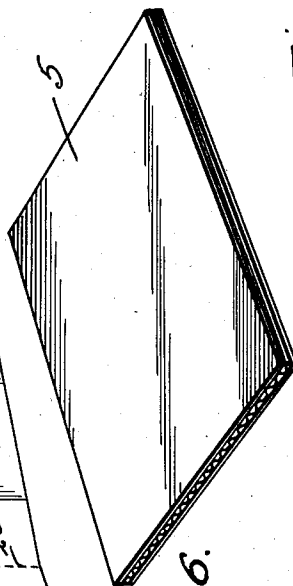
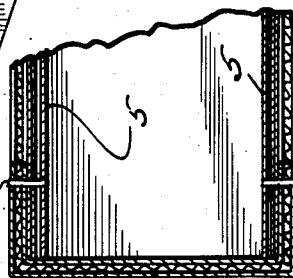


Fig. 5.



Inventor
Melvin H. Mumford

By

Clarence A. O'Brien
and Hyman Berman

Attorneys

UNITED STATES PATENT OFFICE

2,194,669

CARTON

Melvin Harry Mumford, Henryetta, Okla., assign-
or of three-eighths to Earl Mumford, Henryetta,
Okla.

Application February 1, 1939, Serial No. 254,107

3 Claims. (Cl. 229—23)

The present invention relates to cardboard or corrugated paper cartons or boxes designed primarily for use in packing and shipping flat glass articles, and has for its primary object to provide a shipping container of this character in which the side and end edges are formed of inner and outer continuously extending strips of cardboard material, whereby to simplify the construction of the carton and to provide increased strength for the edge portions thereof to prevent breakage of the glass contained therein.

A further object is to provide a carton of this character in which the parts may be formed of blanks of a desired size and easily and quickly assembled when needed to enclose fragile material, such as plate glass, for shipping purposes.

A still further object is to provide an article of this character which may be manufactured, at relatively low cost, and which is otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which—

Figure 1 is a perspective view of the completed carton.

Figure 2 is a top plan view showing one end open prior to sealing the same.

Figure 3 is a fragmentary sectional view taken substantially on a line 3—3 of Figure 1.

Figure 4 is a similar view taken substantially on a line 4—4 of Figure 1.

Figure 5 is a fragmentary sectional view through one end of the carton with the inner sealing strip removed.

Figure 6 is a perspective view of one of the walls of the carton.

Figure 7 is a plan view of the blank forming the outer sealing strip.

Figure 8 is a similar view of the inner sealing strip, and

Figure 9 is a perspective view of the reinforcing strip.

Referring now to the drawings in detail, the numeral 5 designates one of the main walls of the carton which is of substantially rectangular form and constructed preferably of corrugated cardboard, two of said walls being employed in the construction of the carton, the walls being secured in spaced parallelism, and constituting the top and bottom walls thereof when the carton occupies the position as shown in Figure 1.

In assembling the carton I employ an inner sealing strip 6 and an outer sealing strip 7, each of these strips being constructed of elongated strips of corrugated cardboard and are folded along transverse lines indicated at 8 to provide end walls 9 and side walls 10, the inner sealing strip 8 being positioned around the marginal edges of the sheet of material 5 and each of the wall sections 9 and 10 are foldable along their longitudinal edges as shown at 11 to form inwardly turned flanges 12 adapted for flatwise engagement with the opposed faces of the two wall sections 5. The edges of the flanges 12 are notched as at 13 in the region of the transverse fold lines 8 in order that the abutting edges of the flanges of the side and end walls will form a mitered fit as shown at 14.

The flanges 12 may be secured to the inner opposed surfaces of the wall sections 5 by bluing or in any other suitable manner, one of the wall sections as indicated at 15, remaining unsecured, as shown in Figure 2 of the drawings, until the article to be shipped in the carton is sealed therein. The inner sealing strip 6 thus serves to secure the wall sections 5 in spaced parallel relation.

The outer sealing strip 7 is identical in construction to the sealing strip 6 except for the provision of a tab extension 16 on one end thereof, the end wall sections of the outer sealing strip being designated by the numeral 17 while the side wall sections are designated at 18 separated by the transverse fold lines 19 and the longitudinally extending flaps are indicated at 20, which are foldable along the longitudinal fold line 21. The ends of the flanges 20 are likewise formed with the mitering edges 22.

The outer sealing strip 7 is adapted to surround the marginal edges of the sheet 5 as well as the inner sealing strip 6 and the flanges 20 are turned inwardly and secured against the outer surfaces of said sheet of material, either by gluing or by stapling the same in position as shown at 23.

Interposed between the inner sealing strip 6 and the outer sealing strip 7 is a reinforcing strip of cardboard 24 provided with transverse fold lines 25 to form the end and side edges of the carton, the sealing strips 6 and 7 being preferably formed of corrugated cardboard, while the reinforcing strip 24 is preferably formed of solid cardboard.

When the strips are secured in position along three of the sides of the carton as shown in Figure 2, the remaining portion of the inner seal-

ing strip designated by the numeral 15 and the remaining portion of the outer sealing strip designated by the numeral 26 as well as the free end portion of the reinforcing strip as shown at 27 cooperate to form a closure for the remaining edge of the carton and after the sheet of plate glass or other object is placed within the open end of the carton, these free end portions may then be closed in a manner corresponding to the other edge portions of the carton and the flap 16 inserted between the adjacent sealed edges of the strip whereby to completely seal all open edges of the carton.

It will be understood that the outer sealing strip may be constructed of sufficient width to enable the flanges 26 to overlap the side walls of the carton a desired distance to provide the necessary reinforcement for the sheets of material forming the walls.

It is believed the details of construction and manner of assembling the parts of the device will be readily understood from the foregoing without further detailed explanation.

Having thus described the invention, what I claim is—

1. A packing box comprising a pair of co-extensive flat sheets of material forming a pair of the opposed walls of the box and sealing strips forming the side and end walls of the box and including an inner strip spacing the sheets in parallelism and an outer strip surrounding the edges of said sheets and said inner strip each of said strips including portions flatwise engaging each sheet, the said portions being secured to opposite faces of the respective sheets.

2. A packing box comprising a pair of co-extensive flat sheets of material forming a pair of the opposed walls of the box and continuously formed sealing strips forming the side and end walls of the box and including an inner strip spacing the sheets in parallelism and an outer strip surrounding the edges of said sheets and covering said inner strip each of said strips including portions flatwise engaging each sheet, the said portions being secured to opposite faces of the respective sheets.

3. A packing box comprising a pair of co-extensive flat sheets of material forming a pair of the opposed walls of the box and continuously formed sealing strips forming the side and end walls of the box and including an inner strip spacing the sheets in parallelism and an outer strip surrounding the edges of said sheets and covering said inner strip, both of said sealing strips having intumed flanges secured respectively to the opposite surfaces of each of the sheets.

4. A packing box comprising a pair of co-extensive flat sheets of material forming a pair of the opposed walls of the box and continuously formed sealing strips forming the side and end walls of the box and including an inner strip spacing the sheets in parallelism and an outer strip surrounding the edges of said sheets and covering said inner strip, both of said sealing

strips having intumed flanges secured respectively to the opposite surfaces of each of the sheets and a reinforcing strip surrounding the edges of the sheets and interposed between said inner and outer strips.

5. In a packing box, a pair of co-extensive flat sheets of material forming two of the opposed walls of the box, an inner elongated strip having portions foldable along transverse lines to form continuous side and end walls and also having portions foldable along longitudinal lines to form intumed flanges secured to the opposed faces of the respective sheets to space the sheets apart and an outer elongated strip having portions foldable along transverse and longitudinal lines similar to the inner strip and surrounding the side and end walls, the intumed flanges of the outer strip being secured to the outer surfaces of said sheets.

6. In a packing box, a pair of co-extensive flat sheets of material forming two of the opposed walls of the box, an inner elongated strip having portions foldable along transverse lines to form continuous side and end walls and also having portions foldable along longitudinal lines to form intumed flanges secured to the opposed faces of the respective sheets to space the sheets apart and an outer elongated strip having portions foldable along transverse and longitudinal lines similar to the inner strip and surrounding the side and end walls, the intumed flanges of the outer strip being secured to the outer surfaces of said sheets, and an elongated continuously formed reinforcing strip interposed between the said inner and outer strips.

7. In a packing box, a pair of co-extensive flat sheets of material forming two of the opposed walls of the box, an inner elongated strip having portions foldable along transverse lines to form continuous side and end walls and also having portions foldable along longitudinal lines to form intumed flanges secured to the opposed faces of the respective sheets to space the sheets apart and an outer elongated strip having portions foldable along transverse and longitudinal lines similar to the inner strip and surrounding the side and end walls, the intumed flanges of the outer strip being secured to the outer surfaces of said sheets, and an elongated continuously formed reinforcing strip interposed between the said inner and outer strips and a tab on one end of said outer strip adapted for insertion between the opposite end of said strip and the adjacent end of the reinforcing strip.

8. In a packing box, a pair of coextensive sheets of material and a pair of channel strips, one of said strips extending around the marginal edges of the sheets and secured to the inner faces of the sheets for maintaining the sheets in spaced relation and the other of said channel strips surrounding the edges of said sheets and the first named strip and secured to the outer surfaces of said sheets.

MELVIN HARRY MUMFORD.