H. R. BLISS.

SHIPPING CASE.

APPLICATION FILED JAN. 26, 1920.

1,373,161.

Patented Mar. 29, 1921.

4 SHEETS—SHEET 1.

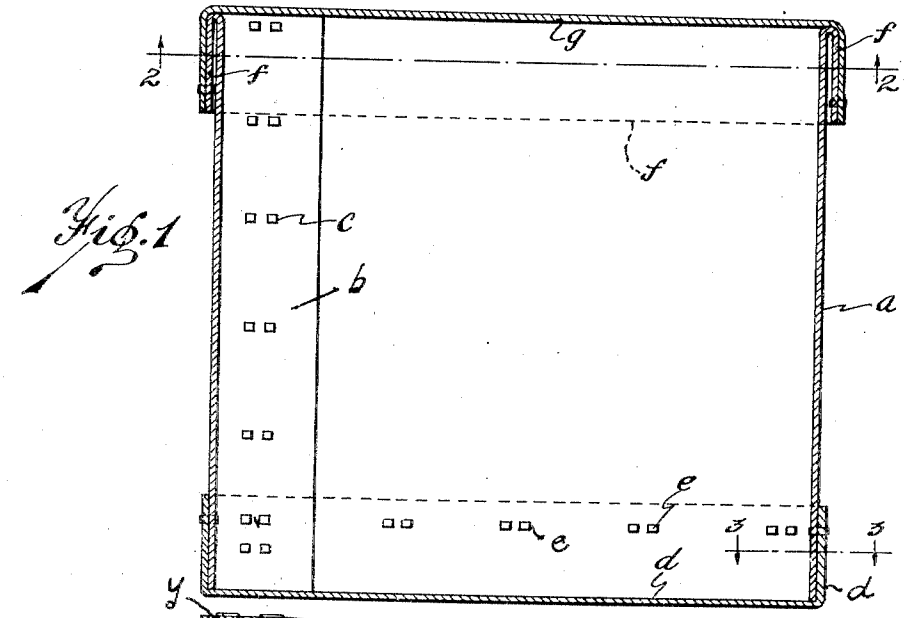


Fig. 1

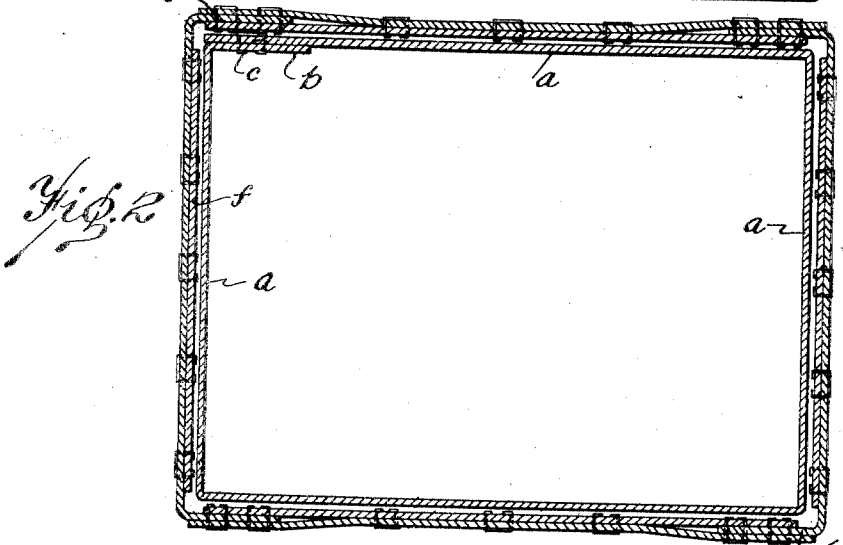


Fig. 2

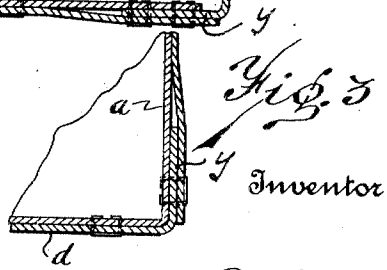


Fig. 3

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4 SHEETS—SHEET 2.

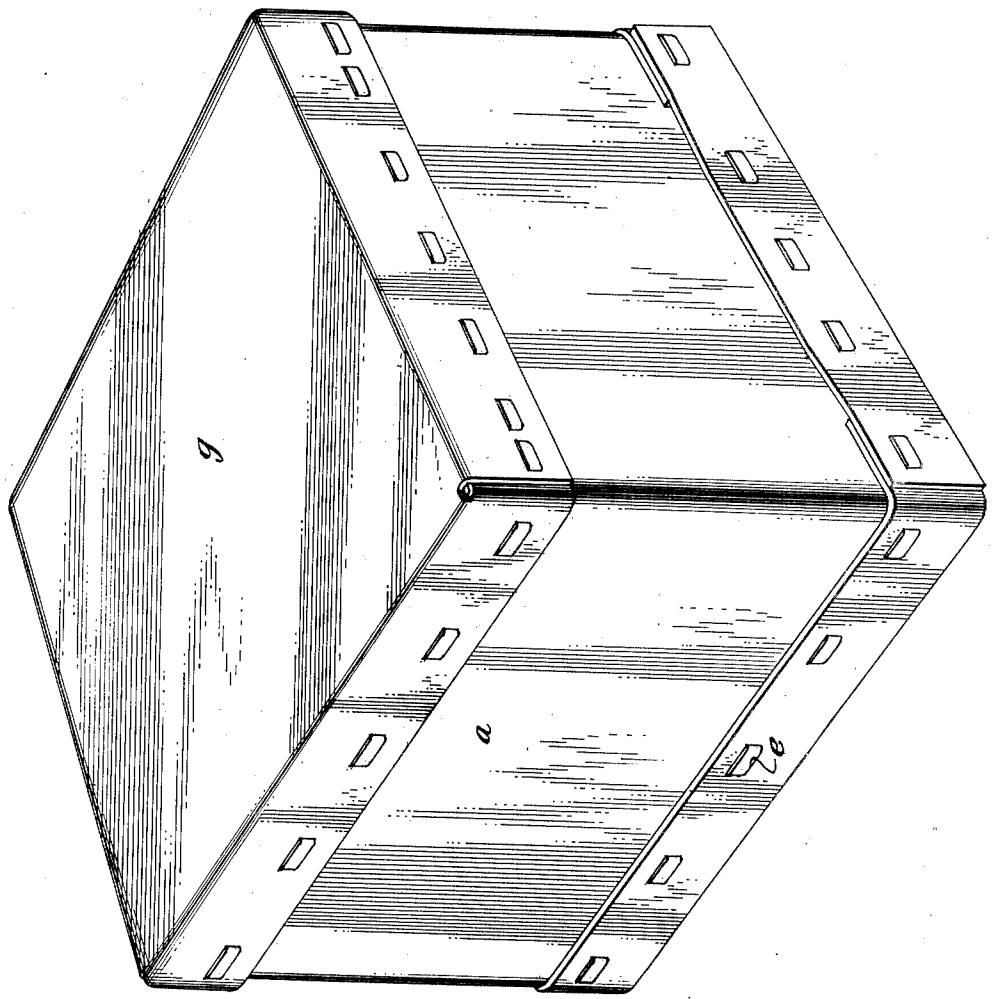


Fig. 4.

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4 SHEETS—SHEET 3.

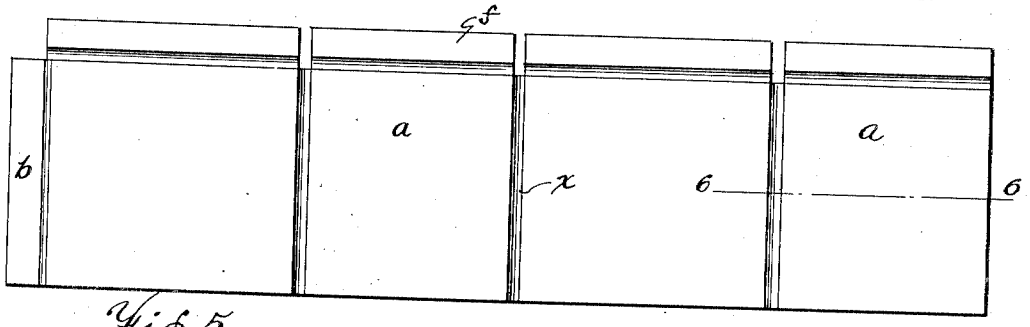


Fig. 5

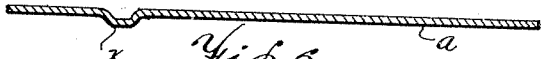


Fig. 6

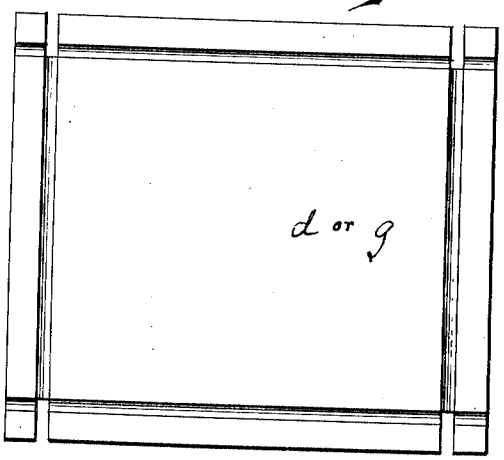


Fig. 7

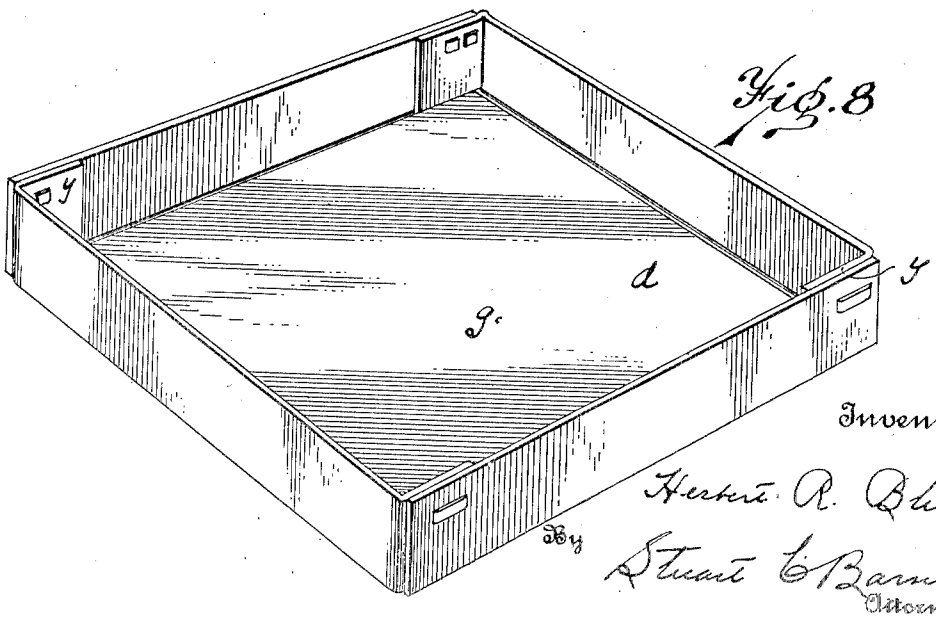


Fig. 8

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4 SHEETS—SHEET 4.

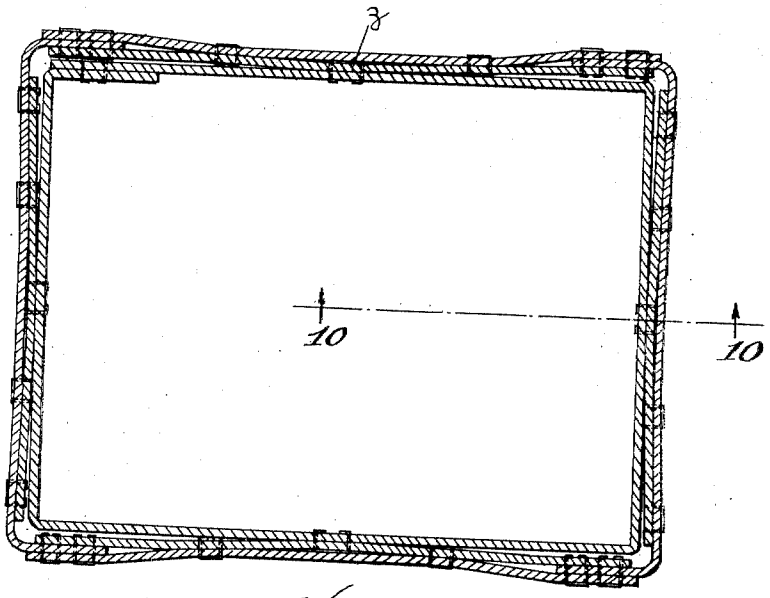


Fig. 9

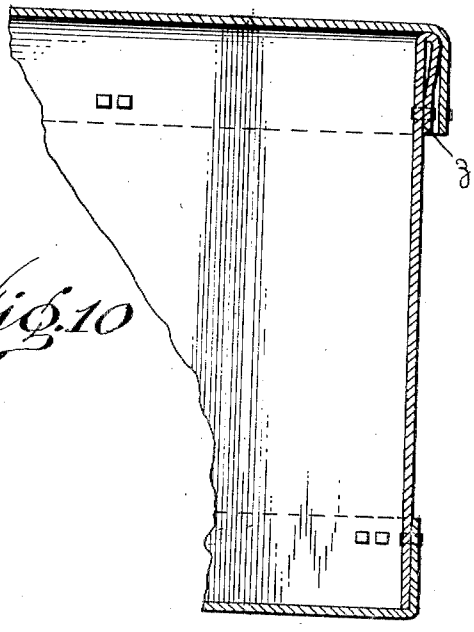


Fig. 10

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UNITED STATES PATENT OFFICE.

HERBERT R. BLISS, OF MONROE, MICHIGAN.

SHIPPING-CASE.

1,373,161. Specification of Letters Patent. Patented Mar. 29, 1921.

Application filed January 26, 1920. Serial No. 354,173.

To all whom it may concern:

Be it known that I, HERBERT R. BLISS, a citizen of the United States, residing at Monroe, in the county of Monroe and State of Michigan, have invented certain new and useful Improvements in Shipping-Cases, of which the following is a specification.

This invention relates to shipping containers or cases constructed of fiber board, corrugated board or equivalent materials. It has for its object a shipping case provided with a closure which effects marked economy in material and at the same time affords a case that has the maximum capacity of its dimensions and has a maximum strength. These features will better be understood when the detailed description has been given.

In the drawings,—

Figure 1 is a vertical section through the improved shipping case.

Fig. 2 is a horizontal section taken on the line 2—2 of Fig. 1.

Fig. 3 is a section taken on the line 3—3 of Fig. 1.

Fig. 4 is a perspective of the improved case.

Fig. 5 is a plan view of the blank.

Fig. 6 is a section on the line 6—6 of Fig. 5.

Fig. 7 is a plan view of the cover blank.

Fig. 8 is a perspective of one of the ends or covers.

Fig. 9 is a horizontal section of a modified form of container.

Fig. 10 is a fragmentary vertical section of the same.

The fiber shipping cases that have been generally used in the past have been those which are provided with flaps that are extended from the tops and bottoms of the side walls in the blank and which, when the side walls are united, can be overlapped. These overlapping flaps were first sealed by gluing them together. A later development was to use a sealing strip of paper that was pasted over the overlapping flaps. And sometimes both gluing and a sealing strip have been used. A still further improvement is that described in Patent #1,174,943, of which patent I am one of the patentees. This consists in utilizing a blade-like anvil between the overlapped flaps in the closing end and wire-stitching or riveting the flaps together. This method of sealing the overlapping flaps has been very useful, but it has become recognized that the overlapping flaps require the use of considerable material that might be saved. An economy in material has been effected by using a flanged cover that can be inverted and inserted within the top opening. This permits an anvil to be placed on the inside of the cover flanges and the same riveted or wire-stitched to the tops of the side walls. This construction (called "the solid end box") is, however, open to the objection that the maximum capacity of the dimensions of the box cannot be utilized for packing. It also provides a pocket to hold water, snow, or catch other material. The projecting edges also very often break in handling and interfere with the stacking of the boxes one upon another. It is the object of the present invention to afford a container which effects the economy of material of a case sealed in this way but at the same time is stronger, utilizes the full capacity of the box for packing, and does away with the objectionable pocket.

The side walls of the case are formed by a single blank which is scored or creased at *x* to be folded in four places to form the four corners of a rectangular case. These side walls are designated *a*. At one end of the blank is a flap *b* adapted to fold inside of the adjoining side wall and be fastened thereto by wire stitches *c* or other fastening means. This completes a rectangular inclosure and the four side walls.

A flanged cover *d* made from a blank such as shown in Fig. 7 may be fitted over the bottom of the side walls as shown in Figs. 1 and 4. It may be fastened thereto by wire stitches or other fastening means *e*. No difficulty in clenching these fasteners will be met with as any horizontal arm anvil can be used to clench the fasteners.

This method of fastening the cover to the top or the closing end of the box obviously cannot be employed because no anvil can be gotten in the box to clench the fasteners. It is for this reason that the method of inverting the cover and setting it in the box has been employed. I overcome the objections to this form of sealing the case by providing each of the side walls of the case at the closing end or top with a flap *f* which is creased so it can be turned over as shown in Fig. 1. The flanged cover *g* is made large enough to fit over both the side walls and the turned-back flap *f*. A blade-like anvil such as described in my prior Patent #1,174,943 may then be inserted between the flaps and the side walls and wire stitches,

staples or other fastening means may be driven through the overlapped flanges and flaps and clenched on the anvil. This affords a shipping case that has a marked economy in the use of material, is stronger than one employing a cover inverted inside of the case, and provides no pockets. Furthermore, this case is stronger than one having the overlapping flanges and covers up all crevices so as not to allow dust, water or other material to enter.

It is preferable to stitch the flanges of the cover together as shown in Fig. 8 before the cover is placed over the case end but obviously it would be possible to do the stitching at the same time as the flanges are stitched to the flaps. The wings *y* which are turned in to fasten the cover flanges together also afford a reinforcement at the corners of the finished case.

In Figs. 9 and 10 a stitch *z* is taken to hold the flap to the side wall before the cover is stitched to the flap. This makes the cover cling to the side wall better than in the form shown in the other views.

What I claim is:

1. A shipping case constructed of fiber board or equivalent material, having in combination, a body portion having four side walls and having relatively shallow flaps folded back upon and fastened each at one point to the adjoining side wall of the case before the same is sealed, a cover having a relatively shallow flange fitted over the end of the body of the case and over the shallow turned-back flaps, and fasteners driven into the overlapped flanges and flaps and clenched on the under side of the flaps between the flaps and the side walls.

2. A shipping case body constructed of fiber board or equivalent material from a single blank forming side walls united side by side in the blank with flaps on a plurality of the side wall ends and a flap on the side of one of the side walls at the end of the blank by which the side walls are united to form the body of the case, in combination with a flanged cover fitting over the end of the body having flaps, the said flaps being relatively short and folded back and lying directly adjoining the side walls of the body under the cover flaps to which they are united to seal the case.

3. The combination of a shipping case body which is formed simply of a blank having shallow flaps on one side and a flap at one end, said blank being scored to form the sides which are united by uniting the ends of the blank through the flap at the end of the blank, the other flaps at the side of the blank being folded back directly adjoining the side walls of the body, a flanged cover fitted over the end of the body with the said flaps turned back, and metal fasteners driven into the cover flanges and clenched on the under side of the turned-back flaps.

In testimony whereof I affix my signature.

HERBERT R. BLISS.