I. LUCY.

FOLDABLE CRATE.

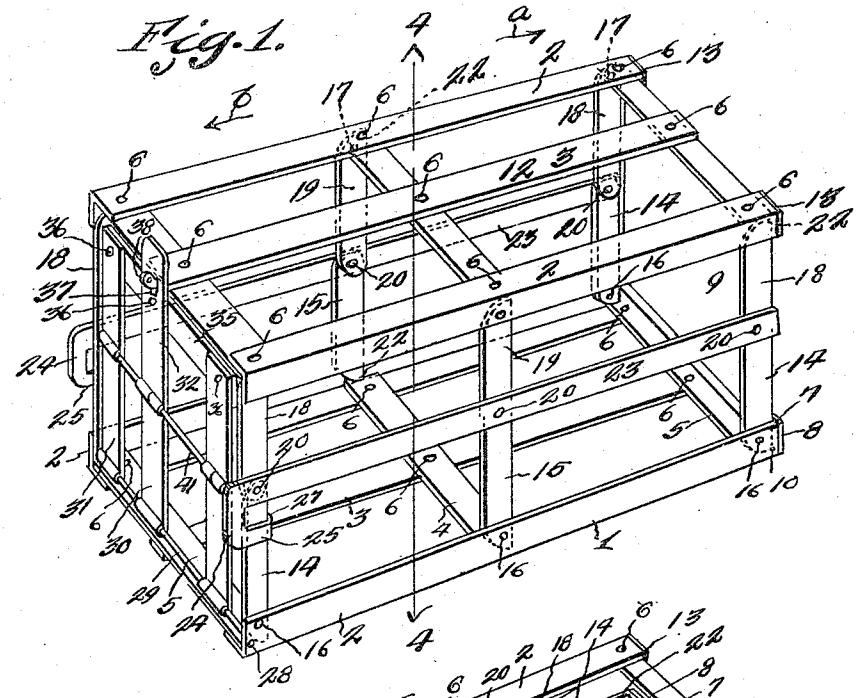
APPLICATION FILED MAY 3, 1916.

1,226,227.

Patented May 15, 1917.

2 SHEETS—SHEET 1.

Fig. 1.



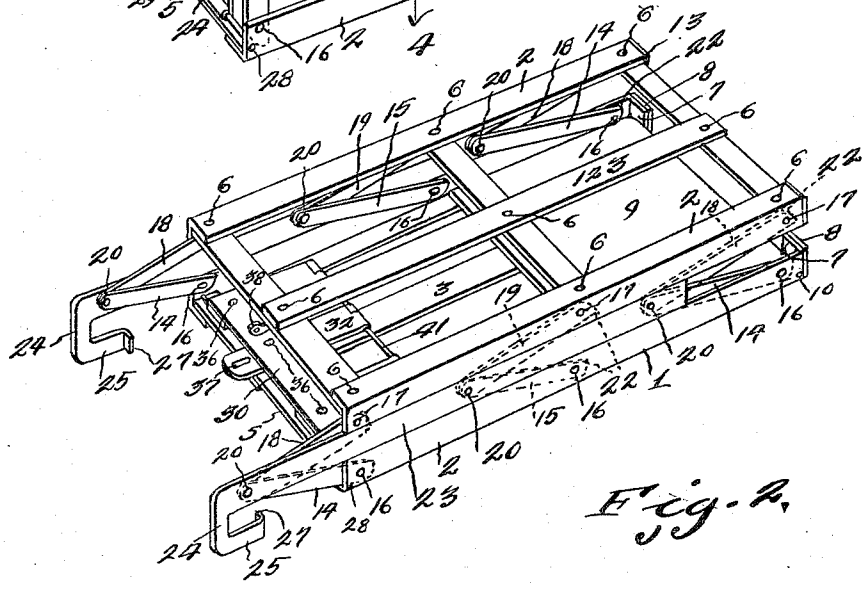


Fig. 2.

Inventor

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Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

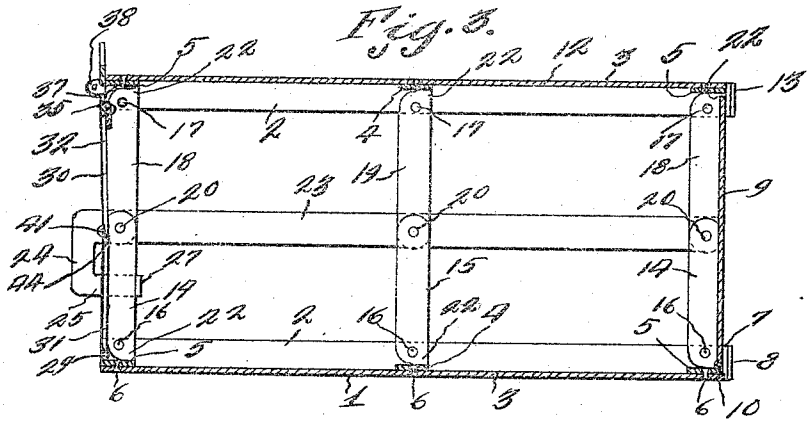
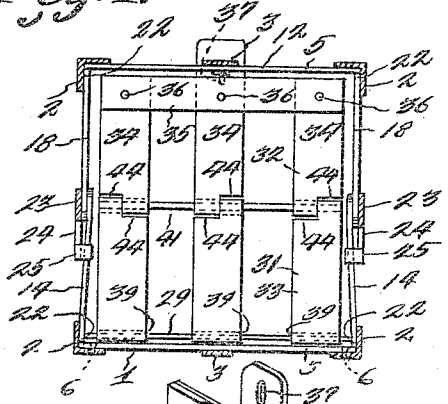


Fig. 2.



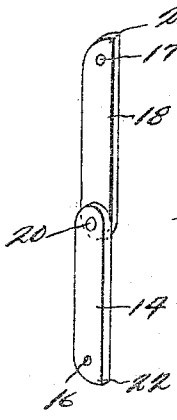


Fig. 5.

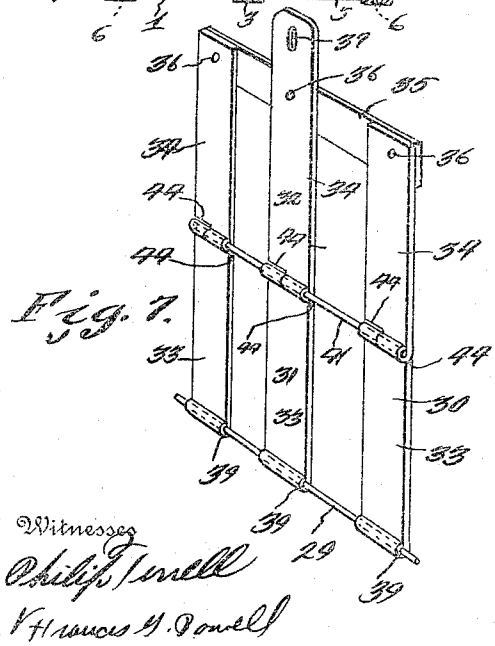


Fig. 7.

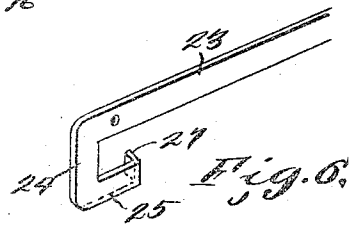
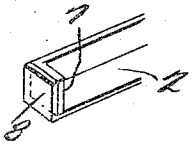


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

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FOLDABLE CRATE.

1,226,227. Specification of Letters Patent. Patented May 15, 1917.

Application filed May 3, 1916. Serial No. 95,123.

To all whom it may concern:

Be it known that I, IRA LUCY, a citizen of the United States, residing at Long Pine, in the county of Brown, State of Nebraska, have invented a new and useful Foldable Crate; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improved foldable crate or receptacle for shipping purposes, and designed more especially for return transportation in a folded or collapsed condition, or when folded for economizing space, may be stored.

Another object of the invention is to provide an improved shipping crate or receptacle of this kind, in which novel features of construction exist.

One of the features of the invention is the provision of a crate or receptacle being constructed of a plurality of bars, so arranged and pivoted together as to provide a top and bottom and collapsible sides and collapsible ends, which collapse against the bottom, the ends being pivoted to the bottom, and the bars of the sides being pivoted to the top and bottom pieces, whereby the crate or receptacle may be easily collapsed or extended.

In practical fields the details of construction may necessitate alterations, falling within the scope of what is claimed.

The invention comprises further features and combination of parts, as hereinafter set forth, shown in the drawings and claimed.

In the drawings:

Figure 1 is a view in perspective of the improved foldable or collapsible crate constructed in accordance with the invention.

Fig. 2 is a perspective view showing the crate collapsed.

Fig. 3 is a longitudinal sectional view.

Fig. 4 is a cross sectional view on line 4—4 of Fig. 1.

Fig. 5 is a detail view of the lock or latching means to prevent the parts of the crate from collapsing improperly.

Fig. 6 is a detail view of the lock for holding the crate against collapsing.

Fig. 7 is a detail perspective view of one of the ends of the crate or receptacle.

Referring more especially to the drawings, 1 designates the bottom of the crate or receptacle, which comprises the longitudinal side edge pieces 2 angular in cross section, the elongated center bar 3, and the transverse central and end bars 4 and 5, all of which bars are fastened together by the rivets 6. One end of each of the elongated side bars 2 (which are angular in cross section) has bent portions 7 and 8, which overlap each other, as shown, thereby constituting abutment means for the end piece 9, the pivot rod 10 of which is mounted in bearings of the bars 2. The end piece 9 is constructed from a piece of sheet metal as shown. The top section 12 of the crate or receptacle is constructed similar to the bottom section, therefore its parts are designated by similar reference characters. The abutment means 13 of the top section and the similar abutment means of the bottom section limit the end piece 9 in its open position. Connected to the side bars 2 of the bottom section are links 14 and 15. These links are connected by means of the pivots 16 to said bars 2. Connected to the elongated bars 2 of the top section by means of the rivets 17 are the links 18 and 19. The links 18 and 19 are in turn pivotally connected to the links 14 and 15 by means of the riveted pivots 20. Said links 14 and 15, and 18 and 19, where they are pivoted to the bars 2 of the top and bottom sections are provided with angular corners 22, acting as stops or shoulders to engage the bars 2 of the top and bottom sections, to prevent the links 14 and 15, and 18 and 19, from pivotally collapsing in the direction of the arrow *a*. However, said links 14 and 15, and 18 and 19 adjoining said stops or shoulders are provided with rounded corners adjoining the pivots 17, so that said links or bars may pivotally collapse in the direction of the arrow *b*. Also pivoted upon the pivots 20 (which connect the adjacent ends of the links or bars 14 and 15, and 18 and 19 of both sides of the crate) are elongated bars 23, so that the links or bars 14 and 15, and 18 and 19 may collapse in unison. One end of each bar 23 is provided with a downwardly extending arm 24, which terminates in a portion 25, (which is in parallelism with the bar 23) having a laterally extending lug, to overlie one edge of one of the links or bars 14, that is, when the crate or receptacle is extended or open, or erect, thereby preventing the crate or receptacle from collapsing in the direction of the arrow *b*. In other words the arm 24 and the por-

tion 25 forms a U-shaped end upon one end of each of the bars 23. When it is desired to collapse the crate or receptacle in the direction of the arrow *b*, the laterally extending lug 27 may be disengaged from one of the edges of one of the links or bars 14, by springing the portion 25 laterally from the crate. Mounted in bearings 28 of the bars 2 of the bottom of the crate at their ends opposite the pivot rod 10 is a second pivot rod 29, upon which the other end section 30 of the crate is pivoted. The end section 30 of the crate comprises two parts 31 and 32, and said parts consist respectively of the bars 33 and 34. A transverse bar 35 is riveted by means of the rivets 36 to the upper ends of the bars 34, and the central bar 34 is extended, as shown and is provided with a slot 37, to receive the lug 38 upon one end of the top section, which lug 38 has an eye, that may receive a padlock or the like, to hold the end section 30 closed. The lower ends of the bars 33 are pivoted at 39 to the pivot rod 29. The adjacent ends of the bars 33 and 34 are pivotally united by means of the pivot rod 41. Where the bars 33 and 34 are pivotally united, shoulders 44 are provided, thereby preventing the parts 31 and 32 of the end piece 30 from collapsing outwardly. It will be noted, however, that said shoulders 44 are so arranged that the parts 31 and 32 of the end piece 30 may collapse inwardly, that is, when the crate is empty. The manner in which the crate is constructed and shaped is such, it may be noted, that any face or side of the crate may be used as "the top", insofar as the patent is concerned, for it is practically immaterial as to which may be used as the top, but for illustrative and descriptive purposes the section 2 of the crate has been used as "the top". However, when filling the crate the same may be disposed so that its end piece 9 is adjacent the floor, so that, that which is placed in the crate, will hold the end piece 9 in position. This form of crate constitutes an efficient and practical parcel post hamper.

The invention having been set forth, what is claimed as new and useful is:

1. A collapsible crate comprising top and bottom sections having longitudinal side corner bars angular in cross section, side sections comprising link bars having their adjacent ends pivotally united, and their upper and lower ends pivotally connected to the side corner bars of the bottom and top sections, said link bars of the side sections having abutment stops to contact with the side corner bars of the top and bottom section, to prevent the link bars of the side sections from collapsing improperly, elongated bars pivotally connected to the adjacent ends of the link bars of the side sections, and end sections pivotally connected to the bottom section.

2. A collapsible crate comprising top and bottom sections having longitudinal side corner bars angular in cross section, side sections comprising link bars having their adjacent ends pivotally united, and their upper and lower ends pivotally connected to the side corner bars of the bottom and top sections, said link bars of the side sections having abutment stops to contact with the side corner bars of the top and bottom section, to prevent the link bars of the side sections from collapsing improperly, elongated bars pivotally connected to the adjacent ends of the link bars of the side sections, and end sections pivotally connected to the bottom section, the elongated bars which connect the adjacent ends of the link bars of the side sections, each having one of its ends provided with a U-shaped part terminating in a lug to engage one edge of one of the link bars of the side section, thereby preventing the crate from collapsing in a direction opposite to the improper direction.

3. A collapsible crate comprising top and bottom sections having longitudinal side corner bars angular in cross section, side sections comprising link bars having their adjacent ends pivotally united, and their upper and lower ends pivotally connected to the side corner bars of the bottom and top sections, said link bars of the side sections having abutment stops to contact with the side corner bars of the top and bottom section, to prevent the link bars of the side sections from collapsing improperly, elongated bars pivotally connected to the adjacent ends of the link bars of the side sections, and end sections pivotally connected to the bottom section, said top and bottom sections having abutment means for one of the hinged end sections, the other hinged end section consisting of two parts, said parts comprising pivotally united bars, and means on the adjacent ends of the pivotally united bars of the two parts of the end section, to prevent the two parts of the end section from collapsing outwardly.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

IRA LUCY.

Witnesses:
BYRDE O. WALES,
W. A. BUCKLIN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."