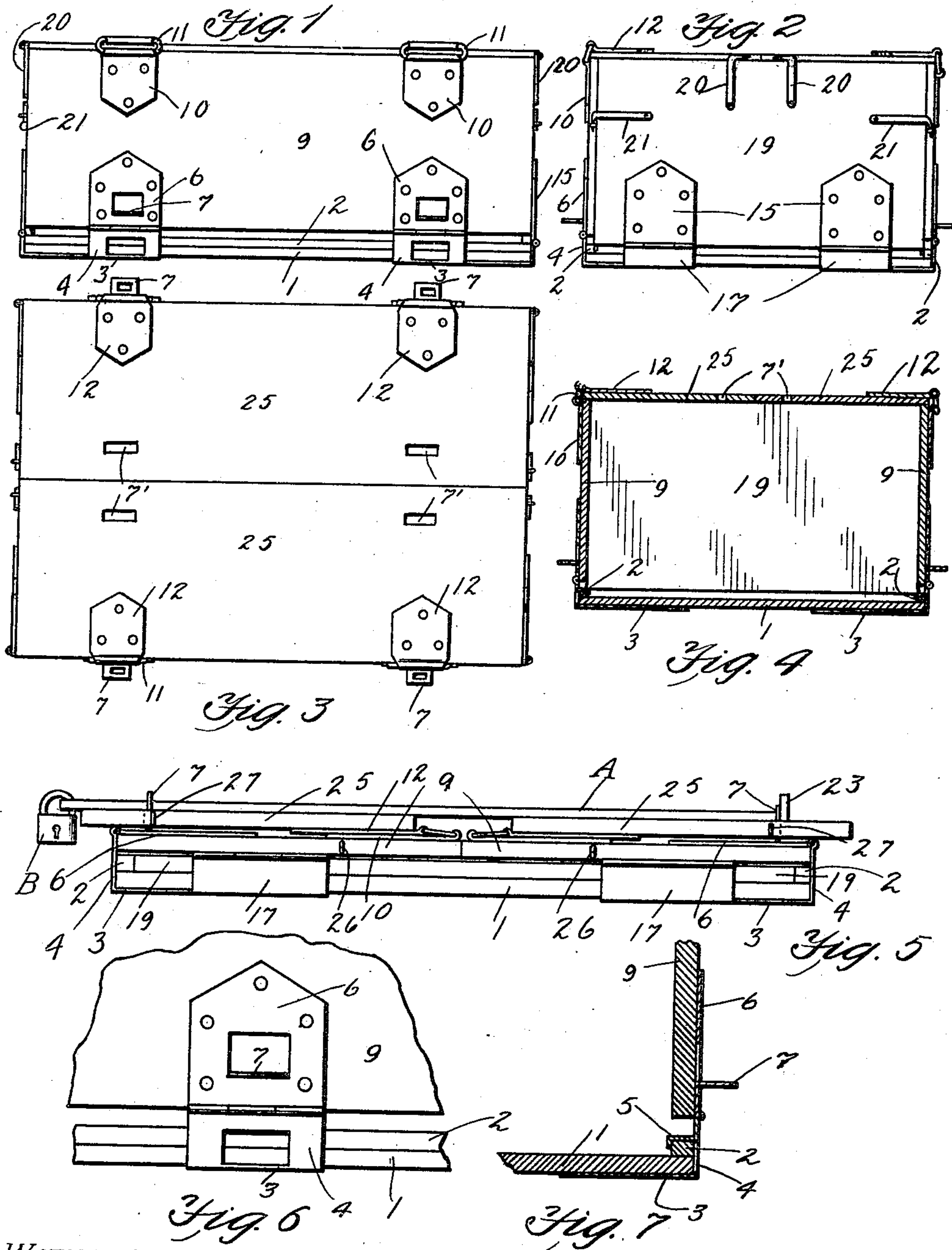


E. A. MAKER.
FOLDING CRATE.
APPLICATION FILED AUG. 17, 1910.

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Patented Apr. 25, 1911.

2 SHEETS—SHEET 1.



WITNESSES:
N. Abramson
A. M. Carthy.

INVENTOR
BY Elmer A. Maker
Geo. W. Lues Attorney

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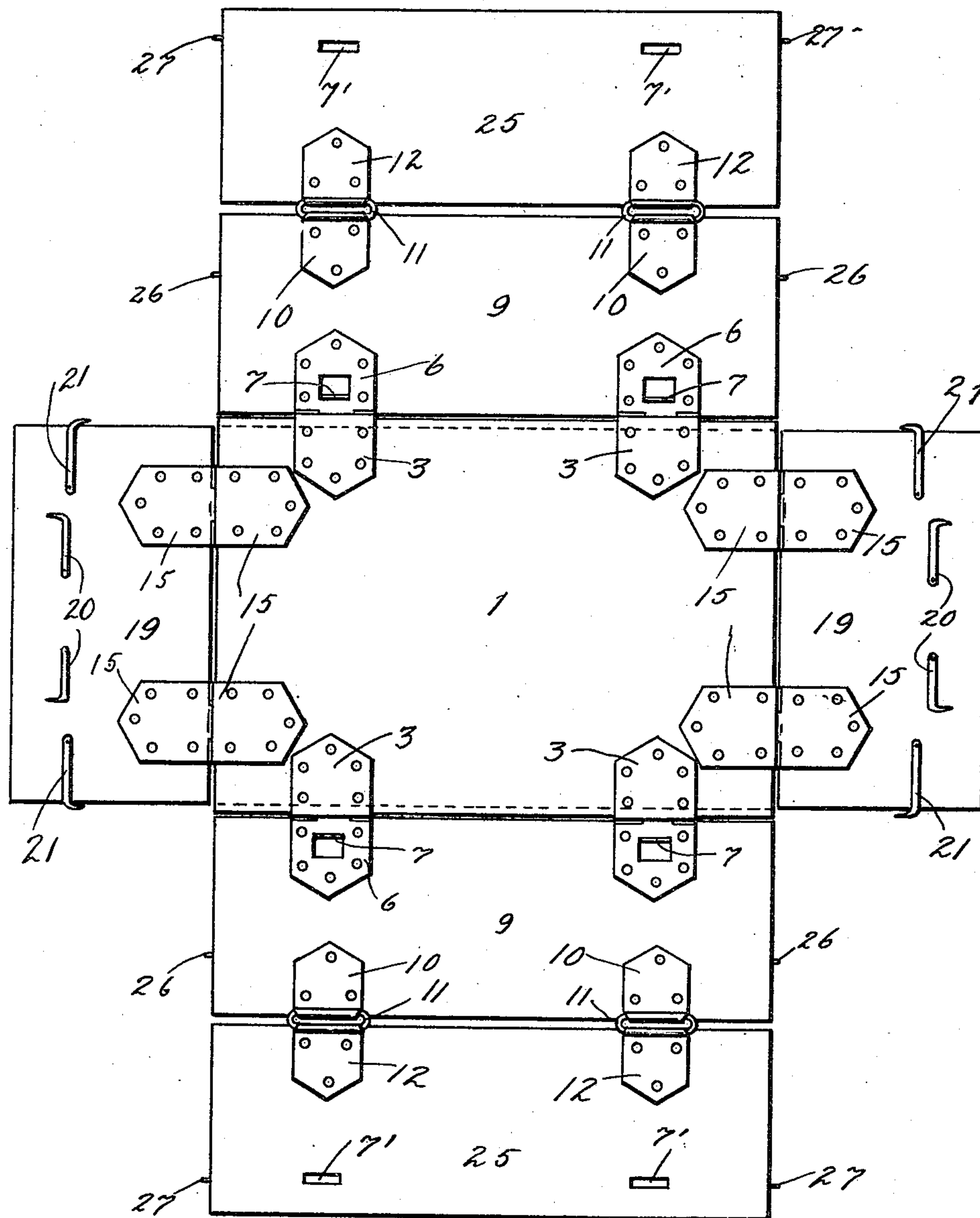


Fig. 8

WITNESSES:

N. Abramson
A. M. Carthy.

INVENTOR

Elmer A. Maker

BY

Geo. W. Sues

Attorney

UNITED STATES PATENT OFFICE.

ELMER A. MAKER, OF NORTH SWANSEA, MASSACHUSETTS.

FOLDING CRATE.

990,367.

Specification of Letters Patent.

Patented Apr. 25, 1911.

Application filed August 17, 1910. Serial No. 577,646.

To all whom it may concern:

Be it known that I, ELMER A. MAKER, a citizen of the United States, and a resident of North Swansea, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Folding Crates, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to improvements in folding crates.

The primary object of my invention is to provide an inexpensive, positively operating crate constructed so that when empty the same may be folded into a flat, compact mass.

Another object is to provide a folding crate so arranged that in its empty condition the same may be held in a flat folded locked condition by one or more suitably secured lock bars.

With these and other objects in view the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and finally pointed out in the appended claim, it being further understood that changes in the specific structure shown and described may be made within the scope of the claim without departing from the spirit of the invention.

30 In the accompanying drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views:—Figure 1, shows a side elevational view of a crate constructed according to my invention. Fig. 2, shows an end view thereof. Fig. 3, shows a top view of the crate in its unfolded condition. Fig. 4, shows a transverse sectional view. Fig. 5, shows an edge view of the crate in its folded locked condition. Fig. 6, shows a fragmentary, elevational view disclosing one of the hinges as used in my invention. Fig. 7, shows a sectional view of one of the hinges. Fig. 8, shows a bottom view of the crate in its unfolded condition.

Certain commodities as berries, tomatoes and other fruits and vegetables, are shipped in small baskets which are packed in what is called a shipping crate while being transported. These crates are usually bulky and as ordinarily constructed take up considerable space when they are returned empty. In my present invention I aim to provide a crate which can be compactly folded so that in its return to the original shipper the crate

can be sent in a neatly folded compact manner.

In carrying out the object of my invention I use a base member, 1, of suitable size, which is provided upon the inside with two oppositely positioned edge battens, 2, as shown in Figs. 4, 6, and 7.

Secured to the base, 1, are the base end hinges, each comprising a flat leaf, 15, shown in Fig. 2, and an angled leaf, 16, the angled portion, 17, of the hinge extending upward a distance equal to the thickness of the battens, 2, as is shown in Fig. 2, so that the end crate sections, 19, can be snugly folded upon the bottom, 1, and be held flush between the battens as is disclosed in Fig. 3. Each end section, 19, carries a number of top hooks, 20, and a number of side hooks, 21, these being shown in Fig. 8.

Secured to each side of the bottom or base member, 1, are the right angled hinges, 3, each having an angular portion, 4, as clearly disclosed in Figs. 6 and 7, the portion, 4, pivotally carrying the flat leaf, 6. As shown, each angled portion, 4, is provided with an inwardly directed flange lip, 5, the flange and lip being arranged to snugly fit over the battens, 2, to securely hold the hinge. Each leaf section, 6, is provided with an integral, laterally outstanding, apertured ear, 7, through the aperture of which is carried a suitable securing bar, A, having the stop flange, 23, at one end, arranged to be held against one of the ears, 7, while the opposite end of the bar is provided with an opening to receive an ordinary padlock, B.

Secured to the hinge leaf, 6, are the side sections, 9, of the crate as shown in Fig. 8, each side section, 9, carrying a top section, 25, these members 9 and 25, being loosely connected by means of two or more link hinges, as shown. Each link hinge comprises two similar members, 10 and 12, which pivotally carry an intervening link, 11, so that the top members, 25, can be folded inward upon the end members, 19, or outward against the outer surface of the side members, 9, when the crate is in a folded condition. Each top member, 25, is provided with an opening, 7', through which the apertured ears, 7, extend when the crate is in its folded condition. The members, 9, have the eyes, 26, to receive the hooks, 21, while the top member, 25, has the eyes, 27, to receive the hooks, 20.

In its open condition the end members, 19,

are secured to the side members, 9, by means of the hooks, 21, while the top members, 25, are secured by means of the hooks, 20. In its folded condition the crate is suitably secured to prevent any casual opening of the same. Within each crate one or more lock bars, A, are carried, so that as soon as the berry or fruit baskets have been removed, the end members, 19, can be folded inward upon the bottom, 1, and the side members, 9, upon the end members, 19, the top members, 25, each in turn resting upon its connecting member. In this condition the locking bars, A, are carried through the outstanding apertured ears, 7, each bar being provided with a pad-lock, B, preventing the withdrawal or accidental displacement of the bars, A, while the crate is being returned in an empty condition.

A crate constructed according to my invention can be easily folded and securely shipped in its empty condition in a neat, compact form.

Having thus described my said invention what I claim as new and desire to secure by United States Letters Patent is:—

A crate comprising a base member, in combination with two battens secured upon the inside along opposite edges, a hinge secured to each end of said base, an end section secured to each hinge folding upon said base between said battens, a hinge having a leaf and a right angled portion secured to the sides of said base the angled portions extending beyond said battens with inwardly directed lips flanged over said battens, said leaf portions having an outstanding apertured ear, a side section secured to each hinge leaf, a link hinge carried by each side section, a top section secured to each link hinge each top having an opening to receive at times said apertured ears, hooks to secure said end members to said top section, and a bar arranged to pass through said ears when said crate is folded, all arranged as and for the purpose set forth.

In testimony whereof I affix my signature, in presence of two witnesses.

ELMER A. MAKER.

Witnesses:

W. H. MAKER,

EMMA F. MAKER.

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