

No. 734,477.

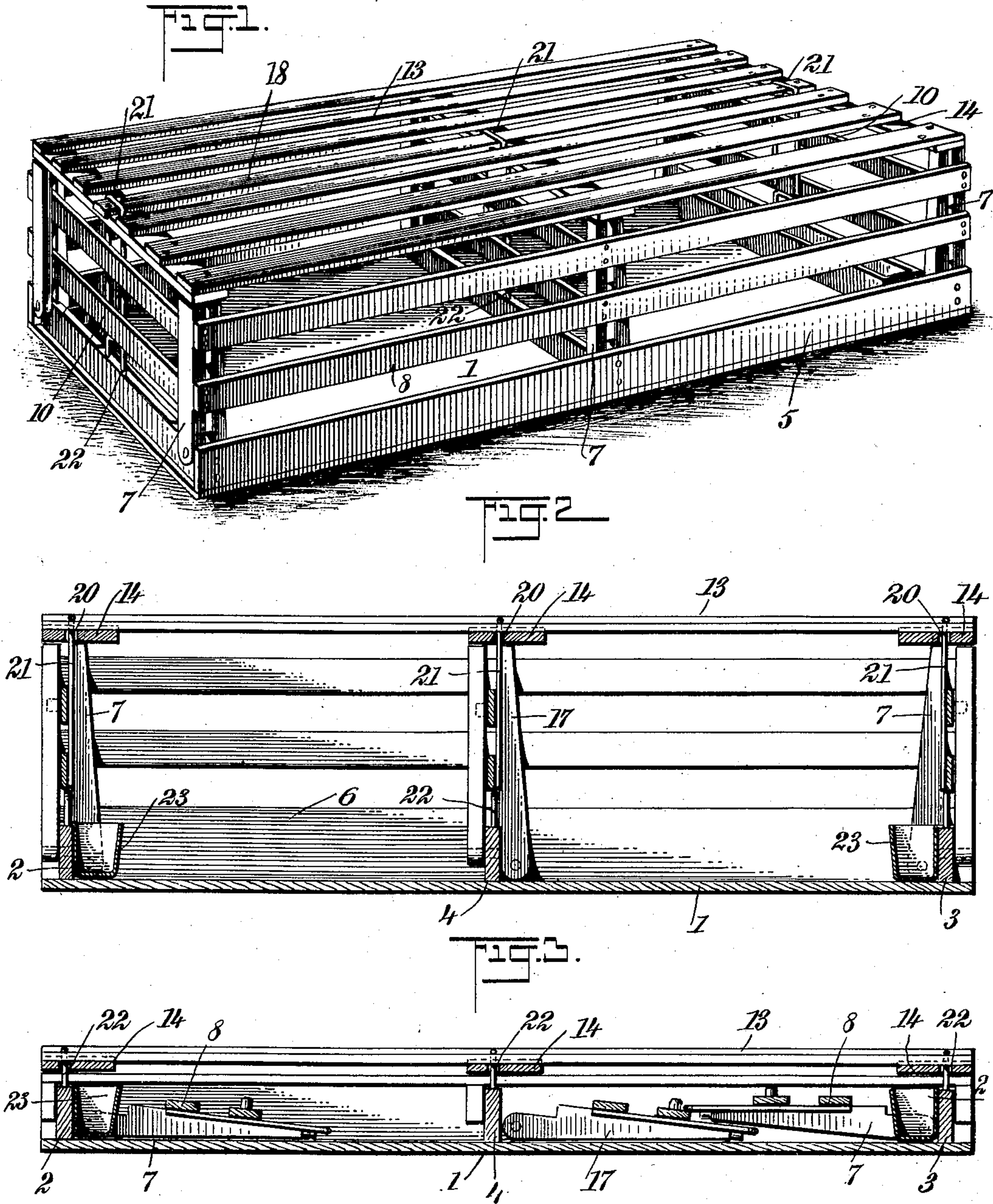
PATENTED JULY 21, 1903.

E. G. SOLOMON.
FOLDING CRATE.

APPLICATION FILED MAR. 14, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

Julius B. Smith
R. B. Caranagh

INVENTOR

Emmett C. Solomon

BY

Mum
ATTORNEYS.

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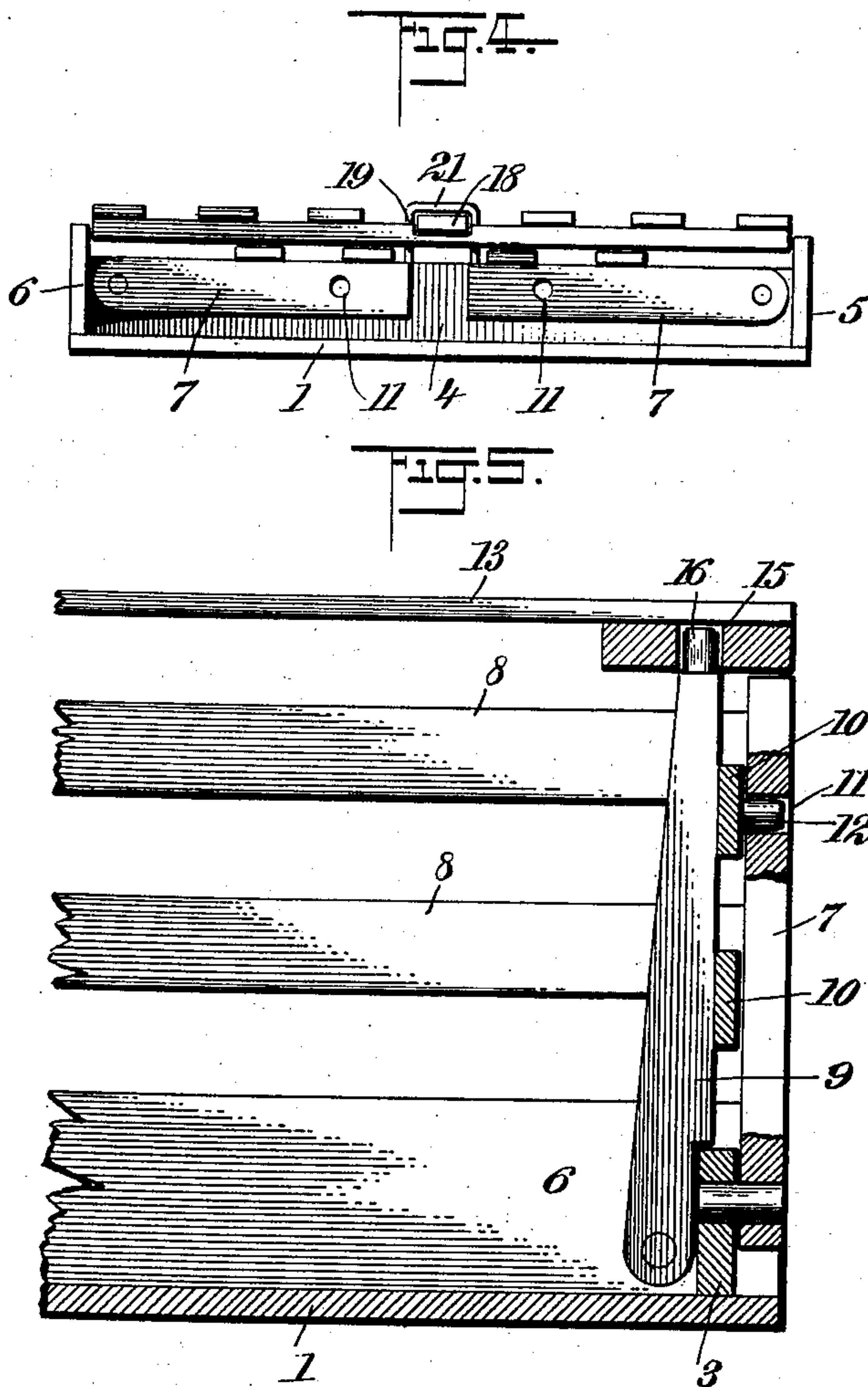
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UNITED STATES PATENT OFFICE.

EMMETT G. SOLOMON, OF OMAHA, NEBRASKA, ASSIGNOR OF ONE-HALF TO HENRY ELVIDGE, OF OMAHA, NEBRASKA, AND CHARLES F. WAY, OF LINCOLN, NEBRASKA.

FOLDING CRATE.

SPECIFICATION forming part of Letters Patent No. 734,477, dated July 21, 1903.

Application filed March 14, 1903. Serial No. 147,806. (No model.)

To all whom it may concern:

Be it known that I, EMMETT G. SOLOMON, a citizen of the United States, and a resident of Omaha, in the county of Douglas and State of Nebraska, have invented new and useful Improvements in Folding Crates, of which the following is a full, clear, and exact description.

The present invention relates to certain novel and useful improvements in shipping crates or boxes, and has particular application to articles of this type commonly known as "knockdown" or "folding" crates.

In carrying out the present invention I have particularly in view so constructing my improved crate that it may be folded into a very compact form for convenience in shipping when empty, while the sides and ends of said crate, which are hinged or joined to the base thereof in such manner that they may be folded inward upon said base, are provided with means for sustaining and supporting the removable top of the crate when the box is in its erected or extended position.

A further object of my invention is to provide the crate (when used for shipping poultry) with stationary water and food receptacles, which are so arranged that they shall in no way interfere with the folding of the crate.

Another object is to so construct the crate that it shall embody the essential features of simplicity, durability, and inexpensiveness.

With these and other objects of a similar nature in view my invention consists in the construction, combination, and arrangement of parts, as are described in this specification, delineated in the drawings, and set forth in the appended claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a crate embodying my improvements. Fig. 2 is a longitudinal vertical sectional view of the same. Fig. 3 is a longitudinal vertical sectional view taken through the crate when in its folded or knockdown position. Fig. 4 is a transverse vertical sectional view of the crate in its fold-

ed position. Fig. 5 is an enlarged sectional view of one of the corners of the crate, illustrating the manner of supporting the sides and ends in their upright positions.

Referring to the accompanying drawings in detail, 1 designates the base or bottom of the crate, which may be formed of a solid piece or may be composed of a number of separated slats. Extending transversely of the bottom at both ends thereof are the boards or strips 2 and 3, while a similar transversely-arranged strip 4 is preferably arranged centrally of said bottom. To the end strips 2 and 3 and the central strip 4 are connected the side strips 5 and 6, which extend along the longitudinal side edges of the bottom.

The longitudinal sides of the crate in the present instance are formed of a number of standards 7, which are hinged to the transversely-extending strips 2, 3, and 4 in such manner that they may be folded inward upon the base or bottom of the crate, and these hinged strips or standards are adapted to support a number of slats, as shown at 8, which slats, in conjunction with said standards, form the sides of the body. The end pieces of the crate are formed in a similar manner—that is to say, of a number of strips 9, pivoted to the side strips 5 and 6 in such manner that they may also fold inward upon the base, said pivoted standards carrying a number of horizontally-arranged slats 10. For the purpose of connecting the ends and sides when the parts are in their upright position the pivoted strips or standards forming a part of the longitudinal sides are orificed or apertured, as at 11, to receive and seat a pin 12, carried by the adjacent pivoted standard of the end piece. By this construction it will be seen that when the sides are extended laterally the pins on the pivoted end strips will enter these apertures in the standards of the sides and the side and end pieces will be securely locked against movement.

The top or cover of the crate, which is designated by the numeral 13, I have shown in the present instance as formed of a number of slats connected by transverse strips or bars 14, which bars are provided with a number

of apertures 15, adapted when the cover is in position to form seats for and receive the reduced end portions or studs 16 of the pivoted standards of the end pieces and also the central pivoted partition 17, which partition is constructed in a manner similar to the ends of the body of the crate. In constructing the top of the crate I preferably form the central longitudinal slat 18 removable, and the portions of the transverse strips upon which this slat is adapted to rest are grooved or cut away, as at 19, such cut-away portions having apertures 20 extending therethrough, which apertures permit the passage of the ends of the staples 21, secured to the slats forming the body of the end portions of the body of the crate.

From the above description it will be seen that when the sides and end portions of the crate are in their set-up or extended position the top may be placed thereon in such manner that the apertures in the transverse strips thereof seat the reduced or end extensions of the pivoted standards of the ends and central partition, the staples 21 protruding or extending through the central elongated apertures in the top in such way that the removable strip 18 may slip through the same, as is clearly shown in Figs. 1 and 4, thereby locking the top upon the body portion of the crate. When it is desired to fold the crate, the slat 18 is removed, and the ends, the central partition, and the longitudinal sides are folded inward upon the base of the crate. Arranged centrally of the rigid transverse strips 2, 3, and 4 of the base-frame of the crate are the short staples 22 of approximately the same width as the large staples carried by the pivoted ends. After the ends and sides have been folded as desired the top is placed upon the body portion, as is shown in Fig. 4—that is to say, in such manner that the short staples 22 will extend through the elongated apertures in the central portion of the transverse strips of the top—and the removable slat 18 is then passed through these staples in such manner as to securely lock the top, and consequently the entire article is in a folded or knockdown condition, as is seen in Figs. 3 and 4.

When my improved crate is used for shipping poultry, I provide the same with a number of receptacles 23, which are secured to the transverse end strips 2 and 3 in such manner that they will not interfere with the fold-

ing of the crate and yet form a convenient means for supplying food and water.

It will be evident from the above description that I have provided an extremely simple and convenient article and one in which the use of hooks, screws, nails, or the like is done away with. The parts can be so folded and locked in such manner that the liability of portions of the crate being separated and lost is obviated, while at the same time the freight charges for returning the empty crates are greatly reduced.

While I have herein shown and described one particular embodiment of my invention, it is of course to be understood that I do not limit myself to the precise details and construction shown herein, as there may be modifications and variations in certain respects without departing from the essential features of the invention or sacrificing any of the advantages thereof.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A knockdown crate comprising a base-board, side strips and end strips rigidly secured thereto, short staples secured centrally in said end strips, hinged side portions and end portions adapted to fold inward upon said base-board, said end portions being provided with pins adapted to seat in apertures in the side portions, whereby the sides and ends are locked, relatively long staples secured to the inner side of said end portions, a hinged partition arranged transversely of the crate, a removable top for said crate having apertures therein, the construction being such that when the crate is in its extended position the apertures permit the passage of the relatively long staples, but when the sides and ends are in their folded position the apertures permit the passage of the relatively short staples, said top having sockets therein for seating studs formed on the hinged end portions, and a removable strip for locking the top on the body portion, and a receptacle mounted on said bottom board, substantially as set forth.

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

EMMETT G. SOLOMON.

Witnesses:

IRA V. REASONER,
E. J. CLEMENTS.