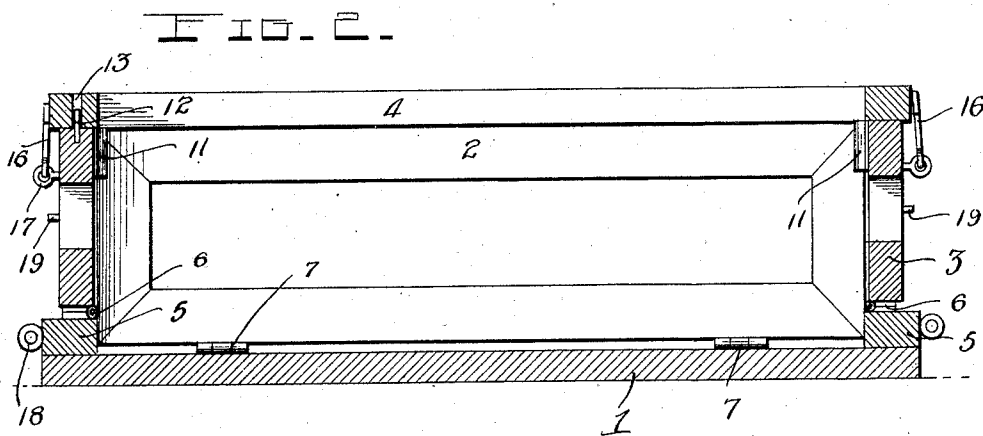
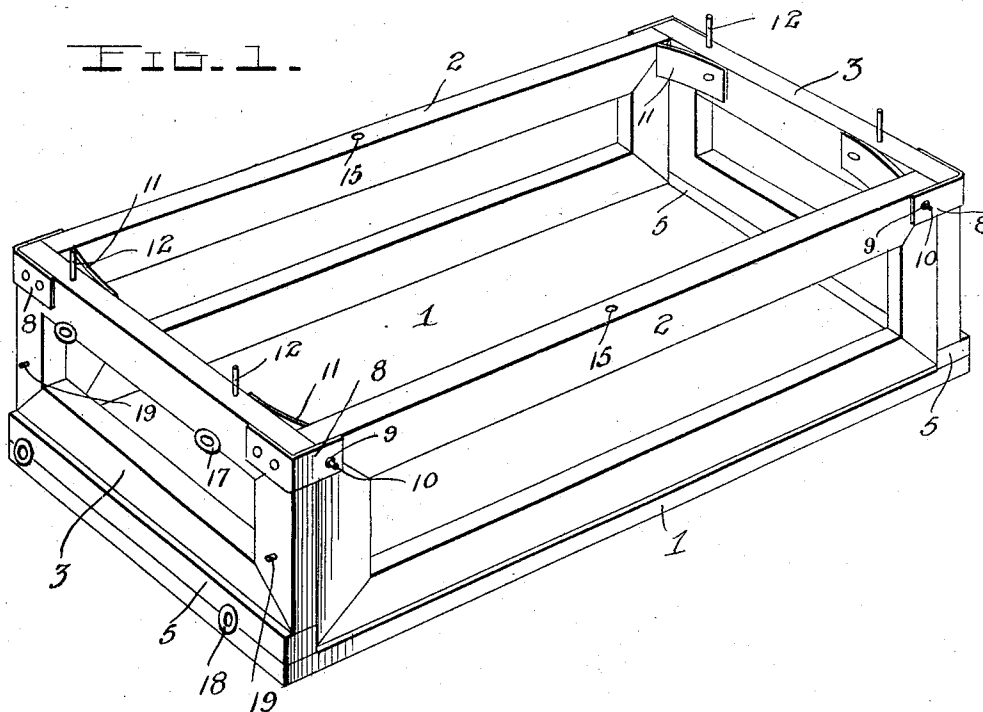


H. A. FORKNER & J. B. MILUM.  
 COLLAPSIBLE GRATE.  
 APPLICATION FILED JUNE 17, 1907.

908,988.

Patented Jan. 5, 1909.

2 SHEETS—SHEET 1.



Witnesses  
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2 SHEETS—SHEET 2.

FIG. 4

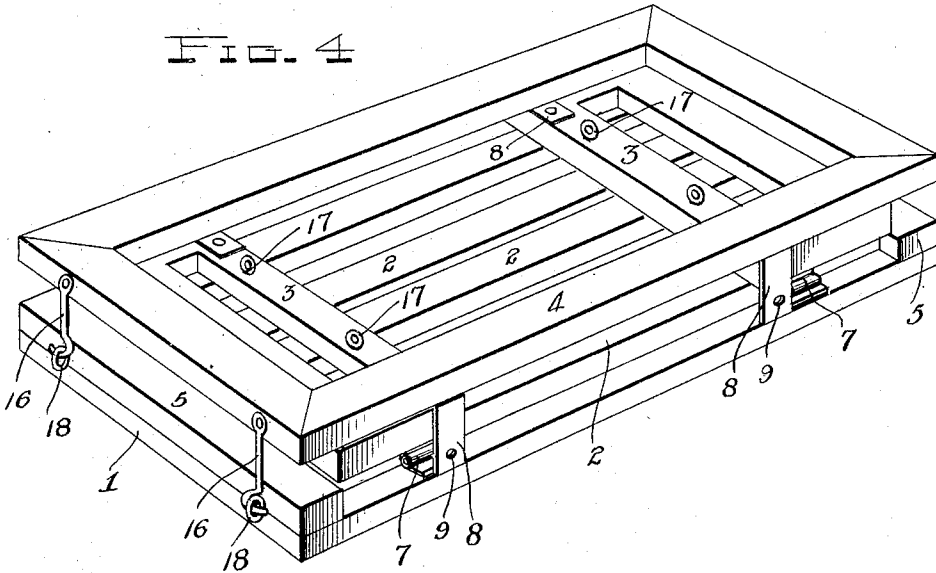
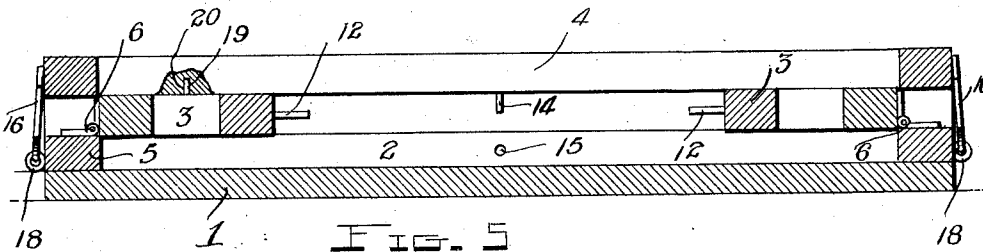
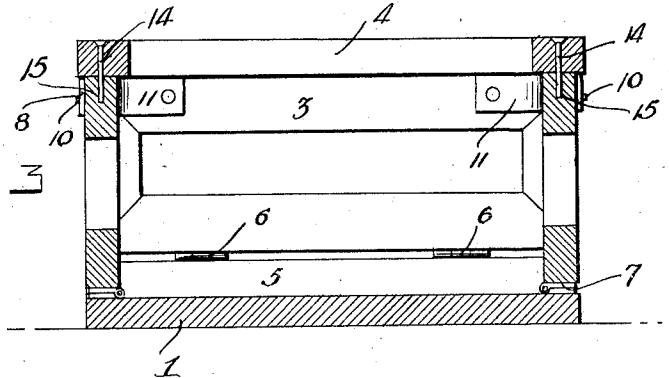


FIG. 3



Witnesses

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# UNITED STATES PATENT OFFICE.

HENRY A. FORKNER AND JAMES B. MILUM, OF JOPLIN, MISSOURI.

## COLLAPSIBLE CRATE.

No. 908,988.

Specification of Letters Patent.

Patented Jan. 5, 1909.

Application filed June 17, 1907. Serial No. 379,418.

*To all whom it may concern:*

Be it known that we, HENRY A. FORKNER and JAMES B. MILUM, citizens of the United States, residing at Joplin, in the county of Jasper and State of Missouri, have invented certain new and useful Improvements in Collapsible Crates; and we do 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 collapsible crates designed especially for use as a poultry shipping coop, and has for its objects to provide a comparatively simple and inexpensive device of this character which may be readily set up for use or folded into neat compact form for shipment or storage, and one wherein the parts of the crate, will when they are in folded or unfolded condition, be securely fixed against accidental movement.

With these and other objects in view, the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings,—Figure 1 is a perspective view of a crate embodying the invention, showing the same set up for use and with the cover removed; Fig. 2 is a section taken centrally and longitudinally through the crate with the cover in place; Fig. 3 is a vertical transverse section through the same; Fig. 4 is a perspective view of the crate showing the parts in folded condition; Fig. 5 is a central longitudinal section through the crate with the parts in the position as in Fig. 4.

Referring to the drawings it will be seen that the crate embodies a bottom 1, side walls 2, end walls 3, and a cover 4, there being attached to the upper face of the bottom, respectively at its ends, a pair of cross pieces or cleats 5 to which the lower edges of the walls 3 are pivotally connected by means of hinges 6, while the side walls 2 are in like manner connected by hinges 7 directly to the bottom 1. Under this arrangement the side walls may in collapsing the crate be folded downward flat upon the bottom, and the end walls be thereafter folded downward upon the side walls, which latter, it will be understood, are of a height equaling substantially one-half the width of the bottom.

Attached to the end walls 3 are substantially L-shaped clips 8, which overlap the ends of the walls 2 at their outer faces and

are perforated at 9 to receive short pins or studs 10 projecting outwardly from the walls 2, whereby the side and end walls are fixed against outward spreading movement, while the side walls are fixed against inward collapsing movement by means of spring-locking members or tongues 11 attached to the inner faces of the end walls 3 and adapted to engage at their outer ends with the inner faces of the side walls 2, as clearly illustrated in Fig. 1, it being understood that in order to fold the side walls of the box the locking tongues 11 are pressed inward flat against the faces of the end walls 3, thereby permitting ready movement of the side walls.

The cover 4 when in position on the box is held against longitudinal or transverse movement by means of vertically uprising pins 12 fixed in the upper edges of the walls 3 and adapted to enter perforations 13 formed in the ends of the cover, which is also provided at its sides with downwardly projecting pins 14 disposed to register with and enter perforations 15 formed in the upper edges of the side walls 2, it being evident that when the cover is in place and owing to the pins engaging in the perforations, the side and end walls will be secured against either inward or outward movement, thereby relieving the clips 8 and locking members 11 of material strain during transportation of the crates. The cover is locked in position on the crate by means of pivoted latches 16 adapted for engagement with eyes or keepers 17, provided on the end walls 3 near their upper edges, there being also provided on the cleats 5 similar eyes or keepers 18 with which the latch members may be engaged when the crate is in collapsed condition, as more fully hereinafter explained. Aside from the openings or perforations 13 the cover is also provided at its sides near its ends with vertical perforations 19 adapted to register with and receive outwardly projecting pins 20 fixed in the end walls 3 for holding the cover against longitudinal or transverse movement when the parts of the crate are arranged in folded condition for reshipment.

In practice when the crate is set up for use the pins 10 will project through the perforations 9 in the clips 8 and the spring locking members 11 engage the inner faces of the side walls to hold the several walls of the crate in proper position while the crate is being filled, after which, the cover 4 is

seated in place with the pins 12 projecting upward through the openings 13 and the pins 14 engaging the openings 15. The cover is finally secured in place by engaging 5 the latch hooks with their companion eyes or keepers 17. In order to collapse or fold the crate as illustrated in Fig. 4, the springs 11 are compressed, as before explained, and the side walls 2 first folded inward flat upon 10 the bottom 1, after which, the end walls are folded downward upon the sides and the cover finally seated in place with the pins 19 engaging the perforations 20 to prevent relatively sliding movement of the cover, 15 which is fixed in place by engaging the latch hooks 16 with the eyes 18.

While we have herein shown and described the crate as especially adapted for use as a poultry shipping coop, it will be 20 understood that by making the side and end walls and cover solid it may be used as a crate for shipping all classes of merchandise.

Having described our invention, what we claim as new and desire to secure by Letters- 25 Patent, is:—

A collapsible crate comprising a bottom, transverse end cleats attached to the upper face thereof, a pair of side walls hinged to the bottom and adapted to fold inwardly 30 and downwardly between the cleats, a pair

of end walls hinged respectively to said cleats to fold inwardly and downwardly upon the side walls, pins projecting outwardly from the end walls, a removable cover for said crate, pins carried by the end 35 walls adapted to seat in perforations provided in the cover to secure the same against longitudinal or transverse movement, said cover also provided with holes to receive the outwardly projecting pins on the end walls 40 when the device is collapsed, keepers arranged at the upper outer corners of the end walls to hold the side walls against outward lateral displacement, flat springs arranged at the inner corners of the end walls to hold 45 the side walls against inward displacement, pins arranged at the upper outer corners of the side walls to project through the keepers to hold the end walls against outward movement, eyes on the cleats and end walls, and 50 hooks carried by the cover to engage the same.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

HENRY A. FORKNER.  
JAMES B. MILUM.

Witnesses:

O. L. STEELE,  
Mrs. S. H. MAJORS.