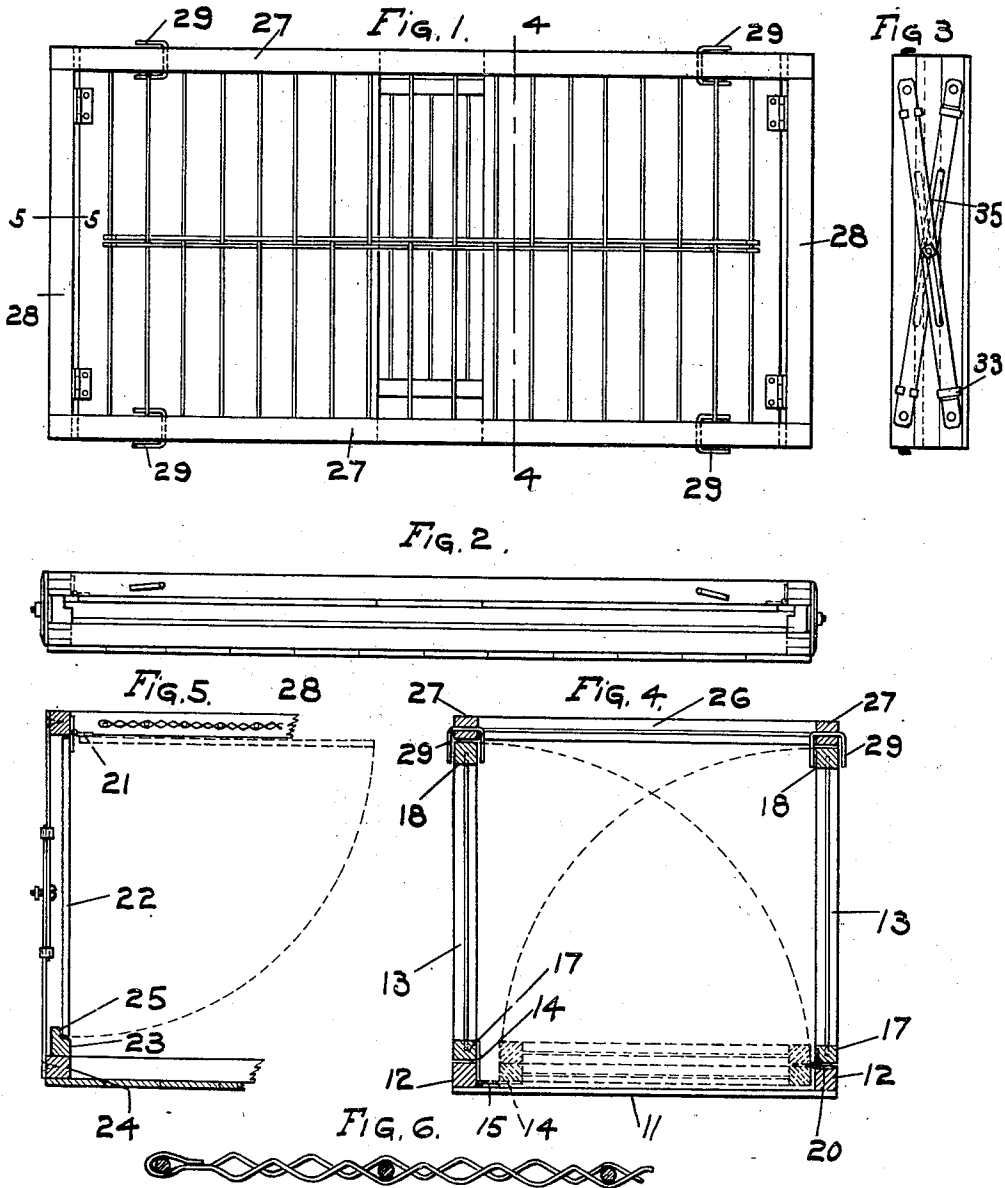


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 APPLICATION FILED APR. 30, 1912.

1,064,328.

Patented June 10, 1913.

2 SHEETS-SHEET 1.

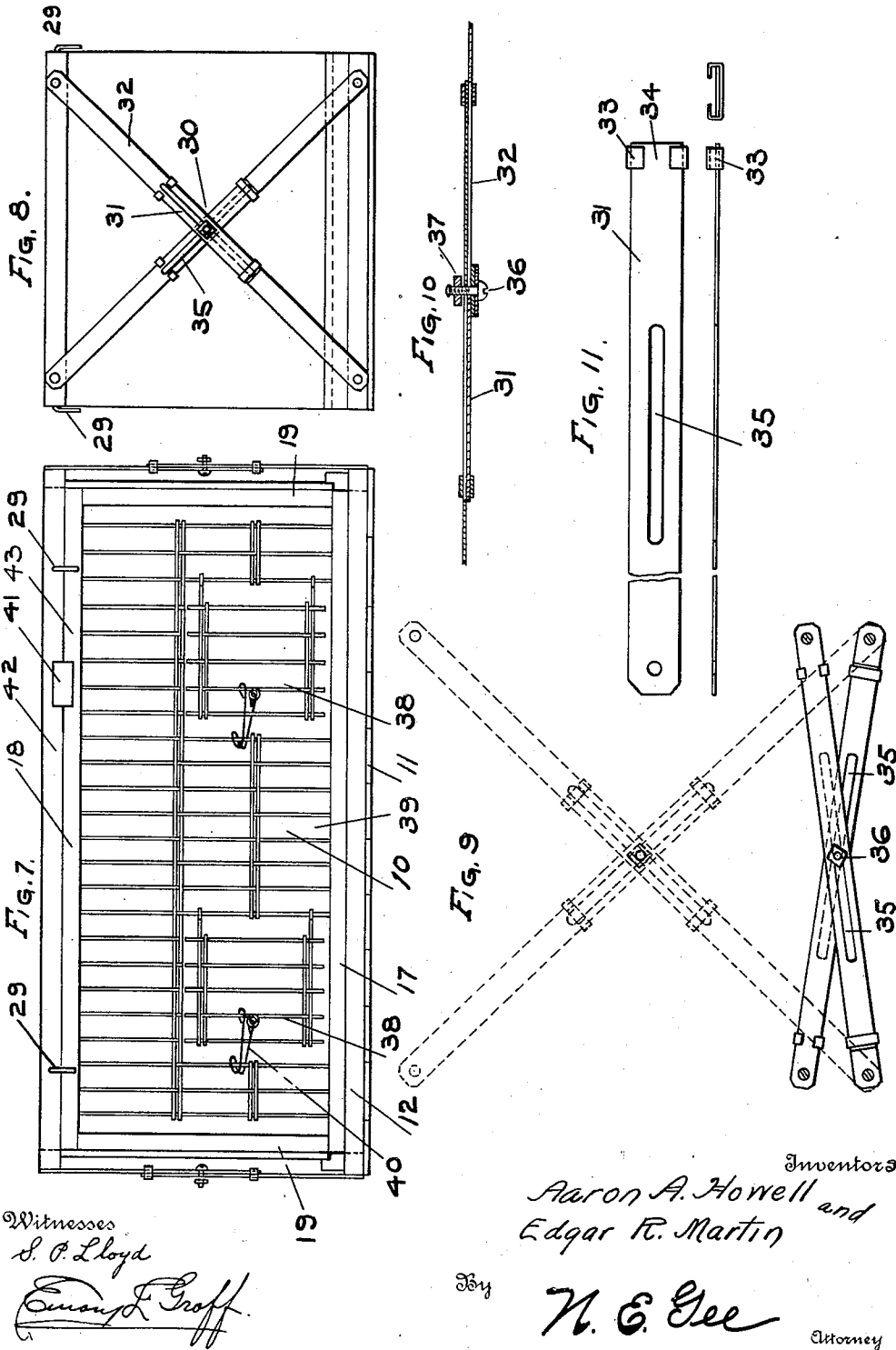


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# UNITED STATES PATENT OFFICE.

AARON A. HOWELL, OF PETERSBURG, AND EDGAR R. MARTIN, OF ALTOONA,  
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## COLLAPSIBLE CRATE.

1,064,328.

Specification of Letters Patent.

Patented June 10, 1913.

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*To all whom it may concern:*

Be it known that we, AARON A. HOWELL and EDGAR R. MARTIN, citizens of the United States, residing at Petersburg (AARON A. HOWELL) and Altoona (EDGAR R. MARTIN), in the counties of Huntingdon and Blair, respectively, and State of Pennsylvania, have invented certain new and useful Improvements in Collapsible Crates, of which the following is a specification.

This invention relates to collapsible crates, of the type primarily designed for shipping purposes, wherein poultry, or merchandise in general, can readily be transported and the folded crate returned to the shippers.

To this end the invention contemplates a crate of the collapsible type that is simple in construction, strong when extended ready for shipment, and at the same time adapted to be folded so as to occupy the minimum amount of space when being returned to the shipper.

One of the primary objects of this invention is to construct the crate, such, that the same can be sealed before shipment, thus providing in a very practical way a simple and effective means of enabling the buyer to readily ascertain whether the merchandise received, is the same as placed in the crate by the shipper.

With these and many other objects in view, which will be more readily apparent as the nature of the invention is better understood, the same consists of the novel construction, combination and arrangement of parts, as will be hereinafter fully pointed out, illustrated and claimed.

The essential features of the invention involved in carrying out the objects above mentioned are quite susceptible to a wide range of structural modification, without departing from the spirit or scope of the invention, but a preferred and practical embodiment of the invention is shown in the accompanying drawings, in which:—

Figure 1, is a plan view of the folded crate. Fig. 2, is a side view of the folded crate shown in Fig. 1. Fig. 3, is an edge view of the parts shown in Fig. 1. Fig. 4, is a sectional view taken on the line 4—4 of Fig. 1. Fig. 5, is a sectional view taken on line 5—5 on Fig. 1. Fig. 6, is an enlarged view of the wire lattice work used in the construction of the crate. Fig. 7, shows

a side elevation of the extended, or set-up crate. Fig. 8, shows an end view of the parts shown in Fig. 7. Fig. 9, shows the folded position of the end cross bars; the extended position being shown in dotted lines. Fig. 10, shows a cross section through the cross bars, and particularly illustrates the cross-bar clamping bolt and nut. Fig. 11, shows a plan, edge and end view of the end cross-bars.

Similar reference numerals designate corresponding parts throughout the several figures of the drawings.

The invention primarily consists of a collapsible crate, designated in its entirety by the numeral 10, of which the numeral 11 designates the floor or bottom of the crate. The bottom or floor 11 is provided with two longitudinal cleats or strips 12 to which are hinged the sides 13 of the crate. The hinge 14 is preferably positioned such that one wing 15 is attached to the floor 11, while the other wing is securely attached to the cleat 17, which forms a part of the side 13. The sides 13 each preferably consist of a frame of which the cleat 17 is the base, and the strip or cleat 18 the top; the sides being designated by the numeral 19. By referring to Fig. 4, it will readily be seen that the manner of positioning the hinge 14, readily admits the left side to close first, while the hinge 20, which is positioned on top of the longitudinal cleat 12, readily permits the right side to close and lie on top of the left side already closed. Each of the end panels of the crate is preferably hinged at the top, through the medium of the hinge 21, which is positioned, such that the end 22 of the crate will swing inward and upward upon collapsing the crate.

For the purpose of providing a positive stop for the end panel 22, when the crate is in its extended or set-up position, the cleat 23 is introduced, which is positioned on the top of the transverse member 24, which forms a part of the floor frame. The cleat 23 is preferably notched, as shown at 25, the depth of the notch being slightly in excess of the thickness of the panel 22, such, that the side frames 13 can readily swing into position after the end panels have been dropped, as shown in Fig. 5 of the drawings.

The top of the crate, designated in its entirety by the numeral 26, consists of a frame having side strips 27, and end strips 28, as

illustrated in Fig. 1 of the drawings. The top members 27 are provided with a plurality of inverted U shaped clasps 29, which serve to hold the side frames 13 in an upright position, as shown in Fig. 4 of the drawings.

The top frame 26 is preferably attached to the bottom frame 12, through the medium of the collapsible bars, designated by the numeral 30. Each bar consists of two separate telescoping members 31 and 32; each member being provided with a clasp 33, secured to the end 34. The clasp engages the corresponding member, such, that one member readily telescopes the other, as clearly shown in Fig. 9 of the drawings.

In addition to the telescoping feature, each member is provided with a longitudinal slot 35, which is engaged by a clamping bolt 36. This clamping bolt 36, together with its nut 37, is so positioned that when the crate is extended as shown in Fig. 8, the nut firmly clamps the telescoping members, thus effectively adding to the stability of the crate when *en route* to the consignee.

The crate, as shown in Fig. 7, illustrates an apartment crate; that is, one to be used as an exhibition crate, having gates or doors 38 at either end of a partition panel through the center. The gates, or doors, 38 are provided with a wire fastening 40, which is adapted to be sealed with some approved type of lead seal, similar to that used in sealing freight car doors. Where the doors 38 are not provided, as shown in Fig. 7, the sealing is accomplished by attaching a label 41 on the alined faces 42 and 43; it being necessary to break this seal to open the crate. This feature very practically protects both the consignee and the shipper from any interchange of merchandise while *en route*.

Without further description and elaboration, it is believed that the many advantages of the herein described collapsible crate will be readily apparent, and

What we claim and desire to be secured by Letters Patent is:—

1. A collapsible crate comprising a floor member, side sections hinged thereto, a top member, end panels hinged to the said top member, means for holding the said members in assembled position, collapsible telescoping crossed bars connecting the ends of the top and floor members, said bars being provided with slots at their middle portions, and means adapted to slide in the slots in the bars when the crate is knocked down and adapted to be tightened when the crate is set up to strengthen the assembled crate.

2. A collapsible crate comprising a floor member, inwardly swinging side sections hinged thereto, a top member, inwardly swinging end panels hinged to the said top member, clasps for holding the said members in an assembled position, collapsible telescoping crossed bars connecting the top and floor members at their ends, said bars being provided with registering slots at their middle portions, a clamping nut adapted to slide in the slots in the bars when the crate is knocked down and adapted to be tightened when the crate is set up to hold the bars in rigid crossed relation to strengthen the assembled crate.

In testimony whereof we have affixed our signatures in presence of two witnesses.

AARON A. HOWELL.  
EDGAR R. MARTIN.

Witnesses:

ADAM LEAKE,  
J. W. HAINES.