

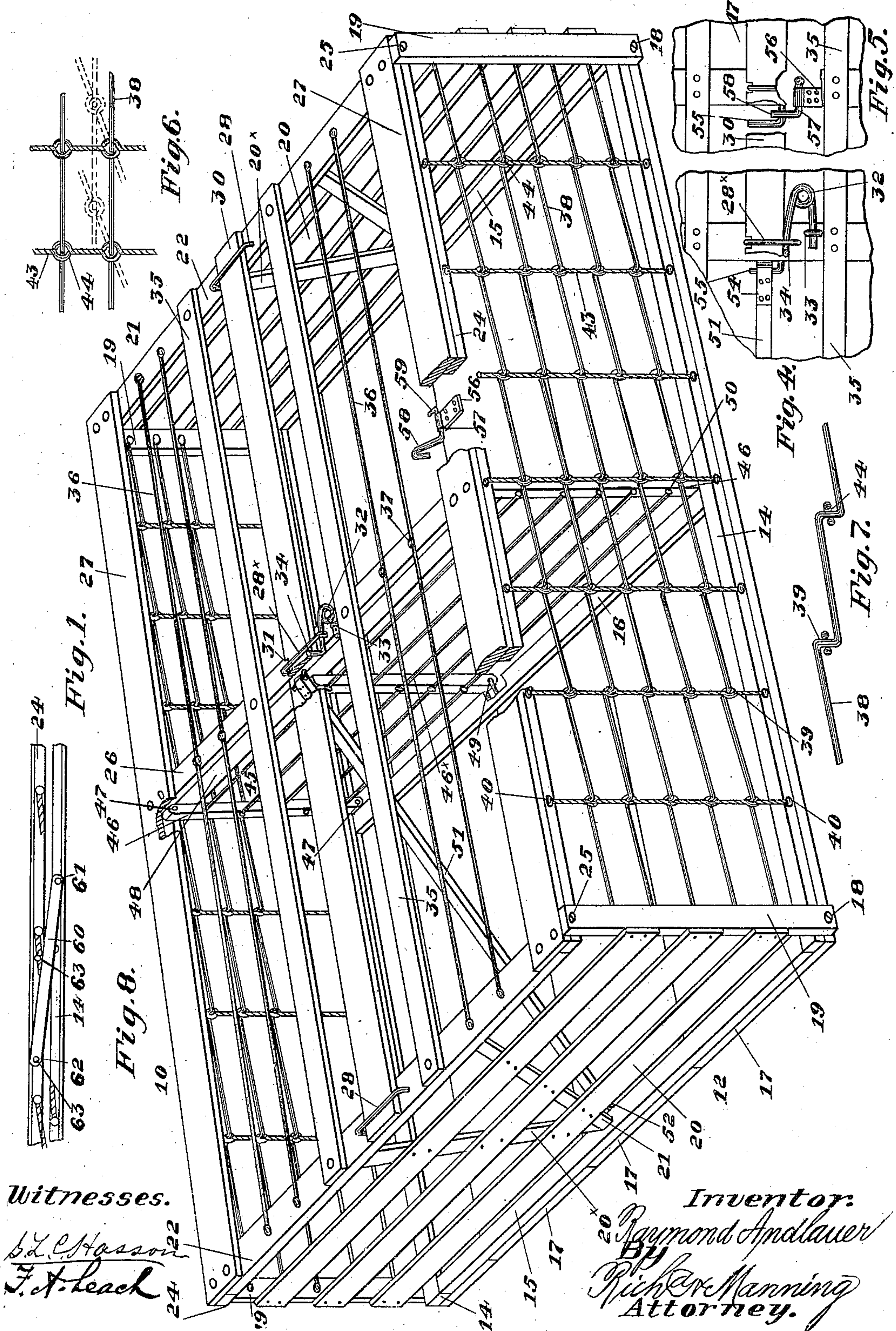
No. 877,032.

PATENTED JAN. 21, 1908.

R. ANDLAUER.  
POULTRY CRATE.

APPLICATION FILED FEB. 26, 1907.

2 SHEETS—SHEET 1.



Witnesses.

L. C. Hasson  
F. A. Leach

Inventor.

Raymond Andlauer  
By  
Richard Manning  
Attorney.



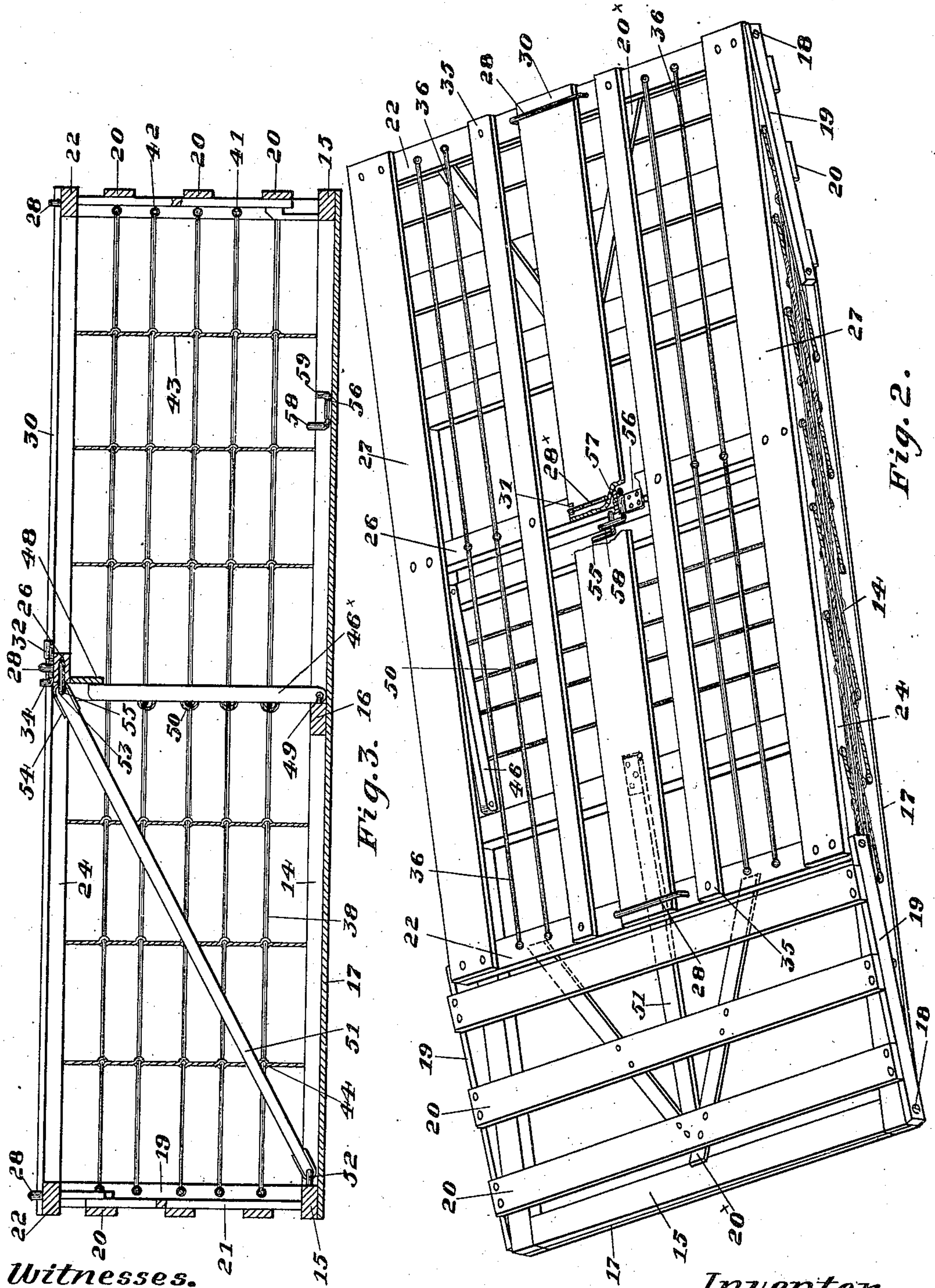
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Inventor.

*Raymond Andlauer*  
*By Rich & Manning*  
Attorney.



# UNITED STATES PATENT OFFICE.

RAYMOND ANDLAUER, OF KANSAS CITY, KANSAS, ASSIGNOR OF ONE-THIRD TO JOSEPH H. FINK, OF KANSAS CITY, MISSOURI, ONE-THIRD TO GEORGE A. PATTON, OF DENVER, COLORADO, AND ONE-THIRD TO JOHN H. SCHMIDT, OF KANSAS CITY, MISSOURI; ELIZABETH H. PATTON EXECUTRIX OF SAID JOSEPH H. FINK, DECEASED.

## POULTRY-CRATE.

No. 877,032.

Specification of Letters Patent.

Patented Jan. 21, 1908.

Application filed February 26, 1907. Serial No. 359,479.

*To all whom it may concern:*

Be it known that I, RAYMOND ANDLAUER, a citizen of the United States of America, residing at Kansas City, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Poultry-Crates; and I do hereby declare that the following is a full, clear, and exact description of the invention; such as will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

The invention has for its object primarily a crate for poultry, etc., the parts of which fold simultaneously together and compactly in their folded position. Second—to prevent dislodgment of the brace or stay when the crate is in an open position, and, third—to secure the folded parts of the crate in their folded positions.

The invention consists in the novel construction and combination of parts such as will be first fully described and then specifically pointed out in the claims.

In the drawings Figure 1 is a view in perspective of my improved folding crate shown in an open position. Fig. 2 is a view in perspective reduced in size of the crate in a folded position showing the catch. Fig. 3 is a longitudinal vertical sectional view taken upon one side of the removable slat in the top of the crate. Fig. 4 is a broken plan view in detail of the transverse bar intermediate the end portions of the top of the crate and portions of the longitudinal bars also showing portions of the removable sliding and stay bars and the fastenings for each bar. Fig. 5 is broken plan view in detail of the portions of the bars forming the top of the crate as seen in Fig. 4 when the crate is in a closed position showing the catch upon the bottom of the crate for securing the crate in its folded position. Fig. 6 is an enlarged front view in detail of a portion of the wire fabric forming the sides of the crate and, Fig. 7 is a detail plan view of one of the wires pivotally connected at its ends with the standards at the ends of the crate taken at right angles to the view in Fig. 6. Fig. 8 is a broken side view of the crate in its closed position as seen in Fig. 2, showing the alternate securing devices for the folding parts of the crate.

Similar numerals of reference indicate

corresponding parts in all the figures of the drawings.

Referring to the drawings 10 indicates the crate which as shown is rectangular in form. The bottom of the crate consists of a frame 12 the longitudinal sides 14 and ends 15 of which are composed of narrow strips of suitable material secured firmly together. At a point intermediate the strips 15 forming the ends of the frame is a transverse strip 16, secured at its ends to the inner surfaces of the longitudinal strips 14. With the lower surfaces of the frame 12 are secured the longitudinal covering boards 17 of the same length as the frame 12, which are preferably of thin material, the longitudinal outer edges of the outer boards extending to the plane of the outer surfaces of the strips 14.

With the outer surfaces and the respective ends of the strips 14 of frame 12 are pivotally connected by the pivots or screws 18 the lower ends of the standards 19, which are of the requisite height to afford the space desired within the crate and are composed of flat strips corresponding in width with each other.

With the outer surfaces of the standard 19 at the respective ends of the frame 12 are connected rigidly the ends of the bars 20 which extend transversely to the frame 12 and form part of the front and rear ends of the crate. These bars are arranged in a parallel position at short distances apart, the upper and lower bars 20 of the series of bars being located in position at short distances inwardly from the respective upper and lower ends of the standards. In order to give rigidity to these bars 20 oppositely inclined brace bars 20 are connected at their lower ends with the inner surfaces of said bars at points equidistant from the standards 19, and extend from the line of the lower surfaces of the lower bars to the lines of the upper surfaces of the upper bars at the respective ends of the crate.

The top of the crate consists of a frame 21 of the same dimensions as the frame 12 the transverse strips 22 at the end of the frame being slightly wider than the transverse strips 15 of frame 12. With the longitudinal outer surfaces and ends of the side bars 24 of frame 21 are pivotally connected by the pivots or screws 25 the upper ends of the standards 19. With the inner surfaces of the longitudinal



side bars 24 of the frame is connected rigidly the ends of a transverse flat bar 26. This bar is located in position a short distance past the points intermediate the bars 22 at the ends of frame 21 and toward one of the said bars 22 which extends forwardly beyond the end of the bottom of the crate when the top and bottom of the crate is in a folded position, the distance being slightly in excess of the width of said bar 26. Upon the upper surface of the frame 21 are longitudinal flat strips 27 of the same length as the said frame. The strips are of considerable width and secured by nails or screws to the ends 22 of the frame and also the transverse strips 26, the outer longitudinal surfaces of the strips 27 being in vertical lines with the outer surface of the longitudinal side bars 24 of frame 21. Secured firmly to the upper surfaces of the end bars 22 and the transverse bar 26 are staples 28 and 28<sup>x</sup> respectively which are of considerable length and extend in the direction of the length of said bars. Within these staples is removably secured a wide slat or bar 30, the length of the bar being the same length as frame 21 and the width of the slat such as to permit of a slight lateral movement within the staples. In one of the longitudinal surfaces of the bar 30 at a point above the bar 26 is a notch 31 which is adapted to permit of the entrance of the downwardly extended portions of the staple 28<sup>x</sup> on the transverse bar 26. In order to move the strip or bar laterally in position a coiled spring 32 is arranged in position upon the upper surface of the bar 26 between the side bars 27 of the frame 21. One end of the spring is secured to the bar 26 by means of the staple 33 which staple is inserted in the upper surface of the transverse bar 26. The other end of the spring 30 extends within the staple 28<sup>x</sup> and a portion 34 bent at right angles and extended in an upward direction and in contact with the longitudinal surface of the bar 30 adjacent thereto and so as to force the notched portion of the bar into locking engagement with the downwardly bent portion of the staple 28<sup>x</sup>. Extending parallel with and upon each side of the removable bar 30 and secured to the upper surfaces of the strips 22 at the ends of frame 21 and also to the transverse bar 26 are longitudinal bars 35 which are secured in position by nails or screws at points a short distance from the longitudinal surfaces of the bars 30. Between the bars 35 and the longitudinal bars 27 are parallel strands of wire 36 secured at their ends to the transverse strips or bars 22 at the ends of frame 21 and also by staples 37 to the upper surfaces of the bar 26.

The sides of the crate are formed of wire fabric constructed to admit of the folding of the parts of the crate together and in the following manner. With the inner surfaces of the standards 19 at the ends of the crate are

secured pivotally by nails or screws 41 see Fig. 3, the respective ends of the series of wires 38. These wires are spaced apart the proper distance and made of suitable diameter to afford rigidity. Portions of the wires at points a short distance apart and in the direction of their length are bent at right angles and extended outwardly a short distance to form a bearing 39 and then bent at right angles to the bearing and extended a proportionate distance to another bearing and again bent at right angles and extended outwardly to form a second bearing these bearings being formed as seen in Fig. 7 zig-zag in the direction of the length of the wires and in the series of wires the bearings are proportioned to the desired coarseness of the wire fabric.

With the outer surfaces of the longitudinal bars 24 of frame 21 are connected pivotally to the pivots 40 the upper ends of the series of twisted wires 43. The lower ends of these twisted wires extend downwardly to the line of the outer surfaces of the longitudinal bars 14 of frame 12 and are connected pivotally at 40 to said bars. In these twisted wires are formed loops 44 in series corresponding in numbers to the bearings 39 and which loops extend around said bearings 39 and permit of the folding of the wires of the fabric in the folding of the parts of the crate together.

As shown a transverse folding partition 45 separates the interior of the crate into two compartments and in the construction of which partition folding standards 46 are pivotally connected at their lower ends at 47 with the inner surfaces of the longitudinal bars 14 of frame 12 at the bottom of the crate in a position slightly forward of the transverse bar 16 toward the forward folding end of said crate and the upper ends of said standards extend to a position a short distance below the surfaces of bars 27 and are pivotally connected at 47<sup>x</sup> with the inner surfaces of the longitudinal bars 24 of frame 21 at a point slightly in rear of the rear surface of the transverse bar 26. The lower ends of these standards are curved or rounded. With the forward surfaces of the standards 46 and at a point a short distance downwardly from the line of the lower surface of the transverse bar 26 are connected the ends of a transverse bar 48. A separate standard 46<sup>x</sup> is pivotally connected at the lower end with the forward surface of the transverse bar 16 by the means of a staple 49, which staple is driven within the forward surface of the transverse bar 16 at a point intermediate the ends of said bar said staple extending through the lower end of the said standard 46<sup>x</sup>. The upper end of the standard extends to a position a short distance below the upper surface of the transverse bar 48 and is connected rigidly with the rear surface of the said bar. A series of transverse



wires 50 are connected at their ends with the rear surfaces of the standards 46 and also with the intermediate standard 46<sup>x</sup> and are spaced apart equal distances from each other between the respective ends of said standards.

For the purpose of supporting the standards and the folding parts of the crate in an open or upright position a stay bar 51 is employed which is pivotally connected at its rear end with a staple 52 secured to the inner surface of the end bar 21 of frame 12 at the rear end of the crate and its forward end extended upwardly to a position a slight distance beneath the lower surface of the removable bar 30 and in said forward end of the bar is a transverse perforation 53 (see Fig. 31), a strap 54 extending over said forward end of the bar and upon the respective upper and lower surfaces of said end a short distance.

55 is a hook, one end of which is secured to the rear surface of the transverse bar 26 at a point between the ends of the said bar upon one side of a vertical line extending through the standard 46<sup>x</sup>. To the outer bent portion of the hook is secured the perforate end 53 of the stay bar 51 said end when secured being directly beneath the removable bar 30.

With the inner surface of the board 17 forming the bottom of the crate at a point intermediate the transverse bar 26 and the transverse bar 15 at the forward end of the crate is secured a pintle plate 56, which is located upon one side of a vertical line extending past the longitudinal outer surface of the removable bar 30 and the bottom of the crate. In the pintle plate is a revoluble portion 57 of a catch which consists of a hook 58 secured to said revoluble portion and extending transversely to the bottom of the crate and adapted to engage with the upper surface of the removable bar 30 when the crate is in a folded position. The end 59 of the revoluble portion of the catch within the pintle plate 56 extends past the pintle plate and is bent at an angle in a parallel direction with the hook and which portion 59 prevents accidental removal of the hook or catch.

Instead of the locking catch or hook 58 a straight stay bar 60 as seen in Fig. 8 is used. The stay bar 60 is pivoted at 51 to the outer surface of the longitudinal side bar 14 of the frame 12 of the bottom of the crate, the outer free end of the bar being perforated at 62 and secured removably to pins 63 in the outer surface of the longitudinal bar 24 of frame 21 at the top of the crate. These pins are arranged the proper distance apart so as to secure the folding parts of the crate in an open or closed position and thus effect the securing of the folded parts of the crate as is accomplished by the stay bar 51. The use of the stay bar 51 is however preferred as it cannot be accidentally removed when se-

cured in position. The security of the stay bar being essential in folding crates for poultry.

In order to fold the parts of the crate together from the open position as seen in Fig. 1 to the closed position as seen in Fig. 2 the bar 30 is first moved laterally within the staples 28 in the direction of the spring 32, and forcing the end 34 also laterally and at the same time withdrawing the notched portion of the bar 30 from the staple 28<sup>x</sup> on bar 26 in which position the bar is readily moved in a longitudinal direction and withdrawn from the staples 28 upon the ends of the crate thus exposing the upper end of the stay bar 51 and releasing the pressure of the bar upon said end. The said upper end of the stay bar is then disengaged from the hook 55 and pressure imparted upon the top frame 21 sufficient to move the frame in a forward direction, the forward end of the crate extending beyond the lines of the forward end of the bottom of the crate and the rear end and the top frame of the crate folding upon the upper surface of the frame 14 forming part of the bottom of said crate, the loops of the pivoted wires 43 turning on the shoulder 39 of wires 38 of the wire fabric. In this folded or collapsed position of the crate the hook or catch 58 is caused to engage with the upper surface of the hook 55 on the transverse bar 26 as seen in Fig. 5, the stay bar 51 lying upon the bottom board 17 of the crate. In opening the crate the bar 30 is again removed, the catch or hook 58 released, the top frame 21 pushed rearwardly in position raising the standards 19 into vertical position. The stay bar is connected with the hook 58 and the removable bar 30 replaced in the staples 28 and locked in position. The removal of bar 30 leaves an opening through which the poultry enter the crate. In the compact position of the folding parts of the crate transportation is made less expensive and a large number can be made to occupy the space occupied by the crate in an open position.

I am aware that vertical zigzag bars have been used in order to effect folding of horizontal transverse bars pivoted thereto in a partition to a folding crate. In my invention the zigzag bars or wires extend longitudinally on the sides of the crate and are pivoted to the folding standards and fold therewith.

The advantages of the crate are such that the folding may be accomplished with an additional increase in the height of the crate when desired. For ordinary uses in transporting poultry the crates are light in weight and may be made economically.

Having fully described my invention what I now claim as new and desire to secure by Letters Patent is:—

1. In a folding crate the combination with



the top and bottom frames and folding standards pivotally connected at their ends with the ends of said frames and longitudinally extended wires forming the sides to  
5 said crate pivotally connected at their ends with the standards at the respective ends of said crate and folding therewith, said wires having a series of laterally extended zigzag bearings or shoulders in the direction of their  
10 length and twisted wires pivotally connected at their ends with the respective top and bottom frames having loops extending around the respective bearings or shoulders upon the longitudinally extended wires.

15 2. In a folding crate comprising a folding top and bottom and standards pivotally connected at their ends with the ends of said top and bottom, said top having an opening a stay bar pivotally connected with one end of  
20 said crate locking devices upon the top of said crate for the other end of said bar and a sliding releasable covering bar to the opening in said top adapted to secure the upper end of the stay bar from movement.

25 3. In a folding crate the combination with the upper and lower frames at the top and bottom of said crate foldable together and standards pivotally connected at their ends with the respective ends of said crate a trans-

verse bar on the upper frame, a hook on said 30 bar, a stay bar pivotally connected with one end of the crate having a perforate end portion engaging with the hook on the said transverse bar.

4. A folding crate composed of separate 35 frames foldable together, standards pivotally connected at their ends with the ends of said frames one of said frames having a fixed transverse bar and a sliding notched bar and staples therefor, a spring upon said trans- 40 verse bar adapted to bear upon the longitudinal surface of said notched bar, a stay bar pivotally connected at one end with the end of said crate and having a perforate outer end and a hook on the transverse bar 45 on one of said frames beneath the sliding bar with which the perforate end of the stay bar engages and a catch on the other frame for the sliding bar when the crate is in a folded  
50 position.

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

RAYMOND ANDLAUER.

Witnesses:

WM. WALTER BRADY,  
GLEN SHERMAN.