G. D. ROSS.

POULTRY CRATE.

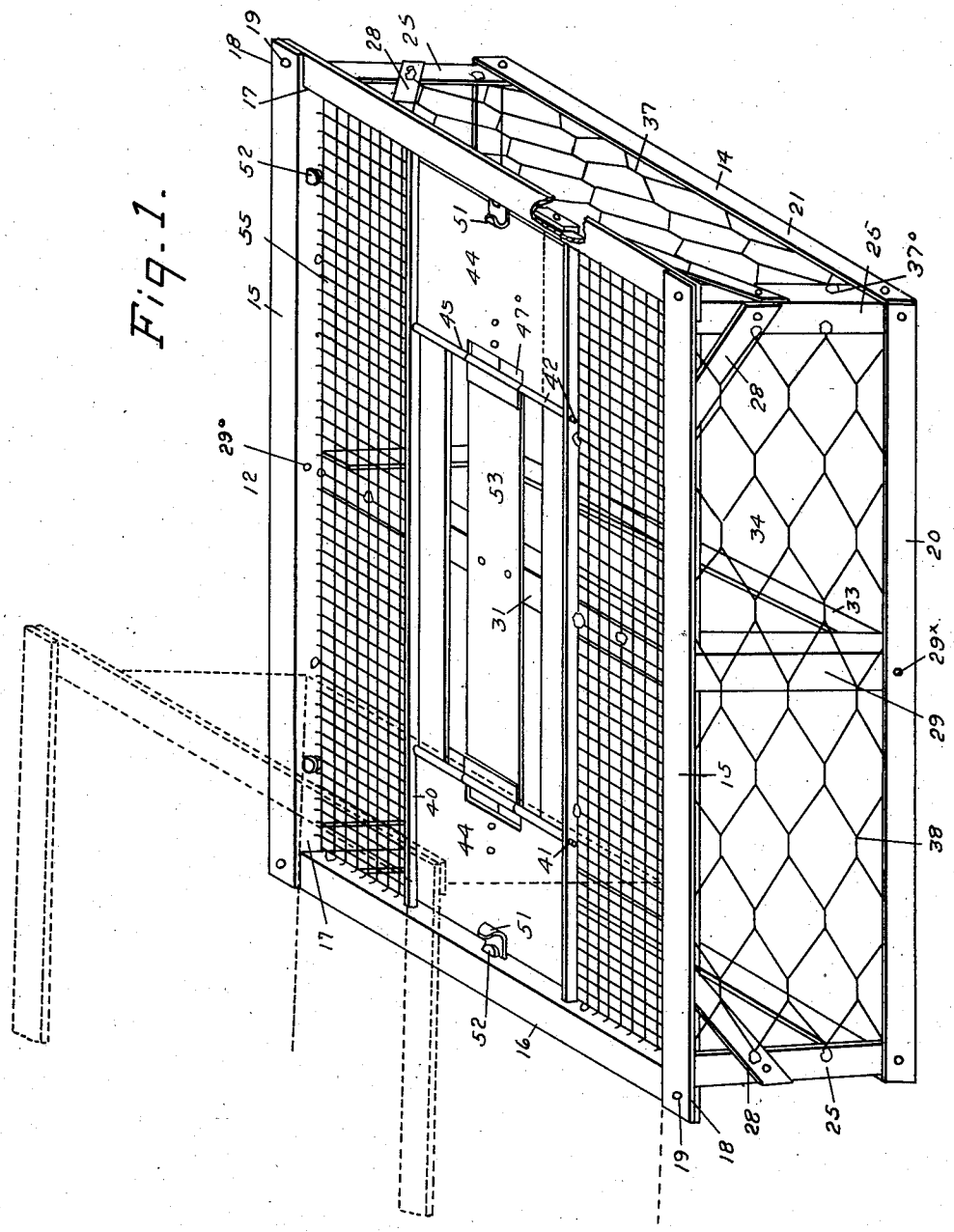
APPLICATION FILED APR. 11, 1911.

1,027,771.

Patented May 28, 1912.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

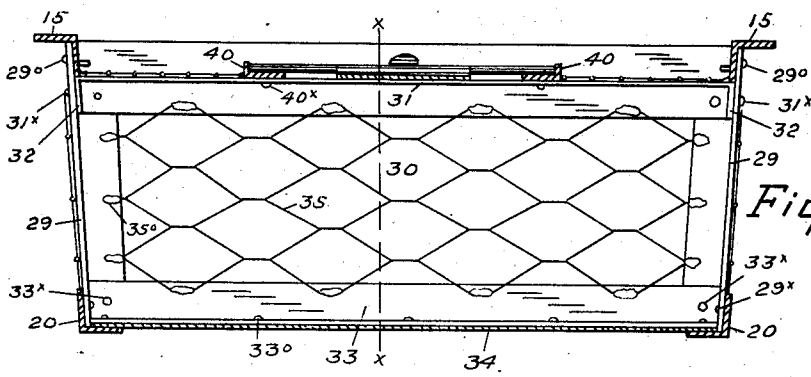

Fig. 2

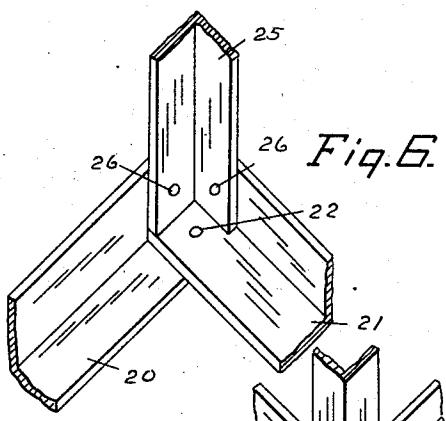

Fig. 6.

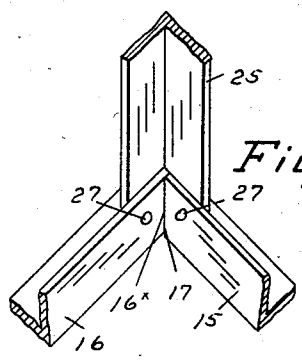

Fig. 4.

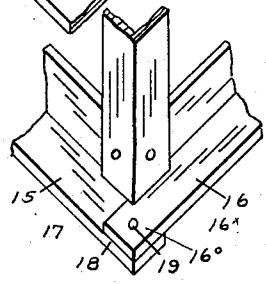

Fig. 5.

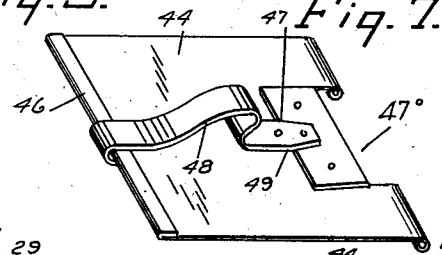

Fig. 7.

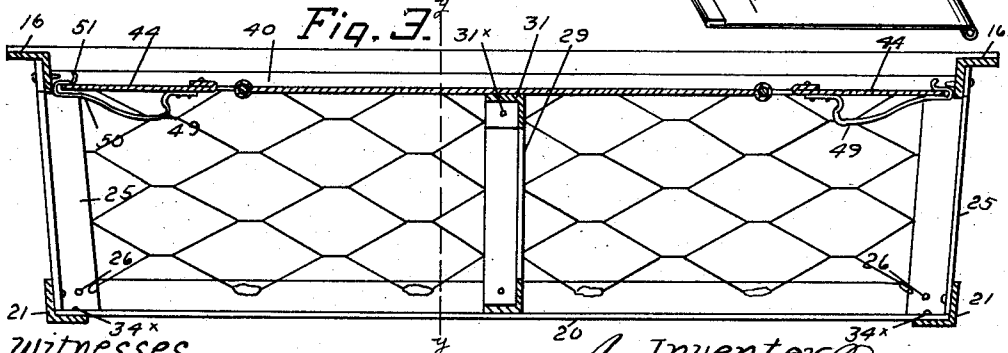

Fig. 3.

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UNITED STATES PATENT OFFICE.

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POULTRY-CRATE.

1,027,771. Specification of Letters Patent. Patented May 28, 1912.

Application filed April 11, 1911. Serial No. 620,503.

To all whom it may concern:

Be it known that I, GEORGE D. ROSS, a citizen of the United States of America, residing at Princeton, in the county of Franklin 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 relates to shipping crates for live poultry and game, in which the poultry or game may be rapidly transported to market.

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 an isometric view of a crate embodying the invention, showing in dotted lines a portion of a separate crate partially mounted thereon. Fig. 2. is a transverse, vertical, sectional view of the crate, taken through one of the compartments and looking toward the intermediate partition. Fig. 3. is a longitudinal, vertical, sectional view of the crate, taken on the line x, x, on Fig. 2. Figs. 4, 5 and 6. are isometric views of broken portions of the standards at the ends of the crate, showing the means of securing their ends with the top and bottom of the crate, respectively. Fig. 7. is a detail, isometric view of one side of the doors, inverted in position, showing the fastening.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

Referring to the drawings, the crate or receptacle consists of an upper, rectangular frame 12, and a lower, rectangular frame 14, the crate being of the usual length and width of crates commonly employed for marketing poultry, the lower frame 14, however, being considerable smaller in length and width than the upper frame 12. The frame 12 as shown consists of the longitudinal sides 15, and ends 16, these parts being composed of angle plates, the upper portion of the angle plate extending horizontally in an outward direction as respects the body of the crate, and the inner angle portion in a downward, vertical direction.

The vertical portions of the angle bars 15 and 16 are cut away at 16$^{\times}$ and 17, respectively, at each end, for a distance equal to the width of the end bars 16, thus leaving end portions 16° and 18, of the horizontal portions of the angle bars 15, which portions extend upon the upper surface and end portions 16°, of the angle bars 16, to which ends the said portions 18 are rigidly secured by means of rivets 19, the said vertical portions of the angle bars abutting upon the vertical lines 16$^{\times}$ and 17, upon which they are cut away, as seen in Figs. 4 and 5. The lower frame 14, of the crate, consists of longitudinal side angle bars 20, and the end angle bars 21. The bars 20 in length are slightly less than the distance from the inner surface of the opposite angle bar 16, to the inner surface of the opposite angle bar 16, of frame 12, and the end angle bars 21 are slightly less in length than the distance from the inner surface of the opposite angle bars 15, forming the sides to frame 12.

The respective lower portions of the angle bars 20 and 21 extend horizontally and inwardly, and the ends of the angle bars 21, forming the ends to the frame 14, extend within the end portions of the longitudinal side bars 20, and are secured thereto by the rivets 22, as seen in Fig. 6, the vertical portions of the angle bars 20 and 21 abutting together to form the corner of the lower frame. 25, indicate the standards at the front corners and ends of the crate, which are also formed from angle plates and are of the proper length. The lower end portions of these standards extend within the line of the inner surface of the sides 20 and ends 21, and overlap abutting, vertical portions at each corner of the lower frame 14, of the crate, and are secured to the vertical portions of the angle bars 20 and 21, respectively, by rivets 26. The upper ends of the standards which incline outwardly in respect to the frame 14, extend or overlap upon the outer surfaces of the downwardly-

extended, abutting portions of the sides 15, and ends 16, at the corners of the upper frame 12, and are secured rigidly thereto by the rivets 27. The standards 25 are braced at their upper ends by braces 28, extending from the outer surfaces of the standards to the outer surfaces of the downwardly-extended portions of the angle bars 15 and 16, of frame 12. At the sides and at equal distances from the ends of said crate are vertical standards 29, the lower end portions of which angle plates parallel with the upwardly extended portions of angle plates 20 are secured to the inner surfaces thereof by the rivets $29^{\times}$ and the upper ends of the corresponding portions of the angle plates are secured by the rivets 29° to the outer surfaces of the downwardly extended portions of the angle bars 15. Portions of the angle bars 29 adjacent to the said downwardly extended portions of angle bars 15 extend transversely to and beneath the lower surfaces of said portions of the angle bars. With the standards 29 is connected a partition 30, which separates the crate into two compartments. The partition is composed of the upper, transverse angle bar 31, the ends of the downwardly-extended portions of the angle bar being cut away so as to abut against the inner surfaces of standards 29, and the ends 32 of the upper, horizontal portions of the ends of the angle bar being bent downwardly and secured by rivets $31^{\times}$, to the said inner surface of angle bars 29, the upper, horizontal surface of said angle bar 31 being upon a line with the lower surfaces of the downwardly-extended portions of the angle bars 15, composing frame 12, for the purpose further explained.

The bottom 34, of the crate as constructed, consists of a single sheet of suitable material, such as plate steel, riveted to bars 21 by rivets $34^{\times}$, at each end of the bottom plate.

The lower angle plate 33, to the partition 30, rests upon the upper surface of the bottom 34, directly beneath the angle bar 31, the ends of the angle bar 33 being riveted at $33^{\times}$, to the standards 29, and by means of rivets 33°, to the bottom 34, of the crate. The other portion of partition 30, between the standard 29, consists of wire mesh 35, connected preferably by solder 35°, with the surfaces of the portions of one of standards 29, above the angle plate 33, and its other end connected with corresponding surfaces of the other standard 29. The upper and lower portions are connected with the corresponding surfaces of the downwardly and upwardly extended portions, respectively, of the angle bars 31 and 33. The sides and ends of the crate also consist of open wire mesh, 38 and 37, respectively.

Upon the upper surface of the transverse angle plate 31 are mounted the tracks 40, composed of angle bars, which extend in the longitudinal direction of the crate. The upwardly-extended portions of the angle bars form the track rails and extend upwardly, to a distance approximately one-half the distances from the line of the lower surfaces of the inner, vertical portions of the angle plate 16, to the upper, horizontal surface of said bar. The track or angle plates 40 are positioned about one-fourth the distance between angle plate 15, inwardly, the lower, horizontal portions of the bars extending in the direction of each other, and said portions secured by rivets $40^{\times}$, to the upper surface of the transverse angle plate 31, the ends of the lower portions of the angle bars 40 forming the track being extended beneath the angle plates 16 and bent upwardly and riveted to the outer surfaces thereof, as seen in Fig. 1. In the upper portion of the track rails or angle plates 40, at points approximately one-sixth the distance between the inner surfaces of the angle plates 16, at the ends of the crate, are transverse openings 41, through which extend the ends of the rods 42.

44 indicate the doors to the separate compartments of the crate. These doors are formed preferably of metal, in the form of a single plate. The inner ends of the plates 44 are bent around the rods 42, to form the hinges 45, the plates extending in width from near the inner surfaces of one upwardly-extended portion of the angle bar or track rail 40, to the inner surfaces of the upwardly-extended portion of the opposite bar or rail, the plates 44 when closed resting upon the upper surface of the lower portions of the angle bars 40.

The outer ends of the plates or doors 44 extend to within slight distances from the inner surfaces of the downwardly-extended portions of the end angle bars 16, of the crate, and small portions 46, are bent upon the lower surfaces of said plates. (See Fig. 7). Portions 47 of the center and inner ends of plates 44, are bent inwardly upon the inner surfaces of said plates which have opening 47°. The fastenings for the doors 44 consist of double bowed spring plates 48, secured at their inner ends to the lower surfaces of plates 44. The free ends of the spring plate are afforded a play outwardly and inwardly, a slight distance. Upon the inner, vertical surfaces of the angle bars 15 and 16, at points horizontally in line with the upper surfaces of the track rails 40, are lugs 52, the lugs 52, upon the angle bars 16, being positioned in vertical line with the free ends of the spring catches 48, and serving to retain the spring plates when the doors are closed. The lugs 52 are shown

punched inwardly from the vertical portions of the angle plates, but may be formed in any preferred manner.

The space at the top of the crate between the rods 42 is inclosed by a single, horizontal plate 53, the ends of which are bent around the portions of said rods in the open spaces 47°. The spaces in the top of the crate between the rails 40, and the sides and ends of frame 12 are occupied by screen wire of smaller mesh than wire 37, to prevent the heads of poultry extending through mesh 55. This screen wire extends in width from the respective outer surfaces of the track rails to the inner surfaces of the angle plates 15, and is connected at its ends to the inner surfaces of the respective angle bars 16, to which the wire is soldered, and likewise to the upper surface of the angle plate 31, and forms a part of the top of the crate, in addition to doors 44 and plates 53.

In the employment of the crate described for its uses the top of one crate is a receptacle for the bottom of another crate, so that any number of crates may be safely arranged in tiers and in the position described. The lower surfaces of angle plates 20 and 21, of the lower frame rest directly upon the lugs 52, and the bottom of the crate on the tracks 40; hence no wabbling of the crates occur. In unloading crates from a vehicle, the tracks 40 afford the expeditious means for placing one crate in position upon another, the superposed crate as seen in dotted lines in Fig. 1, being placed with its bottom and end upon the adjacent ends of tracks 40, upon the lowermost crate, the uppermost crate being mounted into position upon the tracks 40, with slight effort and with no injury thereto. Furthermore, when the superposed crate is resting on the lugs 52, which occurs as soon as the crate is moved on the track 40, to the end of the tracks, stresses from the weight of the crates upon another is eliminated, and owing to the rigidity of the connections of the top and bottom frames, with the standards, the crates are prevented from being rocked or disturbed, and the crushing strains which occur from the loading of the compartments with live stock is entirely eliminated.

The invention affords a crate which is sanitary, the parts being made from metal and more easily cleaned, and kept so, while the usefulness of the crate is prolonged.

Poultry and game may be transported in a safer manner in the crates of the invention than hitherto, for the reason that the parts are not liable to be crushed inwardly, as in the old forms of crates, and in many respects the crate may be made less cumbersome. The angle plates which form the top frame 12, enable the person moving the crate to obtain a firm grasp at any point on the frame, and therefore use of handles is discarded.

It is obvious that the crates may be employed for transporting other stock than poultry, or for any purpose desired.

I am aware that poultry crates have been made with the lid or cover below the line of the side and end walls so that the crates may be nested one upon another, and that brackets have been employed upon the lower portions and ends of the crate to rest upon the upper edges of an associate crate when so nested. It is to avoid projections upon the outer surfaces of my crate and to enable close packing in freight cars that the lugs 52 are formed in my invention and made to project inwardly from the line of the inner surface of the angle plates. Furthermore these lugs are adapted to support crates of less length than crates of the standard size.

Such modifications may be employed as are within the scope of the appended claims.

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

1. A crate composed of upper and lower frames and standards connected with the lower frame and supporting the upper frame said lower frame being smaller in length and width than said upper frame, the upper frame being composed of angle plates the upper portion of the angle plates extending horizontally in an outward direction as respects the body of the crate and the inner portion of the angle plates in a downward direction, a transverse partition of less height than the angle plates composing the upper frame and a track comprising angle bars extending in the longitudinal direction of the crate supported by said partition and horizontally extended portions of the ends of said bars connected with the outer surfaces of the downwardly extended portions of the angle plates at the ends of the upper frame of said crate the upper surfaces of the angle bars forming said track being below the plane of the upper surface of the upper horizontal portion of the angle plates of said upper frame.

2. A crate composed of upper and lower frames and standards connected with the lower frame and supporting the upper frame, said lower frame being smaller in length and width than said upper frame, the said upper frame being composed of angle plates the upper portion of the angle plates extending horizontally in an outward direction as respects the body of the crate and the inner portion of the angle plates in a downward direction, a transverse partition of less height than that of the angle plates composing the upper frame, longitudinally extending track bars sup-

ported by said partition, connected with the said inner portions of the angle plates of the said upper frame whose upper surfaces are below the plane of the upper surfaces of the horizontal portions of said angle plates, said inner portions of the angle plates having inwardly punched portions adapted to form lugs the upper surfaces of which lugs and track bars being in the same horizontal plane.

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