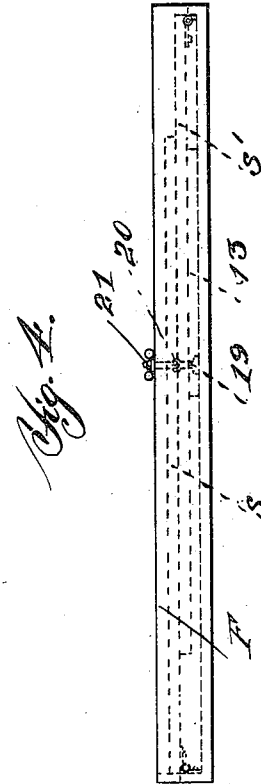
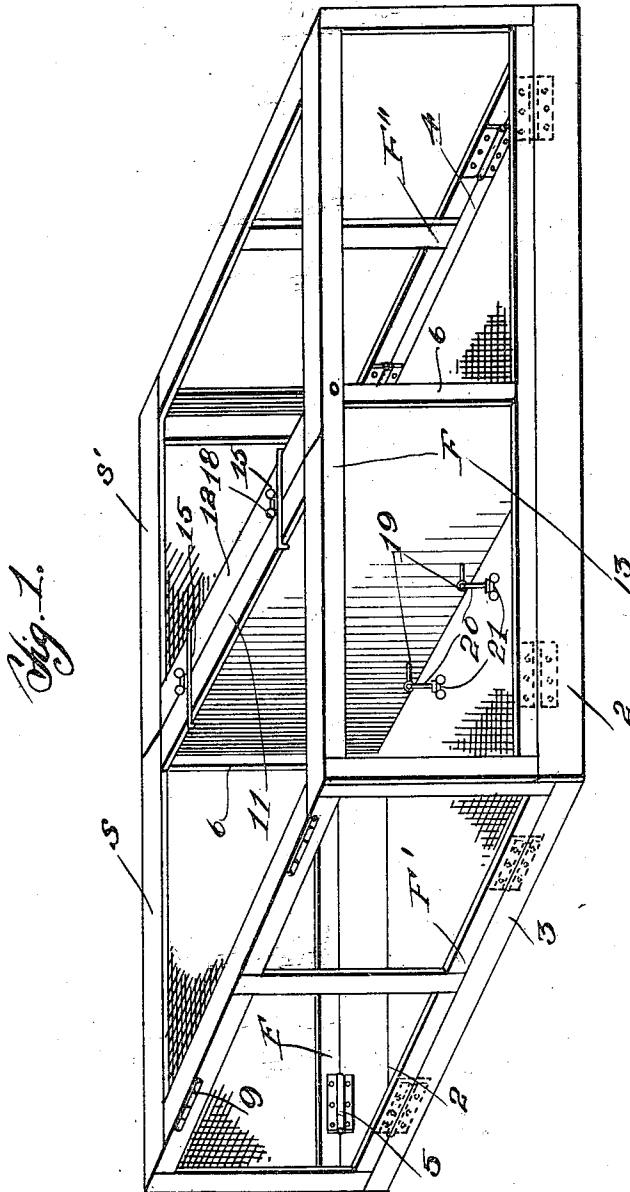


J. E. YOUNG.
KNOCKDOWN CRATE.
APPLICATION FILED DEC. 7, 1916.

1,265,415.

Patented May 7, 1918.
2 SHEETS—SHEET 1.



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Inventor

By *Geo. P. Kimmel.*
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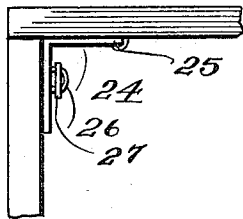
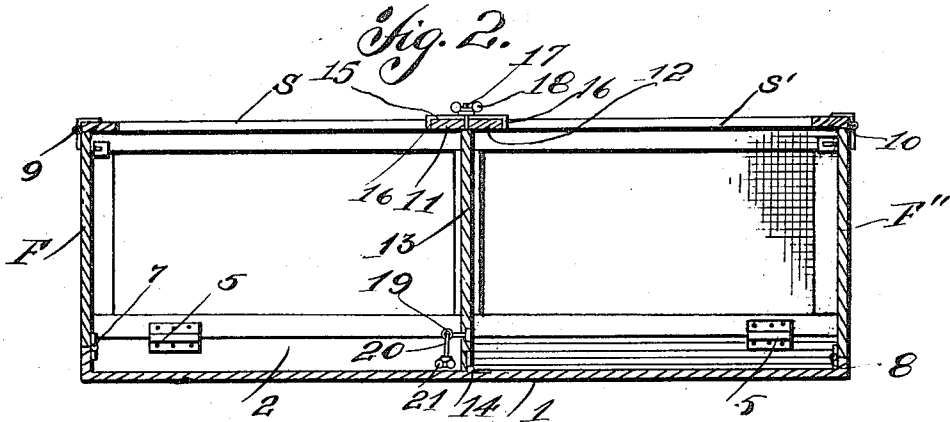
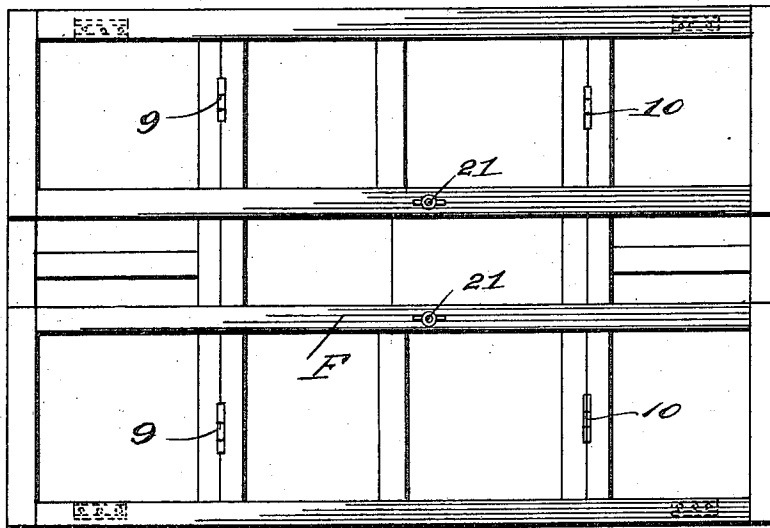


Fig. 3.



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UNITED STATES PATENT OFFICE.

JAMES E. YOUNG, OF MINNEAPOLIS, KANSAS.

KNOCKDOWN CRATE.

1,265,415.

Specification of Letters Patent.

Patented May 7, 1918.

Application filed December 7, 1916. Serial No. 135,612.

To all whom it may concern:

Be it known that I, JAMES E. YOUNG, a citizen of the United States, and resident of Minneapolis, in the county of Ottawa and State of Kansas, have invented certain new and useful Improvements in Knockdown Crates, of which the following is a specification.

The present invention relates to shipping crates and has for its primary object the provision of a shipping crate capable of folding when not in use and having a simple, strong and durable and cheap structure.

Another object of my invention is to provide a crate of the class described embodying a novel structure adapted to be folded to a compact form when not in use, means being provided for strengthening the crate when in "set-up" position and means for holding the parts securely when the same is in "knock-down" position.

A further object of my invention is to provide a device of the class described which may be formed of metal, or wood as desired the device embodying a structure permitting the application of screen wire or woven wire to the framework.

Other objects and advantages to be derived from the use of my improved knock-down crate will appear from the following detail description and the claims, taken with an inspection of the accompanying drawings, in which:

Figure 1 is a perspective view of a knock-down crate embodying the improvements of my invention, the same being shown in set-up position;

Fig. 2 is a longitudinal sectional view of the same;

Fig. 3 is a top plan view of the crate in knock-down position;

Fig. 4 is a side elevational view of the same; and

Fig. 5 is an enlarged fragmentary elevational view of an improved form of strengthening and connecting means for the side and end walls.

Referring more particularly to the drawings, wherein similar characters of reference designate like and corresponding parts throughout the various views, 1 designates the base of my improved crate, the same being provided with side flanges 2 and end flanges 3 and 4, the flange 4 being slightly less in height than the flange 3, and both of

said flanges being less in height than the flanges 2 for a purpose which will hereinafter appear.

The side and end portions of my improved crate are composed of side and end frames F, F' and F''. The side frames F are hinged as at 5 to the flanges 2 and are, at times, adapted to be folded inwardly onto the base 1. The side frames F are provided with intermediate strengthening standards 6 for a purpose which will hereinafter appear.

The end frames F' and F'' are hingedly mounted as at 7 and 8 on the end flanges 3 and 4, respectively, said end frames being foldable inwardly onto the base 1.

The top of my improved crate is composed of a pair of frame sections S and S' hingedly associated with the end frames F' and F'' by means of the hinges 9 and 10. The free end portions 11 and 12 of the frame sections S and S' are arranged in abutting relation over an intermediate partition 13, said partition 13 being hingedly connected as at 14 with the base 1, and adapted to be folded thereupon at times. In order to maintain the frame sections S and S' rigidly in connection with the partition 13, I provide a pair of clamps 15 having downturned ends 16 for engagement with the inner marginal edges of the end portions 11 and 12 of said sections, a pair of screw members 17 carried by the partition 13 being extended through said clamping members 15 and wing nuts 18 carried by said screws.

When the crate is in folded or knockdown position it is necessary that all of the sections be firmly held against dislodgment. For this purpose I provide eye members 19 carried by the partition 13 adjacent the hinge 14, screw members 30 being carried by said eyes and freely movable thereabout, said screw members having wing nuts 21 on the free ends thereof.

The screw members 20 and wing nuts 21 are adapted to be engaged with the top portions of the side frames F when the latter are in folded position whereby to retain the remaining sections in folded position. When the side and end frames are in set-up position I provide means for rigidly associating the same, said means including a right-angular member 24 hingedly carried on a staple 25 arranged in the side frame F, the free end portion of said right-angular member 24 being engaged over a staple 26 car-

ried by the adjacent end frame, a locking pin 27 being engaged with the staple for retaining the brace member 24 in position.

Of course, it is to be understood that the sides, ends, and top frame sections of my improved crate are to be provided with wire mesh screen or woven wire in the event that the device is to be used as a poultry coop. I desire to lay particular stress upon the fact that the structure of my improved crate may be composed of wood or metal as desired, none of the parts or their association depending for effectiveness upon the use of either wood or metal alone.

When it is desired to set up my improved crate the side frames F are moved from folded position to a vertical position, the end frames may now be placed in set-up position, the top sections being carried thereby. Of course, the intermediate partition is arranged as best shown in Figs. 1 and 2 and the clamping members 15 are then engaged with the abutting ends of the top frame sections S and S'.

In view of the fact that one of the reinforcing members 24 is placed at each corner of the crate, when in set-up position, it will be seen that any lateral movement of the parts or lost motion of said parts is prevented. When the crate is folded or in knock-down position the end frames and top section and the partition 13 are retained in folded position by means of the side frames F as best shown in Fig. 3. Thus it will be seen that I have provided an improved and novel type of folding crate which embodies a simple yet strong and durable structure which tends to cheapen the manufacture of such devices.

I desire to further point out that in the provision of the various type of flanges the end frame and top sections F' and S' are permitted to fold over the end frames F'' and S' and owing to the greater height of the side flanges 2, the side frames F are permitted to fold over both the end frames F' and F'' as well as over the top sections. It will also be noted that rattling of the side

frames and end frames is prevented by the provision of the reinforcing members 24.

From the above description taken in connection with the accompanying drawings, it is thought that a clear and comprehensive understanding of the construction, operation and advantages of my invention may be had, and while I have shown and described my invention as embodying a specific structure, I desire that it be understood that such changes may be made in said structure as do not depart from the spirit and scope of the invention as claimed.

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

1. In a collapsible crate, a base having side and end flanges, side and end frames hingedly mounted on said flanges, top frames hingedly associated with said end frames, an intermediate partition hingedly mounted on said base, said partition end, top and side frames being collapsible in respective superposed relation, and swingable screw members carried by the partition and engageable with the side frames to lock the crate in collapsed position.

2. In a collapsible crate, a base having side and end flanges, side and end frames hingedly mounted on said flanges, top frames hingedly associated with said end frames, an intermediate partition hingedly mounted on said base, said partition end, top and side frames being collapsible in superposed relation, spaced transversely alining eye members carried by the partition, and extending upwardly from the upper side thereof when the same is collapsed, swingable screw members mounted on said eyes and adapted to project through the outer sides of the side frames when in collapsed position, and wing nuts engageable with the different portions of the screw members to clamp the side frames in position to securely lock the crate in collapsed relation.

In testimony whereof, I affix my signature hereto.

JAMES E. YOUNG.