E. O. RENSTROM.

FOLDING CRATE.

APPLICATION FILED MAY 25, 1911.

1,018,521.

Patented Feb. 27, 1912.

2 SHEETS—SHEET 1.

FIG. 1.

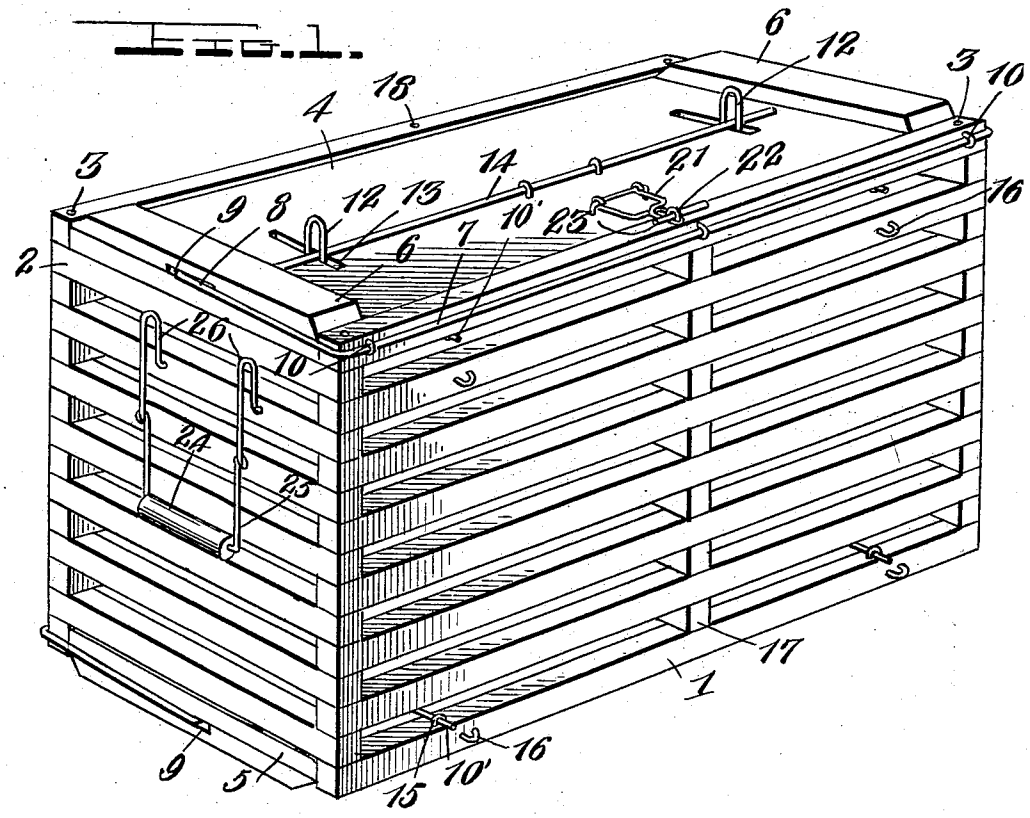
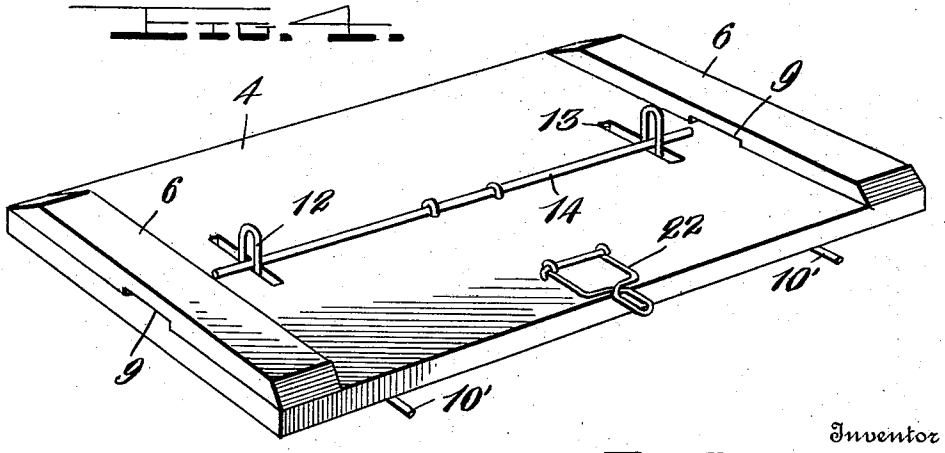


FIG. 2.



Inventor

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Witnesses

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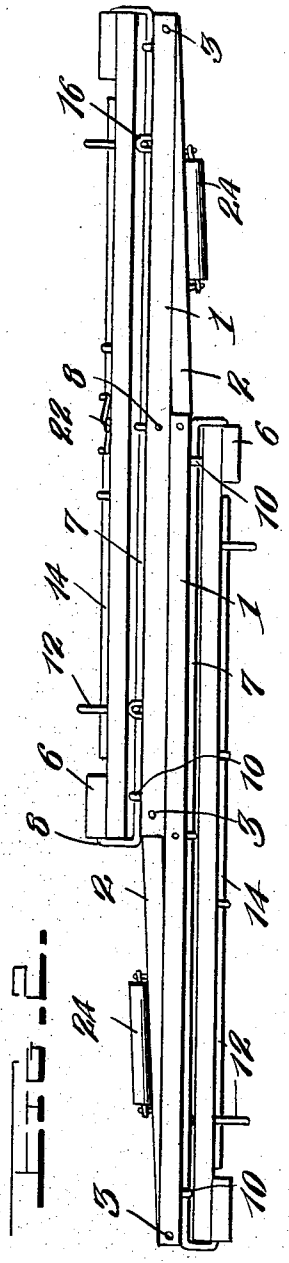

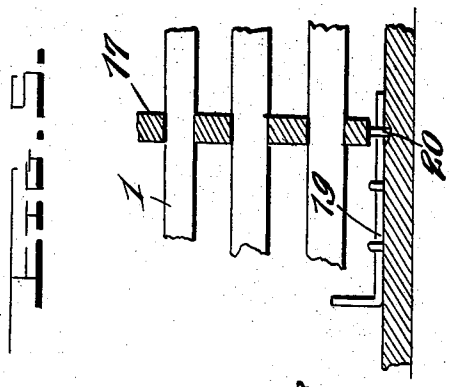

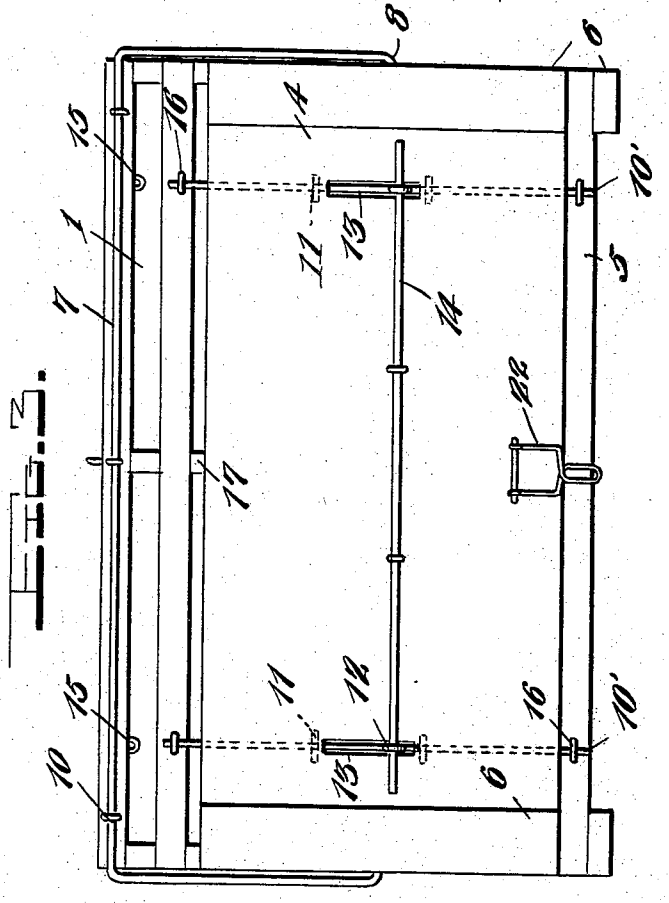

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UNITED STATES PATENT OFFICE.

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FOLDING CRATE.

1,018,521. Specification of Letters Patent. Patented Feb. 27, 1912.

Application filed May 25, 1911. Serial No. 629,322.

To all whom it may concern:

Be it known that I, ERIK O. RENSTROM, a citizen of the United States, residing at Strandquist, in the county of Marshall and State of Minnesota, have invented certain new and useful Improvements in Folding Crates, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to new and useful improvements in folding crates particularly designed for eggs, but which may be used for shipping poultry, fruit and the like and which can be easily reduced to a small compass for economizing space for storing or transportation. The crate is of type formed of a number of bars or strips having their ends pivotally connected by rods or bolts and which are reduced to a knock down condition by removing the top and bottom and securing them to each opposite side and pressing the sides together from diagonally opposite points, whereby corresponding parts are folded the one upon the other.

The prime object of the invention is to produce a folding crate which will possess advantages in points of efficiency, durability, is inexpensive of manufacture and at the same time is simple in construction and operation.

With the foregoing and other objects in view the invention consists in the novel features of construction, the combination and arrangement of parts hereinafter described, pointed out in the claims and shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a crate embodying my invention, the same being closed; Fig. 2 is a detail view showing the crate in a knock down form; Fig. 3 is a side elevation showing the top and bottom secured to the sides; Fig. 4 is a detail perspective view of the top, the bottom being of similar construction; and Fig. 5 is a detail sectional view.

Referring more particularly to the drawings 1 indicates the sides and 2 the ends of the body, which are composed of bars or strips having their ends pivotally connected by a rod or stout wire as shown at 3, passing through registering openings in the ends of the strips. The top 4 and the bottom 5 are both made in a single piece and provided with a cleat 6 at each end thereof.

The top and bottom of the crate are hingedly connected to the sides thereof by means of the U-shaped rods 7, having their ends 8 bent at right angles and disposed in the transverse slots 9 in the cleats 6. The U-shaped rods 7 are hinged to the sides and held in position by means of the hinge eyes 10. Retaining rods 10′ are slidably mounted on the inside of the top and bottom and are held in place by the staples 11, said rods being bent at right angles and then bent upon themselves to form a finger-engaging member 12 which is disposed through the transverse slot 13 and adapted to receive the ends of a resilient spring bar 14, said bar being adapted to hold the ends of the retaining rods in the keeper members 15 disposed on the under side of the top strips and on the upper side of the bottom strips when the crate is set up and the top and bottom are in position. When the top and bottom are folded upon the sides the ends of the rods 10′ are disposed in the keeper members 16 secured to the sides of the box. When the crate is to be used in shipping eggs an intermediate wall 17 is employed, the same being composed of bars or strips having their ends disposed between the strips of the sides and a rod or bolt 18 passing through registering openings in the ends of the strips.

The bottom is held in a securely locked position by means of the sliding bolt 19 having one end disposed through a keeper eye 20 secured to the bottom of the wall 17. The top is securely locked in position by means of the hasp 21 disposed over the staple 22 and a pin 23 passed through the staple to hold the hasp in place.

When it is desired to fold the box from the position shown in Fig. 1 the retaining rods 10 are released from the keepers 15 and the top and bottom are then swung out upon the U-shaped rods 7 and arranged in parallel relation with the sides and secured thereto by having the ends of the rods 10 engage in the keepers 16, the body is then folded by pressing the sides together from diagonally opposite points, whereby corresponding parts are folded one upon the other.

It will be understood that the ends 8 of the rods 7 can be removed from the slots 9 by pulling outwardly on each end of the rod and the top or bottom entirely removed from the crate. To permit the easy handling

of the crate a handle 24 is secured to each end thereof, having the ends of the bail 25 slidably mounted on the retaining rods 26.

While I have shown and described the preferred form of my invention it will be obvious that various changes in the details of construction and in the proportions may be resorted to for successfully carrying my invention into practice without sacrificing any of the novel features or departing from the scope thereof.

Having thus described my invention what I claim is:

1. In a device of the character described, the combination of a body comprising sides and ends composed of bars and strips having their ends pivotally connected by means of rods or wires passing through registering openings in the ends of the bars or strips, a top and bottom, hingedly connected to the sides, keeper eyes secured to the under side of the top strips and to the top side of the bottom strips at the sides of the crate, retaining bars slidably mounted on the inside of said top and bottom having their ends normally disposed in said keeper eyes, means for holding said retaining rods in a normal position, said top and bottom being adapted to fold onto each opposite side of the crate and secured thereto when the crate is folded, and handles secured to the ends of said crate to permit the easy handling thereof.

2. In a device of the character described, the combination of a body, a top and bottom therefor, cleats secured to the inside of said top and bottom at each end thereof having transverse slots formed therein, U-shaped rods hingedly connected to the sides and having their ends bent at right angles and disposed in said slots, retaining rods slidably mounted on the inside of the top and bottom, said top and bottom having slots formed therein near the ends thereof, said retaining rods being bent at right angles and then upon themselves to form a finger-piece which is disposed through said slots, the ends of said rods being normally disposed in keeper eyes and a resilient spring bar having its ends disposed through said finger-pieces to hold said retaining rods in a normal position.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

ERIK O. RENSTROM.

Witnesses:
SVEN E. NASSTRÖM,
S. E. JANSSON.