

A. P. DICK, Jr.

GRATE.

APPLICATION FILED JULY 6, 1912.

1,059,352.

Patented Apr. 22, 1913.

2 SHEETS-SHEET 1.

FIG. 1.

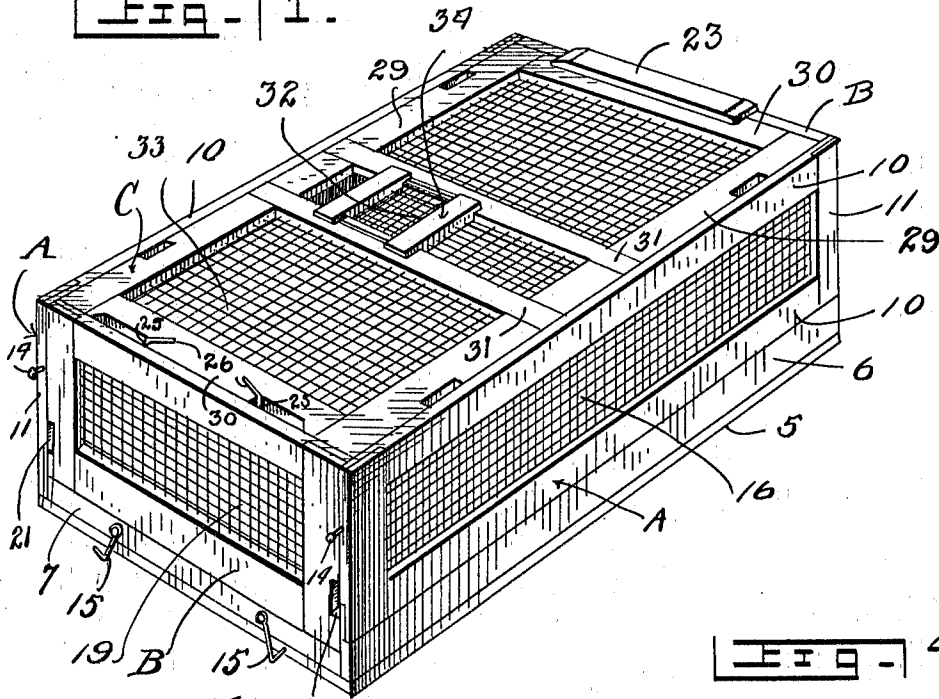


FIG. 4.

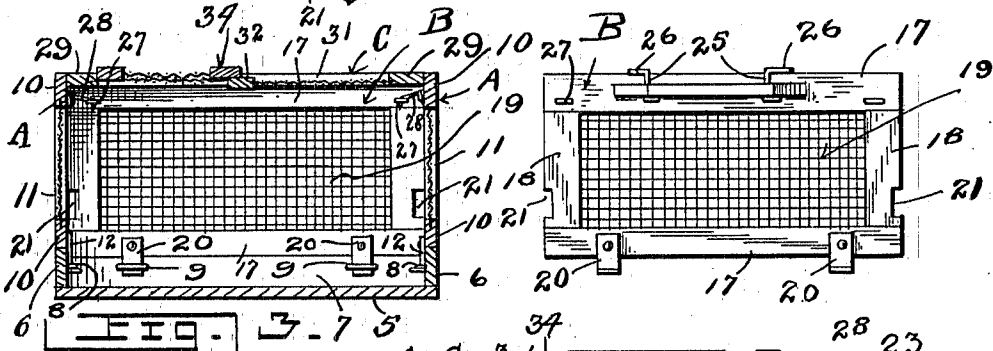
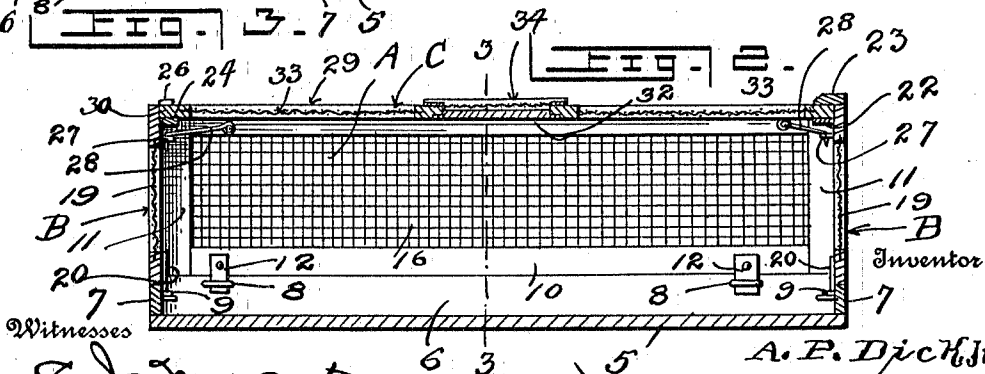


FIG. 3.



Witnesses

G. J. MacCarter
George Tatro

By

Charles C. Canale

Attorneys

A. P. Dick Jr.

Inventor

A. P. DICK, JR.

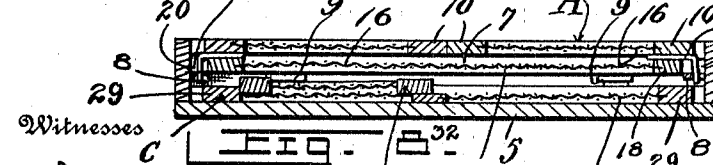
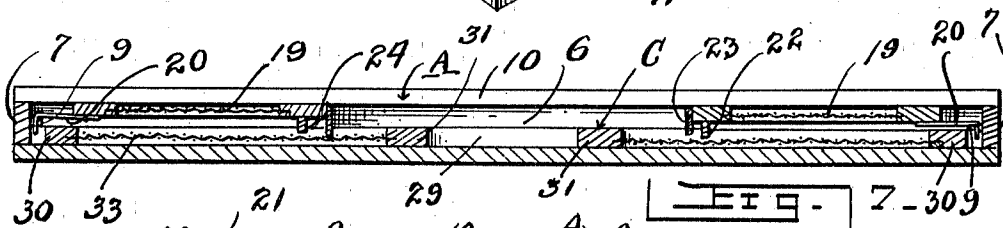
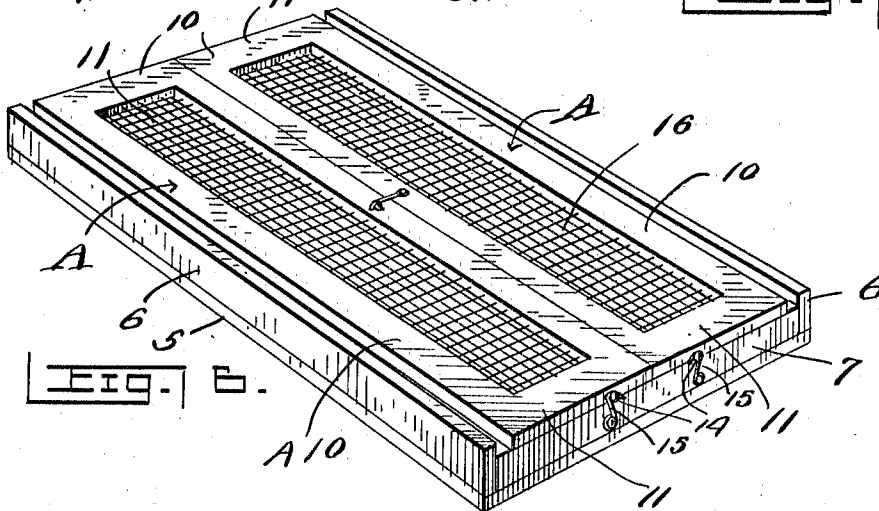
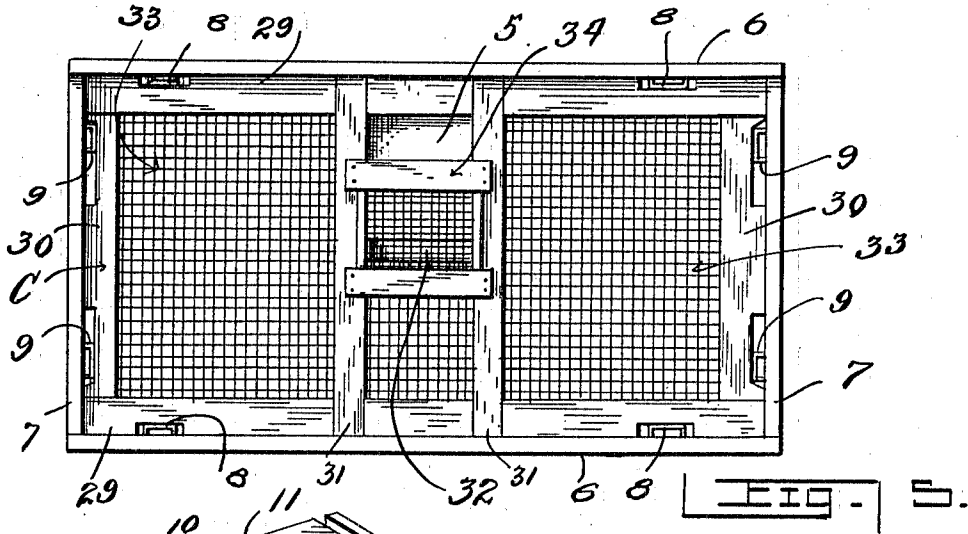
CRATE.

APPLICATION FILED JULY 5, 1912.

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2 SHEETS-SHEET 2.



Inventor

A. P. Dick, Jr.

Witnesses

E. J. Mac Carter
George Talbot

Charles Chandler

Attorneys

UNITED STATES PATENT OFFICE.

ARCHIE P. DICK, JR., OF FORT WORTH, TEXAS, ASSIGNOR OF ONE-HALF TO JOSEPH O. SETSER, OF BIG SPRINGS, TEXAS.

CRATE.

1,059,352.

Specification of Letters Patent.

Patented Apr. 22, 1913.

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To all whom it may concern:

Be it known that I, ARCHIE P. DICK, JR., a citizen of the United States, residing at Fort Worth, in the county of Tarrant, State of Texas, have invented certain new and useful Improvements in Crates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in knockdown crates.

The principal object of the invention is to provide a shipping crate in which the parts may be readily disassembled or assembled, and which, when in the former position, may be readily cleaned.

Another object of the invention is to provide a knockdown shipping crate which, when the parts are in their folded relation, will occupy but little space.

A further object of the invention is to provide a novel hinge connection between the sides and end walls and the bottom wall, whereby said side and end walls may be readily disconnected from the wall when so desired, yet when the parts are in their assembled relation will prevent relative movement therebetween.

A still further object of the invention is to provide a shipping crate in which a top is connected to the walls of the crate, by a novel means for permitting the ready removal of the top when so desired.

A still further object of the invention is to provide a shipping crate which is composed of a minimum number of parts, is therefore simple in construction, and is cheap to manufacture.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claim hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction within the scope of the claim may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings: Figure 1 is a perspective view of a crate constructed in accord-

ance with my invention, the parts being shown in their assembled relation, Fig. 2 is a longitudinal sectional view thereof, Fig. 3 is a cross sectional view taken on the line 3—3 of Fig. 2, Fig. 4 is a plan view of one of the end walls, Fig. 5 is a top plan view showing the end walls removed and the cover disposed against the bottom wall, Fig. 6 is a perspective view showing the crate in its folded relation, Fig. 7 is a longitudinal sectional view thereof, and Fig. 8 is a cross sectional view through the same.

Like reference numerals designate corresponding parts in all the figures of the drawings.

Referring to the drawings, 5 designates a bottom wall which is formed with longitudinal flanges 6—6 and end flanges 7—7, the latter being less deep than the former. Extending inwardly from each side flange 6 are spaced staples 8—8, and extending inwardly from each end flange 7 are spaced staples 9—9.

The invention further comprises a pair of side walls A—A and a pair of end walls B—B. The side walls each consists of a rectangular frame composed of longitudinal members 10—10 and transverse members 11—11. The side walls A are adapted to be positioned edgewise upon the longitudinal flanges 6 of the bottom wall, and secured to the inner face of the lower longitudinal frame member 10 of each side wall are spaced hinges 12. Each hinge is formed from a single strip of flat metal, and has its lower end depending below the side wall and terminating in an inwardly extending finger 13 adapted for engagement with a respective staple 8. The side walls A are adapted to swing inwardly and rest upon the end flanges 7, and secured to the end members 11 of each flange are pins 14 or other fastening means which are adapted to be engaged by hooks 15 carried by the end flanges 7 and thereby retain said side walls against movement. Each of the frames thus formed is covered with a wire mesh screen 16.

The end walls B each consists of a frame including longitudinal frame members 17—17 and end members 18—18. Each frame is covered by a wire mesh 19. The end walls are adapted to be positioned edge-

wise upon the end flanges 7, and secured to the inner face of the lower longitudinal frame member 17 of each end wall are spaced hinges 20—20 which are similar in construction to the hinges carried by the side walls A, and are engageable with the staples 9 of said end flanges 7. These end walls B are adapted to fold inwardly under the side walls A, and the outer edges of the end frame members 18 are recessed, as at 21—21, to receive the adjacent staples 8 which are carried by the longitudinal flanges 6. Secured to the inner faces of the upper longitudinal frame member 17 of one of the end walls B is a rib 22, said rib being disposed below and in spaced relation to the upper edge of said frame member. Secured to the upper edge of said frame member is a strip 23 which extends inwardly above the rib 22 and forms a stop. Extending inwardly from the upper frame member 17 of the other end section B is a rib 24 which is disposed below the upper edge of said frame member. This rib is centrally disposed with respect to said frame member, and rotatably mounted in either end thereof are vertical pins 25—25 which terminate above the upper edge of the frame member in angular arms 26—26 constituting stops. When the side and end walls A and B are disposed in their operative or upstanding positions, they are held against inward movement by means of eyes 27—27 carried by each end member B and hooks 28—28 engageable with said eyes and carried by each side member B.

My invention further comprises a top, which is designated as a whole by the reference letter C. This top comprises a frame which consists of longitudinal members 29—29, end members 30—30 and centrally disposed spaced transverse members 31—31, the latter being centrally connected by means of a frame member 32. This frame is covered by a wire mesh screen 33, and arranged between the transverse members 31 is sliding gate 34 of any suitable construction. One of the end members 30 is adapted to be supported upon the rib 22 of the end wall B and below the stop 23. The other end member 30 of the frame is supported by the rib 24 of the other end wall B, and the pins 25 are rotated so as to project the lateral arms 26 thereof over the

adjacent end member 30 of said frame and thereby lock the top against displacement.

When it is desired to knock down the crate, the end walls B are first removed and the top C is positioned upon the bottom wall 5 and within the flanges 6 and 7 thereof, the frame members 29 and 30 being suitably recessed as at 35 and 36 respectively to permit of said top passing the staples 8 and 9. The end walls B are then placed upon the top C, after which the side walls A are folded inwardly upon the end walls B, as is clearly shown in Fig. 6 of the drawings. In order to secure the walls against displacement, the outer faces of the end flanges 7 are each provided with hooks adapted for engagement with staples carried by the side walls A. It will thus be observed that when the crate is in its folded relation, the crate will occupy but very little space, and that when the crate is set up it will be held firmly against becoming accidentally disassembled.

What is claimed is:

In a knockdown crate, the combination of a bottom wall including opposed longitudinal and end flanges, side and end walls normally mounted edgewise upon said flanges, detachable connections between the walls and flanges for retaining said walls in their normal positions against outward movement and permitting of said walls to be swung inwardly over the bottom wall, said hinges each being formed from a single piece of metal and having its lower end inwardly bent to form a stop, horizontal ribs extending inwardly from the inner face of the end walls, a strip secured to the upper edge of one end wall above the respective rib for forming a stop, a top having one end supported between the last mentioned rib and the stop and having its other end supported upon the other of said ribs, and locking elements for the top carried by the last mentioned rib, said elements each comprising a rotatable pin having its upper end terminating in a lateral arm adapted to be positioned over the top.

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

ARCHIE P. DICK, JR.

Witnesses:

G. S. EMERY,
C. L. LYON.