

UNITED STATES PATENT OFFICE.

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FOLDING CRATE.

SPECIFICATION forming part of Letters Patent No. 573,804, dated December 22, 1896.

Application filed July 1, 1896. Serial No. 597,691. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. AICKLEN, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Folding Crates, of which the following is a specification.

This invention relates to a new and useful improvement in folding crates, and has for its object to provide a crate of this description which may be quickly collapsed when not in use and yet when adjusted for use will be as rigid as though it were of ordinary construction, whereby it may be folded into a small compass and returned to the point from which it was shipped at less expense than would be required to supply a new crate of the ordinary form.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, its construction and operation will now be described, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a central longitudinal section of a crate made in accordance with this invention; Fig. 2, a plan view thereof with the cover removed; Fig. 3, an edge view of the crate when collapsed and ready for reshipment, and Fig. 4 a section at the line $x x$ of Fig. 3.

Referring to the drawings in detail, A represents the bottom of the crate, having secured thereto a side strip B and two end strips C and D, and to the side strip is hinged at E the side F, the opposite side G being hinged at H directly to the bottom. The object of this is that the side G may be first folded upon the bottom inwardly and the side F folded upon the first-named side, since being hinged to the strip B brings it in a higher horizontal plane when thus folded, as clearly shown in Figs. 3 and 4.

To the strip C is hinged at I the end J, and to the strip D at K is hinged the opposite end L, and as both of the strips C and D are of the same height the two ends J and L may be

folded upon the sides after the latter have first been folded in place, as before described, as clearly shown in Fig. 3.

In order to unfold and secure in place the several parts of a crate thus constructed, the ends are first swung outward until coming to a vertical position where they will be stopped by the abutment of the hinged edges against the upper edges of the strips C and D, respectively, and the sides also swung outward, by means of which the ends are prevented from again swinging inward, and, finally, the sides are rigidly held in place as well as the ends being stayed by the locks M, which are secured near the edge of the ends J and L and which are constructed much after the manner of a hinge, the swinging member of which is so pivoted at N as to have a vertical sliding movement upon its pintle, and this swinging member has notches cut in its lower edge adapted to engage the hooks O, carried by the plate P, one of which is secured near each edge of the sides F and G. By this arrangement when the ends and sides are brought into their proper relative position, as before described, they are there locked by the engagement of the swinging member of the lock with said hooks and when thus secured the crate becomes as rigid as though of ordinary construction.

A cover Q is provided for the crate and is adapted to fit thereover and be secured in place by the rod R, which passes through the staples S, the latter projecting upward from the upper edges of the sides through suitable holes in the edges of the cover. The rod R has one end bent at right angles, as indicated at T, and when the opposite end has been passed through the staples this right angle T is drawn against the end of the crate by means of the thumb-nut U, run upon suitable threads formed upon the opposite end of said rod, and, when found desirable, a washer V may be interposed between the nut and the end L of the crate in order to more securely bind these parts together.

In collapsing the crate after the sides and ends have been folded into position, as before described, the cover is superimposed upon the ends, as shown in Fig. 3, and the rod R passed through the staples W and X, the

former projecting from the end J, near its lower edge, and the latter from the strip D. In placing the cover upon the folded crate the same holes therein through which the
 5 staples S pass when the crate is distended are used for the passage of the staples W and X, and when the thumb-nut U is run upon the rod so as to draw the angle T tightly against the edge of the cover it will be seen
 10 that the crate will be securely held in its folded position.

When the crate is to be used for shipping eggs and the like and it is desired to divide it into compartments by a partition, this may
 15 be accomplished by simply grooving the sides F and G from top to bottom midway of their length and inserting a partition therein, which, when the crate is folded, may be placed within the space between the ends or
 20 otherwise disposed.

By the use of this improvement a crate of very simple construction and which costs but little more than a crate of ordinary construction is provided which may be quickly ad-
 25 justed for use, and after having been shipped and emptied may be collapsed and secured so as to be returned to the point of shipment at weight rates rather than as bulk, thereby reducing the cost of reshipment to the least
 30 possible figure, which will make it cheaper to reuse the crate than to have another constructed, and, as is well understood by large shippers, this is of great importance.

Staples Y may be secured in the ends of the strips C and D, through which the rod R may be passed and secured by the running
 35 on of the nut U when the cover has been removed and the crate is otherwise in use, so as to prevent the liability of losing the rod.

40 Having thus fully described this invention, what is claimed as new and useful is—

1. In a folding crate, a bottom, strips secured to said bottom, sides and ends hinged thereto, said sides carrying plates having
 45 hooks, and said ends carrying hinged locks vertically slidable on their pintles, and adapt-

ed to engage the hooks, as and for the purpose described.

2. A crate of the character described consisting of a bottom, strips B, C and D, se-
 50 cured thereto, a side F, hinged to the strip B, and side G, hinged to the bottom and adapted to fold inwardly thereon in a lower horizontal plane than the side F, ends J, and L, hinged to the strips C, and D, respectively
 55 so as to fold upon the side F, locks M, for securing the sides and ends rigidly in their unfolded position, a cover Q, adapted to close the crate, a rod R, for securing said cover in place, said rod having a foot formed on one
 60 end and screw-threads on the other, a washer on the rod, a thumb-nut threaded on the rod, and staples S through which said rod is passed, substantially as shown and described.

3. The herein-described combination of a
 65 bottom A, strips B, C, and D, secured thereto, a side G, hinged to said bottom and adapted to fold inward thereon, a side F, hinged to the strip B, and adapted to fold upon the side G, ends J, and L, hinged to the strips C, and
 70 D, respectively and adapted to fold upon the side F, locks M, carried by the ends, hooks O, carried by the sides said locks and hooks so arranged as to secure the sides and ends in their unfolded position, staples S, project-
 75 ing upward from the ends, a cover Q, arranged to fit over said staples, a rod R, having an angular end T, said rod being adapted to pass through the staples, a thumb-nut U, for securing the rod in place, and staples W, 80 and X, over which the cover is adapted to be passed and in which the rod may be inserted when the crate is folded, substantially as shown and described.

In testimony whereof I have hereunto af-
 85 fixed my signature in the presence of two subscribing witnesses.

WILLIAM J. AICKLEN.

Witnesses:

S. S. WILLIAMSON,
 CHAS. WM. ARON.