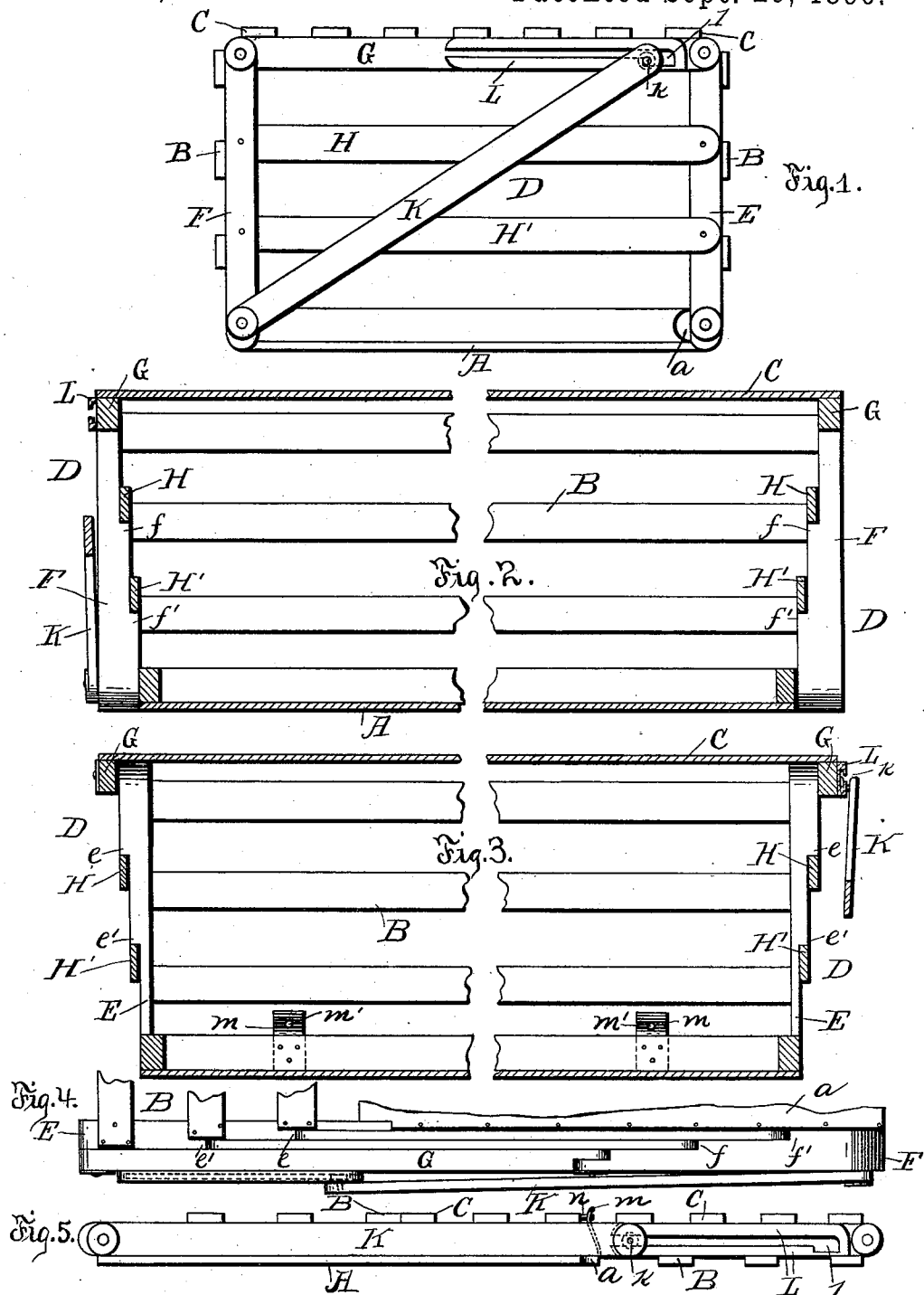


(No Model.)

A. A. WILLETS.
FOLDING CRATE.

No. 568,553.

Patented Sept. 29, 1896.



Witnesses:
John J. Milans.
Chas. W. Parker.

Inventor:
Abner A. Willets,
By *A. S. Bacon*
Att'y.

UNITED STATES PATENT OFFICE.

ABNER A. WILLETS, OF McKEESPORT, PENNSYLVANIA, ASSIGNOR TO
GEORGE E. MORTON, OF TOWNESVILLE, NORTH CAROLINA.

FOLDING CRATE.

SPECIFICATION forming part of Letters Patent No. 568,553, dated September 29, 1896.

Application filed February 24, 1896. Serial No. 580,467. (No model.)

To all whom it may concern:

Be it known that I, ABNER A. WILLETS, a citizen of the United States, residing at McKeesport, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Folding 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 an improvement in folding crates; and it consists in the construction and arrangement of parts hereinafter described, and definitely pointed out in the claims.

The aim and purpose of the invention is to provide a simple, practical, and durable crate of the character designated.

Heretofore it has been suggested to form folding crates in numerous ways, but the greater portion of such crates have been complicated and of such a nature as to preclude the same from use as commercial articles.

By my invention I produce a very strong crate fully capable of performing all the requirements of a practical commercial article.

The objects of the invention are attained by the construction illustrated in the accompanying drawings, wherein like letters of reference designate corresponding parts in the several views, and in which—

Figure 1 is an end view. Fig. 2 is a section looking to the left of Fig. 1. Fig. 3 is a similar view looking to the right of Fig. 1. Fig. 4 is a bottom plan of one end section collapsed. Fig. 5 is an edge view of the crate collapsed.

In the drawings, A designates the bottom; B, the slatted sides; C, the slatted top, and D the ends.

At the forward edge of the bottom are the curved recesses *a*, in which are pivoted the rounded ends of the corner-posts E. These posts are formed with steps or shoulders *e e'* by increasing the thickness at the center and top, while the pivoted end lies flush with the side of the end of the bottom.

Pivotally secured on the end of the bottom at the rear are the posts F, which are substantially the same as the posts E, only reversed, the enlarged portions being at the bottom and

the steps or shoulders *f f'* being in a reverse order to the shoulders *e e'*.

It will be noticed that the posts F are not set into the bottom, but are on the outer face of the end, so that the steps or shoulders *f f'* are on a plane slightly beyond the steps *e e'*.

The upper ends of the posts E and F are pivotally connected by the cross-bar G, the connection being made on the outside of the post E and inside of the post F.

H H' represent the end side bars, each having rounded ends and pivoted to the inner face of the post F at points directly above the shoulders *f f'* and to the outside of posts E at points directly below the shoulders *e e'*. The top slats are secured to the cross-bars G, while the side slats are connected to the posts, respectively.

By the above-described construction it will be seen that when the crate is open the upper edges of the bars H H' rest against the shoulders of the posts E and the under edges thereof rest against the shoulders *f f'* of the posts F. The inside edges of the posts E also rest against the walls of the recesses in the bottom A. The crate is thereby held from moving over toward the left.

To prevent the crate collapsing toward the right, Fig. 1, I employ locking-braces K at opposite ends, pivoted at their lower ends to the lower ends of posts F, while their upper ends have the T-blocks *k*, which work in guideways L, secured on the bars G near the front thereof. The guide-grooves terminate at their forward ends in downwardly-extending curved pockets *l*, adapted to receive the shanks of the T-heads and thereby prevent the same from moving back in the grooves until elevated to a plane therewith.

When the crate is folded, the bars H H' lie beside each other and the bars G and bottom lie parallel therewith.

To lock the crate in its folded condition, I employ the spring-catch *m*, secured to the forward edge of the bottom and projecting slightly above the same. The upper edges of these catches have openings *m'* therein and their ends are curved outward to form a guide and thumb-rest. On one of the top slats are secured pins *n*, with which the curved ends of the catches engage as the

crate is being lowered, forcing the catches out and allowing the pins to enter the openings *m'*. Any suitable door may be formed in the sides or top.

5 By the construction described the crate when folded will occupy but little space, and yet a very strong structure is provided.

It is obvious that by slight alterations the crates can be used for fruit as well as stock
10 or poultry, the latter purpose being that for which the style illustrated is intended. It is also obvious that the crate can be made double or in tiers, and that many other changes can be made without departing from the nature and principle of my invention.

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

1. In a folding crate, the combination with
20 the bottom, sides and top, of the end sections comprising posts E, F, having reversed shoulders *e*, *e'*, and *f*, *f'*, the cross-bars pivoted at their ends to the posts adjacent to the shoulders, the top bars G, and means for locking
25 the crate when in an opened condition, substantially as described.

2. In a folding crate, the combination with

the bottom, of the posts E, F, having shoulders arranged in a reversed order, the cross-bars H, H', pivotally secured to the posts adjacent to the shoulders, the top bars, the side and top slats, the guideway having a pocket at its end, and the locking-braces K pivoted at their lower ends and having a sliding engagement with the guideway, substantially as
30 described.

3. In a folding crate, the combination with the bottom, of the end posts E, F, having shoulders arranged in a reverse order, the cross-bars H, H' pivotally secured to the posts adjacent to the shoulders, the bars G at the tops of the posts, the oblique brace K pivoted to the base of a rear post, a sliding connection between the brace and bar G, means for
40 locking the brace in position as the crate is opened, spring-catches on the bottom, the sides, the top, and pins on the top engaging the catches, substantially as described.

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

ABNER A. WILLETS.

Witnesses:

A. B. O'NEIL,

J. E. PATTERSON.