No. 722,161. PATENTED MAR. 3, 1903

J. A. STEWART.

FOLDING CRATE.

APPLICATION FILED OCT. 11, 1902

NO MODEL.

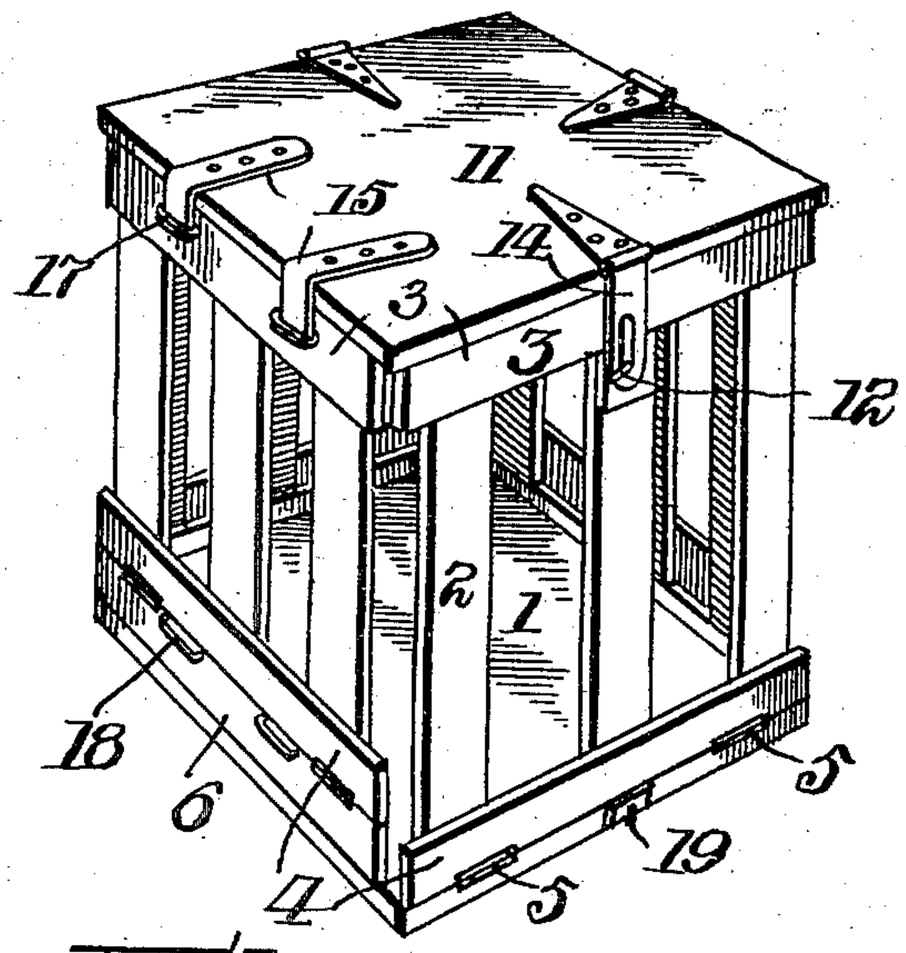

Fig. 1.

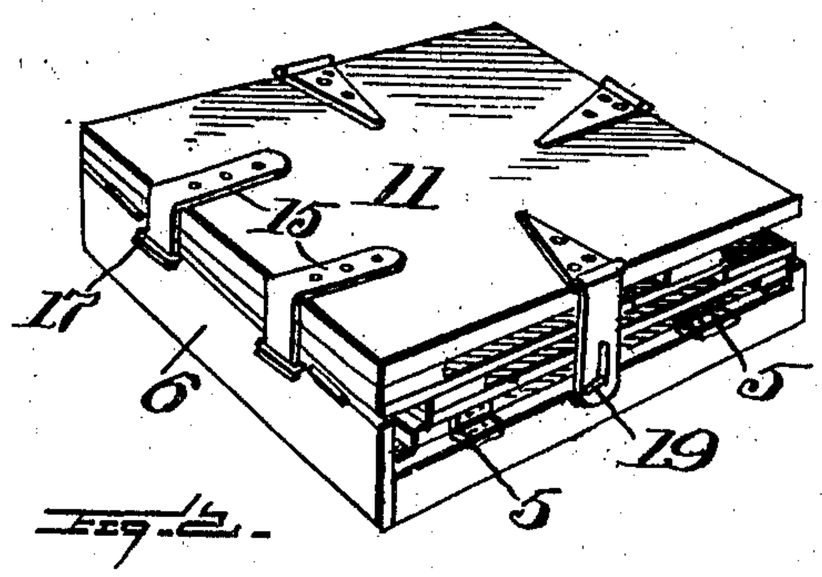

Fig. 4.

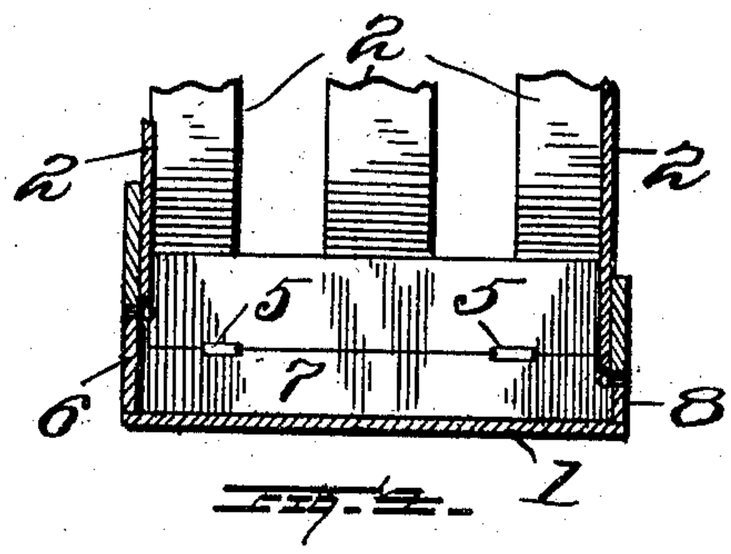

Fig. 5.

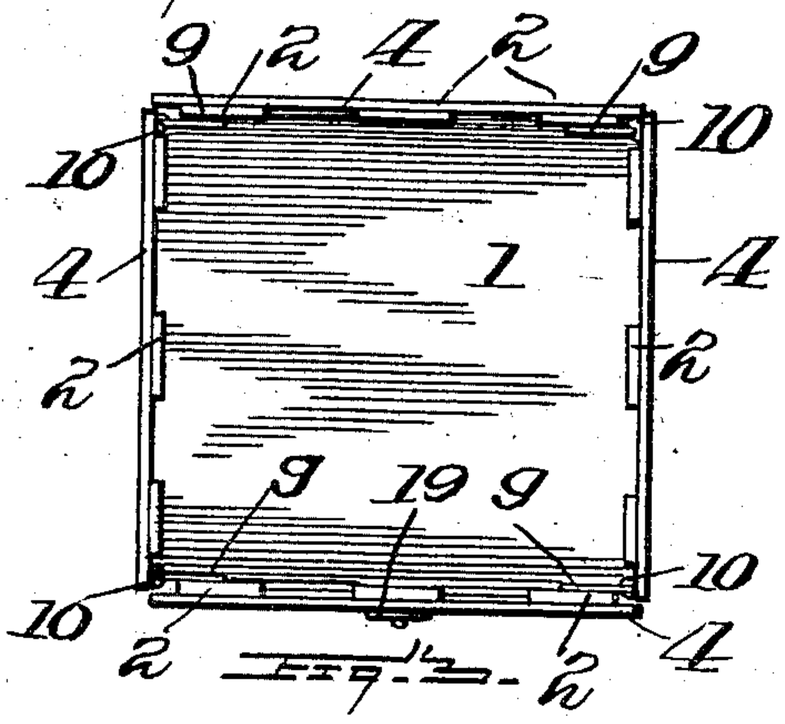

Fig. 2.

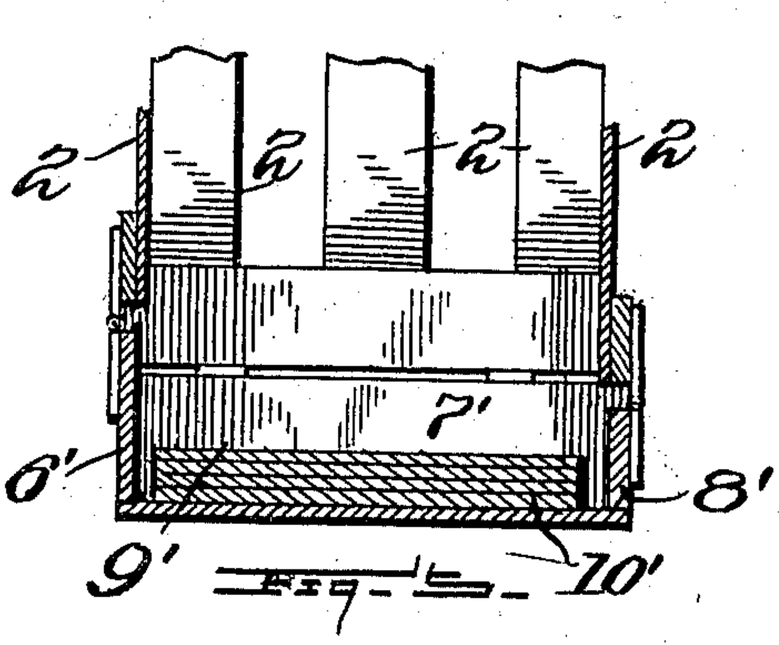

Fig. 6.

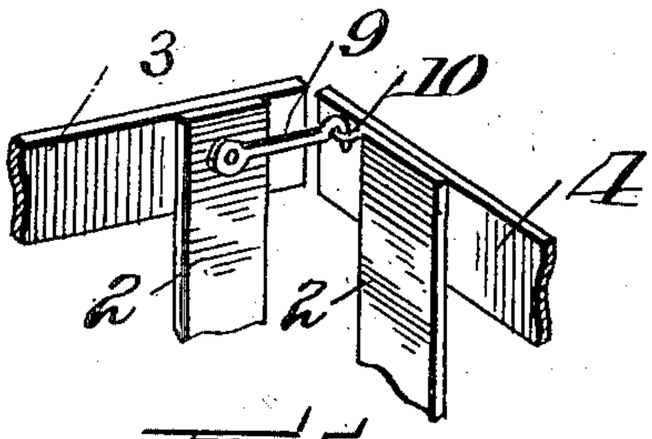

Fig. 3.

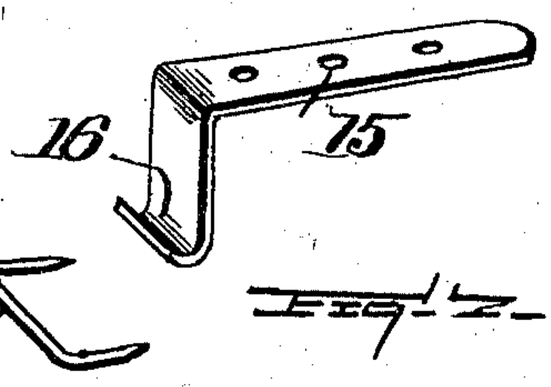

Fig. 7.

Witnesses:-
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UNITED STATES PATENT OFFICE.

JAMES A. STEWART, OF PITTSBURG, PENNSYLVANIA.

FOLDING CRATE.

SPECIFICATION forming part of Letters Patent No. 722,161, dated March 3, 1903.

Application filed October 11, 1902. Serial No. 126,901. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. STEWART, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Folding Crates, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in folding crates; and the main object of the invention is to construct a crate which when empty may be folded into a neat, compact, and strong package, occupying but a small amount of space in comparison with the crate in the built-up form, whereby a material saving may be had in the cost of shipment of the empty crate.

Another of the main objects of my invention is to construct a crate of this character with means for fastening the same together at all four sides thereof when folded, whereby the liability of the package becoming loosened during the return shipment is reduced to a minimum.

A folding crate as constructed by me is applicable for use in various different particulars, such as the crating of berry-boxes, as the crate for eggs or other like purposes, and where it is desired I may construct the crate with sufficient space in the bottom thereof for the placing of either boxes or the layers placed between the boxes or the holders for the eggs.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a detail perspective view of my improved crate, showing the same in the built-up form. Fig. 2 is a like view of the same in the knocked-down or folded form. Fig. 3 is a top plan view of the crate in the built-up form with the lid or cover removed. Fig. 4 is a transverse vertical sectional view of a part of the crate in the built-up form. Fig. 5 is a like view of a modified form of construction. Fig. 6 is a detail perspective view of a part of two sides of the crate, showing the fastening means at the upper end of the sides. Fig. 7 is a detail perspective view of the fastening for one side of the crate.

To construct a crate in accordance with my invention as the same is illustrated in Fig. 1 of the drawings, I provide a bottom 1, to which the respective four sides of the crate are hinged. Each of these sides comprise a series of vertical strips or slats 2, rigidly connected at their upper end to the horizontal strips or slats 3 and at their lower ends to like strips or slats 4. The strips or slats forming one side of the crate are connected by hinges 5 direct to the upper face of the bottom 1. On what we will term the "rear" side of the crate there is mounted on the upper face of the bottom, along the edge thereof, a strip 6, along one of the other sides on the bottom a strip 7 of less height than the strip 6, and along what we will term the "front" side of the crate a strip 8 of still less width than the strip 7. Thus one of the sides will fold flat onto the bottom 1, the side which is attached to the strip 8 will fold on top of the first folded side, the side attached to the strip 7 will fold on top of the second folded strip, and the side attached to the strip 6 will fold on top of the side attached to strip 7. The sides are all hinged by suitable hinges 5, which may be of approved form, at their upper ends. The sides are suitably fastened together, a convenient and approved form of means having been found to be a hook 9 and staple 10, as illustrated in Fig. 6 of the drawings. I desire to fasten the lid or cover 11 at each side of the crate or box, and to this end I provide three of the sides with a swiveled latch-bolt 12 to engage the slotted hasps 14, which are carried by the lid or cover. Adjacent to one edge of the lid or cover there is rigidly affixed a pair of straps 15, having their ends bent downwardly at right angles and formed into the hooks 16 to engage in staples 17, secured in one of the top cross strips or slats 3. Thus when the three hasps 14 are disengaged the lid or cover may be swung back on straps 15, which act much in the manner of a hinge for the same. In order that this may be employed for also fastening the lid or cover when in the knocked-down form, I provide staples 18 in the strip 6, attached to the bottom 1, and in order that the hasps 14

may be employed for securing the crate in the knocked-down form I provide the swiveled latch-bolt 19, which may be fastened to the respective strips 6, 7, and 8 and to the edges of the bottom 1.

In Fig. 4 I show a slightly-modified form of construction in which the strips 6′, 7′, and 8′ are made of greater height, whereby the space 9′ is provided to receive the boxes or egg-trays, the latter indicated folded in position at 10′. This construction will slightly increase the height of the box when in the built-up form, though in practice it will be observed that the box constructed in this manner will fold in the same compact form as that shown in Figs. 1 and 2.

Attention is called to the fact that the box when in the knocked-down or folded form is securely fastened on all four sides thereof. In the shipment of what is generally termed as "empties" it is a known fact that these empties receive exceedingly rough handling, and where the same are fastened on but one side edge should the fastening become loose, allowing the parts to become disassembled, the same are very liable to become injured and perhaps entirely destroyed. With my improved fastening means, even though the same should become loosened on one or even on two sides thereof, the same is still securely held by reason of the remaining two sides being securely fastened.

In the present illustration I have shown the boxes constructed of slats or strips, though it will be apparent that solid sides may be employed and that other slight changes may be made in the details of construction without departing from the general spirit of my invention.

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

A folding crate comprising a bottom, strips of varying height secured to the said bottom adjacent the edges thereof, sides hinged to the said strips, staples carried by one of the said sides, staples carried by the strip to which the last-mentioned side is hinged, a top, hooked straps secured to the said top and adapted to alternately engage the staples of the said side and strip, hasps carried by the other edge of the said top, and swiveled latch-bolts carried by the other sides and bottom strips of the crate, said latch-bolts being adapted to be alternately engaged by the said hasps, substantially as and for the purpose specified.

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

JAMES A. STEWART.

Witnesses:
A. M. WILSON,
JOHN GROETZINGER.