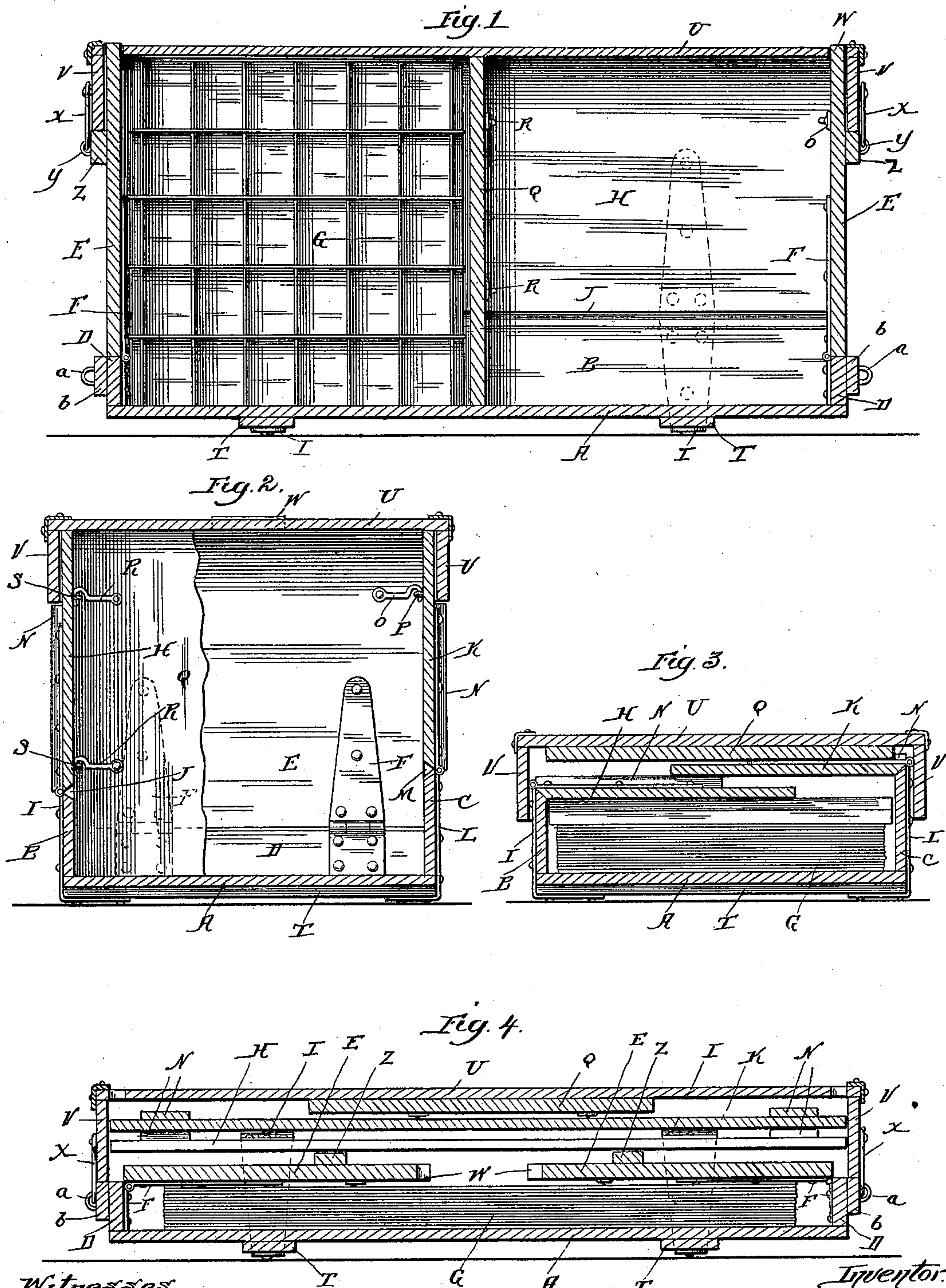


(No Model.)

O. HAUSMANN.
FOLDING CRATE.

No. 587,481.

Patented Aug. 3, 1897.



Witnesses

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UNITED STATES PATENT OFFICE.

OTTO HAUSMANN, OF SAN ANTONIO, TEXAS.

FOLDING CRATE.

SPECIFICATION forming part of Letters Patent No. 587,481, dated August 3, 1897.

Application filed September 14, 1896. Serial No. 605,738. (No model.)

To all whom it may concern:

Be it known that I, OTTO HAUSMANN, a citizen of the United States, residing at San Antonio, in the county of Bexar and State of Texas, 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 so construct a crate as to permit its being readily folded into a small compass when not in use and easily unfolded and adjusted, so as to serve the purpose of an ordinary crate, and when so adjusted it will be as rigid as though of ordinary construction.

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 claim.

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 longitudinal vertical section of a crate constructed in accordance with this improvement; Fig. 2, a cross-section of the crate, a portion of the dividing-partition being broken away, so as to show one end of the crate; Fig. 3, a cross-section of the crate when folded for shipment, and Fig. 4 a longitudinal section of the same.

In carrying out this invention a bottom A is provided, to which are secured by nailing or otherwise the side strips B and C and the end strips D, thus forming a shallow rectangular tray, and to the end strips are hinged the ends E by the hinges F. These end strips are of such a height that when the ends which are hinged thereto are folded inward, as shown in Figs. 3 and 4, a sufficient space will be left between the bottom of the crate and said ends for the reception of the paper cells G, after the latter have been collapsed. The side strip B is somewhat wider than the end strips and has hinged thereto the side H by means of the hinge I, so that it may be folded inward upon the ends after the latter have been first folded inward, and in order to permit this inward folding of the side H the lower edge thereof and the upper edge of the

strip B are beveled, as indicated at J. The opposite side strip C is wider than the strip B and has hinged thereto the side K by means of the hinge L, and the lower edge of this side and the upper edge of the strip C are also beveled at M to permit the inward folding of the side, and as the strip C is of sufficient width to cause said side to lie in a higher horizontal plane when folded inward it will be seen that it will lie upon the side H, as clearly shown in Fig. 3.

Each of the sides may be provided with strips N for the purpose of strengthening the same, and when said sides are made of more than one width of material these strips are necessary for the securing together of said material.

A crate thus constructed may be adjusted into position for use by first turning the sides outward and then the ends one after the other, which will bring said ends between the outer edges of the sides, thereby preventing the latter from collapsing inwardly, and they will be prevented from swinging outward by the engagement of the hooks O with the staples P, said hooks being pivoted upon the ends and the staples projecting from the sides, and it is obvious that any number of these hooks and staples may be used, but in practice it has been found that two hooks for each end are sufficient, and they are preferably secured near the top of said ends.

When the crate is to be used for eggs and the like, it is rendered still more rigid by inserting the partition Q therein and securing said partition to the sides by the hooks R, engaging with the staples S, as clearly shown in Fig. 2, after which the paper cells G may be placed in position and the eggs packed therein.

In hinging the sides to the side strips and bottom it is preferable that the brace-strips T be secured to the under side of the bottom and that the hinges I and L be bent and secured against said strips. After the crate has been packed with eggs or the like it is closed by a cover U, having the edge strips V secured thereto, so as to form flanges adapted to fit over the upper edge of the crate, whereby greater rigidity will be added to said crate, and as a further means of securing the cover in place and holding the ends against

inward collapsing tongues W are formed upon the upper edge of said ends, and suitable holes are also formed in the cover, through which these tongues project, as shown in Figs. 1 and 2. After the cover has been placed in position it is held against removal by the hooks X, secured thereto, being engaged with the staples Y, projecting from the cross-rails Z, said rails being secured to the upper portion of the ends, as clearly shown.

In collapsing the crate for reshipment or storage the paper cells G are first folded and placed upon the bottom thereof, the ends folded inward upon these cells, the side H swung inward upon the ends, the side K also swung inward upon the side H, and the partition Q placed upon the sides, and, finally, the cover placed in position and held against removal by the hooks X, engaging with the staples a, secured within the cross-rails b, the latter being fastened upon the end strips D, and when in this position it will be seen that the crate may be readily shipped, as it occupies but a small space relative to the space occupied when in its adjusted position, and this is of great advantage in that it may be returned by freight to its place of first shipment under the weight class rather than the bulk class.

By the use of a crate built in accordance with this improvement much expense and inconvenience are avoided in that the crates may be returned after having been shipped and emptied and reused indefinitely, thus obviating the necessity of supplying a new crate for every shipment, which has hereto-

fore been the case. The advantages of such a crate will be well recognized by large shippers who have heretofore been inconvenienced in providing new crates for every shipment of goods.

It is obvious that such a crate may be used for other purposes than for shipping eggs, in which case the paper cells will be omitted, and also the partition Q may not be used unless necessity requires.

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

In a folding crate, a bottom, end strips secured thereto, side strips of different heights and of a greater height than the end strips secured to said bottom, said side strips being beveled along their inner and upper edges, sides hinged to the side strips by hinges placed on the outside, said sides being beveled along their lower edges to fit against the beveled portion of the strips when the box is folded, ends hinged to the end strips by hinges secured on the inside, hooks secured to the ends and adapted to engage staples on the sides to retain the parts in their upright position, a top, side and end flanges projecting downward from said top, tongues projecting from the ends adapted to engage openings in the top, and a partition secured in the crate by hooks and staples, substantially as described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

OTTO HAUSMANN.

Witnesses:

S. S. WILLIAMSON,
JOE PASSANT.