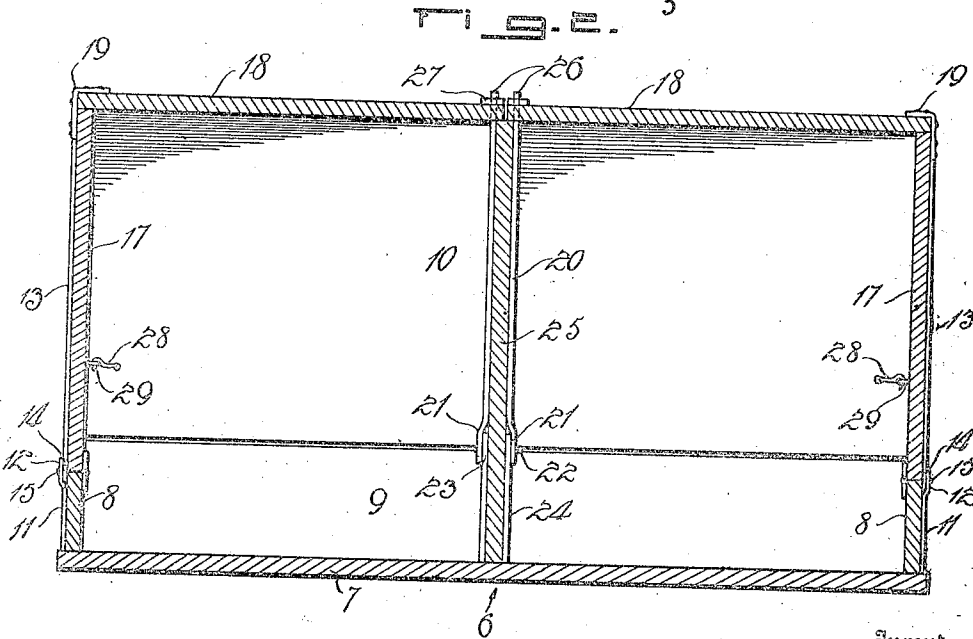
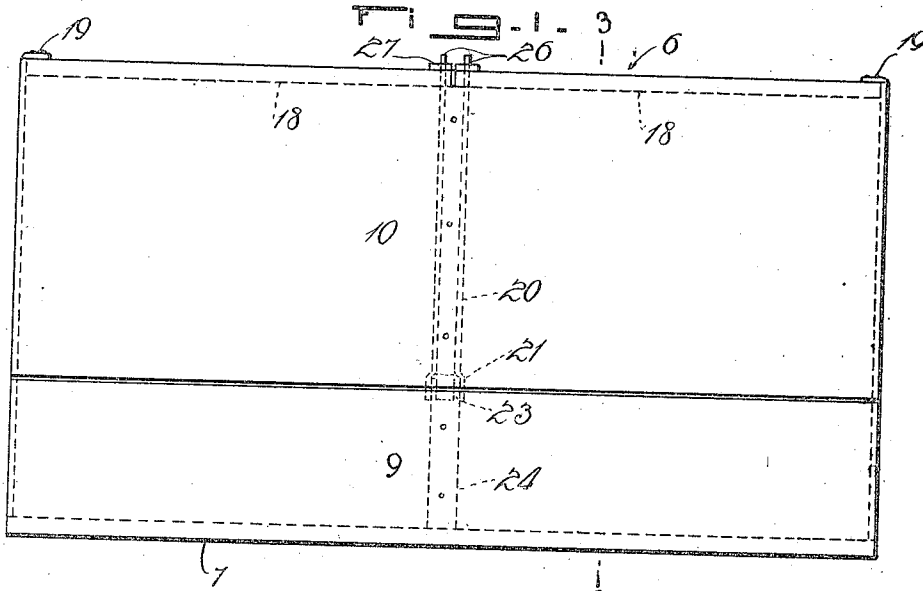


R. HOHENSTEIN.
FOLDING BOX OR GRATE.
APPLICATION FILED JUNE 2, 1909.

942,642.

Patented Dec. 7, 1909.
3 SHEETS—SHEET 1.



Witnesses

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Fig. 4.

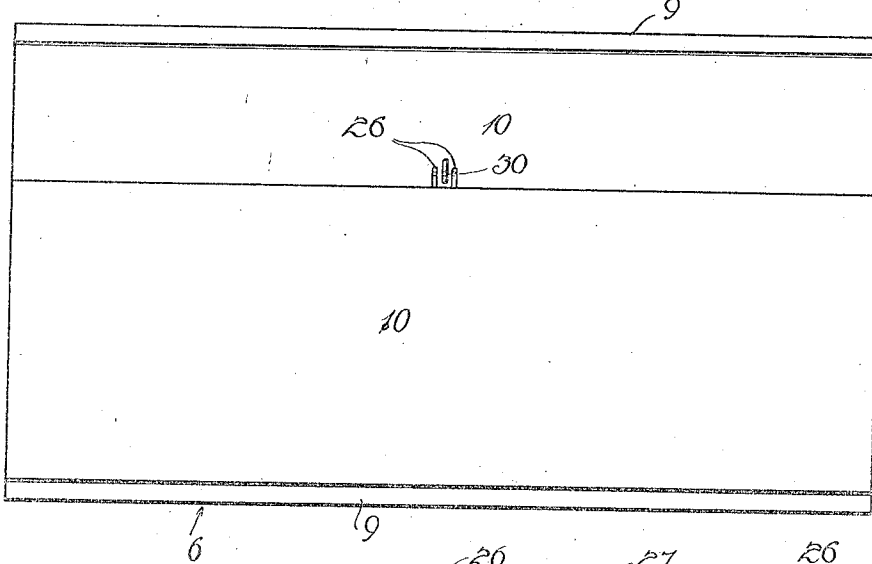
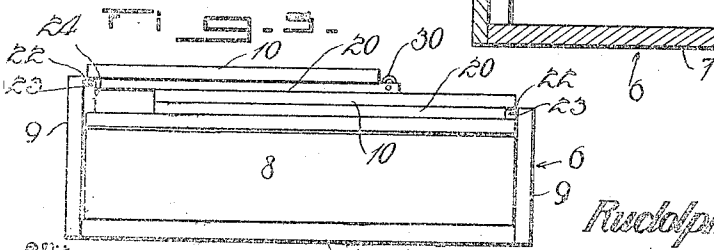
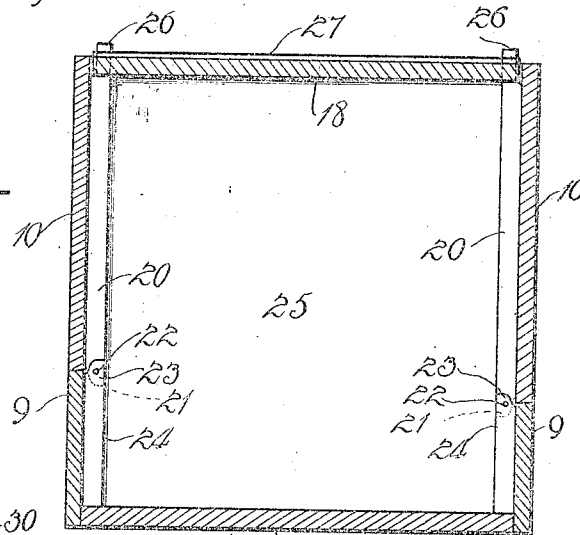


Fig. 3.



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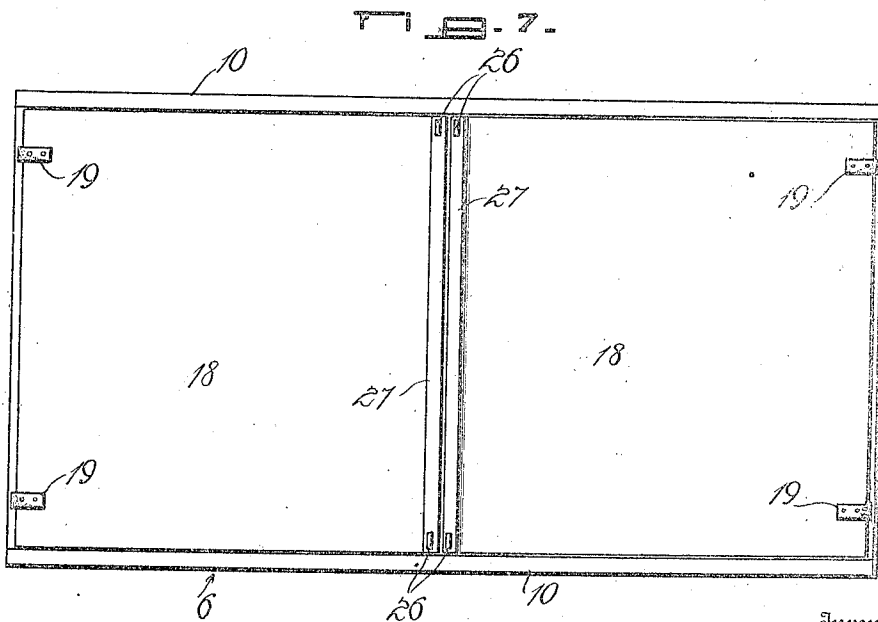
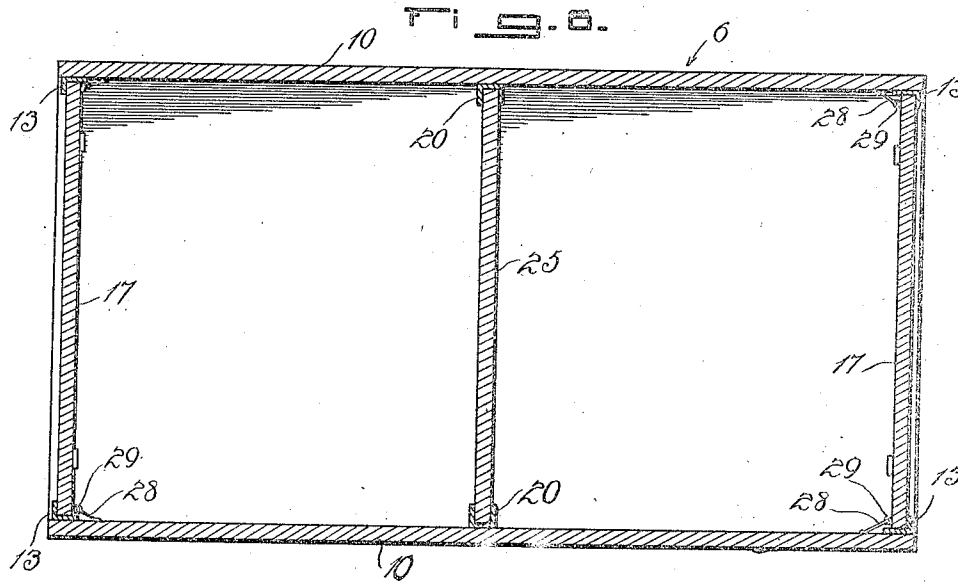
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UNITED STATES PATENT OFFICE.

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FOLDING BOX OR CRATE.

942,612.

Specification of Letters Patent.

Patented Dec. 7, 1909.

Application filed June 2, 1909. Serial No. 499,723.

To all whom it may concern:

Be it known that I, RUDOLPH HOHENSTEIN, a citizen of the United States, residing at Meacham, in the county of Umatilla, State of Oregon, have invented certain new and useful Improvements in Folding Boxes or 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.

The invention relates to boxes or crates and more particularly to the class of foldable boxes or crates employed for the shipment of eggs and similar articles.

The primary object of the invention is the provision of a box or crate which may be readily and quickly knocked down when returned to the shipper so as to occupy a comparatively small amount of space and be handled at much reduced rates.

Another object of the invention is the provision of a foldable box or crate of this character in which the sides, ends and top may be folded inwardly in superimposed relation to each other upon the bottom of the box or crate when knocked down to enable the easy handling thereof by the shipper and that will be compact in form when folded to occupy the smallest possible amount of space when being transported from one locality to another.

A further object of the invention is the provision of a box or crate which is simple in construction, durable, readily and easily knocked down or set up when required, and one that is economical and inexpensive in the manufacture.

With these and other objects in view the invention consists in the construction, combination and arrangement of parts as will be hereinafter more fully described in detail, illustrated in the accompanying drawings, which disclose the preferred form of embodiment of the invention to enable those skilled in the art to practice the invention, and as set forth in the claim hereunto appended.

In the drawings:—Figure 1 is a side elevation of the box or crate constructed in accordance with the invention and in a set up position. Fig. 2 is a longitudinal sectional view through the same. Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 1. Fig. 4 is a top plan view of the box or crate in a folded position. Fig. 5 is an end

elevation thereof in folded position. Fig. 6 is a horizontal sectional view. Fig. 7 is a top plan view.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

In the drawings the numeral 6 designates generally the box or crate which in the present instance is rectangular in shape comprising a bottom 7, having rising therefrom a slight distance removed from opposite ends vertical end pieces 8, one being of slightly increased height with respect to the other and to the opposite longitudinal side edges of this bottom 7 are connected vertical side pieces 9, one of which is of slightly increased height with respect to the other.

Connected to the side pieces 9 are hinged side walls 10 in the manner as will be hereinafter described. Between the mutually adjacent meeting points of the side and end pieces 8 and 9 are disposed substantially L-shaped metallic stays 11, the same being riveted or otherwise secured to the side pieces 9, and are formed with perforated ears 12. Connected to the side walls 10, in alinement with the stays 11, are vertically disposed reinforcing stays 13, the lower terminals of which being formed with perforated ears 14 which latter are connected to the ears 12, by pivots 15, and in this manner the side walls 10, are hinged to the side pieces so as to permit the said side wall to be lowered or swung into folded position.

Connected to the end pieces 8 by means of hinges are end walls 17, the hinges being secured to the inner faces of the said end walls and pieces to permit the inward folding of the end walls when the box or crate is being knocked down. These end walls when the crate is set up lie contiguous to the right angular projecting flange portion of the stays carried by the side pieces and walls thus preventing the said end walls from swinging outwardly of the crate or box.

To the upper edges of the end walls 17, are connected sections 18 by means of hinges 19, which latter permit the outward swinging of the said sections when the box or crate is in set up position. These top sections 18 form a cover to the box or crate.

Fixed centrally to the inner faces of the side walls 10 are substantially U-shaped guide stays 20, the lower terminals of which are formed with perforated ears 21, the

latter hinged by pivots 22 to upper perforated ears 23, of short guide stays 24, secured to the side pieces 9, in alinement with the guide stays 20, and engaging these guide stays is a removable transverse partition 25, which divides the box or crate into two compartments. The guide stays 20 at their upper terminals are provided with spaced parallel engaging extensions 26, containing perforations and being adapted to engage in slots formed near opposite ends of cross strips 27, the latter being secured to the free meeting edges of the top sections 18, forming the box cover when they are closed to permit the locking of the cover in this position.

Connected to the end walls near their upper edges are hook members 28, which latter are adapted to engage eyes 29, mounted on the side walls so as to lock the side and end walls together when the box or crate has been brought to set up position. These hook members and eyes are preferably mounted at the interior of the box or crate so as to be hidden from view.

As previously stated one side piece 9, is of a greater height than the other side piece to correspond to the combined thickness of the two end walls and one of the side walls so as to permit the proper folding of the walls of the box or crate. Also one of the end pieces 8 has a height corresponding to the thickness of one end wall to permit the proper folding of the end walls in superimposed position upon the bottom of the box or crate when being brought to knock down position.

In folding the crate the partition 25 is removed from the guide stays 20, and placed upon the bottom 7, whereupon the end walls are folded inwardly in superimposed position with respect to each other onto the partition with the top sections 18, lying in the

plane with the same and then the side walls are folded inwardly in superimposed relation to each other, and in this manner the box or crate is folded into a compact knock down position.

From the foregoing, the construction and operation of the invention will be clearly apparent so that a more extended explanation is deemed unnecessary and has been omitted.

In the outside face of one of the side walls 10, is mounted a staple 30 which latter is so positioned that when the side walls are folded one above the other this staple 30 will project below the spaced perforated extensions 26 of the guide stay 20, secured to the inner face of the side wall lying above the other folded side wall so that a suitable wire may engage the staple 30 and perforated extensions 26 to fasten the box or crate in folded or knockdown position.

What is claimed is:—

A box of the class described comprising a bottom, side and end pieces mounted securely thereto, end walls hinged to said end pieces and adapted to fold inwardly with respect to the bottom, side walls hinged to the side pieces and adapted to fold inwardly with respect to the bottom, guide stays secured to the side walls and pieces and hinged together, a partition removably mounted in the guide stays top sections hinged to the end walls, perforated extensions on the upper extremities of the guide stays, and cross strips secured to the meeting edges of the top sections and having slotted extremities to engage the perforated extension to permit locking of the top sections.

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

RUDOLPH HOHENSTEIN.

Witnesses:

C. W. NIBLEY, Jr.,
W. C. BARNHART.