

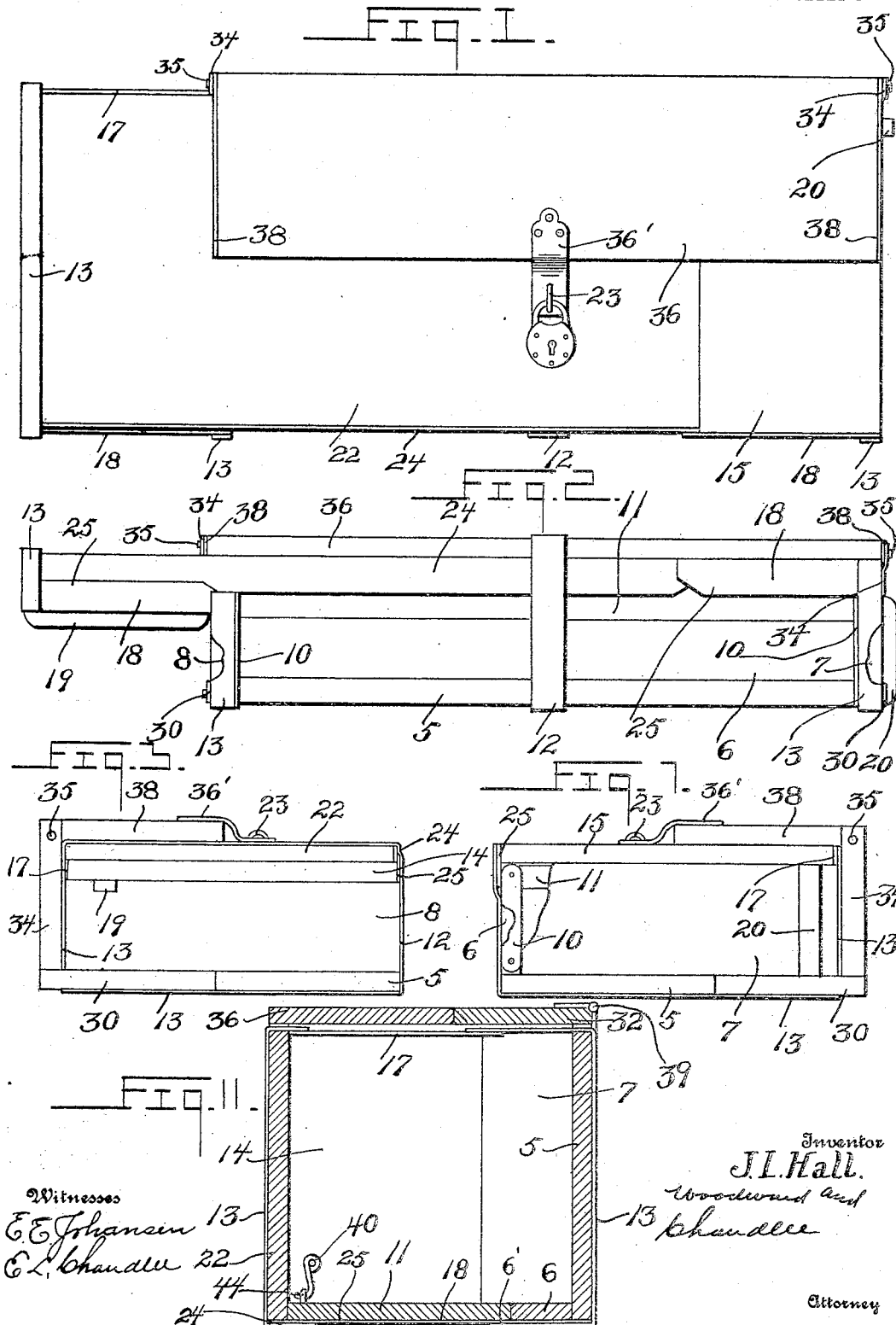
J. I. HALL.
FOLDING CRATE.

APPLICATION FILED FEB. 17, 1909.

939,250.

Patented Nov. 9, 1909.

3 SHEETS—SHEET 1.

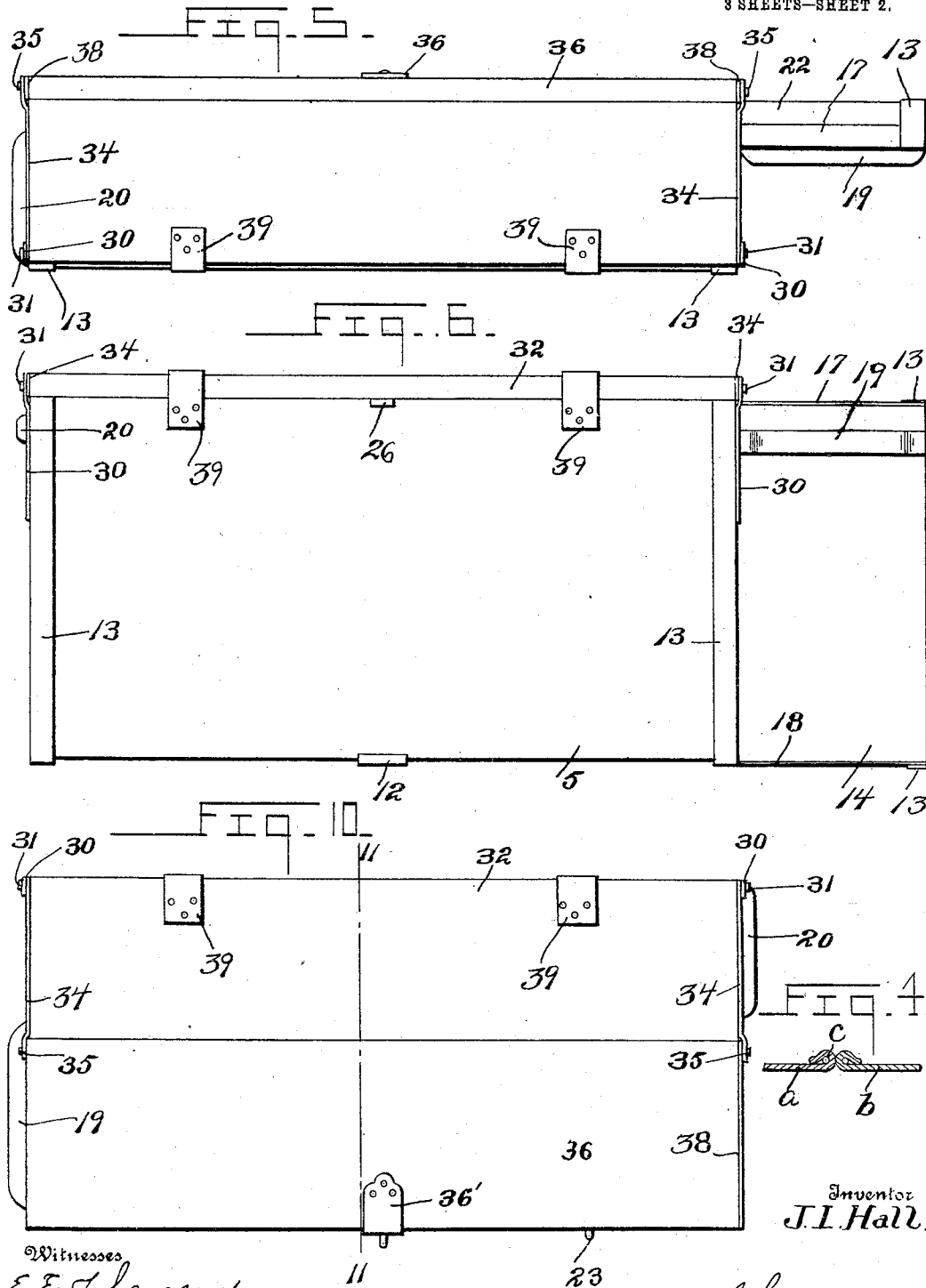


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Witnesses
E. E. Johansen
E. L. Chandler

By Woodworth & Chandler

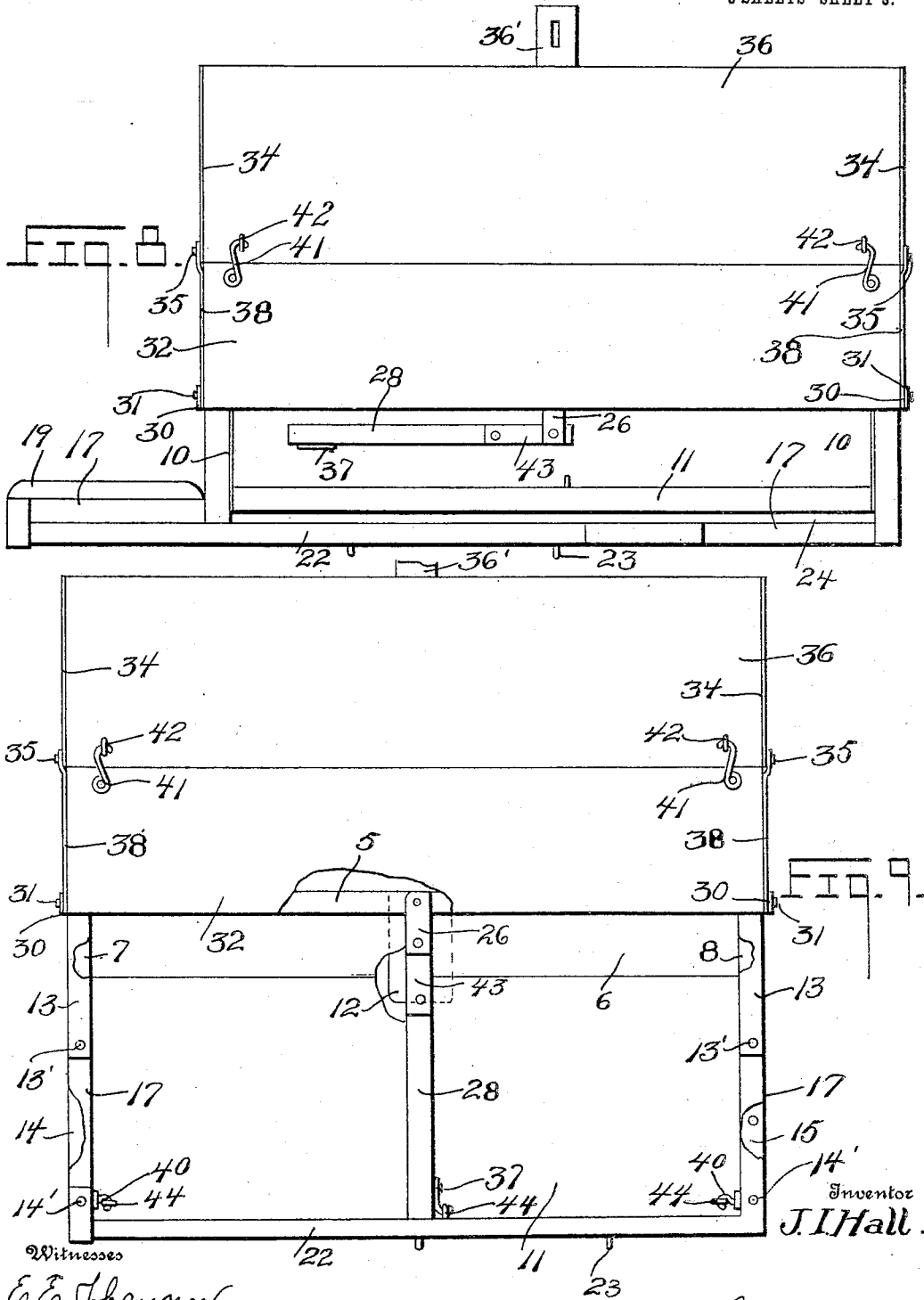
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Attorney

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UNITED STATES PATENT OFFICE.

JOHN I. HALL, OF EAST WORCESTER, NEW YORK.

FOLDING CRATE.

939,250.

Specification of Letters Patent.

Patented Nov. 9, 1909.

Application filed February 17, 1909. Serial No. 478,396.

To all whom it may concern:

Be it known that I, JOHN I. HALL, a citizen of the United States, residing at East Worcester, in the county of Otsego and State of New York, have invented certain new and useful Improvements in Folding Crates, of which the following is a specification.

This invention relates to certain new and useful improvements in folding crates.

The object of my invention is to provide a crate for the shipping of eggs, berries and the like, which when empty to be returned may be quickly folded into a solid, firmly held and compact structure.

A further object of my invention is to provide a crate of the folding type which is without any detachable parts, the different members all being firmly hinged one to the other.

With these and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and particularly pointed out in the claims, it being understood that changes in the specific structure shown and described may be made within the scope of the claims, and that any suitable materials may be used without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like characters of reference indicate similar parts in the several views, Figure 1 is a top view of a folding crate embodying my invention, Fig. 2 is a front edge view of the crate in a folded condition, Fig. 3 is a left end view of the folded crate, Fig. 4 discloses a broken sectional view showing the arrangement of the meeting edges of the several members when the same are made of sheet metal, Fig. 5 shows a rear view of the crate in its folded condition, Fig. 6 discloses a bottom view showing the crate folded, Fig. 7 is an end view from the right side of the crate disclosing the crate as folded, Fig. 8 is a view of the crate folded with the lid opened, Fig. 9 shows a top view of the crate disclosing the lid as opened and the front and movable sides carried outward into position, Fig. 10 is a top view of the crate in an unfolded condition, Fig. 11 is a central sectional view on the line 11—11 of Fig. 10.

In the shipment of eggs, berries, vegetables, fruit and the like, it is quite desirable to have a crate which may be returned in a solid folded and compact condition. In my

present invention I have constructed such a crate and in the accompanying drawings, the numeral 5 represents the back of the crate, this back being in one piece. Secured to this back 5 is the stub bottom 6 while extending from opposite edges of the back are the two similar side members 7 and 8. As shown these two side members are slightly wider than the stub bottom member 6, the stub bottom 6 at each end being provided with the reinforcing strap 10, the forward end of which has an opening adapted to receive a pin, two such pins being used which carry the movable and swinging bottom section 11. As disclosed these strap members 10 are held between the stub bottom 6 and the sides 7 and 8. Centrally secured to the stub bottom 6 and also to the edge of the back 5 is the stop plate 12 which acts as a support to the folding bottom section 11 both in a folded and open condition. Secured to the opposite vertical edges of the back 5 are the two metal straps 13 which have their ends perforated and extending beyond the stub side sections 7 and 8 as disclosed. As shown in the top view, this strap 13 also extends beyond the upper forward edge of each fixed side section 7 and 8, there being two such straps as disclosed. Pivotaly held between the ends of the straps 13 are the hinged side members 14 and 15 which in turn above and below are provided with the projecting reinforcing straps 17 and 18. The movable side section 14 is provided with the handle 19 while upon the opposite side the fixed stub side section 7 is provided with a handle 20. Held between the projecting ends of the two upper strap members 17 and the two lower strap members 18 is the front panel 22 of the crate. This panel as is shown at 23 is provided with a staple and along its lower edge is provided with the projecting bottom supporting sheet metal strap 24. As disclosed each of the folding side sections 14 and 15 is also provided with projecting bottom supporting strap members 25.

Pivotaly secured to the ear 26 which extends inwardly from the back 5 and working upon a pin within the stub bottom 6 is the hingedly held partition 28. The back 5 along its opposite edges and adjacent to the straps 13 is provided with the securing straps 30 which have their ends perforated and extending beyond the upper edge of the back to form a support for the pins 31 at each end entering into the top member 32.

This top member 32 along opposite ends is reinforced by means of the metallic straps 13, the end of each strap also projecting and having a suitable pin opening to receive a
 5 pin 35 by means of which the forward top or lid section 36 is hingedly secured to the rear lid section 32 as disclosed. The forward lid section 36 carries a hasp 36' arranged to engage the staple 23 when the
 10 crate is in a folded condition as is shown in Fig. 1, the hasp being secured to the staple by means of a suitable pad-lock or other means.

As shown in the top view, the partition 28
 15 is secured to the bottom by means of the hooks 37 the folding side members 14 and 15 also being provided with hooks 40 engaging within eyes 44 secured to the folding bottom member 11.

20 When the crate is used for the shipping of eggs the members are so held when folded as to provide a suitable space for the filler or egg carriers. When used for the shipment of berries, vegetables and the like, the
 25 crate is preferably so made that when folded one section folds flat and compactly upon the other to provide a solid mass as it were.

My crate construction permits the closure to be made of wood, fiber boards, or sheet
 30 metal and where necessary, it is of course understood that the various sections may be provided with suitable ventilation openings.

As the lid comprises the two sections 32 and 36 hingedly connected, I provide the
 35 same upon the bottom with the hook 41 and eye 42 which are brought into engagement to hold the lid in a flat condition. The crate is carried and handled by means of the two handle-forming cleats secured to the ends as
 40 disclosed.

The device is light, neat and simple of construction.

Where the carrier is made of sheet metal, I simply recurve the hinged ends of the
 45 crate-forming sections, to provide the required pin sleeves, within which suitable links are held.

In Fig. 4 I show a fragmentary view of two sheet metal crate sections *a* and *b*, each
 50 of which has an edge recurved to provide a pin sleeve, to receive the parallel held members of a suitable link *c*.

And having thus described my said invention, what I claim as new and desire to secure
 55 by United States Letters Patent is:

1. The combination with a back, of a stub bottom section, two stub side sections extending from said back section, a folding
 60 bottom section pivotally held between the ends of said stub side sections, the edges of

said folding side sections being flush with the face of said bottom when said bottom is in a folded condition, a folding end section secured to each of said stub end sections, a
 65 front panel hingedly connected to said folding end sections, and a partition secured to said back and working above said stub bottom section and arranged to be secured to said front panel.

2. The combination with a back, of a stub
 70 bottom section secured to said back, two stub side sections extending from said back and being also secured to said stub bottom section, said side sections extending beyond said
 75 bottom section, a bottom section pivotally secured between said side sections, bottom supporting flanges secured to the lower edges of said stub side sections, a hingedly connected side section secured to each stub side section, a front panel pivotally secured to each
 80 hingedly connected side section, bottom supporting flanges secured to each of said hingedly connected side sections and a two-part folding lid secured to said back section.

3. The combination with a back, of a stub
 85 bottom section extending from said back, two stub end sections extending from said back, said end sections projecting beyond said stub bottom section, a folding bottom section pivotally held between said stub end
 90 sections, a folding end section secured to each of said stub end sections, a front panel pivotally secured to said folding end sections, means carried by said folding end sections to support said bottom, and a two-part
 95 lid secured to said back section.

4. The combination with a back, of a stub bottom section, two stub side sections extending from said back section, the vertical
 100 edges of said side sections being reinforced by channel-forming sheet metal bindings, a folding bottom section pivotally held between the ends of said stub sections, the edges of said folding side sections being flush with the face of said bottom when said bot-
 105 tom is in a folded condition, a folding end section, the opposite vertical edges of which are reinforced by channel-forming sheet metal bindings, links within said channels securing said end sections, a front panel
 110 hingedly connected to said end sections by means of a link, and a partition secured to said back and working above said stub bottom section, as and for the purpose set forth.

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

JOHN I. HALL.

Witnesses:

M. F. BROWN,
 E. LEROY BOON.