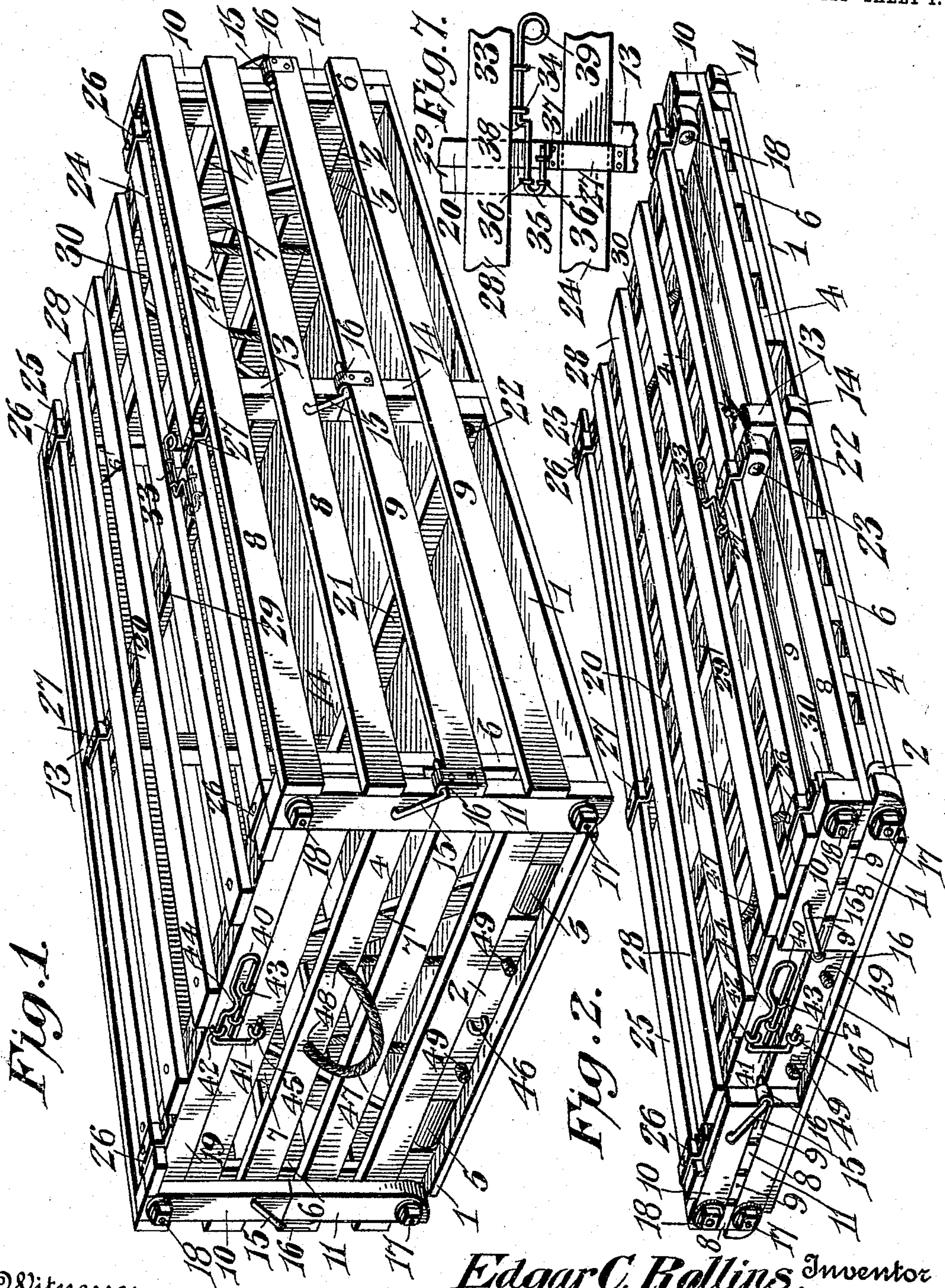


936,946.

E. C. ROLLINS.
FOLDABLE SHIPPING CRATE.
APPLICATION FILED JULY 10, 1908.

Patented Oct. 12, 1909.
2 SHEETS—SHEET 1.



Witnesses
Jas. E. McLaughlin
H. J. Riley

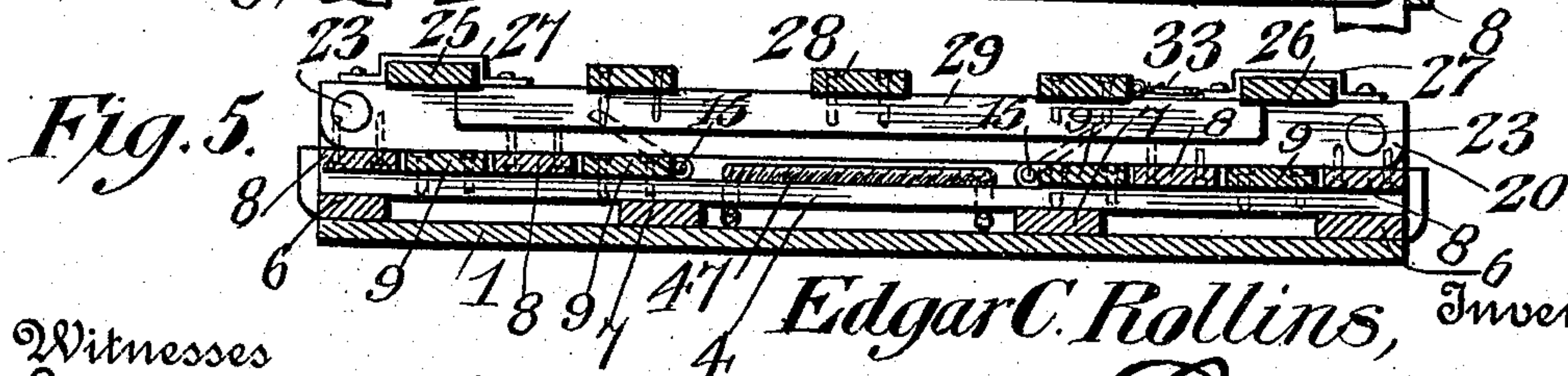
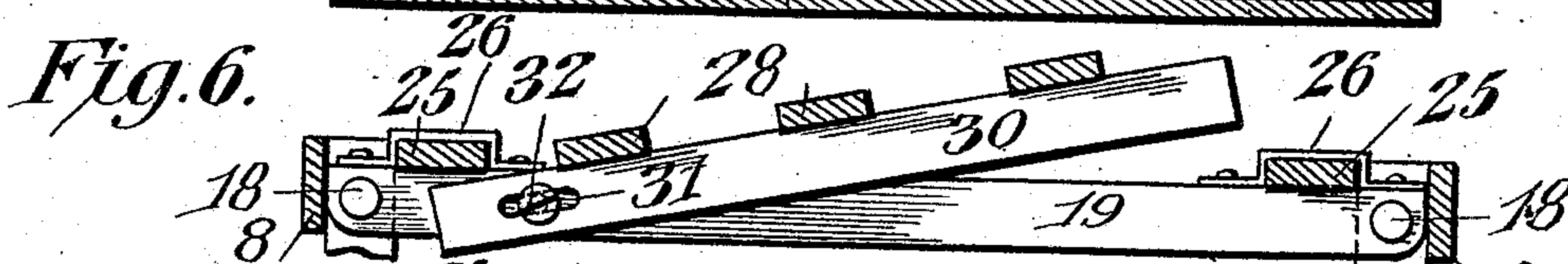
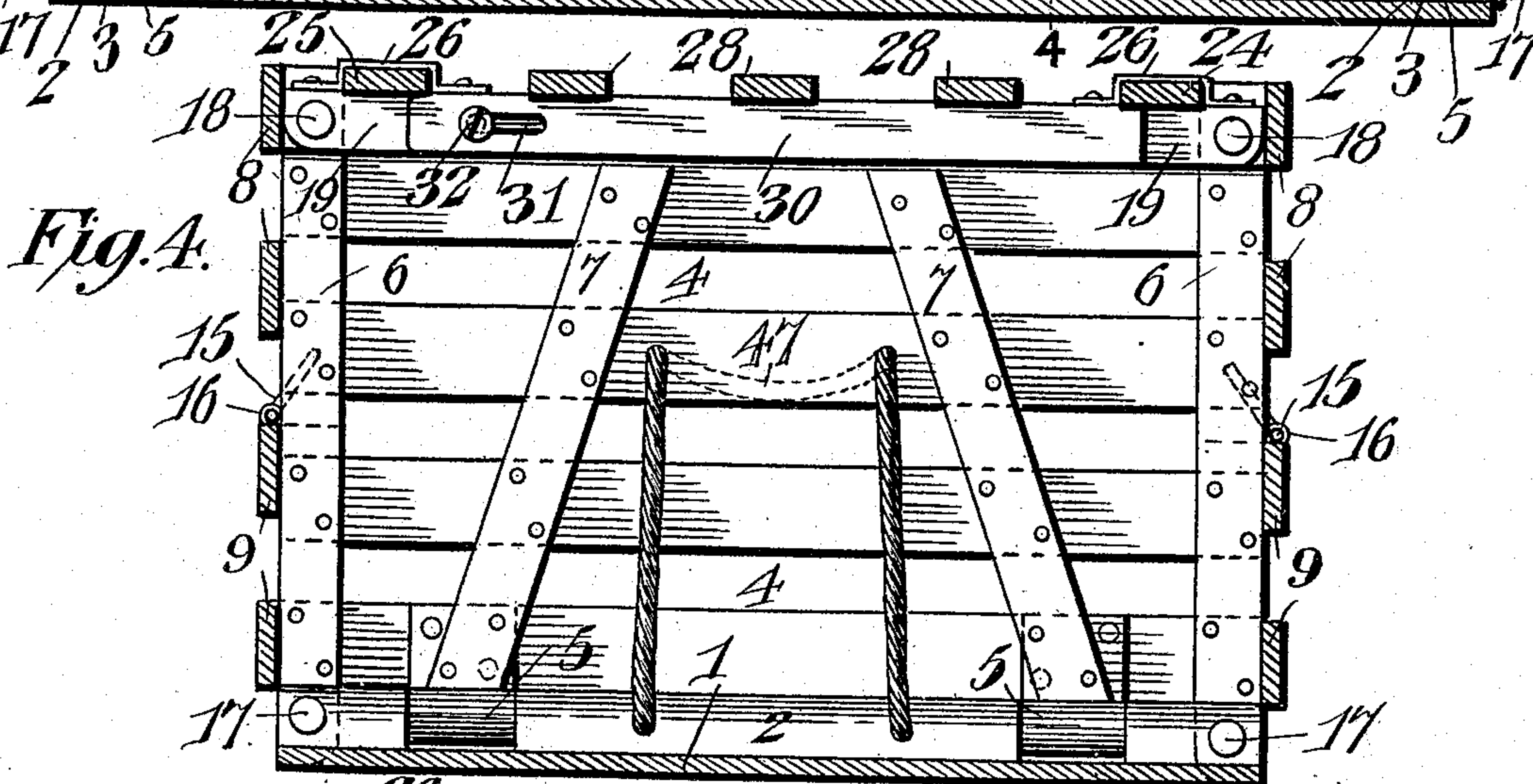
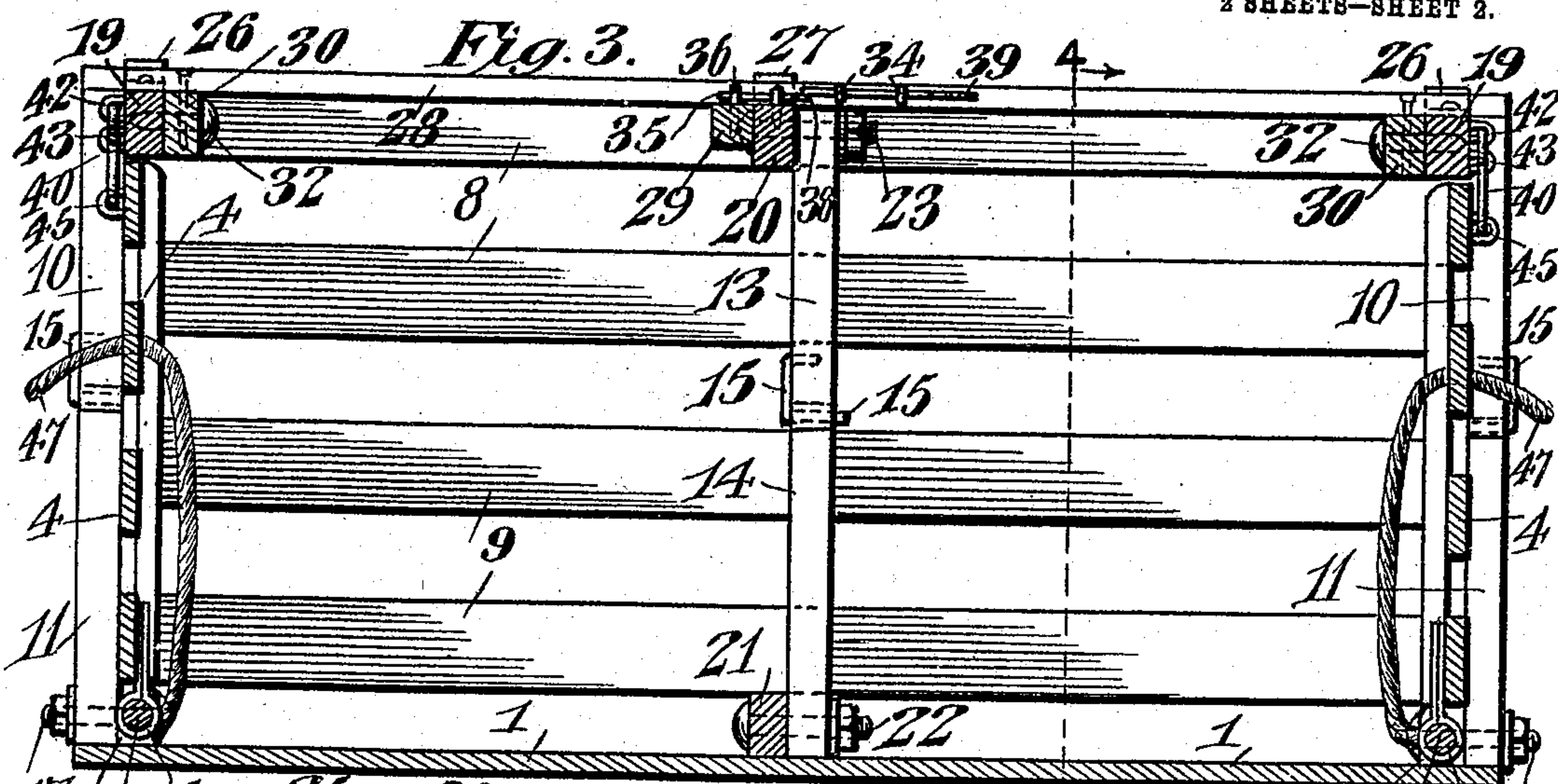
Edgar C. Rollins, Inventor
By
E. J. Singer
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Witnesses
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UNITED STATES PATENT OFFICE.

EDGAR C. ROLLINS, OF CALL, TEXAS, ASSIGNOR TO W. H. NEWTON, OF KIRBYVILLE, TEXAS.

FOLDABLE SHIPPING-CRATE.

936,946.

Specification of Letters Patent.

Patented Oct. 12, 1909.

Application filed July 10, 1908. Serial No. 442,892.

To all whom it may concern:

Be it known that I, EDGAR C. ROLLINS, a citizen of the United States, residing at Call, in the county of Newton and State of Texas, have invented a new and useful Foldable Shipping-Crate, of which the following is a specification.

The invention relates to improvements in foldable shipping crates.

10 The object of the present invention is to improve the construction of foldable crates, and to provide a simple and inexpensive one of great strength and durability, designed for shipping poultry, fruit, vegetables and 15 various other merchandise, and capable of being quickly and compactly folded for returning it to the shipper and for storing when not in use.

A further object of the invention is to provide a collapsible shipping crate of this character, in which there will be no liability of any of the parts becoming lost in transit while the crate is in a folded condition.

25 With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that 30 various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

35 In the drawings:—Figure 1 is a perspective view of a collapsible shipping crate, constructed in accordance with this invention and arranged for use. Fig. 2 is a perspective view, the crate being folded. Fig. 3 is 40 a longitudinal sectional view of the crate, the parts being arranged as shown in Fig. 1. Fig. 4 is a transverse sectional view on the line 4—4 of Fig. 3. Fig. 5 is a transverse sectional view, the parts being folded. Fig. 45 6 is a detail sectional view of the upper portion of the crate, the cover being open. Fig. 7 is a detail view, illustrating the construction of the slidable latch for securing the door of the cover in its closed position.

50 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates the bottom of the crate provided at its ends with transverse bars 2, se-

cured to the upper face of the bottom and 55 having reduced rounded pintle portions 3, to which the ends 4 of the crate are hinged by eyes or cuffs 5, each consisting of a strip or piece of metal bent into circular form to provide the eyes and having its terminals 60 extending upward and secured to the end 4, as clearly illustrated in Figs. 3 and 4 of the drawings. The ends 4 are foldable inwardly against the bottom 1, which is preferably solid, as shown, but an open or slatted bot- 65 tom may be substituted for the solid bottom, as will be readily apparent, when the character of the contents will admit of the use of a slatted bottom. When the ends 4 are arranged in a vertical position, they fit 70 against and are supported by the upper edges of the transverse pintle bars 2, which are rounded at their inner faces adjacent to their upper edges to permit the ends 4, when swung downward to clear them. The ends 75 4 consist of spaced slats or bars, connected at their terminals by vertical end bars 6 and at intermediate points by inclined upwardly converging braces 7, and the said end bars 6 and braces 7 are secured to the inner faces 80 of the spaced slats or bars. The sides of the collapsible crate are divided horizontally into upper and lower sections, connected together at the median line of each side, and the said sides are hinged at their upper and 85 lower edges to the top and the bottom of the crate, whereby they are adapted to fold inwardly beneath the top and upon the bottom to permit the crate to assume the collapsed or knock-down position, illustrated 90 in Fig. 2 of the drawings. The upper section of each side of the crate is provided with spaced slats 8 and the lower section has spaced slats 9, the slats 8 and 9 of the upper and lower sections being connected by upper 95 and lower members 10 and 11 of the corner posts, which are made in sections. The sides of the crate are also reinforced by intermediate posts or bars, composed of upper and lower members or sections 13 and 100 14. The upper and lower sections of the sides are connected by hinges, consisting of pintle elements 15 and eyes 16. The eyes consist of metallic straps or pieces bent around the upper edges of the upper slats of the lower section and projecting upward therefrom to form eyes to receive the pintle 105 15. The pintles 15, which are constructed

of stout wire, or other suitable material, have shanks or attaching portions, arranged at right angles to the pintle or pivot portion and forming substantially L-shaped elements. The slats of the upper and lower sections of the sides are arranged to clear each other, and to interfit when the crate is collapsed and folded, as illustrated in Fig. 2 of the drawings. The spaced bars or slats of the sections of the sides of the crate are arranged in the same horizontal plane, when the parts are folded. The lower ends of the lower sections or members 11 of the corner posts are pivoted to the terminals of the transverse pintle bars 2 by bolts 17, and the upper ends of the upper sections or members 10 are pivoted by bolts 18 to transverse end bars 19 of the top of the crate. The top and bottom of the crate are also equipped with intermediate transverse bars 20 and 21 to which the upper and lower sections or members 13 and 14 of the intermediate posts or bars are pivoted by bolts 22 and 23.

The end and intermediate transverse bars 19 and 20 of the top of the crate are connected together by side slats 24 and 25, which are bound to the end and intermediate transverse bars by metallic straps 26 and 27, forming loops to receive the slats 24 and 25 and secured to the same and to the transverse bars 19 and 20. The top of the crate is equipped with a door, extending the entire length of the crate and consisting of spaced longitudinal slats 28 and intermediate and end transverse connecting bars 29 and 30. The slats 28 of the door are arranged upon and supported by the upper edges of the end and intermediate transverse bars 19 and 20, when the said door is closed, and the transverse end bars 30, which are located at the inner faces of the end bars of the top of the crate, are provided adjacent to one end with longitudinal slots 31, receiving pivots 32, which hinge the door of the crate to the top of the same at one side thereof. The slots of the end transverse bars of the door permit the latter to slide transversely of the crate to engage the free end of the transverse connecting bars 29 and 30 beneath the side slat 24, whereby the door is held against upward movement. When the free ends of the transverse bars 29 and 30 of the door are engaged beneath the side slat 24, the other ends of the transverse bars 29 and 30 extend beneath the other side slat 25, and the pivots 32 are located at the outer ends of the slots 31. The door is locked in this position by a slidable catch 33, constructed of wire, or other suitable material and consisting of a stem guided in eyes 34 of one of the side slats of the door and provided at one end with a substantially U-shaped portion 35. The sides of the U-shaped portion slide in eyes 36 of the intermediate transverse slat 29, and the end

of the outer side of the U-shaped portion is adapted to engage a keeper eye 37 of the intermediate transverse bar 20 of the top of the crate, whereby the door is locked against sliding movement, and the free ends maintained in engagement with the lower face of the side slat 24. The stem of the sliding latch or catch is provided at an intermediate point with an angular bend 38, forming a shoulder, which is arranged adjacent to one of the eyes 34, and the end 39 of the stem is bent upon itself to form a circular handle portion by means of which the slidable latch may be readily operated to engage and release the keeper to engage and disengage the keeper eye 37. When the latch 33 is disengaged from the keeper, the door is free to slide back for disengaging its transverse bar from beneath the slat 24. This will permit the door to swing upward for affording access to the crate.

Each end of the crate is equipped with a slidable latch 40, located at an intermediate point between the sides of the crate and constructed of wire, or other suitable material and consisting of an approximately horizontally disposed U-shaped body portion and a depending L-shaped engaging portion 41. The U-shaped body portion, which is composed of upper and lower sides, slides in guiding eyes 42 and 43 of the transverse end bar 19 of the top of the crate, and the upper side is bowed outward at an intermediate point to form a handle or grip 44 to facilitate the operation of the latch. The L-shaped engaging portion consists of a horizontal arm and a vertical connecting hook, the arm being adapted to engage either an eye 45 of the hinged end 4 or an eye 46 of the transverse pintle bar 2. The slidable end latch 40 engages the keeper eye 45 of the end 4, when the latter is in a vertical position to arrange the crate for use, and the latch 40 engages the keeper eye 46, as clearly illustrated in Fig. 2 of the drawings for locking the crate in its folded or knock down position. The end latch is in position to engage either of the eyes 45, 46, and by locking the crate in its folded or knock-down position there is no liability of its parts becoming loose in transit.

Each end of the crate is equipped with a handle 47 consisting of a piece of rope doubled to form a substantially U-shaped loop and having its side portions passed through perforations 48 of one of the slats or bars of the end 4 and extended downward at the interior of the crate to the transverse pintle bar. The terminals of the rope, which are passed through perforations 49 of the transverse pintle bar, may be knotted or otherwise secured in the latter perforations. When the crate is arranged for use, the hinged ends, which fit between the hinged sides of the crate, are limited in their outward move-

ment by the corner posts, and they brace and effectually prevent the hinged sides from collapsing.

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

1. A knock-down or collapsible shipping crate including a bottom provided at its ends with transverse pintle bars having rounded pintle portions and rounded at their inner faces adjacent to their upper edges and provided with square outer upper edges, foldable ends fitting against the upper edges of the pintle bars and provided with hinged elements receiving the pintle portions of the said bars, hinged sides composed of upper and lower sections hinged together and foldable inwardly, and a top connecting the sides.

2. A knock-down or collapsible shipping crate comprising a bottom, sides hinged to the bottom and composed of upper and lower sections consisting of spaced slats and connecting posts or pieces, the slats of one section being arranged to clear and interfit with the slats of the other section, whereby when the sides are folded all the slats thereof will be arranged in the same horizontal plane, and hinges connecting the sections and including eyes projecting upward from the slats of the lower section, and approximately L-shaped pintles fitting in the eyes and secured to the posts or pieces of the upper sections, foldable ends, and a top.

3. A knock-down or collapsible shipping crate including a bottom, hinged foldable sides, ends hinged to the bottom, a top connecting the sides, keepers connected with the bottom and with the ends at the upper portions thereof and located at an intermediate point between the sides of the crate, and a latch located at an intermediate point between the sides of the crate and slidably mounted on the top and provided with a depending approximately L-shaped portion arranged to engage either of the said keepers to lock the parts in their folded and unfolded positions.

4. A knock-down or collapsible shipping

crate including a bottom, hinged foldable sides, ends hinged to the bottom, a top connecting the sides, keepers connected with the bottom and with the ends at the upper portions thereof and located at an intermediate point between the sides of the crate, a slidable latch located at an intermediate point between the sides of the crate and consisting of a horizontally disposed approximately U-shaped portion slidably mounted on and carried by the top of the crate and having one of its sides bowed outward at an intermediate point to form a handle or grip, and a depending approximately L-shaped portion arranged to engage either of the said keepers.

5. A knock-down or collapsible shipping crate including a bottom, hinged sides, foldable ends, and a top connecting the sides and provided with side slats and having a door extending the entire length of the crate and slidably and pivotally connected with the top at one side of the crate and engaging beneath the side slat at the other side of the crate, and a latch for locking the door in its closed position.

6. A knock-down or collapsible shipping crate comprising a bottom, hinged sides, foldable ends, a top including transverse bars connecting the sides, side slats secured to the transverse bars, and a door extending the entire length of the crate and composed of longitudinal slats and intermediate and end transverse bars connecting the slats and fitted against the said transverse bars of the top, the end transverse bars of the door being provided with longitudinal slots, pivots passing through the slots and connecting the door to the adjacent end bars of the top, and a latch for locking the door in its closed position.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

EDGAR C. ROLLINS.

Witnesses:

G. R. FERGUSON,
J. W. PICKLE.