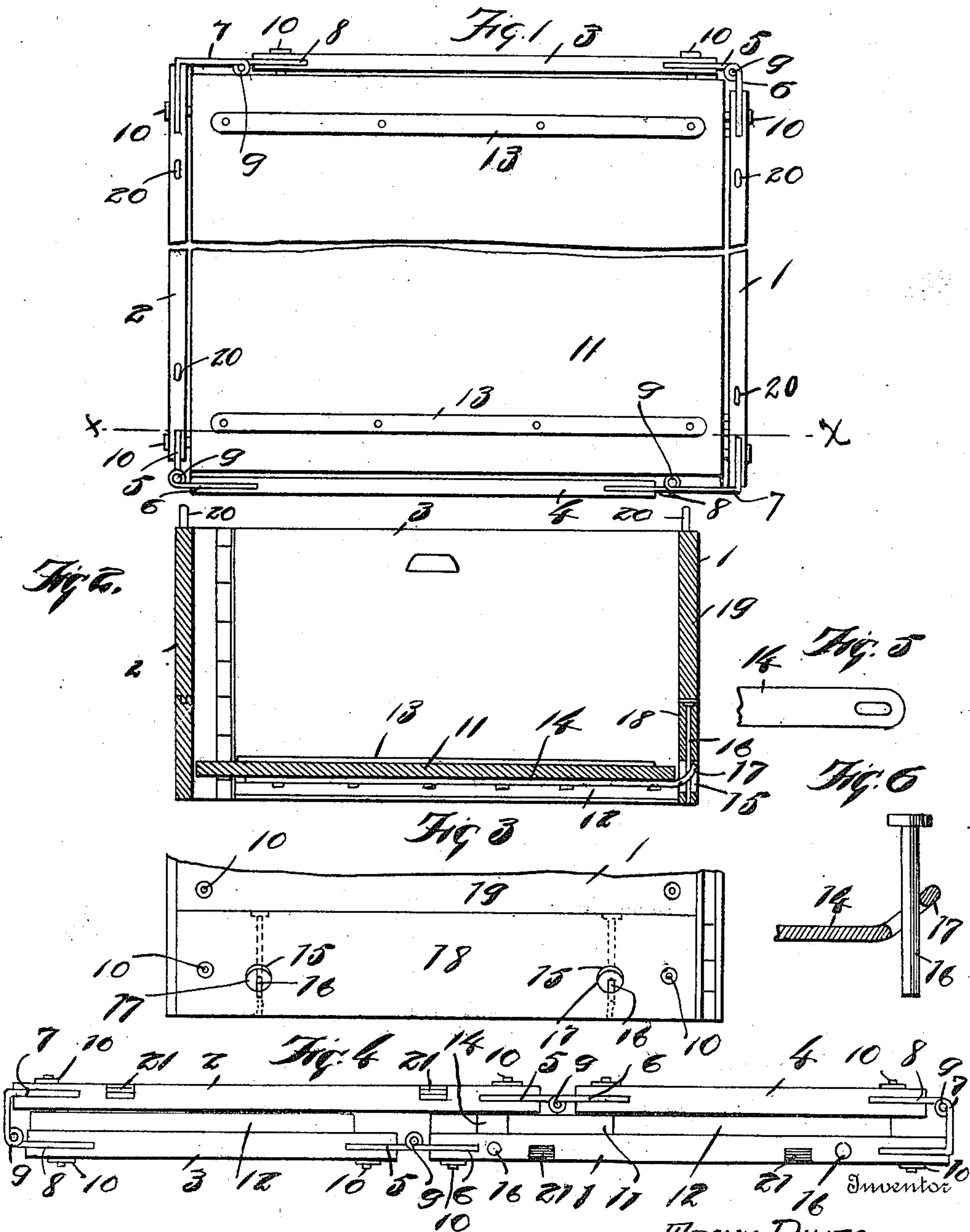


F. PINTO.  
COLLAPSIBLE BOX.  
APPLICATION FILED JULY 19, 1910.

974,820.

Patented Nov. 8, 1910.



Witnesses  
B. H. Kowalski  
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FRANK PINTO.

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# UNITED STATES PATENT OFFICE.

FRANK PINTO, OF FORT WORTH, TEXAS.

## COLLAPSIBLE BOX.

974,820.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed July 19, 1910. Serial No. 572,767.

*To all whom it may concern:*

Be it known that I, FRANK PINTO, a citizen of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented certain new and useful Improvements in Collapsible Boxes, of which the following is a specification.

My invention relates to knockdown or folding boxes and the object is to provide a simple and durable collapsible or folding box for the use of merchants which is equally as useful for shipping purposes as for city delivery wagons.

Unless crates or boxes can be folded when empty to be returned the expense will be so great as compared with the worth of the boxes that it is impractical to return boxes from whence they were shipped.

In city delivery, the improved boxes can be folded as soon as the goods are delivered so that the empty boxes will occupy very small space in the wagons and will not be in the way of the deliveryman.

One object is to provide such folding boxes with devices which will prevent the possibility of the bottoms being detached in use and to provide the folding parts with such hinges as will permit the folding with great rapidity and not be disarranged by rough usage.

Other objects and advantages will be fully explained in the following description and the invention will be more particularly pointed out in the claim.

Reference is had to the accompanying drawings which form a part of this application.

Figure 1 is a plan view of the box open. Fig. 2 is a vertical sectional elevation, taken on the line  $x-x$  of Fig. 1. Fig. 3 is a broken side elevation, showing the manner of the hinging of the bottom to one side of the box. Fig. 4 is an enlarged edge view of the box folded. Fig. 5 is a broken portion of one of the strap hinges. Fig. 6 is an enlarged sectional view of a strap hinge, showing the manner of engaging the retaining bolt or pintle.

Similar characters of reference are used to indicate the same parts throughout the several views.

The sides 1 and 2 and ends 3 and 4 are preferably made of wood and connected together by metallic flanges 5 and 6 and 7 and

8 which are hinged together, the flanges being formed into hinges at their meeting edges and connected by pintles 9. The other edges of the metallic corners are inserted in kerfs in the sides and ends of the box and held therein by rivets 10 which clamp the wood on the metal. The flanges 7 are angular flanges to provide space for the bottom when the box is folded.

The bottom 11 is hinged to one of the sides, in the drawings herewith, to the side 1 and is free to swing up against one side. The free edge of the bottom is supported, when in position for service, on side cleats 12 which are firmly attached to the ends 3 and 4. The bottom is strengthened by metal straps 13 which are attached thereto and by the strap hinges 14. The hinges 14 project into perforations or holes 15 made in the side 1 and engage bolts or pintles 16 which retain the bottom in place so that it can be swung at the free edge to bring the same against the side 1. The ends 17 of the hinges are bent to permit the folding of the bottom. The bolts 16 are placed in the sides so that it will be impossible to displace the bolts without taking the box to pieces. The heads of the bolts are countersunk in the upper edge of the board 18 and the board 19 will prevent the removal of the bolt after the board is secured in place. The bolts or pintles 16 extend through the perforations 15 to be engaged by the hinges 14. Dowels 20 are placed in the top edges of the sides and recesses 21 are formed in the lower edges of the sides so that boxes can be stacked upon each other.

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

A collapsible box having four walls, metal flanges clamped in the edges of the walls and the meeting edges of said flanges being formed into hinges, pintles for the hinges, one of said walls being constructed of sections, a bottom, strap hinges attached to said bottom and projecting therefrom, cleats attached to the lower parts of two of said walls to support said bottom, the parts of said strap hinges projecting from said bottom being curved and having elongated perforations therethrough, said sectional wall having perforations through the lower section thereof to receive the ends of said

hinges, and bolts having heads countersunk in the upper edge of said lower section and projecting through said section and through the perforations of said strap hinges to complete hinges for said bottom, said bolts being held against displacement by the upper section of said sectional wall.

In testimony whereof, I set my hand in the presence of two witnesses, this 15th day of July, 1910.

FRANK PINTO.

Witnesses:

A. L. JACKSON,  
J. W. STITT.