

M. DETTKA.

FOLDING BOX.

APPLICATION FILED SEPT. 2, 1908.

916,278.

Patented Mar. 23, 1909.

Fig. 1.

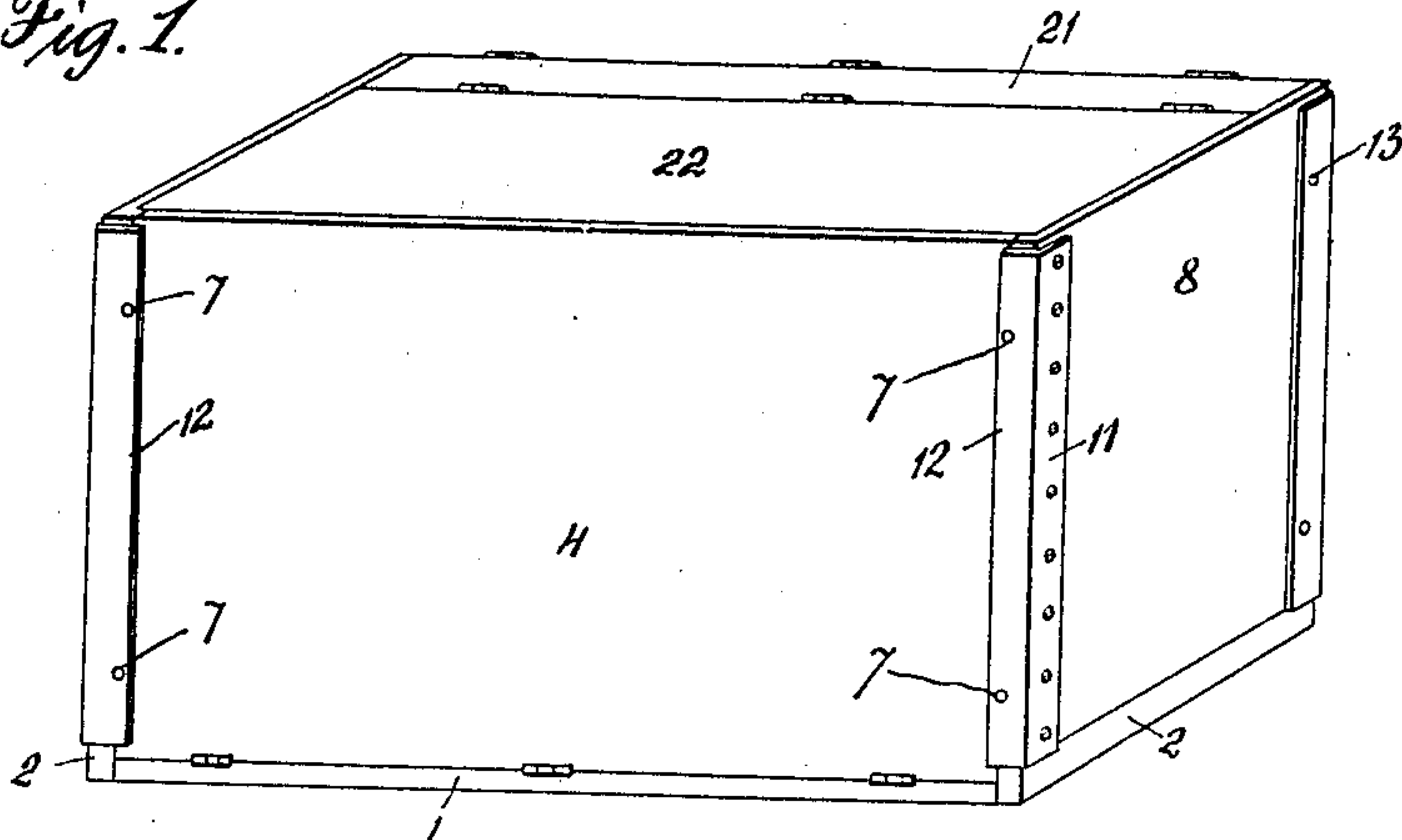


Fig. 2.

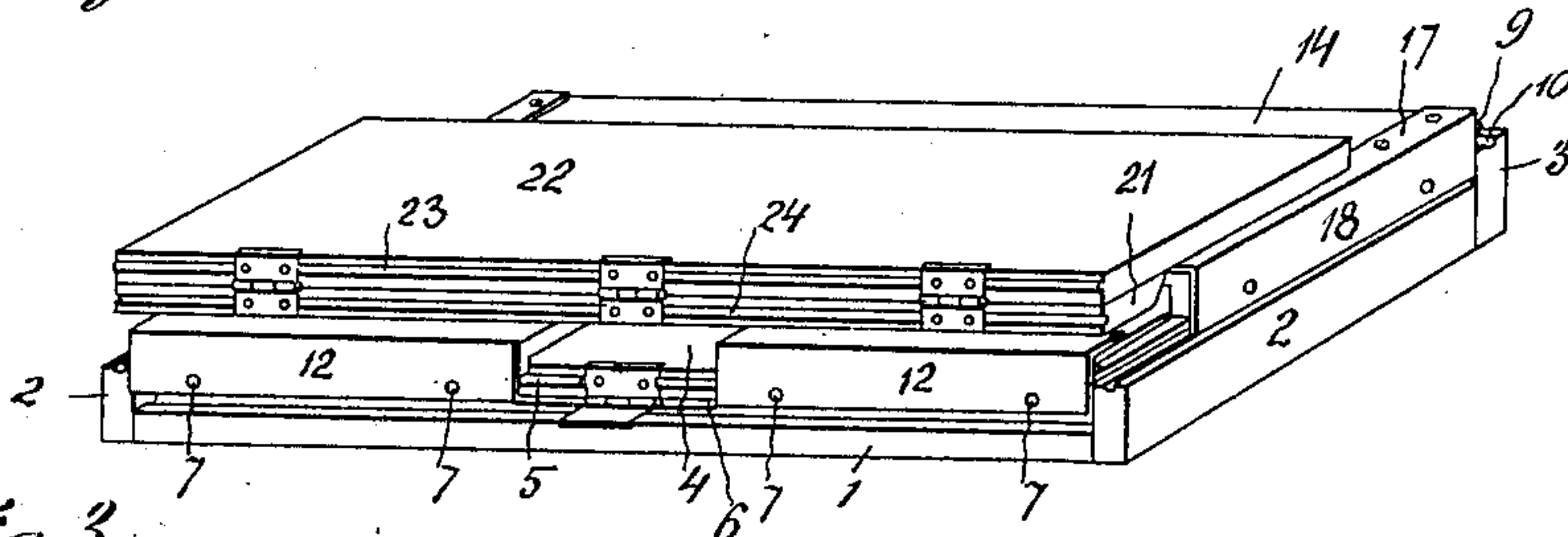


Fig. 3.

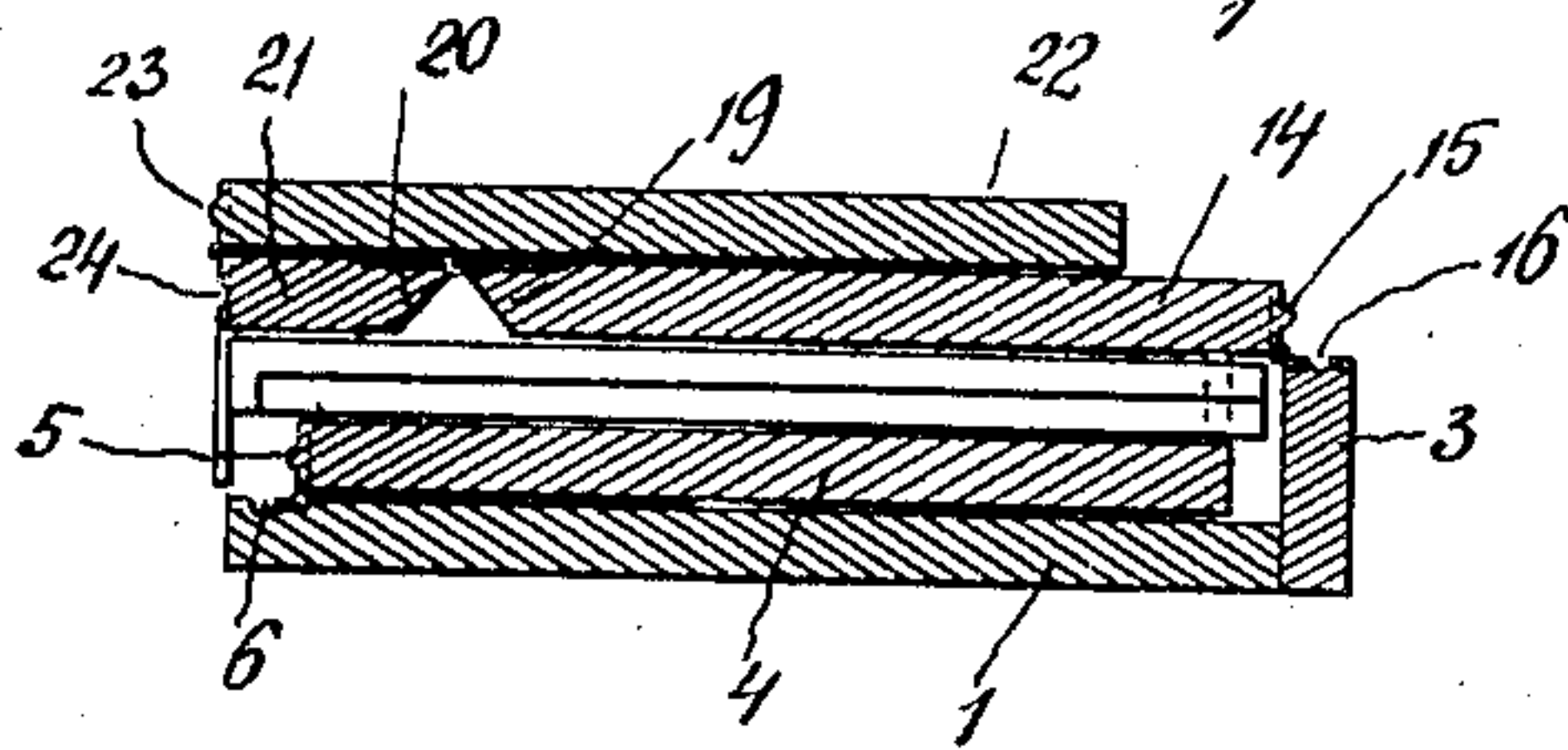
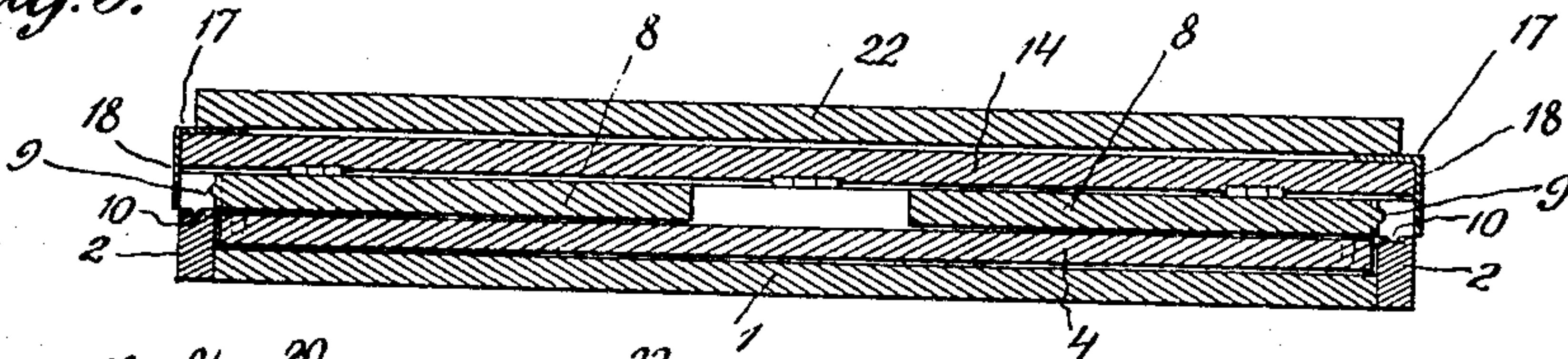
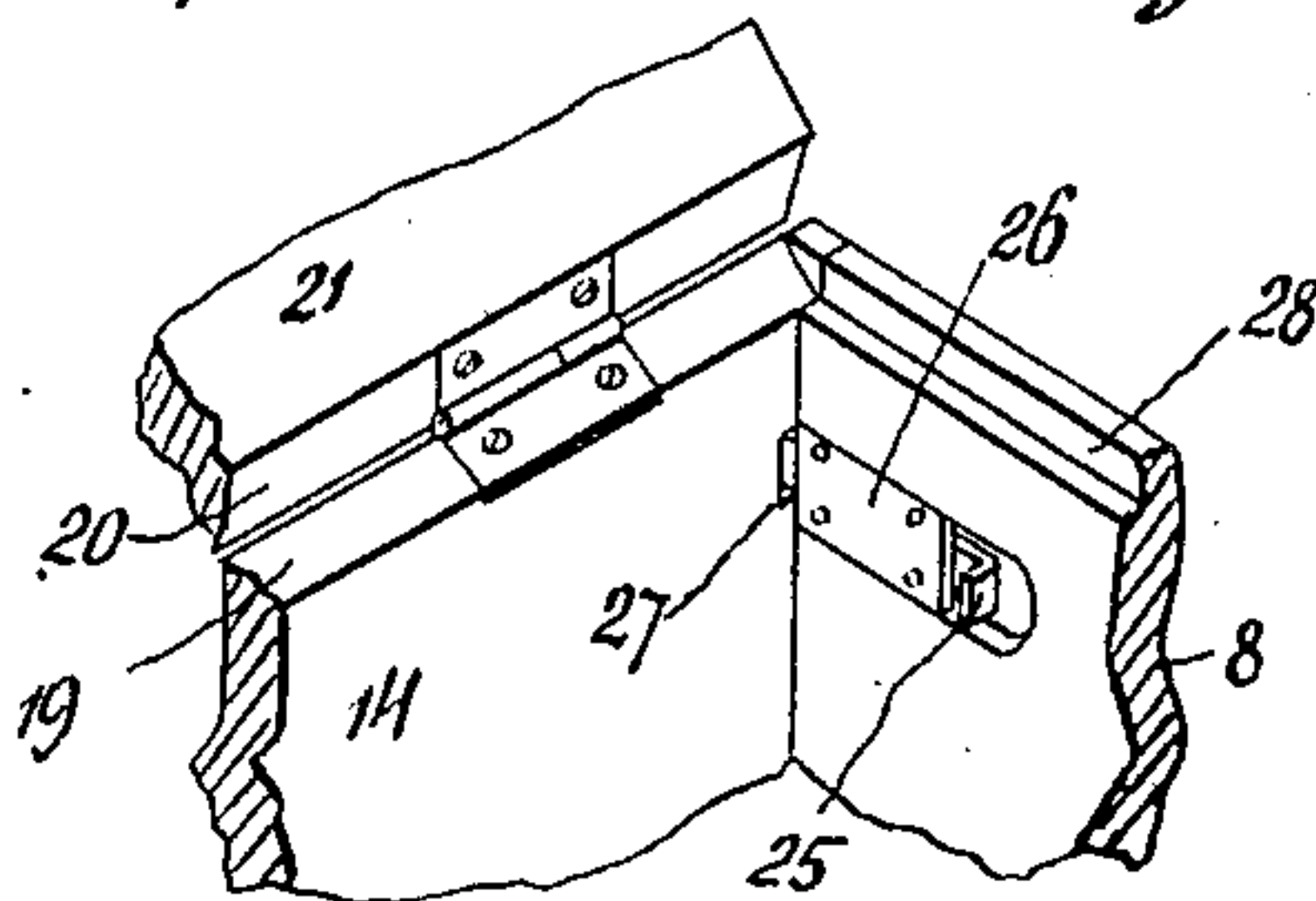


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

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FOLDING BOX.

No. 916,278.

Specification of Letters Patent.

Patented March 23, 1909.

Application filed September 2, 1908. Serial No. 451,428.

To all whom it may concern:

Be it known that I, MICHAEL DETTKA, a citizen of the United States of America, residing at N. S. Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Folding Boxes, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to folding boxes, crates and similar receptacles, and the object of the invention is to provide a collapsible box that can be advantageously used for the transportation of fruit, vegetables, and such merchandise, that is generally packed in boxes that are returned by the consignee to the shipper.

The collapsible box is constructed to occupy a comparatively small space for return shipment and when knocked down can be easily handled, while in a set up form, the box produces a strong and durable structure that will stand the rough usage to which the same is subjected during shipment.

The invention will be hereinafter described in detail and claimed.

Referring to the drawings, Figure 1 is a perspective view of the box in a set up form, Fig. 2 is a similar view of the box in a knocked down form, Fig. 3 is a longitudinal sectional view of the same, Fig. 4 is a cross sectional view, and Fig. 5 is a detail perspective view of a portion of the box illustrating a latch used in connection with the same.

To put my invention into practice, I provide a bottom board 1 with end cleats 2 and a longitudinal side cleat 3 forming the rear end of the board 1, the cleats 2 being approximately twice the depth of the bottom board 1, while the side cleat 3 is three times the depth of the bottom board 1.

Hinged to the front of the board 1 is a front board 4 having longitudinal tongues 5 adapted to enter a longitudinal groove 6 formed in the board 1. The vertical outer edges of the board 4 are provided with pins 7, for a purpose that will presently appear.

Hinged to the end cleats 2 are end boards 8 having depending tongues 9 adapted to enter grooves 10 formed in said end cleats. The vertical front edges of the end boards 8 are provided with angle bars 11, having apertured flanges 12 adapted to engage the vertical front edges of the front board 4 and receive the pins 7 carried thereby. The

vertical rear edges of the boards 8 are provided with outwardly extending pins 13, similar to the pins 7.

Hinged to the cleat 3 is a rear board 14 having a longitudinal depending tongue adapted to enter a longitudinal groove 16 formed in said cleat. The vertical edges of the rear board 14 are provided with angle bars 17 having apertured flanges 18 adapted to engage the rear vertical edges of the end board 8 and receive the pin thereof.

The upper edge of the rear board 14 is beveled, as at 19 and hinged to said beveled edge is a beveled edge 20 of a lid board 21. Hinged to the board 21 is a lid 22 having a tongue 23 adapted to enter a groove 24 formed in the board 21.

The upper inner edges of the end boards 8 and the front board 4 are chamfered or shouldered, as at 28, to provide a seat for the board 21 and the lid 22, whereby said board and lid when closed will lie flush with the upper edges of the boards 4, 8 and 14.

The inner sides of the end boards 8 at the rear and upper edges thereof are cut away to accommodate latches 25 which are held in place by plates 26. These latches are adapted to enter recesses 27 provided therefor in the rear board 14.

In a collapsed or knocked down form, the front board 4 rests upon the bottom board 1, the end boards 8 upon the front board 4, the rear board 14 and the lid board 20 upon the end boards 8, and the lid 22 upon the lid board 20, and the rear board 14, as clearly shown in Figs. 2 to 4 inclusive.

To place the box in a set up form, as shown in Fig. 1, the rear board 14 is elevated, and then the end boards 8. As soon as the pins 13 of the end boards 8 engage in the flanges 18 of the angle bars 17, the latches 25 are moved into the recesses 27, these latches maintaining the end boards 8 in a vertical position with relation to the rear board 14. The front board 4 is now raised to engage the flanges 12 of the angle bars 11, with the pins 7 engaging in said flanges. The lid board 21 is then lowered and the lid 22 closed, to engage the shouldered edges 28 of the boards 4 and 8. The beveled edges 19 and 20 of the front board 4 and the lid 21, permits of said lid board being folded at right angles to the rear board 14.

Having now described my invention what I claim as new, is;—

A folding box comprising a grooved bot-

tom board, grooved end clips carried there-
by, a front board hinged to said bottom
board and having a tongue engaging in the
groove of the bottom board, said front board
5 adapted to fold upon said bottom board, end
boards hinged to said end clips and each hav-
ing a tongue adapted to engage in the groove
of its respective clip, said end board adapted
to fold upon said front board, angle bars car-
10 ried by the forward edges of said end boards,
and adapted to engage said front board, pins
carried by the vertical edges of said front
board and adapted to extend through said
angle bars, a rear board hinged to said side
15 clip and having a tongue adapted to engage
in the groove of said clip, said rear board

adapted to fold upon said end board, angle
bars carried by the vertical edges of said
rear board, pins carried by the rear vertical
edges of said end board and adapted to en- 20
gage in the angle bars carried by the rear
board, latches arranged upon the inner sides
of said inner boards and engaging in said
rear board, a lid board hinged to the upper
edges of said rear board, and a lid hinged to 25
said lid board.

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

MICHAEL DETTKA.

Witnesses:

A. H. RABSAID,
MAX H. SROLOVITZ.