

F. GEZA.
FOLDING BOX.
APPLICATION FILED MAR. 14, 1914.

1,154,697.

Patented Sept. 28, 1915.

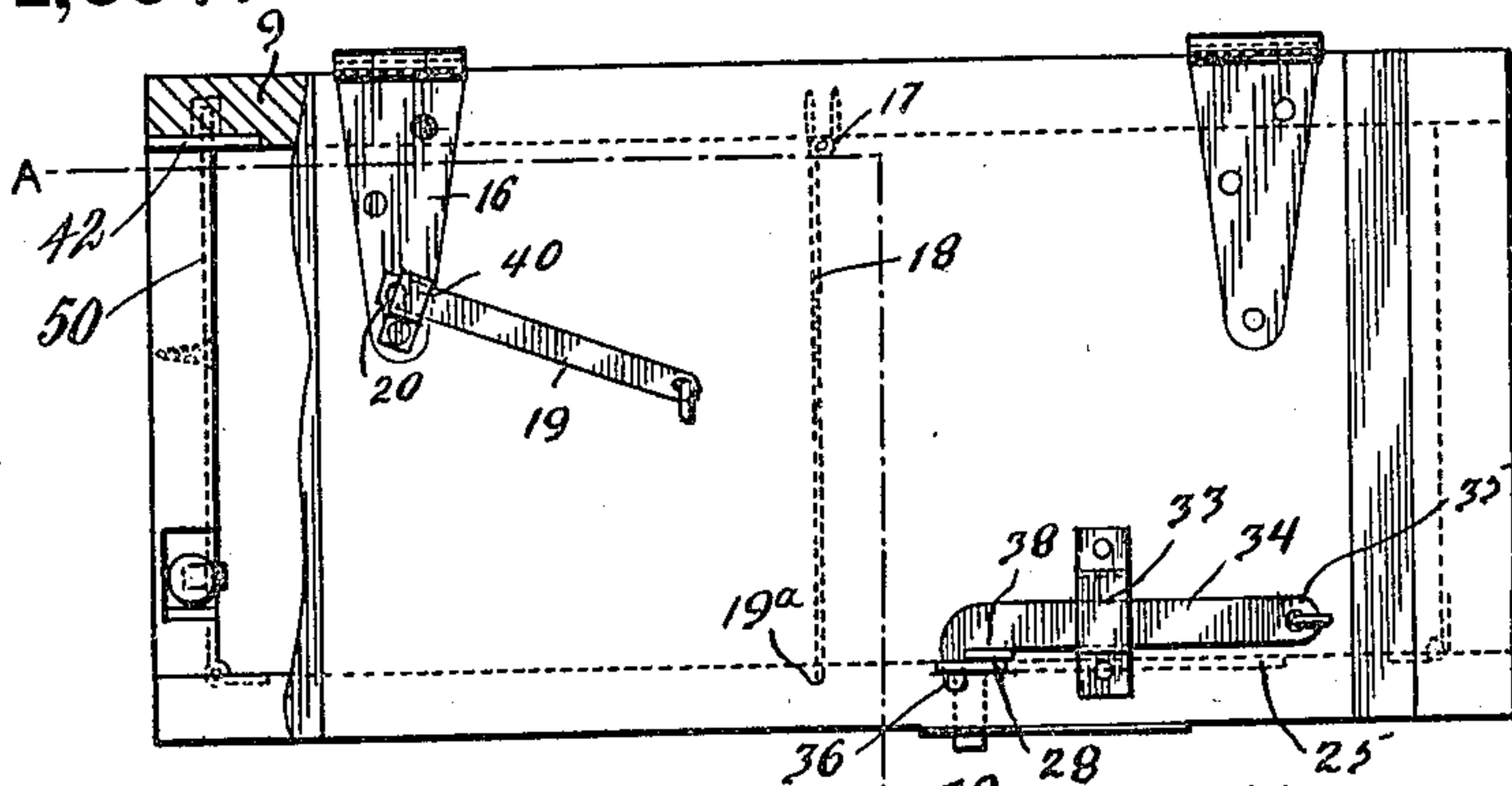


Fig. 1.

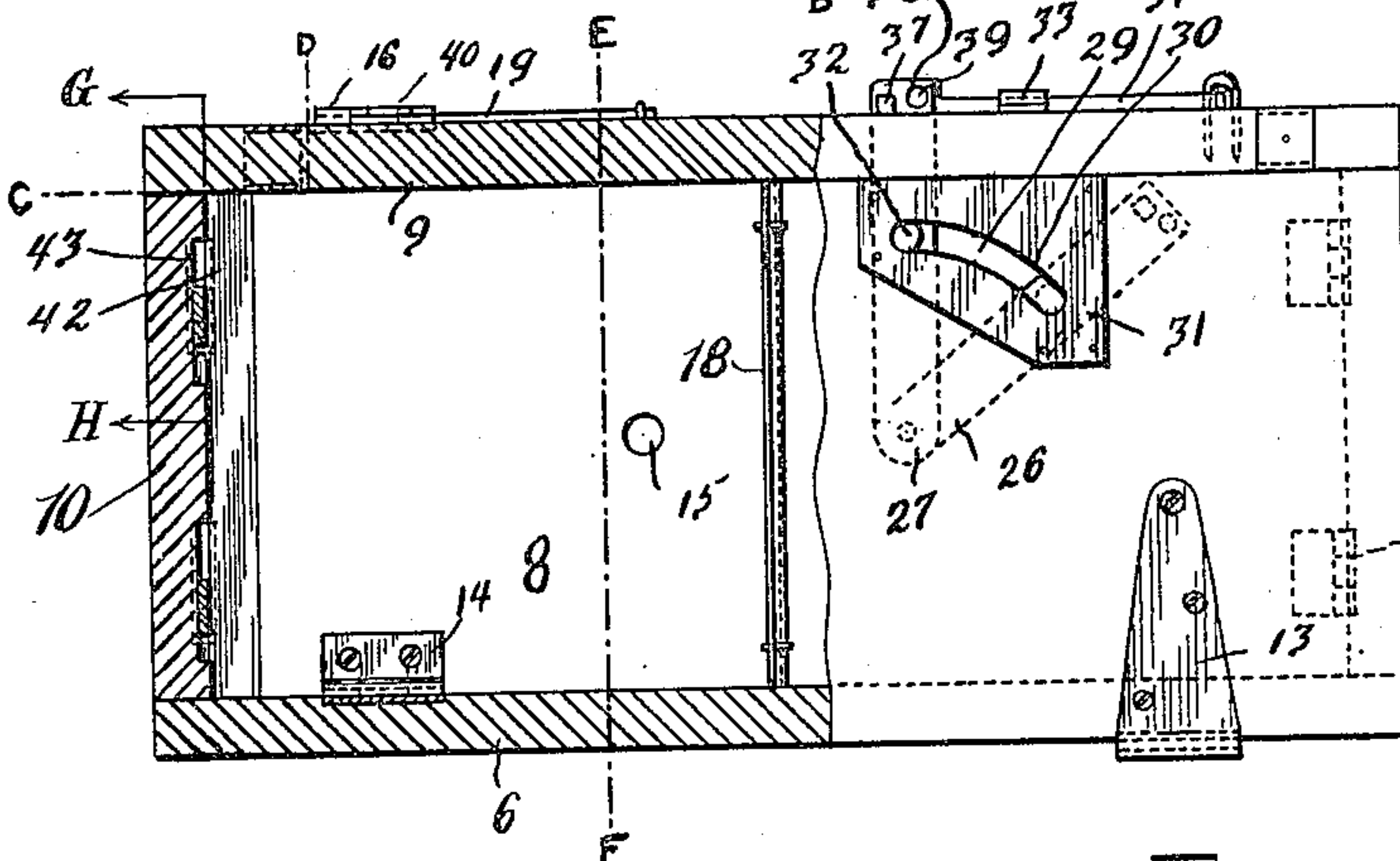


Fig. 2.

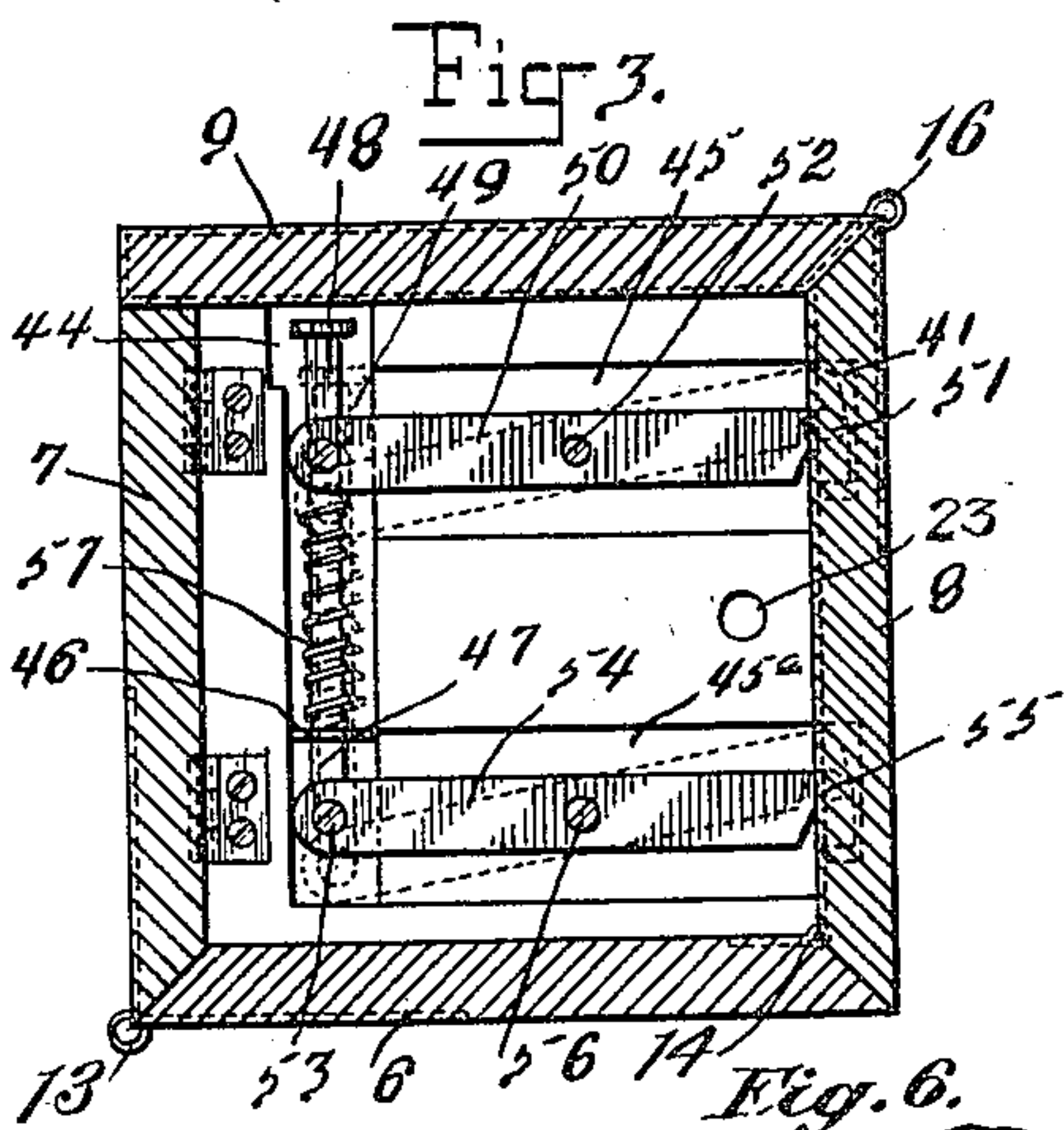


Fig. 3.

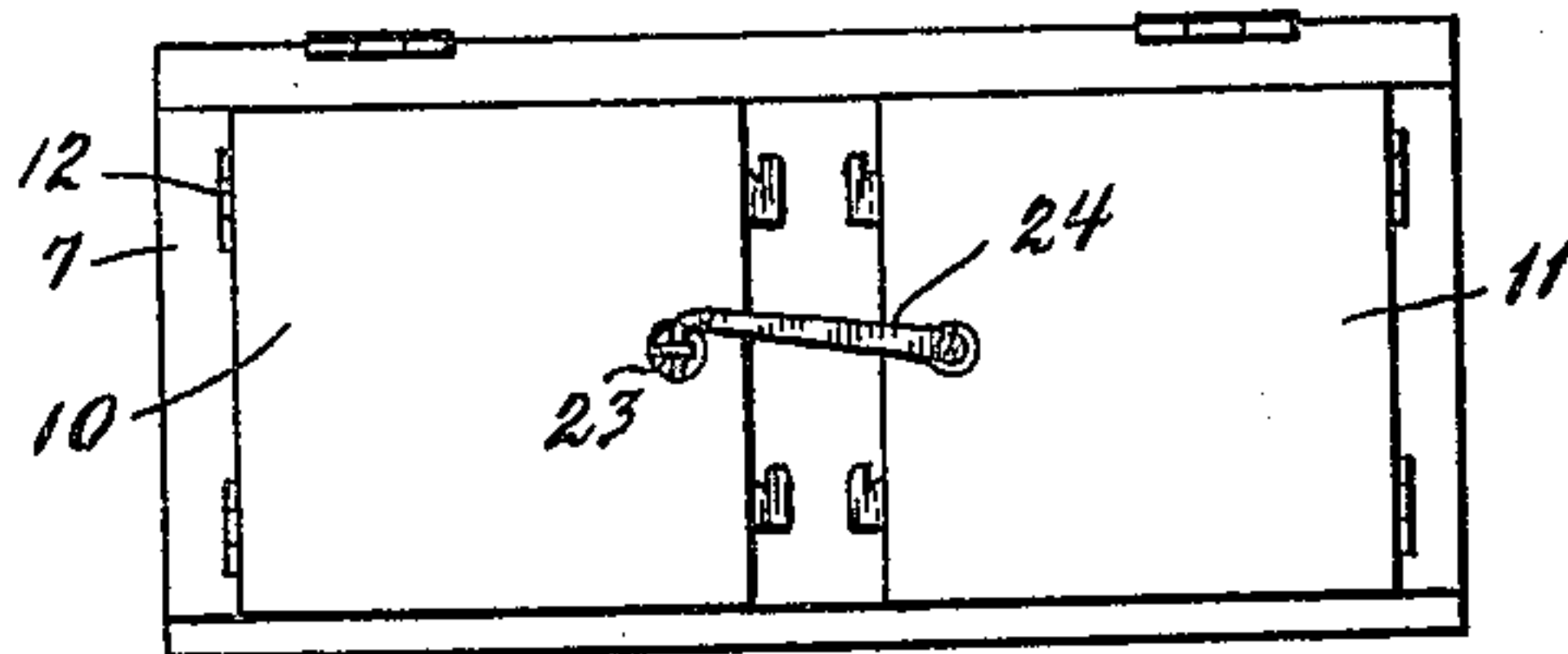


Fig. 4.

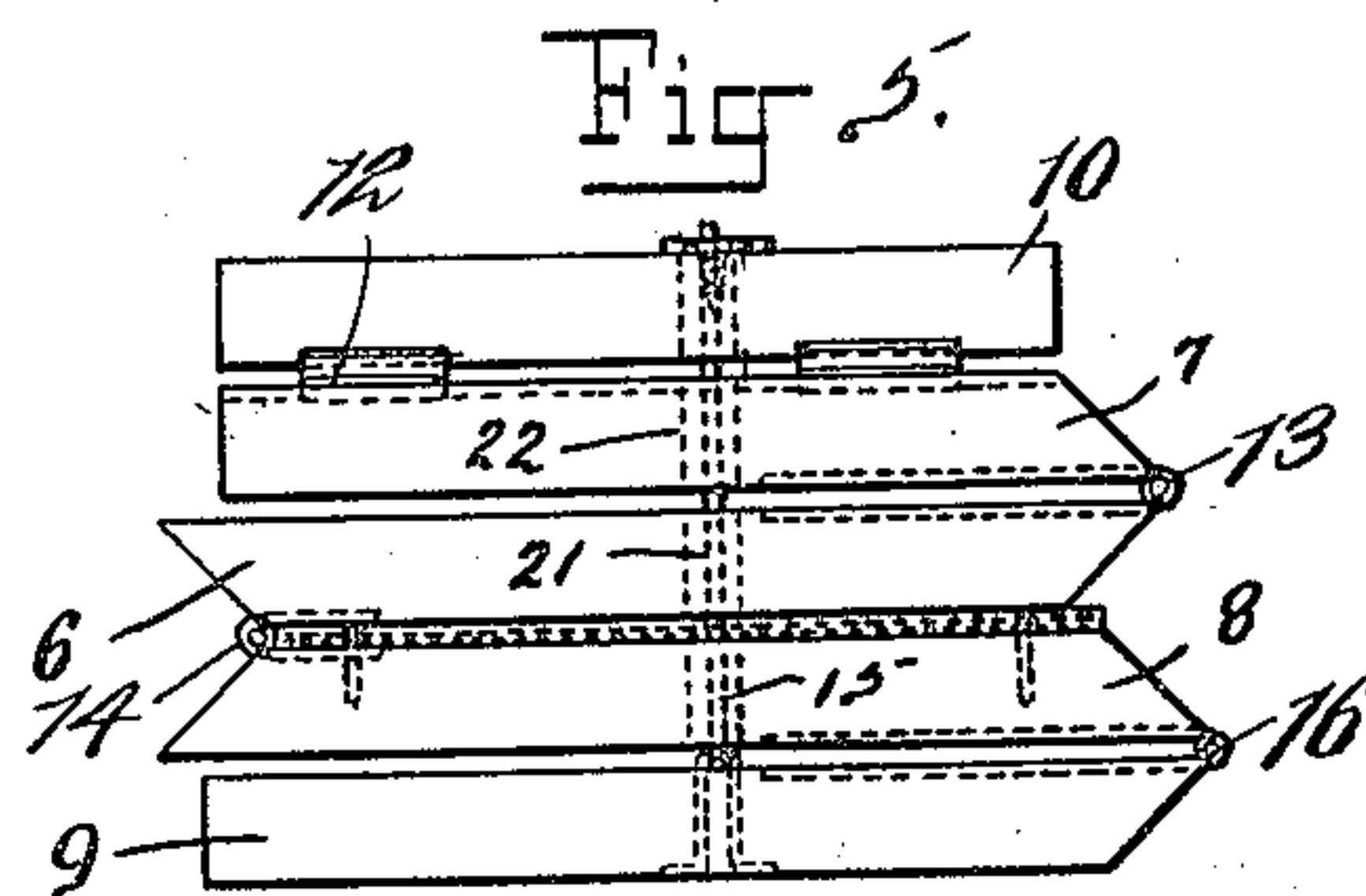


Fig. 5.

Witnesses

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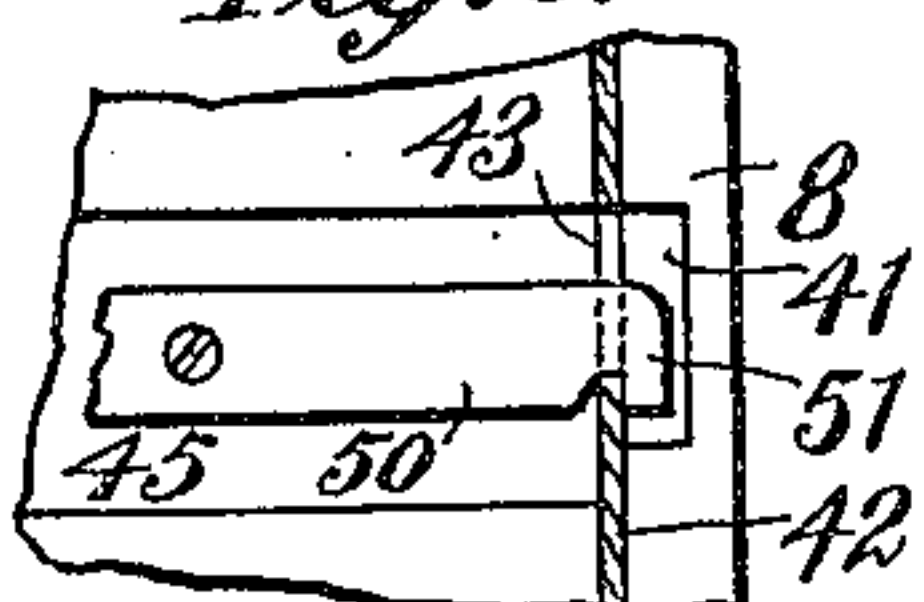


Fig. 6.

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UNITED STATES PATENT OFFICE.

FULOP GEZA, OF DAYTON, OHIO.

FOLDING BOX.

1,154,697.

Specification of Letters Patent.

Patented Sept. 28, 1915.

Application filed March 14, 1914. Serial No. 824,736.

To all whom it may concern:

Be it known that I, FULOP GEZA, a subject of the King of Hungary, residing at Dayton, in the county of Montgomery and State of Ohio, 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.

10 This invention relates to folding boxes, and has for its object to provide a box whose walls may be locked together when expanded and may also be folded and locked together compactly when the box is in knock-down condition.

15 A further object of the invention is to provide a knock-down box whose front wall and lid are provided with means for locking the said lid and walls together when occasion so requires, and which means is capable of being shifted from normal position when the box is folded so as not to interfere with the folding of the box in a compact manner.

20 Further objects of the invention are to provide a knock-down box of this kind which is simple and inexpensive in its construction, is strong, durable, efficient and convenient in use, and may be readily set up or knocked down.

25 With the foregoing and other objects in view the invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown one preferred embodiment of the invention, it being understood that changes, variations and modifications can be resorted to within the scope of the claims hereunto appended.

30 In describing the invention in detail reference is had to the accompanying drawings wherein like reference characters denote corresponding parts throughout the several views and in which:—

35 Figure 1 is a top plan view, partly in section upon line C—D Fig. 2; Fig. 2 is an elevation, partly in section on line A—B Fig. 1; Fig. 3 is a section on line E—F Fig. 2; Fig. 4 is a top plan view with the box folded; Fig. 5 is an end view of the box when knocked-down; and Fig. 6 is a detail section on the line G—H, Fig. 2.

40 Referring to the drawings in detail, 6 denotes the bottom of the box, 7 the front wall, 55 8 the rear wall, 9 the lid or cover, and 10—11 the end walls. The end walls 10—11

are hinged to the inner face of the front wall 7, as at 12, and are swung against the inner face of said front wall 7 when the box is knocked-down or folded. The lower edge 60 of the front wall 7 and the forward edge of the bottom 6 are beveled, whereby when the wall 7 is moved to an upright position as in Fig. 3, the lower edge thereof will rest upon the front edge of the bottom 6. The front 65 wall 7 is connected to the bottom 6 by hinges 13. The upper and lower edges of the rear wall 8 are beveled, and the rear edge of the bottom 6 beveled, and when the rear wall 8 is moved to an upright position, as in Fig. 70 3, its lower edge rests upon the inner edge of the bottom 6, and the said rear wall 8 is connected to the bottom 6 by hinges 14. The rear wall 8 is provided with an opening 15 for a purpose to be presently referred to. 75 The rear edge of the lid 9 is beveled and abuts against the upper beveled edge of the rear wall 8 when the latter is in an upright position and the lid 9 is connected to the rear wall 8 by the hinges 16. 80

When the front wall 7 and rear wall 8 are in an upright position, the lid 9 extends over the top square edge of the front wall 7. Pivotaly connected to the inner face of the rear wall 8, as at 17, is a partition 18, 85 adapted when the box is set up to lie in a groove 19^a formed in the inner face of the front wall 7. When the box is folded, the lid 9 is placed against the outer face of the rear wall 8, and the bottom 6 upon the wall 90 8, the front wall 7 upon the bottom 6, and the end walls 10 and 11 upon the front wall, as in Fig. 5. The partition 18 is interposed between the rear wall 8 and bottom 6. The lid 9 carries a pivoted retaining bar 19, hav- 95 ing an opening 20 in one end thereof. When the box is folded up its walls are successively strung upon the bar 19, which then passes through the opening 15 in wall 8, opening 21 in the bottom 6, an opening 22 in the 100 front wall 7 and an opening 23 in the end wall 10. The end wall 11 carries a hook 24, which is then passed through the opening 20 in bar 19, whereby the elements of the box are secured together in a compact man- 105 ner as illustrated in Fig. 5. When the box is extended or unfolded, the bar 19 is retained or held beneath a spring catch 40. The front wall 7, to one side of the groove 19^a, is provided on its inner face with a 110 quadrant-shaped recess 25 in which is located a locking bar 26, mounted to turn on

a pivot 27 in the base of the recess 25, and which bar when moved to a vertical position, as illustrated in full lines, Fig. 2, projects through a slot 28 in the lid 9. When the bar 26 is lowered, as indicated in dotted lines, Fig. 2, its free end lies below the top edge of the front wall 7. The front wall 7 is provided with a segment-shaped opening 29 communicating with the recess 25 and registering with a segment-shaped slot 30, in a plate 31, secured to the outer face of the front wall 7, and through which slots projects a pin or thumb piece 32 on the member 26 so that said member 26 can be shifted to an upright or to a lowered position when occasion so requires.

Secured to the upper face of the lid 9, is a keeper 33 through which extends a hook 34 pivoted at 35 and whose nose 36 may be passed through an opening 37 formed in the upper end of the member 26. The hook is also formed with an apertured flange 38, the aperture in which is adapted to register with an opening 39 in the upper end of the member 26 whereby a seal can be extended through said aperture and opening when occasion so requires. The rear wall 8, at each end, is provided on its inner face with a pair of recesses 41, which are partly covered by transverse strips 42 having slots 43 which communicate with the openings 41, and the lower edges of which slots form shoulders for coöperation with hooks, as hereinafter described. The inner faces of the end walls, near the hinges 12, are each provided with a vertically disposed groove 44, said groove communicating with horizontal grooves 45, 45^a, terminating at the rear wall 4.

Secured in each groove 44, near the lower end thereof, is an apertured plate 46 forming a guide for a shifting rod 47, having a thumb piece 48. Pivotaly connected to the rod 47, near its upper end, as at 49, is a locking arm 50 which is pivoted at 52 and lies in the groove 45 and has its free end formed with a hook 51. Pivotaly connected to the lower end of the rod 47, as at 53, is a locking arm 54, which is pivoted at 56 and lies in the groove 45^a and has its free end provided with a hook 55. Surrounding

the rod 47 and interposed between the arm 50 and apertured plate 46 is a coiled spring 57, the function of which is to normally maintain the arms 50—54 with their hooks 51 and 55 in locking engagement with the shoulders at the lower ends of the slots 43 in the strips 42, as shown in Fig. 6. By pressing downwardly on the rods 47, the arms 50—54 are swung out of engagement with the shoulders at the lower ends of the slots in the strips 42 and the end walls and rear wall can then be folded.

What I claim is:—

1. A folding box including a bottom, a front wall hinged thereto, a rear wall hinged to the bottom, a lid hinged to said rear wall, a pair of end walls hinged to the front wall, shoulders on the inner face of the rear wall, spring controlled locking arms carried by the end walls and adapted to engage said shoulders for connecting the end walls and rear walls together when the said walls are extended, and means for shifting said arms out of engagement with said shoulders.

2. A folding box comprising a bottom, a lid, front, rear and end walls hinged together, said rear, front, one end wall and bottom being each provided with an opening, means carried by the lid and adapted to extend through said end wall, bottom, front and rear walls, and means carried by the other end wall and engaging in said means for locking the said walls, bottom and lid together when the box is folded.

3. A folding box including a front wall and a lid, said lid having an opening, a pivoted locking member carried by the front wall and adapted, when moved to one position, to project through said opening, a hook carried by said lid and engaging in the projecting end of said member, and means carried by said member and projecting through said wall to enable the shifting of said member.

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

FULOP GEZA.

Witnesses:

SUMAN TEVENKS,
MARTIN BARKOVIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."