

No. 862,810.

PATENTED AUG. 6, 1907.

R. E. L. CROSBY.
FOLDING EGG CASE.
APPLICATION FILED JULY 18, 1906.

3 SHEETS—SHEET 1.

Fig. 1.

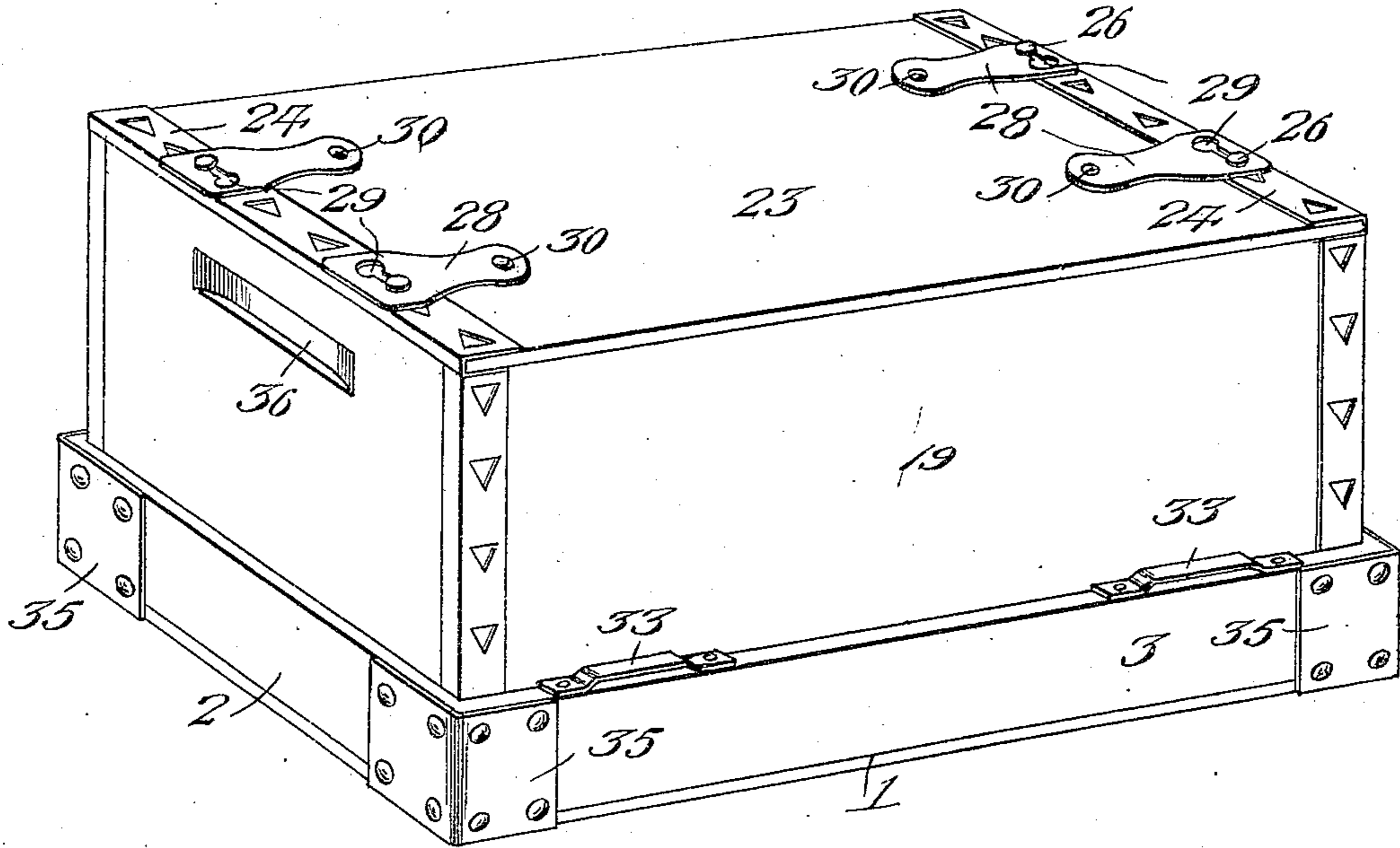
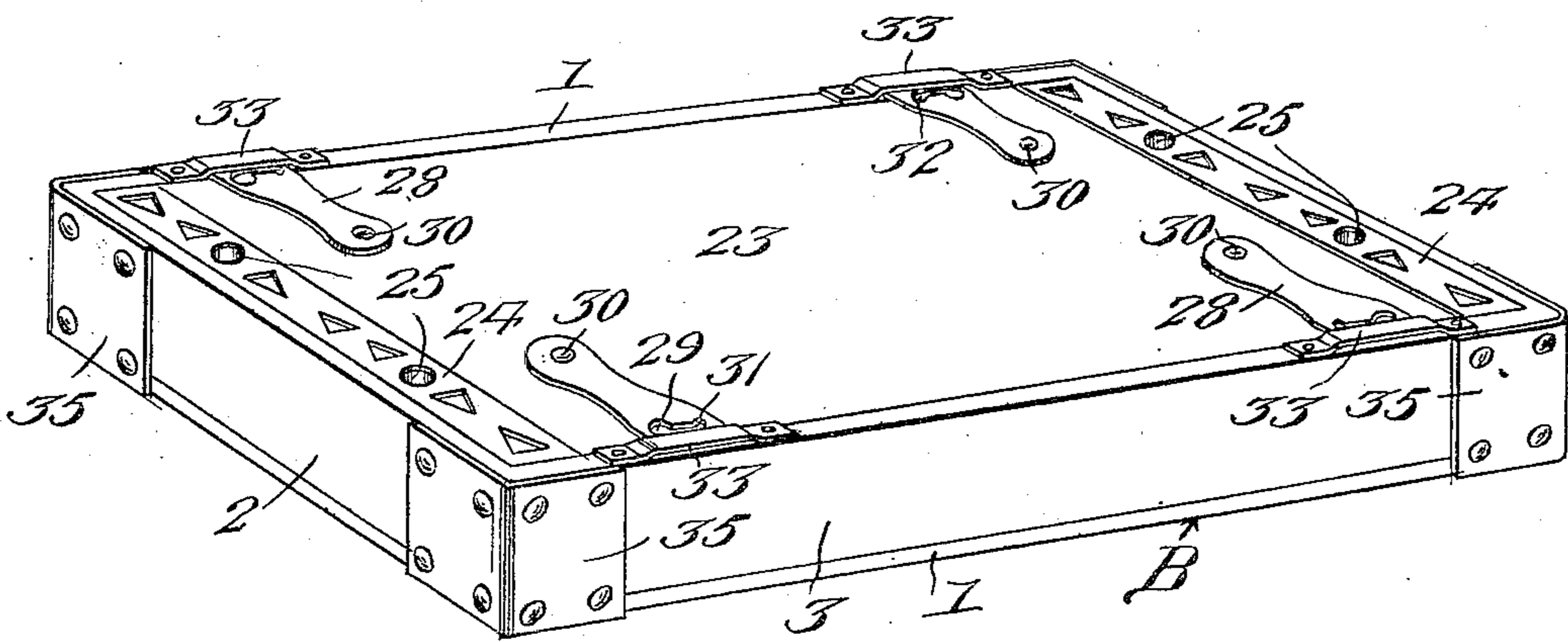


Fig. 2.



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3 SHEETS—SHEET 2.

Fig. 3.

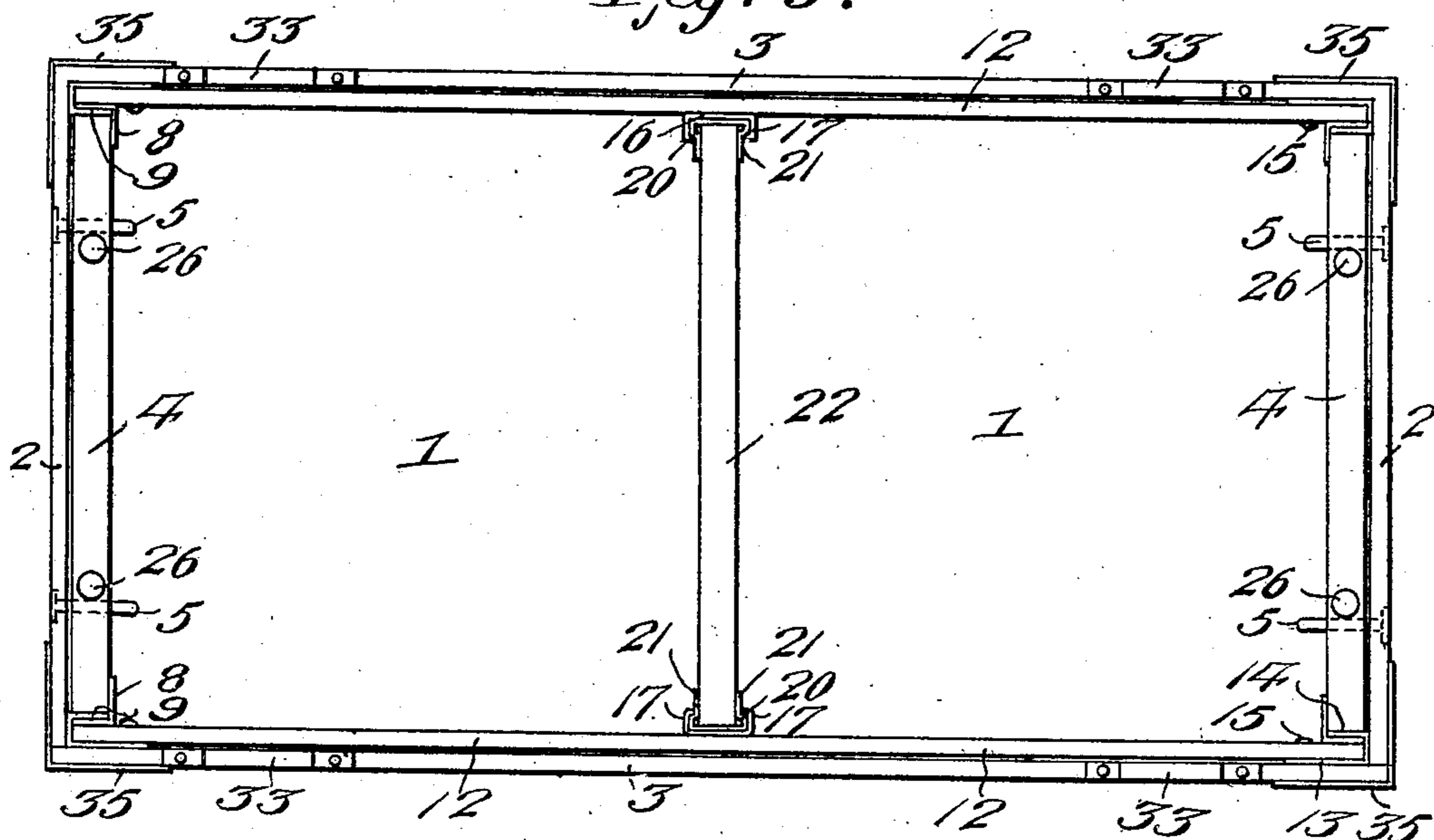
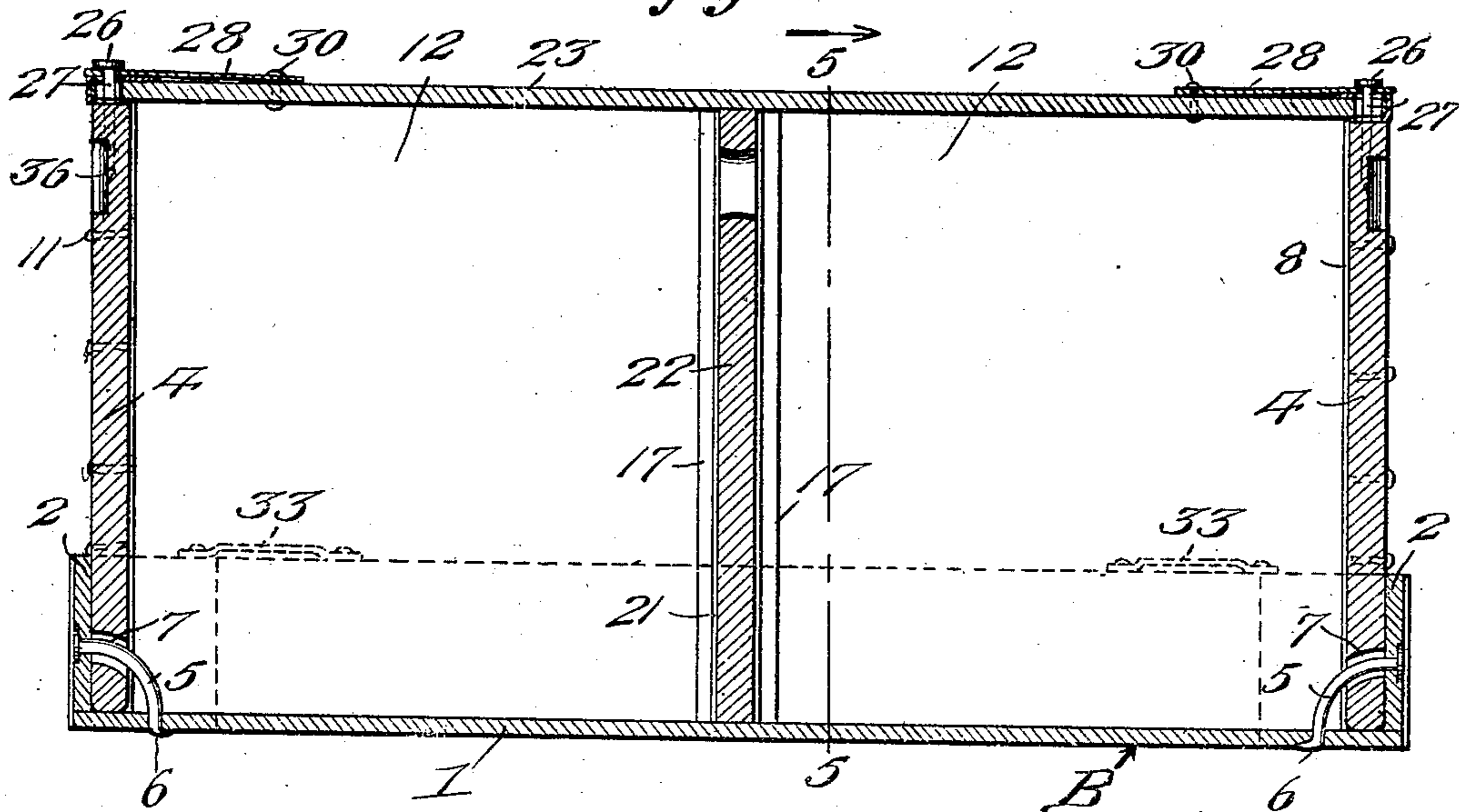


Fig. 4.



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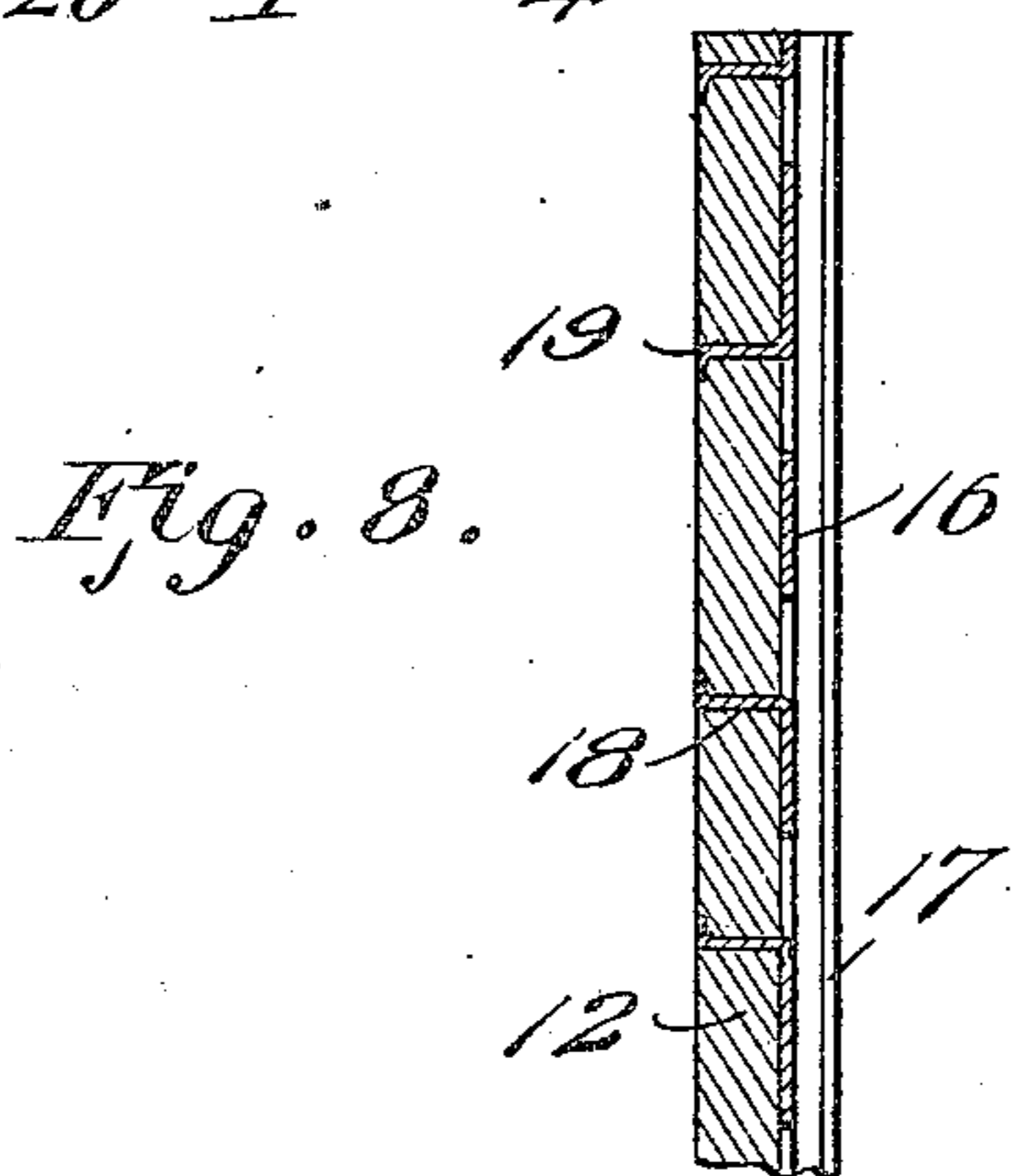
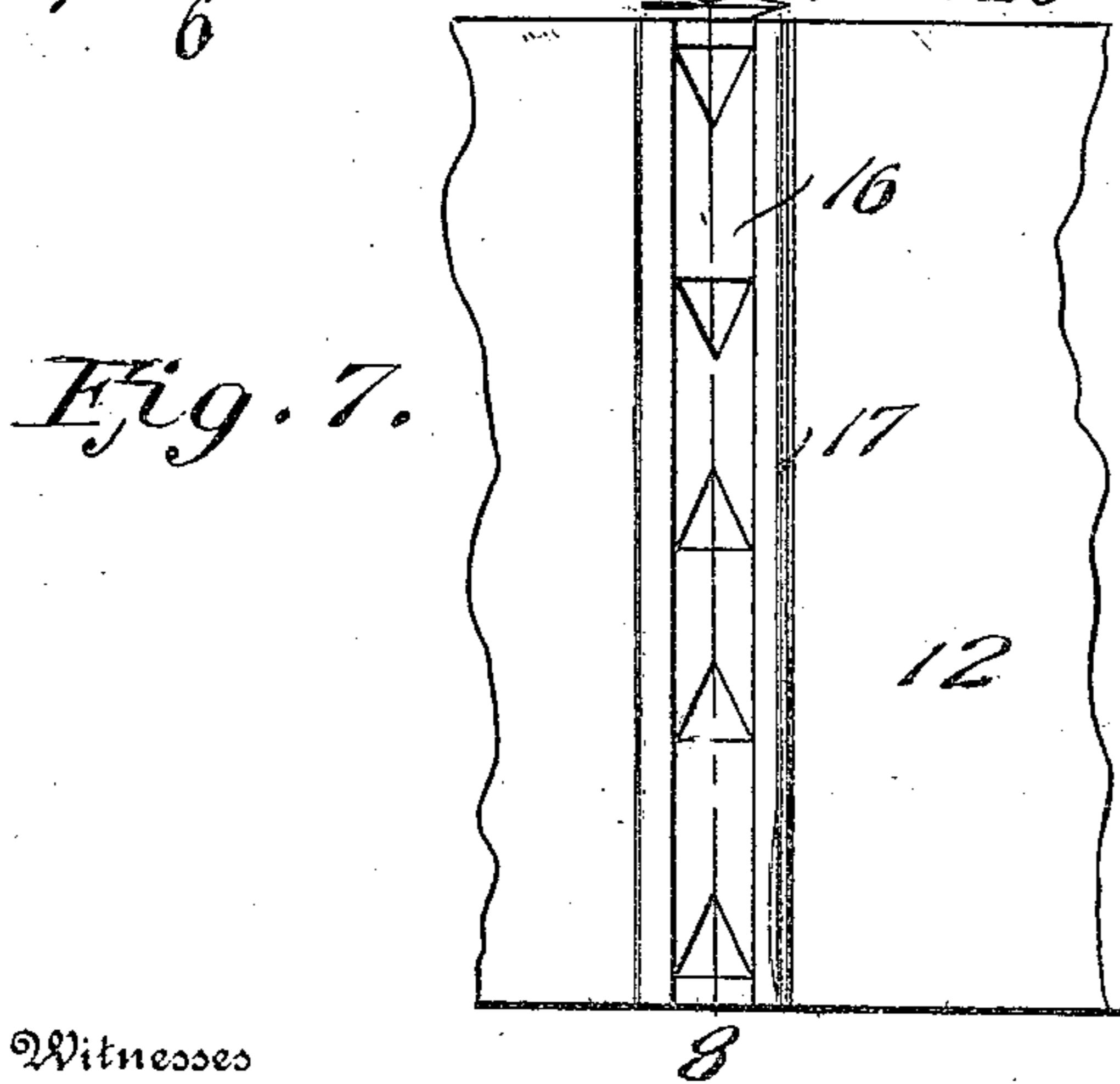
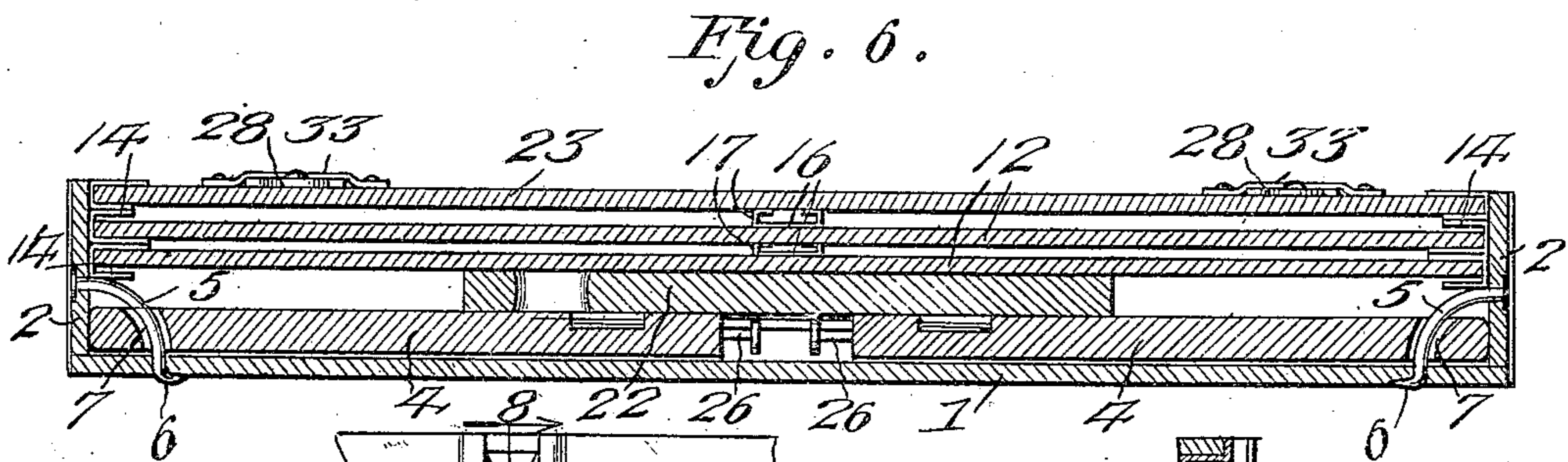
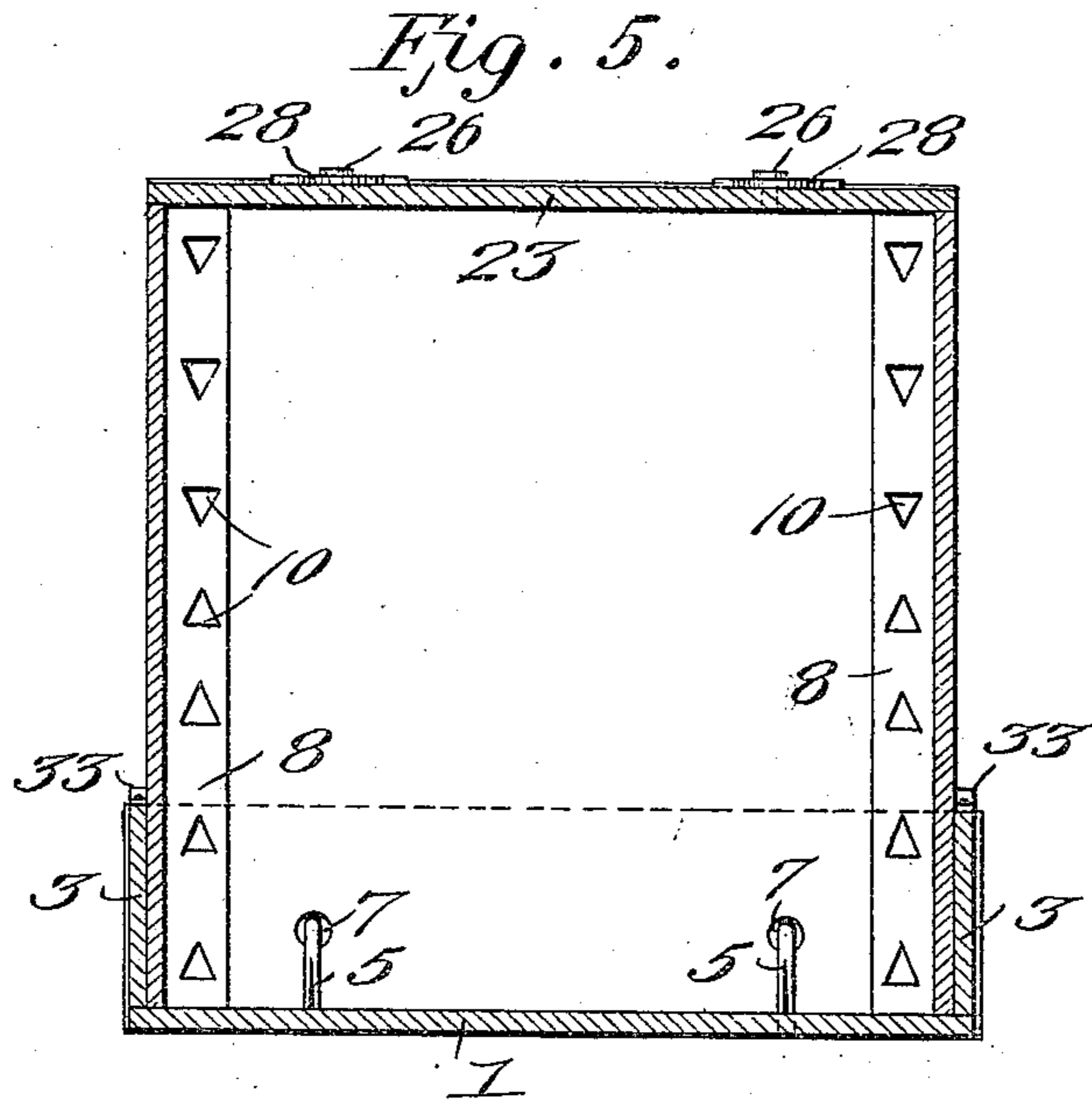
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

ROBERT E. L. CROSBY, OF SEARCY, ARKANSAS.

FOLDING EGG-CASE.

No. 862,810.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed July 18, 1906. Serial No. 326,768.

To all whom it may concern:

Be it known that I, ROBERT E. L. CROSBY, a citizen of the United States, residing at Searcy, in the county of White and State of Arkansas, have invented new and useful Improvements in Folding Egg-Cases, of which the following is a specification.

This invention relates to a folding or collapsible case or package, intended and adapted particularly for the shipment of eggs; the object of the invention being to present a case of this kind which may be folded, for reshipment, into small compass; and which, when thus folded, shall not only present a small bulk, but which shall be extremely compact and solid, so that it may be subjected to the rough handling usually accorded to freight of this character, safely and without danger of breakage.

A further object of the invention is to provide an improved metallic binding for the parts of the case, which shall also in a measure constitute the means whereby the parts of the case are connected, when expanded for the reception of the contents; said metallic binding being thus made to serve a double purpose in not only strengthening and reinforcing the wooden parts of the case, but also constituting connecting means.

A still further object of the invention is to provide an extremely simple, durable, inexpensive and efficient means for hingedly connecting the end members of the case with the shallow base of the latter.

A further object of the invention is to provide improved fastenings for securely locking the case in an extended, as well as in a collapsed condition.

Still further objects of the invention are to simplify and improve the general construction and operation of the class of devices to which this invention belongs.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention; it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawings,—Figure 1 is a perspective view showing the improved egg case extended, and ready for shipment, containing eggs. Fig. 2 is a perspective view showing the case collapsed and in condition for return shipment. Fig. 3 is a top plan view showing the case extended but without the lid or cover. Fig. 4 is a longitudinal vertical sectional view showing the case extended and with the lid in position. Fig. 5 is

a vertical transverse sectional view taken on the plane indicated by the line 5—5 in Fig. 4. Fig. 6 is a longitudinal vertical sectional view showing the case in collapsed condition. Fig. 7 is a detail view in elevation showing a portion of one of the side members of the case. Fig. 8 is a sectional detail view taken on the plane indicated in the line 8—8 of Fig. 7.

Corresponding parts in the several figures are denoted by like characters of reference.

In the construction of the improved folding egg case there is employed a base B consisting of a bottom 1 having shallow end and side members 2, 3. The end members 4, 4 of the case proper are hingedly connected with the inner sides of the end members 2, 2; the hinges consisting of curved or arcuate pieces of wire, such as wire nails 5, which are driven from the outside through the end members 2, being curved in an inward and downward direction and permitted to pass through the bottom member 1, upon the underside of which they are clenched, as shown at 6, so as to prevent their being accidentally withdrawn. These wires or nails which, when in position, extend through approximately ninety degrees of the arc of a circle, extend through arcuate perforations, as 7, in the end members 4, which latter may thus be conveniently raised to a standing position, as shown for instance in Fig. 4 of the drawings, or folded down flat upon the bottom member 1, as will be seen in Fig. 6. Two or more hinge members of the character described may be used at each end of the case; and in this simple manner the base and the end members 4 will be firmly and effectively connected in such a manner as to enable the end members 4 to be conveniently adjusted in the various positions indicated. By this simple means the more complicated and expensive hinges usually employed are dispensed with, and the construction is cheapened without detracting from its efficiency. Upon the members 4, at the ends thereof and preferably upon the inner sides or faces of said members, are placed metallic strips or cleats 8, of sheet steel, having flanges 9 which are bent parallel to, and slightly spaced from, the edges of said members. The strips or cleats 8 are provided with struck-out spurs or tongues of triangular shape, leaving the triangular open slots 10; said spurs or tongues being driven through the wood of which the end members are composed and clenched upon the opposite sides of said end members, as will be seen at 11. These cleats or strips serve to strengthen and reinforce the end members; to keep them from warping and from coming apart if they should be broken; and the flanges 9 of said cleats also serve as connections, as will presently appear.

The end members 4, 4 are sufficiently spaced from the side members 3, 3 of the base to admit of the introduction between said side members and end mem-

bers of the side members 12 of the case proper; the sides 12 being of a length to fit snugly between the end members 2, 2 of the base. The side members 12 are provided at their ends with angular strips or reinforcing cleats 13 of sheet metal, secured upon their outer sides or faces and abutting upon the ends or edges thereof; said angular strips being provided with flanges 14 which are slightly spaced from the inner faces of the side members 12 so as to be capable of interlocking with the flanges 9 of the strips 8 upon the end members 4, as will be seen very clearly in Fig. 3 of the drawings. The strips 13 have struck-up tongues penetrating the side members 12 and clenched upon the inner faces of the latter, as will be seen at 15.

About centrally upon the inner face of the side members 12, there are secured vertically-disposed reinforcing strips 16 provided at their edges with guide flanges 17, of angular shape, as shown; said strips being provided with struck-out tongues 18 clenched exteriorly of the side members, as will be best seen at 19 in Fig. 8 of the drawings. The flanges 17 are for the reception of tongues 20 formed on reinforcing strips 21, which are mounted upon the ends or edges of a partition member 22 which is adapted to be mounted detachably, by the means thus provided, between the side members 12, 12. In this manner the side members of the case are spaced and connected, and the case is divided, in the customary manner, into separate compartments for the reception of the cell cases in which the eggs are packed; the case being obviously constructed of the usual and customary dimensions or of standard size.

By the tongues 20 of the reinforcing strips 21 engaging the guide flanges 17 of the strips 16 upon the side members 12, the said side members will be prevented from expanding, or bulging outward under pressure caused by the weight of the contents of the case, and the latter will thus be materially strengthened.

23 designates the lid or cover, which is adapted to lie flat upon the upper edges of the end members 4 and side members 12 when said end and side members have been extended to the position shown in Figs. 1, 3, 4 and 5 of the drawings. The lid 23 is provided near its end edges with flanged reinforcing strips 24 having struck-out tongues that penetrate the lid and are clenched upon the under side of the latter; said angular strips being bent around the end edges of the lid, as will be clearly seen in Figs. 1 and 4. The lid is provided near its end edges with apertures 25 extending also through the reinforcing piece, said apertures being for the passage of the heads 26 of nails or studs 27 driven or secured in the upper edges of the end members 4. Secured pivotally upon the upper side of the lid are resilient catches 28 having arcuate key-hole slots 29 which are approximately concentric with the pins or pivots 30, whereby the catches 28 are secured upon the lid; said keyhole slots being provided near their inner or narrow ends with recesses or indentations 31, as best seen in Fig. 2 of the drawings. When the lid is placed in position upon the case, the heads 26 of the studs 27 will extend through the apertures 25 and project sufficiently above the surface of the lid to be engaged by the keyhole slots 29 of the catches 28; said keyhole slots are formed in such a manner that when the catches are turned to a locking position, they will

strain slightly against the studs 27 until the latter, by the inherent resiliency of the parts of the case, are caused to spring into locking engagement with the recesses or indentations 31, thus securely locking the lid in position until the catches are positively forced back from the studs 27 sufficiently to enable them to be turned to an unlocked position. If preferred, in order to open the case, the nails or studs 27 may be withdrawn by the use of an ordinary claw hammer or other suitable tool, and subsequently redriven.

Upon the upper edges of the side members 3 of the base are secured locking strips or keepers 33 adapted to be engaged by the catches 28 when the case is collapsed, as seen in Fig. 2 of the drawings. When the case is in this condition, as has also been illustrated in Fig. 6, the end members 4, 4 are folded down flat upon the bottom of the base, and the partition 22 and the side members 12, 12 are also packed in the latter, as clearly seen in Fig. 6; the lid 23 is then inserted into the base, fitting snugly between the side and end members of the latter, and the catches 28 may then be readily turned into locking engagement with the strips or keepers 33, thus securing all the parts together in a solid and compact package. It is to be understood that the empty cell cases may be folded and packed in the vacant spaces between the parts of the case when the latter is folded or collapsed; but they have not been shown inasmuch as they form no part of the present invention. The base of the device has been illustrated as being reinforced by means of metallic corner clamps 35; and the end members 4, 4 of the case are provided with recesses 36 forming hand holds.

From the foregoing description taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood by those skilled in the art to which it appertains. The construction of the complete case is simple and comparatively inexpensive; the metallic reinforcing members being manufactured and applied by special machinery of simple construction whereby the cost of production is minimized. In extending the case, the side members 12, 12 are placed in position upright between the edges of the end members 4—4 and the side walls of the base, while the end members are still folded upon the bottom of the latter; care being taken to interlock the flanges 9 and 14 at the engaging corners so that when the end members 4, 4 are raised to the upright position shown in Fig. 4, the said flanges will interlock throughout their lengths. The partition 22 is now slid into position, said partition member serving to space and connect and thus also to brace and reinforce the side members 12, 12. The cell cases are next placed in position in the compartments of the case and filled with eggs, after which the lid is applied; said lid serving obviously to prevent any possibility of collapsing of the case.

An important advantage resulting from the construction of the case, as herein described, is, that by first removing the lid, one of the side members 12 may be bodily removed, thus enabling the eggs to be removed in entire tiers or layers for the purpose of handling, thus effecting a great convenience and saving of time. When the case is collapsed it is extremely compact and solid, and may consequently be stored in comparatively small space, this being obviously of importance

to warehouse men and wholesalers who are compelled, for the convenience of their customers, to keep large numbers of cases on hand.

The improved case, generally speaking, is light, durable, and thoroughly efficient for the purposes for which it is provided.

What is claimed is:—

1. In a folding case, a base, end members hingedly connected with said base and having locking flanges spaced from the side edges thereof, side members adapted to fit in the base adjacent to the side edges of the end members and provided with locking flanges adapted for interengagement with the locking flanges of the side members, vertical reinforcing strips upon the inner faces of the side members having angular guide flanges at the edges thereof, and a detachable partition member provided at its edges with reinforcing strips formed with tongues adapted for interengagement with the guide flanges of the strips upon the

side members thereby preventing the sides of the case from expanding or bulging outward.

2. A folding case of the character described, comprising a base, end members hingedly connected with the base, side members having slidable connection with the end members, a lid adapted to rest upon the upper edges of the side and end members when the case is extended and to fit within the base when the case is collapsed, headed studs at the upper edges of the end members, catches pivoted upon the lid and having arcuate keyhole slots for engagement with the studs when the case is extended, and locking strips or keepers upon the upper edges of the base and adapted for locking engagement with the pivoted catches when the case is collapsed.

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

ROBERT E. L. CROSBY.

Witnesses:

GRANT GREEN,
E. A. ROBBINS.