

No. 875,276.

PATENTED DEC. 31, 1907.

C. C. MENGEL.

BOX.

APPLICATION FILED MAY 20, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

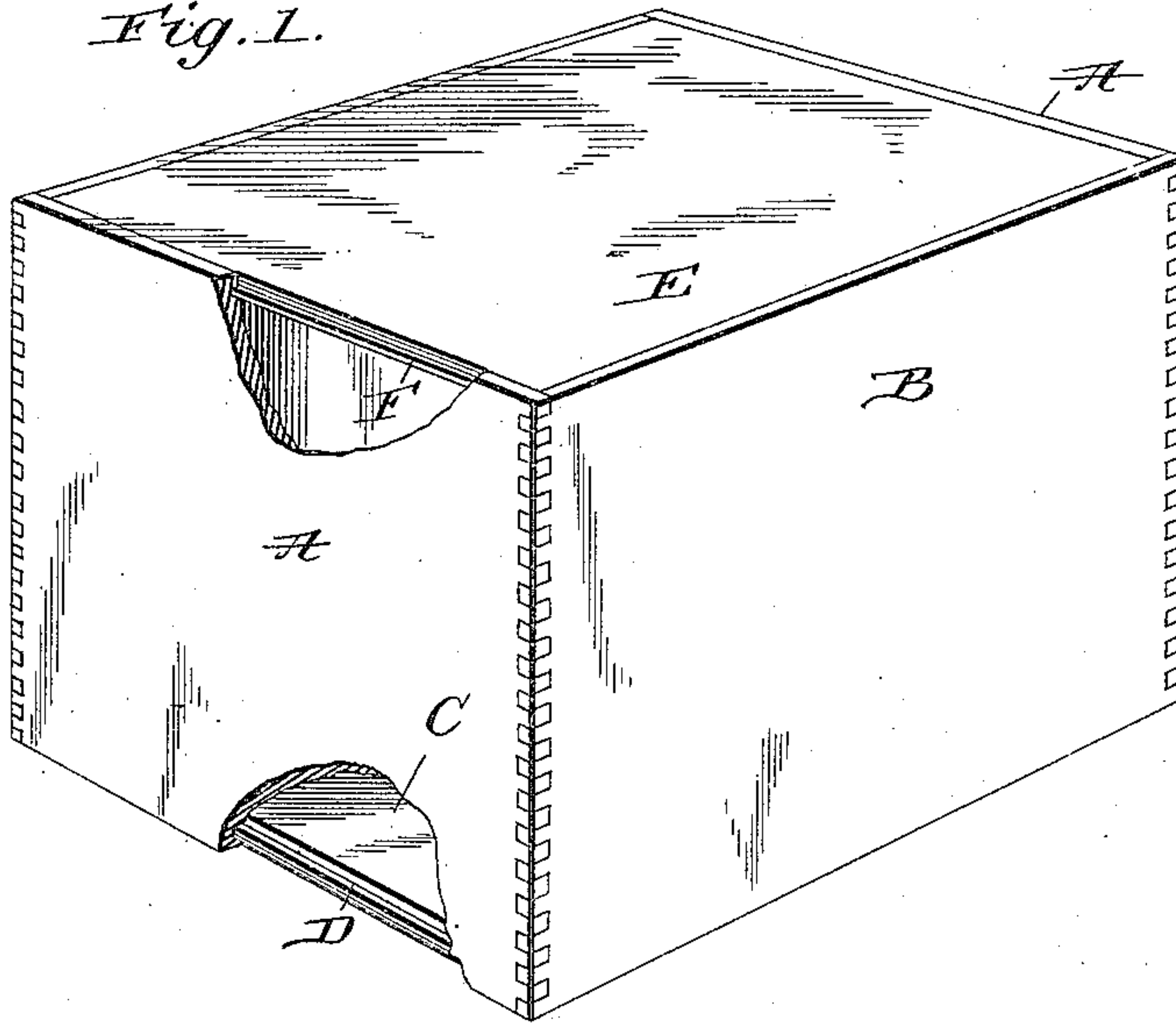
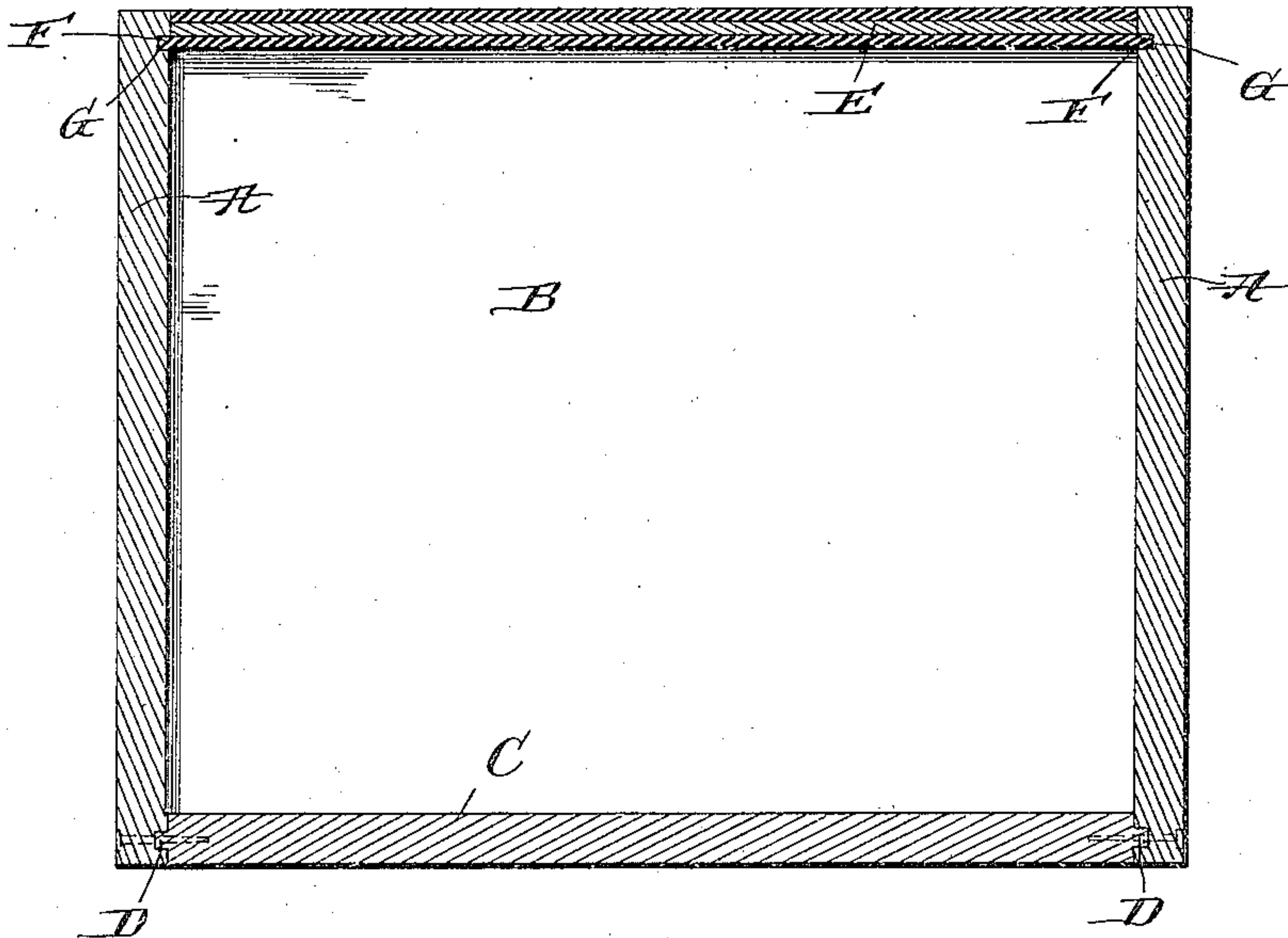


Fig. 2.



Inventor:

Witnesses
E. J. Gaeder
D. C. Purdie

By

Charles C. Mengel,
Dodge and Sons, Attorneys

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2 SHEETS—SHEET 2.

Fig. 3.

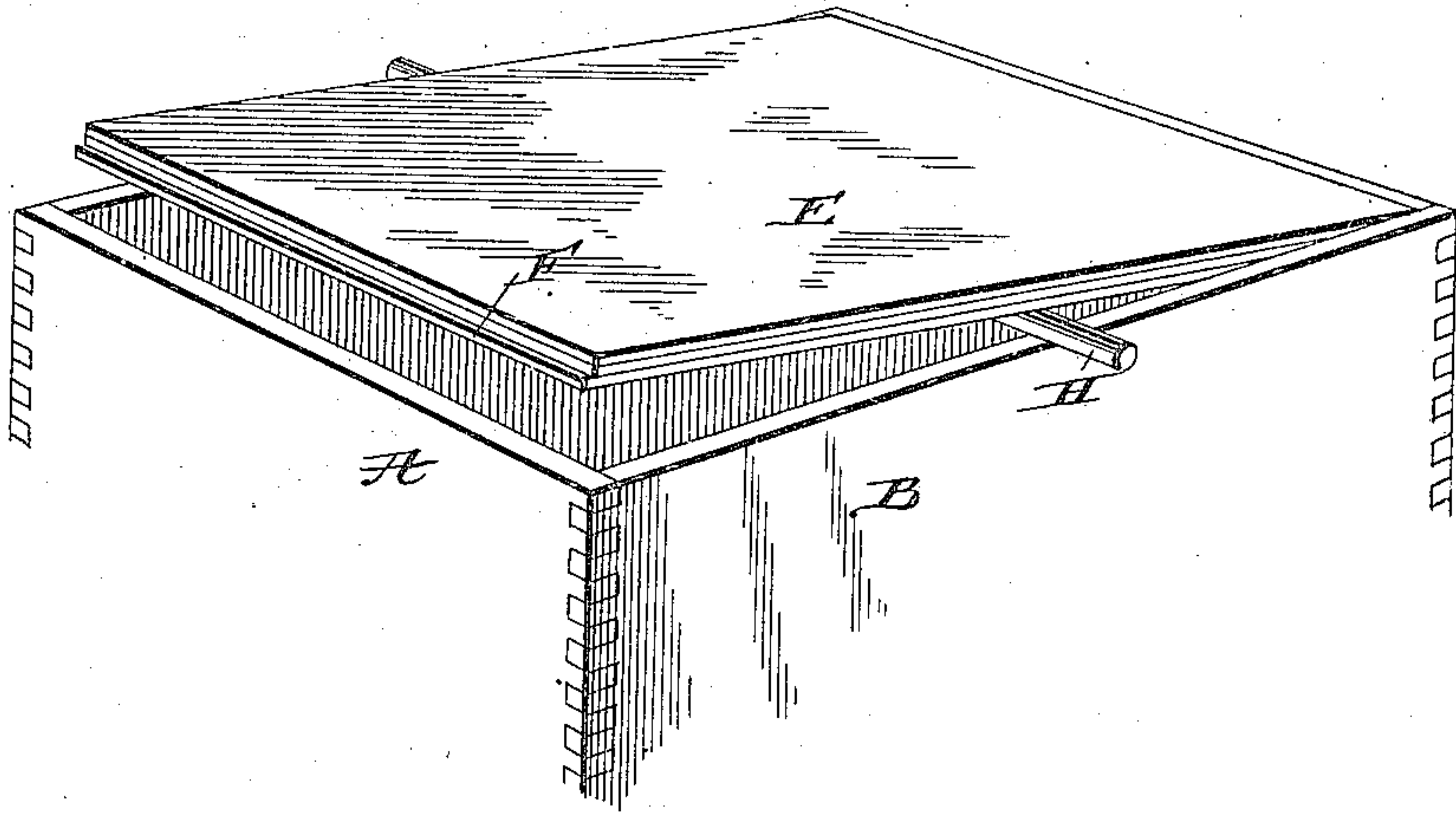


Fig. 4.

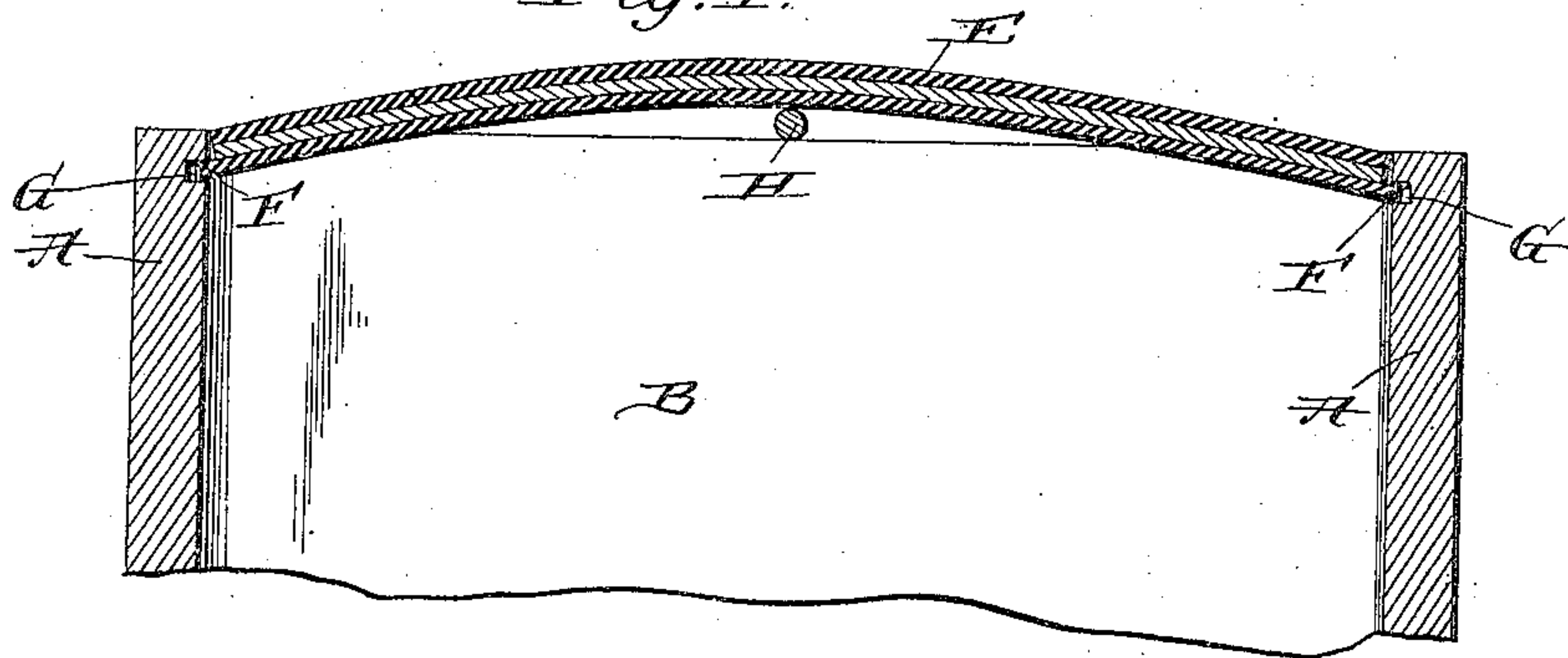
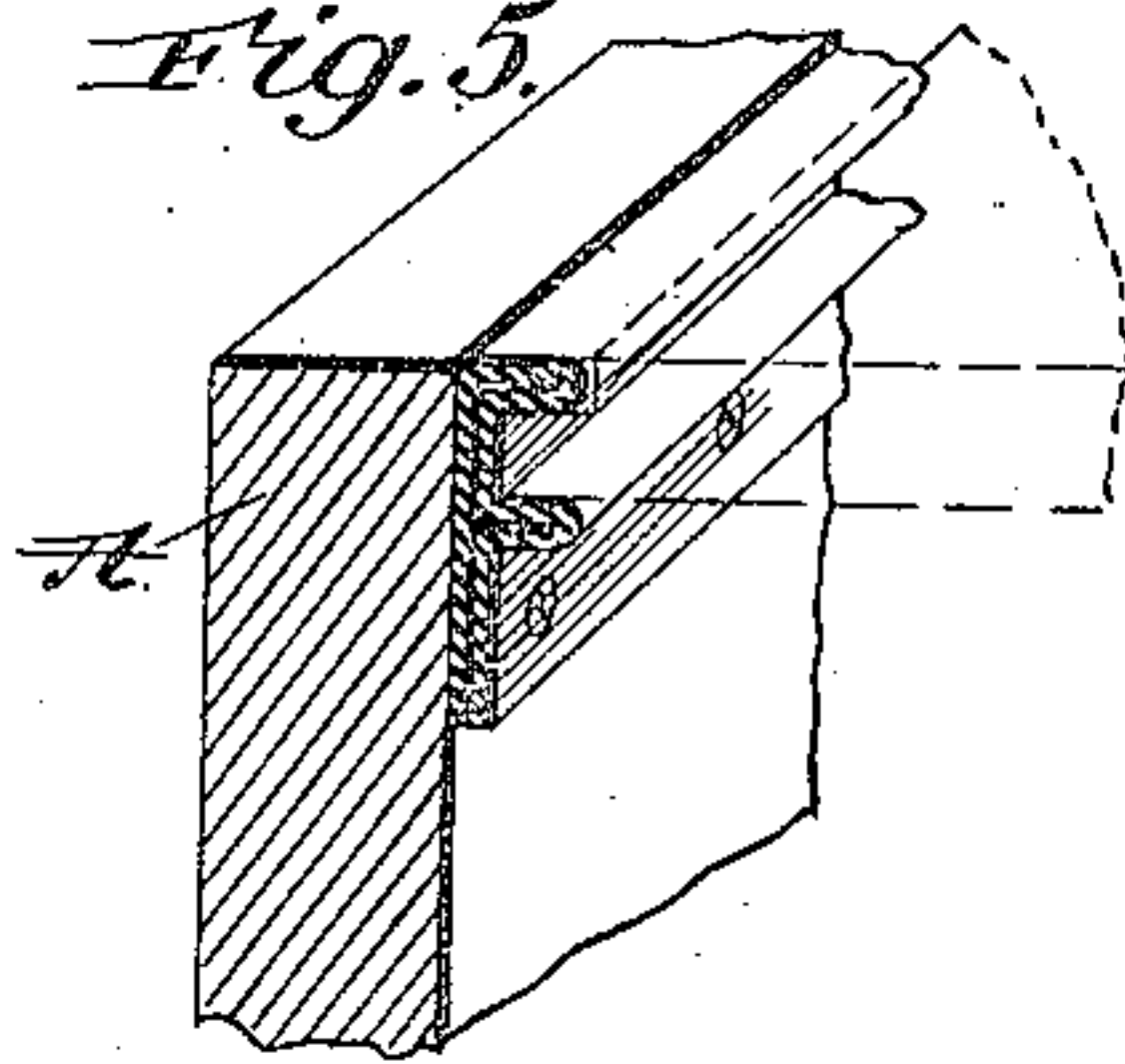


Fig. 5.



Inventor:

Witnesses
C. Raeder
D. E. Burdine

By

Charles C. Mengel,
Dodge and Sons,
Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES CHRISTOPHER MENGEL, OF LOUISVILLE, KENTUCKY.

BOX.

No. 875,276.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed May 20, 1904. Serial No. 208,870.

To all whom it may concern:

Be it known that I, CHARLES C. MENGEL, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Boxes, of which the following is a specification.

My present invention pertains to improvements in boxes for the transportation of merchandise, the construction and advantages of which will be hereinafter set forth, reference being had to the annexed drawings, wherein:

Figure 1 is a perspective view of the box, portions thereof being broken away to more clearly disclose the construction thereof; Fig. 2 a longitudinal vertical sectional view; Fig. 3 a perspective view of the upper portion of the box, showing the cover partly inserted; Fig. 4 a longitudinal sectional view, showing the cover bowed over a rod or bar and the retaining ribs inserted into the grooves at each end of the box; and Fig. 5 a perspective view of a modified structure.

In the transportation of merchandise, and particularly such classes, for instance, as spiritous liquors, the temptation to abstract the contents of the package sometimes reaches the stage of an irresistible impulse, and the package is broken into and portions of its contents abstracted, with the view of home consumption or sale. With boxes as at present constructed and used, the removal and replacement of the lid, bottom or side is a relatively easy matter. The lid or bottom, for instance, being usually secured by nails, can be readily removed and replaced, leaving no indication that the box has been opened in transit.

The object of the present invention is to produce a strong and simple box, the component parts of which cannot be removed without so mutilating or destroying the structure that it will clearly show it has been tampered with.

A box constructed in accordance with my invention is comparatively cheap to manufacture, while at the same time it is somewhat stronger than those now ordinarily used for the same purpose.

Referring to Figs. 1 to 4 inclusive, A denotes the ends of the box and B the sides thereof, the corners being locked-jointed and glued together. The bottom, C, is provided with a tongue D at each end, which tongues enter corresponding grooves formed in the

inner faces of the ends A. The bottom is, of course, put in place as the sides and ends are assembled and may or may not be secured by nails, as desired.

The cover or closure, E, as herein illustrated, is formed of a series of veneers, glued together, the lowermost layer being longer than the inside measurement of the box, thus forming ribs or projections F. To accommodate said ribs a groove or channel G is formed in each end A, adjacent to the upper edge thereof.

In order to insert and secure the cover or closure E in place, one end is so positioned that its rib enters the groove or channel G, a rod or bar H being placed beneath the cover and resting upon the upper edges of the sides, see Fig. 3; the free end of the cover is then bent down to the position shown in Fig. 4, the other rib coming into alinement with its groove, at which time the rod is withdrawn and the cover springs to place, occupying the position shown in Fig. 2, fully closing the box and lying flush with the upper edges of the ends and sides. It will then be found impossible to remove the cover or otherwise gain access to the contents of the box without destroying it or so marring the same as to readily disclose the fact that it has been tampered with. In practice it has been found impossible to open the box without breaking some portion of the same.

The veneer cover will not shrink nor split, and is still sufficiently elastic or yielding to admit of being flexed as it is put in place. While a three-ply cover is shown, it is evident that any number of veneers may be employed, and that the interlocking ribs may be formed at the ends of a layer other than the lowermost, as is herein shown. It is likewise not essential that grooves or channels be provided in the ends of the box, as separate channel-pieces, formed from sheet metal or otherwise constructed, may be secured to the inner faces of the box-ends and the cover sprung into said pieces, as shown in Fig. 5. It is also evident that any other construction which will preclude the sides and ends of the box being separated without indicating that the box has been opened or tampered with, may be employed. Again, any formation of the bottom which will effect the same result as that herein described may be used; in fact, the bottom might be inserted in substantially the same manner as the top, though the construction illustrated is simple to manufac-

ture and assemble and cannot be tampered with without the fact being discovered. It is also conceivable that a single-ply cover might be employed if a wood of sufficient elasticity or which has been rendered pliable by steaming be used.

The terms "ends" and "sides" are herein employed simply in a relative sense, and the specification and claims are to be so read and interpreted.

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

1. In combination with the sides, ends and bottom of a box secured together in such manner as to produce a substantially unyielding structure and to preclude their separation without indicating that such parts have been tampered with, a flexible closure sprung into place.

2. A substantially unyielding, rectangular box provided with grooves or channels in the inner face of two of its opposing members, combined with a rectangular flexible cover or closure formed of veneer, said cover being of a length greater than the distance between the walls of the grooved members and adapted to be sprung into said grooves or channels.

3. A substantially unyielding box provided with grooves or channels formed in two of its opposite walls, combined with a flexible cover or closure of a size sufficient to close the box, said cover having integrally-formed ribs projecting beyond the cover and adapted to pass into said grooves as the cover is flexed in the act of putting it in place.

4. A substantially unyielding box provided with grooves or channels formed in two of its opposite walls, combined with an unbroken, flexible, veneer cover or closure the main body of which is of a size sufficient to close the box, while one layer projects beyond the body at each end thereof, forming ribs which enter the grooves as the cover is flexed in the act of putting it in place.

5. In combination with the bottom, sides and ends of a box secured together in such manner as to produce a substantially unyielding structure and to preclude the separation of such parts without indicating that they have been tampered with; a flexible veneer cover or closure, the main body of which is of a size sufficient to close the box, said cover having ribs upon its ends adapted, when the cover is flexed in the act of putting it in place, to pass into grooves or channels formed in opposite members of the box near the upper edge thereof, whereby the closure will be substantially flush with the upper edge of the box.

6. In combination with locked-corner sides and ends of a box; a bottom let into and secured to said parts, thereby forming a substantially unyielding structure; and a flexible cover or closure of a size sufficient to close the box, said cover having ribs or projections which extend beyond the body of the cover and adapted, when the cover is flexed in the act of putting it in place, to pass into grooves or channels formed in the ends of the box.

7. In combination with locked-corner sides and ends of a box; a bottom let into said parts and secured thereto by a suitable cement, whereby an unyielding structure is produced; and a flexible cover of veneer, the lower layer thereof being of a length greater than the length of the opening in the box and adapted, when the cover is flexed in the act of securing the same in place, to enter grooves or channels formed in two opposing faces of the box near the upper edge thereof, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES CHRISTOPHER MENGEL.

Witnesses:

H. P. ROBERTS,
CHAS. SEYMOUR.