

(No Model.)

3 Sheets—Sheet 1.

O. H. L. WERNICKE & M. C. BURR.
SEPARABLE BOOKCASE.

No. 557,736.

Patented Apr. 7, 1896.

Fig. 1.

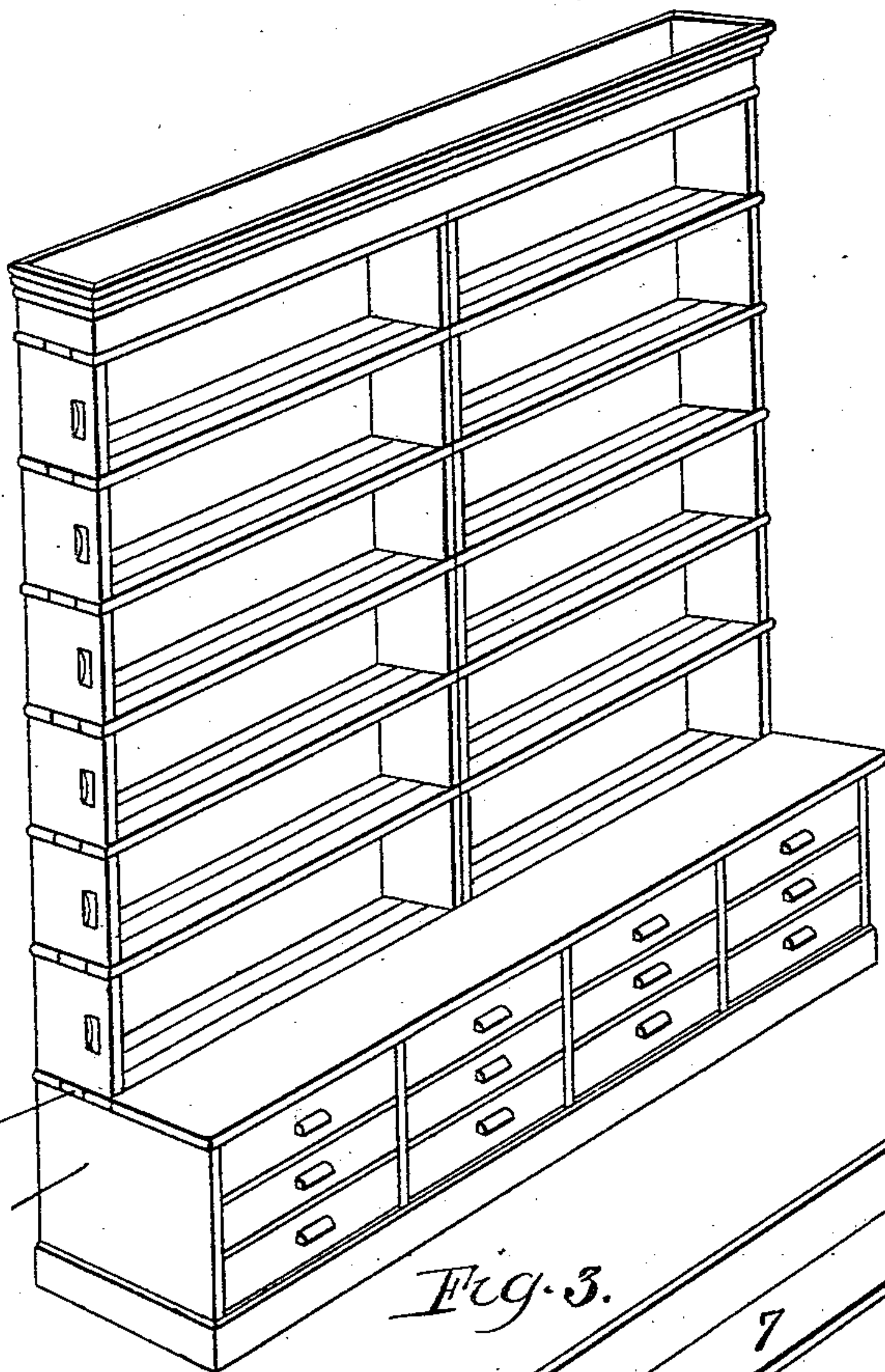


Fig. 2.

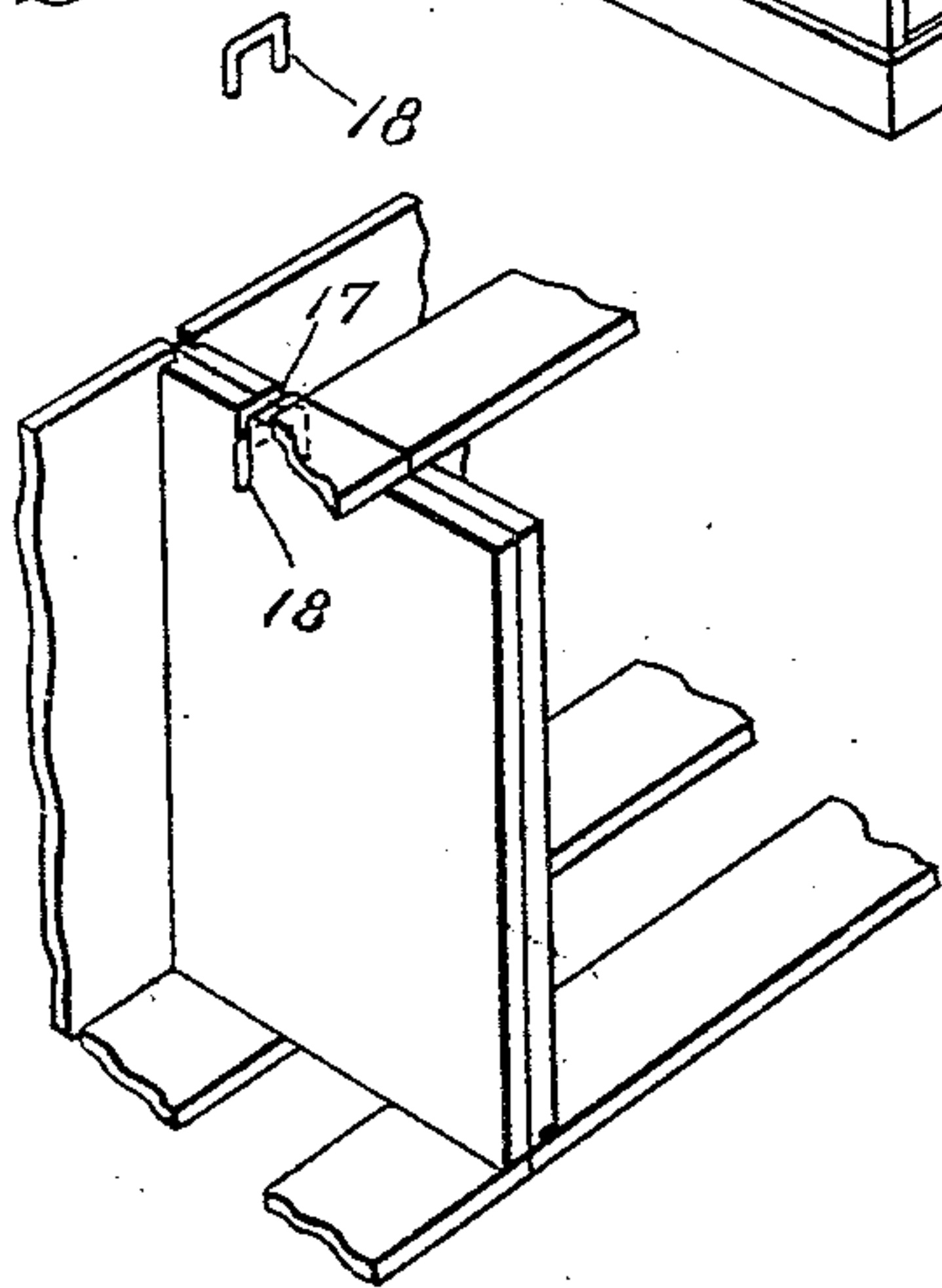


Fig. 3.

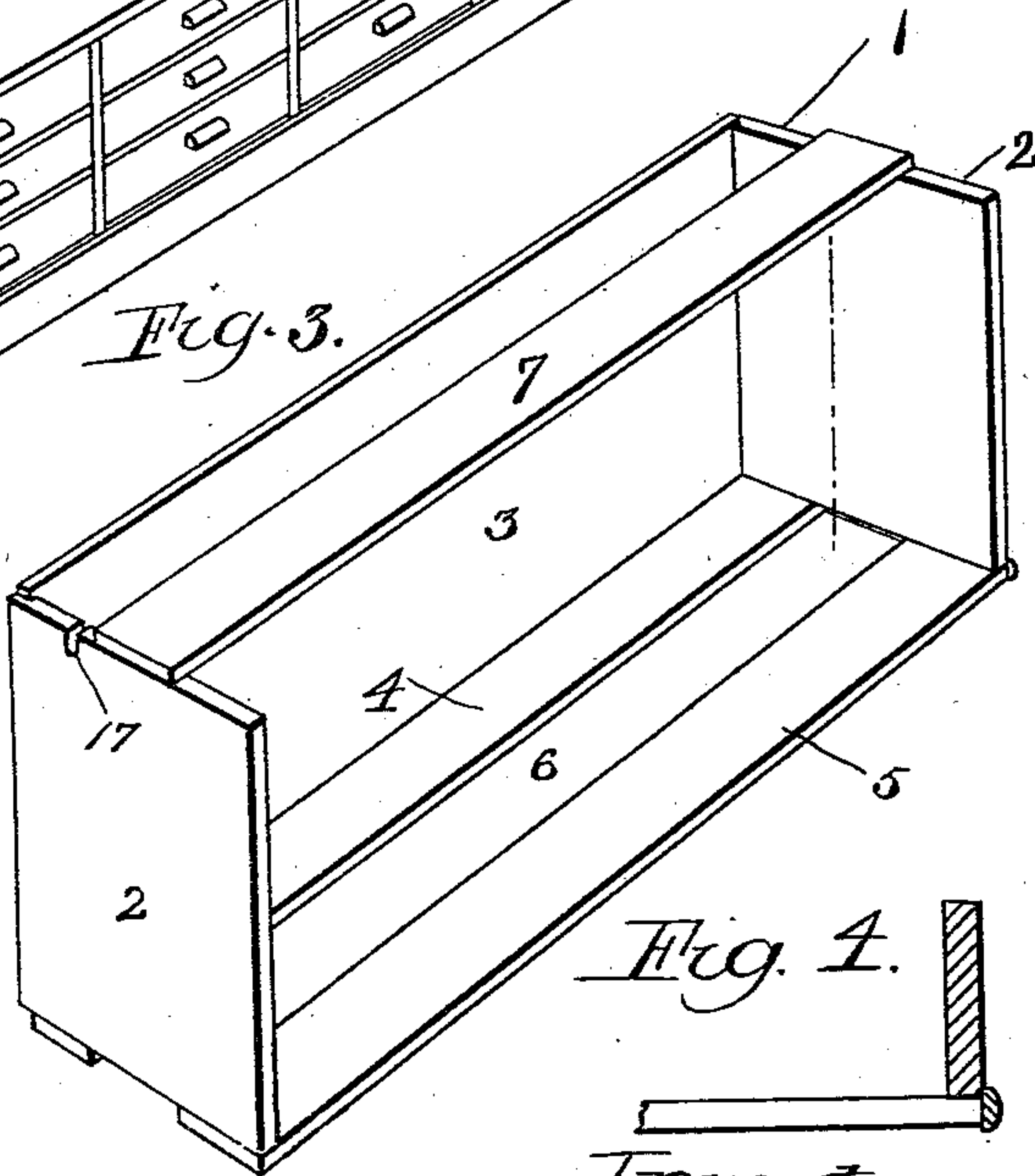
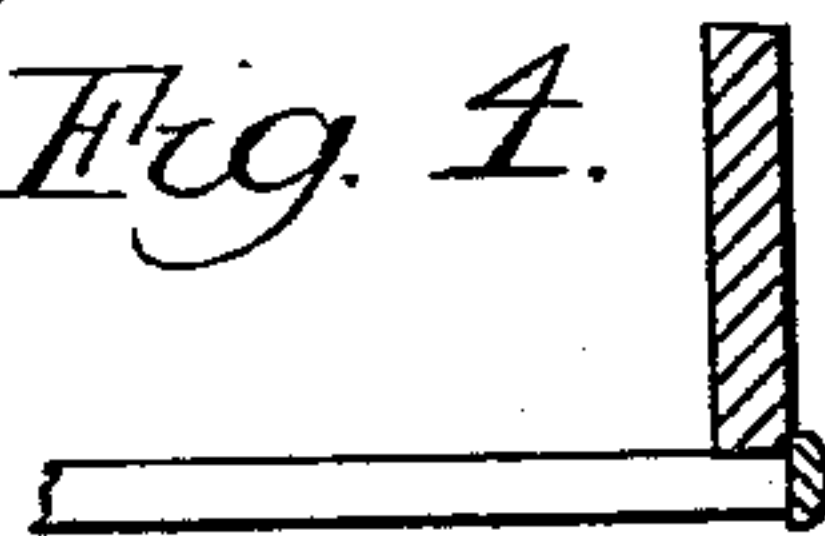


Fig. 4.



Witnesses

J. Jensen.
Henry B. May.

Inventors.

Otto H. L. Wernicke
Melbourne C. Burr.

By Paul O. Hawley
His Attorneys.

(No Model.)

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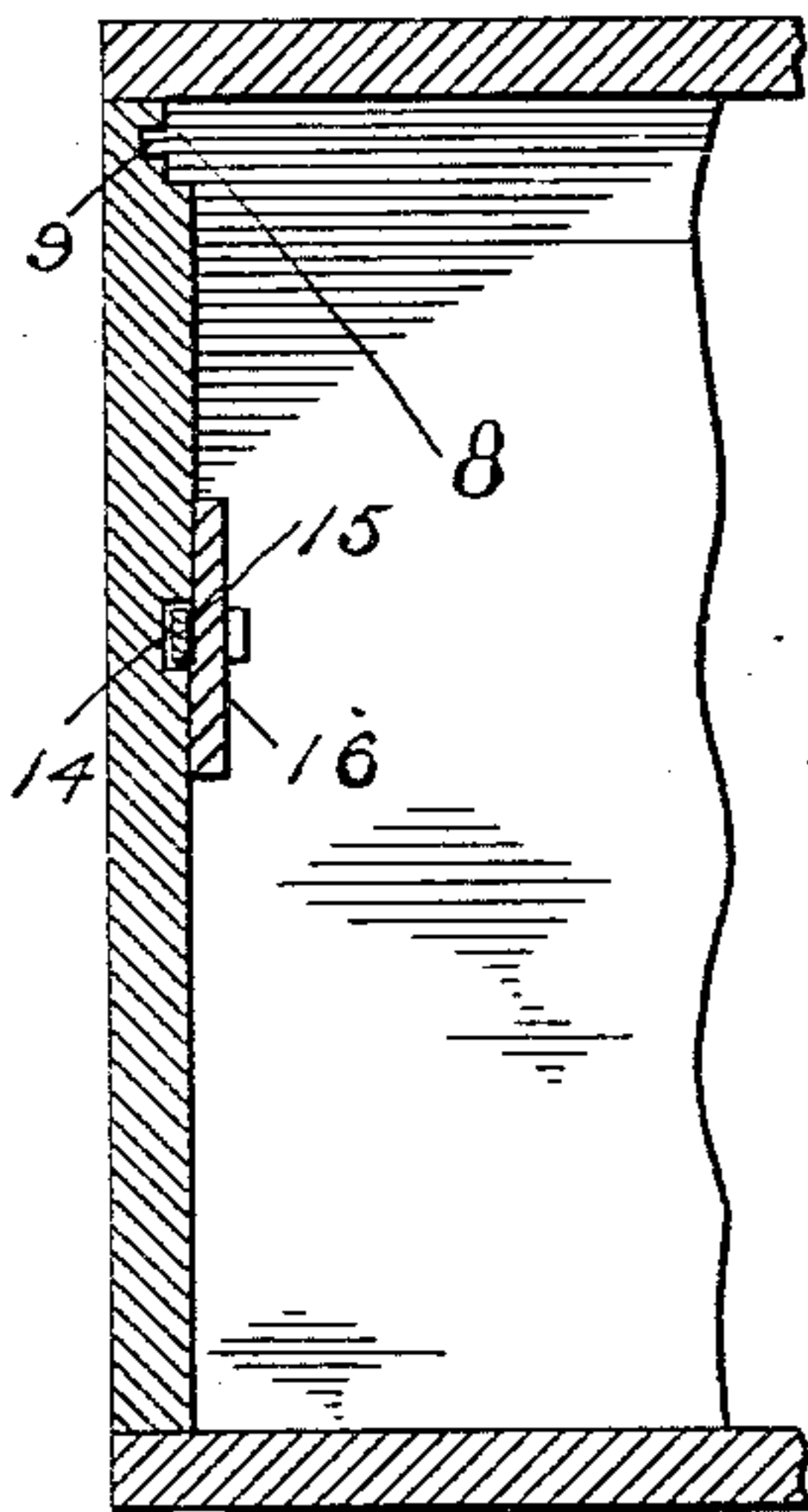


Fig. 5.

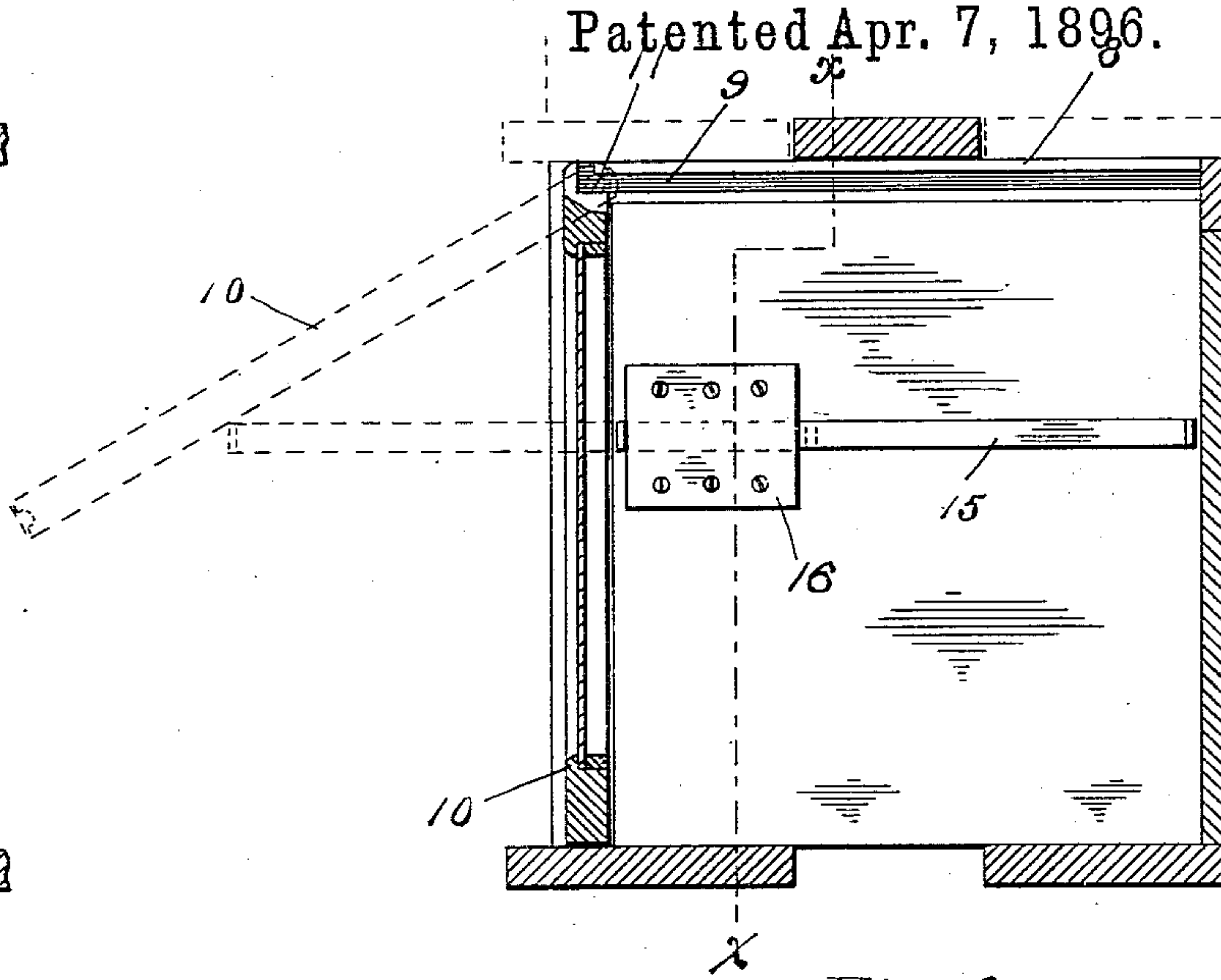


Fig. 6.

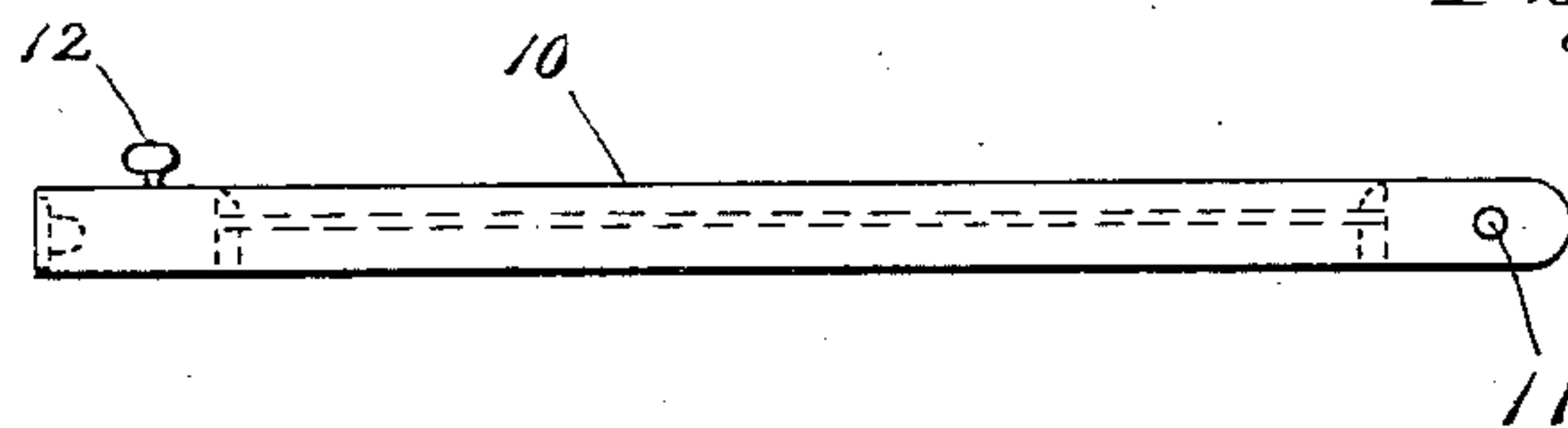


Fig. 7.

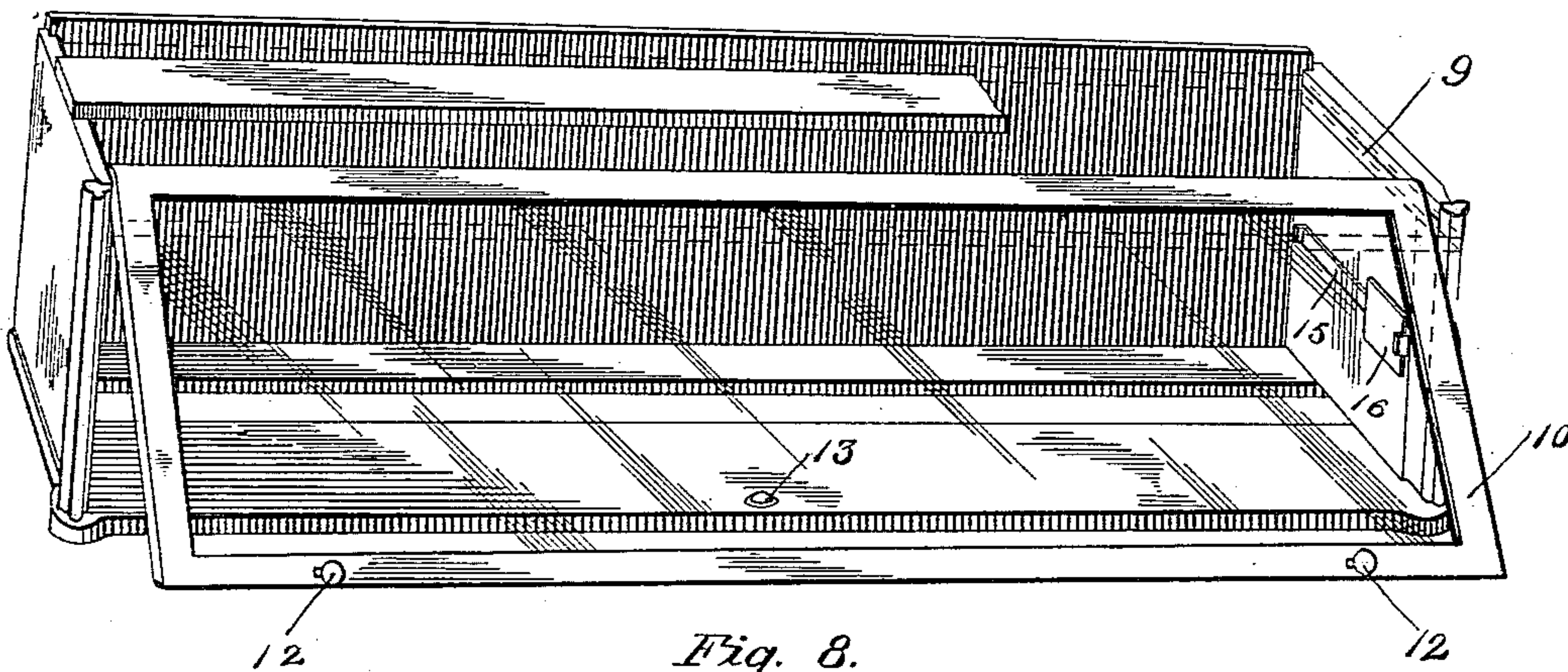


Fig. 8.

Witnesses;

Henry B. Arny.
C. E. Van Dorn.

Inventors;

Otto H. L. Wernicke,
Melbourne C. Burr.

By *Paul & Hawley*
their attorneys.

(No Model.)

3 Sheets—Sheet 3.

O. H. L. WERNICKE & M. C. BURR.
SEPARABLE BOOKCASE.

No. 557,736.

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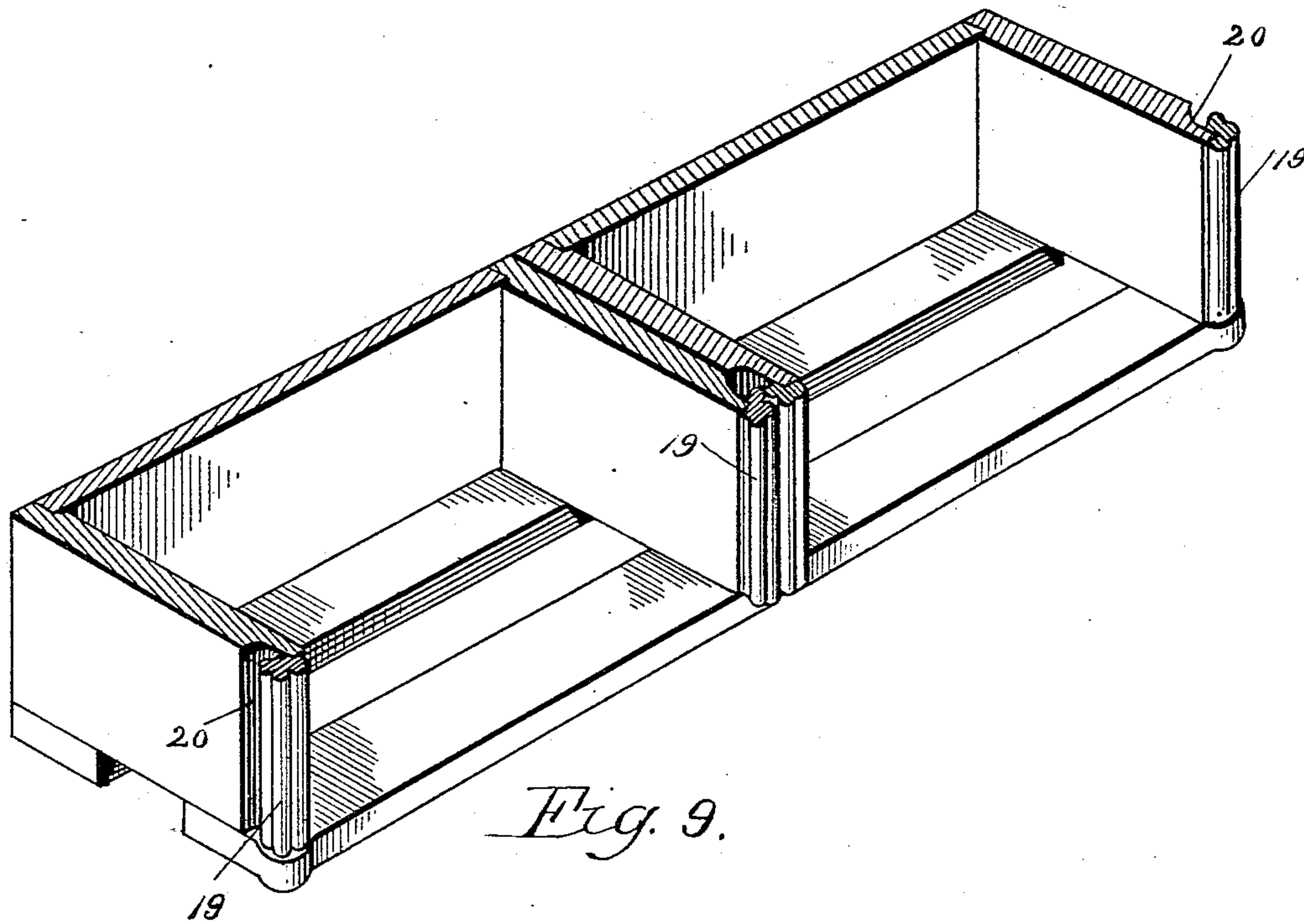


Fig. 9.

Inventors
Otto H. L. Wernicke.
Melbourne C. Burr.
Witnesses
J. Jensen.
Henry B. Avery By *Paul Hawley*
their Attorneys.

UNITED STATES PATENT OFFICE.

OTTO H. L. WERNICKE AND MELBOURNE C. BURR, OF MINNEAPOLIS, MINNESOTA, ASSIGNORS TO THE WERNICKE CO., OF SAME PLACE.

SEPARABLE BOOKCASE.

SPECIFICATION forming part of Letters Patent No. 557,736, dated April 7, 1896.

Application filed June 23, 1894. Serial No. 515,476. (No model.)

To all whom it may concern:

Be it known that we, OTTO H. L. WERNICKE and MELBOURNE C. BURR, of Minneapolis, Hennepin county, State of Minnesota, have
5 invented a certain new and Improved Separable Bookcase, of which the following is a specification.

Our invention relates to a bookcase composed of separable parts and which may be
10 increased in size by the addition of like parts.

The object of our invention is to provide a bookcase of several box or crate like parts wherein the books may be placed and carried, the bookcase being dissembled by the removal of these crates or boxes one by one or assembled and completed by the placing of
15 several of the crates or boxes one upon the other.

The particular object of our invention is to
20 so construct the boxes or cases that the top strips or boards of one will merge into the bottom of the next one or lap with respect to the same, whereby the intermediate partitions or shelves will be of single thickness to the end that the book-shelves may occupy
25 less space, that they may be locked firmly upon one another, and in all constitute a very strong case.

A further object of our invention is to provide means for locking together the abutting ends of separable sections where two or more tiers of the sections are employed.

A further object of our invention is to provide means for supporting the several tiers
35 and for giving them an even finish at the top.

A further object is to provide means which, while being ornamental, will supply a grip or handle upon each end of each section or crate, whereby the same, with the books therein,
40 may be lifted.

To this end our invention consists in the construction and combination of parts, all as hereinafter described, and particularly pointed out in the claims, and will be more readily
45 understood by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a bookcase embodying our invention mounted upon a suitable base. Fig. 2 is a perspective view
50 showing the means for fastening the crates together when two or more sections are used.

Fig. 3 is a perspective of one of the crates, showing the interlocking slats. Fig. 4 is a view of the molding used on the ends of the crate. Fig. 5 is a longitudinal section on the
55 line $x x$ of Fig. 6, showing one of the transverse grooves in the end of the crate and one of the longitudinal slots in the bottom thereof. Fig. 6 is a transverse section of the crate, showing the supporting-bar for the glass door, the door and the bar supporting it being
60 shown by dotted lines. Fig. 7 is a view of one end of the glass door, showing a pin adapted to slide in one of the longitudinal slots in the top of the crate. Fig. 8 is a perspective view of a crate, showing the glass
65 door pulled out. Fig. 9 is a perspective view of two crates joined together and showing handles upon each end of each crate.

As shown in the drawings, 1 represents a
70 crate or box of any suitable material and size for holding books of ordinary dimensions.

2 represents the ends of the crate; 3, the back, having its ends suitably secured to the end pieces 2 and its upper edge extending slightly
75 above them. To form a bottom for the crate, we provide the slats 4 and 5. The slat 4 is secured to the lower end of the end pieces 2, so that its outer edge is substantially flush with the inner edge of the back of the crate,
80 and the slat 5 is arranged so that its outer edge is substantially flush with the front edge of the end pieces 2. These slats do not form a solid bottom; but a space 6 is provided between them.
85

Across the top of the crate and connecting the end pieces 2 we provide the slat 7, which is adapted to fit closely into the space 6 between and interlock with the slats 4 and 5 in the bottom of a superimposed crate, thereby
90 forming a solid bottom for the next succeeding crate and locking the two together. When one crate is placed upon another, the upwardly-extending edge of the back of the lower crate will lap over the lower edge of the back
95 of the crate above, thereby closing the crack between the two crates and making a tight joint. The ends of the crate may be provided on the inside with the transverse grooves 8, arranged preferably near the top of the crate
100 and extending entirely across it, as shown in Figs. 5 and 6. Longitudinal slots 9 are pro-

vided in the bottom of said groove, as shown in Fig. 5. A glass door 10, having a suitable frame, is arranged to slide in the grooves 8, and each end of the door is provided with a pin 11, that is adapted to slide in the slots 9 in the bottom of the grooves 8, and when the door is pulled out to the position shown by dotted lines in Fig. 6 the pins form hinges for the door to swing upon.

The outer ends of the slots 9 turn upward and extend to the top of the crate, as shown in Fig. 6, so that the door may be removed from the crate. The door is also provided with suitable knobs 12 to aid in opening and closing it, and a catch 13 is provided upon the inside of the crate to hold the door in position when it is closed.

On the inner side of one of the ends 2 and preferably near the middle thereof we provide a second transverse groove 14, and a suitable slat 15 is provided that is adapted to slide in the groove 14 and is held and guided therein by the plate 16, secured to the inside of the end 2 over the groove 14. When the slat 15 is drawn out, it forms a support for the glass door, as shown by dotted lines in Fig. 6, so that a person may stand before the case and read with the book resting upon the glass door. When it is desired to make a longer bookcase, as shown in Fig. 1, by placing the ends of several crates together we provide means for joining the ends of the sections, so that they will be rigidly connected and not be twisted out of position by any unevenness in the floor. Downwardly-extending slots 17 are provided in the upper side of one end of adjoining crates. These slots are arranged to coincide when the ends of the two crates are placed together, thereby forming one slot which extends through the end from one crate to the other. A staple 18 is provided that is adapted to fit into this slot, so that one leg or prong will be on the inside of one crate and the other leg upon the inside of the adjoining crate, thereby clamping the two crates together, as shown in Fig. 2.

A suitable ornamental molding is provided to conceal the ends of the slats on the bottom of the crates or boxes, and vertical strips 19, suitably finished, may be provided upon the front of the end pieces 2 to give a finished appearance to the case, and in combination with the vertical grooves 30, provided in the end pieces 2, to make a handle by which the crate may be easily moved from place to place or detached from the crate beneath. We do not, however, confine ourselves to this style of handle, as any style suitable for this purpose may be used.

The crates, when placed together to form a bookcase, may be supported upon a base of any suitable design. Upon the top of the base 21 and at the back thereof we provide a slat 22, running the entire length of the base. Openings or spaces are provided upon each side of the slat 22 and into which the

slats 4 and 5 on the bottom of the superimposed crate are adapted to fit, thereby filling the spaces in the top of the base and at the same time forming a bottom for the crate or box. A second crate is placed upon the first in the manner previously described, and the process is continued until the bookcase has been carried to the desired height.

A molding may be carried around the top of the last crate or a solid piece placed thereon to give a finished appearance to the top of the bookcase. The exposed ends of the crates are preferably made of hard wood suitably polished and with moldings on the front edges. The exposed edges of the slats in the front of the case are finished in a suitable manner or provided with ornamental moldings, or any suitable means may be employed for ornamenting and finishing the case without departing from the spirit of our invention.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A bookcase, comprising a box or crate, a removable door pivotally supported by the ends of said box and arranged to slide in the bearings provided therein, a slide 15 carried by one end of said box and arranged to be drawn out to form a support for said door, for the purpose set forth.

2. A bookcase, comprising a box or crate, the ends of said crate being provided with transverse rabbets 8, the sliding door having its ends supported on the shoulders formed by said rabbets, the ends of said crates being also provided with grooves or slots to receive the pin or lug provided on the ends of said door, said grooves having an upward extension at the front of said crate or box, said pins or lugs forming hinges upon which said door when drawn forward may be swung down to cover the front of said crate or box, and means carried by said crate or box for supporting said door in an inclined position, substantially as described.

3. A bookcase, comprising a box or crate having an open front, and having horizontal rabbets formed on the inside of its ends directly below the top of the crate, a door having its ends arranged to slide in said rabbets whereby the door may be turned into a horizontal position and then shoved back under the top wall of the crate, and lugs forming hinges upon which the door may be drawn out and then swung down to cover the front of the crate, substantially as described.

4. A bookcase, comprising a series of crates or boxes arranged one above the other, each of said crates being provided with a horizontally-suspended door arranged to slide in grooves provided in the ends of said crates, said doors being adapted, when drawn forward, to swing down to cover the front of their respective crates, said grooves being provided near the front of each crate with an

upward extension to permit the removal of said doors after the removal of the superimposed crate or box, substantially as described.

5 5. A bookcase, comprising a series of boxes or crates, the lower crate of the series being provided with an incomplete top, and the crate immediately above it being provided with an incomplete bottom adapted to merge into and complete the top of the lower crate,
10 and said crates being provided with a door horizontally suspended and arranged to slide in transverse grooves provided in the ends of said crates, said grooves being provided at

their forward end with an upward extension to permit the removal of said door when drawn 15 to the front of the case and after the removal of the superimposed crate, substantially as described.

In testimony whereof we have hereunto set our hands this 6th day of June, A. D. 1894.

OTTO H. L. WERNICKE.
MELBOURNE C. BURR.

In presence of—

C. G. HAWLEY,
FREDERICK S. LYON.