

Aug. 20, 1935.

J. E. WHEATLEY

2,011,962

BOOKCASE

Filed Feb. 5, 1931

2 Sheets-Sheet 1

Fig. 1.

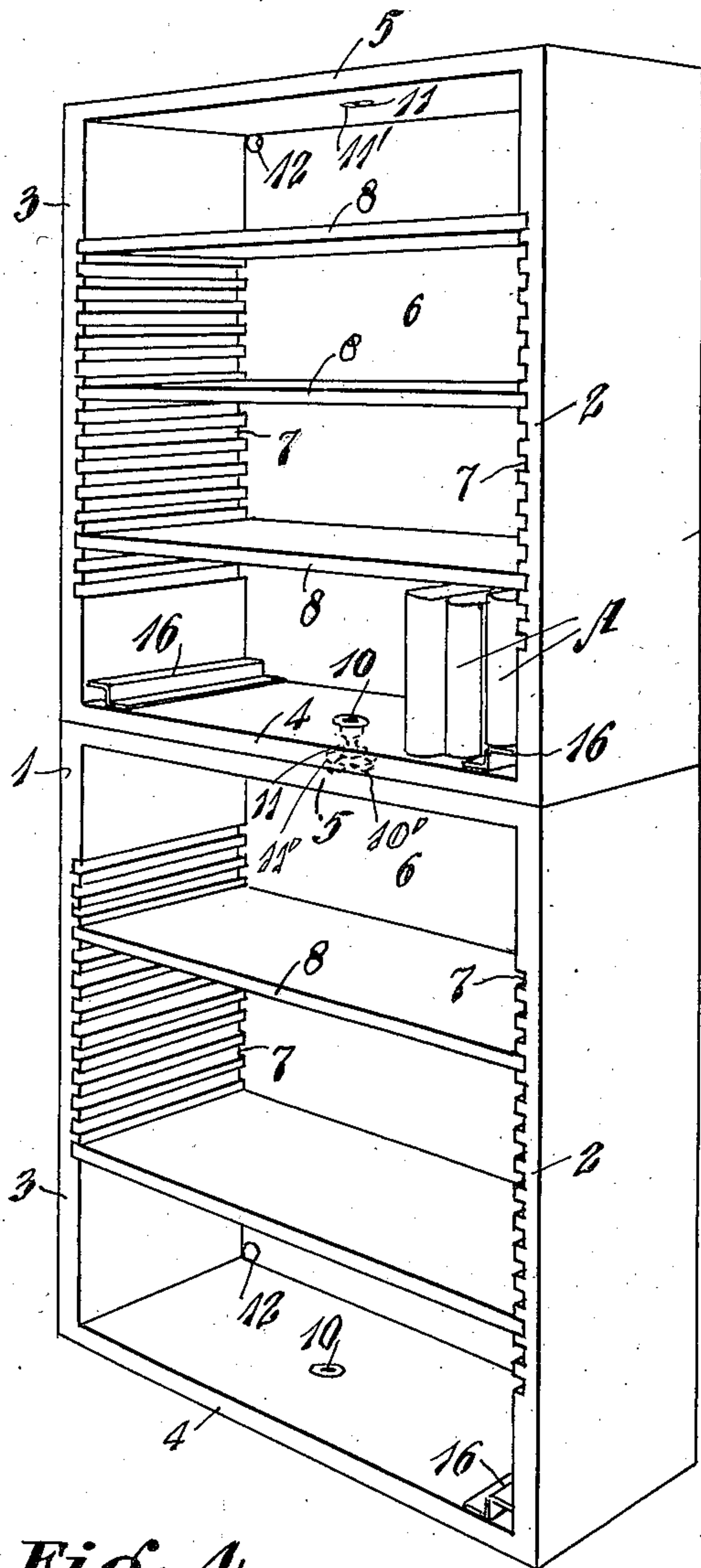


Fig. 2.

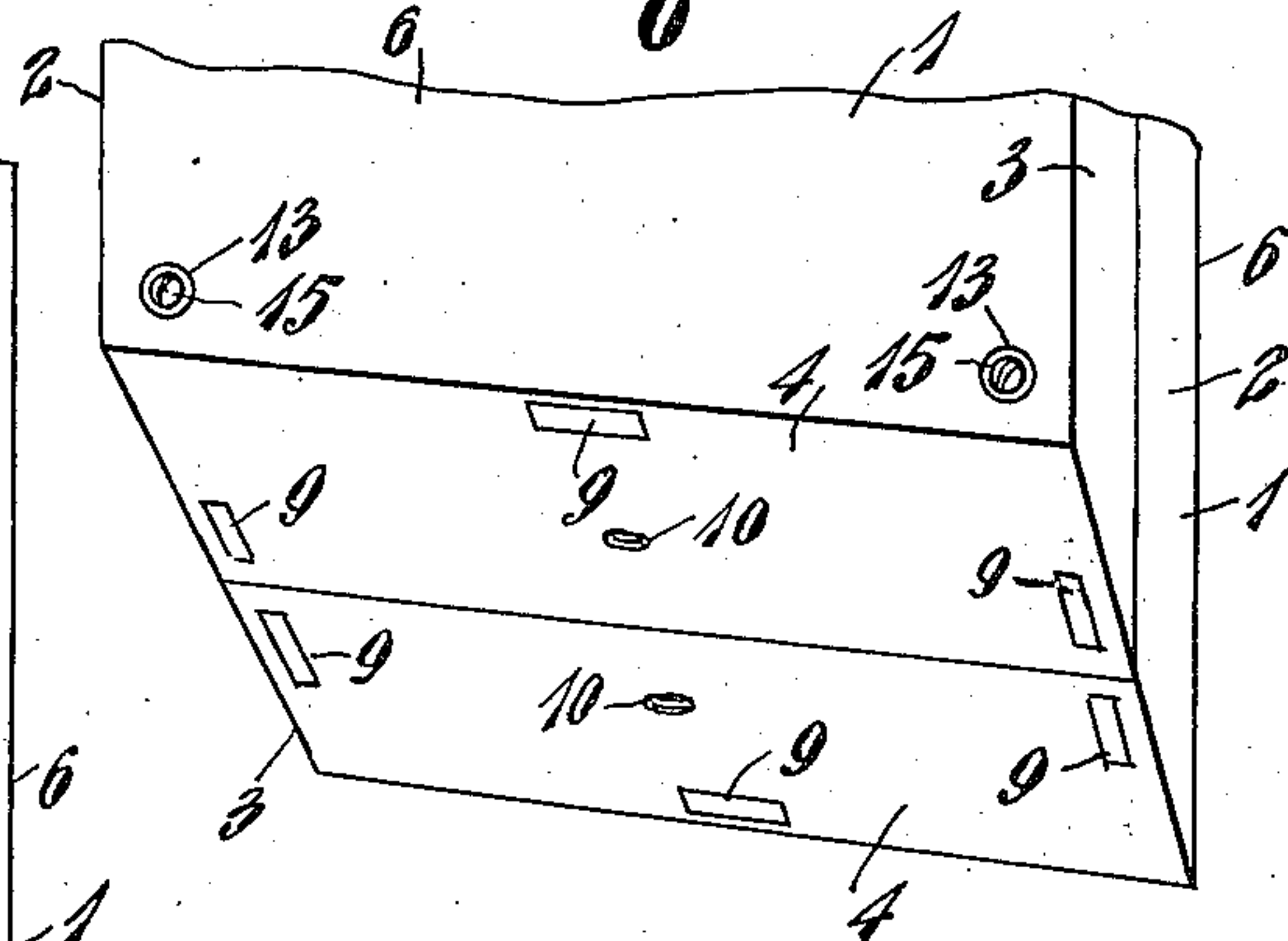


Fig. 3.

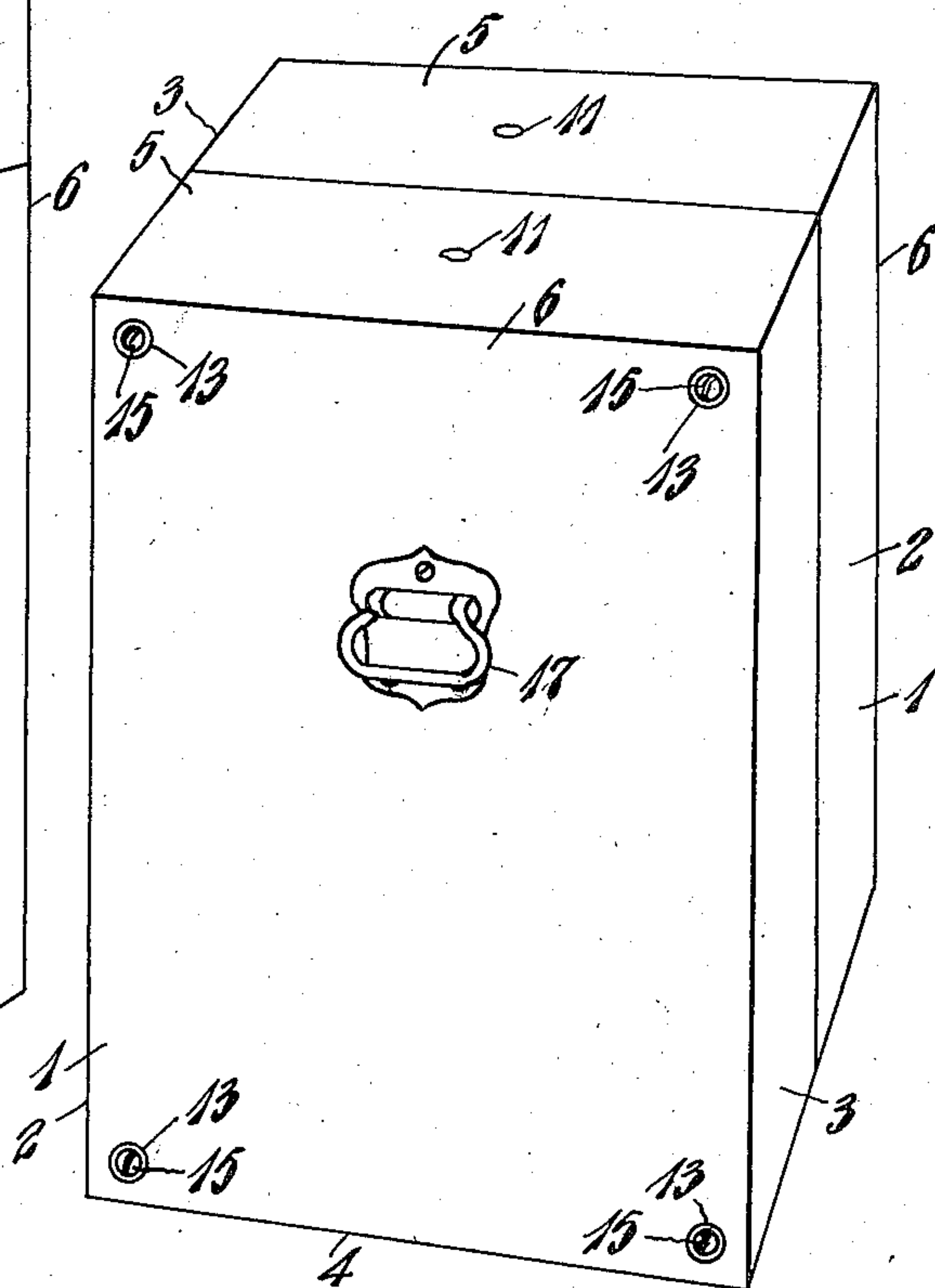


Fig. 4.

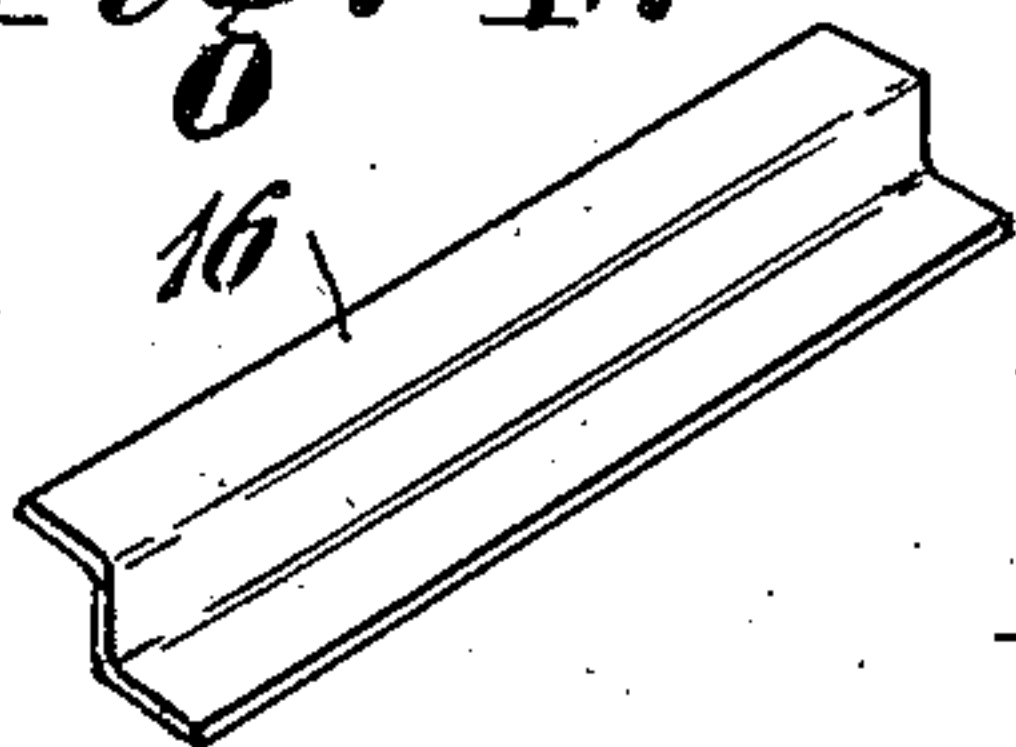
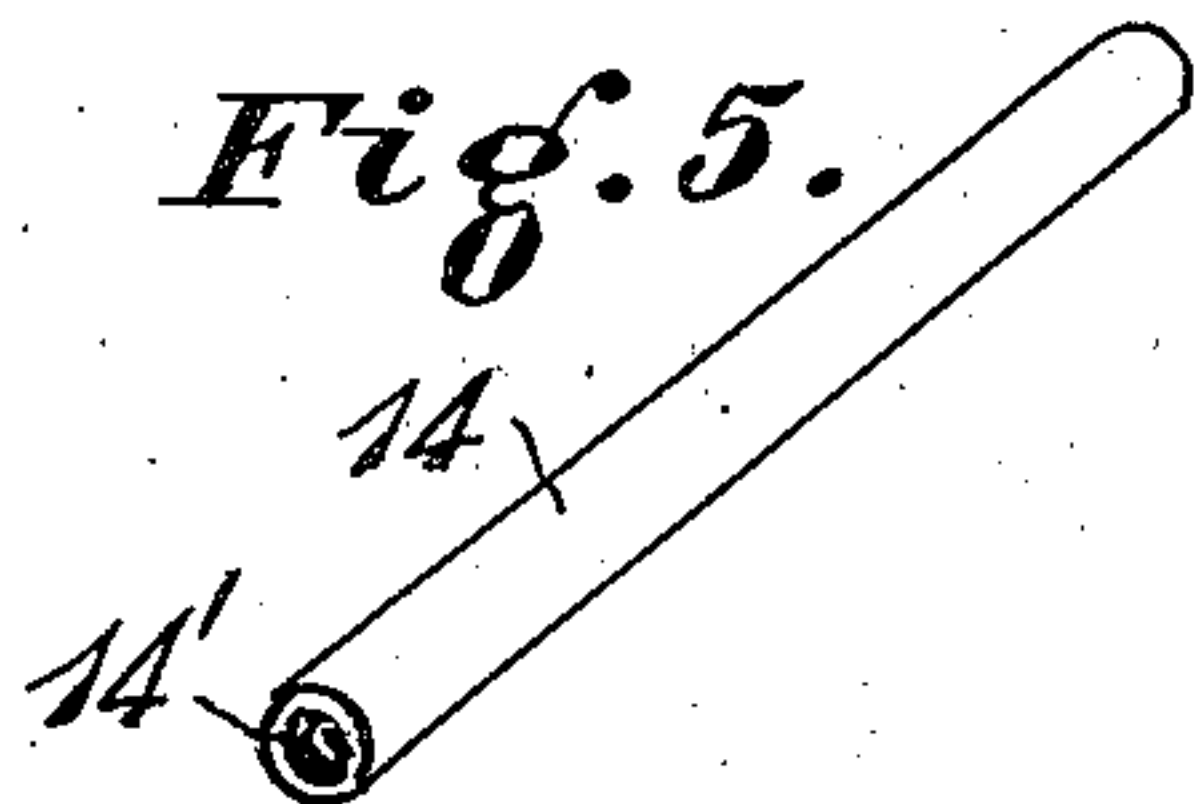


Fig. 5.



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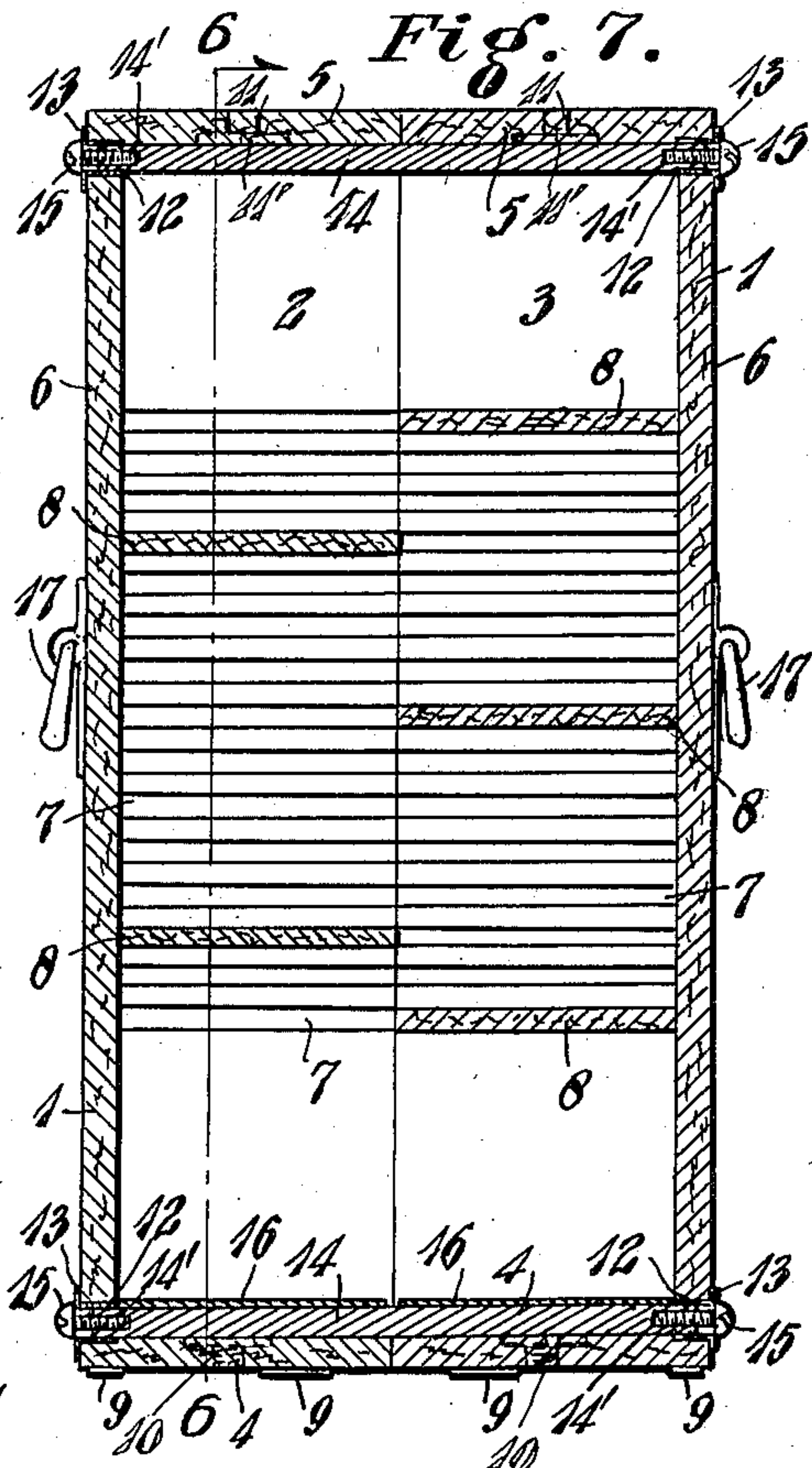
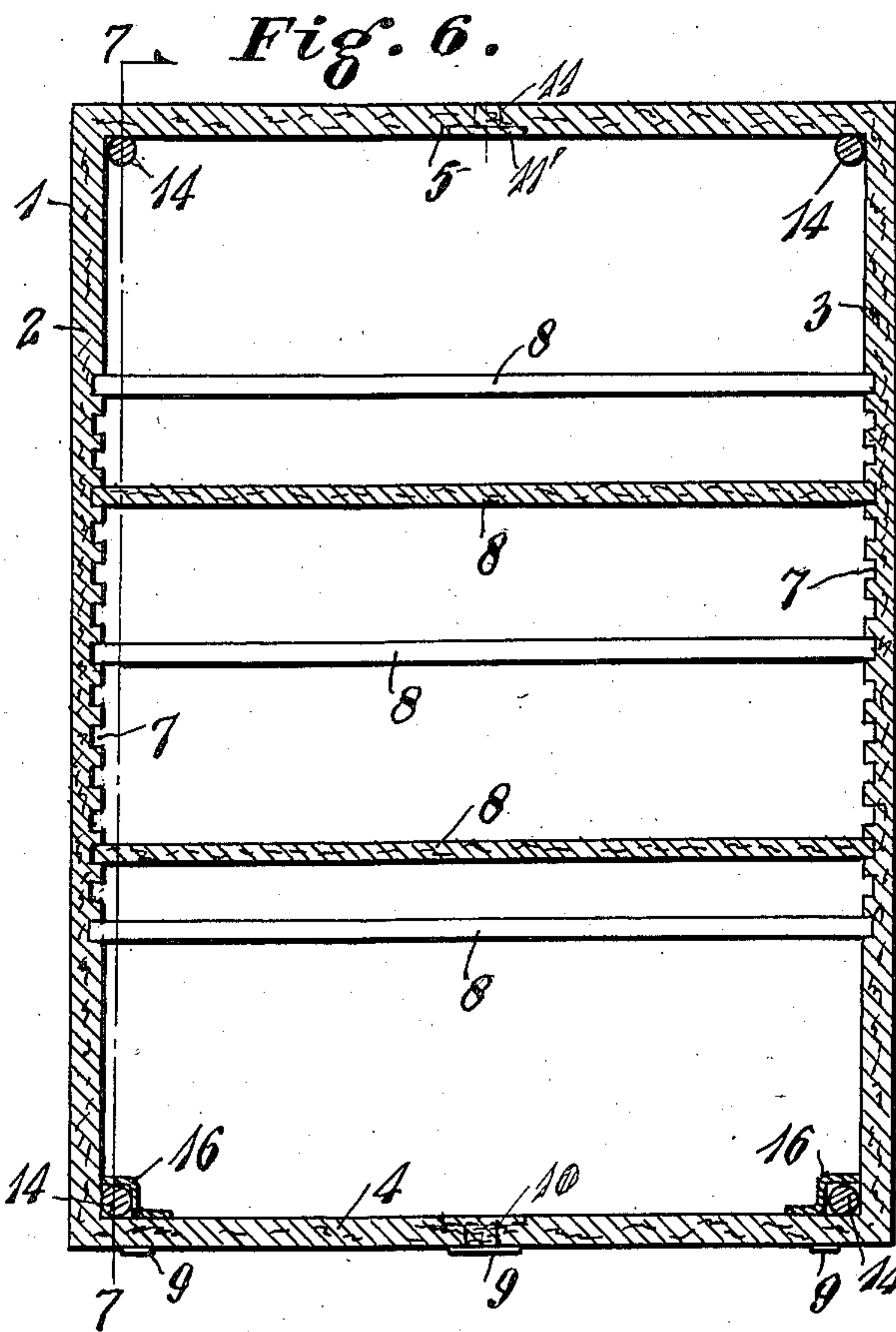


Fig. 9.

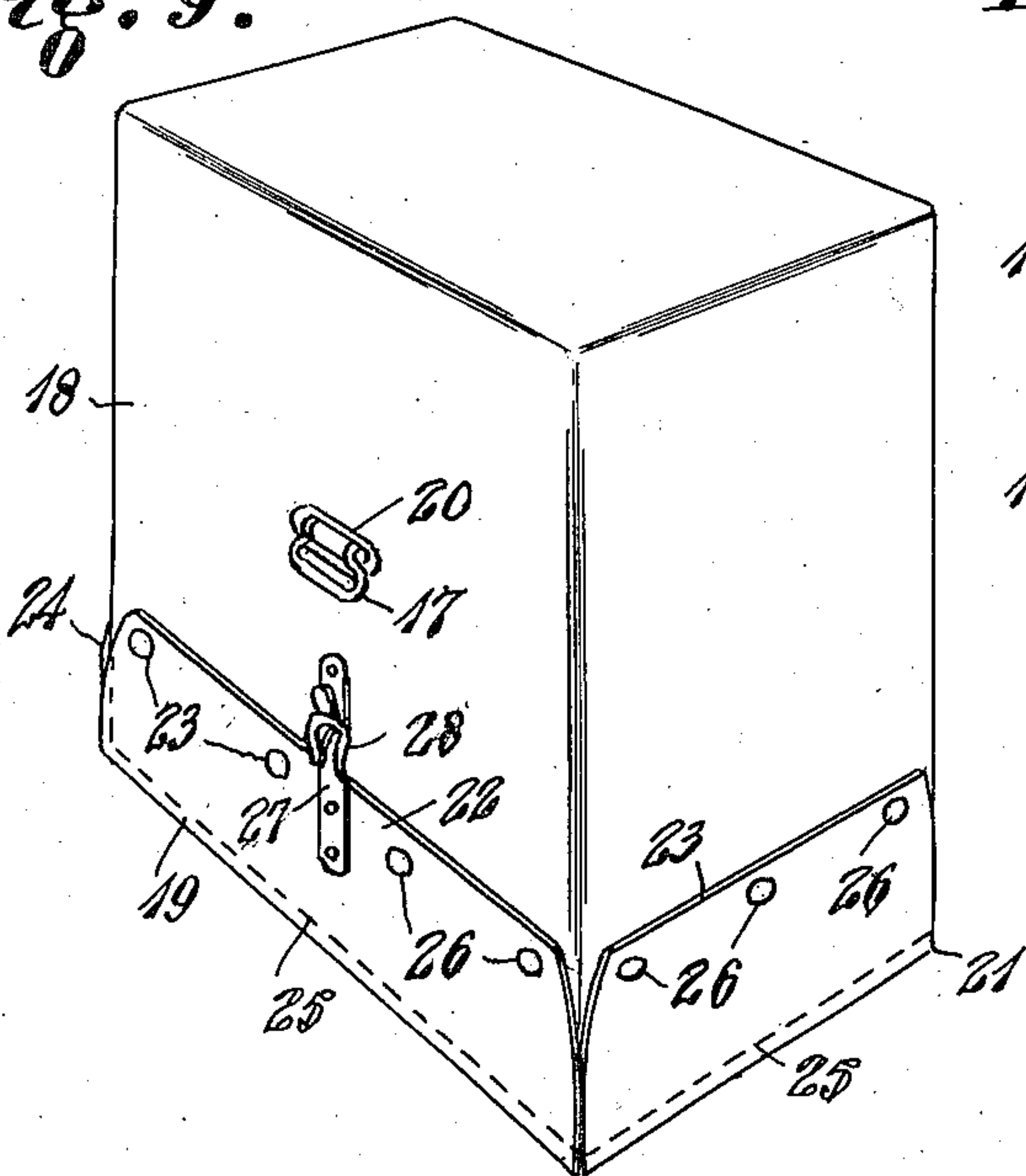
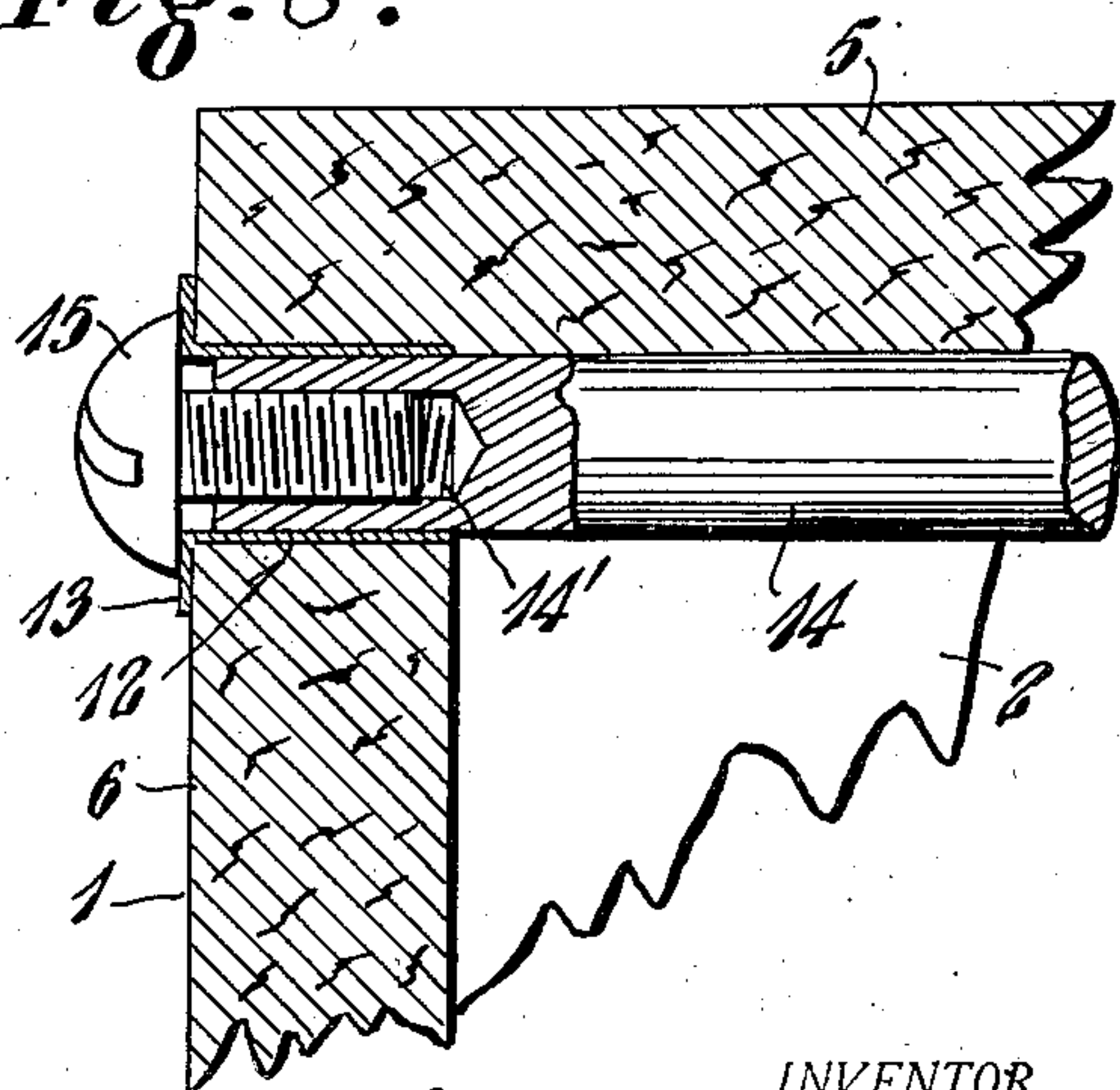


Fig. 8.



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UNITED STATES PATENT OFFICE

2,011,962

BOOKCASE

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Application February 5, 1931, Serial No. 513,632

9 Claims. (Cl. 217—8)

My invention relates to furniture, and its object is to provide a bookcase that can be set up or taken down without disturbing the books therein, and that, when taken down, can be securely and rigidly held in condition for shipping, and when set up will present a neat appearance as a piece of furniture. Other objects will appear in the course of the following description.

I attain these objects by the device illustrated, for example, in the accompanying drawings, in which—

Figure 1 is a general perspective view of the bookcase set up for use, with a few books therein for the purpose of illustrating the operation of certain details of the device;

Fig. 2 is a partial perspective view of the bookcase in packed condition, looking from below, illustrating details on the bottoms of the sections;

Fig. 3 is a perspective view of the bookcase in packed condition, looking from above;

Fig. 4 is a detail perspective view of one of the fenders;

Fig. 5 is a similar view of one of the binding rods;

Fig. 6 is a vertical cross section on the plane of the line 6—6 of Fig. 7;

Fig. 7 is a vertical front to rear section on the plane of the line 7—7 of Fig. 6;

Fig. 8 is an enlargement of the upper left corner part of the section of Fig. 7; and

Fig. 9 is a perspective view of the bookcase in packed condition with a cover thereon.

The bookcase comprises two sections 1, each of the form of a rectangular box with sides 2 and 3, bottom 4, top 5 and back 6, all of which preferably are of wood and very securely and rigidly secured together, as for instance by glued dovetail or locked joints, which, being well known in the art, and not being noticeable after the sections are varnished or otherwise finished, are not indicated in the illustrations. Each side 2 and 3 preferably has a series of grooves 7, and in any two opposite ones of these grooves the ends of a shelf 8 may be held, allowing the shelves 8 to be adjusted for books of different sizes, as is common in bookcases.

When in use, usually one section 1 is set upon top of the other, as in Fig. 1. To compensate for inaccuracies, thin strips of paper, cloth or the like, are secured to the bottoms of the sections, preferably by adhesive material; so that the top section will rest firmly upon the lower section. Preferably, these strips 9 are three in number, one at the middle near the back and the other two at respective front corners and set in so as not to be visible when the sections are set up. The three strips insure a firm bearing of the one section upon the other.

The bottoms 4 have approximately central openings in which are fixed threaded bushings 10, and the tops 5 have openings 11 to align with the openings 10 when the sections are in vertical alinement. A screw 10', preferably a thumb screw, is passed up through the opening 11 and screwed into the threaded bushing 10; the openings 11 preferably having their lower ends, inside the sections, counterbored at 11', admitting the head of the screw 10', which preferably is limited in height so that it does not extend materially past the inside surface of the top 5 and is out of the way of the books. These screws clamp the two sections together in vertical alinement when set up for use, and because of the three-point bearing afforded by the strips 9, this clamping may be made very rigid.

The back of each section has four openings at the respective inside corners, each preferably having a bushing 12 fitting tightly therein, and each bushing having at its outer end, against the exterior of the back 6 around the opening, a flange 13. For packing, the sections 1 are placed front to front, and binding rods 14 are placed with their ends in the bushings 12 thus brought into alinement. Each rod 14 has in each end a tapped opening 14', and when the rods 14 thus are placed in the sections 1, screws 15 are screwed into the tapped openings 15 with the heads of the screws coming against the respective bushing flanges 13. The openings, and the bushings 12 therein, are so located in the backs 6 that the binding rods 14, when inserted in the bushings as above explained, lie firmly against the adjacent inner surfaces of the tops 5 or bottoms 4 and sides 2 and 3. Also, the rods 14 are shorter than the distance between the exteriors of the flanges 13. The rods 14 thus bind the sections together, and by their close contact with the interior walls of the sections adjacent the corners of the sections, prevent weaving of the sections across each other.

When the case is set up, the rods 14, removed, may have their screws 15 reinserted in their ends and thus may be stored until again needed; and when the case is packed, the thumb screw 10' is removed and packed with the books. Suitable plugs may be provided for the openings where the screws are removed. Packing material, or additional books, may be placed between the books of the two sections to compensate for differences of sizes of the books stored in the sections.

The device is especially useful for traveling clergymen, missionaries, students, engineers, officials or others who require a considerable outfit of books, yet must frequently move and live in small quarters, as hotel or dormitory rooms, barracks and the like. When set up the case has a neat appearance, of furniture rather than baggage; yet when transported it is rigid and se-

cure, and acceptable as a safe piece of baggage, express or freight. It saves labor and time in packing and unpacking, and saves wear and tear on the books, as well as avoiding the annoyance of misplacing books, once the books have been arranged in the order most convenient for the user.

To avoid disturbance of any of the books in the sections when they are to be packed, fenders 16 are provided to support the books, as the books A in Fig. 1, away from the spaces where the bottom rods 14 are to be passed through as just explained. Each fender 16 is of Z-shaped cross section, preferably of formed sheet metal, and of length very slightly less than depth of the section, being placed with its lower member extending toward the middle of the section and its upper member thus spaced up from the bottom of the section and extending over with its longitudinal edge against the side of the section. These fenders 16 are held in place by the books resting thereon as the sections are handled in placing them together for packing; and the rods 14 may easily be inserted and secured as before explained.

Each section 1 has on its back 6 a handle 17, so that when the sections are bound together the single package thus made up may be lifted by two persons, one at each handle 17. As the sections are provided with finish, as before mentioned, it is desirable to protect this finish in transit, as by the covering shown in Fig. 9. This covering, as here shown, comprises an upper bag-like member 18 and a lower flap member 19. The upper member 18 has apertures 20 in its sides through which the handles 17 may protrude when the covering is in place. The lower member 19 is stitched to one lower edge 21 of the upper member 18 and has at its other three edges the flaps 22, 23 and 24 to lap outside the lower rim portion 25 of the upper member 18 when the latter is slipped down over the assembled sections 1; the handles 17 being worked out through the apertures 20 as the upper member 18 is worked down over the sections, and then the package is lifted and the lower member 19 is worked under it and its flaps are folded upward and fastened by the snap fasteners 26 and the straps 27 with buckles 28. This covering is designed to avoid the necessity of overturning the package for putting the covering on, as well as of lifting the package as a whole; the lower flap member 19 being adapted to be worked into place upon merely tilting the package.

The exteriors of the sides and tops are finished with varnish, wax, or other usual furniture finishes. The bottoms and backs need have only a filler or stain; and the front edges which are brought tightly together in packing are preferably finished in a manner that will result in the least marring incident to this contact under the conditions of transportation, as by a filler or stain of the appropriate color to match the finish of the sides, omitting such finish as varnish from these edges or faces, which finish would be so marred as to make the case unsightly when set up.

Modifications may occur in practice, and while I have rather specifically illustrated and described my invention, I do not wish to be understood as being limited to such precise disclosure, but what I claim as new and desire to secure by Letters Patent is:

1. A bookcase comprising two detached book containing sections with face edges, adapted to be assembled with the face edges together, and means extending through said sections interiorly

from said face edges and lying rigidly against interior surfaces of said sections, for binding the assembled sections together and preventing weaving of one section relatively to the other.

2. A bookcase comprising two detached book containing sections with interior corners and outer face edges, adapted to be assembled with the face edges together, and means extending through said sections interiorly from said face edges and lying rigidly against interior surfaces of said sections adjacent to the respective corners, for binding the assembled sections together and preventing weaving of one section relatively to the other.

3. A bookcase comprising two detached sections with face edges, adapted to be assembled with the face edges together, means located interiorly from said edges for binding the assembled sections together, and fenders to hold books away from said means.

4. A bookcase comprising two detached sections with face edges, adapted to be assembled with the face edges together, means extending through said sections interiorly from said edges for binding the assembled sections together, and fenders to hold books away from said means.

5. A bookcase comprising two detached sections with interior corners and outer face edges, adapted to be assembled with the face edges together, means extending through said sections interiorly from said edges and lying rigidly against interior surfaces of said sections adjacent to the respective corners, and fenders, each of Z-shaped cross section, to extend over respective binding means and hold books away from said means.

6. A bookcase comprising two detached sections with interior corners, backs and face edges, adapted to be assembled with the face edges together, said backs having openings adjacent to the respective corners, rods to extend through the assembled sections with their end parts fitting firmly in opposite openings and with their sides firmly against interior surfaces of the sections adjacent to the respective corners, and means connected to the ends of the rods and bearing against the outsides of said back, to bind the sections together.

7. A bookcase comprising two detached sections with interior corners, backs and face edges, adapted to be assembled with the face edges together, said backs having openings adjacent to the respective corners, rods to extend through the assembled sections with their end firmly in opposite openings and with their sides firmly against the interior surfaces of the sections adjacent to the respective corners, and screws in the ends of the rods with heads bearing against the outsides of said backs, to bind the sections together.

8. A bookcase comprising detached book containing sections, means for binding the sections together, having lateral bearings against the interior portions of the sections to prevent weaving of the sections relatively to each other, and fenders removably positioned to lie across said binding means inside the sections.

9. A bookcase comprising detached book-containing sections, and means for binding the sections together, having lateral bearings against the interior walls of the sections to prevent weaving of the sections relatively to each other.

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