

(No Model.)

2 Sheets—Sheet 1.

J. L. ROBERTS.
FOLDING BOOKCASE.

No. 541,504.

Patented June 25, 1895.

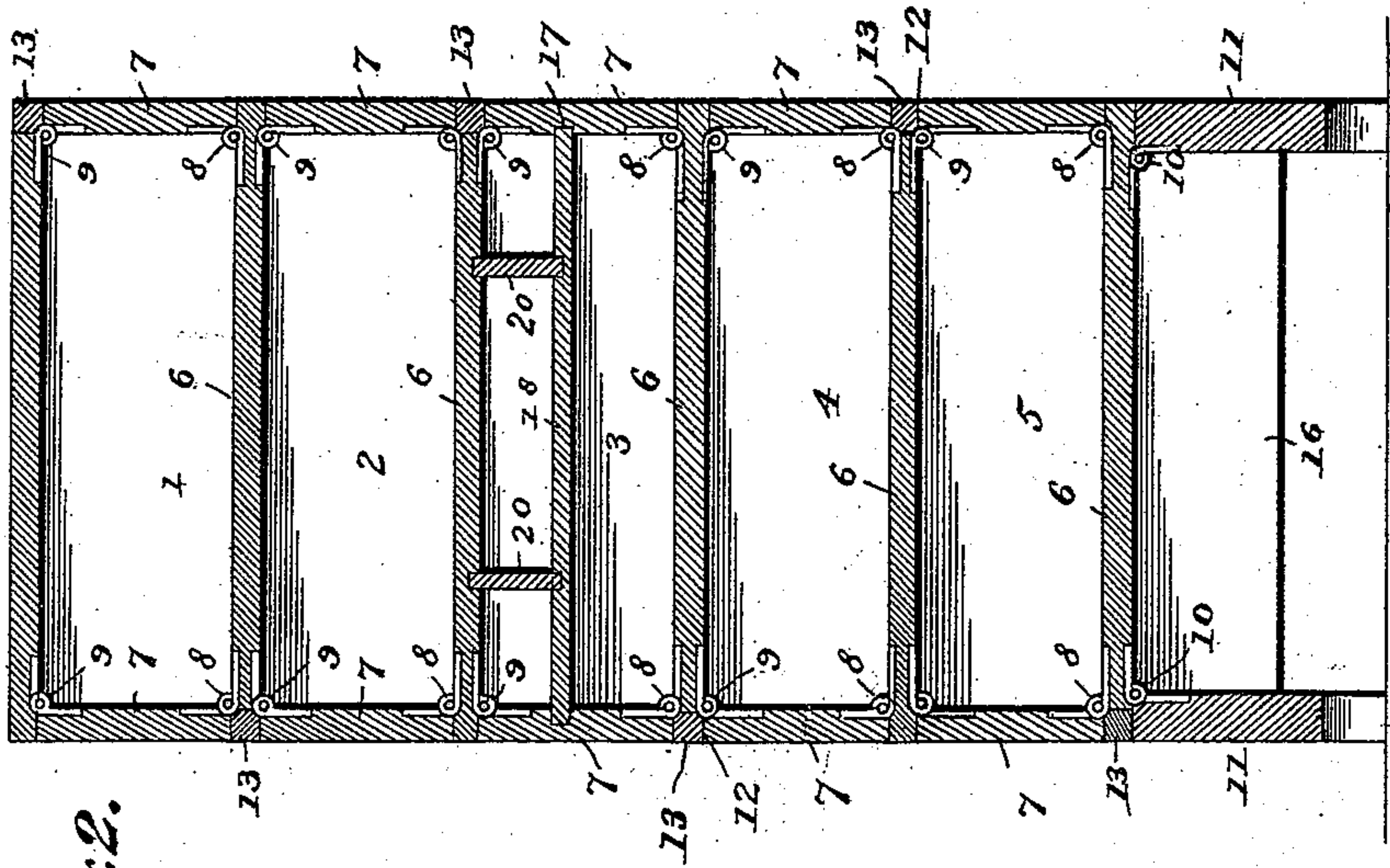


Fig. 2.

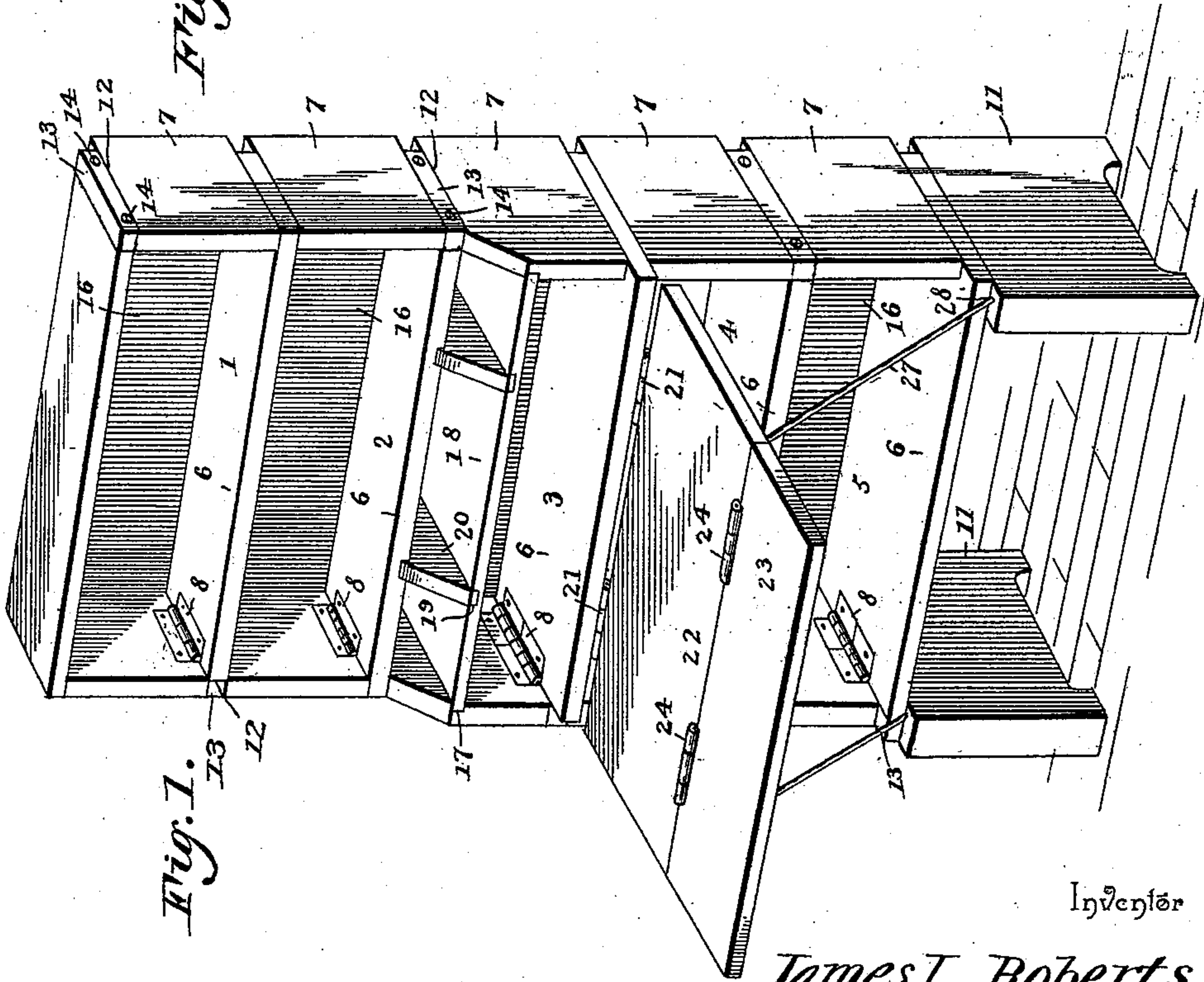


Fig. 1.

Inventor

James L. Roberts,

Witnesses

Julius Ulke Jr.
W. S. Duwall.

By his Attorneys.

C. A. Snow & Co.

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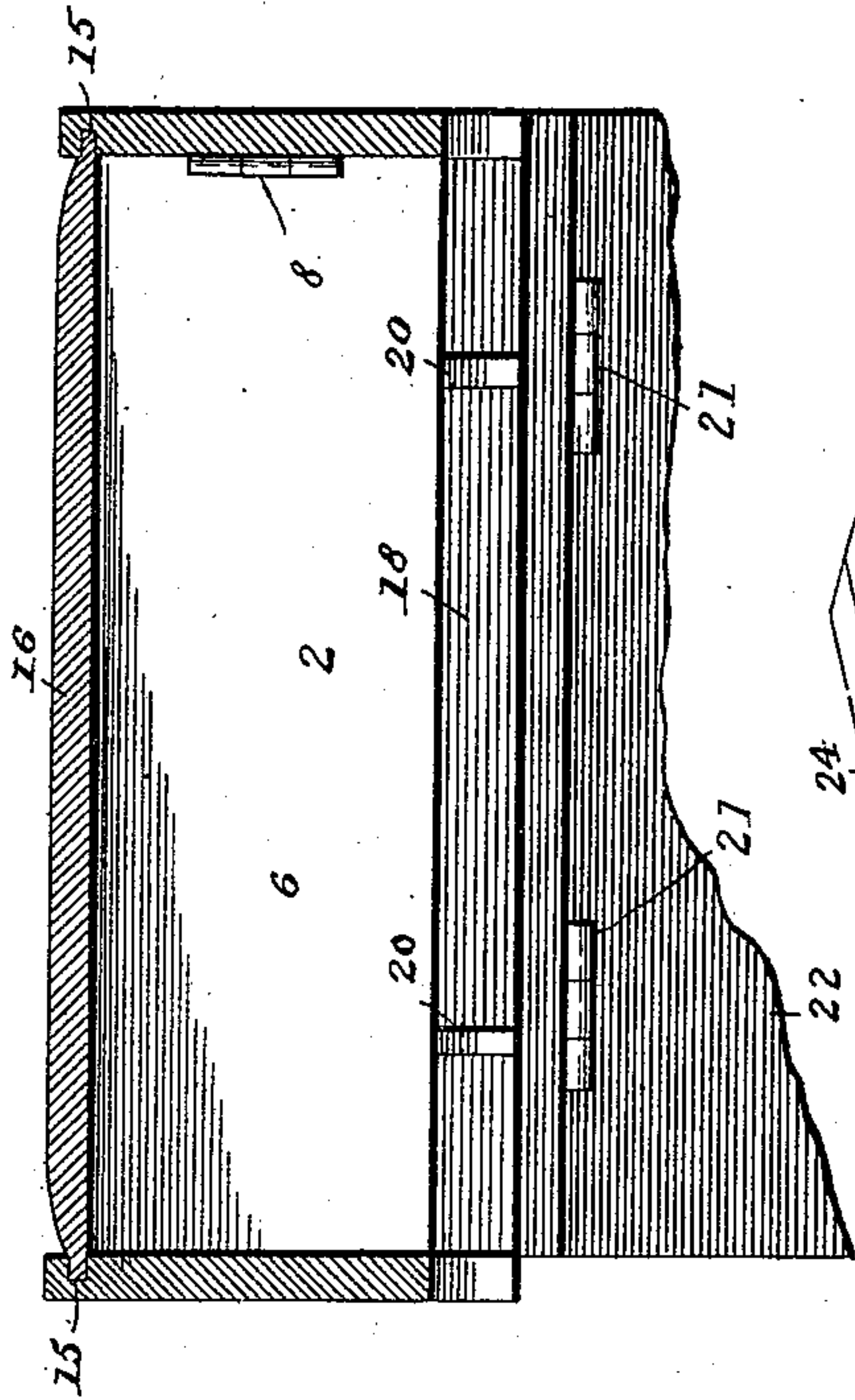


Fig. 5.

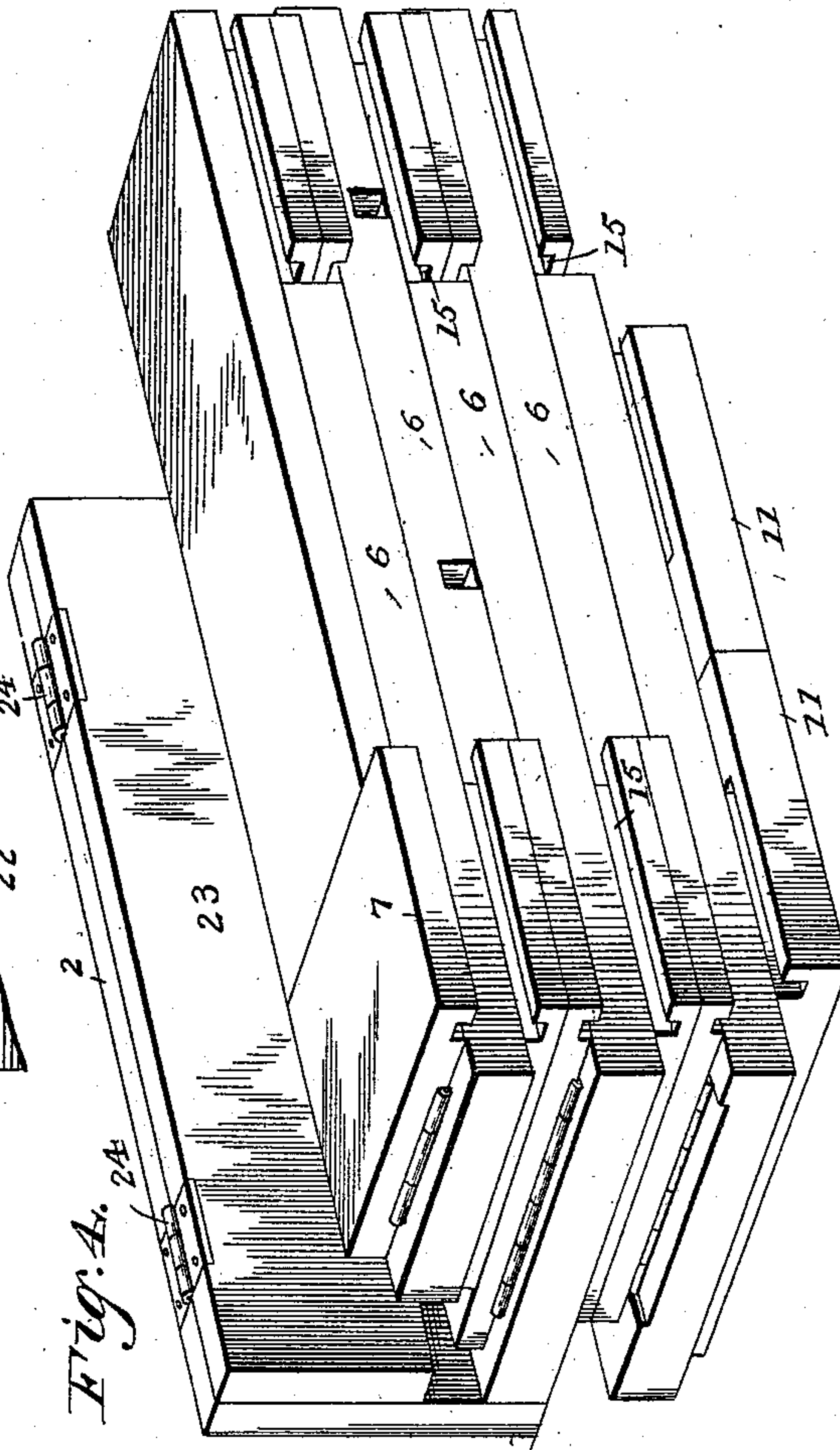


Fig. 4.

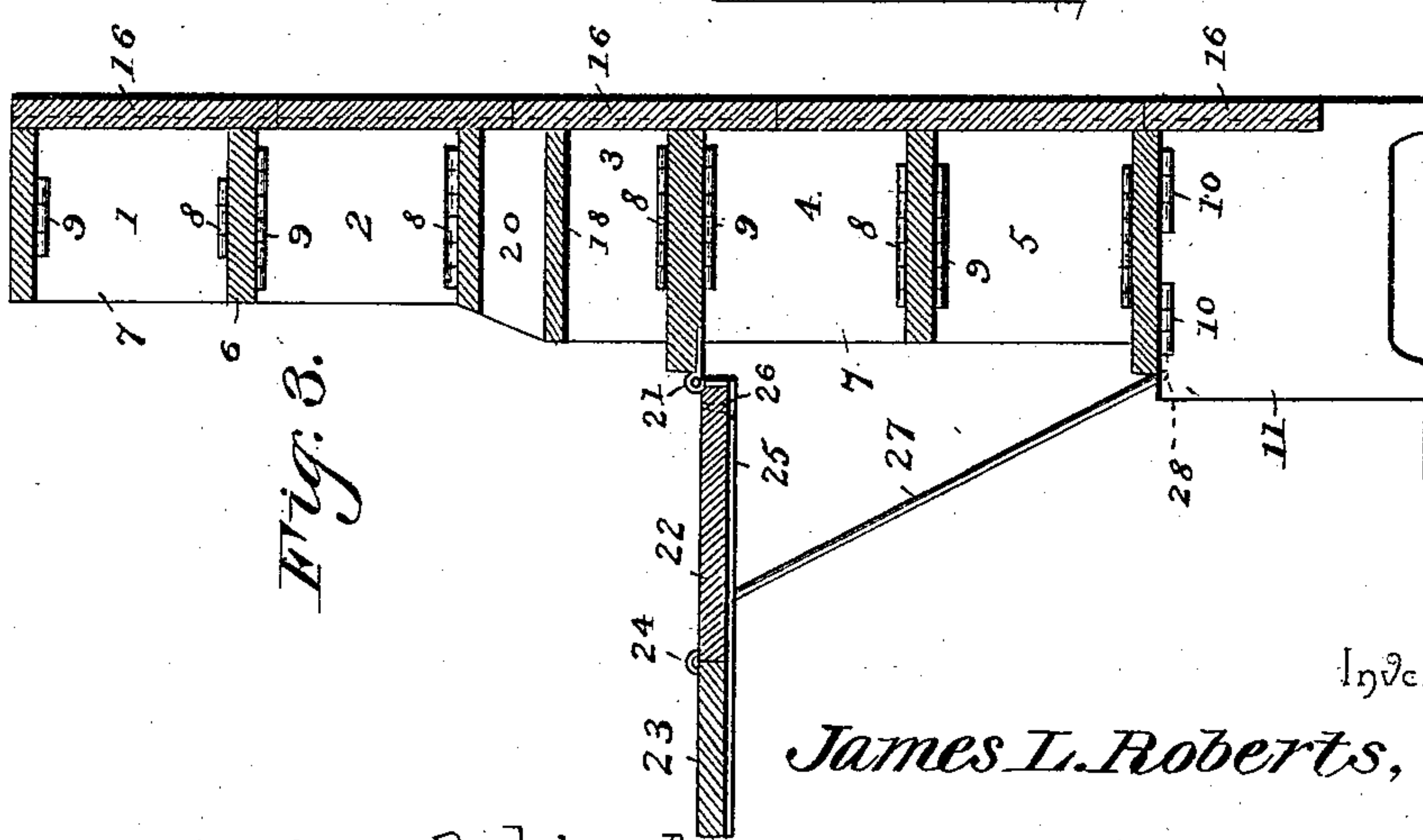


Fig. 3.

Witnesses

Julius U. Ke...
W. S. Duwall

By his Attorneys.

Inventor
James L. Roberts,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JAMES LESLIE ROBERTS, OF MEXICO, MISSOURI, ASSIGNOR OF ONE-HALF
TO A. B. SMITH, OF SAME PLACE.

FOLDING BOOKCASE.

SPECIFICATION forming part of Letters Patent No. 541,504, dated June 25, 1895.

Application filed November 20, 1893. Serial No. 491,468. (No model.)

To all whom it may concern:

Be it known that I, JAMES LESLIE ROBERTS, a citizen of the United States, residing at Mexico, in the county of Audrain and State of Missouri, have invented a new and useful Folding Bookcase, of which the following is a specification.

My invention relates to improvements in book-cases, the objects in view being to provide a very simple construction of book-case especially designed for use by students at college and by others who frequently move from place to place and of necessity carry with them books; to so construct the case as to enable it to be packed flat for shipment or carried in an ordinary trunk, and, furthermore, to serve as a desk for the convenience of the user.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view of a bookcase embodying my invention, the same being shown in its operative position. Fig. 2 is a vertical longitudinal sectional view thereof. Fig. 3 is a transverse vertical sectional view. Fig. 4 is a perspective view of the case in its folded position. Fig. 5 is a horizontal sectional view through one of the sections.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I may construct the book-case any height desired and govern the height by the use for which the case is designed, as for instance, if it is to be employed by a college student I construct the same smaller than I would if it were to be a permanent fixture for ordinary use by a person permanently situated. Be this as it may, however, the construction is identical in both instances and I will therefore proceed to detail the same.

The case consists of a series of sections forming rectangular box like compartments arranged vertically one upon the other, which sections in this instance are five in number, the upper sections being slightly smaller than the lower sections, whereby the latter form an ornamental base and add to the stability of the structure when set up. These

sections I have designated for convenience as 1, 2, 3, 4 and 5.

Each section consists of a lower base 6 and opposite side walls 7 rigid throughout their entire length, one of which is located at the extreme edge of the base 6 and the other has its outer face flush therewith, but each is connected by a hinge 8 to said base so that the two walls can fold flat upon the base. The upper ends of these walls are connected by hinges 9 to the under sides of the base 6 of the next or superimposed section, which base forms the top of this section and so on throughout the series, but that side wall 7 which is located at the end of the base which it surmounts is at its upper end connected to the superimposed base of the next section some little distance from the end thereof and the opposite or companion side wall 7 which is located some distance from the end of the base has its upper end connected directly to the end of the superimposed base of the next adjacent section, and so on throughout the series, so that each section is capable of folding only in one direction and fold all in alternately opposite directions as a whole, as clearly shown in Fig. 4.

I hinge to the under side of the base of the lowermost section by hinges 10 folding legs 11 designed to swing under the base and against the section. It will be observed that by thus arranging the side walls there will be formed, when the structure is in operative position, recesses 12 at the opposite sides of the case and at alternate sections. These recesses I fill by means of removable blocks 13 through which screws 14 are passed into the ends of the bases of the sections, so that said blocks act to steady the structure and when in position the same is rigid.

The bases it will be seen serve as shelves for the sections and as shown terminate in front of the rear edges of the side-walls of the sections. These side-walls are near their rear edges and at their inner faces provided with vertical grooves 15, and in each pair of vertical grooves I locate a back-section 16, which further aids in the rigidity of the structure when arranged in operative position. These back-sections or panels are removable it will be seen and are removed from their positions when it is desired to fold the book-case.

One, or more, of the sections may have their side walls provided with horizontal grooves 17, and into the same may be slid horizontal shelving 18. The upper sides of this shelf or shelving, as the case may be, are provided with transverse grooves 19, and slid into these grooves and resting on the base are vertical partitions 20, whereby the sections may be conveniently divided into pigeon-holes. This may complete the structure, but I prefer to still further increase its utility, and for that purpose I hinge to the front edge of the base of one of the intermediate sections, as indicated at 21, a swinging table, which is preferably composed of upper and lower leaves 22 and 23 hinged together at their adjacent edges at 24. For the purpose of accommodating this table the base of the section to which the same is hinged preferably projects beyond those of the remaining sections, so that when the table is in its depending or non-operating position it is flush with the outer face of the base to which it is hinged and may serve to cover or close those sections below the same. A pair of metal strips 25 are pivoted at their inner ends at 26 to the upper leaf of the table upon the under side of the same and are capable of swinging thereunder or being disposed at an angle thereto so as to take under and stiffen the lower leaf.

The legs 11 of the book-case project at their front and rear ends slightly beyond the base of the lower section and their rear ends are provided at their inner sides with grooves 15 similar to those formed in the side-walls of these sections, and they also receive a panel 16. The front extended portions of the legs are upon their upper sides provided with openings or holes 28, and into the same fit removably the lower ends of a pair of rods 27, whose upper ends engage under the table and may serve to support the same. This table serves as a convenient desk, either for writing or studying and may be readily folded out of position when not required.

As shown in Fig. 4 the book-case may be readily folded for transportation or storage when not in use. Such folding is accomplished simply by removing the back panels from the several sections, and this may be done by sliding the same vertically through the several sections and from the end of the book-case. The panels may be flatly packed and the case as a whole folded, the sections swinging in alternately opposite directions in a zigzag manner as will be readily observed, so that when completely folded it occupies no greater space than the aggregate width of the boards from which the same is constructed.

The metal strips 25 may be folded under the leaf 22 of the table toward each other, and the lower folding leaf 23 may be folded upon the said leaf 22, so that the table is rendered compact and is capable of being folded against the edges of the several sections.

From the foregoing description, in connection with the accompanying drawings, it will

be seen that I have provided a simple construction of book-case, that is capable of being knocked down or folded into a compact space, and may be made of such size as to adapt it to be carried in an ordinary trunk by students, travelers, and others, and readily set up when desired for the purpose of accommodating books and furnishing a convenient table or desk at which said books may be examined or other occupations carried on.

I do not limit my invention to the precise details of construction herein shown and described, but hold that I may vary the same to any degree and extent within the knowledge of the skilled mechanic.

Having described my invention, what I claim is—

1. In a book-case, the combination with a series of folding sections, each consisting of a base, opposite walls hinged at the ends thereof and at their upper ends to the superimposed base of the next adjacent section, of folding legs hinged to the lower section, and a series of removable panels located between the walls of the sections, substantially as specified.

2. In a book-case, the combination with a series of sections arranged vertically, each consisting of a base, opposite end walls hinged thereto and at their upper ends to the superimposed base of the next adjacent section, the said end walls extending at their rear edges beyond the bases and provided with vertical grooves, of a series of removable panels slidably mounted in the grooves, substantially as specified.

3. In a book-case, the combination with a series of sections, each consisting of a lower base and opposite end walls, rigid throughout their entire length one end wall of each section being hinged at the extreme end of the base, and the remaining end wall adjacent to the base so that its outer surface would be flush with the end wall of the base when vertically disposed, the upper ends of said walls being oppositely hinged to the superimposed base of the next adjacent section, substantially as specified.

4. In a book-case, the combination with a series of sections, each consisting of a lower base and opposite end walls, those end walls of the sections at one side of the case being hinged alternately to and at one side of the extreme end of the base and in reverse relations to the base of the superimposed section, whereby recesses between the end walls are produced at opposite sides of the book-case, and removable filling-blocks arranged in the recesses, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES LESLIE ROBERTS.

Witnesses:

C. C. LONGLEY,
CLARENCE DAVIS.