June 19, 1934. J. TYLER 1,963,427

SHELF LOCKING CONSTRUCTION

Filed Dec. 18, 1933

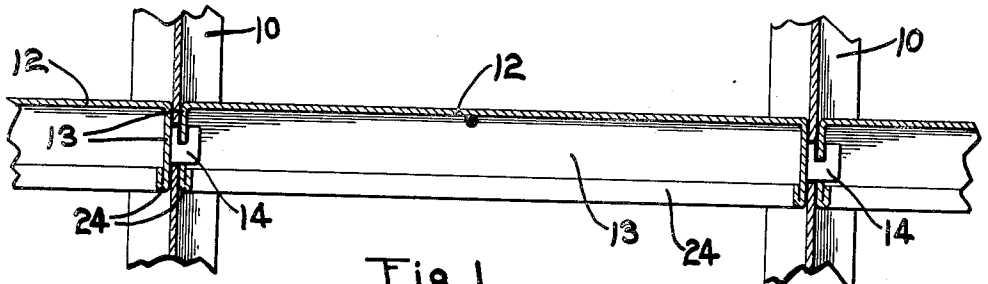


Fig. 1.

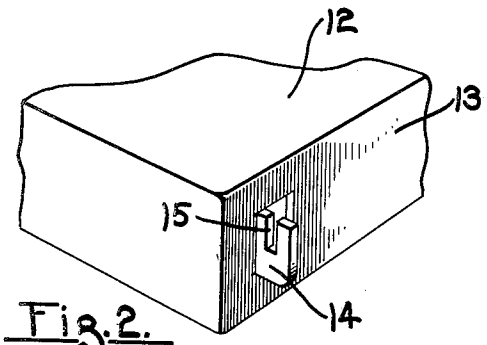


Fig. 2.

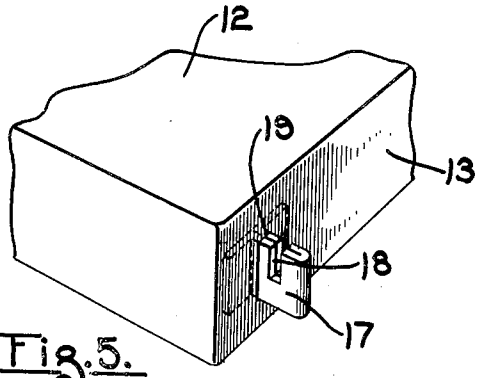


Fig. 5.

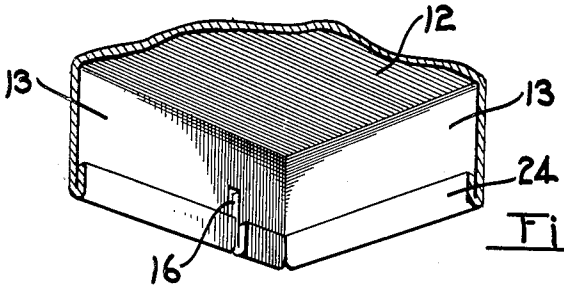


Fig. 3.

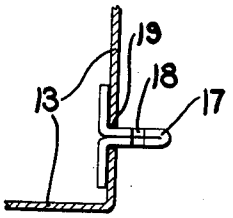


Fig. 6.

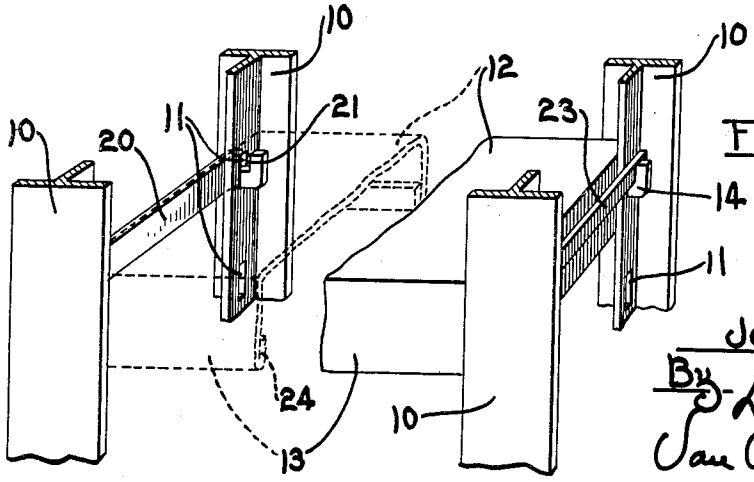


Fig. 4.

Inventor
Jerry Tyler
By Lawrence and Van Antwerp
Attorneys

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SHELF LOCKING CONSTRUCTION

Jerry Tyler, Niles, Mich.

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4 Claims. (Cl. 211—136)

This invention relates generally to a supporting structure and more particularly to shelving.

Briefly described, my invention consists of a plurality of uprights, these uprights having a series of slots suitably located therein, and a plurality of shelves, these shelves having extensions which slide through the slots and interlock with the adjacent shelf, thus forming a rigid shelving assembly.

One of the difficulties experienced in the manufacture of shelving resides in its bulkiness which is, of course, disadvantageous in shipping the same and it is one of the primary advantages of my invention to create a construction which can be shipped in disassembled relationship and assembled together when it has reached its destination, this assembly not only being very easily and quickly made without the use of any tools but also the assembly can be made by unskilled labor.

Another advantage resides in the simplicity of the construction, this construction consisting of only two main elements, the upright members and the several shelves. Not only are these shelves of relatively simple construction but the shelves are of identical construction whereby they may be economically manufactured.

Furthermore, disassembly of a structure may be easily accomplished when desired.

Other advantages will become apparent as the description proceeds.

In the drawing:—

Fig. 1 is a sectional view through a shelving construction built in accordance with my invention.

Fig. 2 is a fragmentary perspective view illustrating one corner of the shelf proper and its supporting extension.

Fig. 3 is a fragmentary perspective view of the opposite corner of the shelf.

Fig. 4 is a perspective view, partly shown in dotted lines, illustrating the method of assembly.

Fig. 5 is a fragmentary view, similar to Fig. 2, illustrating a modification.

Fig. 6 is a horizontal sectional view taken through Fig. 5.

Similar numerals refer to similar parts throughout the several views.

Referring to Figs. 1 and 4, numeral 10 indicates the upright members or supports, each of these members having a plurality of vertically spaced slots 11. The members 10 are shown as having T-shaped cross sections but may be formed in any desired shape.

The shelves, of identical construction, each consists of a flat top member 12 having a depending flange 13 extending therearound. The flange 13 is return bent as indicated at 24 in order to stiffen the same. As shown in Fig. 2, one of the flanges 13 is slitted and a portion forced outwardly to form the extension 14. A notch 15 is formed in the extension 14. The opposite flange 13, see Fig. 3, is formed with slots 16, only one of these slots being shown.

Figs. 5 and 6 show a modified form of shelving in which the flange 13 has openings therein to receive extensions 17 therethrough. These extensions 17 are notched as at 18 and function in exactly the same manner as the extension 14.

Referring now to Fig. 4, numeral 20 indicates a U-shaped bar notched at each end as indicated at 21, the ends of this bar being inserted through the uprights or posts 10. Thus the notches 21 are located as shown and receive the notches 16 previously referred to. Prior to the engagement of the shelf 12, as just set forth, the extensions 14, there being an extension at each side of the shelf, are inserted through the slots 11 in the adjacent uprights and thus both sides of the shelf are supported.

The next shelf 12 is inserted in a similar manner until the last set of uprights are reached whereupon the bar member 23, see Fig. 4, is inserted in position.

The uprights 10 are formed with as many slots 11 as desirable, thus permitting the several shelves to be vertically adjusted. Also, it will be understood that as many tiers of shelves may be utilized as desired.

The invention is defined in the appended claims and is to be considered comprehensive of all forms of structure coming within their scope.

I claim:

1. In a construction of the class described, three alined sets of posts, each set consisting of a front post and a rear post, said posts having openings therethrough, two shelves of substantially identical construction, each shelf having extension means thereon at one side thereof, means for supporting that side of one shelf which has no extensions thereon upon one of the end sets of posts, the extensions on the shelf just mentioned extending through the said openings at the central set of supports, the other shelf also being supported by the said extensions, the last mentioned shelf having its extensions extending through the third set of posts, and detachable means for locking the last mentioned extensions in their operative positions.

2. In a construction of the class described, a shelf having a flat portion, a flange depending

from one edge of the flat portion, said flange having two spaced apart slots therein, a second flange depending from the opposite edge of the flat portion and hook means extending outwardly from the last mentioned flange in parallelism to the flat portion of the shelf, said hook means being in alinement with the said slots for the purpose described.

3. In combination with a series of sets of posts having alined slots therein, the combination of, a U-shaped member having hook means at its ends adapted to be received in the slots of one of the end sets of the posts, a shelf member having a depending flange resting upon said hook means, additional hook means extending from the other side of the shelf and extending through slots in the next set of posts, a second shelf member having one edge supported by the last mentioned extensions, and means for supporting the other edge of the last mentioned shelf.

4. In combination, four uprights, said uprights having alined slots therein, means extending between two of the uprights and passing through slots therein, a shelf resting at one edge upon the portion of the means which passes through the said uprights, means on the shelf extending through the slots in the other two uprights and additional means for preventing the withdrawal of the last mentioned means for the purpose described.

JERRY TYLER.