Nov. 14, 1950 G. COPLEN 2,529,649

SECTIONAL SHELVING

Filed Dec. 6, 1947

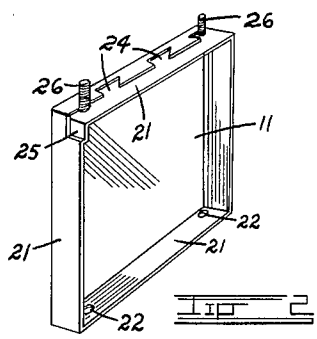


FIG. 2

FIG. 1

FIG. 3

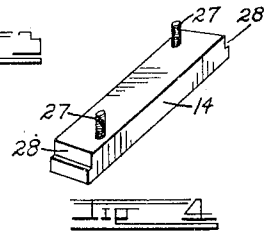


FIG. 4

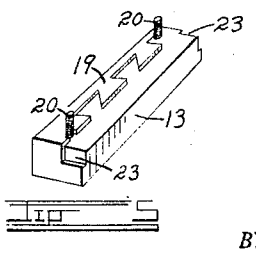


FIG. 5

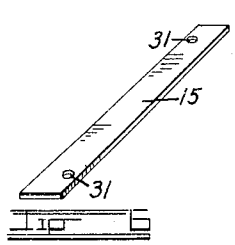


FIG. 6

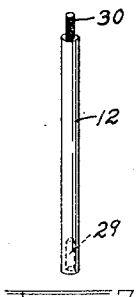


FIG. 7

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SECTIONAL SHELVING

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3 Claims. (Cl. 211—148)

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This invention relates to sectional shelving, and has for its principal object the provision of a plurality of efficient shelving units which can be assembled in a multitude of different ways to provide any desired arrangement or construction of shelves without the use of tools, screws, bolts, or other devices.

Other objects and advantages reside in the detail construction of the invention, which is designed for simplicity, economy, and efficiency. These will become more apparent from the following description.

In the following detailed description of the invention, reference is had to the accompanying drawing which forms a part hereof. Like numerals refer to like parts in all views of the drawing and throughout the description.

In the drawing:

Fig. 1 is a fragmentary, perspective view, illustrating the manner of erecting the improved shelving units; and

Figs. 2 to 7, inclusive, illustrate the component parts for forming and assembling the improved shelving.

The improved sectional shelving consists of the following members: shelves 10, end plates 11, vertical standards 12, and base member 13, cross base member 14 and cross bar 15. The shelves can be assembled to any desired length and height by use of the six elements listed above. The shelves 10 consist of channel shaped sheet metal plates having downwardly turned longitudinal edges 16. The extremities of the plates are provided with a plurality of matching dove tailed notches 17 arranged so that the portions between the notches 17 at one extremity of each shelf will inter-fit into the notches 17 at the other extremity thereof as shown in Fig. 1.

The extremities are also provided with semi-circular pin notches 18 positioned to fit around threaded assembly pins to be later described. The base member 13 consists of an elongated block of material having a dove tailed strip 19 extending along its top. The notches in the dove tailed strip 19 match the dove tailed extremity of one of the shelves 10. The block 13 is provided with two threaded upwardly extending assembly pins 20 and is designed to receive the extremity of one of the shelves 10 and one of the end plates 11. The block 13 is notched at its extremities as shown at 23 to receive the downwardly turned edges 16 of the shelf 10.

The end plate 11 is rectangular and has a peripheral flange 21 extending around its four sides. The bottom flange 21 is perforated as

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shown at 22 to receive the assembly pins 20 of the member 13. The upper flange 21 of each plate 11 is deformed to provide dove tailed sockets 24 for receiving the dove tailed extremity of one of the shelves 10. The side flanges 21 are indented at their tops, as shown at 25, to receive the downwardly turned edges 16 of the shelf 10. Two threaded assembly pins 26 extend upwardly from the upper flange 21 and are spaced to enter the perforations 22 of a second end plate 11 positioned above the first.

The shelves 10 are supported intermediate the end plates 11 by the cross base member 14 carrying two assembly pins 27 which project upwardly between the shelves through the notches 18. Each cross member 14 is notched, as shown at 28, to receive the downwardly turned edges 16 of the shelves 10.

Each of the standards 12 is provided with a threaded socket 29 in one of its extremities and with a co-fitting threaded stud 30 at its other extremity. The lowermost standards 12 are threaded onto the pins 27 of the cross base member 14 and extend upwardly therefrom.

One of the cross bars 15 is placed across each pair of standards 12. Each cross bar is provided with two holes 31 which fit over the studs 30. The cross bars 15 support the connecting ends of the first series of shelves 10 with the studs 30 projecting above the surface thereof. A second pair of standards 12 is then threaded onto the projecting studs to support a second series of shelves. This is continued throughout the entire height of the shelving.

If it is desired to lock the end plates 11 together this can be done by placing suitable nuts 32 thereon. It can be readily seen that any desired number of the shelves 10 can be connected together to form shelving of any desired length.

While a specific form of the improvement has been described and illustrated herein, it is desired to be understood that the same may be varied, within the scope of the appended claims, without departing from the spirit of the invention.

Having thus described the invention, what is claimed and desired secured by Letters Patent is:

1. Sectional shelving comprising: two end base members adapted to rest upon the floor; a series of dove tailed projections along the top of each base member; a pair of studs projecting upward from each base member; a shelf extending between said base members and resting thereon, there being dove tailed notches in the extremities of said shelves receiving said dove tailed projections to resist separation of said base members;

an end plate resting on each base member and acting to hold said shelf in said notches, said end plates having openings for the reception of said studs; a second series of dove tailed notches along the top of each end plate; and a second shelf extending between said end plates and resting thereon, there being dove tailed notches in the extremities of said second shelf engaging said second series of dove tailed notches to resist separation of said end plates.

2. Sectional shelving comprising: a pair of spaced apart base members; a cross member positioned between said base members; studs projecting upward from said base members and from said cross member; dove tailed projections on the top of said base members; a shelf extending from each base member to said cross member, said shelves having dove tailed notches in their extremities, the notches in the adjacent extremities being interlocked together and in the notches in the outer extremities engaging the dove tailed projections on said base members; an end plate resting upon each base member about the studs therein; posts threaded onto the studs of said cross member; and a second series of shelves supported by said end plates and said posts.

3. Sectional shelving comprising: a plurality of sheet metal shelves having downwardly turned longitudinal edges, the extremities of each shelf being provided with a plurality of dove tailed notches arranged so that the shelves may be interlocked together in a series of any desired length, there being semi-circular pin notches in

each extremity of each shelf; an elongated base block adapted to support each extremity of a series of shelves; a dove tailed strip mounted on each base block and interlocking with dove tailed extremities of said series of shelves; a pair of threaded studs extending upwardly from each base block through the pin notches in said shelves; a rectangular sheet metal end plate at each extremity of said shelf, each plate having an inwardly turned flange along each of its four sides, the flange at the bottom side being perforated for the passage of said studs; an indented, dove-tailed surface in the flange at the top side to receive the dove tailed extremities of a second series of shelves spaced vertically above the first series; and means for supporting the interlocked extremities of the shelves of each series intermediate said end plates.

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