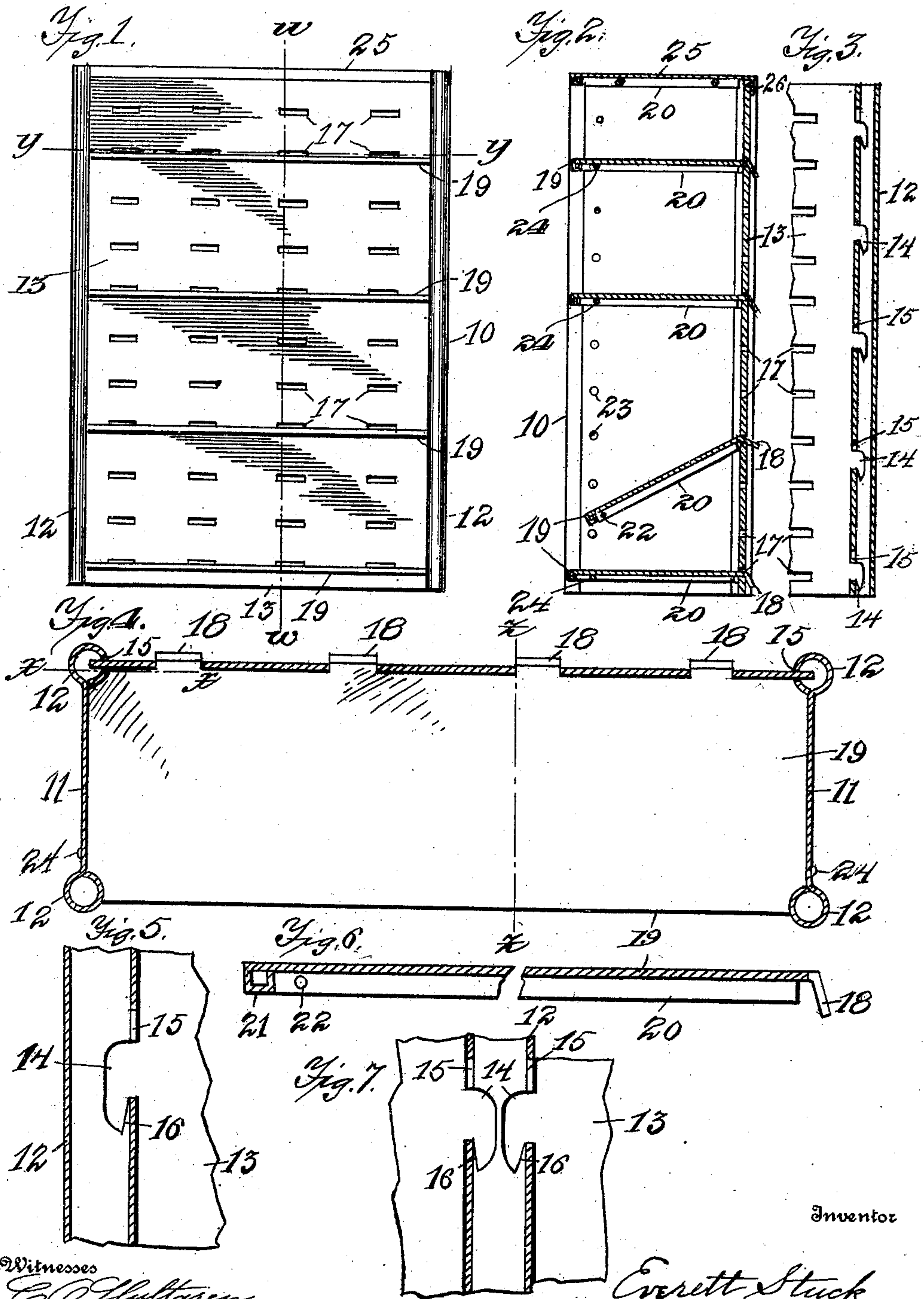


E. STUCK.
METALLIC SHELVING.
APPLICATION FILED MAY 31, 1910.

985,222.

Patented Feb. 28, 1911.



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UNITED STATES PATENT OFFICE.

EVERETT STUCK, OF JAMESTOWN, NEW YORK.

METALLIC SHELVING.

985,222.

Specification of Letters Patent.

Patented Feb. 28, 1911.

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To all whom it may concern:

Be it known that I, EVERETT STUCK, a citizen of the United States, residing at Jamestown, in the county of Chautauqua and State of New York, have invented new and useful Improvements in Metallic Shelving, of which the following, taken in connection with the accompanying drawing, is a full, clear, and exact description.

The invention relates to sheet metal construction and particularly to shelving and the supporting frame, and the object of the improvement is to provide a simple and durable sheet metal construction for shelving which combines strength and rigidity with economy of production; and the invention consists in the construction and arrangement of the parts as shown in this specification and the accompanying drawings and pointed out in the claims.

In the drawings, Figure 1 is a front elevation of a case showing the manner of adjustably supporting the shelves. Fig. 2 is a sectional view at line W W in Fig. 1. Fig. 3 is a sectional view at line X X in Fig. 4, showing the joint between the supporting tubular end and the sheet metal back. Fig. 4 is a sectional view at line Y Y in Fig. 1 showing a top plan view of one of the shelves. Fig. 5 is an enlarged sectional view of the joint between the back and the tubular end at line X X showing the preferred form of the lug. Fig. 6 is a crosswise sectional view of the shelf at line Z Z in Fig. 4. Fig. 7 is a sectional view of the supporting partition or end showing the attachment of the back plates on both sides of the supporting partition.

Similar numerals refer to corresponding parts in the several views.

The numeral 10 indicates one of the ends or divisions of the supporting frame for the shelves 19, which ends or divisions 10 are formed from a flat sheet 11 by turning the front and rear edges 12 in tubular form, thereby forming strong sustaining divisions or ends for the supporting frame. The supporting frame further consists of the sheet metal back, indicated by the numeral 13. Back 13 is attached to the ends or divisions 10 in the following manner: Spaced slots 15 are placed lengthwise in the rear tubular edges 12 of each end or division 10 and similarly spaced hooked lugs 14 are provided on the adjacent edges of the sheet metal back 13.

Hooks 14 are formed with an inclined inner side 16 which draws the edge of the back plate 13 firmly against the tubular ends 12 as the hooked lugs 14 slip down into place in slots 15. Sheet metal back plate 13 has the horizontal slots 17 therein which are spaced both vertically and horizontally, to receive therethrough the lugs 18 on the rear edges of the shelves 19. Shelves 19 are formed with downwardly turned end flanges 20 and a downward and inturned front edge 21. Flanges 20 have the holes 22 there-through for screws or screw bolts 24. Shelves 19 also have hooked lugs 18 on their rear edges. Said hooked lugs 18 are spaced horizontally to correspond to the horizontal spacing of the slots 17 in back plate 13. Lugs 18 are turned at such an angle of inclination in relation to back plate 13 as to draw the rear edge of the shelf 19 firmly against the back plate 13 when raised to position, and as to be easily insertible through the slots 17, as shown at the second shelf from the bottom in Fig. 2, which shows the shelf with the lug 18 being inserted through the slot 17. The lugs 18 along the rear edge of the shelf 19 are inserted in the correspondingly spaced horizontal row of slots 17 and are fully inserted when the front edge of the shelf 19 is raised to the horizontal position and the screws or screw bolts 24 are then inserted through holes 22 in flange 20 and through hole 23 in the end 10, thereby securing the shelf 19 in the horizontal position, and when so raised to the horizontal position the downward angle and close fit of the hooked lugs 18 draws the shelf 19 firmly against the back plate 13, thereby greatly stiffening and strengthening the construction. It is apparent that the spaced slots 17 in the back plate and holes 23 in the ends 10 permit of the adjustment of the shelves 19 at different levels within the supporting frame, and at the same time make an exceedingly strong and simple attachment for the shelves within the supporting frame which gives added rigidity thereto.

When it is desired to make a continuous row of shelving as in stores or for books in libraries, the rear tubular edge 12 of the ends or divisions 10 are provided with slots 15 on both sides for the hooks 14. The ends 10 thus form supporting divisions between the different lengths of shelving.

When it is desired to provide a top plate 25 for the supporting frame, said top plate

is provided with downturned end flanges 20 the same as the shelves 19 and with a downturned flange 26 over the outer edge of the back 13. Top plate 25 is then attached to the end 10 and back plate 13 by means of suitable screws.

It is apparent that this construction provides a firm support for the shelving and that the whole construction is made without the use of bolts or rivets, with the exception of the removable screw bolts 24. It is apparent that the entire construction can be taken apart and shipped knocked down and that it is easily set up and when so set up provides a strong and exceedingly low cost sheet metal shelving.

I claim as new:

1. A metallic shelf supporting structure comprising sheet metal ends having their front and rear edges turned in tubular form, the rear tubular edges having spaced lengthwise slots therein, a sheet metal back plate, and hooked lugs upon the edges of said back plate adjacent said rear tubular edges to engage in said spaced slots.

2. A metallic shelf supporting structure comprising sheet metal ends or divisions, tubular front and rear edges on said sheet metal ends the opposite rear tubular edges having spaced lengthwise slots therein, a sheet metal back plate, hooked lugs on the opposite edges of said back plate spaced to correspond to said lengthwise slots, and a top plate removably attached to said ends and back plate.

3. A metallic shelf supporting structure comprising sheet metal ends, tubular front and rear edges on said sheet metal ends, the opposite rear tubular edges having spaced lengthwise slots therein, a sheet metal back plate, and hooked lugs on the opposite edges of said back plate spaced to correspond to said lengthwise slots, said lugs having the inner sides of the hooked portion formed at an angle of incline to draw the parts together.

4. Metallic shelving comprising sheet metal ends having tubular front and rear edges, the rear tubular edges of said ends having spaced slots extending lengthwise of the same, a sheet metal back plate having hooked lugs similarly spaced to engage said

spaced slots, said back plate having a plurality of slotted openings spaced horizontally and vertically, and shelves having lugs on their rear edges correspondingly spaced to engage said spaced openings, and means for supporting the front portion of said shelves.

5. Metallic shelving comprising suitable end supports, a back plate attached to said end supports having a plurality of slots therethrough spaced vertically and horizontally, shelves to fit within said ends, downturned lugs along the rear edges of said shelves spaced to correspond to said slots in said back plate, and means on said ends for supporting the front portion of said shelves.

6. Metallic shelving comprising suitable end supports, a back plate attached to said end supports having a plurality of series of slots spaced vertically and horizontally, shelves to fit within said ends, and a series of lugs along the rear edges of each of said shelves spaced to correspond to said slots in said back plate, said lugs turned at an angle of incline and spaced in relation to said back plate to bind the parts closely together when said shelves are raised to horizontal position.

7. Metallic shelving comprising sheet metal ends, tubular front and rear edges on said sheet metal ends the opposite rear tubular edges having spaced lengthwise slots therein, a sheet metal back plate, hooked lugs on the opposite edges of said back plate spaced to correspond to said lengthwise slots, said back plate having a plurality of series of horizontally spaced slots, shelves having a series of horizontally spaced hooked lugs corresponding to said series of horizontally spaced slots to engage the same, flanges on the ends of said shelves, and screws or screw bolts through said flanges and said sheet metal ends, substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EVERETT STUCK.

Witnesses:

ELIZABETH MURKETT,
J. S. CHIPCHASE.