

B. L. JONES.
METALLIC SHELVING.
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1,013,172.

Patented Jan. 2, 1912.

2 SHEETS—SHEET 1.

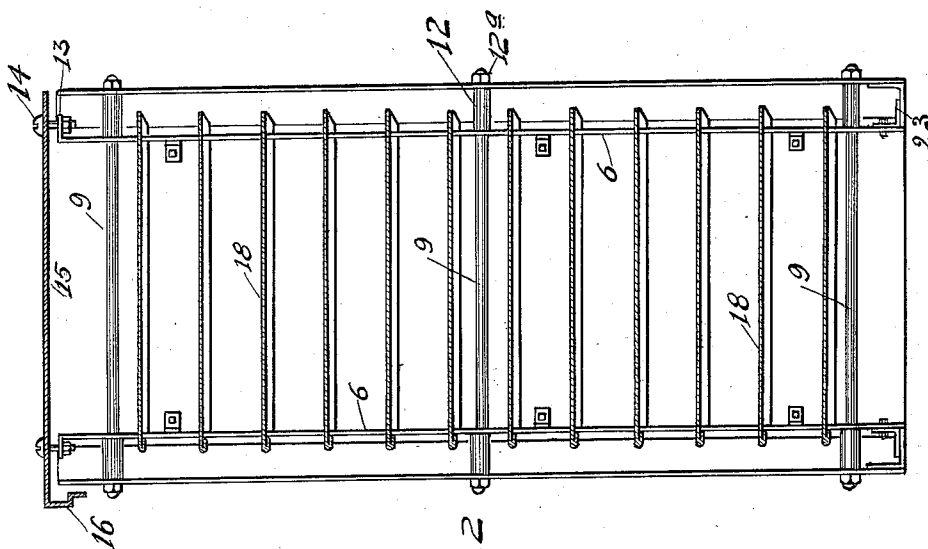


FIG. 2

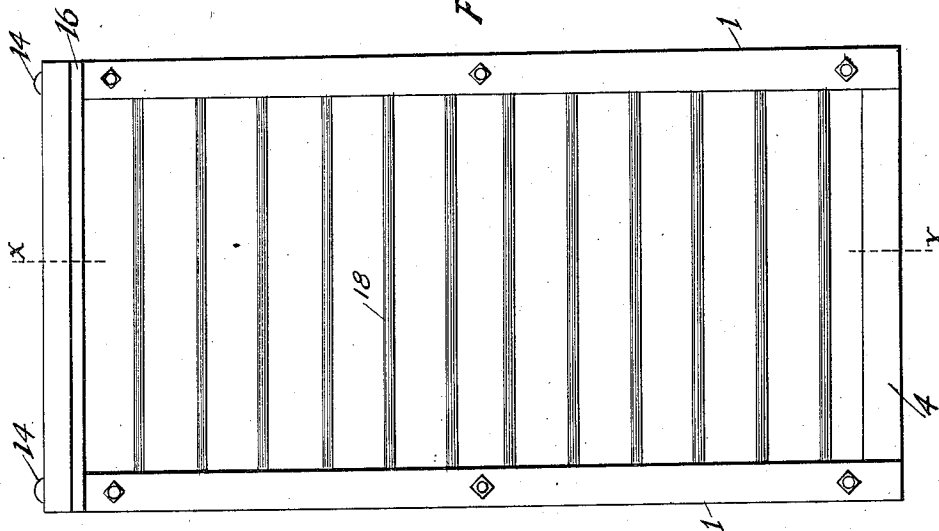


FIG. 1

WITNESSES:

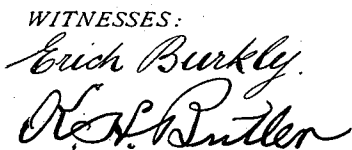
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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METALLIC SHELVING.

1,013,172.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BENJAMIN L. JONES, a citizen of the United States of America, residing at Steubenville, in the county of Jefferson and State of Ohio, have invented certain new and useful Improvements in Metallic Shelving, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to metallic shelving, and the primary object of my invention is to provide shelves, racks or similar supports constructed entirely of metal and consisting of comparatively few parts easily and quickly assembled to provide a unit or a series of units.

Another object of this invention is to provide shelving made of rolled and pressed structural steel that can be easily shaped to present any desired ornamentation.

A further object of this invention is to provide a shelf of the above type that is strong and durable, rigid and useful for various purposes.

With the above and other objects in view the invention resides in a novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawings, wherein there is illustrated a preferred embodiment of the invention, but it is to be understood that the structural elements are susceptible to such changes, size, shape and manner of assemblage without departing from the scope of the appended claims.

In the drawing:—Figure 1 is a front elevation of a unit of shelving constructed in accordance with this invention, Fig. 2 is a vertical cross sectional view of the same taken on the line $x-x$ of Fig. 1, Fig. 3 is a horizontal sectional view of two units of shelving, Fig. 4 is a horizontal sectional view of a portion of two units of shelving illustrating the bottom rails, Fig. 5 is a front elevation of a detached shelf support, Fig. 6 is a side elevation of the same, Fig. 7 is an enlarged elevation of a portion of a tie rod, partly broken away and partly in section, Fig. 8 is a plan of a detached shelf, and Fig. 9 is a side elevation of the same.

The reference numerals 1 denote vertical angle bars and secured to the front and rear flanges 2 and 3 of said angle bars, at the lower ends thereof, are longitudinal bottom

rails 4, preferably made of angle bars. The bottom rails, adjacent to the ends thereof are provided with angle brackets 5 and bolted, riveted or otherwise secured to said angle bars are the lower ends of vertical shelf supports 6. These shelf supports are provided with openings 7 for the reduced ends 8 of transverse tie rods 9. The tie rods have the reduced ends thereof screw threaded, as at 10 and these threaded ends are adapted to extend through openings 11 provided therefor in the front and rear flanges 2 and 3 of the vertical angle bars 1.

Mounted upon the reduced ends 8 of the tie rods 9 are spacing sleeves 12 adapted to space the shelf supports relatively to the angle bars, and these spacing sleeves and the tie rods are retained in engagement with the supports 6 and the bars 1 by nuts 12 screwed upon the reduced ends of said tie rods.

The upper ends of the shelf supports are provided with flanges 13 and bolted or otherwise connected to said flanges, as at 14 is a top plate 15 having the forward edge thereof bent downwardly, as at 16 to represent a molding. This edge of the top plate can be shaped or ornamented to present a neat appearance.

The shelf supports 6 have the vertical edges thereof provided with bayonet or angular-shaped slots 17, said slots being equally spaced. Detachably mounted in the slots 17 of the shelf supports are shelves 18 having the side edges thereof provided with depending longitudinal flanges 19 adapted to engage in the slots 17, it being necessary to slide the shelves into the slots 17, either from the front or rear of the shelving. Each shelf has one of the longitudinal edges thereof reamed or bent, as at 20 and this reamed edge constitutes the front edge of the shelf. The reamed edge provides a hand grip and prevents the hand from being injured by what would otherwise be a ragged or rough edge.

The ends of the unit or the outer ends of several units can be closed by end walls 21 having brackets 22 secured to the edges of the shelf supports 6.

When two units are assembled the shelf supports have both of the vertical edges thereof provided with the slots 17, said supports having the lower ends thereof connected to the bottom rails by brackets 23 and the upper ends thereof connected to

the top plate 15. A plurality of tie rods are employed for bracing and holding the intermediate shelf supports in position.

From the foregoing it will be observed that a shelf of any desired length can be built up from the structural elements just described and I reserve the right to suitably space the shelves, to use any desired material in the construction of the shelves and to make the same of any desired size.

What I claim is:—

1. Shelving comprising vertical angle bars, longitudinal bottom rails connecting said angle bars, vertical shelf supports having the lower ends thereof connected to said bottom rails, tie rods connecting said bars and said shelf supports, shelves detachably supported by said shelf supports, and a top plate carried by the upper ends of said supports.

2. Shelving comprising vertical angle bars, longitudinal bottom rails connecting said angle bars, vertical shelf supports having the lower ends thereof connected to said bottom rails, tie rods connecting said bars and said shelf supports, shelves detachably supported by said shelf supports, a top plate carried by the upper ends of said supports, and end walls secured to said shelf supports.

3. Metallic shelving comprising vertical angle bars, longitudinal bottom rails connecting said bars, shelf supports having the lower ends thereof connected to said rails, said supports having slots formed therein,

shelves slidably mounted in the slots of said supports and means including tie rods and spacing sleeves adapted to hold said shelf supports relatively to said angle bars.

4. Metallic shelving comprising vertical angle bars, longitudinal bottom rails connecting said bars, shelf supports having the lower ends thereof connected to said rails, said supports having slots formed therein, shelves slidably mounted in the slots of said supports, means including tie rods and spacing sleeves adapted to hold said shelf supports relatively to said angle bars, and a top plate carried by the upper ends of said shelf supports and having the forward ends thereof bent to provide a molding.

5. A metallic shelving comprising vertical angle bars, vertical shelf supports, tie rods holding said supports relatively to said angle bars, and shelves slidably mounted in said supports.

6. A metallic shelving comprising vertical angle bars, vertical shelf supports, tie rods holding said supports relatively to said angle bars, shelves slidably mounted in said supports, end walls supported by said shelf supports, and a top plate carried by the upper ends of said shelf supports.

In testimony whereof I affix my signature in the presence of two witnesses.

BENJAMIN L. JONES.

Witnesses:

MAX H. SROLOVITZ,
CHRISTINA T. HOOD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."