

1,343,327.

A. H. LEVENE.
METAL SHELVING.
APPLICATION FILED MAR. 24, 1919.

Patented June 15, 1920.
2 SHEETS—SHEET 1.

FIG. I

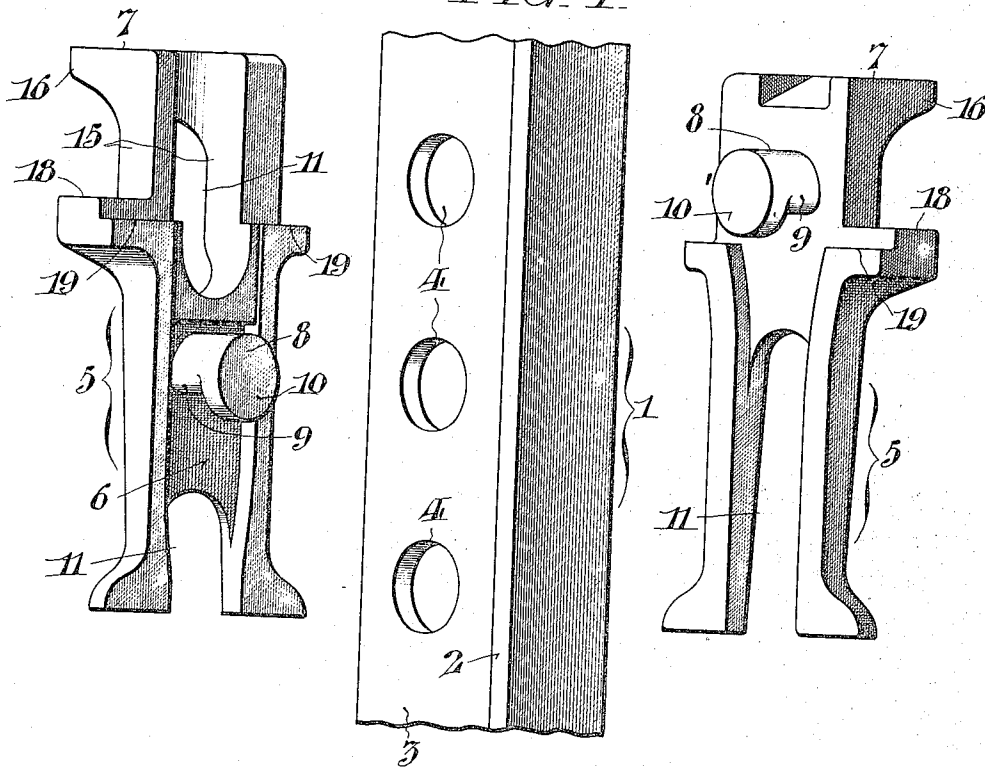
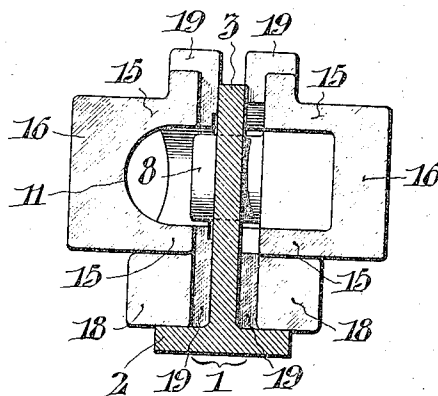


FIG. II



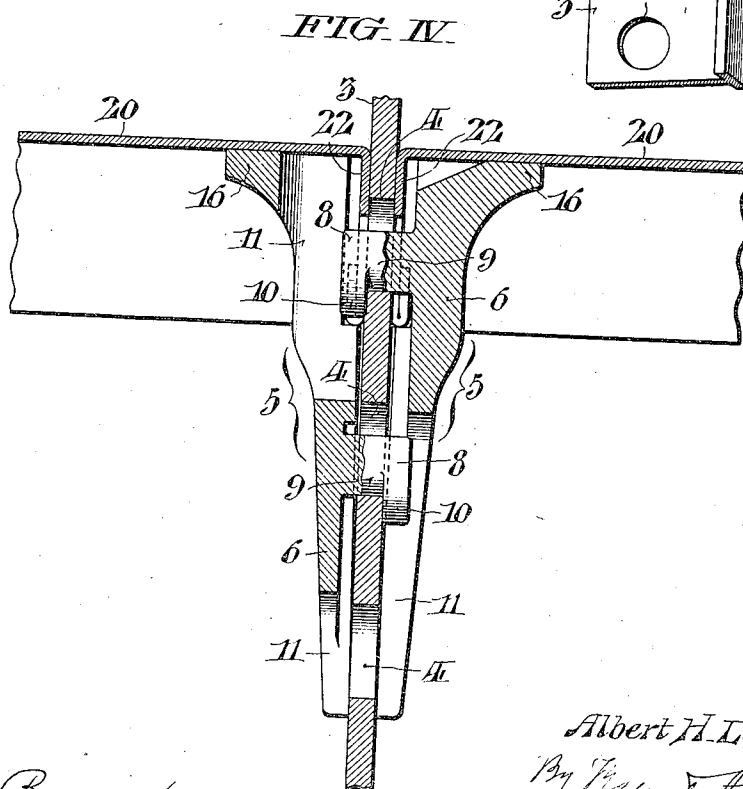
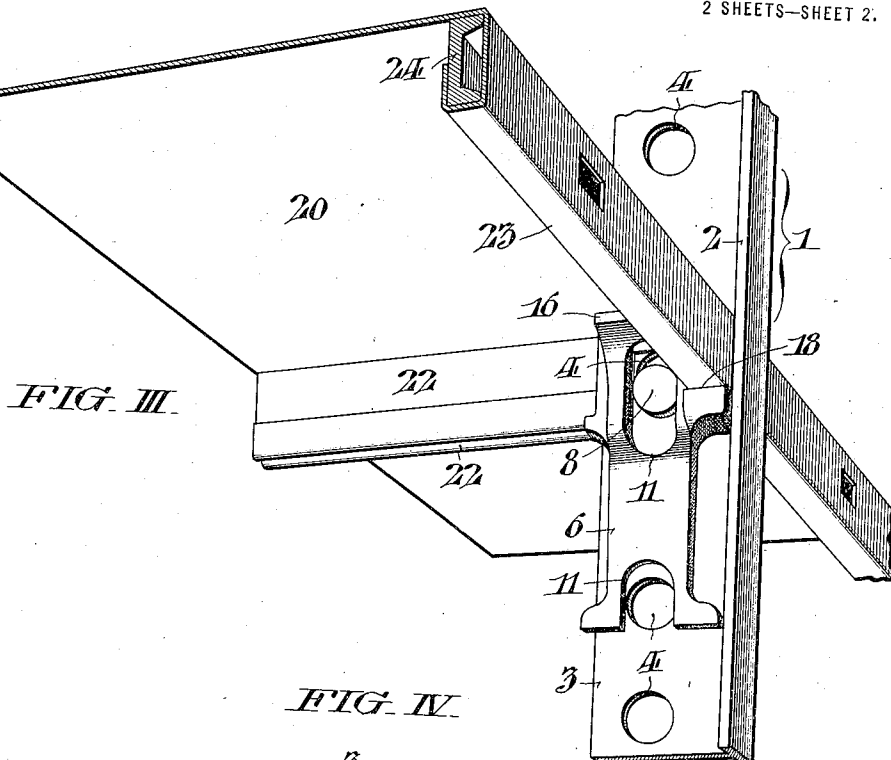
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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METAL SHELVING.

1,343,327.

Specification of Letters Patent. Patented June 15, 1920.

Application filed March 24, 1919. Serial No. 284,681.

To all whom it may concern:

Be it known that I, ALBERT H. LEVENE, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Metal Shelving, whereof the following is a specification, reference being had to the accompanying drawings.

My invention relates to shelving (by which term I include shelves and their supports), formed by the interlocking of uprights, brackets and shelves. The brackets interlock with the uprights, being capable of attachment thereto, without the intervention of any independent attachment device, and likewise the shelves interlock with the brackets in the same way, and when the parts are thus collocated, the whole structure is self-sustaining. The uprights are provided with a succession of holes for attachment of brackets, which are so formed that brackets may be simultaneously attached to both sides of the same upright, and support shelves at the same height.

In the accompanying drawings, Figure I, is a view showing a portion of an upright together with two brackets.

Fig. II, is a sectional plan view of the same, the parts being assembled.

Fig. III, is a view showing an upright bracket and shelf all interlocked.

Fig. IV, is a sectional view of the same.

The upright 1, is T-shaped in cross section, comprising the head 2, and the web 3, which is pierced by a succession of attachment holes 4.

The bracket 5, comprises the wall-plate 6, and the top 7. On the back of the wall-plate 6, is formed the lug 8, which includes a neck 9, and a head 10, the head being larger than and projecting below the neck. Except in the region where the lug is attached to the plate 6, the latter is longitudinally recessed or slotted as indicated at 11. The top 7, of the bracket comprises side plates 15, and a top plate 16. The side plates 15, form extensions of the sides of the slot 11, but the entire top of the bracket is offset from the wall-plate as shown in the drawings, to the extent allowed by the lateral shoulder 19, and the rear shoulder 18.

The shelf 20, is formed with depending side flanges 22, and the depending edge flange 23. If, as is preferable, the shelf is

of sheet metal, these flanges may be formed by turned down edges of the shelf. If the shelves are large, the edge flanges may be reinforced by folding the metal around a suitably shaped bar 24.

The brackets are set upon the upright by passing the lug through one of the holes which pierce the web of the upright, the downwardly projecting head of the lug 8, effecting a firm engagement. To render this engagement both easy and firm, the back of the wall-plate is tapered off as it approaches the attachment point of the neck of the lug, so that the lower end of the bracket forms the bearing against the side of the web to resist the leverage of the weight of the shelf.

In order that two brackets may be adjusted one on either side of the same upright with their tops at the same level, the brackets are made of two varieties, differing only in the distance between the top of the bracket and the lug. In one variety of bracket, the lug is formed below the level at which it is formed, on the other by an amount equaling, or a multiple of the distance between successive holes in the uprights. In this way two brackets, one of each variety may be engaged with successive holes on the same upright, one on either side of it, but with their tops level with each other. The recesses or slots 11, in the wall-plate of each bracket, are sufficiently large to receive the projecting head of a bracket on the other side of the upright, without interference, thus permitting assemblage in the manner described, as particularly shown in Fig. III.

When thus assembled, the corner of a shelf is to be interlocked with the top of each bracket, the side flange 22, resting within the space between the top of the bracket and the web of the upright, with its edge resting upon the shoulder 19. Likewise, the edge flange 23, of the shelf is received within the space between the top of the bracket and the head of the upright, with its edge resting upon the shoulder 18. At the same time, the shelf proper rests firmly upon the top 16, of the bracket. There is thus secured a three-fold bearing to support the weight of the shelf. The parts are so proportioned as to permit a firm interlocking as described. By thus interlocking the four corners of a shelf with

brackets upon four uprights, a self-sustaining structure is produced, the firmness of which is increased as each successive shelf is interlocked with the same four uprights.

- 5 The stability of the structure is further enhanced as adjacent shelves are attached to the adjacent sides of the uprights. Where an upright is to form a corner of a completed structure, it may take the shape
10 of an angle-iron instead of a T-iron.

The wall-plates of the brackets are of such size in relation to the web of the upright that when they are engaged the extreme edge of the wall-plate bears against
15 the head of the upright. This greatly increases the firmness of the engagement of the bracket with the upright.

Having thus described my invention, I claim:

- 20 1. In shelving, the combination of a supporting upright pierced by a succession of attachment holes, with brackets having headed lugs and recesses so related to said lugs that the head of the lug of one bracket
25 may be received within the recess of another bracket attached to the upright opposite the first mentioned bracket.

2. In shelving, the combination of an upright pierced by a succession of attachment
30 holes, and brackets with headed lugs, the distance between the headed lug and the top

of the bracket being greater in some brackets than in others by an amount equal to or a multiple of the distance between successive holes in the upright, so that two brackets, one of each variety, may be engaged
35 with successive holes on the same upright, one on either side of it, with the tops of the two brackets level.

3. In shelving, the combination of an upright pierced by a succession of attachment
40 holes, and brackets having wall plates with headed lugs on the back thereof and recesses therein, the distance between the headed lug and the top of the bracket being greater in
45 some brackets than in others by an amount equal to or a multiple of the distance between successive holes in the upright, so that two brackets, one of each variety, may
50 be engaged with successive holes on the same upright, one on either side of it, with the head of the lug on one bracket within the recess of the opposite bracket and the tops of the two brackets level.

In testimony whereof, I have hereunto
55 signed my name at Philadelphia, Pennsylvania, this 17th day of March, 1919.

ALBERT H. LEVENE.

Witnesses:

JAMES H. BELL,
E. L. FULLERTON.