Dec. 23, 1952 B. SPARRING 2,622,834

SHELVING

Filed Feb. 9, 1948

FIG. 1

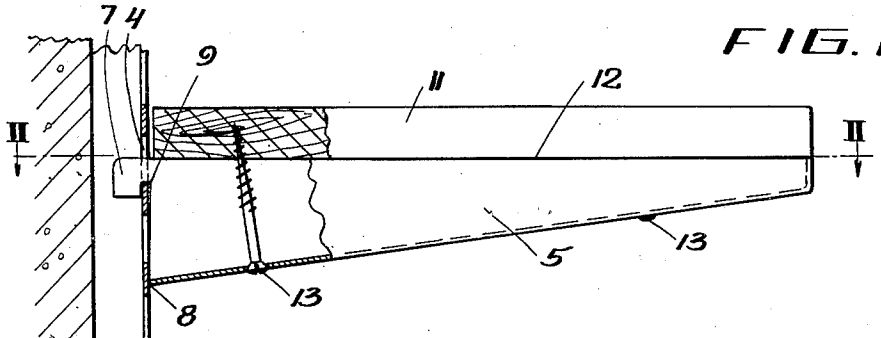


FIG. 2

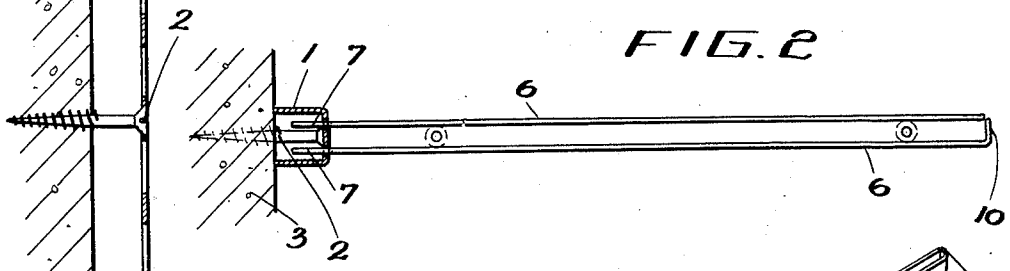
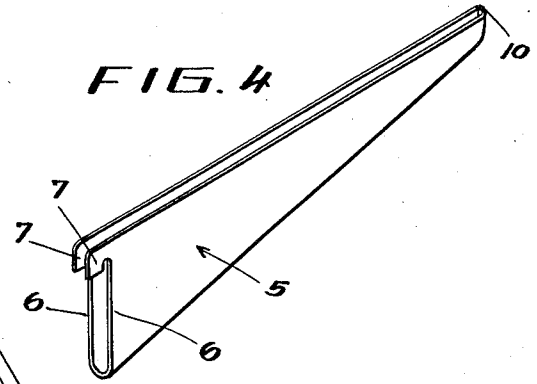


FIG. 4



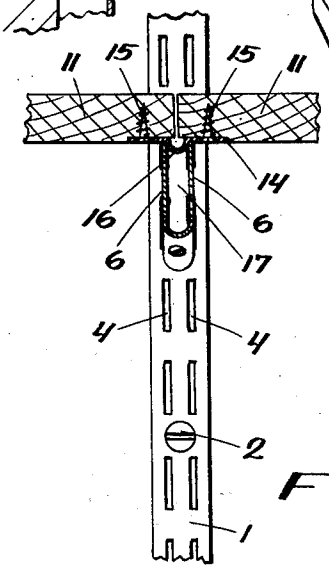


FIG. 3

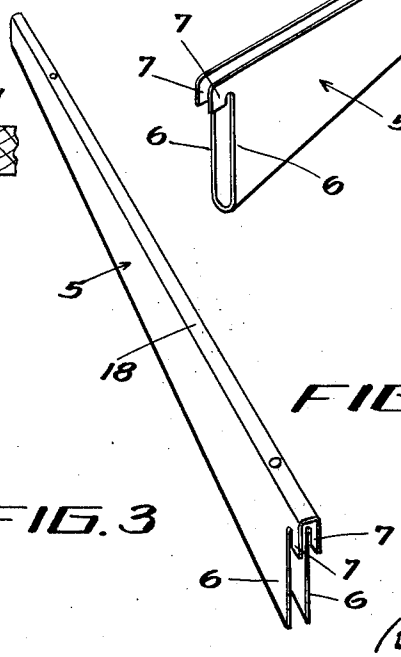


FIG. 5

Inventor:
B. Sparring
By E. F. Wenderoth
Atty

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UNITED STATES PATENT OFFICE

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Birger Sparring, Stockholm, Sweden

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3 Claims. (Cl. 248—243)

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The present invention relates to improvements in shelving of which the shelves are adjustable in height and are carried upon brackets of U cross section provided with hook-shaped securing means which engage in slots in the front side of vertical stands, rails or the like.

According to the present invention the securing means are formed of outwardly directed hooks formed in the upper edge of the brackets, whilst the lower edge of the brackets below the securing means and at that end is, in known manner, formed as a stop or abutment to hold the bracket against the stand, rail or the like.

By this means a stable and rigid shelving is obtained.

The hook and the bracket may be in one piece formed out of metal bent up into U shape.

A further important advantage is that the bracket together with the shelf secured to it can easily be displaced from one position to another on the stand or rail without requiring that the hooks are displaced into a vertical plane or that the shelves need be first detached from the brackets to enable them to be displaced. The shelving can be readily assembled.

The shelves can be delivered in long lengths and cut up on the site where they are to be erected. Each shelf may, of course, have several hook supports.

The invention is further described with reference to the accompanying drawing, in which

Fig. 1 is a sectional elevation through part of a shelf according to the present invention,

Fig. 2 is a plan view, partly in section, of a bracket,

Fig. 3 is a side view looking against the shelf towards the wall, the bracket being in section, at a place where two shelf ends meet,

Fig. 4 is a perspective view of a shelf bracket as shown in Figs. 1 to 3,

Fig. 5 is a similar view of a shelf bracket in a slightly modified construction.

In the drawing the invention is shown applied to a shelf which is secured on a wall. The shelf comprises a number of equally spaced vertical U-shaped rails 1 which are secured to the wall 3 by means of screws 2. The web of the rail has two series of elongated slots 4 spaced at equal distances apart. The slots of each pair lie opposite one another. The shelf further has a plurality of brackets 5 which are preferably of the form shown in Fig. 4. As may be seen from this figure, the bracket is of U cross section. The flange sides 6 of the U formation are cut out to form hook shaped securing means 7 which

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engage with a pair of slots 4 in the rails 1 lying at the same height. In the position of use the brackets at their lower edge 8, which lies underneath the hooks 7, abut against the web of the rail 1. The notches 9 (Fig. 1) in the hooks 7 are somewhat broader than the thickness of the web of the rails 1, so that the brackets can be easily assembled in position. The bracket 5 tapers in height towards its front end, which front end has a lug 10 formed out of one of its sides 6 bent over to close the space between these sides.

The shelves 11 rest on the upper horizontal edges 12 of the brackets 5 in the arrangement shown, and are secured by means of two screws 13 on these brackets.

At those places where a pair of shelves 11 meet end to end, a combining rail 14 is provided which is secured by means of screws 15 to the aforesaid ends of the two shelves 11. The combining rail 14 is provided with a rib 16 which enters from above into the space 17 between the sides 6 of the bracket.

The combining rails are preferably countersunk into the ends of the shelves. The length of the rails 14 may be similar to the width of the shelves 11, but obviously short pieces of such rails may be substituted therefor.

Rolled iron sections can conveniently be used for the rails 1 in which the slots 4 and holes for the screws 2 can be formed by stamping. The brackets 4 are preferably made of sheet metal. A flat blank of metal may have the hook-formed fastenings 7 and the lugs 10 stamped out to be integral with the web and flange sides 6 of the bracket. Subsequently the stamped blank can be bent up so that the bracket takes the U-shaped sectional form shown in Fig. 4. The hook-shaped elements 7 will then be disposed on the free edges of the bracket.

The bracket may, however, be formed as shown in Fig. 5, in which the hook-shaped elements 7 are formed on the part 18 (the web) uniting the side flanges 6 of the bracket.

The forms of construction shown and described with reference to the drawing are by way of example, as obviously the brackets need not taper in height towards their free ends as is shown. The invention is also applicable to shelving mounted on isolated stands, which stands may be mounted on the floor at their lower ends or provided with feet resting on the floor.

What I claim and desire to secure by Letters Patent is:

1. A bracket structure including a vertically

positioned rail and a bracket supported thereby, said rail being channel shaped and having transversely spaced vertical elongated slots in the web thereof, said bracket comprising an elongated arm of substantially U-shaped cross section being open at the top having uninterrupted upper edges and tapering in depth from the end adjacent said rail toward the outer end, a downwardly extending securing member on the upper edge of each side of said bracket formed as an extension thereof, which has a downwardly open notch of a greater width than the thickness of the web of said rail for facilitating assembly of the structure, said securing members being inserted in said slots and the lower edges of said sides contacting said rail.

2. In a bracket structure adapted for supporting shelves in end to end relationship, said bracket having a U-cross section having downwardly projecting hooks formed as longitudinal projections of the inner end of the upper edge of the flange sides of the bracket for engaging slots in vertical stands, the hooks being directed against the web of the bracket, one end of said web forming an abutment of the bracket against the stand below the hooks, the flange sides having between them a space which is accessible from above and which extends along the bracket, and a combining rail adapted for coupling abutting ends of shelves, said combining rail having a downwardly extending rib engaging within the space between the flange sides of the bracket and outwardly extending sides resting on the upper edges of said bracket for supporting shelves.

3. A bracket structure including a vertically positioned rail and a bracket supported thereby, said rail being channel shaped and having transversely spaced vertical elongated slots in the web thereof, said bracket comprising an elongated

arm of substantially U-shaped cross section open at the top and tapering in depth from the end adjacent said rail toward the outer end, said bracket having uninterrupted upper edges and downwardly projecting hook shaped securing members formed as longitudinal projections on the inner end of the upper edge of each side of said bracket, said sides having a notch between each said securing member and the body of the bracket, said notches having a greater width than the thickness of the web of said rail, said sides extending in a straight line downwardly to the lower end from said notches, said securing members being inserted in said slots and the lower edge of said sides contacting said rail, a shelf combining rail adapted to be screwed to contiguous separate shelf elements, said combining rail comprising two horizontally extending flanges and a downwardly extending rib therebetween, said rib entering said open top of said arm and supported therein.

BIRGER SPARRING.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
977,609	Freeman	Dec. 6, 1910
1,229,427	Erismann	June 12, 1917
1,764,766	White	June 17, 1930
1,853,018	Knape	Apr. 5, 1932
2,218,894	Schlosser	Oct. 22, 1940
2,336,604	Edward et al.	Dec. 14, 1943

FOREIGN PATENTS

Number	Country	Date
177,435	Switzerland	May 31, 1935