

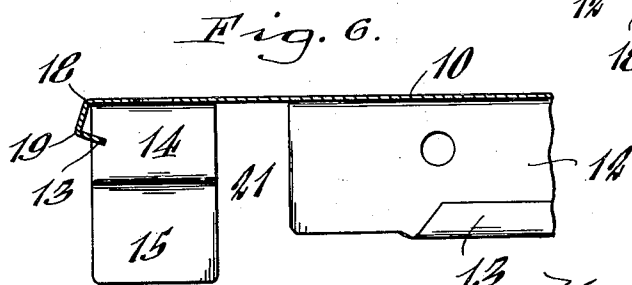
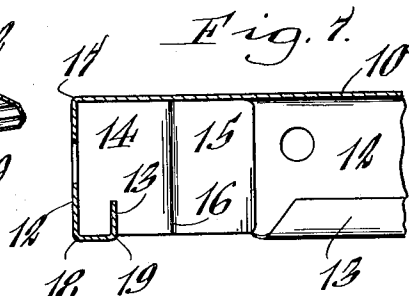
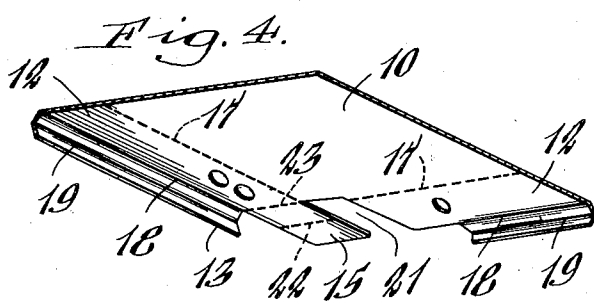
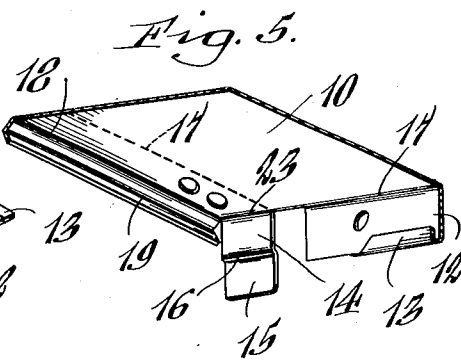
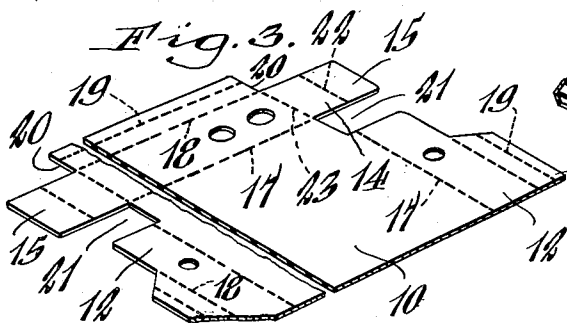
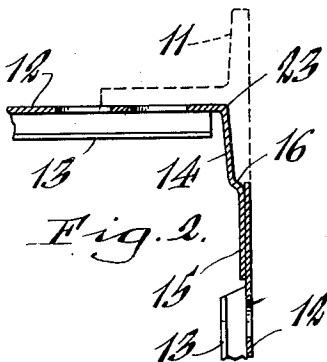
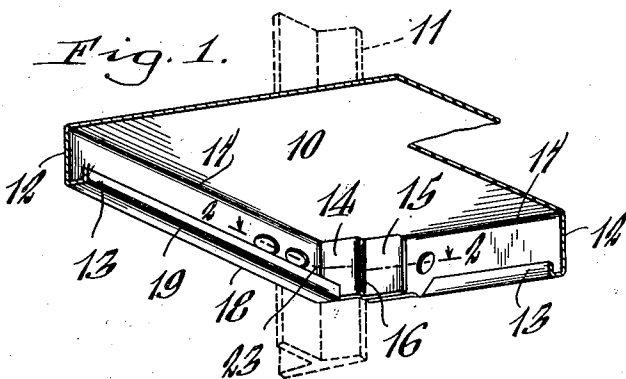
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SHELVING

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SHELVING

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4 Claims. (Cl. 211—135)

This invention relates generally to shelving and particularly to certain new and useful improvements in metallic shelving.

It has for one of its objects to provide the shelving with a reinforced corner construction which is formed integrally with the shelving and which is designed to produce a solid corner structure capable of withstanding heavy loads.

Another object of the invention is the provision of shelving of this character which is simple and inexpensive in construction, which is neat in appearance, and which is easy to install.

In the accompanying drawing:—Figure 1 is a fragmentary perspective view of the improved shelving looking at the corner structure from its underside. Figure 2 is an enlarged horizontal section taken in the plane of line 2—2, Figure 1. Figure 3 is a fragmentary perspective view of one end portion of the blank from which the shelving is made. Figures 4 and 5 are similar views showing the formation of the reinforced corner in its various stages. Figures 6 and 7 are enlarged fragmentary longitudinal sections of the shelving showing the corner structure in its last two stages of formation.

Similar characters of reference indicate corresponding parts throughout the several views.

This invention is particularly applicable to steel shelving of the open rack type employed for storage and other purposes, a portion of a shelf being indicated at 10 and supported at its corners on uprights, one of which is shown at 11 by dotted lines. These uprights are usually T-shape in cross section and in the present invention the shelving is bolted or otherwise secured to the web portion of the upright.

The shelf is provided along its marginal edges with depending flanges 12 which preferably terminate at their lower edges in inwardly and upwardly turned flanges 13, the latter terminating short of the corners of the shelf for a purpose presently to appear. Formed coextensively with one of the depending flanges 12 and bent laterally therefrom in overlying relation to the adjoining flange is a corner brace, tongue or extension 14 which is disposed beneath the shelf in edgewise bearing engagement with its underside, the free end of the brace terminating in an attaching portion 15 which is preferably spot welded to the inner side of the adjoining depending flange 12, the latter terminating short of the shelf-corner as seen in Fig-

ures 2, 5 and 6. At the junction of the attaching portion 15 with the remaining portion of the extension 14 there is preferably formed an offset 16 which partially overlies the adjoining edge of the T-upright 11 in the manner depicted in Figures 1 and 2, the depending flange 12 carrying the extension overlying the web portion of the upright, whereby the shelf is held at its corners in firm bearing engagement with the uprights.

The preferred manner of shaping the shelf to provide the integral corner brace 14 is shown in Figures 3-7, inclusive, and in these figures the body of the shelf or blank is likewise numbered 10, and the previously described flanges 12, 13 and brace extension 14 and associated parts have been likewise correspondingly numbered. The adjoining flanges 12 are formed by bending on the fold or scored lines 17 which are disposed parallel to the corresponding side and end edges of the shelf-blank, while the inwardly turned flanges 13 are formed by the parallel scorings 18 and 19, respectively. The brace or extension 14 which is integral with and constitutes a continuation, say, of the depending flange 12 at the end of the shelf, is preferably formed by providing a notch or recess 20 at the corner of the shelf-blank outwardly of the scoring 18, and a second notch 21 formed at the opposite edge of the extension and inwardly of the scoring 17, as seen in Figure 3, the bottom edges of the notches terminating substantially in line with the scoring 17 along the adjoining side edge of the shelf. Approximately midway of its length, the extension 14 has a transverse scoring 22 therein to provide the lateral offset 16 in the resulting displaced attaching portion 15, while at its inner end it has a transverse scoring 23 substantially in line with the bottoms of the notches 20 and 21.

Having provided the various scorings and notches, the blank is first folded along the scorings 18 and 19, as seen in Figure 4, to form the inwardly and upwardly turned flanges 13, after which the notched side edge of the blank is folded along the scorings 17 and 23 to the position shown in Figures 5 and 6, with the extension 14, 15 disposed in a direction at right angles to the adjoining depending flange 12. Thereafter the marginal end of the blank is folded along the scoring 17 paralleling such end, which results in the corresponding flange 12 assuming a depending position and the brace extension being shifted at right angles to its previous position and in parallel relation to the previously bent compan-

ion depending flange 12 with its attaching portion 15 overlapping the inside face of such flange as seen in Figures 1 and 7. This attaching portion of the resulting corner brace is then preferably spot-welded to the adjoining flange 12.

I claim as my invention:

1. A shelf construction, comprising a sheet metal body having depending marginal flanges, one of the flanges adjoining a corner of the shelf having an integral corner brace extending therefrom including an offset intermediate its ends and the companion flange adjoining such corner terminating short of the brace, said brace being bent laterally from its flange and having the portion thereof inwardly of its offset extending across the resulting space formed by said companion flange and having the portion thereof outwardly of its offset overlying and fastened to the companion flange.
2. A shelf construction, comprising an upright, a sheet metal body having depending marginal flanges, one of the flanges adjoining a corner of the shelf having an integral corner brace extending therefrom and the companion flange adjoining such corner terminating short of the latter, said brace being bent laterally from its flange and extending across the resulting space formed by said companion flange and having an outer, lateral offset attaching portion overlying and secured to the adjoining inside face of said companion flange, the remaining portion of said corner brace being displaced in-

wardly from its attaching portion to overlie the adjoining portion of said upright.

3. A blank for shelving and the like, comprising a sheet-like metallic body scored both lengthwise and crosswise thereof to provide depending side and end flanges, and notches formed adjacent the corners of the blank inwardly of the scorings forming the side flanges to provide resulting extensions coextensive with one set of flanges and spaced from the ends of the companion set of flanges, said extensions forming corner braces and terminating at their free ends in laterally offset attaching portions engageable in overlapping relation to the faces of said companion set of flanges, the inner portions of said extensions being of a length to span said corner notches.

4. A blank for shelving and the like, comprising a sheet-like metallic body scored both lengthwise and crosswise thereof to provide depending side and end flanges, and notches formed adjacent the corners of the blank inwardly of the scorings forming the side flanges to provide resulting extensions coextensive with one set of flanges and spaced from the ends of the companion set of flanges, said extensions forming corner braces and terminating at their free ends in attaching portions engageable in overlapping relation to the faces of said companion set of flanges, the inner portions of said extensions being of a length to span said corner notches.

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