Feb. 12, 1935. J. E. BALES 1,990,629

SHELVING

Filed Sept. 16, 1933

FIG. 1.

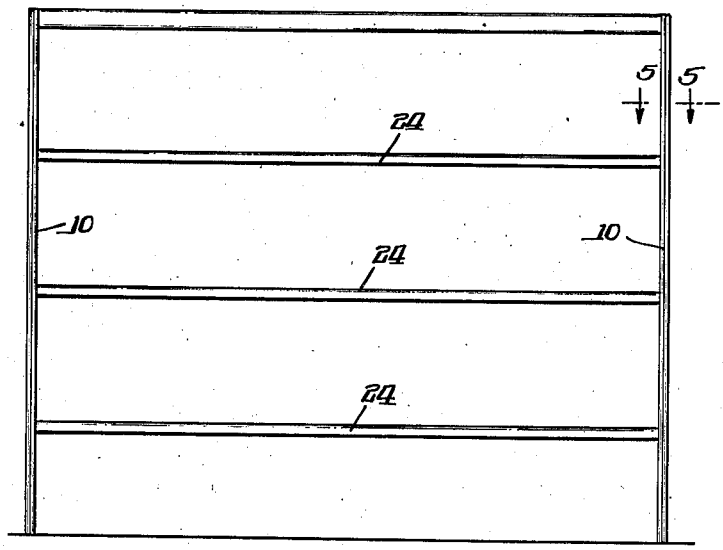


FIG. 2.

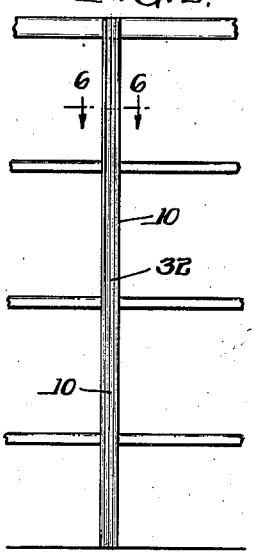


FIG. 3.

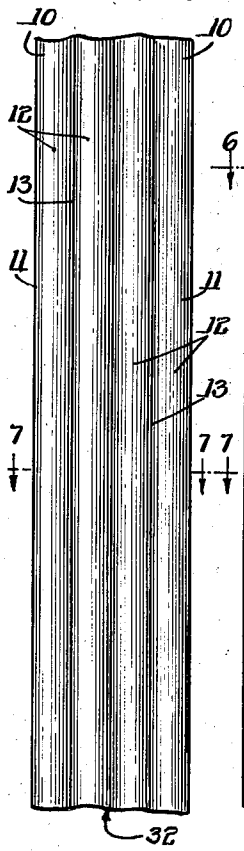


FIG. 4.

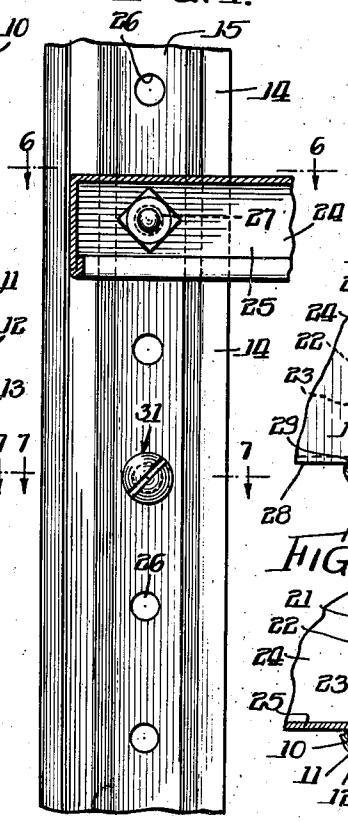


FIG. 5.

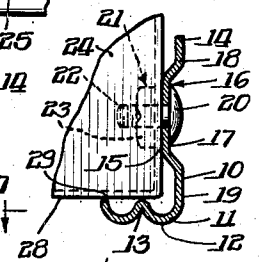


FIG. 6.

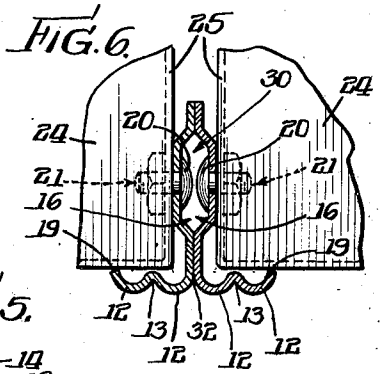


FIG. 7.

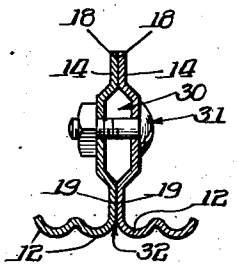
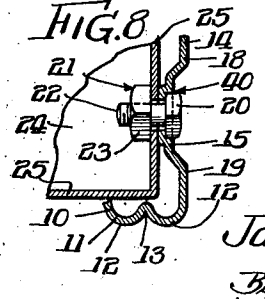


FIG. 8.



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UNITED STATES PATENT OFFICE

1,990,629

SHELVING

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Application September 16, 1933, Serial No. 689,706

10 Claims. (Cl. 211—135)

This invention relates to shelving, and particularly to shelving construction embodying a novel arrangement of uprights to which shelves may be attached.

The primary object of the invention is to provide shelving construction having end uprights of a particular formation and configuration whereby the attaching members for securing the shelves to the uprights are recessed within a vertical plane perpendicular to the front of the shelving structure.

Another object of the invention is to provide uprights having a leg thereof deformed so as to form a recess or pocket into which the shelf fastening members are received and whereby adjacent shelf structures may be rigidly fastened together without interference of the shelf fastening means when the uprights are in contacting position.

A still further object is to provide uprights for a shelf structure, the front face of the uprights being of grooved construction whereby adjacent uprights of adjacent shelf structures may be fastened together and the adjoining or adjacent independent uprights will have the appearance of being a single wide upright.

Numerous other objects and advantages will be apparent throughout the progress of the following specification.

The accompanying drawing illustrates a selected embodiment of the invention and the views therein are as follows:

Fig. 1 is a detail front elevation of a shelving structure and embodying the invention.

Fig. 2 is a detail front elevation of adjacent shelf structures connected together.

Fig. 3 is a detail front elevation of a pair of uprights fastened together as shown in Fig. 7.

Fig. 4 is a detail side elevation partly in section showing the manner in which the shelves are attached to an upright.

Fig. 5 is a detail sectional view on the line 5—5 of Fig. 1.

Fig. 6 is a detail sectional view on the lines 6—6 of Figs. 2 and 4.

Fig. 7 is a detail sectional view on the lines 7—7 of Figs. 3 and 4 showing the manner in which the uprights of adjoining sections are fastened together.

Fig. 8 is a detail sectional view similar to Fig. 5 but showing a countersink provided in the bottom of the groove.

The particular shelving herein shown for the purpose of illustration comprises uprights 10 each having a front face 11. The front face 11 comprises a pair of beads 12, 12 having a groove 13 therebetween. Each upright 10 has an inwardly extending leg 14 which is integral with the front face 11 and has an intermediate portion 15 bent inwardly intermediate its front and rear edges to provide a longitudinal groove 16. The face 17, Fig. 5, of the portion 15 extends inwardly a predetermined distance from the flush faces 18 and 19 to receive the part 20 of the fastening means 21. The groove 16 is of a depth sufficient to prevent the outer surface of the part 20 from extending beyond the flush faces 18 and 19. In other words, the head 20 of the fastening means is recessed within the flush surfaces 18 and 19 of the leg 14. The fastening means 21 may comprise a bolt 22 having the part or head 20 and a second part or nut 23. Spaced shelves 24 are arranged between end uprights 10 and may be provided with side flanges 25 which contact with the surface 15 of the leg 14. The fastening means pass through alined holes 26 and 27 formed in the upright and shelf flanges respectively. In fastening the shelves in position, the front edge 28 of each shelf engages the front leg or face 11 of the upright as indicated at 29, Fig. 5, with the side flange 25 of the shelf engaging the surface 15. The fastening means is then passed through the alined holes 26 and 27 and the part or nut 23 is applied to fix the shelf in proper position with respect to the upright. Shelving, as described, provides a rigid, ornamental and neat appearing structure. A shelf structure, as described, may be coupled with an adjoining section as shown in Figs. 2 and 6. When arranged side by side, the contacting faces 18 and 19 of adjacent uprights 10 are engaged and a pocket 30 is provided by the two recesses 16. The heads 20 of the fastening members 21 will be arranged in the pocket, and as each recess 16 is deeper than the thickness of the cooperating head 20, the uprights will fit close together. Fastening means 31 pass through a pair of alined holes 26 and rigidly secure the adjacent uprights together, Fig. 7. When the adjacent uprights are fastened together as shown in Figs. 2, 6 and 7, the front faces 11 of adjacent uprights 10 will have the appearance of being a single wide upright with the bead and groove construction carried out across the entire face. The joint 32 between the uprights occurs between the inside beads 12 making the double upright have the appearance of a single upright with four beads and three grooves. The invention, therefore, not only provides improved means for fastening shelves to uprights

and for fastening adjacent uprights together, but also provides for ornamentation.

In some instances, it may be desirable to provide a countersink 40, Fig. 8, in the face 15 of the leg 14 so as to receive the head 20 of the fastening means 21, or the under bolt head of a carriage bolt, so that when the part or nut 23 is applied, the bolt 22 or the carriage bolt will be prevented from rotating during tightening movement of the nut.

Changes may be made in the form, construction, and arrangement of the parts without departing from the spirit of the invention or sacrificing any of its advantages, and the right is hereby reserved to make all such changes as fairly fall within the scope of the following claims.

The invention is hereby claimed as follows:

1. An upright for shelving having a front face and an inwardly extending leg, said leg being deformed to provide a longitudinal groove, and fastening means passing through the leg at the groove, said fastening means having a head lying in the groove, the depth of the groove being greater than the thickness of the head, and a shelf fastened to the upright by said fastening means.

2. An upright for shelving having a front face and an inwardly extending leg, said leg being deformed to provide a longitudinal groove, fastening means passing through the leg at the groove, said fastening means having a head lying within the groove, the depth of the groove being greater than the thickness of the head, and shelving fastened to the upright by said fastening means, the front face of said upright having longitudinal beads and a groove between beads.

3. An upright for shelving having a front face and an inwardly extending leg, said leg being deformed to provide a longitudinal groove, fastening means passing through the leg at the groove, said fastening means having a head arranged within the groove, the depth of the groove being greater than the thickness of the head, and shelving fastened to the upright by said fastening means, said leg being provided with a countersink in the groove to receive the head and prevent rotation of said head during tightening of the fastening means.

4. An upright for shelving comprising a front face and an inwardly bent leg, said leg having a longitudinal central portion offset to provide a contacting surface and a longitudinally extending groove, fastening means passing through the contacting surface at the groove, and shelves engaging said contacting surface and fastened to the uprights by the fastening means.

5. An upright for shelving comprising a front face and an inwardly bent leg, said leg having a central portion offset to provide a contacting surface and a longitudinally extending groove, fastening means passing through the contacting surface at the groove, and shelves engaging said contacting surface and fastened to the uprights by the fastening means, the front face of said upright being provided with longitudinally extending adjacent beads with a groove between beads.

6. An upright for shelving comprising a front face and an inwardly bent leg, said leg having a central portion offset to provide alined surfaces and a central offset contacting surface and forming a longitudinal recess, said central contacting surface having spaced apertures, shelves engaging the central contacting surface, fastening means passing through the apertures and engaging the shelves to fasten the shelves to the upright, said fastening means having a head, said head lying within the recess which has a depth greater than the thickness of the head, a second upright of like construction arranged adjacent the first upright with the alined surfaces of each upright contacting and engaging, and fastening means passing through the apertures of each upright for fastening the two uprights together.

7. An upright for shelving comprising a front face and an inwardly bent leg, said leg having a central portion offset to provide alined surfaces and a central offset contacting surface and forming a longitudinal recess, said central contacting surface having spaced apertures, shelves engaging the central contacting surface, fastening means passing through the apertures and engaging the shelves to fasten the shelves to the upright, said fastening means having a head, said head lying within the recess which has a depth greater than the thickness of the head, a second upright of like construction arranged adjacent the first upright with the alined surfaces of each upright contacting and engaging, and fastening means passing through the apertures of each upright for fastening the two uprights together, each upright having a front face provided with longitudinal beads separated by a groove whereby the two uprights when fastened together give the appearance of a single wide beaded upright.

8. An upright comprising a leg having an offset portion providing contacting surfaces on opposite faces of the leg and a longitudinal groove intermediate the ends of the leg, whereby shelves may be attached to the upright and engage one face of the leg and a member may engage the face on the other side of the leg, and fastening means passing through the leg at the groove and a shelf to support the shelf against one face of the leg, a part of the fastening means being arranged wholly within the groove, said leg being provided with apertures in the groove whereby fastening means may be passed through the leg and fastened to an adjacent member engaging the other face of the leg.

9. A shelving construction comprising a vertical upright having a vertical front face, the metal of said upright being bent laterally to provide an angularly disposed leg, a portion of said bent leg being disposed in a vertical plane which is inset with respect to said laterally bent portion, a shelf having angularly disposed sides, one of said sides being disposed against the inner wall of said front face and the adjacent side being disposed against the inner wall of said inset portion, and fastening means passing through apertures in the shelf and in the inset portion with the head of the fastening means lying in said inset portion, the depth of the inset portion being greater than the thickness of the head.

10. A metallic shelf construction comprising a pair of vertically disposed uprights each having a vertical front face, the metal of each upright being bent laterally to provide a vertical leg, a portion of said leg being disposed in a vertical plane which is inset with respect to the vertical plane of said laterally bent portion, said uprights being disposed with their front faces in a common vertical plane and with their laterally bent portions in opposed contacting relation, said inset portions of said legs being spaced apart and having registering openings disposed in vertically spaced relation therealong, and shelf members secured to each upright, each of said shelf members having

angularly disposed sides, one side being in contact with the inner wall of the front face of said upright and having its adjacent wall in contact with the laterally bent portion of said upright, fastening means having heads disposed wholly within each of said inset portions of said upright and passing through one of the openings in said inset portion of said upright and through said shelves, and fastening means passing through another pair of registering openings for securing the pair of uprights securely together.

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