United States Patent [19]

Freeman

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[54] **REVERSIBLE CABINET SHELF BRACKET**

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[52] **U.S. Cl.** **108/42**, 248/239, 248/243, 108/109

[51] **Int. Cl.** **A47b 23/00**

[58] **Field of Search** 108/40–43, 106–110; 248/239, 241, 243

[56] **References Cited**

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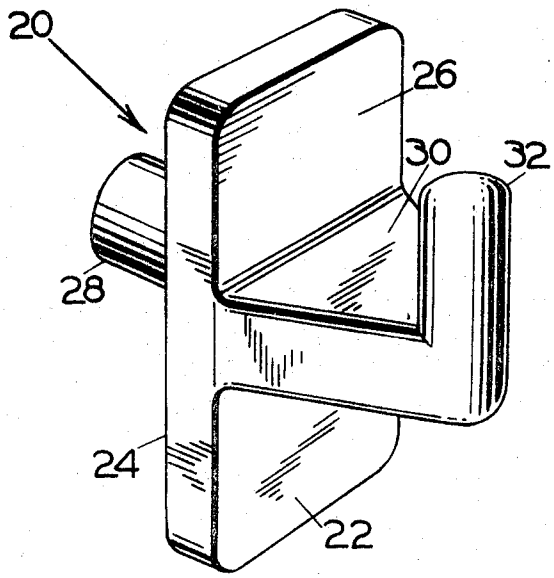
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Attorney—Eugene D. Farley

[57] **ABSTRACT**

A bracket for supporting cabinet shelves is secured to the cabinet side wall and is rotatable angularly through 180° between two positions. In one, a pin on the bracket extends upwardly and is insertable in a shelf socket for releasably interlocking the shelf to the cabinet side wall. In the other, the pin extends downwardly in a disengaged condition, permitting free separation of the shelf from the cabinet side wall. In both positions of the pin, the shelf is supported by the bracket in substantially the same horizontal plane.

5 Claims, 5 Drawing Figures



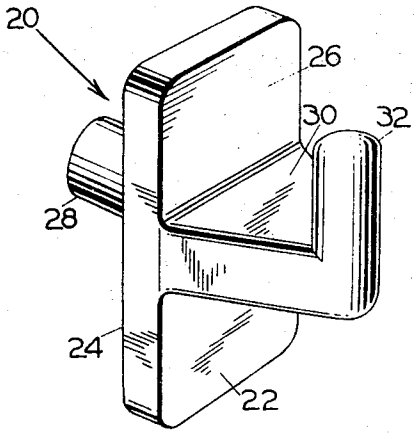


FIG. 1

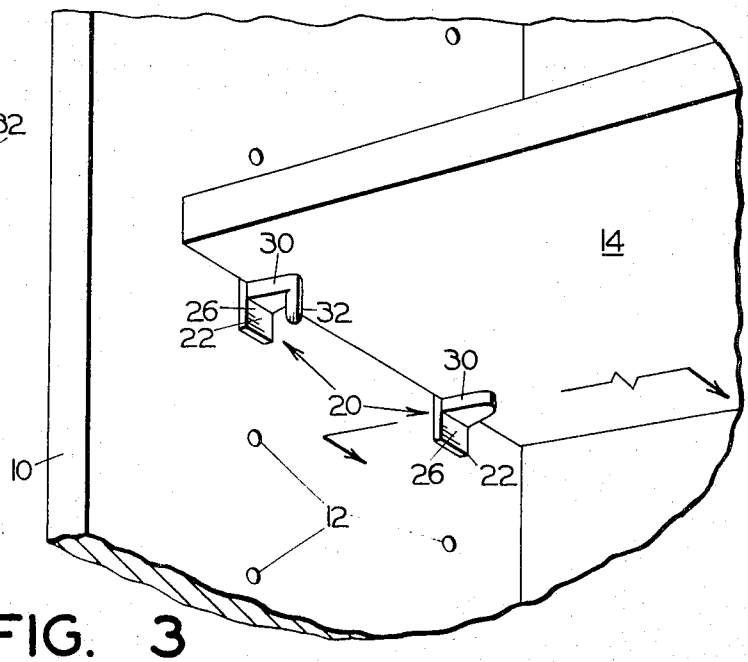


FIG. 3

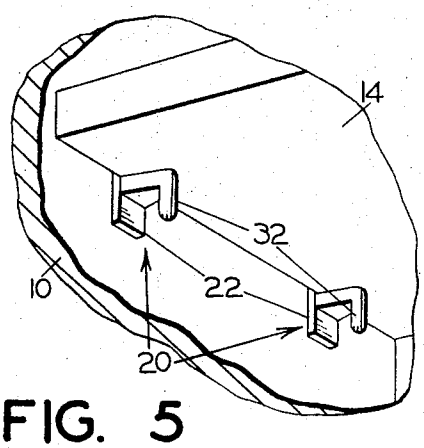


FIG. 5

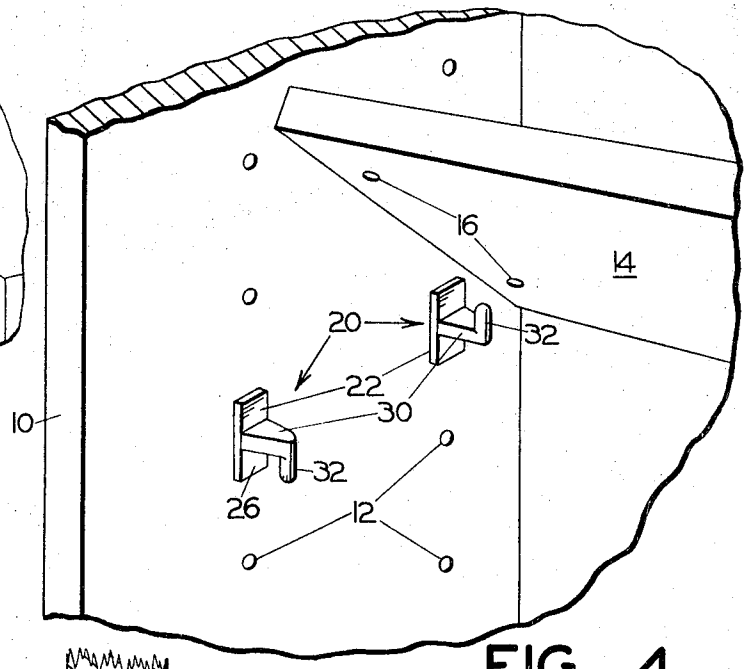


FIG. 4

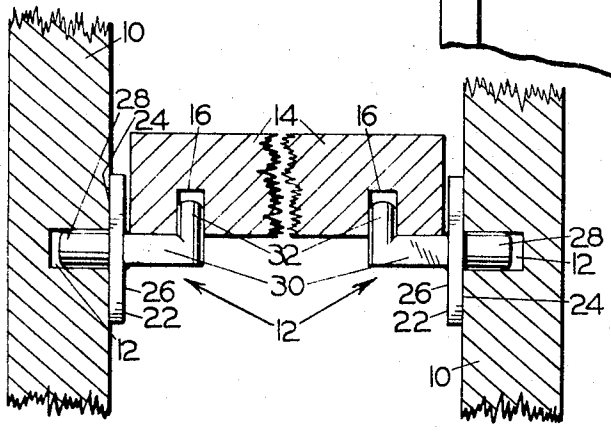


FIG. 2

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REVERSIBLE CABINET SHELF BRACKET

Although many types of cabinet shelf-support brackets heretofore have been devised, the need exists for a bracket which is useful in knock down cabinet assemblies for adjustably supporting the shelves either releasably interlocked with the cabinet side walls or maintained separate therefrom.

It is the general purpose of the present invention to provide a bracket which is adjustable between two positions. In the first, the bracket not only supports the shelf, but also releasably interlocks it with the side walls. In the second, it supports the shelf only, with the result that the shelf may be removed easily from the cabinet by sliding it outwardly. In both of these bracket positions, the shelf is supported on substantially the same horizontal plane.

It is a further object of the present invention to provide a cabinet shelf bracket which is easily and inexpensively manufactured in integral form by application of the techniques of plastic molding, which is easily mounted on and demounted from the cabinet shelf assembly, and which is adjustable easily and accurately between its positions of use, i.e., between a first position in which it supports and interlocks and a second position in which it supports only.

Broadly considered, the presently described cabinet shelf bracket comprises a side wall bearing plate having extending laterally outwardly from its inner face a side wall pin dimensioned for insertion in a side wall socket. A substantially horizontal shelf bearing plate extends laterally outwardly from the outer face of the side wall bearing plate in substantially axial alignment with the side wall pin. A vertical shelf pin extends laterally outwardly from the outer end of the shelf bearing plate. It is dimensioned for insertion in a socket underneath an end margin of the shelf.

The bracket is rotatable angularly through 180° between two positions. In one of these, the shelf pin extends upwardly and is insertable in the shelf socket for releasably interlocking the shelf to the side wall. In the other, the shelf pin extends downwardly in disengaged position, permitting free separation of the shelf from the cabinet side wall. In both positions, the shelf is supported by the bracket in substantially the same horizontal plane.

In the drawings:

FIG. 1 is a perspective view of the reversible cabinet shelf bracket of my invention;

FIG. 2 is a foreshortened sectional view of the bracket in its use position,

FIGS. 3 and 4 are fragmentary perspective views of a shelf assembly including the herein described bracket, employed in its combination shelf-supporting and shelf-locking positions; and

FIG. 5 is a fragmentary perspective view, similar to FIGS. 3 and 4, but illustrating a shelf assembly incorporating the bracket in its shelf-supporting position only.

As is illustrated in FIGS. 3, 4 and 5, the herein described bracket is designed for use in cabinet assemblies including a pair of spaced, vertical side walls 10 each having on its inner face at least one pair of horizontally spaced, substantially coplanar sockets 12. In the practical application of the invention, the side wall sockets are arranged in two substantially parallel vertical rows with the sockets placed in horizontally coplanar pairs. This permits adjustment of the shelves within the cabinet at desired elevations.

A horizontal shelf 14 is dimensioned for insertion between the side walls in substantially contiguous relation thereto. It has on its underneath end margins at least one, preferably a pair, of sockets 16. These have a horizontal spacing substantially equal to that of side wall sockets 12.

The shelf sockets are substantially aligned with each other transversely of the shelf, and with the side wall sockets longitudinally of the shelf. This arranges the shelf and side wall sockets in adjacent pairs. Each pair is designed to receive one of the herein described brackets in shelf-supporting and shelf-interlocking relation.

The construction of the brackets is illustrated in FIGS. 1 and 2.

Each bracket 20 has a side wall bearing plate 22 having an inner face 24 and an outer face 26. The inner face of plate 22 is adapted to bear against the inner face of side wall 10, overlying one of side wall sockets 12.

A side wall pin 28 extends laterally outwardly from the inner face 24 of the side wall bearing plate. It is dimensioned for press fit insertion in the side wall socket 12 which the bearing plate overlies, thus frictionally mounting the bracket on the side wall.

A substantially horizontal, shelf-bearing plate 30 extends laterally outwardly from the outer face 26 of side wall bearing plate 22. To maintain a constant shelf elevation in the two positions of the bracket, the shelf bearing plate lies in substantially axial alignment with side wall pin 28. As is particularly evident in FIG. 1, the shelf bearing plate preferably is broad at its base and tapered inwardly toward its outer extremity to provide a broad bearing surface as required adequately to support the shelf.

A shelf pin 32 extends laterally outwardly from the outer end of the shelf bearing plate. It is dimensioned for insertion in a press fit in one of shelf sockets 16, in pin and socket relation.

By comparison of FIGS. 4 and 5, it will be observed that the herein described shelf bracket is adjustable in use angularly through 180° between two positions. In the FIG. 4 position, at least one of the shelf pins of each pair of shelf pins employed to support one end of shelf 14 is disposed upwardly. In this position, it is received in the adjacent shelf socket 16. This releasably interlocks the shelf and cabinet side walls so that the former can only be separated from the latter by lifting it upwardly.

However, in the FIG. 5 position of the bracket, shelf pin 32 is arranged downwardly, out of engagement with the shelf socket. This bracket position permits easy removal of the shelf from the cabinet, simply by sliding it outwardly in its own plane.

It is to be observed further that the shelf lies in the same plane in both positions of the bracket. Also, the construction of the bracket and its manner of mounting adapt it well to use in knock down, do-it-yourself cabinet assemblies.

Having thus described my invention in preferred embodiments, I claim:

1. A shelf assembly comprising in combination

a. a pair of spaced, vertical side walls each having on its inner face at least one pair of horizontally spaced, substantially coplanar sockets,

b. a horizontal shelf dimensioned for insertion between the side walls in substantially contiguous relation thereto,

c. the shelf having at least one pair of sockets on each of its underneath end margins,

d. the shelf sockets being located with reference to the side wall sockets to provide adjacent socket pairs of which one socket is in the side wall and the other is in the shelf,

e. and a plurality of shelf-support brackets, one for each adjacent socket pair and each comprising,

1. a side wall bearing plate,

2. a side wall pin extending laterally outwardly from the inner face of the side wall bearing plate and dimensioned for insertion in the side wall socket in pin-and-socket relation,

3. a substantially horizontal shelf bearing plate extending laterally outwardly from the outer face of the side wall bearing plate in substantially axial alignment with the side wall pin, and

4. a shelf pin extending laterally outwardly from the outer end of the shelf bearing plate and dimensioned for insertion in the shelf socket in pin-and-socket relation,

5. the bracket being reversible angularly between two - 180° positions in one of which the shelf pin extends upwardly in working position for insertion in the shelf pin socket, thereby releasably interlocking the shelf and adjacent side wall, and in the other of which the pin extends downwardly in disengaged position, thereby permitting free separation of the shelf and adjacent side wall.

2. The shelf assembly of claim 1 wherein there are a multiplicity of sockets arranged on the inner face of each side wall in two substantially vertical horizontally spaced rows to provide a plurality of pairs of substantially horizontally coplanar sockets on each side wall, the pairs on one side wall being substantially coplanar with the pairs on the opposite side wall.

3. In a shelf assembly including a pair of spaced, vertical side walls and a horizontal shelf dimensioned for insertion between the side walls in substantially contiguous relation thereto, the side wall inner face and shelf underneath end margin having at least one pair of adjacent, cooperating sockets, a shelf-support bracket comprising

a. a side wall bearing plate,

b. a side wall pin extending laterally outwardly from the inner face of the side wall bearing plate and dimensioned for insertion in the side wall socket in pin-and-socket relation,

c. a substantially horizontal shelf bearing plate extending laterally outwardly from the outer face of the side wall bearing plate in substantially axial alignment with the side wall pin, and

d. a shelf pin extending laterally outwardly from the outer end of the shelf bearing plate and dimensioned for insertion in the shelf socket in pin-and-socket relation,

e. the bracket being reversible angularly between two-180° positions in one of which the shelf pin extends upwardly in working position for insertion in the shelf pin socket, thereby releasably interlocking the shelf and adjacent side wall, and in the other of which the pin extends downwardly in idle position, thereby permitting free separation of the shelf and adjacent side wall.

4. The bracket of claim 3 wherein the side wall bearing plate, side wall pin, shelf bearing plate, and shelf pin, are integrally molded from plastic material.

5. A reversible cabinet shelf bracket, comprising

a. a side wall bearing plate having inner and outer faces,

b. a side wall pin extending laterally from the inner face of the side wall bearing plate,

c. a shelf bearing plate extending laterally from the outer face of the side wall bearing plate in substantially axial alignment with the side wall pin, the shelf bearing plate having opposed shelf bearing faces spaced equally to opposite sides of the axis of the side wall pin, and

d. a shelf pin on the outer end of the shelf bearing plate extending substantially perpendicularly from one of the opposed shelf bearing faces.

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