Aug. 8, 1939. P. H. MEYER 2,168,911

CORNER BRACKET FOR SHELVES

Filed May 7, 1937

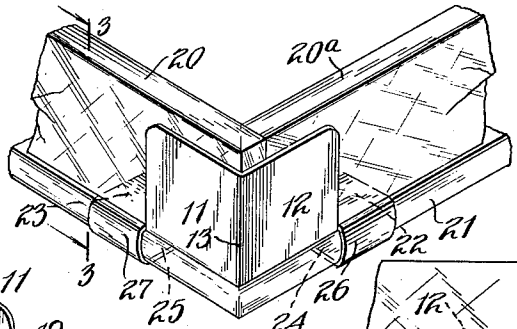


Fig. 1.

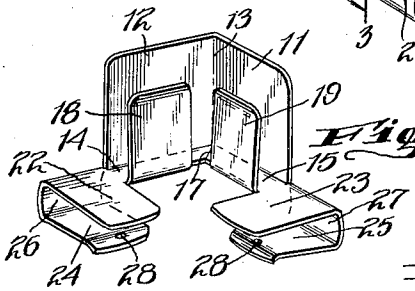


Fig. 2.

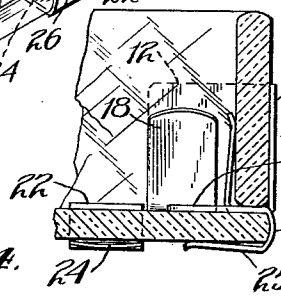
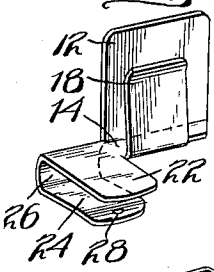


Fig. 3.

Fig. 4.

Fig. 5.



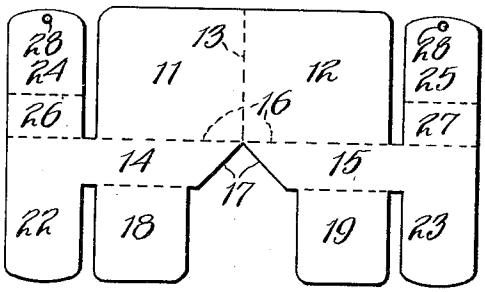
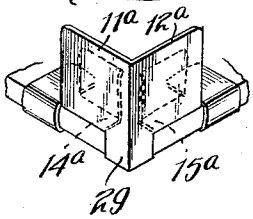


Fig. 6.



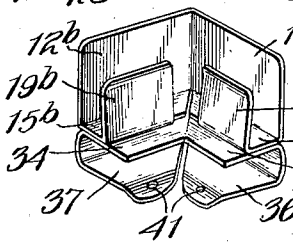


Fig. 7.

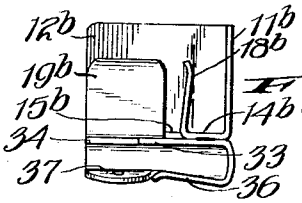
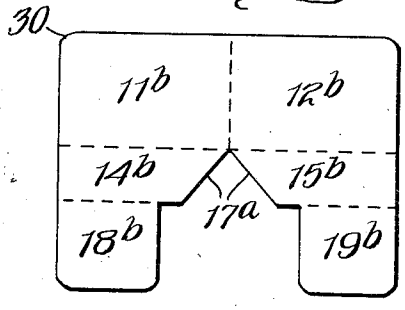


Fig. 8.

Fig. 9.



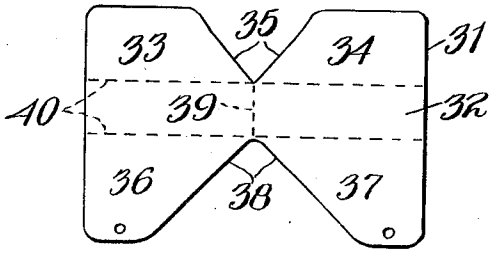


Fig. 10.

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UNITED STATES PATENT OFFICE

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CORNER BRACKET FOR SHELVES

Pierre H. Meyer, Mount Vernon, N. Y.

Application May 7, 1937, Serial No. 141,223

7 Claims. (Cl. 24—81)

This invention relates to brackets, sometimes referred to as clips, and the object of the invention is to provide a device of this class which is designed to be supported in connection with and retained against displacement from the corner portion of a shelf, and having means projecting upwardly from the corner portion to support perpendicular wall forming parts in connection with the shelf so as to retain articles against displacement from the shelf when the shelf is disposed in a horizontal position or in an inclined or angular position; a further object being to provide a device of the class described wherein the vertically disposed support consists of a continuous outer corner piece forming means to enclose and guard the intersecting ends of the perpendicular wall parts as well as to prevent displacement of said parts when arranged upon a shelf; a further object being to provide a device of the character described employing angularly arranged U-shaped clips having the channels thereof directed upwardly and over clips on said first named clips and having channels arranged horizontally as well as angularly with respect to each other; a further object being to provide a device of the character described formed from a single blank of sheet material or from two sheet metal blanks independently formed and then welded or otherwise secured together; a further object being to provide means for coupling the bracket or clip at one corner portion of a shelf with a corresponding clip at another corner portion thereof; a still further object being to provide a device of the class described one half of which may be used where the shelf is disposed adjacent a wall or other support, and with these and other objects in view, the invention consists in a device of the class and for the purpose specified, which is simple in construction, efficient in use, and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:

Fig. 1 is a perspective view of one corner portion of a shelf showing one of my improved devices arranged thereon.

Fig. 2 is an inside perspective view of the device shown in Fig. 1 detached.

Fig. 3 is a partial section on the line 3—3 of Fig. 1.

Fig. 4 is a plan view from a blank from which the device shown in Figs. 1 to 3 inclusive is formed.

Fig. 5 is a perspective view similar to Fig. 2 showing a modified form of device.

Fig. 6 is a view similar to Fig. 1 on a reduced scale showing a modification and omitting the vertical or perpendicular wall parts.

Fig. 7 is a view similar to Fig. 2 showing a modified form of construction.

Fig. 8 is a side edge view similar to that shown in Fig. 3 of the structure shown in Fig. 6.

Fig. 9 is a plan view of one part of a blank forming one part of the device shown in Figs. 7 and 8; and

Fig. 10 is a plan view of a blank from which the other part of the device shown in Figs. 7 and 8 is formed.

In various kinds and classes of display shelves, and especially those protruding from a support, and especially when such shelves are composed of glass or similar material, no means has been provided for detachably supporting vertical wall portions in connection with the peripheral edges of such shelves in order to form upon the upper surface of the shelf a compartment upon which articles may be supported against accidental displacement from the shelf. In some cases complicated and expensive brackets or coupling members had been employed which necessitated the drilling of the glass and the formation of a more or less permanent connection. It is the distinctive feature of my invention to provide a bracket or clip which will provide for the quick and easy attachment of vertical wall members with a shelf to retain the same in upright position, at or specifically at the peripheral edges of the shelf. In Figs. 1 to 4 inclusive, I have shown one form of bracket or clip which I employ and which is fashioned from a single blank of sheet material shown in Fig. 4 of the drawing, the blank having two rectangular portions 11, 12 joined by a fold line 13 which subdivides the blank into two similar halves. The parts 11 and 12 form on the resulting device upstanding angularly disposed walls at the lower ends of which are bottom wall portions 14 and 15 respectively, foldable on the line 16. Adjacent edges of the walls 14 and 15 are V-cut as seen at 17 so as to bring the angular edges together when the device is folded in the manner seen in Fig. 2 of the drawing. Foldable with respect to the inner edges of the walls 14, 15 are other upright spring wall members 18 and 19, the free edges of which are preferably set outwardly in the direction of the walls 11 and 12 and then curved away from said walls to a slight

extent in order to permit free insertion of upright glass wall members 20, 20a in the channels formed between the pairs of walls 11, 18 and 12, 19. The walls 18 and 19 are preferably smaller than the walls 11 and 12 both as to height and width in order to provide free spring action of said walls in tensionally engaging the glass uprights 20, 20a. In this connection it will be understood that the uprights 20, 20a may be composed of any suitable material, but when a glass shelf 21 is employed it is preferable to employ glass in these members, and these members may be of any desired height depending upon the use of the device. In this connection it will also be apparent that the dimensions of the bracket or clip may be proportionately changed. The bottom walls 14 and 15 extend outwardly beyond the walls 11 and 12 and include inwardly directed extensions 22, 23 which form the top walls of other, horizontally disposed, clips which are adapted to engage the peripheral edges of the shelf 21. The bottom walls of said horizontal clips join the first named walls in slightly curved cross-heads 26 and 27, so as to conform with the contour of the peripheral edges of glass shelves as commonly employed. It will be understood that the cross-heads 26 and 27 extend downwardly from the walls 14, 15 and the bottom walls 24, 25 have their free edges normally flexed upwardly and then curved downwardly as indicated in Fig. 2 of the drawing so as to provide spring engagement with the shelf 21.

I also employ apertures 28, preferably in the walls 24, 25, by means of which wires, cords, or other members may be attached to one corner clip or bracket and extend to and couple with another corner clip or bracket to retain said clips or brackets against movement or displacement from the shelf, but this will only be necessary where the upright members 20, 20a are subjected to outward pressure which might tend to displace the clips. It will also be understood in this connection, that where a permanent attachment of the clip with the shelf 21 is desired, a suitable cement may be employed between adjacent surfaces of the horizontal clips and the shelf, and in other cases, friction surfaces may be provided on the inner opposed surfaces of the walls 22, 24, 23, 25 so as to provide a greater frictional engagement with the shelf, but these features are within the natural development and use of the device.

In the accompanying drawing, the vertically disposed pairs of clips consisting of the walls 11, 14, 18, 12, 15, 19, are arranged at right angles to each other, but it will be understood that the angularity of these walls may be changed to suit various angle arrangements of the walls 20, 20a with respect to each other. It will also be apparent that it is not essential to bend the device on the line 13 nor to provide the V-cut as at 17 where it may be desirable to support a vertical wall such as the walls 20, 20a intermediate the ends or corner portions thereof. In this connection it will also be apparent that when one edge of the shelf 21 is disposed adjacent a suitable background or wall, that one half of the complete unit shown in Fig. 2 can be employed. A device of this kind is illustrated in Fig. 5 of the drawing in which figure, the half, including the walls 12, 19 and associated walls is shown. In some cases, one of these half devices may be used intermediate the ends or corners of a shelf for an intermediate support.

In Fig. 6 of the drawing, I have shown a slight modification of the construction shown in Figs. 1 to 4, wherein the walls 11a and 12a include an integral extension 29, which is formed from a section of the blank intermediate adjacent edges of the bottom walls 14a, 15a, and which takes the place of the V-notch or cut as at 17 in Fig. 4 of the drawing. Aside from this change, the structure shown in Fig. 6 is identical with that shown in the other figures. The extension 29 simply forms a guard for the corner of the shelf 21 and also aids in the alinement of the device upon the shelf.

In Figs. 7 to 10 inclusive I have shown another form of device made from two blanks of sheet materials 30, 31, the blank 30 having parts 11b, 12b, 14b, 15b, 18b, and 19b and the V-notch 17a similar to that portion of the blank forming the top pairs of clips as in Figs. 1 to 4 inclusive, whereas the blank 31 consists of an elongated central portion 32 having narrow foldable top walls 33, 34, separated by a V-notch 35, and wider bottom walls 36, 37 separated by a large V-notch 38, whereby when the blank 31 is folded on the central line 39 and on the parallel lines 40, the walls 33, 36 and 34, 37 will be disposed one above the other and at right angles to each other in the manner clearly seen in Fig. 7 of the drawing. After each blank 30, 31 is folded into the form illustrated in Fig. 7 of the drawing, the parts are disposed one upon the other, and the walls 14b, 33, 15b, 34 welded or otherwise secured together to form a unitary device. The primary difference between the structure shown in Figs. 7 to 10 inclusive, and that shown in the other figures, resides in the fact that the bottom horizontal clips are disposed directly beneath the vertical clips instead of outwardly thereof as in the other figures. Apertures 41 are also preferably provided in the walls 36, 37 for the same purpose as the apertures 28. It will also be apparent that one half of the unit shown in Figs. 7 to 10 inclusive may be employed in the manner of the half unit shown in Fig. 5, and that suitable means may be provided to aid in more positively retaining the brackets or clips against displacement, especially from the shelf part, or in fixedly securing the same to the shelf part when a permanent connection is desirable.

It will be understood that my invention is adaptable for use in connection with various kinds and classes of shelves as used in the home and in other establishments, and has a special advantage in connection with various kinds of display shelves to retain articles against displacement from the shelf especially when subjected to vibrations and the like, and also in forming compartments on a shelf for supporting and displaying several small articles or packages. This is especially true when the shelves are arranged in an inclined position.

While the devices as hereinafter disclosed are designed primarily to be fashioned from sheet metal of various kinds and grades, it will be apparent that other non-metallic materials of the latter type which are capable of flexure or have a certain degree of spring properties, may be used. It will also be understood that the contour of the wall portions of the several clips may be modified and changed to give any desired ornamental appearance or finish to the corner of a shelf, but this is simply a matter of satisfying the desires of a manufacturer or purchaser.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A bracket of the class described comprising a pair of U-shaped clips formed from a single blank of sheet material, each clip consisting of a cross-head and spaced side walls, the cross-heads of said clips being arranged angularly to each other, one side wall of each clip being in substantially the same plane as the cross-head of the other or opposed clip to dispose the side walls of said clips at right angles to each other and to arrange the side walls of one clip vertically and the side walls of the other clip horizontally.

2. A bracket of the class described comprising a pair of U-shaped clips formed from a single blank of sheet material, each clip consisting of a cross-head and spaced side walls, the cross-heads of said clips being arranged angularly to each other, one side wall of each clip being in substantially the same plane as the cross-head of the other or opposed clip to dispose the side walls of said clips at right angles to each other and to arrange the side walls of one clip vertically and the side walls of the other clip horizontally, and another similar pair of clips integrally joined to the first named pair of clips by a closed corner formed between adjacent edges of one of the side walls of one clip in each pair.

3. A corner bracket for shelves, said bracket being formed from sheet material and comprising angularly disposed outer walls integrally united at adjacent edges to form a closed corner, yieldable walls arranged in spaced relation to each of the first named walls and joined thereto by cross-heads at the lower ends of said first named walls to form two angularly arranged clips, other U-shaped clips integrally joined with said first named cross-heads, said clips extending inwardly with respect to said outer walls and arranged horizontally with respect to the first named clips, said second named clips being adapted to engage peripheral edges of a shelf at the corner portions thereof to arrange the outer walls of the first named clips perpendicularly to the shelf at said corner edges, and the outer walls of the first named clips having a downwardly projecting part at the intersecting corners thereof projecting below the cross-heads of said first named clips.

4. A device of the class described formed from sheet material, said device comprising a pair of perpendicularly arranged U-shaped clips disposed in close proximity and at an angle to each other, each clip consisting of a narrow horizontal cross-head and wider inner and outer walls extending perpendicularly from the cross-head, the outer wall of one clip being integral with the outer wall of the other clip to form a closed outer corner between said walls, another pair of U-shaped clips disposed horizontally and arranged angularly to each other, the last named clips comprising narrow vertically arranged cross-heads and spaced horizontal walls extending inwardly with respect to the outer wall of the first named clips, and the cross-heads of the second mentioned clips being disposed in alinement with the outer walls of the first named clips.

5. A device of the class described formed from sheet material, said device comprising a pair of perpendicularly arranged U-shaped clips disposed in close proximity and at an angle to each other, each clip consisting of a narrow horizontal cross-head and wider inner and outer walls extending perpendicularly from the cross-head, the outer wall of one clip being integral with the outer wall of the other clip to form a closed outer corner between said walls, another pair of U-shaped clips disposed horizontally and arranged angularly to each other, the last named clips comprising narrow vertically arranged cross-heads and spaced horizontal walls extending inwardly with respect to the outer wall of the first named clips, the cross-heads of the second mentioned clips being disposed in alinement with the outer walls of the first named clips, said second mentioned clips being arranged outwardly of the end portions of the first named clips, and one horizontal wall of the second mentioned clips being integral with and arranged within the same plane as the cross-heads of the first named clips.

6. A bracket of the class described comprising a pair of U-shaped clips formed from a single blank of sheet material, each clip consisting of a cross-head and spaced side walls, the cross-heads of said clips being arranged angularly to each other, one side wall of each clip being in substantially the same plane as the cross-head of the other or opposed clip to dispose the side walls of said clips at right angles to each other and to arrange the side walls of one clip vertically and the side walls of the other clip horizontally, the side walls of the vertical clip comprising inner and outer walls with the side walls of the horizontal clip extending in the direction of the inner wall of the vertical clip, and another similar pair of clips integrally joined with the first named pair of clips by the integral formation of the outer wall of one vertically disposed clip with the corresponding outer wall of the other vertically disposed clip.

7. A bracket of the class described formed from a single blank of sheet material, said bracket comprising an elongated outer wall forming part, cross-heads integrally joining one edge of said outer wall and disposed at right angles thereto, inner walls integral with the cross-head and extending perpendicularly to the cross-head at a slight inclination in the direction of said outer wall at the end portions thereof forming two resilient clip portions between the outer wall and said inner walls, each cross-head protruding beyond the side edges of said inner and outer walls to form supplemental resilient clips consisting of spaced side walls joined by a cross-head, one of the side walls of said last named clips being arranged in the same plane as said first named cross-heads and continuous therewith, and the cross-head of the last mentioned clips being disposed in alinement with the outer walls of the first named clips.

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