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A bracket

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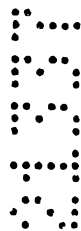
A Bracket

Abstract

A bracket (10) including:

5 a metal strip transversely bent to provide a pair of flanges (11, 12), said flanges being generally perpendicular and connected by a joining portion (20);

said joining portion (20) including at least one ridge (21) extending between said flanges being located therebetween to inhibit deflection between said flanges about an axis generally transverse of the bracket.



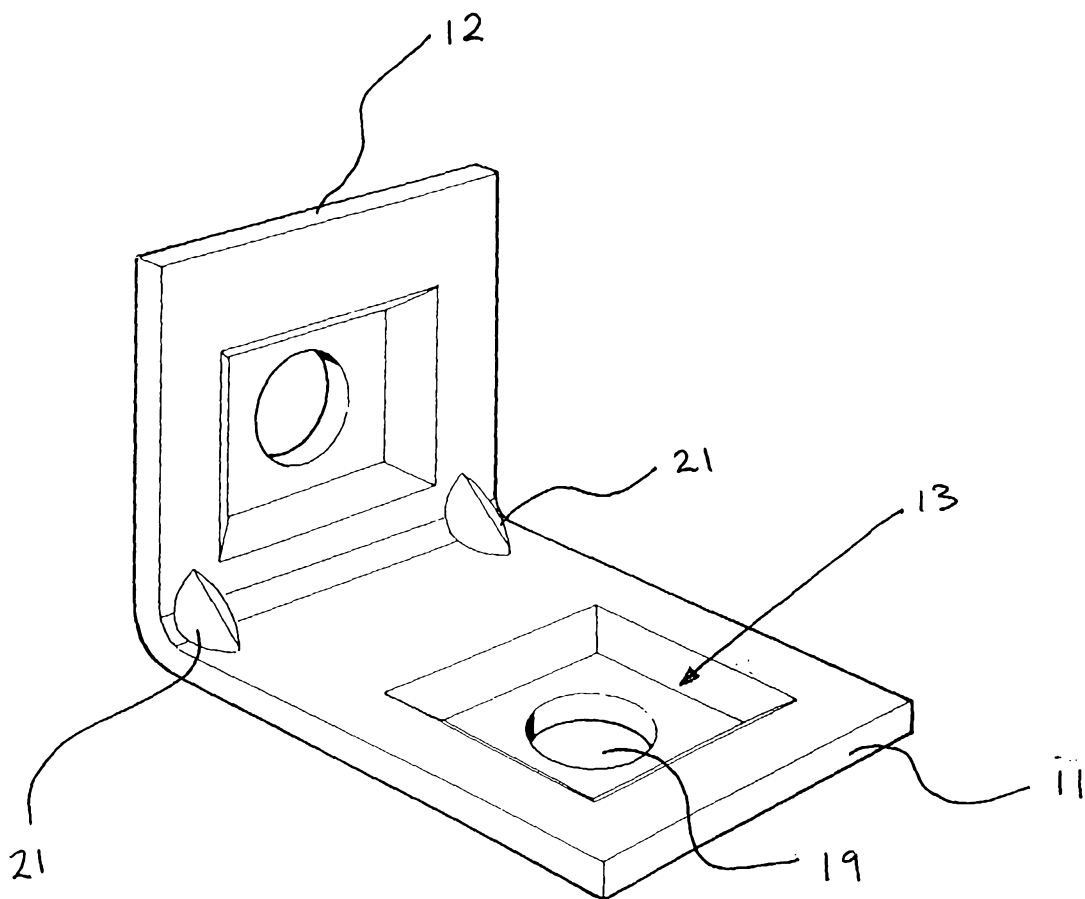
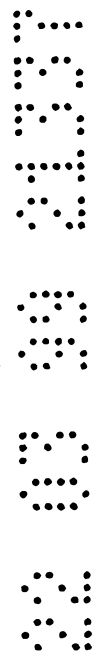


FIG. 5



A Bracket

Technical Field

The present invention relates to brackets and more particularly, but not exclusively, to 90 degree brackets used to join lengths of channel, such as channel
5 employed in metal framing systems.

Background of the Invention

Two lengths of channel are conveniently joined by a right-angle bracket so that one length extends from the other length at approximately 90 degrees. Previously
10 known right-angle brackets have merely consisted of a strip of metal bent to form two flanges which are generally perpendicular. Under certain conditions, the flanges deflect and permit the channels to move from their intended right-angle relationship.

Object of the Invention

It is the object of the present invention to overcome or substantially ameliorate the above disadvantage or at least to provide a useful alternative.
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Summary of the Invention

Accordingly, the invention provides a bracket formed of metal strip transversely bent to provide a pair of flanges which are generally perpendicular, the flanges being connected by a joining portion, and wherein said joining portion is formed to have at least one ridge extending between the flanges so as to be located
20 therebetween to inhibit deflection between the flanges about an axis generally transverse of the bracket.

Brief Description of the Drawings

A preferred form of the present invention will now be described by way of example only, with reference to the accompanying drawings wherein:
25 Figure 1 is a schematic side elevation of a right-angle bracket;
Figure 2 is a schematic front elevation of the bracket of Figure 1;
Figure 3 is a schematic rear elevation of the bracket of Figure 1;
Figure 4 is a schematic front elevation of the bracket of Figure 1 engaging a channel which is to be attached to the bracket; and
30 Figure 5 is a perspective elevation of the bracket of Figure 1.

Detailed Description of the Preferred Embodiments

In the accompanying drawings there is schematically depicted a right-angle bracket 10. The bracket 10 is formed from a metal strip transversely bent to provide a pair of flanges 11 and 12 which are generally perpendicular. Each of the flanges 11

and 12 is punched so as to provide a cavity 13 and a corresponding projection 14 on the opposite side of the flange 11 or 12. The cavity 13 is adapted to receive the head of a bolt which would be used to secure the "U-shaped" channel 15 to the bracket 10. The channel 15 has a base 16 from which there extends longitudinal sides 17 terminating at their extremities with longitudinal "U-shaped" portions 18. The portions 18 are spaced by approximately the transverse width of the projections 14.

Extending through the flanges 11 and 12 at the cavities 13 are holes 19 through which the shank of a bolt would pass to engage a nut located within the channel 15. The head of the bolt would be secured within the cavity 13.

The flanges 11 and 12 are connected by an arcuate joining portion 20 positioned at approximately where the metal strip is bent to provide the flanges 11 and 12. The joining portion 20 is further deformed so as to have one or more ridges 21 which extends between the flanges 11 and 12 so as to be located therebetween. In this embodiment there are two ridges 21. The ridges 21 inhibit angular deflection between the two flanges 11 and 12 about a transverse axis.

Typically, a length of metal strip would be provided and plastically deformed by punching so as to provide the projections 14 and therefore the cavities 13. Thereafter, the length of strip would again be plastically deformed so as to provide the perpendicular flanges 11 and 12. This would be achieved by bending the strip about a transverse axis. Thereafter, the ridges 21 would be formed by again punching the metal strip to cause plastic deformation thereof so as to provide the ridges 21.

Although the invention has been described with reference to specific examples, it will be appreciated by those skilled in the art that the invention may be embodied in many other forms.

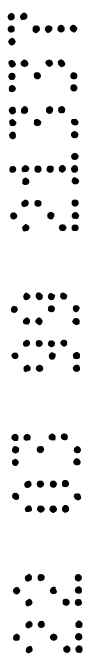
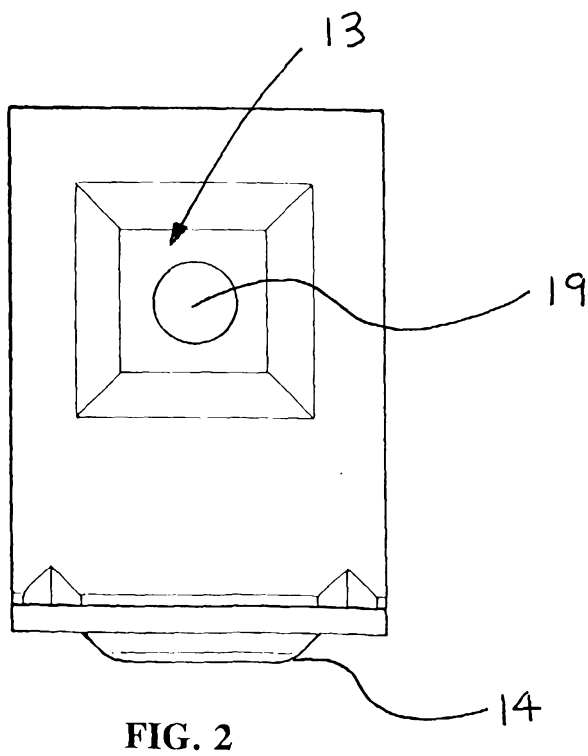
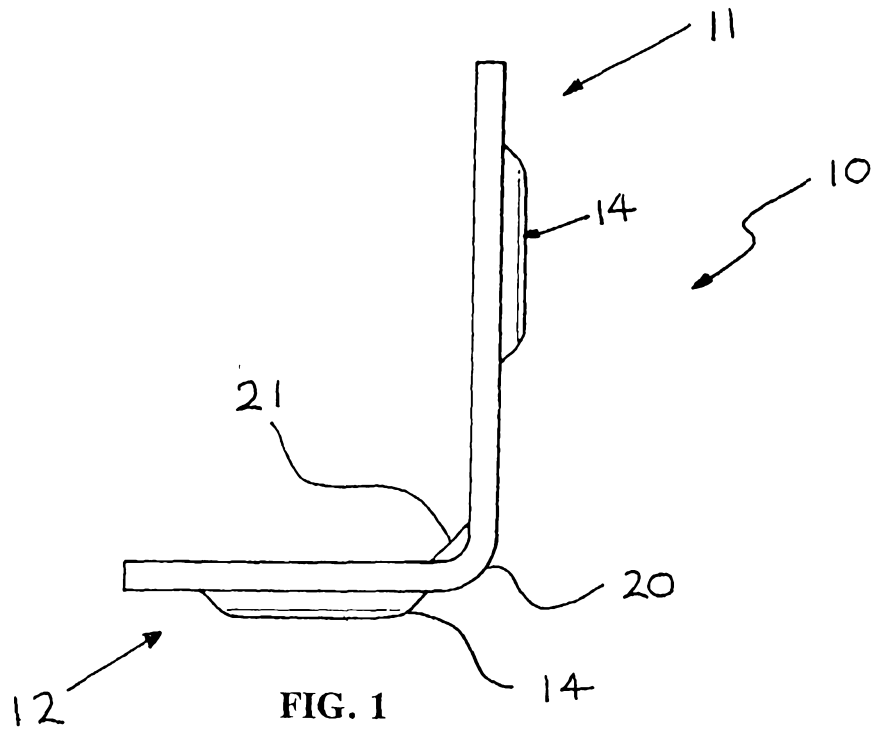
The claims defining the invention are as follows:-

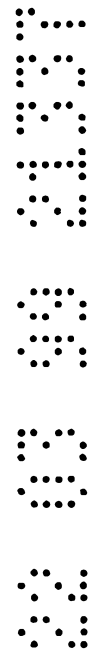
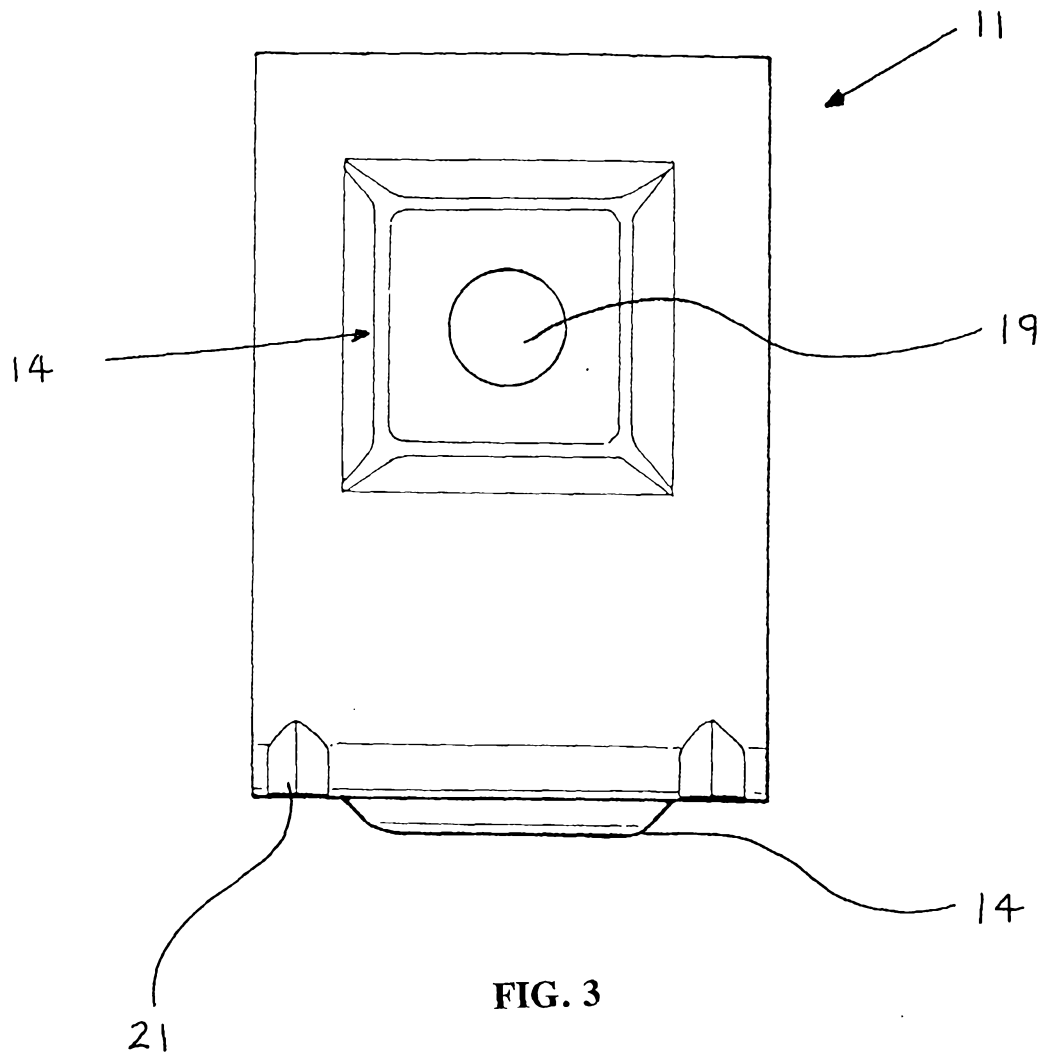
1. A bracket including:
a metal strip transversely bent to provide a pair of flanges;
said flanges being generally perpendicular and connected by a joining portion;
5 said joining portion including at least one ridge extending between said flanges
being located therebetween to inhibit deflection between said flanges about an axis
generally transverse of the bracket.
2. A bracket according to claim 1, wherein said flanges intersect at right
angles.
- 10 3. A bracket according to claim 1 or claim 2, wherein at least one flange
includes a cavity for the receipt of securing means.
4. A bracket according to claim 3, wherein said cavity includes at least
one hole through which the shank of at least one securing means can pass.
5. A bracket according to claim 3 or claim 4, wherein said at least one
15 flange includes a projection surface corresponding to said cavity.
6. A bracket according to any one of claims 3 to 5, wherein said
securing means is a bolt.
7. A bracket according to claim 6, wherein said bolt facilitates the
securing of at least one channel to said bracket.
- 20 8. A method of manufacturing a bracket including the steps of:
cutting a length of metal strip to a required length;
plastically deforming said strip by a punching operation, thereby forming at
least one corresponding interconnected projection and cavity;
plastically deforming said strip again by bending the strip about a transverse
25 axis so as to provide substantially perpendicular flanges; and
plastically deforming said strip again by a punching operation, thereby forming
at least one ridge.
9. A bracket, substantially as herein described with reference to any one
of the embodiments of the invention shown in the accompanying drawings.

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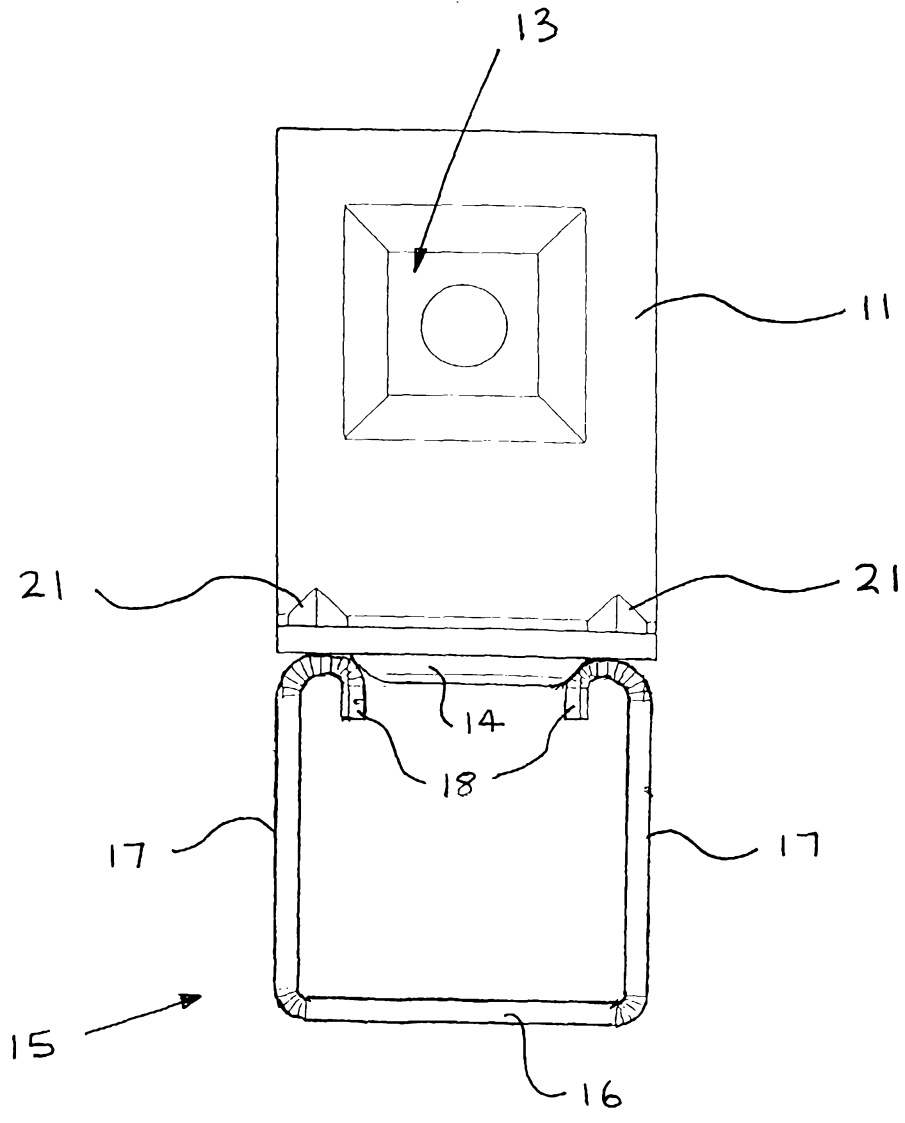
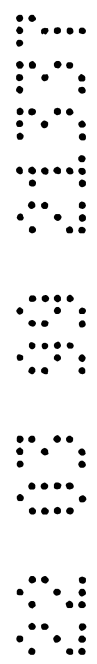


FIG. 4



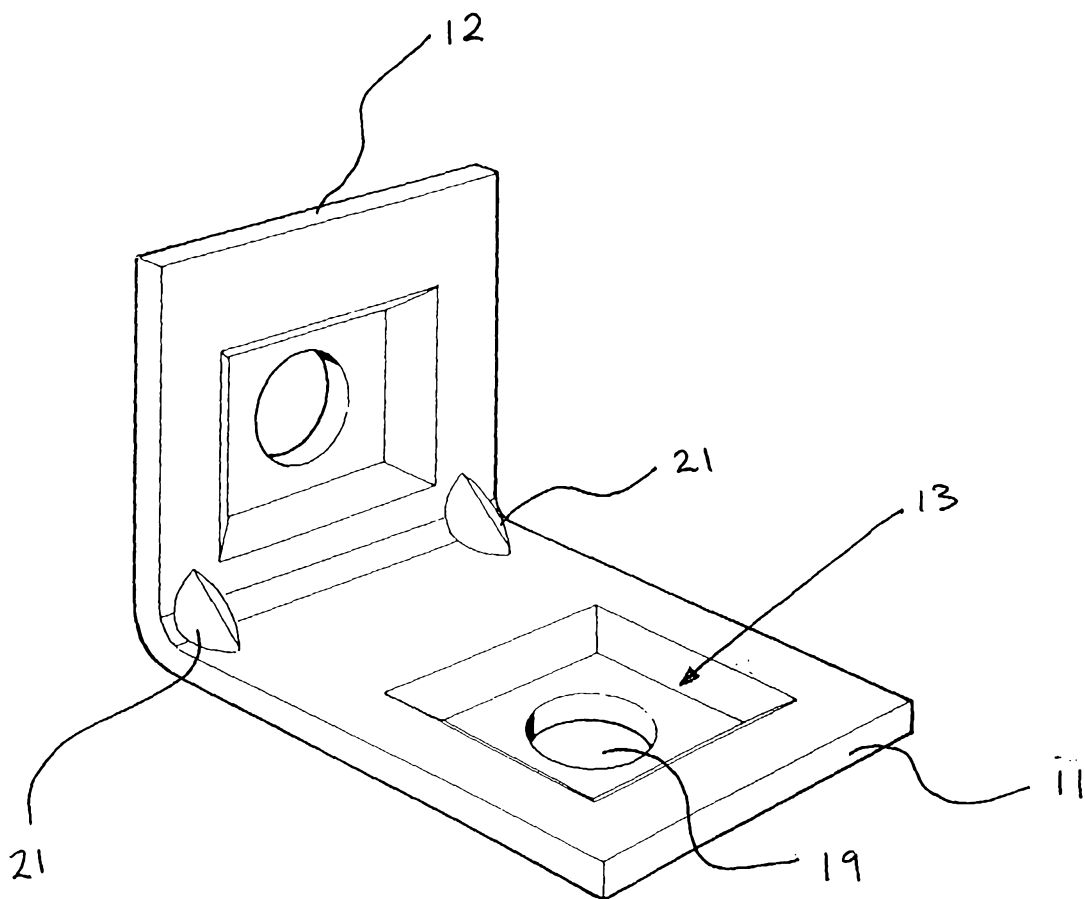


FIG. 5

