May 7, 1968 M. WICZER 3,381,430

PANEL CONNECTOR

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Fig. 1.

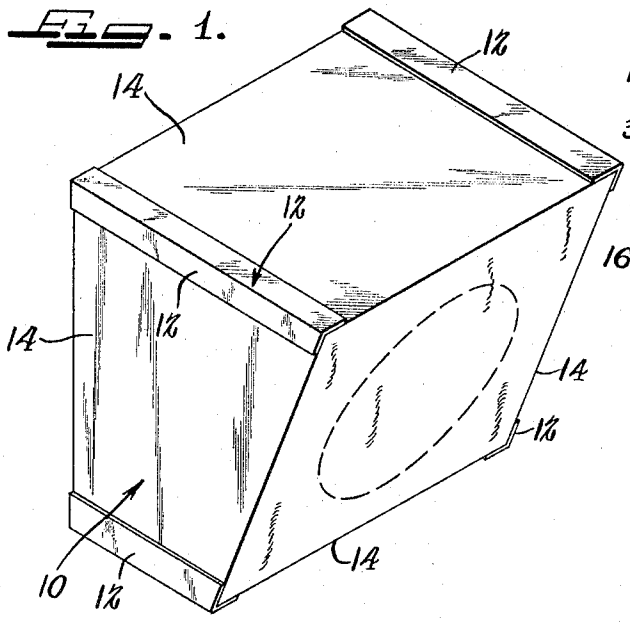


Fig. 2.

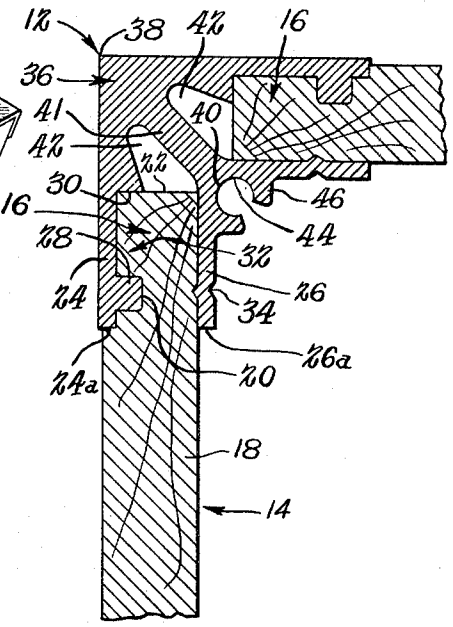
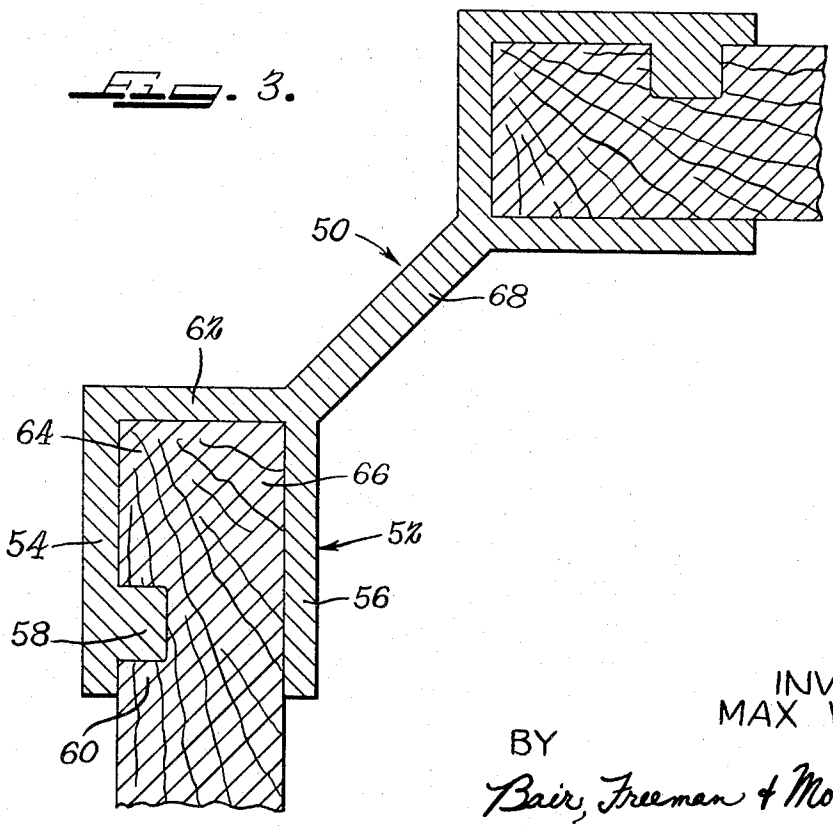


Fig. 3.



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PANEL CONNECTOR

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ABSTRACT OF THE DISCLOSURE

An improved extruded corner molding is provided having a pair of elongated tongue-and-groove socket means each having an open edge from which extends the panel that is secured to the molding. The panel has a grooved edge which affords assembly by sliding the panel longitudinally of the molding. The socket means are each defined by spaced outer and inner walls which bound the open edge and an abutment shoulder spaced opposite from and parallel to the open edge. On the outer wall there is a tongue or rail extending toward said inner wall but spaced therefrom. The tongue and abutment shoulder define a channel within said socket means for receiving an edge of a panel. A corner is formed by two socket means being interconnected by a rigid brace means which maintains each socket means at a predetermined attitude relative to the other.

This invention relates to an extruded corner molding and more particularly to a corner molding adapted for ready connection with edge portions of wood panels or the like.

The object of this invention is to provide an improved extruded corner molding which permits rapid and inexpensive assembly of wood panels into attractive cabinet constructions and the like, and which is characterized by effectiveness in holding of the panels securely in position without the use of special separate connectors therefor.

Further objects and advantages of this invention will become apparent as the following description proceeds and the features of novelty which characterize this invention will be pointed out with particularly in the claims annexed to and forming part of this specification.

Preferred embodiments of the invention are shown in the accompanying drawing, in which:

FIG. 1 illustrates a typical cabinet construction utilizing the type of corner molding embodying the invention;

FIG. 2 is a cross-sectional view of the extruded section shown in the construction of FIG. 1; and

FIG. 3 is a cross-sectional view similar to FIG. 2 showing another embodiment of the invention.

Referring now to the drawings, there is shown in FIG. 1 a cabinet generally indicated at **10** wherein the corners of the cabinet are comprised of extruded corner moldings **12**, and the sides of the cabinet are defined by panels **14**. The first form of extruded corner molding **12** is illustrated in FIG. 2, and consists of a pair of elongated tongue and groove socket means generally indicated at **16**, each being adapted to slidingly receive longitudinally thereinto a grooved edge of a side panel **14** that projects outwardly of the corner molding. More specifically, the panel **14** is of wood, or other similar material, and includes a flat section **18** wherein the longitudinal edge thereof has been grooved at **20** to slidingly receive therein a rail that is formed on the tongue and groove socket means **16**. The terminal edge of the panel is indicated at **22**.

As to the details of the extruded corner molding, each of the pair of elongated tongue and groove socket means is provided with an outer wall **24** and an inner wall **26**,

and are spaced from each other at their free terminal edges, respectively at **24***a* and **26***a*, to define therebetween an open longitudinal side for the tongue and groove socket means. There is provided on the outer side **24** an extruded rail **28** which is spaced from the free terminal edge **24***a* of the outer wall, and which extends toward the inner wall **26**, but is spaced therefrom. An abutment shoulder **30** is also formed integral with the outer wall **24**, and is spaced from the terminal edge **24***a* of the outer wall a distance greater than the spacing of the rail **28** from said terminal edge **24***a*, so that there is formed between said shoulder **30** and the rail **28** a channel **32** that is adapted to slidingly receive thereinto the portion of the panel **14** that extends along the terminal edge of said panel.

The entire molding **12** is extruded of aluminum, or the like, and the inner wall **26** is a relatively thin panel so that a portion thereof may be struck or punched to deform inwardly as at **34** in the direction toward the rail **28**, so as to press into the wall of the panel **18**, and to clamp the panel **18** securely in position in the tongue and groove socket means, and to thereby restrain the panel **18** against movement longitudinally of the socket means.

The pair of tongue and groove socket means **16** are interconnected by a brace means, generally indicated at **36**, and said brace means extends along the entire length of the tongue and groove socket means and operates to maintain the open longitudinal edges of said socket means at a predetermined attitude relative to each other. In the particular form shown in FIG. 2, the open longitudinal sides of the tongue and groove socket means are arranged substantially at 90° to each other, but another attitude could be selected, as desired.

In the form of device of FIG. 2, the outer walls **24** extend away from the free terminal edges **24***a* sufficiently so as to intersect each other respectively at an outer corner **38**, and the inner walls **26** are also extending away from the free terminal edges **26***a* thereof to intersect each other respectively at an inner corner **40**. The braces means **36** is in the form of a thickened rib-like member **41** that extends between and in unitary merging relation with the said outer corner **38**, the adjacent portions of the outer walls, and the inner corner **40** and adjacent portions of the inner walls. The brace means **36** also serves to close off the longitudinal sides of the tongue and socket means that are opposite the open longitudinal sides thereof, so that the corner molding is effectively closed at the corner and operates to overlay the terminal edges of the panels **14** that are connected to the socket means. This arrangement presents a very neat appearance in the finished product as is seen in FIG. 1.

The extruded molding **12** of FIG. 2 is also shaped to define recessed areas **42** between shoulders **30** and rib **41** which serve to reduce the amount of material used in forming the extrusion. It will be understood that the rib **41** is somewhat thicker than the walls **24** and **26** so as to provide a rigidifying effect. In the extrusion of the inner corner portion of the molding, it has been found desirable to mold a generally arcuate corner as seen at **44**, that is partially defined by adjacent inwardly extending reinforcing ribs **46**, which extend inwardly from the inner walls **26**.

In the form of device seen in FIG. 3, the corner extrusion is indicated generally at **50**, and includes tongue and groove socket means generally indicated at **52** each of which consists of an outer wall **54** and a spaced inner wall **56**, with a rail **58** formed on the outer wall **54**, and spaced from the terminal edge thereof and extending toward the inner wall **56**. The portion of the socket means that is opposite the open longitudinal side **60** thereof is closed off by a transverse wall **62**, which also serves to

define an abutment shoulder that is spaced from the rail **58**, and between which there is formed a channel **64** for receiving a portion of the panel **66** which slidably is fitted into the tongue and socket means **52**. Transverse wall **62** is of a length to extend between the outer and inner walls **54** and **56**, and a brace means **68** is provided which interconnects and merges with the region of intersection of each transverse wall **62** with an inner wall **56**. The brace means **68** is a rib-like member formed of a greater thickness than the adjacent inner walls **56** and **62**, so that the brace means **68** serves to provide the proper rigidifying effect sought, by means of which the pair of panels **66** are maintained at a pre-selected angle relative to each other, depending upon what is desired in the form of a corner molding and the included angle therebetween, and also providing a very neat and attractive corner molding. Although not shown in FIG. 3, it should be understood that the portion of inner wall **56** that is opposite the rail **58** may be deformed inwardly similarly to what is shown at **34** in FIG. 2, so as to press into the wall of panel **66** and to clamp the panel **66** securely in position in the tongue and groove socket means.

While there has been shown and described a particular embodiment of this invention, it will be obvious to those skilled in the art that various changes and modifications may be made therein without departing from the invention and, therefore, it is intended in the appended claims to cover all such changes and modifications as fall within the true spirit and scope of the invention.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. An extruded corner molding, for use with wood panels or the like pre-formed with a groove in one face thereof parallel to and spaced from an adjacent edge of the panel, said extruded corner molding comprising, in combination, a pair of continuous, elongated tongue and groove socket means each with an open longitudinal side adapted to slidingly receive longitudinally thereinto a grooved edge of a wood panel that projects outwardly of the corner molding through said open longitudinal side of the socket means, brace means interconnecting the pair of longitudinal socket means along their length for maintaining the open longitudinal edges of the socket means at a predetermined attitude relative to each other, each socket means including spaced outer and inner walls having free terminal edges which define the said open longitudinal side, a rail on the outer wall spaced from the free terminal edge of said outer wall and extending toward the inner wall but spaced therefrom, an abutment shoulder separate from the brace means and spaced from the terminal edge of the outer wall and beyond said rail to define between said shoulder and rail a channel adapted to slidingly receive longitudinally thereinto without forcing the portion of the wood panel between the groove and the adjacent edge of the panel, the brace means being of a thickness greater than the thickness of the walls of the socket means, and the inner wall being of thickness to be deformable by being struck and offset inwardly toward said rail to clamp a panel securely in position in said socket means against movement longitudinally of said socket means.

2. A device as in claim **1** wherein the outer walls and inner walls are extended away from the free terminal edges thereof to intersect respectively at an outer and an inner corner, the brace means being a thick rib-like member extending between and merging with said outer corner and inner corner, and the abutment shoulder being spaced from the rib-like member and being defined on the outer wall.

3. A device as in claim **1** wherein each abutment shoulder as a transverse wall that extends between and spaces the outer and inner wall of each socket means, the brace means interconnecting and merging with the regions of intersection of each transverse wall and inner wall, and said brace means spacing and maintaining said pair of socket means at a predetermined distance apart and at a predetermined attitude relative to each other.

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