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Thomas

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[54] **EXTENSIBLE TABLE**

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[52] **U.S. Cl.** **108/83,** 108/102, 308/3.6

[51] **Int. Cl.** **A47b 1/08**

[58] **Field of Search** ..... 108/83, 87, 88, 89, 108/90, 102, 86, 137, 143, 153; 308/3.6, 3.8; 312/341 NR, 345, 350; 287/58 CT

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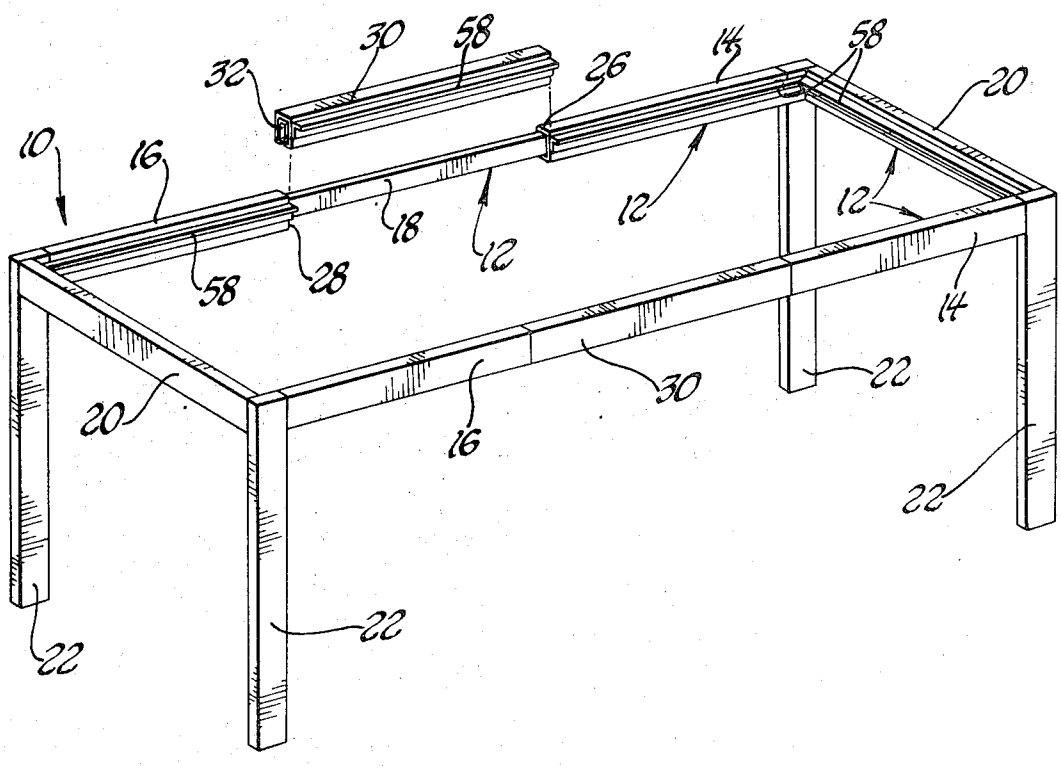
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Assistant Examiner—Darrell Marquette
Attorney—Gerald E. McGlynn, Jr. et al.

[57] **ABSTRACT**

A table assembly which may be repeatedly manufactured with identical components, but which may be sold in different lengths. Each side of the table includes a pair of spaced female beam members interconnected by a male beam member having its opposite ends disposed within the opposed female beam members. The male and female beam members are four sided and there are a set of four pads disposed at each end of the male beam member and a set of four pads disposed at the distal ends of the female members for supporting the male beam member centrally within the female beam members and so that the male beam member may slide relative to the female beam members. Associated with each set of four pads is a pair of spaced plates having notches in opposite extremities thereof so that a pair of the pads have their ends disposed in the notches whereas the remaining two pads are supported by the plates themselves. If the customer desires the table to be of an extended length, the female beam members are pulled apart to expose the interconnecting male beam members and a cover member is disposed over the exposed portion of the male beam members. The table also includes a flange means secured to the beam members for supporting a table top.

8 Claims, 8 Drawing Figures



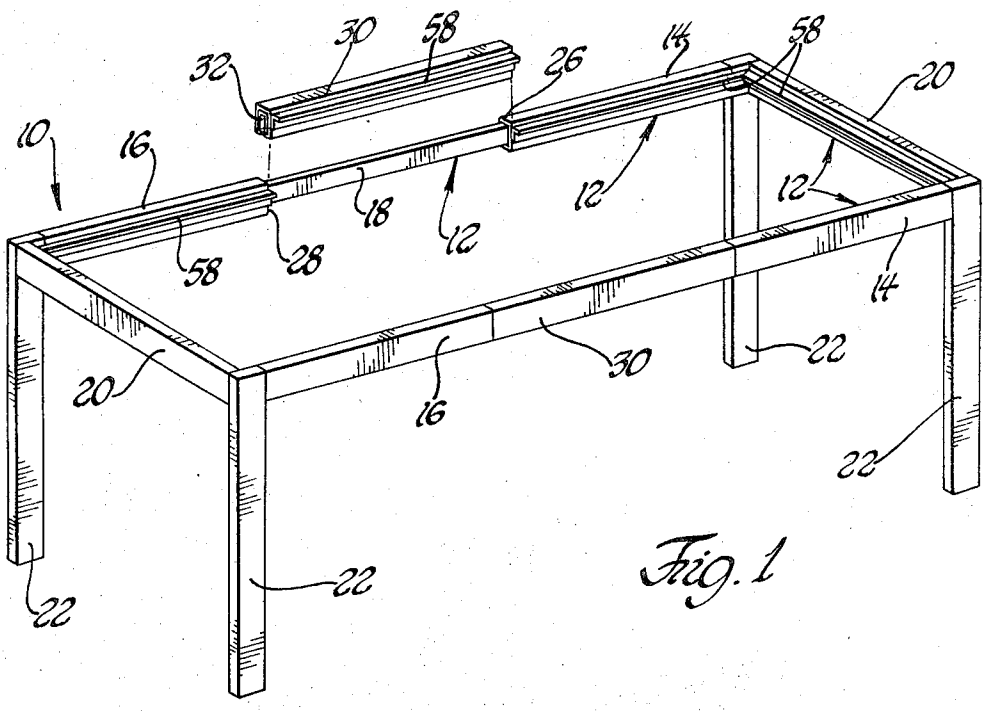


Fig. 1

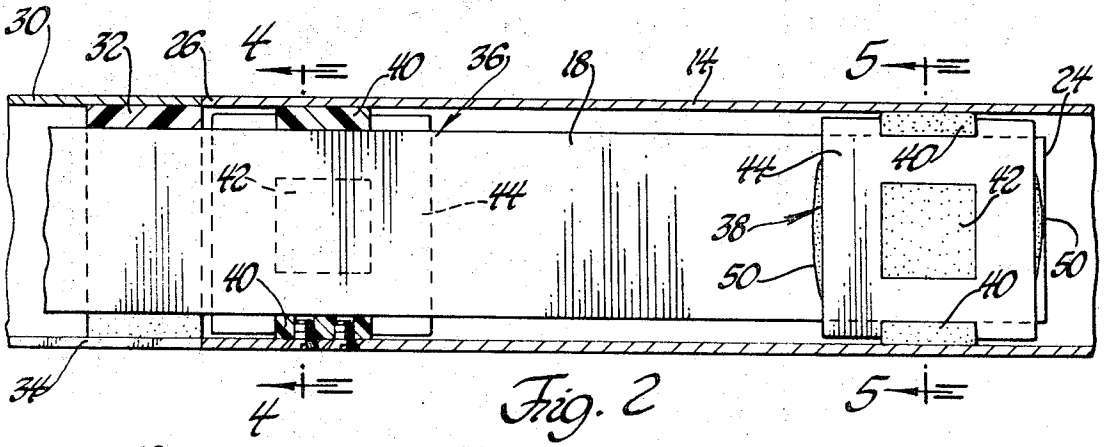


Fig. 2

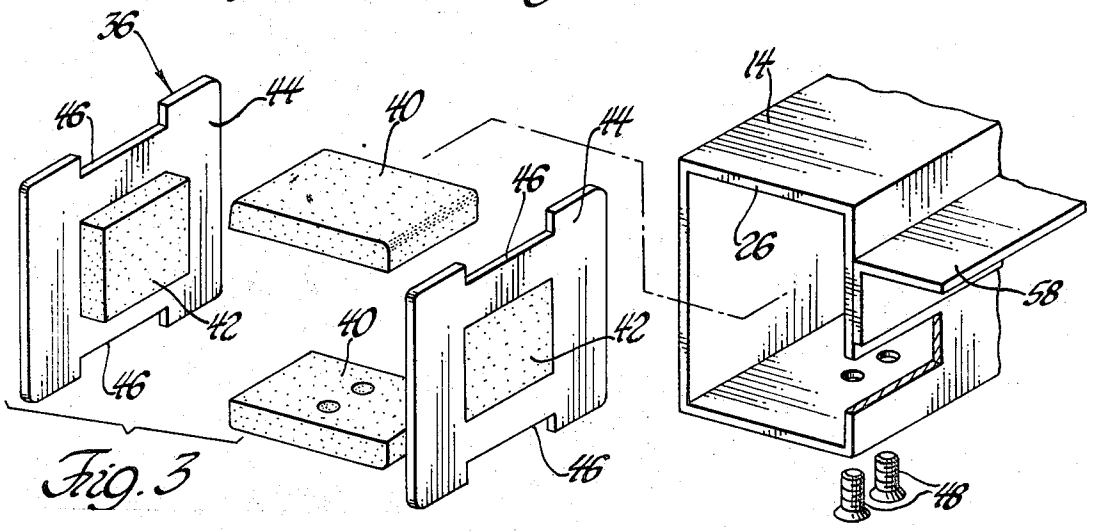


Fig. 3

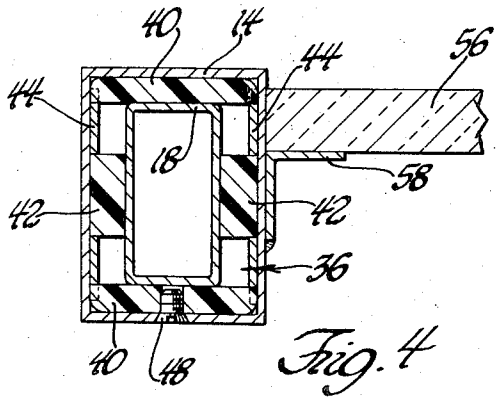


Fig. 4

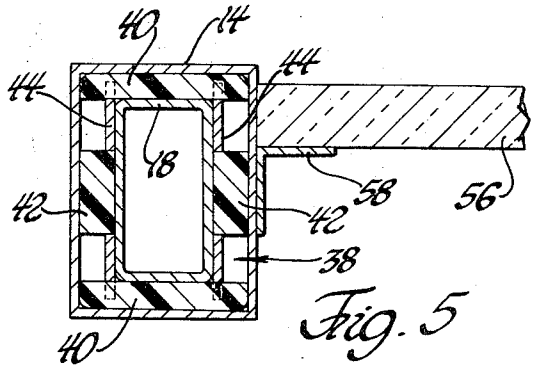


Fig. 5

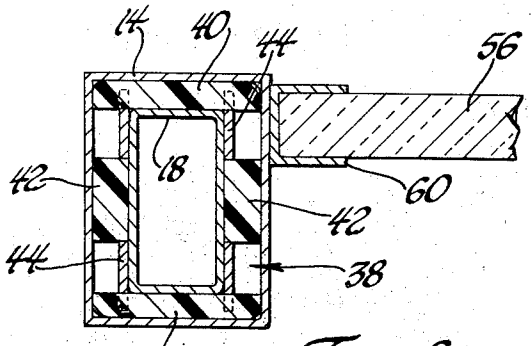


Fig. 6

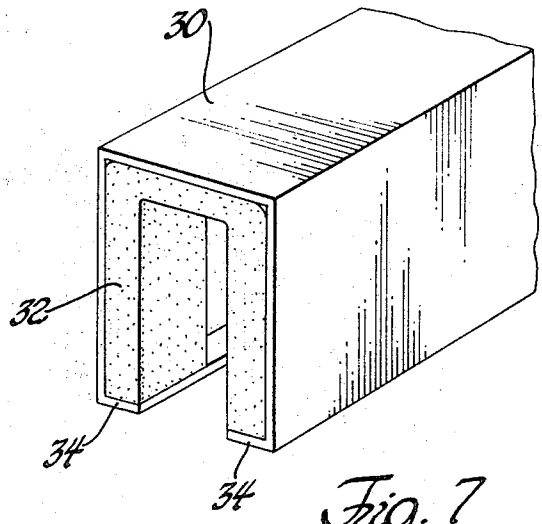


Fig. 7

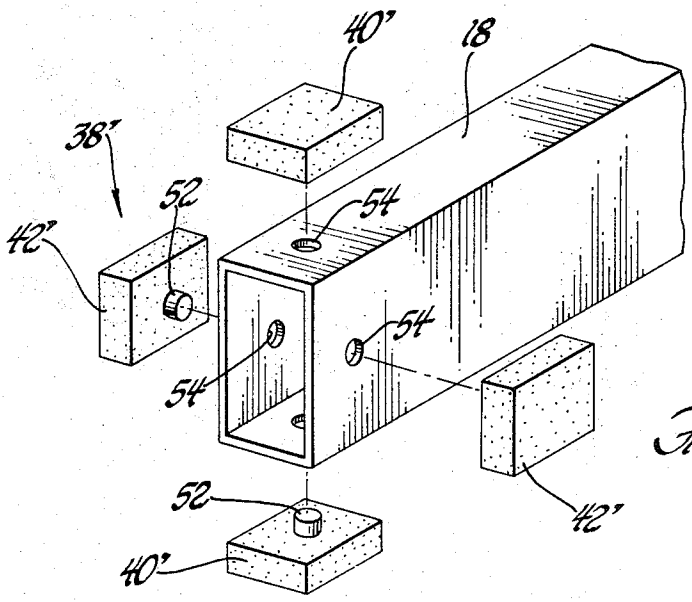


Fig. 8

EXTENSIBLE TABLE

This invention relates to a table assembly and, more specifically, to one having an extensible frame whereby the table assembly may be repeatedly manufactured with identical components yet sold in different lengths.

Extendable tables are well known, particularly those of the dining room type which may be extended and a leaf inserted. The instant invention, however, relates to tables having a fixed design which are normally manufactured to a given length. Normally, if it is desired to manufacture a table of a given design in different lengths it is necessary to fabricate components of different sizes to fabricate the table of a selected length which cannot be changed.

Accordingly, it is an object and feature of this invention to provide a table assembly including an extensible frame having at least one female beam member and at least one male beam member, the male beam member being disposed in and extending from a first end of the female beam member with support means disposed between the members for supporting the male beam member centrally within the female beam member for allowing the two beam members to slide relative to one another whereby the table may be repeatetivly manufactured with the same components but sold in different lengths.

In correlation with the foregoing object and feature, it is another object and feature of this invention to provide such a table assembly wherein the support means includes a plurality of pads attached to the female beam member adjacent the first end thereof and a plurality of pads attached to the male beam member adjacent the end thereof disposed within the female beam member.

In correlation with the foregoing objects and features, it is another object and feature of this invention to provide a cover member for disposition over the exposed portion of the male beam member.

In correlation with the foregoing objects and features, it is another object and feature of this invention to provide a pair of spaced plates with notches in opposite extremities thereof associated with each plurality of pads and with two pads of that pair of the pads disposed with the ends thereof in the notches.

Other objects and attendant advantages of the present invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

FIG. 1 is a partially exploded perspective view of a preferred embodiment of the instant invention;

FIG. 2 is a fragmentary cross-sectional view of a female beam member showing one end of the male beam member disposed therein and the cover member disposed about the male beam member;

FIG. 3 is an exploded perspective view of a pad means to be disposed in the distal end of a female beam member;

FIG. 4 is a fragmentary cross-sectional view taken substantially along line 4—4 of FIG. 2 and showing a glass table top;

FIG. 5 is a fragmentary cross-sectional view taken substantially along line 5—5 of FIG. 2 and showing a glass table top;

FIG. 6 is a fragmentary cross-sectional view similar to FIG. 5 but showing an alternative flange means for supporting the glass table top;

FIG. 7 is a fragmentary perspective view of one end of the cover; and

FIG. 8 is an exploded fragmentary perspective view showing alternative pad means associated with the end of the male beam member.

Referring now to the drawings wherein like numerals indicate like or corresponding parts throughout the several views, a table assembly constructed in accordance with the instant invention is generally shown at **10**.

The table assembly **10** includes an extensible frame means generally indicated at **12**. The frame means **12** includes two parallel and spaced sets of first female beam members **14** and second female beam members **16**. The frame means **12** also includes two male beam mebers **18**, only one of which is shown. Also included are cross beam members **20** which extend between spaced pairs of the female beam members **14** and **16** respectively. Leg means including the legs **22** extend downwardly from the intersection of the cross beam members **20** and the female beam members **14** and **16** for supporting the table assembly.

Each male beam member **18** has a first end **24** disposed in a female beam member **14**. Each male beam member **18** extends outwardly from a first end **26** of a female beam member **14**. Each male beam member **18** has a second end (not shown) disposed within and extending from a first end **28** of a second female beam member **16**. The ends **26** and **28** of the female beam members **14** and **16** may be moved toward and away from one another as the female beam members **14** and **16** slide over and along the male beam members **18** whereby the distance between the ends **26** and **28** of the female beam members **14** and **16** may be varied as the beam members are slid relative to one another.

The male and female beam members **14, 16** and **18** are four sided or generally rectangular in cross sectional configuration with the male beam members **18** being smaller in exterior cross section than the interior cross section of the female beam members **14** and **16**; that is, to the extent that there is a space between the interior of the female beam members **14** and **16** and the exterior of the male beam members **18.**

Cover members **30** are included for disposition over the exposed portions of the male beam members **18** between the spaced apart ends **26** and **28** of the female beam members **14** and **16.** Each cover member **30** includes spacer means comprising the U-shaped pads **32** at each end thereof for engaging the male beam members **18** to space the covers **30** from the male beam members **18** so that the outer periphery of each cover **30** is contigious with the outer periphery of the adjacent female beam member. Each cover member **30** is generally U-shaped with flanges **34** extending inwardly from the legs thereof for supporting the pads **32.**

In a preferred embodiment the outer surfaces of the beam members, legs and covers have a coating of chrome.

The frame means **12** includes support means disposed between the male and female beam members for supporting the male beam members **18** centrally within the female beam members **14** and **16.** The support means includes, at the overlapping connection between each male beam member **18** and each female beam

member, first pad means generally shown at **36** and second pad means generally shown at **38.** The first pad means **36** is attached to one of the female beam members adjacent the first end thereof, such as at first end **26** of female beam **14** as shown in FIGS. **2** and **4.** The second pad means **38** is attached to the male beam member **18** adjacent the ends thereof which are disposed within the female beam member. Each pad means **36** and **38** includes a set of four pads with one pad disposed between each side of the male beam member **18** and the adjacent side of the surrounding female beam member. The four pads of each set are divided into two pairs **40** and **42.**

There is also included positioning means comprising the plates **44** interconnecting the pads of each set. Each pair of plates **44** are spaced and have notches **46** in opposite extremities thereof, i.e., in the tops and bottoms thereof. The first pair of pads **40** have opposite ends disposed in the notches **46** and the second pair of pads **42** are supported in holes in the sides of the plate. It will be noted that the plates **44** of the first pad means **36** are adjacent the side of the adjacent female beam member, as best illustrated in FIG. **4,** but the plates **44** of the second pad means **38** are spaced inwardly from the sides of the adjacent female beam member, as best illustrated in FIG. **5.**

There is also included first fastening means comprising the screws **48** interconnecting the adjacent female beam member and the lowermost pad **40** of the first pair to prevent movement of the pad means **36** longitudinally of the associated female beam member.

A second fastening means comprising the welds **50** interconnect the plates **44** of the second pad means **38** and the associated male beam member **18,** as best illustrated in FIG. **2.**

An alternative embodiment for the second pad means associated with the male beam member **18** is generally shown at **38'** in FIG. **8.** In FIG. **8** upper and lower pads **40'** as well as the side pads **42'** are secured to the male beam member **18** by having projections **52** disposed in holes **54.** The projections **52** may be press fitted into the holes **54** or the various pads may be adhesively secured to the male beam member **18.**

The frame means **12** further includes flange means extending inwardly from the beam members for supporting a table top, such as the sheet of glass **56** shown in FIGS. **4** through **6.** In the preferred embodiment as illustrated in FIGS. **4** and **5,** the flange means comprises at least one right angle member **58** with one leg thereof secured to a beam member. In an alternative embodiment shown in FIG. **6,** the flange means comprises a U-shaped member **60** with the base thereof secured to a beam member.

Although not shown there is included means for preventing relative longitudinal sliding movement between the female beam members **14** and **16** and the male beam members **18.** Such may take the form of screws which threadedly interconnect or frictionally interconnect the male beam members **18** and the adjacent female beam members. The purpose of such means is to maintain the table in the selected length.

As will be appreciated from the foregoing description, the table is manufactured and assembled with the pad assemblies **36** and **38** centrally supporting the male beam members **18** within the female beam members **14** and **16.** The table may be disposed at its shortest length wherein the ends **26** and **28** of the female beam members abut one another. However, should a table of greater length be desired the opposite ends of the table may be moved apart so as to move the ends **26** and **28** of the female beam members apart to attain the desired table length whereupon an appropriate length of cover **30** may be disposed over the exposed portion of the male beam members. Thereafter a table top of the appropriate dimension, such as the sheet of glass **56,** may be disposed on the frame means.

Obviously, many modifications and variations of the present invention are possible in light of the above teachings. It is, therefore, to be understood that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A table assembly comprising; an extensible frame means including a plurality of legs supporting interconnected beams and including at least one hollow female beam member and at least one male beam member, said male beam member having a first end slidably disposed in said female beam member and extending from a first end of said female beam member, said male beam member being smaller in exterior cross section than the interior cross section of said female beam member, and separate support means disposed between said members for supporting said male beam member centrally within and spaced from the interior of said female beam member, said support means including first independent pad means attached to the interior of said female beam member adjacent and wholly within said first end of said female beam member and second independent pad means attached to said male beam member adjacent the first end of said male beam member which is disposed within said female beam member, said male and female beam members being multi-sided, said first and second pad means each including a set of pads with one for each of said sides.

2. An assembly as set forth in claim **1** wherein at least one of said pad means includes a pair of spaced plates with notches in opposite extremities thereof and a pair of pads with the ends of each pad disposed in said notches of the spaced plates.

3. An assembly as set forth in claim **1** wherein said frame means includes a second female beam member, said male beam member having a second end disposed within and extending from a first end of said second female beam member whereby the distance between said first ends of said first and second female beam members may be varied by sliding said beam members relative to one another.

4. An assembly as set forth in claim **1** including positioning means interconnecting said pads of each set.

5. An assembly as set forth in claim **4** wherein said positioning means includes a pair of spaced plates for each set of pads, said plates having notches in opposite extremities thereof, a first pair of said pads each having their opposite ends disposed in said notches of said spaced plates, said plates each having one of said other pads supported thereby.

6 An assembly as set forth in claim **3** wherein said first and second female beam members are spaced apart whereby an intermediate portion of said male beam member is exposed and including a cover member for disposition over the exposed portion of said

male beam member between the spaced apart first ends of said female beam members.

7. An assembly as set forth in claim 6 wherein said cover member includes spacer means at each end thereof for engaging said male beam member whereby the outer periphery of said cover is contiguous with the outer peripheries of said female beam members.

8. A table assembly comprising: an extensible frame means including two parallel and spaced sets of first and second female beam members and two male beam members, cross beam members extending between laterally spaced pairs of said female beam members, and leg means extending downwardly from said beam members for supporting same; each of said first female beam members being disposed in longitudinal spaced relationship with one of said second female beam members; each of said male beam members having a first end disposed in one of said first female beam members and a second end disposed in one of said second female members with an intermediate portion of each of said male beams members being exposed between the spaced ends of said first and second female beam members; and a pair of cover members disposed over the exposed intermediate portions of said male beam members.

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