July 21, 1959 W. J. URBAN 2,895,777

TABLE LEG SUPPORT BRACKET

Filed Dec. 30, 1957

Fig. 1.

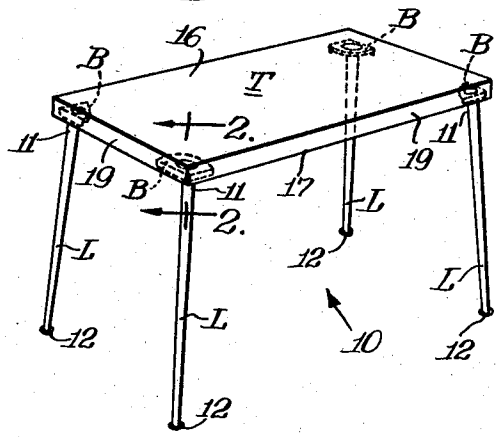


Fig. 2.

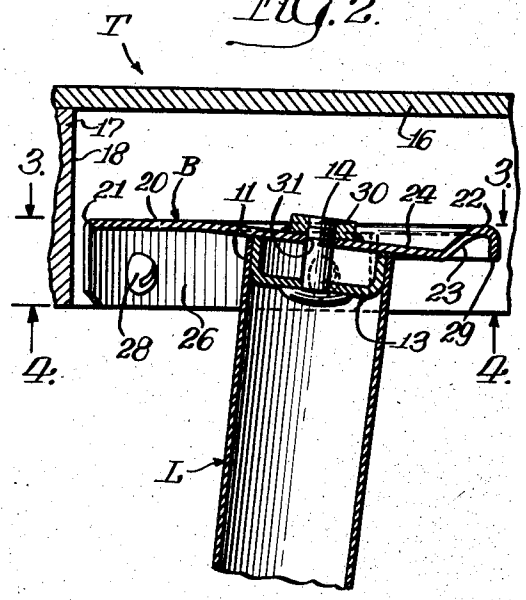


Fig. 4.

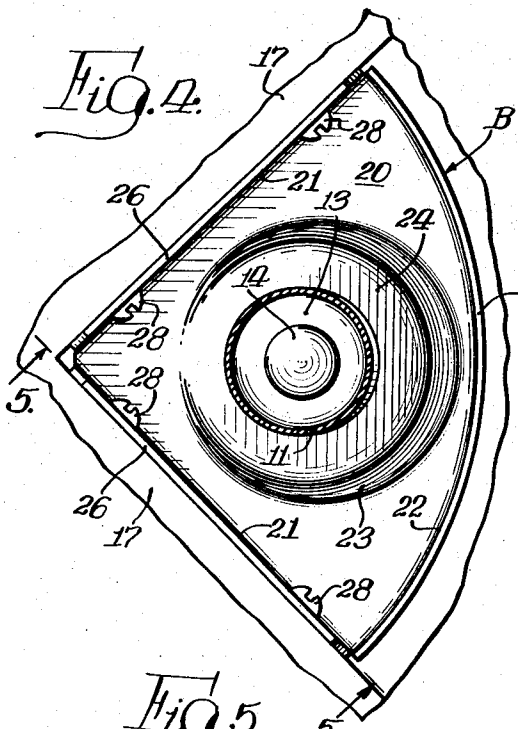


Fig. 3.

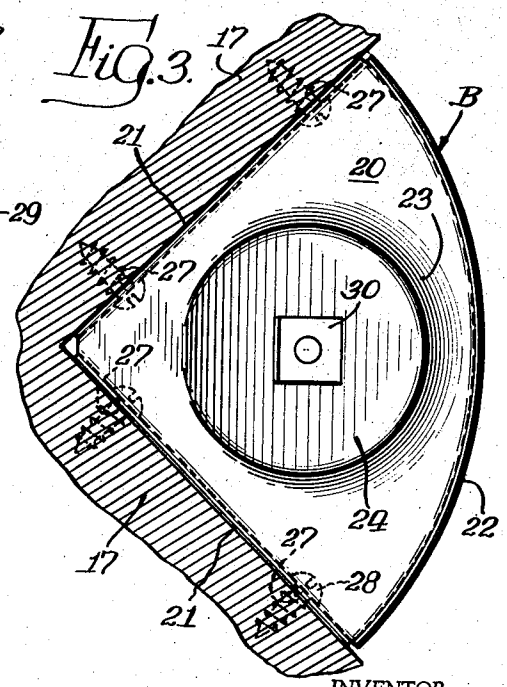
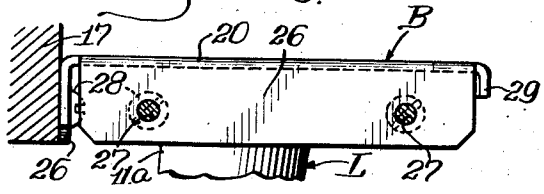


Fig. 5.



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TABLE LEG SUPPORT BRACKET

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1 Claim. (Cl. 311—104)

This invention relates to a table leg support bracket and more particularly relates to a rigidified table leg support bracket for connecting legs to a table top.

The contemporary use and popularity of the rail type table top construction, together with its attendant advantages of reduced weight, simplified construction techniques and reduced unit cost, has resulted in a need for a simply constructed, easily installed, rigid mounting for connecting the legs to table tops employing this type of construction. Such a mounting desirably is equally applicable for use with conventionally constructed tables, such that corner blocks and other diagonal braces normally resorted to can be eliminated without sacrificing strength or rigidity in the assembled structure.

In addition, it has become increasingly desirable to provide a mounting for connecting the legs to a table top that does not require any particular skill or tools for installation, such as would otherwise prevent its use by a casual user and which possesses all of the strength and durability characteristics of a conventional table leg mounting.

The present invention offers a solution to each of these considerations in the form of an improved table leg support or bracket that is readily adaptable for use with both the rail type and conventional table constructions and which provides a simplified and more rigid mounting than other currently available types.

Briefly described, the present invention generally contemplates a one-piece sheet metal bracket construction having a triangular or quadrantal shaped body, the edge portions of which have depending flanges to rigidify the bracket and to define mounting surfaces therefor. The bracket also includes a centrally dished portion which forms a strengthened connection point for the legs and which may be angularly inclined to the plane of the body to impart a divergent relationship to the legs when connected to the table top. The table leg support or bracket is adapted to be mounted on the inside vertical corner walls of a table top, and when so mounted is concealed from view. Integral threaded means are also provided on the inclined dished portion of the bracket to facilitate assembly or removal of the legs from the table top, as may be desired for purposes of shipment or storage.

In addition, the table leg support or bracket of the invention is of an extremely rigid construction due to the provision of the depending flanged edge portions thereof, which permits its installation and use with large or heavy duty type tables without the danger of bending of the bracket or its becoming loosened from its mounting. The flanged edges of the bracket thus subject the bracket mounting fasteners to substantially pure sheer stresses and thereby minimize any tendencies of the fasteners to become loosened with continued usage.

Accordingly, it is an object of the invention to provide an improved table leg support or bracket for connecting the legs to a table top.

Another object of the invention is to provide a table leg support or bracket having flanged edge portions which concurrently provide bracket mounting surfaces as well as to rigidify the bracket against bending.

Still another object of the invention is to provide a table leg support or bracket having rigidifying flanged edge portions for mounting the bracket on the corners of a typical table top structure, such that the bracket mounting fasteners are subjected to substantially pure sheer

stresses when the table is in an assembled load supporting condition.

A further object of the invention is to provide a one-piece quadrantally-shaped table leg support or mounting bracket having a rigidifying flanged arcuate edge or lip that extends between the remote ends of the radially diverging linear edge portions of the bracket.

Still another object of the invention is to provide an improved table leg support or bracket that is particularly adapted for detachably connecting legs to tables employing a rail type table top construction, and which cooperates with the rails to substantially strengthen and rigidify the corner junctures of the rails and the assembled table structure.

A further object of the invention is to provide an improved table leg support or bracket that is particularly adapted to rigidify and facilitate the assembly of table tops employing a rail type construction in which a bonding material, such as glue or the like, is used to unite the rails with the table top, such that the bracket may be connected to adjacent rails during assembly of the table top to hold the rails in tight assembled relation while the bonding material is setting.

A stll further object of the invention is to provide an improved table leg support or mounting bracket for detachably connecting legs to a typical table top structure that is of a simplified construction, economical to produce and manufacture and requires no maintenance.

Many other objects and advantages of the invention will become apparent to those versed in the art from the following detailed description and accompanying sheet of drawings, which form a part of this specification and in which like reference numerals and letters have been used to identify identical parts, wherein:

Fig. 1 is a reduced scale perspective view of a typical table structure embodying a table leg support or bracket according to the principles of my invention at each of the four corners thereof;

Fig. 2 is a fragmentary cross sectional view of a typical corner mounting of my invention in a table assembly, taken substantially along the lines 2—2 of Fig. 1;

Fig. 3 is a top plan view of my invention in an installed corner mounted position, taken along the lines 3—3 of Fig. 2;

Fig. 4 is a bottom plan view, similar to Fig. 3, and taken along the line 4—4 of Fig. 2; and

Fig. 5 is a fragmentary side elevational view, with some parts in section, taken along the line 5—5 of Fig. 4, and showing the installed arrangement and relationship of the flanged edge portions of my invention.

Referring to the drawing, Fig. 1 illustrates a typical table assembly designated generally by the reference numeral 10, and which embodies a table leg support or bracket construction B, constructed according to the present invention, at each of the four corners thereof. The table assembly 10 includes a table top T and legs L having upper ends 11 and lower ends 12 and which are connected at their upper ends 11 to the table leg support or bracket B of the invention and thus to the table top T.

The table legs L may be of any desired type and construction, but are preferably of the tapering tubular steel type. As illustrated in Figures 1, 2 and 5, the legs L are of the tapering tubular type and are provided with a closure plug member 13 having a rigid threaded stud member 14 extending therefrom, such as a machine screw or the like, to facilitate their attachment to the bracket B. The upper ends 11 of the legs L also have their bracket engaging end faces squared-off, relative to the longitudinal axis of the legs, to provide a uniform area of contact with the bracket B, as will be explained in more detail as the description proceeds.

As best shown in Fig. 2 in conjunction with Fig. 1,

the table top T preferably includes an upper plate or sheet portion **16** and integrally connected perimetrical edge rails **17** defining inside and outside vertical side walls **18** and **19** therearound, respectively, on the table top T. The edge rails **17** may be secured to the lower surface of the plate portion **16** by conventional fastening techniques, but in order to most advantageously exploit the edge rail assembly and rigidifying features of the bracket, a glued or cemented fastening is preferred. The plate portion **16** and edge rails **17** of the table top T may be constructed of any desired materials, but are preferably of a laminated plastic fibreboard and wood construction, respectively.

It should be understood that while the table leg support or bracket B of the invention has been illustrated in conjunction with a table employing an edge rail type construction, the bracket B is readily adaptable for use with any table structure having depending vertical side walls or skirt portions therearound.

Referring now more particularly to Figs. 2–5, inclusive, a detailed description of the table leg support or bracket B of the invention will follow. As best shown in Figs. 3 and 4, the bracket B is preferably formed with a generally triangular or quadrantally shaped body or plate portion **20**, having radial linear edge portions **21** and a curved circular arc portion **22**, connecting the remote ends of the edge portions **21**. The edge portions **21** are preferably disposed in 90° angular relation to each other, though it should be understood that the included angular relationship between the edge portions **21** could be varied in accordance with the included angle between the depending vertical side walls **18** of the table top, and could also be formed with a curved configuration where the bracket B is to be mounted on a circular table top.

The quandrantally-shaped body portion **20** is also formed with a centrally dished portion **23** describing an offset annular base **24**, that is preferably inclined to the plane of the body portion **20** at some angle, as for example 10 or 15°, to thus impart a desired outwardly diverging angularity to the legs L and also to strengthen the bracket B, as will be described in more detail later.

As best shown in Figs. 2–5, and in order to provide the improved mounting and strength features of the table leg support or bracket B, the edge portions **21** are formed with integral depending flanged portions **26** that are normally disposed to the plane of the body portion **20**. The flanged portions **26** have sufficient depth to provide mounting surfaces for securing the bracket B to the edge rails **17**. To this end, the flanged portions **26** have a plurality of transverse bores or apertures **27** therethrough to accommodate suitable fasteners **28**, as for example wood screws, rivets or the like.

The arcuate edge portion **22** of the bracket B is also formed with a flange or lip **29** (Figs. 2 and 4), that extends between the remote end extremities of the radial linear edge portions **21**, and which depends downwardly from the body portion **20** in the same direction as the flanges **26**, thereby providing a generally cup-shaped configuration to the bracket B with the attendant increased strength characteristics of such a construction.

It will be understood that additional stiffening members could be employed in addition to the arcuate flange or lip **29**, where extreme strength and rigidity is required in particular installations.

As best shown in Figs. 2–4, and in order to provide for the outwardly diverging assembled relationship of the legs L with the table assembly **10**, the centrally disposed dished portion **23** of the bracket B is offset or inclined such that the annular base portion **24**, to which the legs L are secured, is displaced from the plane of the body portion **20** by the desired angularity of the legs L as previously described. The dished portion **23** is formed centrally integrally with the body portion **16**, as by punching or stamping.

It should be understood, however, that other means could be employed to provide the desired angularity between the connected legs L and the table top T, in order that the remote ends **12** of the legs L lie in a plane outside of the projected perimeter of the table top T, and if so desired, the annular base portion **24** could be formed in a plane generally parallel to the plane of the body **20**, thereby to permit the legs L to assume a perpendicular relationship to the table top T.

Thus it will be appreciated that the depending flanged edge portions **26** and **29** of the bracket B, together with the centrally dished portion **23**, cooperate to provide an extremely rigid bracket structure which permits a reduction in size and weight without the danger of bending or failure thereof.

In order to provide for the convenient attachment of the legs L to the bracket B, the base portion **24** thereof includes a threaded member **30** (Figs. 2–3), as for example a nut or threaded bushing, that is preferably permanently fastened to the base portion **24** as by welding or clinching. The base plane portion **24** is appropriately apertured as at **31** to provide registry with the threads of the member **30** for threadedly receiving the member **14**.

By this permanently locating the threaded member **30** on the bracket B and providing for its integral connection therewith, an additional advantage is realized in that various sized and shaped legs L may be readily installed or substituted to suit the particular tastes of a purchaser with a minimum expenditure of time and effort.

The radial linear flanged portions **26** permit the bracket B to be readily mounted on the inside vertical side walls **18** of a typical table top T, such that the bracket mounting fasteners **22** will normally be subjected to pure sheer stresses, thereby minimizing any tendencies of the fasteners to become loosened. When installed, the bracket also serves to strengthen the corner connection of the edge rails in tables utilizing this type of construction. The bracket also serves as an assembly fixture for unifying the wood rails in that it may be applied to the rails to draw them together and hold them in tight relationship until the bonding means, such as glue or the like, for uniting the rails has become set.

In addition, the arcuate flange or lip portion, together with the centrally dished portion **23**, cooperate to substantially strengthen and rigidify the body portion **20** of the bracket B, thereby permitting its installation in heavy duty type table constructions without the danger of buckling or bending.

While only one embodiment of the invention has been herein illustrated and described, it should be understood that various modifications and alternative structures may be resorted to without departing from the scope of the novel concepts herein disclosed and described.

I claim:

A table leg support bracket for a table having a thin, light-weight top mounted on edge rails, said bracket comprising a generally triangular plate portion having a downwardly dished inclined portion for rigidly securing a leg thereto with the leg slightly slanted, said plate portion having a depending flange extending along two edges thereof for securing the bracket to said rails and thereby hold said rails in fixed relative position, the other edge having a downwardly extending lip formed thereon and extending from end to end of said other edge and adjacent said inclined portion to stiffen said plate portion and resist bending moments applied thereto through said leg.

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