Aug. 26, 1952 F. T. PADEN 2,608,455

CORNER BRACE AND LEG ANCHOR

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Fig. 1

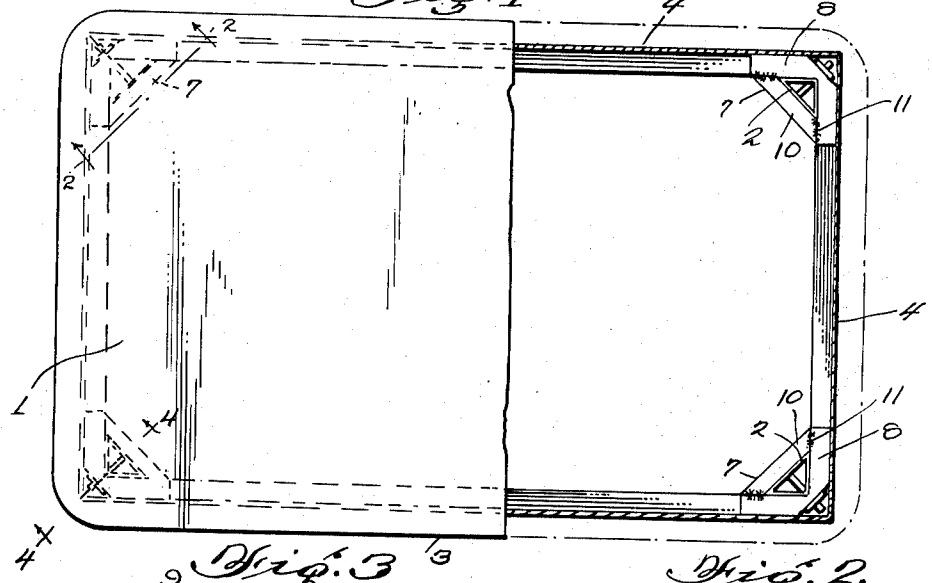


Fig. 3

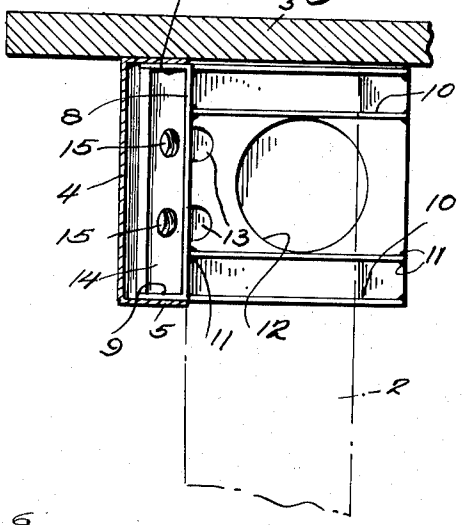
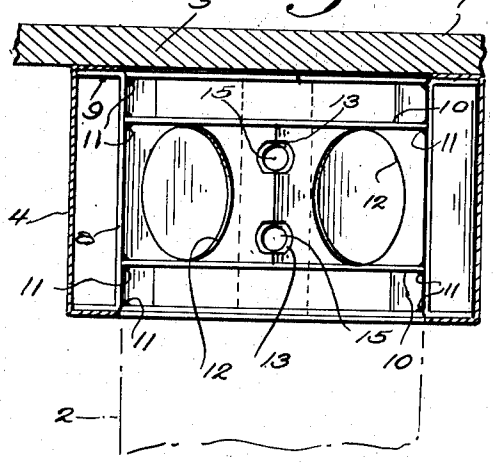


Fig. 2



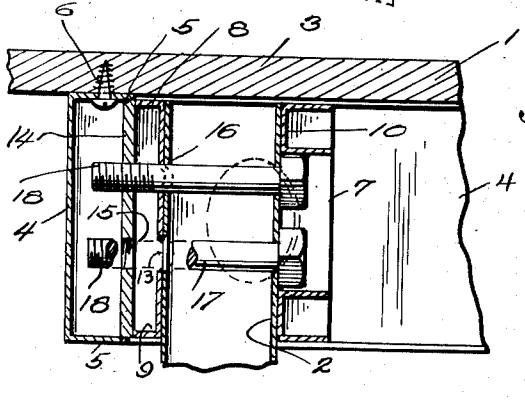


Fig. 4

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CORNER BRACE AND LEG ANCHOR

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1 Claim. (Cl. 311—113)

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The invention described herein, if patented, may be manufactured and used by or for the Government for governmental purposes, without the payment to me of any royalty thereon.

This invention relates to table structures and especially to corner braces for reinforcing the table top and legs, and for effectively securing the table legs in operative position.

An object of the invention resides in the formation of a simple yet sturdy corner brace which not only reinforces the table frame but also detachably receives a table leg and one or more bolts for interlocking therewith.

Another object of the invention consists in the provision of a corner brace for tables which is neat and compact in appearance, snugly engages the table parts with which it cooperates, and provides means for anchoring the bolts which secure the table legs in position.

Other objects and advantages of the invention will be apparent from the following description when taken in connection with the accompanying drawings, in which,

Figure 1 is a plan view of a table with parts broken away to disclose certain of the corner braces installed therein;

Figure 2 is a fragmentary sectional view taken on line 2—2 of Figure 1 and showing the corner brace in elevation;

Figure 3 is an elevational view of the corner brace per se, taken at a slightly different angle than that of Figure 2; and

Figure 4 is a sectional view taken on line 4—4 of Figure 1.

The table of the present embodiment of the invention is of the oblong four-legged type and is indicated generally by the numeral 1. The legs may be of any preferred cross-sectional shape, but in the present embodiment of the invention, they are shown as triangular, and are preferably made of metal in hollow form, as indicated by the numeral 2 in Figure 1.

The frame of the table on which the table top 3 is secured comprises, in the present illustration, a plurality of channel members 4 arranged in rectangular form and having their flanges 5 directed inwardly toward the center of the table as clearly shown in Figures 3 and 4. Wood screws 6 extending upwardly through the upper flanges 5 of the channel members 4 of the table frame may be employed for securing the top 3 to the frame.

As mentioned hereinbefore, an essential feature of the invention is the provision of a corner brace which is neat and compact and yet of sturdy construction so as to not only reinforce the rectangular frame of the table but also to serve as a mount for the table legs and to brace the legs with respect to the table top. To this end the corner braces, which are indicated generally by the numeral 7 are of triangular formation, one of the angles being a right angle and disposed at the juncture of a pair of the channel members 4 of the table frame. Each corner brace 7 is welded to the table frame 4 and comprises a pair of channel members 8 having their ends welded or otherwise connected at the right angular corner of the brace. The upper and lower flanges 9 of these channel members are directed outwardly and are disposed between the inwardly directed flanges 5 of the channel members 4 of the table frame as clearly indicated in Figures 2 to 4, inclusive. The opposite or free ends of the channel members 8 of each corner brace are connected by upper and lower channel members 10 having their flanges extending inwardly. The ends of these smaller channel members 10 are beveled and welded to the web portion of the main channel members 8 as indicated by the numeral 11.

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The web portions 8 of the channel members 8—9 are preferably provided with cut-out portions 12 of circular or other shape for the purpose of reducing the weight of the corner braces and providing for the use of welding equipment for spot welding the corner brace to the table apron frame. Also, the juncture of the channel members 8 of each corner brace is provided with a pair of vertically spaced openings 13 through which threaded bolts are adapted to pass, as will be indicated hereinafter.

Fixed to each corner brace 7 and spaced slightly to the rear of the right angular portion thereof is a vertically extending plate or bar 14 having sufficient thickness to permit the formation therein of a plurality of screw threads 15 in alignment with the openings 13 at the juncture of the channel members 8 of each corner brace.

Each of the legs is provided with a pair of transversely extending openings 16 and when the legs 2 are disposed within the triangular space defined by the channel members 8 and the reinforcing channel members 10 these transverse openings 16 are in alignment with the threaded openings 15 in the plate 14. To secure the legs in position with respect to the corner braces 7 and the table frame 4, machine bolts 17 are passed into the vertically spaced transverse openings 16 in the upper ends of the legs 2 and have their threaded portions 18 threaded into the threaded openings 15 in the member 14 which in effect serves as a compound nut for the two bolts

17. With the bolts 17 thus installed, it will be apparent that the particular leg is securely interlocked with its cooperating corner brace and thus firmly connected to the table frame 4 through the medium of the welded connection between the corner brace and the table apron frame.

From the foregoing description and the attached drawings, it will be noted that I have devised an exceedingly simple construction of a corner brace for tables; that it is so designed as to snugly fit in the corner of the table frame to reinforce and brace the same; that the triangular structure of the brace is adapted to receive and secure the upper end of a triangular table leg by the mere manipulation of a pair of machine screws; and that the corner brace not only reinforces the table frame but also serves as a substantial brace for the table leg itself.

I claim:

As an article of manufacture a corner brace for tables comprising right-angularly arranged and joined channel members for cooperation with a table frame, the bases of said channels provided with openings, vertically-spaced reinforcing channel members having their ends connected to the free ends of the first-mentioned channel members at the top and bottom thereof and defining a triangular space for a table leg, said first-mentioned channel members being provided with an aperture at their juncture for the passage of a bolt, and a vertically extending bar attached to said first-mentioned channel members at the exterior of the juncture thereof and provided with a threaded aperture in alignment with the first-mentioned aperture.

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