

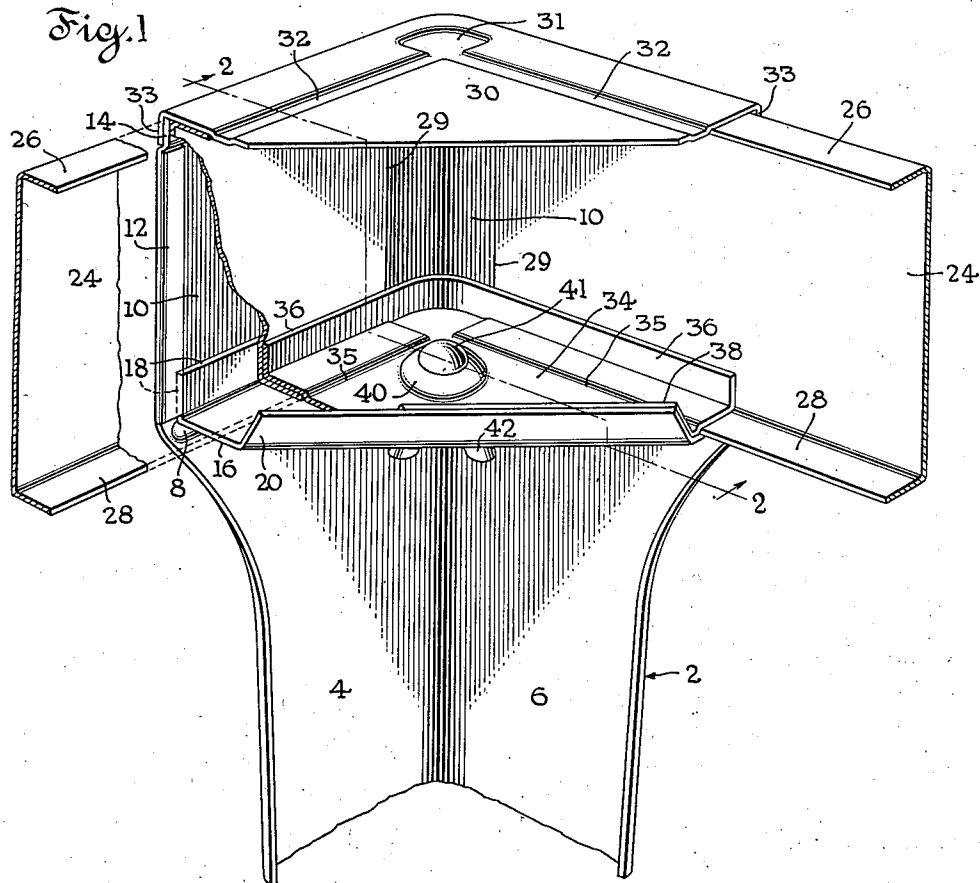
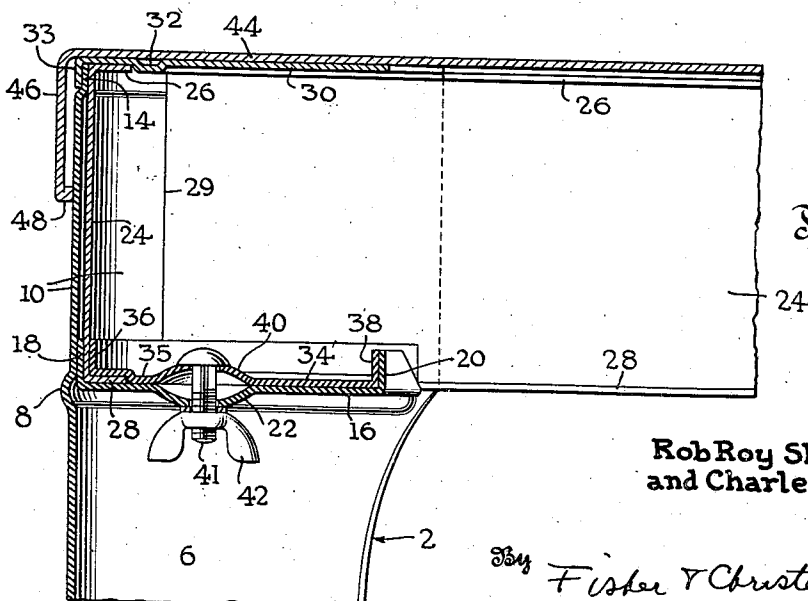
Oct. 18, 1949.

R. R. SHELTON ET AL
FURNITURE LEG CONSTRUCTION

2,485,172

Filed Oct. 25, 1946

2 Sheets-Sheet 1



Inventors:
Rob Roy Shelton
and Charles R. Rau

By *Fisher & Christen,*
Attorneys.

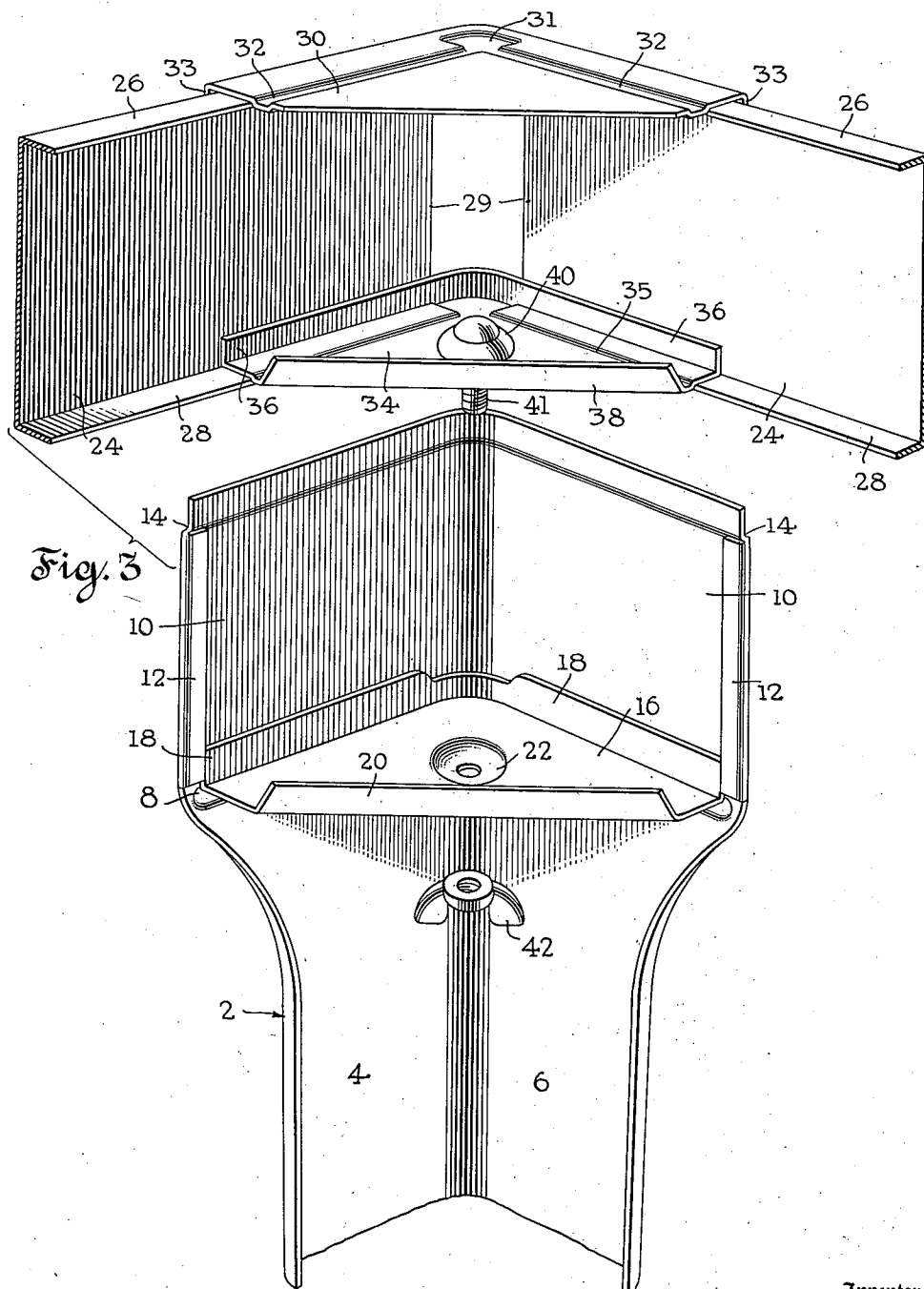
Oct. 18, 1949.

R. R. SHELTON ET AL
FURNITURE LEG CONSTRUCTION

2,485,172

Filed Oct. 25, 1946

2 Sheets-Sheet 2



Inventors:
Rob Roy Shelton
and Charles R. Rau

Fisher & Christen,

Attorneys.

UNITED STATES PATENT OFFICE

2,485,172

FURNITURE LEG CONSTRUCTION

Rob Roy Shelton and Charles R. Rau, Chattanooga, Tenn., assignors to Samuel Stamping and Enameling Company, Chattanooga, Tenn., a corporation of Tennessee

Application October 25, 1946, Serial No. 705,626

6 Claims. (Cl. 311-110)

1

This invention relates to an improved furniture corner construction, and more specifically to an improved furniture corner construction particularly for tables, wherein the legs are detachably secured in place.

An object of this invention is to provide a furniture leg of a simple construction, engageable with the table top, for example, with broad, wide areas of contact, which, when locked in place with such areas of contact in engagement, give a strong and sturdy mounting for the leg.

Another object is to provide a furniture leg of such construction that may be readily and quickly attached and detached. It is preferably made of sheet metal.

Another object of the invention is to provide a leg construction wherein the leg is locked in place firmly and rigidly against displacement by the use of a single locking bolt, and without the use of additional corner pieces, tie rods or the like.

The accompanying drawing shows the invention as applied to a metal table but it is not limited to tables, for the leg construction could be used on any other type of furniture supported by legs, such as chairs, desks and beds. The preferred material of the furniture is any suitable sheet metal, but it is not limited to this material for it may be applied equally well to wooden furniture.

Fig. 1 is a perspective view of a metal table leg secured to the table frame at one corner;

Fig. 2 is a sectional view taken on the line 2-2 of Fig. 1;

Fig. 3 is an exploded perspective view of the top section and the leg section, before assembly.

Referring now to the drawing, the leg 2 comprises side plates 4 and 6, integral with one another, formed of sheet metal and bent at right angles to one another. The side plates are struck outwardly to form a horizontally extending ridge or bead 8 and are extended beyond the bead upwardly to form a table top engaging panel 10, integral with side plates 4 and 6. Panels 10 form a right angle. Its vertical edges are bent inwardly with a return bend, to form smooth vertical edges 12. The upper horizontal edge of panel 10 is offset inwardly, as at 14.

A horizontally positioned gusset plate 16 has its upturned edges 18 spot welded to the inner, lower portions of panel 10. This gusset plate is roughly triangular in shape and is provided with an upturned diagonal flange 20, bent up at 90° or preferably a little less than 90° with respect to the gusset plate. The gusset plate is also provided with a hole bordered by an annular, downwardly bulged or embossed flange 22.

All of the parts so far described are attached to and form a unitary leg section. This unitary leg section is interfitted with and coupled to the table top section, which will now be described,

2

The table top section comprises vertical channeled side plates 24, having inturned upper and lower flanges 26 and 28. These side plates terminate at vertical edges 29, leaving an opening between such vertical edges. An upper gusset plate 30 is provided with an instruck area 31, just above the opening between edges 29, thereby defining ridges on the underside of the gusset plate fitting against the inner horizontal edges of flanges 26, coextensive with edges 29. The gusset plate is also provided with instruck grooves 32, the inner, underside edges of which fit against the edges of flanges 26. Gusset plate 30 is spot welded to the tops of flanges 26, and is provided with an outer, downwardly extending flange 33.

The table top section further comprises a generally triangular lower gusset plate 34, offset at 35 and having an upturned terminal flange 36. Flange 36 is spot welded to the lower part of both panels 24 and the adjacent portion of the gusset plate is spot welded to flange 28 of the panel. The diagonal edge of the lower gusset plate has an upturned flange 38, at right angles to the plate or preferably at a little less angle than 90°. The lower gusset plate is provided with a hole bordered by an upwardly bulged annular flange 40. The parts described in this and the preceding paragraph are secured together as described and form in effect a unitary table top section.

The unitary leg section and the unitary table top section are assembled by interfitting the two sections so that the gusset plate 34 is directly over gusset plate 16 and an inch or so above it. Then the top section is pushed down to bring the gusset plates into contact, with their flanges 20 and 38 in contact. If flanges 20 and 38 are canted outwardly as in Fig. 1, this tends to force the two sections closer together. When the two sections are pushed together, as described, downturned flange 33 of the upper gusset plate fits snugly over the upper edge 14 of panels 10. The holes in the annular bushings 22 and 40 are now in registry and a bolt 41 is passed through the holes and the parts locked by wing nut 42. The annular bushings are deformable, due to their shape, and when the nut 42 is tightened, a resilient clamping action is had, tending to exert a strong force on the nut so that it will not loosen readily.

The two described sections of the table are quickly assembled and disassembled by manipulation of only the single wing nut 42 or its equivalent.

The table is completed by a top 44, having a downturned flange 46 bordered by an inturned flange 48, all secured as desired to the upper gusset plate and channel members 24 and 26.

The described construction is particularly strong because of the use of three interengaged, extended bearings, as follows: First, an upper

3

bearing, formed by the downturned flange 33 of the top section locking over upper edges 14 of both side panels 10 of the leg section; this inter-engagement is for a substantial distance beyond the corner; second, a lower bearing, formed by the tight contact between the lower portion of panel 24 and its lower flange 28 of the top section against flange 18 of the lower gusset plate of the leg section; third, a diagonal bearing afforded by the contact of diagonal flanges 20 and 38 of the two gusset plates carried respectively by the leg and top sections. These three described sets of bearing surfaces are held locked together by the wing nut resiliently locking the two gusset plates 16 and 34 together.

While the improved corner construction has been described in detail, it should be understood that the invention is not to be limited to these details, but may be carried out in other ways.

We claim:

1. Furniture leg construction, comprising a leg section having two panels at right angles to one another, and a horizontal gusset plate secured to said panels, a top section comprising channeled side plates having inturned horizontal flanges, upper and lower horizontal gusset plates secured to the inturned flanges of the side plates, and detachable means for holding the gusset plate of the leg section in coextensive engagement with the lower gusset plate of the top section.

2. Furniture leg construction, comprising a leg section having two panels at right angles to one another, and a horizontal gusset plate secured to said panels, said gusset plate being provided with an outer, upturned flange, a top section comprising channeled side plates having inturned horizontal flanges, upper and lower horizontal gusset plates secured to the inturned flanges of the side plates, the lower of said gusset plates being provided with an outer, upturned flange, and detachable means for holding the gusset plate of the leg section in coextensive engagement with the lower gusset plate of the top section, with the upturned flanges of such gusset plates in engagement.

3. Furniture leg construction, comprising a leg section comprising two panels at right angles to one another, the upper horizontal edge of the panels being offset inwardly, and a horizontal gusset plate secured to the lower part of each panel, and a top section comprising side plates, an upper gusset plate secured to the upper part of each side plate and having an outer downturned flange, a lower gusset plate secured to the lower part of each side plate, and means for securing the gusset plate of the leg section to the lower gusset plate of the top section, with said downturned flange of the upper gusset plate overlapping and engaging said offset upper edge of the panels of the leg section.

4. Furniture leg construction, comprising a leg section comprising two panels at right angles to one another, the upper horizontal edge of the panels being offset inwardly, and a horizontal gusset plate secured to the lower part of each panel, said gusset plate having an outer, upturned

4

flange, and a top section comprising side plates, an upper gusset plate secured to the upper part of each side plate and having an outer, downturned flange, a lower gusset plate secured to the lower part of each side plate, said gusset plate having an outer, upturned flange, and means for securing the gusset plate of the leg section to the lower gusset plate of the top section, with the upturned flanges of said gusset plates in engagement, and with said downturned flange of the upper gusset plate overlapping and engaging said offset upper edge of the panels of the leg section.

5. Furniture leg construction, comprising a leg section comprising two integral panels at right angles to one another, the upper horizontal edge of the panels being offset inwardly and a horizontal gusset plate secured to the lower part of the panels, and a top section comprising channeled side plates having inturned, horizontal flanges, an upper gusset plate secured to the upper flanges of the side plates, and having an outer downturned flange and a lower gusset plate secured to the lower part of said side plates, and detachable means for holding the lower gusset plate of the top section in engagement with the gusset plate of the leg section, with said downturned flange of the upper gusset plate of the top section overlapping and engaging said offset upper edge of the panels of the leg section.

6. Furniture leg construction, comprising a leg section comprising two integral panels at right angles to one another, the upper horizontal edge of the panels being offset inwardly and a horizontal gusset plate secured to the lower part of the panels, said gusset plate having an upturned flange, and a top-section comprising channeled side plates having inturned, horizontal flanges, an upper gusset plate secured to the upper flanges of the side plates, and having an outer downturned flange and a lower gusset plate secured to the lower part of said side plates, said lower gusset plate having an upturned flange, and detachable means for holding the lower gusset plate of the top section in engagement with the gusset plate of the leg section, with the upturned flanges of said gusset plates in engagement, and with said downturned flange of the upper gusset plate of the top section overlapping and engaging said offset upper edge of the panels of the leg section.

ROB ROY SHELTON.
CHARLES R. RAU.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
473,151	Good et al. -----	Apr. 19, 1892
1,153,946	Ohnstrand -----	Sept. 21, 1915
1,694,487	Ruiger -----	Dec. 11, 1928
1,714,435	Possons -----	May 21, 1929
1,770,500	Wege -----	July 15, 1930
1,770,722	Wright -----	July 15, 1930
1,897,568	Boles -----	Feb. 14, 1933