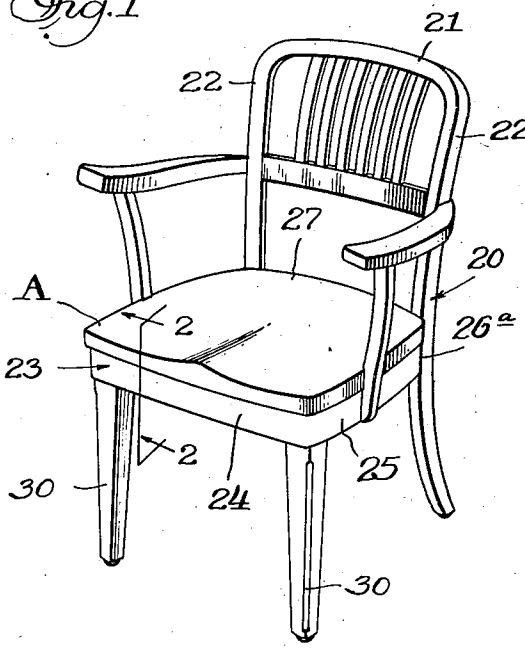
March 28, 1944. J. S. BURDICK 2,345,178

LEG ASSEMBLY FOR COMPOSITE METAL AND WOOD FURNITURE

Original Filed July 18, 1941

Fig. 1



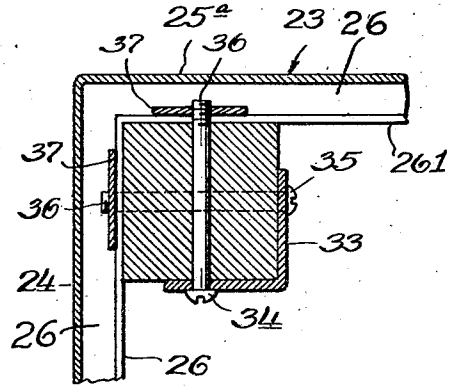


Fig. 3

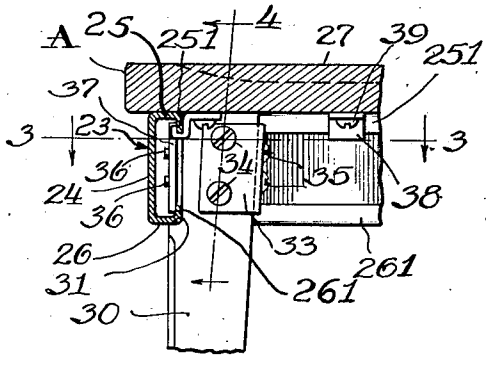


Fig. 2

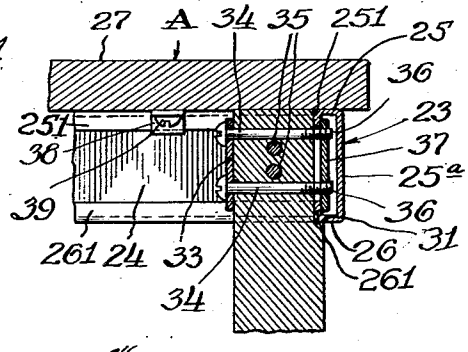


Fig. 4

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2,345,178

LEG ASSEMBLY FOR COMPOSITE METAL AND WOOD FURNITURE

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Original application July 18, 1941, Serial No. 402,912. Divided and this application June 9, 1943, Serial No. 490,126

4 Claims. (Cl. 155—196)

This invention relates to improvements in a composite metal and wood furniture structure, and more particularly to an improved arrangement for securing a wooden leg member to a metal frame member for supporting a wood chair seat or the like.

The present application is a division of my application Serial No. 402,912, filed July 18, 1941.

The object of the present invention is to provide a composite metal and wood structure for chairs or the like, which is comparatively cheap to manufacture and assemble, and wherein a wooden leg member may be rigidly secured to a horizontal flanged frame member made of metal, which frame member is also adapted to support a wooden cover, such as a chair seat, table top, or the like.

The advantages of the invention will appear more clearly as I proceed with my specification.

In the drawing—

Figure 1 is a view of a chair structure in accordance with my invention;

Figure 2 is an enlarged detail sectional view of the chair seat taken on line 2—2 of Figure 1;

Figure 3 is a detail section in horizontal plane taken on line 3—3 of Figure 2; and

Figure 4 is a detail section in a vertical plane taken on line 4—4 of Figure 2.

In the embodiment illustrated in the drawing, my invention is shown as applied to a chair, including an upright open metal frame 20 having a top horizontal rail 21 and upright side rails 22, defining the chair back. The side rails 22 are prolonged below the seat, indicated generally at A, to constitute the back legs of the chair. The chair back rails as shown are preferably made of drawn tubular metal.

The seat A includes a metal seat frame 23, herein consisting of channel metal construction, with upper and lower flanges 25 and 26 extending inwardly therefrom. The flanges 25 and 26 have reversely turned upright lips 251 and 261, respectively, along their inner extremities, as shown in Figures 2 and 3. Said seat frame may extend substantially continuously around the seat A, as shown, and include a front rail section 24, side rail sections 25a, 25a, and a back rail 26a, arranged to support a seat member 27 made of wood.

In the form shown, the seat member 27 bears at its margins upon the metal seat frame 23, to which is rigidly secured in a manner hereinafter described. It also extends at its edges beyond the limits of the metal seat frame so as to prevent the legs of the occupant of the chair from coming into contact with said metal frame.

The front legs of the chair are indicated at 30, 30. These are likewise made of wood and are disposed at the top in the front angles of the metal frame 23. Each of said legs is formed with upwardly facing shoulders 31, 31, adjacent its upper end, adapted to fit under the adjacent lower flanges 26, 26 of said metal frame 23, to afford supporting engagement for the latter.

The legs are therefore adapted to absorb the full load thrust from the metal frame.

The means for securing each of the front legs 30 to the seat frame 23 in one of the front angles thereof is shown in detail in Figures 2, 3 and 4, and includes an upright angle plate 33 having one flange engaging an inner face of each leg at its top, and the other flange engaging the rear face of said leg and being secured thereto by two pairs of vertically spaced bolts 34, 35, which extend outwardly through said leg at right angles to each other. The outer ends of each pair of bolts 36, 36 are threaded respectively into spanner plates, 37, 37, which are provided with properly spaced threaded holes for this purpose. These spanner plates are each mounted in upright position with their upper and lower ends bearing against the inner faces of the upright lips 251 and 261 of the front and rear side frame rails 24 and 25a, respectively, as clearly shown in Figure 4. In this manner the legs are secured with their shoulders 31 in supporting engagement beneath the metal seat frame 23 so as to provide an especially rigid connection between the wooden and metal parts, as is required in a structure of this kind.

The seat member 27 is secured to the open chair frame 23 by means of angle clips 38 (see Figure 2) placed at different points along said frame, and having hooked engagement with the bottom of the lip 251 of upper flange 25 of said supporting frame, and being connected by screws 39 to the bottom of the wooden seat member 27. As many of said angle clips may be used as are necessary to provide a rigid connection between the wooden seat 27 and the open seat frame 23.

From the above description, it will now be understood that the flanged open seat frame 23, the wooden seat member 27, and the pairs of through-bolts 34, 35, arranged at right angles to each other, all co-operate to provide an especially simple and yet rigid connecting means for the front legs of the chair.

Although I have shown and described my invention as applied to a chair, it will be understood that it is not necessarily limited to such

use, but may be applied to composite wood and metal tables, or like structures. Moreover, it will be understood that modifications of the connecting means may be made without departing from the spirit and scope of my invention as defined in the appended claims.

I claim:

1. A composite metal and wood furniture structure including a horizontal metal channel frame with a vertical web and top and bottom flanges each having opposed upright lips spaced from said vertical web, a wood top member supported on said channel frame, wood legs depending from and fixed against the top and bottom flanges of said channel frame within the corners thereof, and means for securing said wood legs to said channel frame, comprising pairs of vertically spaced bolts extending at right angles to each other and taking through said leg, and spanner clips, one for each pair of bolts having their ends bearing against the upright lips of said channel frame and threaded to receive said bolts.

2. A composite metal and wood furniture structure including a horizontal metal channel frame with a vertical web and top and bottom flanges each having opposed upright lips spaced from said vertical web, a wood top member supported on said channel frame, wood legs depending from and fixed against the top and bottom flanges of said channel frame within the corners thereof, and means for securing said wood legs to said channel frame, comprising an angle plate having its flanges engaging an inner and rear face of the leg, pairs of vertically spaced bolts extending at right angles to each other and taking through said respective flanges and through said leg, and spanner clips, one for each pair of bolts having their ends bearing against the upright lips of said channel frame and threaded to receive said bolts.

3. A composite metal and wood furniture structure including a horizontal metal channel frame with a vertical web and top and bottom flanges each having opposed upright lips spaced from said vertical web, a wood top member supported on said channel frame, wood legs depending from and fixed against the top and bottom flanges of said channel frame within the corners thereof, said wood legs each having an upwardly facing shoulder for engaging the bottom flanges of said channel frame in supporting relation, and means for securing said wood legs to said channel frame comprising pairs of vertically spaced bolts extending at right angles to each other and taking through said leg, and spanner clips, one for each pair of bolts, having their ends bearing against the upright lips of said channel frame and threaded to receive said bolts.

4. A composite metal and wood furniture structure including a horizontal metal channel frame with a vertical web and top and bottom flanges each having opposed upright lips spaced from said vertical web, a wood top member supported on said channel frame, wood legs depending from and fixed against the top and bottom flanges of said channel frame within the corners thereof, and means for securing said wood legs to said channel frame comprising pairs of vertically spaced bolts extending at right angles to each other and taking through said leg, and spanner clips, one for each pair of bolts, having their ends bearing against the upright lips of said channel frame and threaded to receive said bolts, said leg having an upwardly facing shoulder abutting the bottom surface of said metal channel frame in supporting relation, and clips connected to the bottom of said top member and engaged with the upper lip of said metal channel frame.

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