

March 7, 1944.

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2,343,494

BACK ASSEMBLY FOR COMPOSITE METAL AND WOOD CHAIRS

Original Filed July 18, 1941

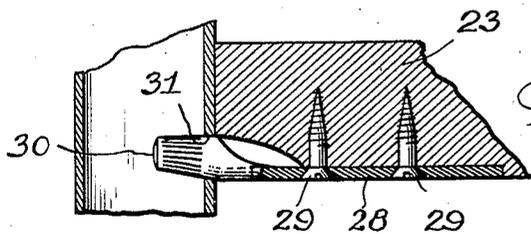
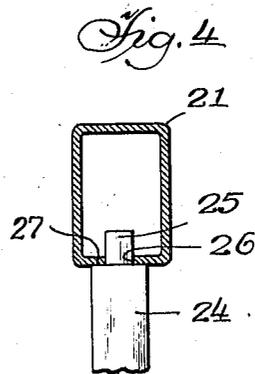
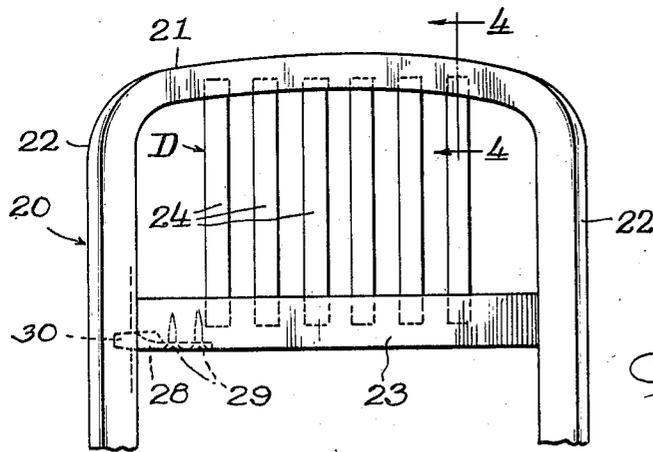
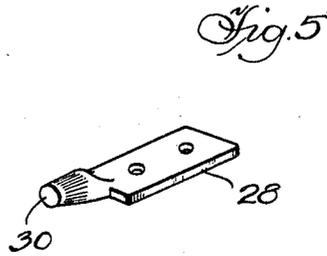
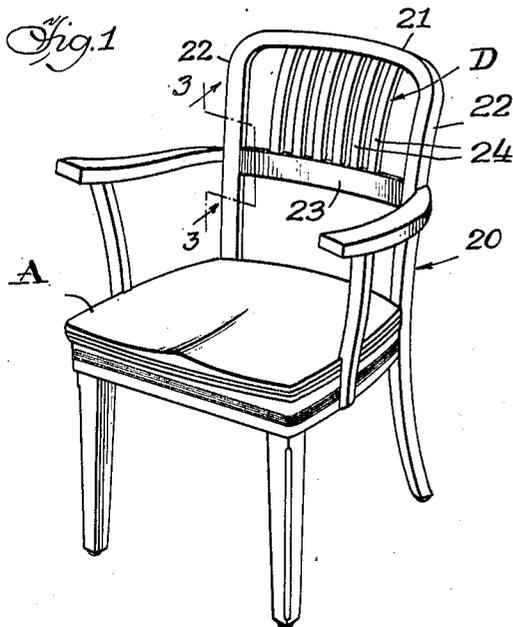


Fig. 3

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UNITED STATES PATENT OFFICE

2,343,494

BACK ASSEMBLY FOR COMPOSITE METAL AND WOOD CHAIRS

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Original application July 18, 1941, Serial No. 402,912. Divided and this application June 9, 1943, Serial No. 490,125

3 Claims. (Cl. 155-178)

This invention relates to improvements in composite metal and wood chair structures, and more particularly to a splat back assembly for such chair structures, wherein the main frame is made of drawn metal tubing, while the splat back portion is made of wood.

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

The object of the present invention is to provide a composite metal and wood chair structure which is comparatively cheap to manufacture, and wherein the metal and wood portions of the splat back are provided with simple and yet effective means for assembling and rigidly securing the parts together.

The advantages of the invention will appear more clearly as I proceed with my application. In the drawing—

Figure 1 is a perspective view of a chair embodying the features of my present invention;

Figure 2 is a view representing a front elevation of the part of the chair back above the seat and showing the details of the improved form of splat back assembly forming the subject-matter of the present application;

Figure 3 is a partial sectional elevation view in a vertical plane indicated by the line 3-3 of Figure 1;

Figure 4 is a sectional view on an enlarged scale, in a vertical plane, of the parts indicated by the line 4-4 of Figure 2; and

Figure 5 is a perspective view of a plate on a somewhat smaller scale, which is shown partially in a vertical section in Figure 3.

Referring now to that embodiment of the invention illustrated in the drawing, the chair includes an upright open metal frame 20 defining the chair back, with top horizontal rail 21 and upright side rails 22, 22. In the form shown, said top and side rails define the chair back above the seat indicated generally at A, and the side rails 22, 22 are prolonged below the seat to constitute the back legs of the chair. Said frame, as shown, and preferably, is made of a single length of drawn tubular metal.

D indicates a back splat assembly, which is preferably made of wood, because cold metal is unpleasant to touch. A further advantage of wood is that it may be readily and economically formed to produce all kinds of ornamentation at a much smaller expense than drawn metal members.

In the form of wood splat assembly shown herein, a horizontal bar 23 extends between the

side rails 22, 22 of the back frame, and a plurality of laterally spaced upright bars 24, 24 extend between and are secured at their ends to the bar 23 on the top rail 21 of the back frame. The upright bars 24 have reduced ends at the top as indicated at 25 (see Figure 4), which are engaged in suitable openings 26 in the bottom of the tubular top rail 21 of the back frame, a shoulder 27 engaging the bottom face of said rail. The bars 24 are similarly engaged in sockets in the top edge of the horizontal wood bar 23 of the splat assembly, and are fixed therein in any usual or familiar manner, as by gluing.

To hold the horizontal bar 23 securely in position with the upright bars 24 engaged in the holes in the top rail 21, I provide the following construction (see Figures 3 and 5). 28 indicates a plate inset into the bottom edge of the horizontal bar 23, there being a plate of the kind disposed at each end of the bar 23. Said plate is secured to said bar, as by screws 29, 29, and is provided with a tapered dowel 30 which is engaged in an opening 31 in the proximate wall of the tubular side rail of the back frame. The two openings 31, 31 are formed at such distance from the top rail 21 that when the plates 28 are secured to the bottom bar 23, with the tapered dowels 30 engaged in the openings 31 in the vertical rails 22, 22, and the upright bars are engaged in the top rail 21, as shown in Figure 2, the splat assembly will be properly secured in place.

It will be understood that when the side rails 22 have not been connected together in the vicinity of the seat frame indicated generally at A, said side rails may be sprung away from each other to a certain degree so as to facilitate the initial assembling of the splat back, including the horizontal rail 23 and its dowel pins 30. Under most conditions, however, the chair frame is assembled before the splat back unit is applied thereto. The provision of the separable dowel plates 28 makes it possible to apply the horizontal rail 23 and the upright bars 24 with respect to the top and side rails 21 and 22 before the dowel plates are attached to the horizontal back rail 23. The dowel pins 30 are then inserted in their respective holes in the side rails 22, and thereafter the dowel plates 28 are screwed home against the lower surface of the horizontal back rail 23. It will now be understood that the act of screwing the dowel pins to the horizontal rail 23 will tend to force the entire back assembly upwardly, with the upright back bars 24 under compression in close fitting engagement against the top rail 21, thereby insuring an especially

strong, permanent and rattle-proof connection between the wood and metal parts of the chair back.

I claim:

1. A composite metal and wood chair including a metal tubular back frame with a top rail and side rails, a wood splat back assembly comprising a horizontal bar and laterally spaced upright bars fixed thereto and having reduced top ends, the top rail of said back frame having spaced holes in which said reduced ends are engaged, and metal plates detachably connected to the bottom of said horizontal splat bar, said metal plates being provided with tapered pins, and the side rails of said back frame being provided with holes in which said tapered pins may be engaged to lock said splat assembly in position.

2. A composite metal and wood chair including a metal tubular back frame with a top rail and side rails, a wood splat back assembly comprising a horizontal bar and laterally spaced upright bars fixed thereto and having reduced top ends, the top rail of said back frame having spaced holes in which said reduced ends are engaged,

and metal plates adapted to be inset in and screwed to the bottom of said horizontal splat bar, said metal plates being provided with tapered pins, and the side rails of said back frame being provided with holes in which said tapered pins may be engaged to lock said splat assembly in position.

3. A composite metal and wood chair including a metal tubular back frame with a top rail and side rails, a wood splat back assembly comprising a horizontal bar and laterally spaced upright bars fixed thereto and having reduced top ends, the top rail of said back frame having spaced holes in which said reduced ends are engaged, and metal plates detachably connected to the bottom of said horizontal splat bar, said metal plates being provided with tapered pins, and the side rails of said back frame being provided with holes in which said tapered pins may be engaged to lock said splat assembly in position, with the upper ends of said upright bars fitting under compression against said horizontal bar.

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