

Feb. 4, 1941.

W. McARTHUR

2,230,889

METAL FURNITURE

Filed July 11, 1939

2 Sheets-Sheet 1

Fig. 1.

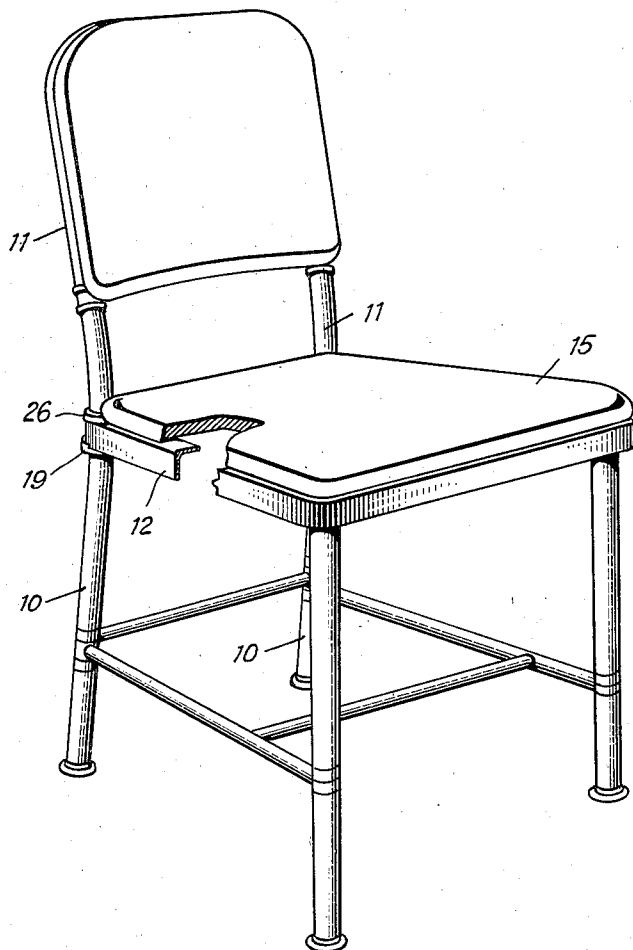
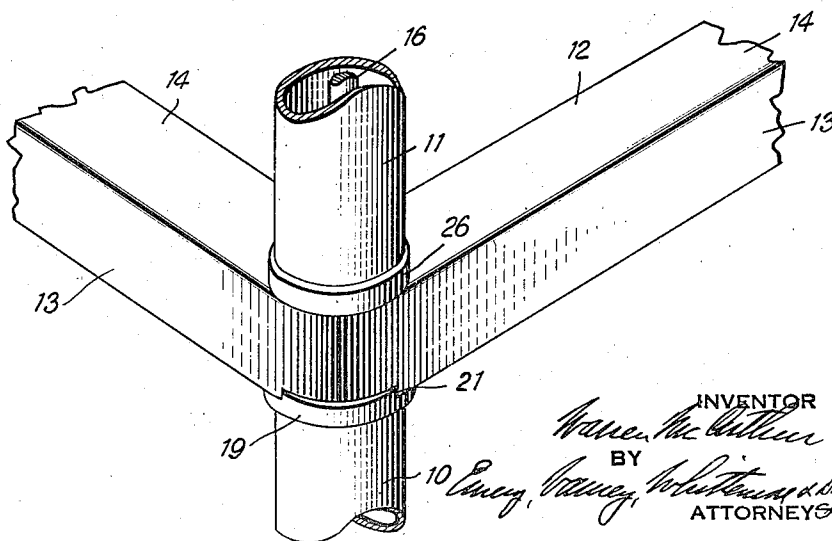


Fig. 2.



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Fig. 3.

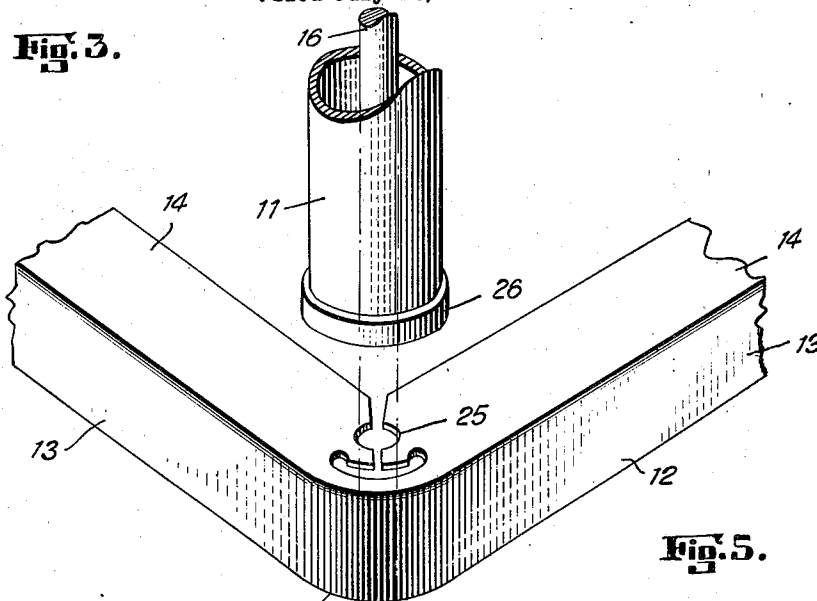


Fig. 4.

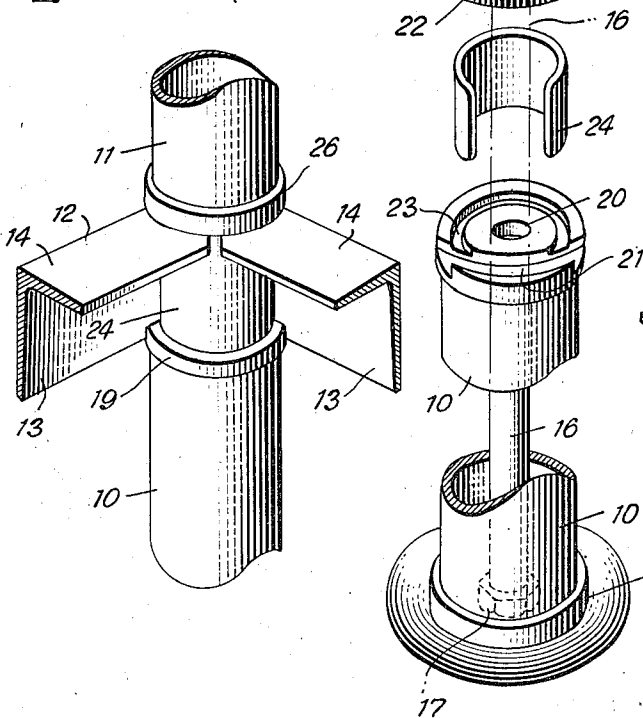
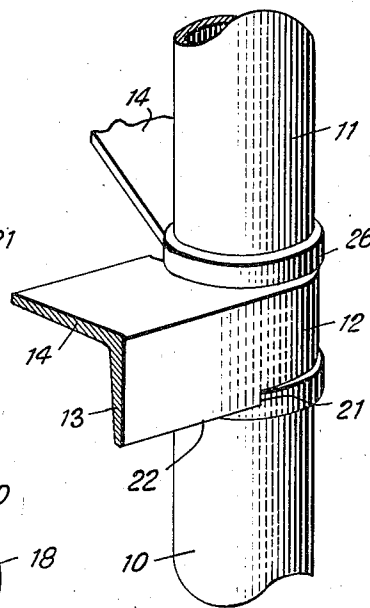


Fig. 5.



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METAL FURNITURE

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2 Claims. (Cl. 155—194)

This invention relates to the construction of metal furniture and particularly to metal furniture having structural members of tubular or other hollow form.

An object of the invention is to provide an improved construction and arrangement of parts employed in connecting together tubular and non-tubular frame members.

This and other objects are accomplished by my invention as illustrated in the accompanying drawings in which

Fig. 1 is a perspective view of a chair which is shown as an example of one type of furniture to which the present invention is adapted.

Fig. 2 is a partial perspective view of a joint construction used in the chair illustrated in Fig. 1 and made in accordance with one embodiment of this invention.

Fig. 3 is an exploded view in perspective of the parts making up the joint shown in Fig. 2, and

Figs. 4 and 5 are perspective views from different directions of the same joint.

The particular embodiment of this invention which has been chosen for the purposes of illustration is shown in connection with a joint connecting a tubular frame member with a cross frame member in the form of an angle shaped to provide a seat frame for supporting a seat cushion. Such a joint is of use, for example, in the illustrated chair, in which the rear legs 10 and back frame 11 are formed of hollow tubing while the seat frame is formed by a cross frame member 12 of angle form.

As illustrated, the seat frame is positioned with a vertical flange 13 and a horizontal flange 14 on which a seat cushion 15 is mounted. In accordance with a well known construction of metal furniture employing hollow frame members, the rear legs 10 and back frame 11 are formed by a plurality of tubular elements through which an inner clamping rod 16 extends. All parts are held in a rigid assembly by clamping means on the ends of the rod, including clamping nuts 17 or the like and associated washers 18 against which the nuts bear and which receive and position the associated ends of the adjacent tubular elements. The washer 18 is usually of one piece.

The particular embodiment of joint between the hollow frame member and the angle seat frame member is illustrated in connection with the corner of the seat frame, although it will be apparent that it is equally well adapted for use along the straight side of the seat frame.

As illustrated, the joint comprises a washer 19 having a central aperture 20 through which the inner rod 16 extends. The washer 19 is recessed

to receive the upper end of the leg sleeve 10 so as to center it on and position it properly with relation to the inner rod 16. The upper face of the washer is provided with a slot 21, curved in the illustrated embodiment to receive the curved lower edge 22 of the angle frame member 12. A second slot 23 is formed in the same face of the washer for receiving the lower end of a curved spacer sleeve 24 surrounding the rod 16 and bearing at its upper end against the lower face of the flange 14 of the angle frame member 12. The flange 14 has an aperture 25 through which the inner rod 16 extends and a sleeve centering washer 26 is strung on the rod and is recessed to receive the lower end of the back frame sleeve 11. The lower face of the washer 26 is smooth and rests on the horizontal flange 14 of the angle frame member.

The relation of the parts is clearly shown in Fig. 3 and it will be apparent that when assembled together and clamped in assembled relation by the clamping means associated with the ends of the inner rod 16, the parts will be rigidly held together in the manner shown in Figs. 2, 4 and 5 resulting in a rigid, strong joint between the hollow frame members of the leg and back frames and the angle frame member forming the seat frame. Obviously, the invention can be variously modified and adapted within the scope of the appended claims.

I claim:

1. A furniture joint comprising a frame member including separate tubular elements, an inner rod located within said elements, a cross frame member of angle form positioned between adjacent elements and having an opening in one flange thereof for accommodating said rod, a washer on said rod engaging the end of one element and having a slot receiving the edge of said cross member, an arcuate sleeve located between said washer and said flange of said member, and means on said rod clamping said parts together.

2. A furniture joint comprising a frame member including separate tubular elements, an inner rod extending through said elements, a cross frame member of angle form positioned between adjacent elements and having an opening in one flange thereof for accommodating said rod, a washer on said rod engaging the end of one element and bearing on said flange, a second washer on said rod engaging the end of another element and having a slot receiving an edge of said cross member, an arcuate sleeve located between said second washer and said flange, and means on said rod clamping said parts together.

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