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J. J. MARTHALER

2,218,583

CHAIR BASE

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Fig. 1

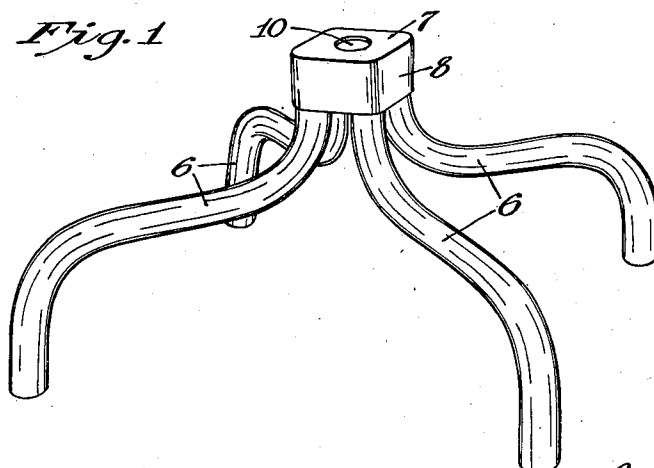


Fig. 2

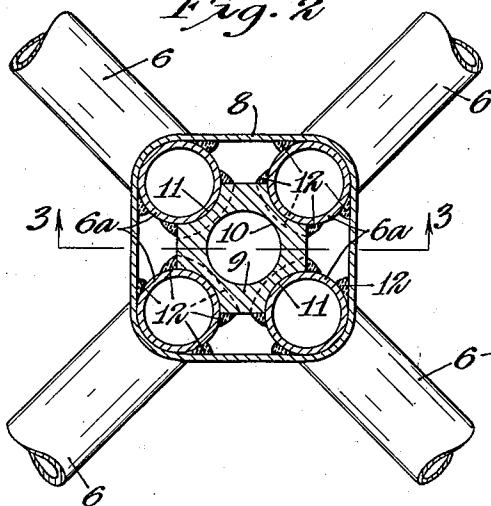


Fig. 3

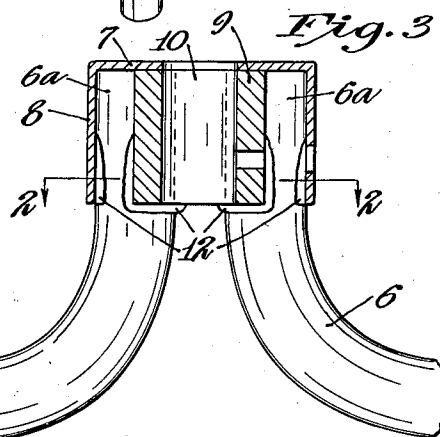


Fig. 4

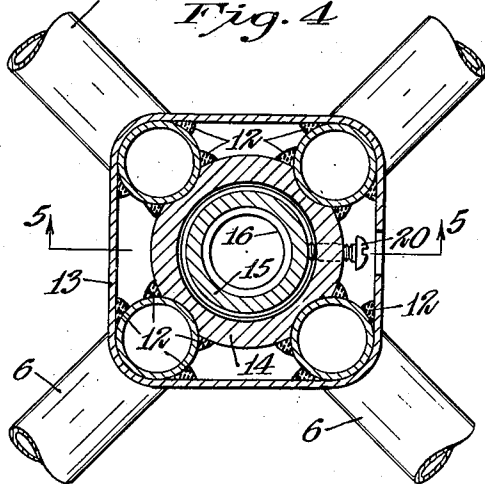
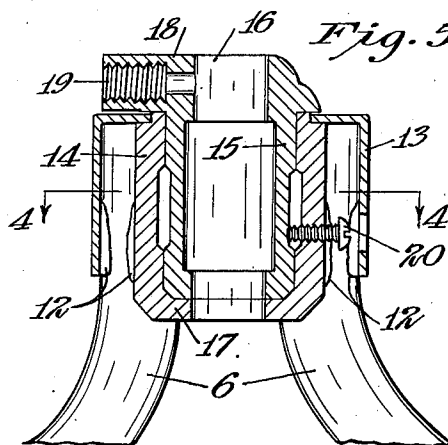


Fig. 5



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CHAIR BASE

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2 Claims. (Cl. 155—194)

It is an object of this invention to provide a novel chair base constructed entirely from metal parts and of unusually compact, strong and durable construction.

A particular object is to provide novel means for securing metal chair legs to a central head for supporting a chair whereby loosening of the legs in the head under the severe strains to which they are subjected is prevented and a more compact, trim and neater chair base is afforded.

Another object is to provide a novel method of procedure for connecting metal legs to a central head or chair base whereby the cost of construction is reduced and an unusually simple, strong and durable structure is secured.

Other objects will appear and be more fully pointed out in the following specification and claims.

Referring to the accompanying drawing:

Figure 1 is a perspective view of my improved chair base;

Fig. 2 is a horizontal section through the head portion of the same taken on the line 2—2 of Fig. 3,

Fig. 3 is a vertical section through the same taken on the line 3—3 of Fig. 2;

Fig. 4 is a horizontal section through a modified form of my device taken on the line 4—4 of Fig. 5, and

Fig. 5 is a vertical section through the modified form of device taken on the line 5—5 of Fig. 4.

My improved base has four legs, indicated by the numeral 6 which are preferably constructed of cylindrical tubes formed to extend outwardly and downwardly from a central head to which they are securely fastened, as hereinafter described. The head has a sheet metal outer member or cap formed with a top 7 and an annular skirt portion 8 depending from the top. This cap is preferably constructed from an integral blank of heavy gauge steel (about 12 gauge) and is open at its bottom to receive vertically extending portions 6a of the legs 6. The skirt portion has plane sides approximating a square, in horizontal cross section as shown in Fig. 2, and has corner portions which are rounded to conform to the outer peripheries of the portions 6a of the legs.

A metal spreader block 9 is formed separately from the cap and has a central bearing or bore 10. This bore is adapted to receive the chair spindle (not shown) which depends from the chair seat, as is common in the swivel and so-called "posture" chairs. A central opening in the

top 7 registers with the upper end of the bore 10. The spreader block 9 is spaced from the skirt portion 8 of the cap and is formed with cylindrical bearing surfaces 11 to engage the several legs. The block 9 and upper ends of the leg portions 6a preferably bear against the bottom surface of the cap top 7 and this block is formed with a slight taper vertically to facilitate forcing it between the legs, as more fully hereinafter described. The portion 6a of each leg is rigidly secured to both the skirt portion 8 of the cap and to the spreader block 9 by welding, fillets 12 of welding material for this purpose being shown in the drawings. Access to the several surfaces to be welded together is afforded by the spacing of the skirt portion 8 from the block 9.

My improved procedure for forming the base is a simple and inexpensive one. The cap is held in inverted position while the several legs are inserted therein and then the spreader block 9 is forcibly driven to final position between the legs. This firmly holds them in their proper radially extending positions, indicated in Fig. 2, for the subsequent welding operation. Finally the fillets 12 are formed in the spaces between the block 9 and skirt 8 by suitable welding or braising procedure. This securely and rigidly fastens the several legs against movement in the head. It will be evident that I avoid the use of pins and perforations extending through the legs to secure them to the head and the heavy steel cap securely binds the legs together in an unusually compact manner, the skirt portion of this cap projecting by the thickness of the metal only beyond the outer peripheries of the leg portions 6a.

In the modified form of the invention shown in Figs. 4 and 5, the cap 13 is like that shown in Figs. 1 to 3 inclusive, except that it is somewhat larger and has a larger central opening at the top and a relatively large spreader block 14 is provided to engage and confine the legs against the inner skirt surface of the cap. Formed centrally in the block 14 is a swivel bearing and a revoluble bushing 15 having a central bore 16 for the chair spindle fits in this bearing. At its lower end the bushing 15 is supported on an annular flange 17. A boss 18 is formed to project horizontally from the top of the bushing 15 and this boss has a tapped bore 19 to receive a pin or set screw for engaging the chair spindle for the purpose of maintaining the elevation of the chair seat relative to the base. The bushing 15 may be retained against upward withdrawal from the block 14 by a set screw 20 threaded in this block and accessible through a hole in the cap 13.

The method of procedure in constructing the modified form of the invention shown in Figs. 4 and 5 is identical with that hereinbefore described with reference to Figs. 1 to 3 inclusive, and the legs are rigidly secured to the cap 13 and spreader 14 in like manner.

Having described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A chair base comprising, a sheet metal cap having a top and a pendant substantially vertically, continuous skirt portion, a plurality of metal legs extending outwardly and downwardly from said cap and having substantially vertically disposed upper ends severally engaging spaced inner surfaces of said skirt portion, said portion having plane sides extending directly between the outer surfaces of adjacent legs a spreader block having vertically elongated spaced bearing portions severally engaging the inner surfaces of said legs within said cap and weld fillets rigidly secur-

ing the several legs to said skirt portion and spreader block.

2. A chair base comprising, a sheet metal cap having a pendant, substantially square skirt portion, a plurality of tubular, metal legs extending outwardly and downwardly from said cap and having substantially vertically disposed upper end portions engaging the inner surfaces of said skirt portion, said portion having plane walls extending tangentially to the legs at each side and a metal spreader block having spaced, arcuate bearing portions severally engaging the inner peripheries of said legs within said cap and extending along said legs substantially to the upper ends thereof, said legs being confined under lateral pressure between said block and skirt portion and being rigidly secured to said skirt portion and spreader block.

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