April 23, 1963 R. A. CRAMER, JR 3,086,741

CAST BASE FOR CHAIR LEGS AND METHOD OF MAKING SAME

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Fig. 1.

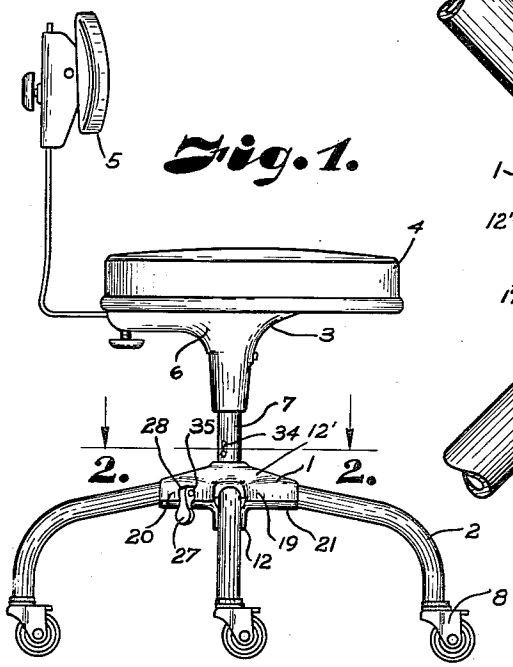


Fig. 2.

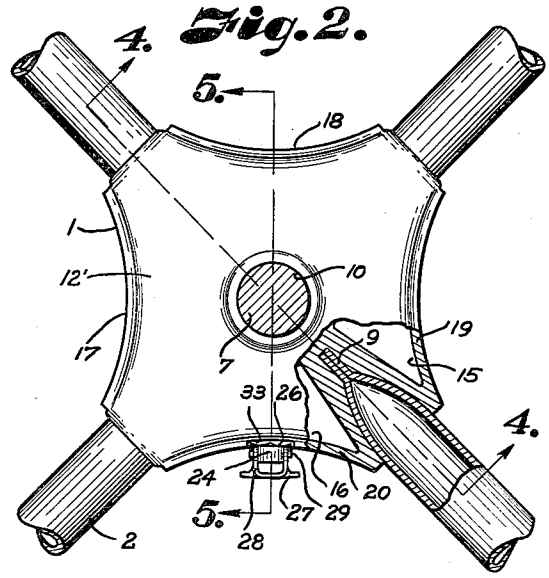
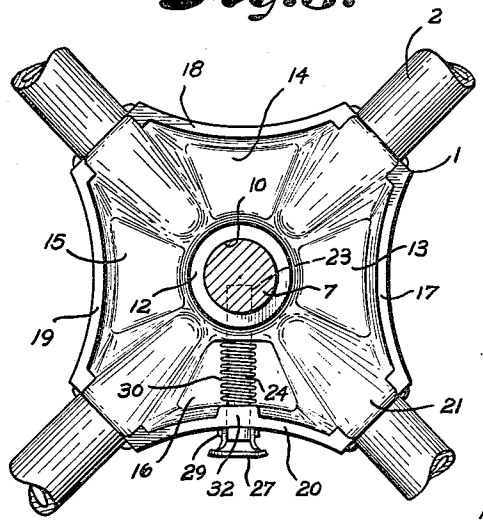


Fig. 3.



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Fig. 4.

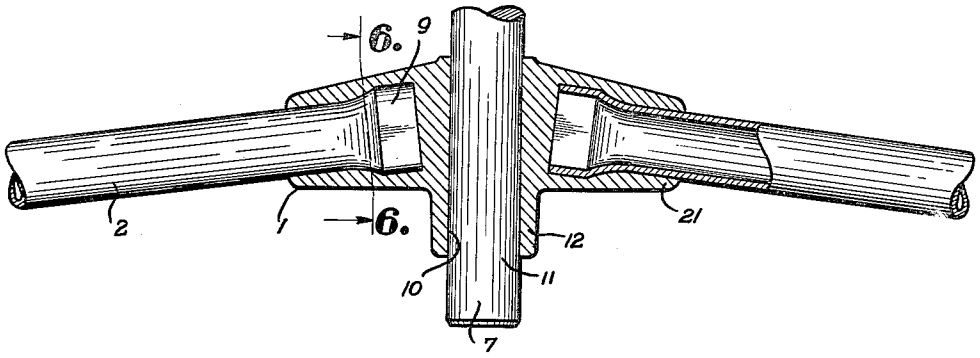


Fig. 5.

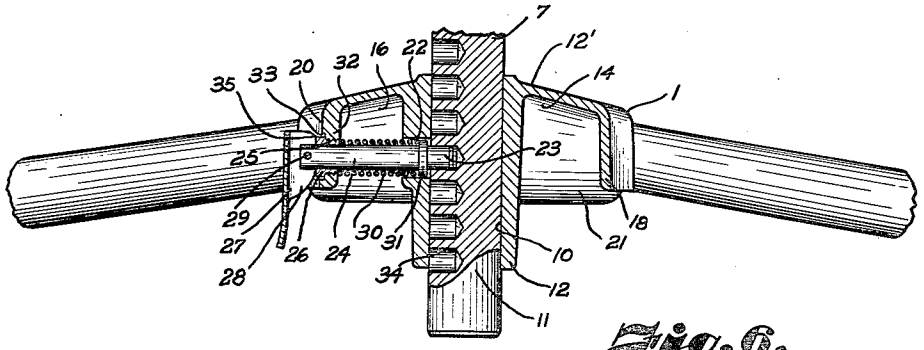


Fig. 6.

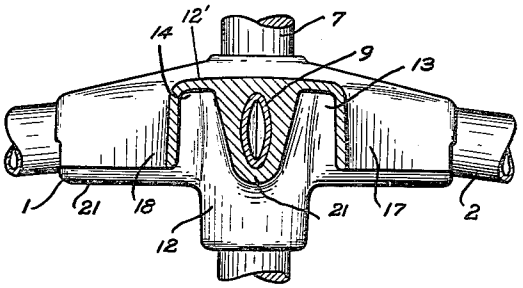
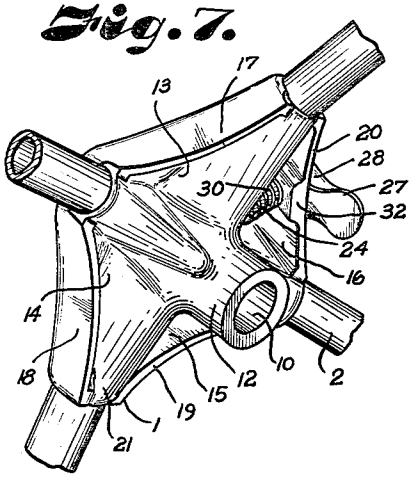


Fig. 7.



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CAST BASE FOR CHAIR LEGS AND METHOD OF MAKING SAME

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1 Claim. (Cl. 248—194)

This invention relates to a cast base for chair legs and the method of making same, and more particularly to a base cast in one piece with the inner ends of the legs cast therein to hold the legs in the base.

Heretofore the base or hub for the upper or inner ends of the chair legs such as office chairs of secretarial or swivel type the ends of the legs have been secured to the hub or base by means such as welding, bolts, rivets or the like, which required additional expense in assembling the legs and the base.

It is the principal object of the present invention to cast the ends of the legs to the base or hub member of the chair so that the base and upper ends of the chair legs will essentially be a one-piece structure.

Objects of the present invention are to provide a method of casting the ends of chair legs in the base or hub in a convenient manner; to provide the base or hub with a bore vertically therethrough for receiving the pedestal or standard of the chair; to provide means on the base for locking the pedestal therein and for adjustment of the pedestal vertically to raise or lower the seat on the base, and to provide a device of this character of simple construction and economical to manufacture.

In accomplishing these and other objects of the invention I have provided improved details of structure, the preferred forms of which are shown in the accompanying drawings wherein:

FIG. 1 is a side view of a chair including a base involving the features of my invention and method of making the same.

FIG. 2 is a cross-sectional partly fragmentary view taken on a line 2—2, FIG. 1.

FIG. 3 is a bottom plan view of the base with the pedestal in cross section and the legs fragmentary.

FIG. 4 is a cross-sectional partly fragmentary view taken on a line 4—4, FIG. 2.

FIG. 5 is a cross-sectional partly fragmentary view taken on a line 5—5, FIG. 2.

FIG. 6 is a cross-sectional view taken on a line 6—6, FIG. 4.

FIG. 7 is a perspective view taken of the bottom of the base with the legs shown partly fragmentary.

Referring more in detail to the drawings:

1 designates a base or hub for the legs 2 of a chair 3 having a seat 4, back 5 and a base 6 for the seat having a pedestal 7 depending from the base of the seat for engaging the base 1 as will later be described.

The legs 2 are generally of hollow metal structure and have their outer ends curved downwardly for receiving in the open ends thereof casters 8 as is the usual practice. The inner ends of the legs are flattened producing a flattened portion which is greater in cross-sectional width than the non-flattened portion of the legs as indicated at 9 (FIGS. 2 and 4) and are arranged in a suitable mold (not shown) in their evenly spaced position radially of the base 1 and the metal, usually aluminum or a similar metal, is

poured into the mold so that it will spread around and adhere to the inner ends 9 of the legs. The flattened ends 9 of the legs close the inner ends thereof and prevent the legs from being pulled from the base and also prevent turning or rotation of the legs in the base so that the legs are in fact integral with the base forming a substantially solid structure.

A longitudinal opening 10 is provided in the base and is adapted to receive the lower end 11 of the pedestal 7, the base forming a sleeve 12 for the pedestal and the pedestal is adjustable vertically therein as will later be shown.

The base is provided with an upper wall 12' sloping outwardly and downwardly from the upper portion of the depending boss or sleeve 12 to add support for the pedestal and the underneath portion of the base 1 is provided with recessed portions 13, 14, 15 and 16 to provide a light-weight structure and also conserve on metal. The base, therefore, includes depending peripheral flanges 17, 18, 19 and 20 extending between radially disposed depending bosses 21 extending from the sleeve of the base and surrounding the legs 2 at the juncture of the base with the legs.

The longitudinal bore 10 is intersected by a lateral opening 22 (FIG. 5) for receiving the end 23 of a plunger 24 having its outer end extending through an opening 25 in the flange 20 of the base. The opening 25 is threaded and adapted to receive a threaded bushing 26 through which the plunger 24 also extends. The outer end of the plunger is provided with a locking lever 27 having spaced side flanges 28. The outer end of the plunger 24 engages between the side flanges 28 and the lever 27 is pivotally secured to the plunger by a pin 29. A coil spring 30 surrounds the plunger 24 and has its inner end engaging against a collar 31 on the plunger and its outer end engaging against the threaded bushing 26 in the flange 20. In order to strengthen the flange 20 a rib 32 is provided on the inner side and the outer side of flange 20 is recessed as at 33 as to receive the enlarged nut portion of the bushing 26 therein.

The pedestal is provided with a plurality of spaced openings 34 for receiving the inner end 23 of the plunger 24 to hold the pedestal in adjusted position. The flanges 28 of the lever are curved at their forward edges as indicated at 35 and manipulation of the lever causes the curved portion to engage against the bushing to withdraw the plunger from the openings 34 against the action of the spring 30.

It will be obvious from the foregoing that I have provided a cast base or hub for chair legs which will retain the legs therein in a firm position thus providing a method for making a construction of this type with less material and less expense in assembling such parts as is now the usual practice.

What I claim and desire to secure by Letters Patent is:

A base for a chair comprising, a plurality of rigid tubular metal legs having generally uniform cross section and vertical outer end portions and inner end portions inclined slightly upwardly from horizontal, a central cast metal hub engaged by inner end portions of said legs with said legs being radially disposed relative thereto, said hub having a vertical sleeve portion for receiving a vertical standard, an integral wall at the upper end of the sleeve and sloping outwardly and downwardly therefrom, de-

pending cast metal bosses integral with said wall and sleeve and extending radially from said sleeve, there being one boss for each leg, and an integral peripheral flange depending from said wall and connecting outer portions of said depending bosses, said inner end portions of each of said legs extending into a respective boss and being of said uniform cross section adjacent the point of entry and having converging sides terminating in flattened closed inner ends disposed in substantially vertical planes with the vertical dimensions of said flattened portions being greater than the vertical dimension of the tubular leg portions adjacent said point of entry, said flattened portions terminating adjacent said sleeve, said cast metal depending bosses surrounding the portions of said legs extending into said bosses and in intimate contact therewith and providing an engagement which retains the legs against movement relative to said hub.

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