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CHAIR BASE

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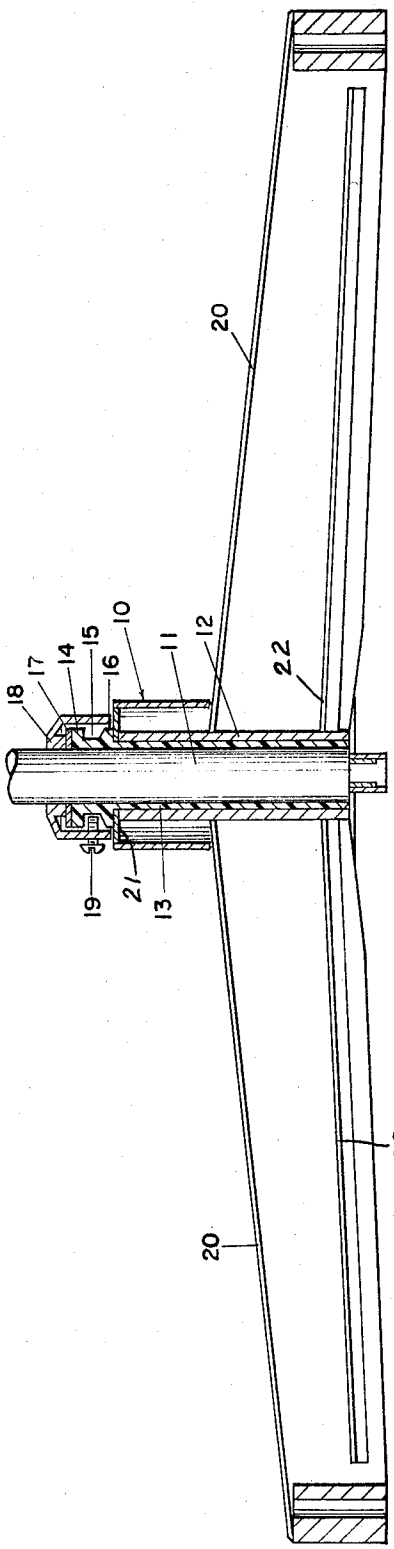



FIG. 2

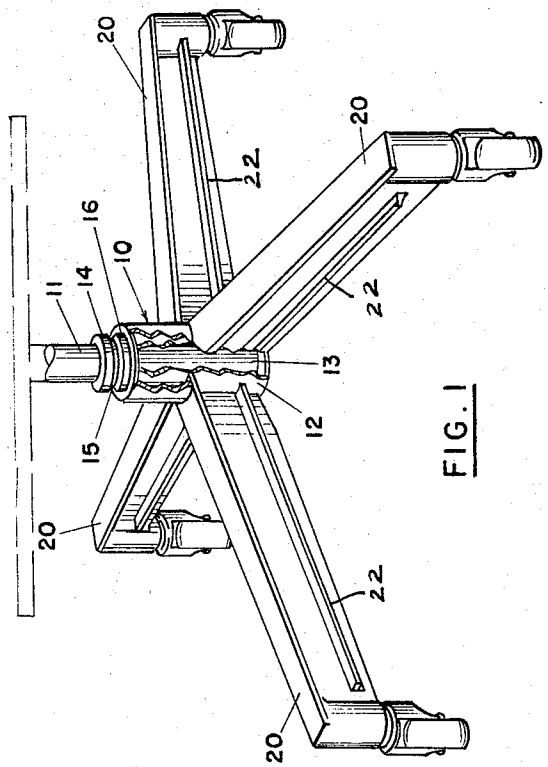



FIG. 1

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# CHAIR BASE

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2 Claims. (Cl. 248—188.7)

This invention relates generally to chairs and, more particularly, to the kind of chairs known as swivel chairs and consists of the novel and peculiar construction and combination of chair base, arrangement of parts, and various details of construction which will be more fully hereinafter set forth.

It is an object of this invention to provide an improved swivel chair base which requires a minimum amount of maintenance and is simple in construction, economical to manufacture, simple and efficient to use, and self-lubricating.

Another object of the invention is to provide an improved swivel chair base.

Another object is to provide a chair base utilizing a swivel bushing that is made of a self-lubricating material.

With the above and other objects in view, the present invention consists of the combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawing and more particularly pointed out in the appended claims, it being understood that changes may be made in the form, size, proportions, and minor details of construction, without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:

FIG. 1 is an isometric view of a chair base according to the invention; and

FIG. 2 is a cross sectional view of the chair base shown in FIG. 1.

Now with more particular reference to the drawing, the chair base shown has a support shaft **11**, which may be fixed to a chair seat such as that indicated generally in the drawing in phantom line. The support shaft may be threaded and the collar **18** may be threaded onto the support shaft, if desired, in a conventional manner.

The center hub **12** is fixed to the legs **20** by welding or other fastening means. Hub **12** extends to the lower edge of legs **20**. Sleeve **10** rests on top of legs **20** and washer **21** overlies hub **12** and is welded to sleeve **10**. The legs **20** radiate outwardly from the center hub **12**, and a suitable structural arrangement may be provided to hold the legs **20** securely to the center hub **12**.

The bushing **13** is pressed into the hub **12**. The bushing may be made of a self-lubricating plastic, for example, Delrin, nylon, or polyethylene. The bushing **13** has a flange member made up of the first flange **16** and the second flange **14** spaced from each other and defining a groove **15** therebetween. Flange **16** rests on washer **21**. The groove **15** receives a screw **19**, which is threadably received in the collar **18**. An indexing washer **17** is supported between the flanged cup member **18** and the upper flange **14**, so that the washer **17** carries the thrust exerted by the weight of a person on the chair supported by support shaft **11** and engages detents in collar **18** to provide rotation with the shaft **11** in a conventional manner. The washer **17** and the collar **18** normally rotate with respect to the flange **14**. Collar **18** must rotate with the shaft **11** or the height adjustment will change.

The legs have suitable casters thereon as indicated that may be received in suitable structure at the outer end of the legs **20**, as shown. The legs **20** may be made in any suitable way, for example, they may be fabricated from two U-sections, which may be welded to the hub **12** at the inner end and have the caster supports disposed in suitable brackets at their outer end. Reinforcing ribs **22** are fixed to legs **20**.



In operation, a chair indicated by the phantom lines may be fixed to the upper end of the support shaft **11**, and the flange **18** may be adjusted on the shaft to hold the seat above the floor at the desired distance. Then the screw **19** will be inserted in the groove **15** to prevent the shaft **11** from coming out of bushing **13** when the chair is lifted. Thus, the chair can rotate relative to the base and the self-lubricating material of flange **14** will reduce friction between the bushing **13** and shaft **11** to a minimum and will allow the chair to rotate freely and noiselessy relative to the base.

The foregoing specification sets forth the invention in its preferred practical forms but the structure shown is capable of modification within a range of equivalents without departing from the invention which is to be understood is broadly novel as is commensurate with the appended claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

**1.** A chair base and support shaft combination comprising a hollow cylindrical hub,
spaced legs integrally attached to said hub and radiating therefrom,
said hub extending from the lower edges of said legs to a position spaced above said legs,
means on the distal ends of said legs to engage a supporting surface,
a hollow cylindrical sleeve concentrically received on said hub,
one end of said sleeve resting on said legs,
a washer overlying one end of said hub and attached to said sleeve,
a hollow bushing,
said bushing being received in said hub,
a first flange on said bushing,
said first flange resting on said washer,
a support shaft rotatably received in said bushing,
means to attach a chair to said support shaft,
a collar on said support shaft,
a second flange on said bushing,
said collar resting on said second flange,
said bushing being made of a self-lubricating plastic.

**2.** The chair base recited in claim **1** wherein
said collar is cup shaped,
said cup shaped collar receives said bushing,
said first flange and said second flange being spaced from each other defining a peripheral groove therebetween,
and screw means in said collar received in said peripheral groove.

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