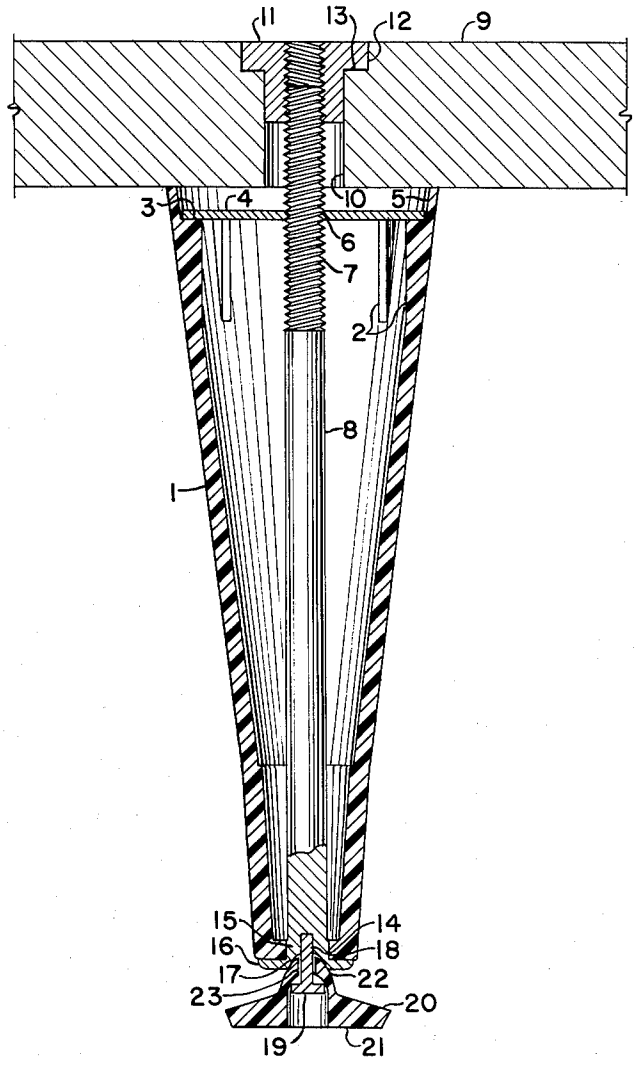
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SELF-LEVELING FURNITURE LEG

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SELF-LEVELING FURNITURE LEG

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3 Claims. (Cl. 45—137)

This invention relates to a furniture leg and more particularly to such a leg having a foot which automatically levels itself.

One object of this invention is to provide a furniture leg having a foot which automatically adjusts itself to any unevenness of the floor so as always to afford support from the entire area of the foot.

Another object is to provide a leg having such a foot which affords ample smooth and flat support surface to prevent scratching polished floors.

A further object of this invention is to provide a furniture leg which is simple and inexpensive in construction, yet has essentially the rigidity and strength of a solid leg and is attractive in appearance.

Other objects and advantages of the invention will be apparent from the following description, taken in conjunction with the accompanying drawings, in which:

The single figure is a vertical sectional view showing a furniture leg made in accordance with this invention attached to an article of furniture.

In the drawing, a furniture leg made in accordance with this invention comprises a hollow shell or sleeve 1 which, as illustrated, is preferably in the shape of a truncated cone. This shell is preferably made of a plastic material, as by casting, and is inexpensive in manufacture, yet its exterior surface presents a polished and attractive appearance. Near the upper, or larger, part of its interior, a plurality of shoulders 2 are provided, being preferably formed integrally with the shell when it is cast. These shoulders are so formed as to provide at their upper ends level bearing surfaces 3 against which a circular plate 4 abuts, the plate being of such size at to be received snugly within the upper wall 5 of the shell.

A central, tapped opening 6 is provided in the plate 4 to receive the threaded end 7 of a through bolt 8. The plate 4 holds the bolt 8 firmly in the center of the shell 1 of the leg.

The bolt 8 is attached to the frame 9 of an article of furniture, such as a chair, sofa, or the like, by passing it through an opening 10 in the frame into threaded engagement with a nut 11. The nut may be a T-nut, as illustrated, which is recessed in the frame 9 and has a flange 12 bearing against an annular shoulder 13 formed in the frame. Instead of using a T-nut, a metal plate having a tapped opening or a nut and washer may be used on the upper surface of the frame to be threaded onto and to hold the bolt 8.

When the bolt is screwed tightly into the nut 11, the upper edge of the upper wall 5 of the shell 1 is held firmly against the lower surface of the frame 9, bearing against the frame all around its periphery. Thus, a solid and strong support for the furniture is provided.

The lower, or smaller, end of the shell 1 has an opening 14 therethrough which is preferably square in shape to receive the square shaft portion 15 of the bolt 8 and to prevent it from rotating. The head 16 on the bolt abuts against the lower end of the shell 1. The head has a substantially hemispherical recess 17 formed therein and a rod 18 is secured to the bottom of the recess and projects outwardly therefrom, the rod having a flat head 19, preferably circular in shape, at its outer end.

A foot 20 is provided, having a relatively large smooth and flat lower surface 21. This foot may be made of any suitable material, such as a rather hard but smooth and easily sliding plastic. The foot has a rounded or substantially hemispherical knob 22 formed thereon, the knob having a central opening 23 therein through which the rod 18 passes, the opening 23 being somewhat larger than the diameter of the rod 18. The flat head 19 of the rod is larger in diameter than the opening 23 in the knob and thereby holds the foot 20 onto the end of the bolt 12. At the same time, the free mounting of the foot on the bolt, resulting from the hemispherical shapes of the knob 22 and the recess 17 and the size of the opening 23 being larger than the rod 18, permits the foot 20 to tilt as needed to conform to the surface on which it rests. Thus, the foot automatically adjusts itself to any unevenness of the floor and always provides support from the entire area of its lower surface 21. This lower surface being relatively large, flat, smooth and sliding easily, scratching of polished floors or other surfaces is prevented and yet the furniture can be moved easily.

The foot 20 may be assembled on the rod 18 by temporarily expanding the opening 23 in the knob 22 of the plastic material to a size sufficiently large to pass over the head 19 of the rod, after which the opening 23 contracts to its original size. Alternatively, a tapped opening may be provided in the bottom of the recess 17 in the bolt head and the upper end of the rod 18 may be threaded for screwing it into the tapped opening after being passed through the opening 23 in the knob on the foot.

By this invention, there is provided a self-leveling furniture leg which is simple and inexpensive in construction and attractive in appearance. This leg is light in weight but has the rigidity and strength of a solid leg. The attachment of the bolt through the furniture frame to a nut secures the upper edge of the shell firmly against the lower surface of the frame and provides a strong support for the furniture. The plate screwed onto the bolt maintains it rigidly in position in the center of the shell and averts any possibility of wobbling of the leg. The leg can be quickly attached to the furniture, at a minimum labor cost. The leg has a foot whch adjusts itself automatically to any unevenness of the floor and always provides firm support from the entire area of the foot. The foot provides a relatively large bearing surface which is flat, smooth, and slides easily, so as to prevent scratching of polished floors or other supporting surfaces and to permit easy movement of the furniture.

It will be apparent to those skilled in the art that various changes may be made in the invention, without departing from the spirit and scope thereof, and therefore the invention is not limited by that which is shown in the drawings and described in the specification, but only as indicated in the appended claims.

I claim:

1. A furniture leg comprising a plate having a tapped opening therein, a hollow shell, a through bolt having at one end a head abutting against one end of said shell and having its other end threaded for engagement in the tapped opening in said plate, said bolt head having a substantially hemispherical recess in its outer surface, a foot having a flat bottom and a substantially hemispherical knob with a central opening therethrough, and a rod attached to and projecting from the recess in the bolt head through the opening in the knob on said foot, said rod having a flat head on the end thereof larger than the

opening in said knob to engage and hold the knob on said foot.

2. A furniture leg comprising a circular plate having a tapped opening therein, a hollow shell having shoulders formed internally thereof for abutment against said plate, said plate being received snugly within said shell, a through bolt having at one end a head abutting against one end of said shell and having its other end threaded for engagement in the tapped opening in said plate, said bolt head having a recess in its outer surface, a foot having a flat bottom and a rounded knob with a central opening therethrough, and a rod attached to and projecting from the recess in the bolt head through the opening

in the knob on said foot, said rod having an enlarged head on the end thereof larger than the opening in said knob to engage and hold the knob on said foot.

3. The invention according to claim 2 in which the shell is conical and the head of the through bolt abuts against the small end of the shell.

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