Sept. 15, 1970 B. D. NIGHTINGALE 3,528,635

LEG CONSTRUCTION FOR CHAIRS AND THE LIKE

Filed July 29, 1968

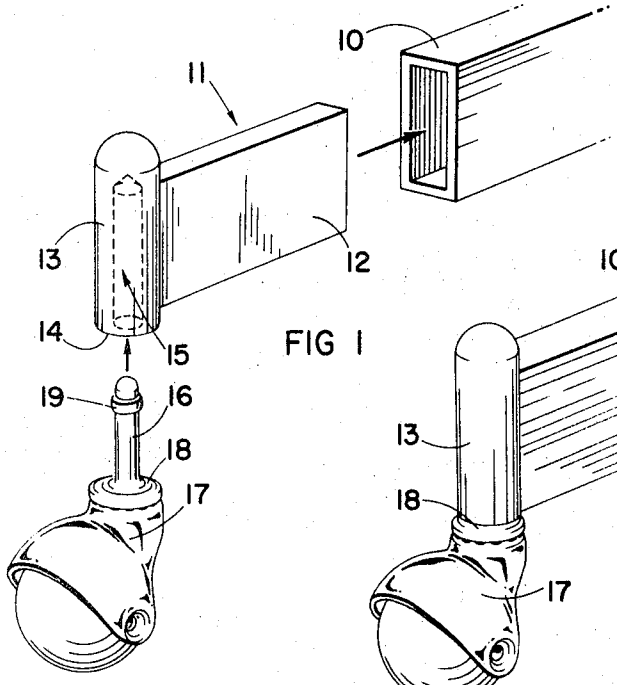


FIG 1

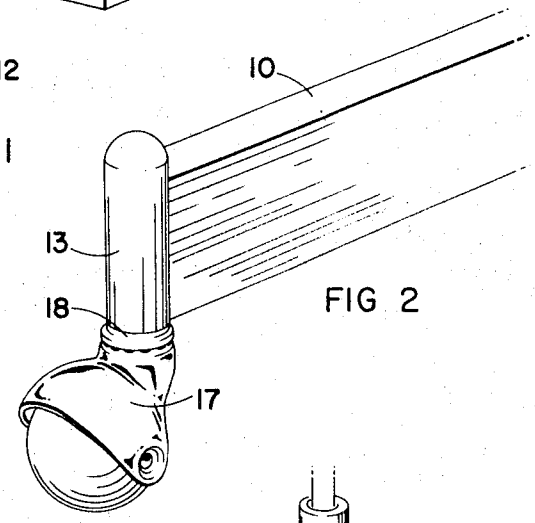


FIG 2

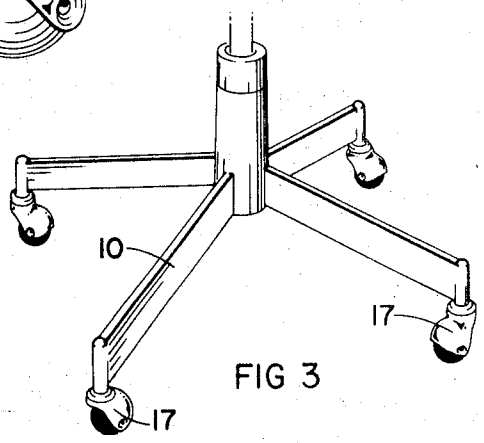


FIG 3

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United States Patent Office

3,528,635
Patented Sept. 15, 1970

3,528,635

LEG CONSTRUCTION FOR CHAIRS AND THE LIKE

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Filed July 29, 1968, Ser. No. 748,244
Int. Cl. F16m *11/20*
U.S. Cl. 248—188.9 1 Claim

ABSTRACT OF THE DISCLOSURE

This specification discloses a foot support device for use in association with furniture of hollow tubular metal construction provided with supporting feet which may be either rotatable casters, or alternatively other devices such as vertically adjustable friction members and the like, the foot support member comprising essentially a solid plastic plug member shaped to fit tightly within the hollow tubular frame of the article of furniture at the end of each of the legs of such furniture, and a foot receiving recess formed within the plastic plug.

The present invention relates to the construction of the supporting legs of an office chair or table of the type having one or more central pedestals, and individual separate legs radiating outwardly from such pedestal.

In the construction of office chairs such as secretary chairs and executive swivel chairs, the normal practice is to support such a chair on a central pedestal from the bottom end of which three or four individual leg members radiate outwardly either substantially horizontally or angled downwardly, depending upon the particular design of the chair, and the legs at their free end are provided with casters. A somewhat similar construction is frequently used in connection with tables, although in this case at the free ends of the legs there are usually provided adjustable feet members rather than the casters which are provided on chairs. Such individual legs are normally made of tubular steel and are chrome plated. In the past, the attachment of the caster, or the threaded adjustable foot member to the free end of the leg has been achieved by means of welding a piece of solid steel rod to the end of the tube, boring out the rod for part of its length, threading it if desired, smoothing and finishing the weld, and subsequently plating the entire leg and rod member. The number of different operations involved has rendered the construction of such legs somewhat uneconomic, and adds significantly to the manufacturer's cost.

Accordingly, it is an objective of the present invention to provide a leg construction in which use is made of thermoplastic molding techniques to form a one piece socket member of any suitable thermoplastic in a completely finished form which is then attached to the end of the leg after the leg has been chromed.

More particularly, it is an objective of the present invention to provide a one piece integral socket member for use in association with a chair or table leg which is shaped and adapted to fit tightly within the end portion of such leg, and is provided with a foot receiving socket.

For the purposes of this invention it will be understood that the word "foot" will include any form of

caster, or foot member whether adjustable upwardly and downwardly or fixed.

The invention also relates to a leg construction for a chair, table or the like in which the legs are of tubular construction, and are provided with one piece integral thermoplastic socket members fitted into the ends of the legs, and defining foot receiving sockets.

The foregoing and other advantages will become apparent from the following description of a preferred embodiment of the invention which is given here by way of example only with reference to the following drawings in which like reference devices refer to like parts thereof throughout the various views and diagrams and in which;

FIG. 1 is an exploded perspective illustration showing a portion of a leg, the thermoplastic socket member, and the caster;

FIG. 2 is a perspective illustration corresponding to FIG. 1 showing the parts assembled, and,

FIG. 3 is a perspective illustration of a pedestal base for a chair.

From FIG 1 it will be seen that this preferred embodiment of the invention comprises a tubular leg member indicated as **10** which in this case is of rectangular cross section, only the outer free end of such leg member **10** being shown, the inner end (not shown) being attached to a central pedestal (not shown), and being one of a group of three or four of such legs **10** which are arranged either in the substantially horizontal manner as shown, or may be angled downwardly depending upon the particular design (FIG. 3). The thermoplastic socket member is indicated generally as **11** and comprises a solid integral plug member **12** of rectangular cross section corresponding to the cross section of the interior of tube **10** and forming therewith a good frictional fit, and an enlarged bearing member **13** formed integrally with plug member **12** in a one piece injection molding operation. The lower end of member **13** is preferably formed with a flat bearing surface **14**, and the upper end of member **13** in this particular embodiment is formed in a hemi-spherical shape, although obviously the shaping of the exterior of member **13** may be subject to wide variation depending upon the taste of the particular designer; without departing from the invention. Within member **13** a socket recess **15** is formed for receiving the stem **16** of caster unit **17**. The bearing ring **18** of caster **17**, and the bearing surface **14** of socket member **11** are shaped to conform to one another and ensure a good fit. Stem **16** is retained within socket **15** by means of the conventional spring collar **19** which is standard on most casters in present day use.

It will be noted that the plug member **12** completely fills the hollow tubular leg member **10** along a portion of its length, the axis of the socket member **11** being angled relative to the axis of the leg member **10**, either normal thereto or at least at a substantial angle as shown in FIG. 6.

It will be understood that where the legs **10** are angled downwardly as in FIG. 3 the plug member **12** is angled in a similar manner, with member **13** and recess **15** being arranged vertical so as to ensure free rotation of the foot members.

The foregoing is a description of a preferred embodiment of the invention which is given here by way of example only.

What I claim is:

1. For use in an article of furniture; a furniture leg having a foot member attached at one end, said leg being of hollow rectangular tubular construction and having a predetermined interior rectangular cross section, and a foot support for attaching said foot member to said leg without the use of screws or other separate attachment means and comprising a one piece molded plastic member having a solid plug portion of thermoplastic material of rectangular cross section of predetermined height and width shaped and dimensioned to enter along the axis of said hollow tubular leg and to fit tightly therewithin and completely fill the same along the length of said plug portion whereby to retain same therein purely by frictional engagement therewith, with the axis of said plug portion aligned with the axis of said leg member; an enlarged bearing member molded integrally with said plug portion having greater height and width than said plug portion and located exteriorly of said tubular leg in end abutting relation thereto; a bearing face at the lower end of said bearing members, and a foot receiving socket

recess formed upwardly into said bearing member from the lower end thereof, and terminating short of the upper end thereof.

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