

UNITED STATES PATENT OFFICE

2,308,328

CHAIR

Marcel Despres, Grand Rapids, Mich.

Application October 20, 1941, Serial No. 415,700

2 Claims. (Cl. 155—93)

This invention relates in general to chairs or stools and has reference more particularly to that type of device which is commonly known as a swivel chair.

In devices of this nature in the past it has been common practice to form a great number of the parts of metal, and in departing from this practice it is one of the objects of the invention to form most of the main parts of wood, plastic or a similar material.

Also in similar devices of this nature it is customary to provide the structure with a central vertically extending supporting screw which is adjustably mounted in the supporting standard, and this I have also found advisable and more economical to form of wood or similar material rather than metal.

It is also another object of this invention to form substantially all of the fastening means for securing the various elements together of wood or similar material thereby practically eliminating all of the metal parts from the structure.

It will be evident that in changing these various parts from metal to wood or the like certain novel structures have been developed all of which will appear more fully as the description proceeds.

To the accomplishment of the foregoing and related ends said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims.

The annexed drawing and following description set forth in detail certain means for carrying out my invention, said means constituting, however, but one of various ways in which the principle of the invention may be employed.

In said annexed drawing wherein like reference numerals refer to like parts throughout the various views:

Fig. 1 is a front elevation of the device of my invention showing certain parts thereof in section.

Fig. 2 is a fragmentary under plan view of a portion of the structure taken substantially on the plane of line 2—2 in Fig. 1.

Fig. 3 is a slightly enlarged fragmentary part sectional view of a detail of the seat fastening means, and

Fig. 4 is a section similar to Fig. 3 but showing this detail of the structure in fully assembled position and is taken substantially on the plane of line 4—4 in Fig. 1.

It has been indicated that this invention will apply equally as well to swivel chairs or stools and while the device illustrated in the drawing may be considered as either, the back of the chair

has been omitted inasmuch as it forms no part of the present invention.

As is usual in structures of this nature I provide a supporting standard which includes a plurality of outwardly extending legs 1 which converge and are secured to a central block 2, which block is provided with a central vertical opening therethrough interiorly threaded.

The vertically extending elongated supporting screw 3 is, in this case, formed of wood, and is exteriorly threaded to adjustably engage with the central opening in the block 2. The usual lock nut 4 also receives the screw 3 and is adapted to lock it in any position to which it has been adjusted. The lock nut here is also intended to be made of wood or the like.

The upper end of the screw is plane and circular as shown at 5. Immediately below the upper plane end of the screw it is provided with an annular groove 6.

A seat supporting frame is also provided which consists of a plurality of outwardly extending arms 7 which converge toward each other and are secured to a central block 8 which is provided at its lower side with an upwardly extending opening of substantially the same size and shape as the upper plane end of the screw and is adapted to receive said end and have a comparatively snug fit therewith. Between the upper end of the screw and the upper end of the opening in the block 8 a fiber washer 9 is located and the upper end of the screw itself may be suitably treated so that the seat frame may easily rotate thereon.

A split collar 10 is secured to the underside of the central block 8 and is received within the annular groove 6 as clearly shown in Figs. 1 and 2. This will permit the seat structure to rotate on the screw and yet prevent its removal therefrom. Also, the screw may be manually adjusted as to height without removing the seat therefrom.

A seat 11 is adapted to be secured to the seat frame formed by the arms 7 at their upper sides, and in order to do this without the aid of any metallic screws or other means of similar material I have provided a plurality of upwardly extending openings 12 at the underside of the seat, each one of which is provided with a downwardly extending wedge 13 (Figs. 3 and 4). A pin 14 which has a downwardly extending slot 15 at its upper end is adapted to fit within the opening 12 and the slot at its center is adapted to receive the wedge 13. The pin 14 is then driven into the opening 12 and the wedge 13 will tend to spread apart the split end of the pin to thereby wedge it in place within the opening and secure it there-

to. As an additional safety means glue may be used to insure a permanent engagement.

Each of the arms 7 is provided with a downwardly extending opening 16 of substantially the same size as the pin 14 and in alinement with each of the openings 12 in the seat. In assembling the seat onto the supporting arms, the pins are inserted in the openings 16 and are glued therein and the resulting fastening of the seat to the arms will be as shown in Fig. 4. The glue aided by the wedging means above described will provide a firm and permanent engagement between the various parts.

If necessary or desirable the same type of connection between the split collar 10 and the central block 8 could be utilized, in which case there would be no metal used in the manufacture of the chair.

In forming the essential parts of a structure of this character entirely of wood or like material the device is not only quicker and more economical to make, but such chairs as have been made in this manner and from this material have been found to operate satisfactorily in practice.

Other modes of applying the principle of my invention may be used instead of the one here described, change being made as regards the structure herein disclosed provided, however, that the means stated by any of the following claims or the equivalent of such stated means be employed.

I, therefore, particularly point out and distinctly claim as my invention:

1. In a rotatable chair, a vertical support having a cylindrical upper end provided with a con-

tinuous annular groove below the upper end of the support, a seat carrier comprising a spider having a central block with seat carrying arms diverging therefrom, said block having a cylindrical opening therein from the lower side of the block upwardly to adjacent the upper side of the block and with said groove in the vertical support disposed at the lower side of the block, and a divided plate collar comprising arcuate parts with arcuate recesses cut in the inner edges of said parts located against and secured to the under side of the block, each of said parts of the plate collar entering said groove and a bearing washer disposed between the upper end of said vertical support and said block at the upper end of the cylindrical recess therein.

2. A support for a rotatable chair comprising, a seat supporting spider having a central block provided with an elongated cylindrical recess therein extending from its lower side upwardly to adjacent the upper side of the block, a vertical support having a cylindrical upper end received in said recess in the block and around which the block may freely turn, said support having a horizontal annular groove therein disposed substantially in the plane of the lower sides of the block and a plate collar made of arcuate parts located against and secured to the under side of the block having inner edge portions entering said groove and having recesses in said adjacent edge portions for the passage of said part of the vertical support within the groove, said block bearing against the upper end of the support and said collar freely turning in said groove thereof.

MARCEL DESPRES.