O. R. HASTY,
ADJUSTABLE ROTARY HUB FOR FURNITURE,
APPLICATION FILED FEB. 2, 1914.

1,160,108. Patented Nov. 9, 1915.
To all whom it may concern:

Be it known that I, OTIS RIDGeway HASTY, a citizen of the United States of America, residing at Elgin, in the county of Kane and State of Illinois, have invented a new and useful Adjustable Rotary Hub for Furniture, of which the following is a specification, reference being had to the accompanying drawings, illustrating same.

This invention is a rotary hub for chairs or other pieces of furniture, by means of which the chair seat or other part may be raised or lowered as desired, by turning same, the said seat or other part also being permitted to revolve without being raised or lowered, under a certain condition in the device.

The principal objects of my invention are, to provide an improved device of the character herein set forth, which is very durable, efficient, pleasing in appearance, and handy to operate; and to provide an improved construction in such devices.

Other objects will be apparent from the following specification.

In the accompanying drawings illustrating the preferred form of my invention, Figure 1 is a vertical cross-sectional view of one construction of the device of this invention, with certain parts shown in elevation; Fig. 2 is a bottom view of the spring catch shown in Fig. 1; and Fig. 3 is a top plan view of the bottom plate, also shown in said Fig. 1.

Like characters refer to like parts in the several figures.

By reference to the drawings, 1 is a hub, preferably a casting, to which any number of legs 2, preferably four, may be attached as shown or in various other manners. The legs 2 may be the legs of a chair or other piece of furniture. The recess 3 is adapted to receive a leg 2. To the lower end of the hub 1 is attached a plate 4 through which projects a vertical screw 5, the screw 5 being loosely held to the plate 4 preferably by a pin 6 extending through a hole in the lower end of the screw member 5, the pin 6 being held from turning by a cap 7 which is recessed to accommodate the ends of the pin 6 and which is held to the plate 4 preferably by screws 8 as shown. Within the hub 1 is a cylindrical stem portion 9, projecting into the top end of the hub 1, the portion 9 carrying a disk 10 thereon near its upper end, the disk 10 being provided with an annular track or projection 11 thereon on which rests another disk 12, the latter being held on the track 11 by a stud 13 on the member 9 and by washer 14 and nuts 15 15, so that it (12) is free to revolve on the track 11. A chair seat or other furniture part may be attached to the disk 12 in any suitable manner, so as to revolve therewith. To the underneath side of the disk 12 is attached a spring catch 16, comprising a plunger 17 having a rounded end 19 adapted to fit into a rounded recess 18 in the edge of the disk 10, and a spring 20 for pressing the plunger 17 into the recess 18. The lower end of the cylindrical portion 9 carries a nut 21 which is rigidly secured to the portion 9 and adapted to be screwed onto the thread 22 of the screw member 5. The member 5 is loosely attached to the plate 4 so that when the nut 21 is being started onto the upper end of the thread 22 the latter will readily find and adjust itself to the thread in the nut 21.

The set-screw 23 is provided for the purpose of locking the cylindrical portion 9 to the hub 1, so the portion 9 cannot turn, when the nut 21 is screwed down far enough on the thread 22. When the portion 9 is thus locked to the hub 1, the disk 12 with the chair seat or other part attached thereto may be revolved as much as desired without raising or lowering same and without turning the portion 9, the disk 12 in this case riding on the track 11 and the pin or plunger 17 slipping into and then out of the recess 18, and thereby passing by the recess 18, once in each revolution of the disk 12.

However, if the set-screw 23 is loosened before the disk 12 is revolved, the portion 9 will then revolve with the disk 12, due to the plunger 17 holding in the recess 18 with sufficient force to cause the disks 10 and 12 to revolve together when the screw 23 is loosened. This turning of the portion 9 relatively to the hub 1 screws the nut 21 either up or down on the thread 22, depending on the direction of rotation of the disk 12, and thus raises or lowers the disk 12, with the chair seat or other part attached thereto, as desired. When the disk 12 is thus raised or lowered the required amount, the set-screw 23 is again tightened up, so as to lock the member 9 against further turning, in which event the disk 12 with the chair seat or other part attached thereto may be again revolved as much as desired without raising or lowering same.
construction I provide a very simple and efficient means for adjusting the height of a chair seat or other article or furniture part, and at the same time permit the seat or other part to be freely revolved after being vertically adjusted, without changing its height.

It will be noted that in my device the screw 5 is an interior screw, and that it is entirely enclosed and thus protected from dust and dirt and also hidden from view. It will also be noted that the screw 5 is stationary and that the cylindrical part 9 which forms part of the casing for the screw 5 revolves. Furthermore, it will be noted that the screw 5 is within the hub 1.

I do not wish to limit this invention to all of the particular details herein set forth, as various modifications thereof may be made or utilized without departing from the scope of the appended claims.

What I claim as my invention is:

1. A device of the character described comprising a hollow hub, a bearing plate having a stem rotatably mounted within the hub and in threaded engagement with a portion thereof, a mounting plate resting upon the bearing plate and rotatable thereon, means to lock the stem and hub against rotation, and a spring catch for frictionally connecting the two plates against rotation.

2. A device of the character described comprising a hollow hub, a bearing plate having a stem rotatably mounted within the hub and in threaded engagement with a portion thereof, a mounting plate resting upon the bearing plate and rotatable thereon, means to lock the stem and hub against rotation, one of the plates provided with an eccentrically arranged recess and the other with a spring catch cooperating with the recess to frictionally engage the plates against relative rotation.

3. A device of the character described comprising a hollow hub, a non-rotatable screw spindle housed within the hub and spaced from the side walls thereof, a bearing plate having a tubular stem rotatably mounted within the hub and provided with an interiorly threaded end closure adapted to engage the screw spindle, the bearing plate having on its upper face an axially disposed bearing member, a mounting plate supported upon the bearing plate for rotation about the bearing member, and releasable means to lock the stem against rotation within the hub.

4. A device of the character described comprising a hollow hub, a non-rotatable screw spindle housed within the hub and spaced from the side walls thereof, a bearing plate having a tubular stem rotatably mounted within the hub and provided with an interiorly threaded end closure adapted to engage the screw spindle, the bearing plate having on its upper face an axially disposed bearing member, a mounting plate supported upon the bearing plate for rotation about the bearing member, releasable means to lock the stem against rotation within the hub, and a spring catch for frictionally connecting the two plates against rotation.

5. A device of the character described comprising a hollow hub, a non-rotatable screw spindle housed within the hub and spaced from the side walls thereof, the mounting of the spindle permitting its slight tilting within the hub, a bearing plate having a tubular stem rotatably mounted within the hub and provided with an interiorly threaded end closure adapted to engage the screw spindle, the bearing plate having on its upper face an axially disposed bearing member, a mounting plate supported upon the bearing plate for rotation about the bearing member, releasable means to lock the stem against rotation within the hub, and a spring catch for frictionally connecting the two plates against rotation.

6. A device of the character described comprising a hollow hub, a non-rotatable screw spindle housed within the hub and spaced from the side walls thereof, a bearing plate having a tubular stem rotatably mounted within the hub and provided with an interiorly threaded end closure adapted to engage the screw spindle, the bearing plate having on its upper face a circular bearing track and an axially disposed bearing stud, a furniture mounting plate supported on the bearing plate for rotation on the track about the bearing stud, and releasable means to lock the stem against rotation within the hub.

7. A device of the character described comprising a hollow hub, a non-rotatable screw spindle housed within the hub and spaced from the side walls thereof, a bearing plate having a tubular stem rotatably mounted within the hub and provided with an interiorly threaded end closure adapted to engage the screw spindle, the bearing plate having on its upper face a circular bearing track and an axially disposed bearing stud, a furniture mounting plate supported on the bearing plate for rotation on the track about the bearing stud, and releasable means to lock the stem against rotation within the hub, the one of the plates provided with an eccentrically arranged recess and the other with a spring catch cooperating with said recess to frictionally engage the plates against relative rotation.

8. A device of the character described comprising a hollow hub, a non-rotatable screw spindle housed within the hub and spaced from the side walls thereof, the mounting of the spindle permitting its slight tilting within the hub, a bearing plate having a tubular stem rotatably mounted within the hub and provided with an interiorly threaded end closure adapted to engage the screw spindle, the bearing plate having on its upper face a circular bearing track and an axially disposed bearing stud, a furniture mounting plate supported on the bearing plate for rotation on the track about the bearing stud, and releasable means to lock the stem against rotation within the hub, the one of the plates provided with an eccentrically arranged recess and the other with a spring catch cooperating with said recess to frictionally engage the plates against relative rotation.
threaded end closure adapted to engage the screw spindle, the bearing plate having on its upper face an axially disposed bearing member, a mounting plate supported upon the bearing plate for rotation about the bearing member, and releasable means to lock the stem against rotation within the hub, one of the plates provided with an eccentrically arranged recess and the other with a spring catch cooperating with said recess to frictionally engage the plates against relative rotation.

As inventor of the foregoing I hereunto subscribe my name, this 27 day of January, 1914.

OTIS RIDGEWAY HASTY.

Witnesses:
ARTHUR L. PAULSON,
BERTHA JANEKE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."