

[54] ADJUSTABLE ROLLER ASSEMBLY AND
 SUSPENSION MEANS

[76] Inventor: **Ruben Figueroa**, 75 E. 13th St.,
 Hialeah, Fla. 33010

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 308/3.8

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[58] Field of Search 308/6 R, 3.8, 16, 20;
 16/98, 107, 45, 46, 97, 19

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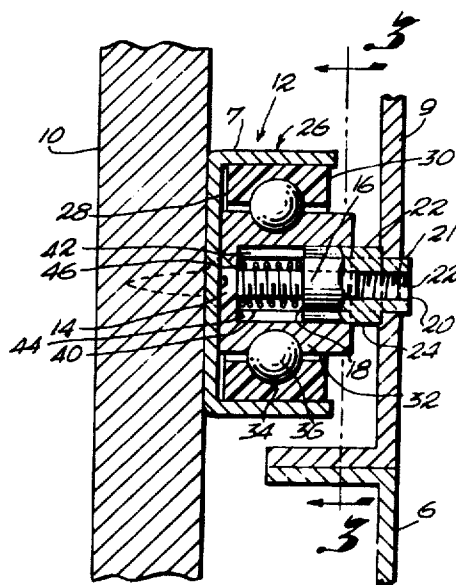
Primary Examiner—Charles J. Myhre

Assistant Examiner—R. H. Lazarus

[57] **ABSTRACT**

An adjustable roller assembly of the drawer and pedestal track and roller suspension type wherein the roller assembly is adjustable laterally so that a stack of drawers in a pedestal can be brought into stacked vertical alignment, the roller assembly including a roller having an inner race with an axial bore and a bushing within the axial bore and key means interconnecting the roller and the bushing for relative axial movement of the two and a headed screw captivated in a fixed position relative to the roller and in threaded engagement with the bushing for relative axial movement of the bushing relative to the roller on adjustment.

3 Claims, 3 Drawing Figures



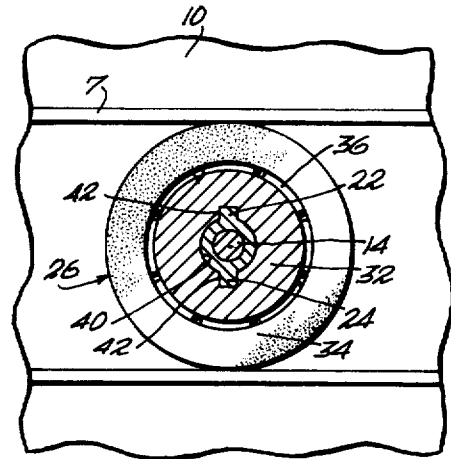
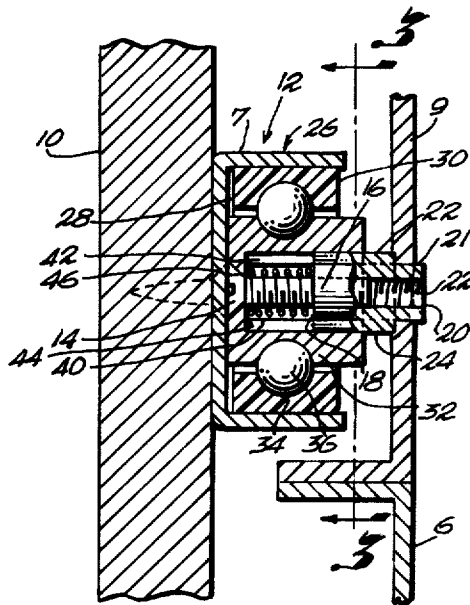
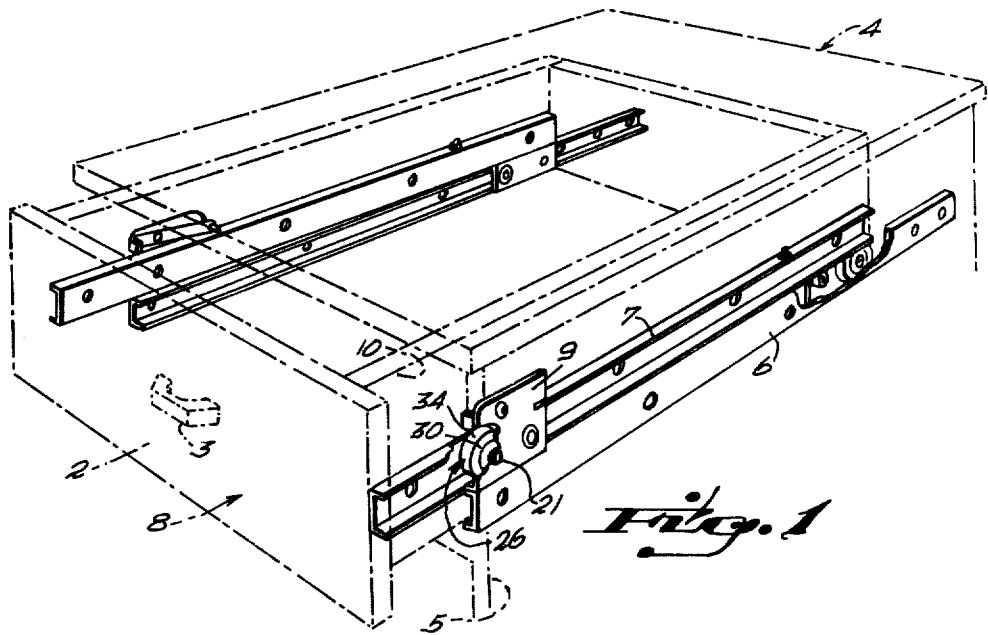


Fig. 2

Fig. 3

ADJUSTABLE ROLLER ASSEMBLY AND SUSPENSION MEANS

FIELD OF THE INVENTION

This invention relates to an adjustable roller assembly for use on drawers and pedestals and, more particularly, to an adjustable roller assembly whereby drawers in vertical stacked relation which are relatively slightly but disturbingly misaligned may be brought into precise alignment by screw-threaded advancement of adjustment means on the roller assembly.

BACKGROUND OF THE INVENTION

As is perhaps well known in the furniture manufacture it is often necessary to provide pedestals with an opening in which drawers are received and which drawers and pedestals are provided with guide tracks and roller suspension means, each including an adjustable roller assembly, but that because of variances within the limits of the tolerances the drawers of a finished piece of furniture often appear to be misaligned that is, not in perfectly stacked relation.

The instant invention is of an adjustable roller assembly whereby by threaded advancement of an adjustment means the relative position of a drawer adjacent a pedestal can be laterally arranged so that the drawers are in stacked relation.

OBJECTS OF THE INVENTION

It is, accordingly, an object of this invention to provide an adjustable roller assembly and track means for drawers and pedestals which includes an adjustable roller assembly whereby the drawers of a stack may be conveniently adjusted to bring them into relatively precise stacked relation to improve the appearance of the furniture.

It is another object of this invention to provide an adjustable roller assembly which includes a ball bearing having an axial bore and a bushing in said axial bore and key means mutually interconnecting the roller and the bushing for relative sliding movement of the same along an axial centerline and a screw means interconnecting the same for effecting relative axial movement of the bushing and roller.

It is another object of this invention to provide a simple and inexpensive means for providing a suspension system for drawers and pedestals whereby the drawers in a pedestal may be adjusted laterally to bring the same into stacked relation which is simple and inexpensive to manufacture, strong and sturdy, and is adapted for inexpensive finishing of the appearance of furniture.

In accordance with these and other objects which will become apparent hereinafter, the instant invention will now be described with reference to the accompanying drawings in which:

DESCRIPTION OF DRAWINGS

FIG. 1 is a perspective view of a support means for a drawer including the adjustable roller assembly of the instant invention;

FIG. 2 is a view in cross section taken vertically through the plane of the roller assembly; and

FIG. 3 is a view in cross section taken on the plane indicated by the line 3—3 of FIG. 2 and looking in the direction of the arrows.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIG. 1 there is shown a drawer member 8 having a front 2 provided with a handle 3 to move it inwardly or outwardly of a pedestal 4, the sides such as 5 being provided with a conventional roller guide track 6 which mates with the corresponding guide track 7 secured on the side 10 of the drawer and the roller assemblies, a roller assembly being mounted on each of the guides as shown to a lug which extends downwardly in the case of one of the guides and upwardly in the case of the other of the guides so that the rollers will ride in the adjacent track. In the manufacture of furniture having a stack of drawers, such as desks, because of tolerance limits, in production a stack of drawers is often somewhat misaligned in the pedestal. The roller assembly of the instant invention is effective for lateral adjustment of the drawers to bring them into a neat alignment, the adjustment means being by means of a screw-driver which laterally adjusts the roller.

Referring now to FIG. 2, the adjustable roller assembly 12 is seen to be composed of a headed threaded screw 14 of a predetermined diameter which is in threaded engagement in a bushing 16 having a threaded bore 22 extending axially from the first end 18 toward the second end 20. The bushing carries exterior key means 22 and 24 on the first end 18 which extend axially therealong toward but not to the second end 20. The roller generally designated by the numeral 26 includes an axially facing first end or face 28 and opposite end or face and 30. The roller it is seen includes an inner race 32 and an outer race 34 with bearings 36 being captivated between the races as illustrated, the inner race 32 is provided with a through axial bore 40 of a predetermined diameter which is greater than the diameter of the threaded screw 14 and the main diameter of the bushing. The wall of the inner race is provided with keyways 42 extending axially from the second face 30 of the roller and in which the key means 22 and 24 of the bushing are slidingly engaged. It is seen that the first end of the inner race has a constricted opening or mouth of the bore so that there is defined a shoulder 44. Captivated about the threaded shank of the screw 18 a coil spring 46 is provided which is of a diameter greater than that of the screw and which, at one end, bears against the shoulder 44 and, at the other end, against the end face of the bushing 16. It is thus seen that upon threaded movement of the screw the bushing will slide relative to the inner race inwardly and outwardly against the spring whereby the roller is adapted to be moved inwardly or outwardly relatively to the pedestal or the surface to which it is mounted for lateral adjustment of the members involved.

In the embodiment shown each of the guide tracks it is seen comprises a channel-shaped member each having a web and flanges extending in a common direction. The distance between the flanges is such as to snugly accommodate the diameter of the roller so that, when it is mounted by suitable means, such as by welding to the guide track lug 9 as at 21, a shrink fit, or other suitable means such as by peening over the end 21, there is provided an access for the roller adjustment, simply by removing the drawer and the screw turned by a screwdriver.

What is claimed is:

1. A slide and guide assembly including a guide member adapted to be mounted to a drawer and a roller assembly adapted to be mounted to a cabinet, said adjustable roller assembly including:

- a bushing having a first end and a second end and a threaded bore extending axially from the first end of said bushing toward said second end, said bore sized for threaded engagement with said screw,
- exterior key means on the first end of said bushing,
- a roller having an axially facing first and second face and including,
 - an inner race, an outer race, bearings captivated between the races, and a roller member on the outer race,
- said inner race having a through axial bore of a predetermined diameter greater than the diameter of said threaded screw and the diameter of said bushing, and a keyway in the inner race extending axially from the second face of said roller,
- a radially inwardly extending shoulder constricting the mouth of said bore of said inner race adjacent said first face of said roller with an opening sized for passage of said threaded screw,
- a coil spring of a diameter greater than the diameter of said threaded screw captivated between said shoulder and the bushing, whereby, said threaded screw extends through the bore of said inner race

and into threaded engagement with said threaded bore and said bushing, said roller is adapted to be moved inwardly and outwardly relative to said bushing on sliding movement of said key in said keyway; and

means to mount said bushing to a first surface said roller assembly mounted for relative movement with respect to said guide assembly.

2. An adjustable roller as set forth in claim 1 and a guide assembly comprising a channel form member having a web and a pair of opposing flanges extending in a common direction and an upstanding lug on one of said flanges, said means to mount said bushing mutually interconnecting said web and said bushing.

3. An adjustable roller assembly in combination as set forth in claim 2 wherein a second adjustable roller assembly is provided and a second guide track is provided, said second guide track having a web and flanges of common dimensions with respect to said first guide track and including a lug and a roller assembly mounted thereto of common dimension with respect to first mentioned roller assembly whereby the tracks are adapted to be mated together and one be applied to a first member and one be applied to a second member for relative rolling adjustment of the members with respect to one another.

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