United States Patent

Spatz

[15] **3,699,609**

[45] **Oct. 24, 1972**

[54] **SPRING LOADED CASTER FOR SHOP TOOLS, BAR STOOLS AND THE LIKE**

[72] Inventor: **William L. Spatz,** Route 2, P.O. Box 194-A, Montevallo, Ala. 35115

[22] Filed: **April 12, 1971**

[21] Appl. No.: **133,245**

Related U.S. Application Data

[63] Substitute for Ser. No. 801,982, Feb. 25, 1969, abandoned.

[52] **U.S. Cl.** **16/44**

[51] **Int. Cl.** **A47b 91/00**

[58] **Field of Search** 16/44, 26, 19; 248/188.9, 21, 248/22, 24

[56] **References Cited**

UNITED STATES PATENTS

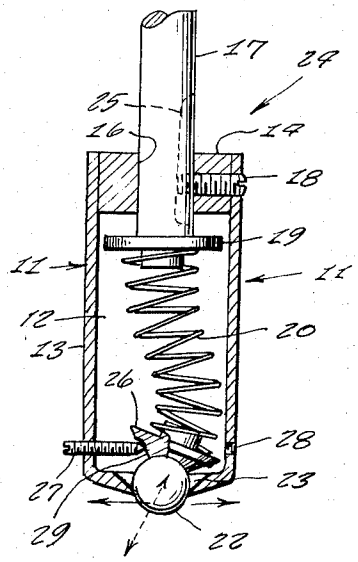
2,176,551	10/1939	Solem	16/44
3,096,536	7/1963	Rabelos	16/44

Primary Examiner—Bobby R. Gay
Assistant Examiner—Doris L. Troutman

[57] **ABSTRACT**

An improved caster for the bottom of a stool or other furniture item, the caster comprising a casing containing a compression spring which bears adjustably against a spherical steel ball engaging a floor or supporting surface.

1 Claim, 2 Drawing Figures



PATENTED OCT 24 1972

3,699,609

Fig. 1

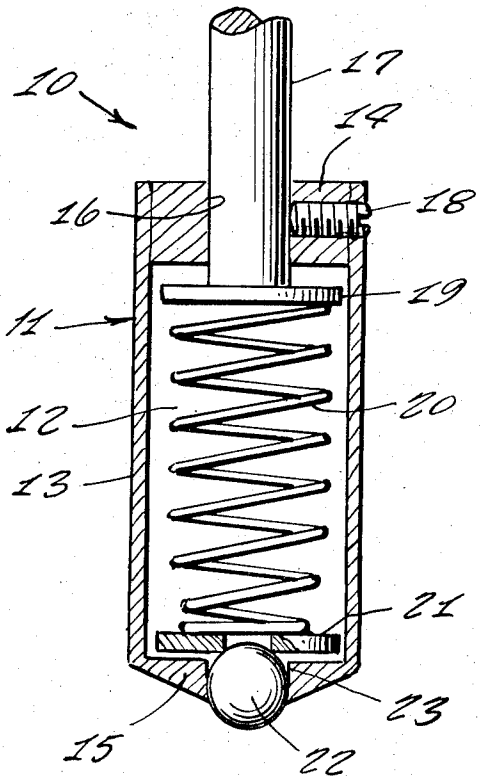
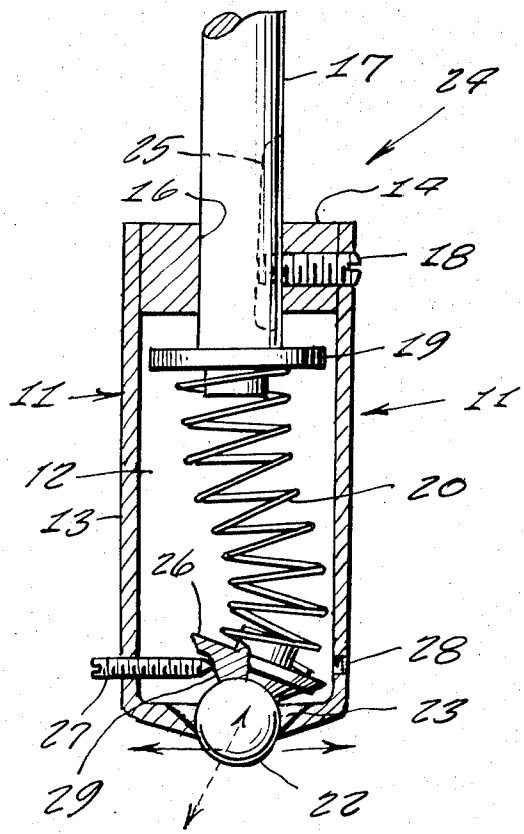


Fig. 2



INVENTOR
WILLIAM L. SPATZ

SPRING LOADED CASTER FOR SHOP TOOLS, BAR STOOLS AND THE LIKE

This is a substitute application for my application filed Feb. 25, 1969, Ser. No. 801,982, Group Art Unit 357, now abandoned.

This invention relates generally to furniture casters.

A principal object of the present invention is to provide an improved caster having a rotatable spherical ball for engaging a supporting surface, and wherein the ball is spring loaded for frictional controlling of the rotation thereof.

Another object is to provide an improved caster wherein the spring tension on the ball is manually adjustable for controlling the slidable mobility of the stool across a floor.

Another object is to provide an improved caster wherein the ball is spring loaded in a selected angular direction so to absorb external shock in a specific direction, and which would accordingly be suitable in specific areas subject to the same.

Other objects are to provide a spring loaded caster for stools and the like which is simple in design, inexpensive to manufacture, rugged in construction, easy to use and efficient in operation.

These and other objects will be readily evident upon a study of the following specification and the accompanying drawing wherein:

FIG. **1** is a side cross Sectional view of one form of the present invention, and

FIG. **2** is a similar view of a modified form thereof.

Referring now to the drawing in detail, and more specifically to FIG. **1**, the reference numeral **10** represents a spring loaded caster for stools and the like according to the present invention, wherein there is a case **11** having a central chamber **12**, the case having a cylindrical side wall **13**, top wall **14** and bottom wall **15**. The top wall has an opening **16** receiving a shaft **17** secured to a stool leg. A set screw **18** in the side wall secures the leg at a selected elevation. A flat end flange **19** on the shaft bears against one end of a compression coil spring **20**, the opposite end of the spring bearing against washer **21** seated on spherical steel ball **22**. The ball is rotatable within a seat **23** of the bottom wall **15**; the ball extending downward through the wall.

In operative use, tension against the ball is manually adjustable by means of the screw **18**, so to control the rollability thereof.

In FIG. **2** a modified construction **24** includes the above parts, but additionally incorporated the following modification. The set screw **18** extends into a key way **25** of the shaft so to prevent rotation of the caster unit; the screw bearing against the key way bottom wall. Also the lower end of the spring **20** bears against a bearing block **26** fitted over the upper end of the ball; the block being angularly adjustable by a set screw **27** selectively receivable in threaded openings **28** in the case side wall **13**; the block **26** having conical side **29** against which the screw **27** bears. Thus an angular direction of force is applied against a floor so to resist horizontal travel in a particular direction, such as when upon inclined floors such as on a ship deck or the like.

The novel features and the operation of this device will be apparent from the foregoing description. While the device has been shown and the structure described in detail, it is obvious that this is not to be considered limited to the exact form disclosed, and that changes may be made therein within the scope and spirit of the invention.

Having thus set forth and disclosed the nature of this invention, what is claimed is:

1. In a caster for stools and the like, the combination of a case, a rotatable ball supported on a lower end of said case for engaging a supporting floor, means for securement to a lower end of a stool leg, and means for frictional adjustable to control the rollability of said ball on said floor, wherein said securement means to said stool leg comprises a shaft secured to said leg, said shaft extending through an opening in an upper end wall of said case, a compression spring bearing against a bottom face of said shaft and at its opposite end bearing against a block fitted over said ball, and said adjustable means comprising a set screw in said case securable against a side of said shaft, wherein said block has a conical wall, said case has a plurality of radial, threaded openings selectively receiving a screw adjustably engaging said conical wall of said block for providing angular force by said spring against said ball.

* * * * *