

E. HUTTON.
CASTER.

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1,259,103.

Patented Mar. 12, 1918.

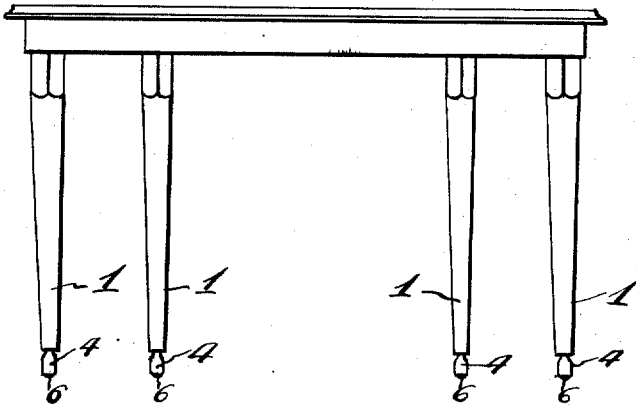


Fig. 1.

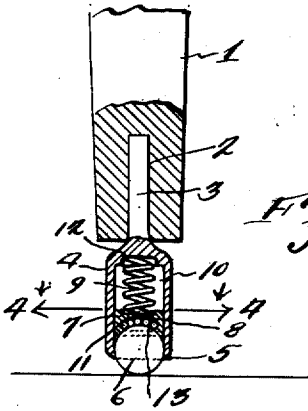


Fig. 2.

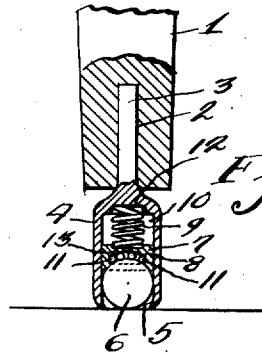


Fig. 3.

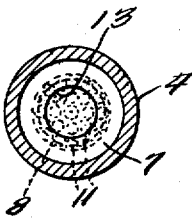


Fig. 4.

Witnesses
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To all whom it may concern:

Be it known that I, EDGAR HUTTON, a citizen of the United States, residing at Annapolis, in the county of Anne Arundel, State of Maryland, have invented a new and useful Caster; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improved caster for table legs and the like, and an object of the invention is to provide a device of this kind having means to yieldably support the table so that the casing of the caster is out of engagement with the floor, so that the bearing ball or spherical member will easily roll, when the table is moved, but when weight is applied upon the table sufficient to overcome the yieldable means, the casing of the caster will frictionally bind on the floor, thereby preventing displacement of the table. Although the caster is shown as applied to a table leg, it is particularly designed for use in connection with a chair leg, so that when sitting on the chair skidding of the same will be prevented, thereby preventing injury to the floor covering.

A further object of the invention is to provide a simple and improved device of this kind, which is efficient and practical, and may be manufactured at a small cost.

In practical fields, the details of construction may necessitate alterations falling within the scope of what is claimed.

The invention comprises further features and combination of parts, as hereinafter set forth, shown in the drawings and claimed.

In the drawings:—

Figure 1 is a view in side elevation of a table, showing a caster applied to each of its legs.

Fig. 2 is a vertical sectional view and partly in elevation of the lower end of one of the legs and one of the casters.

Fig. 3 is a view similar to Fig. 2 showing the yieldable means having been overcome and the casing of the caster engaging the floor.

Fig. 4 is a cross sectional view on line 4—4 of Fig. 2.

Referring more especially to the drawings, 1 designates a table leg having a bore 2, to receive the shank 3 of the casing 4 of the caster. The lower portion of the casing adjacent the peripheral edge part is slightly

underturned, as shown, to form an annular abutment wall 5, to prevent downward movement of the bearing ball or spherical member 6. A plate 7 having a segmental recess 8 is also arranged in the casing 4 of the caster over the bearing ball. A coiled spring 9 is interposed between the plate 7 and the upper end of the chamber 10 of the casing of the caster, thereby holding the plate adjacent the ball, and the ball normally in contact with the annular abutment wall 5. The bearing ball or spherical member is of such diameter, that the same may move upwardly freely in the casing of the caster, that is when the plate 7 likewise moves, which plate is of such a diameter as to move freely in the casing. Arranged in the segmental recess 8 of said plate 7 is a series of anti-frictional ball bearings 11, with which the bearing ball engages, so that the ball may freely rotate or roll on the floor. In constructing the caster, the spring, the plate 7, and the bearing ball, together with the anti-frictional ball bearing, are first arranged in said casing, then the lower edge portion of the casing is underturned, to provide the annular abutment wall 5, so as to retain said parts in place. The spring 9 is of such strength as to support, when without weight or pressure, so that the lower edge part of the casing of the caster is out of engagement with the floor, so that the table or chair may be moved from one place to another. However, when pressure or weight is applied upon the table or chair, the tension of the spring is so overcome that the lower edge part of the casing will frictionally engage the floor, as shown in Fig. 3, thereby preventing skidding of the table or chair. The upper end of the chamber of the casing and the upper face of the plate are provided with recesses 12 and 13 to receive the opposite ends of the spring, to prevent displacement of the spring.

The invention having been set forth, what is claimed as new and useful is:

In a caster, a cylindrical tubular caster casing having a lower open flanged end, and an upper closed end provided with an axially extending extension fit into the leg of an article of furniture, a bearing ball in said casing adapted to partly protrude through said flanged open end, a circular one piece plate fitting the cylindrical hollow of the casing slidably and rotatably therein, the upper face of said plate and the inner

closed end of the outer casing having axially
aligned circular recesses of less diameters
than the interior of the casing, the under
face of said plate being provided with a
5 spherical bearing cavity engaging said ball,
said bearing cavity having an auxiliary cav-
ity concentric with said ball and having its
inner end closed, anti-frictional balls in the
auxiliary cavity, and a coil spring between
10 said plate and the closed end of the hollow of

said casing and having its opposite ends en-
gaging said circular recesses to hold the
spring centered.

In testimony whereof I have signed my
name to this specification in the presence of 15
two subscribing witnesses.

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Witnesses:

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