

No. 718,343.

PATENTED JAN. 13, 1903.

M. HAGLE.
BALL CASTER.

APPLICATION FILED APR. 12, 1902.

NO MODEL.

Fig. 1.

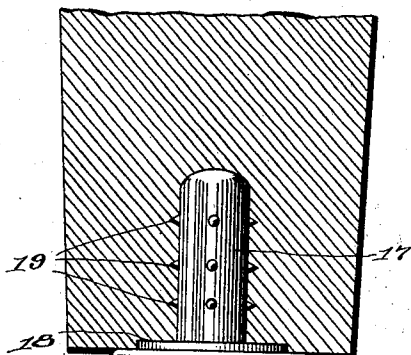


Fig. 2.

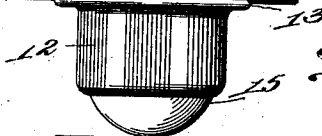


Fig. 3.

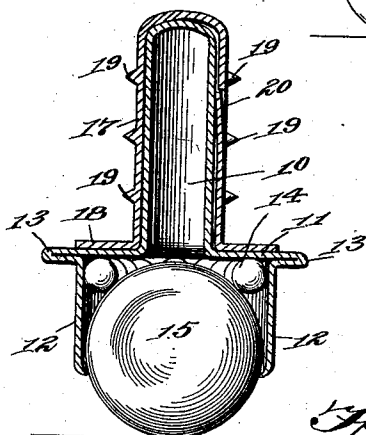
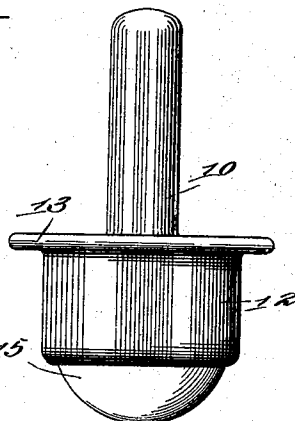
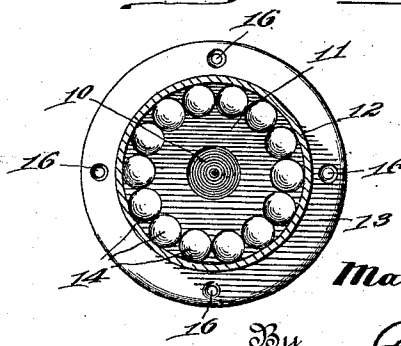


Fig. 4.



Mark Hagle Inventor

By

E. L. Siggers

Attorney

Witnesses
John Maupin
B. L. Foster

UNITED STATES PATENT OFFICE.

MARK HAGLE, OF WAUSAUKEE, WISCONSIN.

BALL-CASTER.

SPECIFICATION forming part of Letters Patent No. 718,343, dated January 13, 1903.

Application filed April 12, 1902. Serial No. 102,618. (No model.)

To all whom it may concern:

Be it known that I, MARK HAGLE, a citizen of the United States, residing at Wausaukee, in the county of Marinette and State of Wisconsin, have invented a new and useful Ball-Caster, of which the following is a specification.

The present invention relates to casters, and particularly to that class in which a bearing-ball is employed.

The object of the invention is to provide an exceedingly simple and inexpensive structure which is strong and durable, the several parts being so arranged and related that the body will be completely supported at the portions where the strain is applied, thereby preventing said body becoming distorted or misshapen.

The preferred manner of accomplishing the above object will be clearly understood by reference to the accompanying drawings, wherein—

Figure 1 is a sectional view through the lower portion of a table-leg, showing the improved caster applied thereto, said caster being illustrated in elevation. Fig. 2 is a longitudinal sectional view through the caster with the pintle-retainer thereon. Fig. 3 is a side elevation of the caster. Fig. 4 is a horizontal sectional view through the same.

Similar numerals of reference designate corresponding parts in all the figures of the drawings.

The body of the caster is preferably made of one piece of metal, which is spun and bent to proper form. It comprises a hollow sheet-metal pintle 10, from the lower end of which projects an outstanding flat bearing-wall 11, said wall being made integral with the pintle, as shown. On the side of the wall 11 opposite the pintle 10 is the ball-casing 12, said casing being cylindrical in form and having its walls located within the planes of the edge of the bearing-wall, said edge being doubled back to form a flange 13, which is of double thickness. The bearing-wall 11 and the wall of the casing 12 are disposed at right angles to each other, and in the angle thus formed are arranged a plurality of antifriction-balls 14, said angle constituting a race for the same. A bearing-ball 15 is also located within the casing, its upper portion resting against the antifriction-

balls, its lower portion projecting through the bottom of the casing, the lower end of which is inturned, as shown at 15. Openings 16 may be made through the outstanding flange 13, and through these openings can be passed suitable fastening devices. A pintle-retainer is also employed in connection with the above-described caster, said retainer being in the form of a sleeve 17, that receives the pintle 10 of the caster. This sleeve is provided at its lower end with an outstanding bearing-flange 18 and is provided on its outer face with a plurality of holding-studs 19. An inwardly-extending tongue 20 also constitutes a part of the pintle-retainer and is arranged to engage the pintle when it is placed within the sleeve, as shown in Fig. 2. This retainer is of course placed in a suitable socket formed in the bottom of the article of furniture to which the caster is applied, and it practically constitutes a part thereof.

There are distinct advantages for this construction. In the first place, it can be made at very little cost, and being of sheet metal it will be evident that unless properly supported it would be liable to become distorted by the weight of the furniture supported thereby. To prevent this, therefore, the bearing-wall 11 is made flat, so that it will rest directly against the surface to which the caster is applied, and the upward strain will thus be received by such surface. The outward strain, however, must be received by the wall of the receptacle, and the outstanding flange 13 is employed particularly for this purpose, as it affords a double thickness of metal entirely around the ball-casing, thus strengthening the same at the place where the greatest strain is applied thereto.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a ball-caster, the combination with a
pintle-retainer comprising a sleeve having an
outstanding bearing-flange at its lower end,
of a caster-body comprising a pintle that en-
gages in the sleeve, a ball-casing, and an out-
standing flange that rests against and pro-
jects beyond the edge of the said bearing-
flange and is provided in its projecting por-
tion with openings for the reception of fas-
tening devices.
2. In a ball-caster, a body formed of a sin-
gle piece of sheet metal and comprising a
pintle from the lower end of which projects
an outstanding flat bearing-wall, a cylindrical
ball-casing extending from the side of the
bearing-wall opposite the pintle and being lo-
cated within the plane of the edge thereof,
said edge being doubled back upon itself,
antifriction-balls located in the angle formed
by the flat bearing-wall and the cylindrical
casing, and a bearing-ball resting against the
antifriction-balls and projecting through the
lower end of the casing.
3. A caster-body made of a single piece of
metal and comprising the hollow pintle or
shank 10, the flat bearing-wall 11, and the
cylindrical ball-casing 12, the wall projecting
beyond the casing and constituting a flange
13 which is formed of two thicknesses of metal.
- In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.
- MARK HAGLE.
- Witnesses:
H. G. LAUN,
C. F. PETERSON.