(No Model.)

E. CARR.

BALL CASTER.

No. 348,887. Patented Sept. 7, 1886.

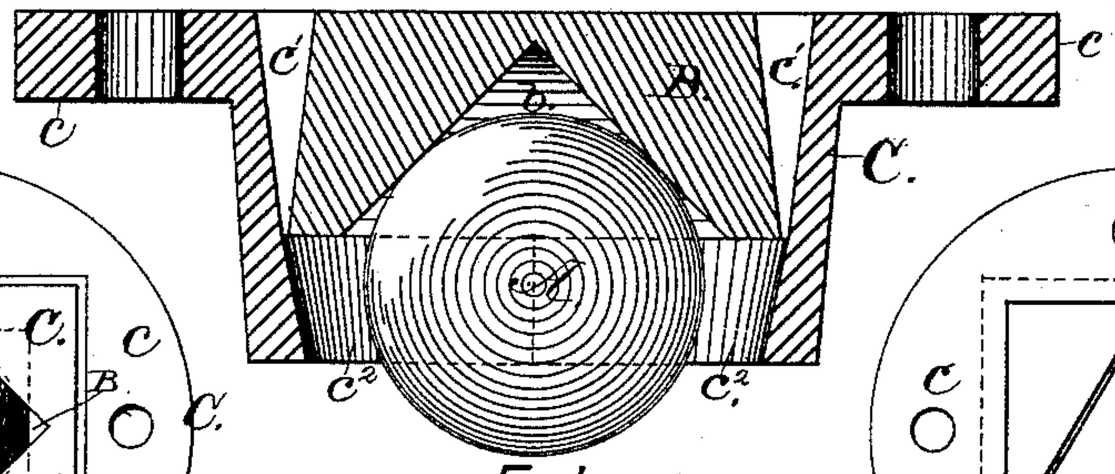

FIG. 1.

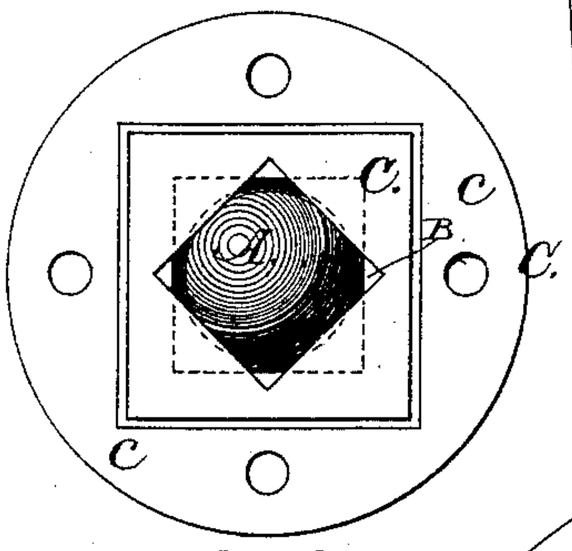

FIG. 4.

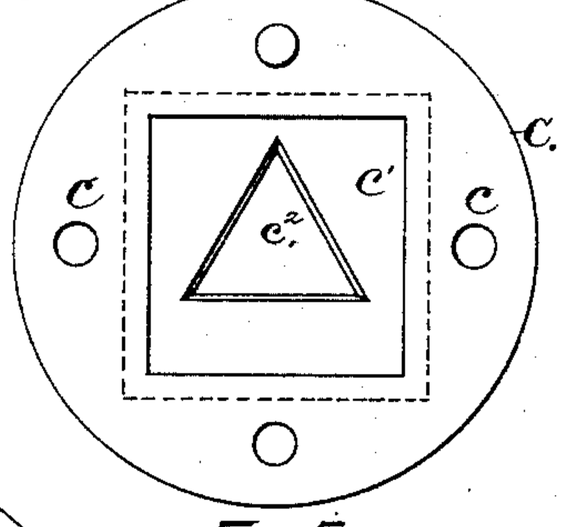

FIG. 5.

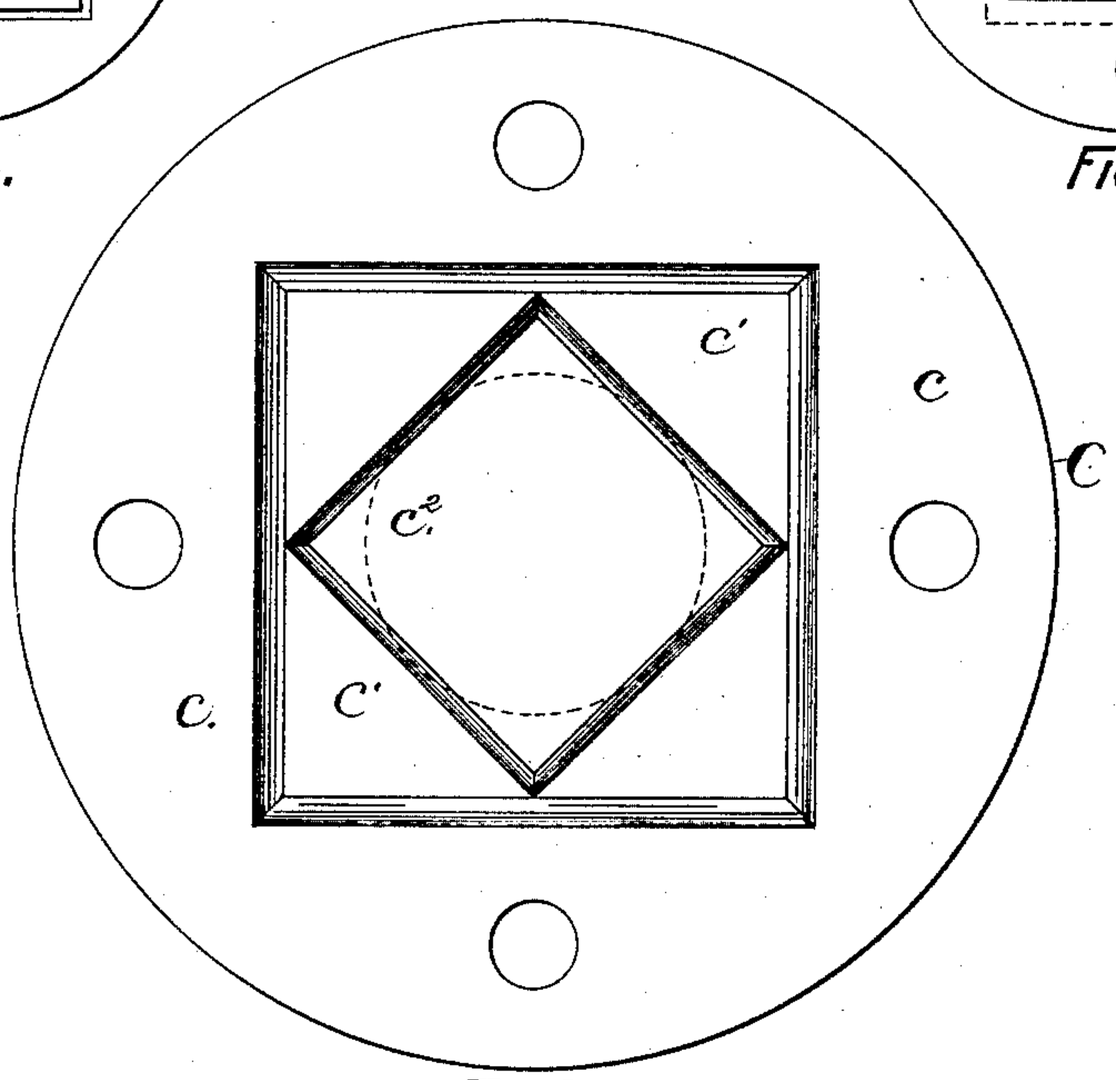

FIG. 2.

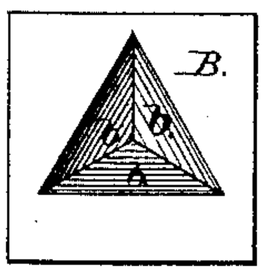

FIG. 6.

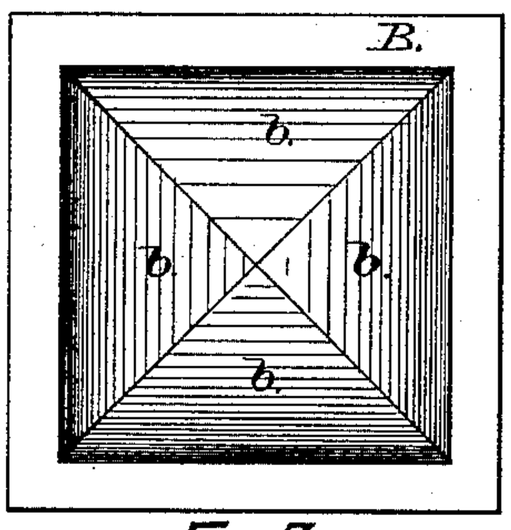

FIG. 3.

Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

ELLSWORTH CARR, OF TROY, NEW YORK, ASSIGNOR OF ONE-HALF TO JOHN H. REYNOLDS, OF SAME PLACE.

BALL CASTER.

SPECIFICATION forming part of Letters Patent No. 348,887, dated September 7, 1886.

Application filed June 10, 1886. Serial No. 204,692. (No model.)

To all whom it may concern:

Be it known that I, ELLSWORTH CARR, of Troy, in the county of Rensselaer and State of New York, have invented new and useful Improvements in Ball Casters, of which the following is a specification.

My invention relates to improvements in ball casters; and it consists of the novel construction and arrangement of parts herein described and claimed.

In the accompanying drawings, which are herein referred to, and form part of this specification, Figure 1 is a vertical section of my caster through its center line with the ball shown in elevation; Fig. 2, a detached plan view of the retaining-piece; Fig. 3, an inverted plan view of the bearing-piece; Fig. 4, an inverted plan view of my caster on a reduced scale. Figs. 5 and 6 are modifications of Figs. 2 and 3 on a reduced scale.

As represented in the drawings, A is the rolling ball of my caster, which should be made in the form of a true sphere, of metal or other substance having sufficient endurance to stand the wear.

B is the bearing-piece, made in polygonal form, and having in its lower face a polygonal pyramidal depression, *b*, which sits upon the rolling ball A in such a manner that the latter will bear at points on the sides of the depressions *b*, the said sides forming tangents to the spherical surface of said ball.

C is the retaining-plate, provided with a flange, *c*, by which the caster is secured to its required place. A recess, *c'*, is formed in the upper side of said retaining-piece for the purpose of receiving the bearing-piece B. The diameter of said recess should be sufficient to permit said bearing-piece to enter therein with perfect freedom, and the depth of said recess should allow the upper face of the bearing-piece B to lie flush or nearly flush with the upper face of said retaining-piece. In the lower face of said retaining-piece a polygonal opening, c^2, is formed diagonally to the recess *c'*, and said opening flares upwardly into the recess *c'*. The diameter of the opening c^2 must be sufficient to permit a segment of the ball A to protrude below the bottom of the retaining-piece C; but the flaring sides of said opening will prevent said ball from dropping out when the article to which the caster is attached is raised up.

When my caster is applied for use, the several parts are arranged as shown in Fig. 1, with the upper faces of the bearing-piece C bearing against the under side of the article to which the caster is attached, and with the ball A held in the depression *b* by the walls of the opening c^2, the lower part of said ball protruding below the under face of the retaining-piece C, so that the weight will rest on the ball A, which can be rotated in any direction when so fitted, thereby permitting the article to be moved on its casters in any required direction.

When preferred, the depression *b* and opening c^2 may have the form of a triangle, as shown in Figs. 5 and 6; or they may be made in any other preferred polygonal form and produce an equally good result.

I claim as my invention—

The combination, with the ball A and bearing-piece B, having a polygonal pyramidal depression, *b*, for receiving said ball, of the retaining-plate C, provided with a recess, *c'*, for holding the bearing-piece B, and having a polygonal opening, c^2, which flares upwardly into the recess *c'* in such manner that the ball A, while being perfectly free to rotate in said opening, will be retained in place thereby, as herein specified.

ELLSWORTH CARR.

Witnesses:
WM. H. LOW,
S. B. BREWER.