J. F. CAREY.

TIP CAT.

APPLICATION FILED SEPT. 18, 1907.

910,903. Patented Jan. 26, 1909.

Fig. 1.

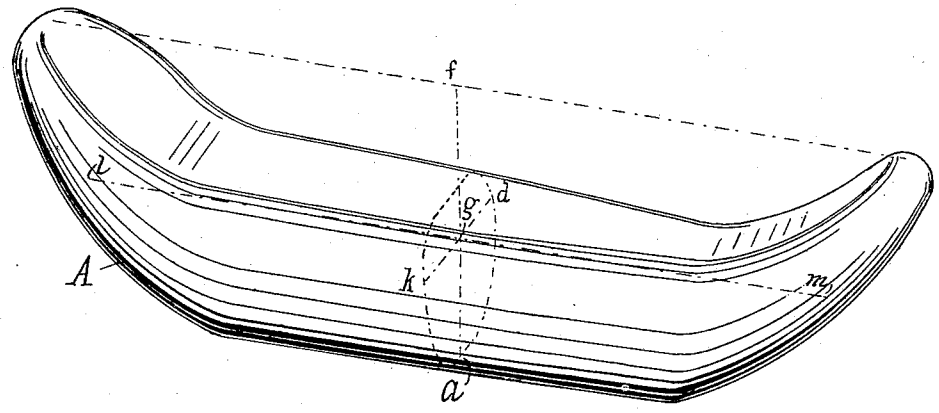
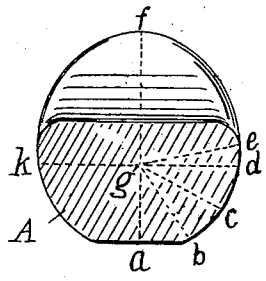


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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TIP-CAT.

No. 910,903. Specification of Letters Patent. Patented Jan. 26, 1909.

Application filed September 18, 1907. Serial No. 393,424.

To all whom it may concern:

Be it known that I, JAMES F. CAREY, a citizen of the United States of America, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Tip-Cats, of which the following is a specification.

This invention relates to that form of toy which is used in the game of tip-cat, the toy being known by the same name as the game or by the shorter name of "cat". The tip-cat as commonly made is an elongated body, usually about circular and pointed or coned toward one or both ends, the coning extending from the ends well toward the middle so that when the tip-cat is laid on a flat surface on the ground it will touch only about midway of its ends and one or both ends will curve away from the ground like a rocker. If then the coned end is struck a sharp downward blow with a stick the tip-cat will be tipped or tilted so as to be thrown up into the air and set into rotation end over end. When in the air the tip-cat may be again batted and driven according to the agility and skill of the player and the requirements of the game.

The object of the invention is to provide a tip-cat in which the ends are upturned to a greater degree than when brought to a point on the axis so as to secure more rocker effect, and, since this requires that the tip-cat rest on a particular side when it is to be played, a further object of the invention is to make the tip-cat of such shape and balance that it will be self-righting, and, howsoever it may be laid down on a horizontal surface, it will as soon as released roll into position for playing.

A further object of the invention is to secure such self-righting property wholly by suitably fashioning a unitary body of uniform density throughout and without resorting to loading with a denser substance or to the hollowing of parts whereby the tip-cat may be of one piece, durable and well suited to the hard usage of the game.

In the accompanying sheet of drawings which forms a part of this application, Figure 1 is a perspective view of a tip-cat embodying my invention, and Fig. 2 is a cross sectional view taken at the center of gravity.

The tip-cat consists of a body A of one piece conveniently of a close-grained wood, or of a light metal, hard rubber or other material usually about four to six inches in length. Wood being the least expensive material is usually chosen. The tip-cat is intended to rest on the side or base at *a* which is restricted so that the sides and ends overhang and curve upwardly therefrom, and the ends form relatively light upwardly extending horns so that the center of gravity *g* may be kept low. In order that the tip-cat may be self-righting, it is so shaped that lines from the center of gravity to the surface or to tangent planes to the surface as *gb gc gd ge gf* at successively increasing angles with the perpendicular *ga* will have progressively greater lengths. It will be seen that the tip-cat so rights itself as to bring its shortest axis *hd* and also its longest axis *lm* to a horizontal position so that when the tip-cat is played the longest axis will be set in rotation about the shortest axis, this being according to the principles of mechanics the most natural rotation for a body with axes of unequal lengths. The form illustrated is made thicker and heavier toward one end so that when struck at the smaller end it will rise with greater force, but this is not essential to the other features above set forth.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A tip-cat consisting of an elongated body designed to rest on a particular side or base having ends curving upwardly from the base and having convex sides the distance from which to the center of gravity increases progressively from the base to the top whereby the body will be unstable on a horizontal surface in all positions except when resting on its base.

2. A tip-cat consisting of a unitary elongated homogeneous body designed to rest on a particular side or base having ends curving upwardly from the base and forming horns and having convex sides the distance from which to the center of gravity increases progressively from the base to the top whereby the body will be unstable on a horizontal surface in all positions except when on its base.

Signed by me at New York, (borough of Manhattan) N. Y., this seventeenth day of September 1907.

JAMES F. CAREY.

Witnesses:
SAMUEL W. BALCH,
HUGH H. SENIOR.