

No. 622,449.

A. COUSEN.
CASTER.

Patented Apr. 4, 1899.

(Application filed Oct. 17, 1898.)

(No Model.)

Fig. 1.

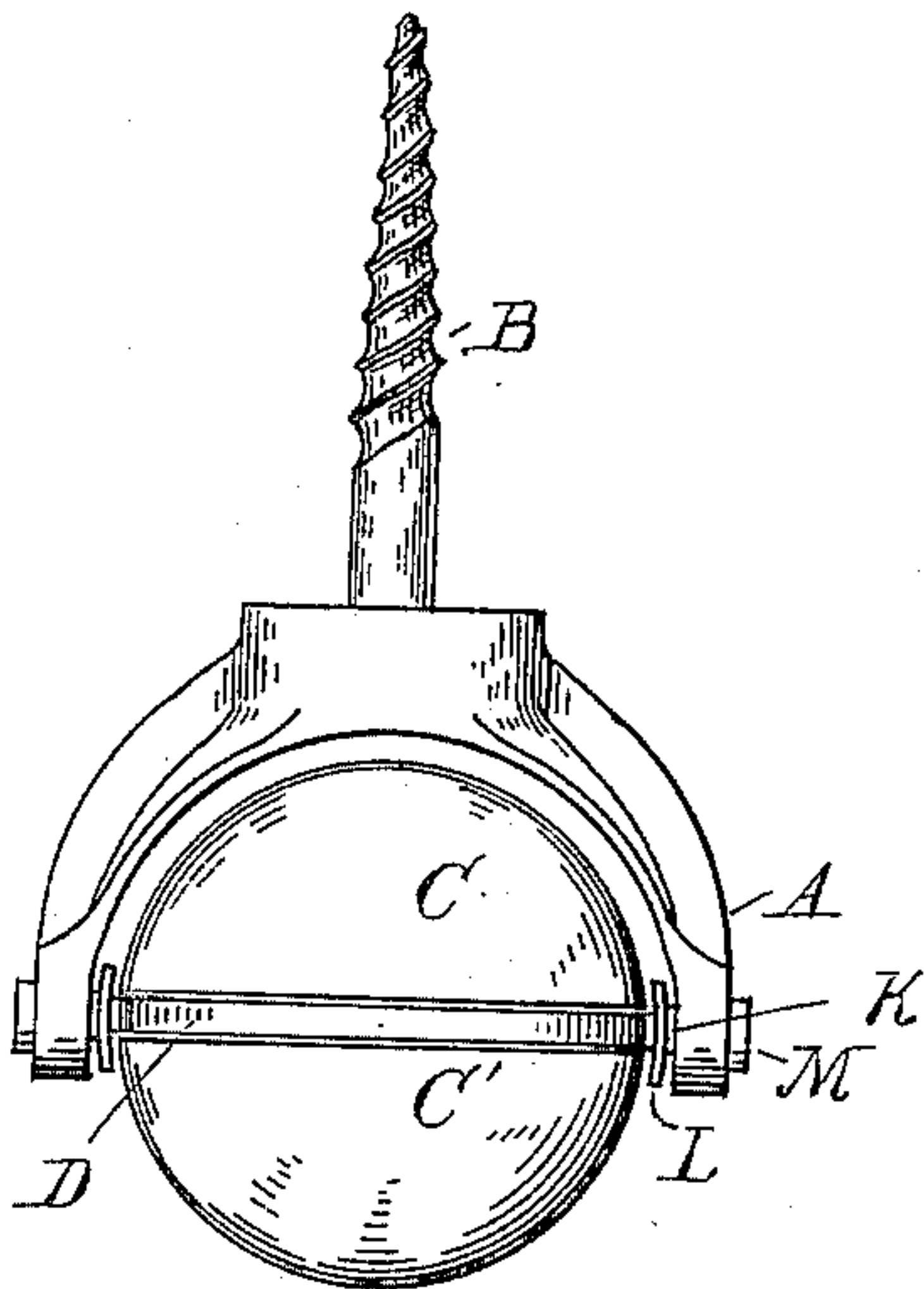


Fig. 2.

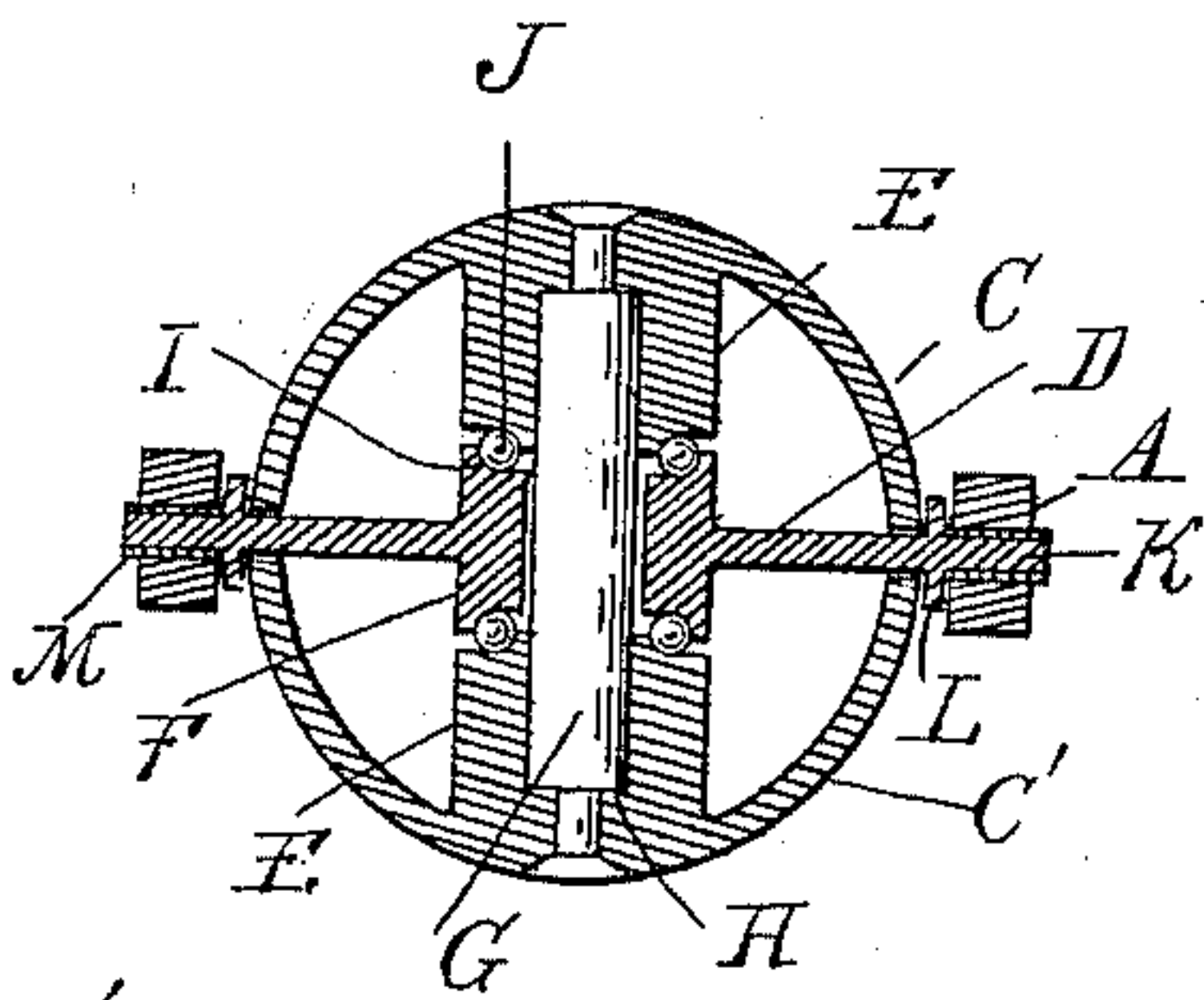


Fig. 4.

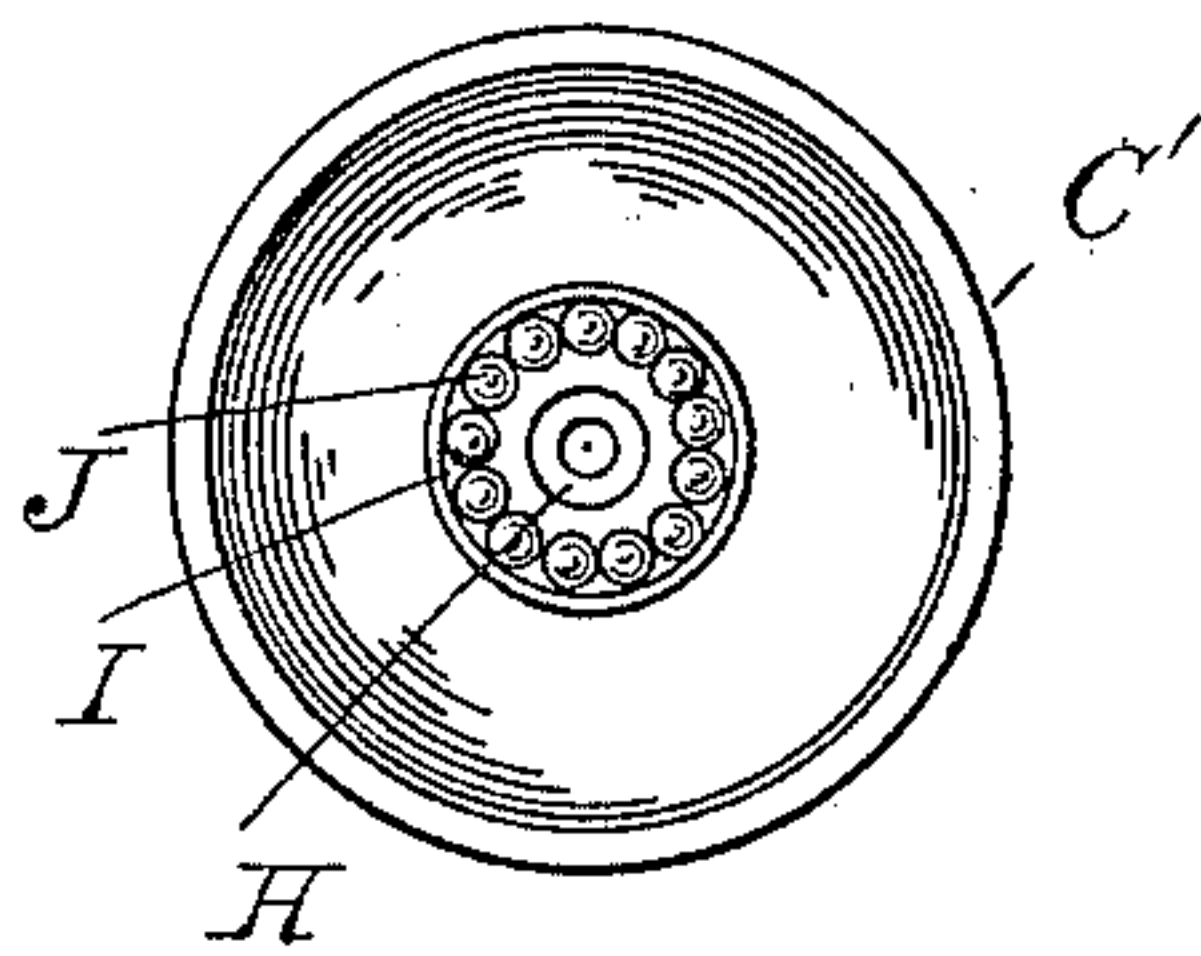
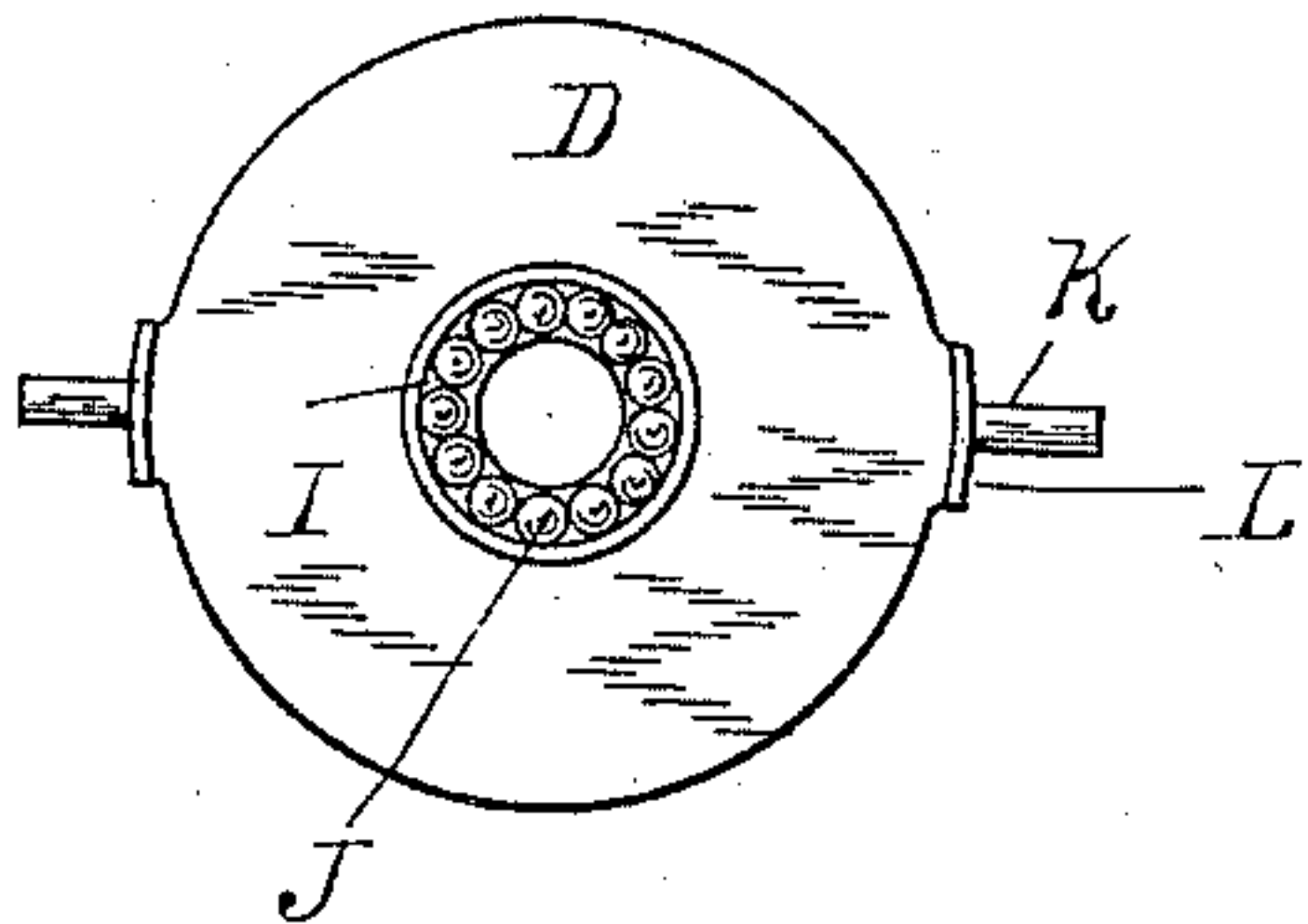


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

ALFRED COUSEN, OF DETROIT, MICHIGAN.

CASTER.

SPECIFICATION forming part of Letters Patent No. 622,449, dated April 4, 1899.

Application filed October 17, 1898. Serial No. 693,729. (No model.)

To all whom it may concern:

Be it known that I, ALFRED COUSEN, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Casters, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of the invention is to make a ball-caster that will freely turn whether used on light or heavy furniture and which precludes all possibility of scratching the floor or injuring carpets.

To this end the invention consists in the construction, arrangement, and combination of parts, all as more fully hereinafter described and shown.

In the drawings, Figure 1 is an elevation of my improved caster. Fig. 2 is a horizontal section through the pivotal support of the ball. Fig. 3 is a plan view of the equatorial section of the ball detached, and Fig. 4 is a plan view of one of the hemispherical end sections of the ball, looking at it from the inside.

A is the forked support of the ball, and B is a screw-stem or other stem by means of which the caster is secured to the furniture-leg, all in the ordinary manner.

The ball consists of two hemispherical end sections C C' and a central equatorial section D. The end sections C C' are provided with the interior hubs E E, and the equatorial section is provided with a corresponding hub F. These hubs are apertured to receive a pin G, which pin extends through the hubs and is made fast in the hubs of the end sections preferably by forming shoulders H on the pins and corresponding shoulders in the hubs and by rivet-heading the outer ends of the pins.

In the adjacent faces between the hubs of the sections of the ball ball-races I are formed, in which suitable balls J to form ball-bearings are inclosed.

On diametrically opposite points of the equatorial section of the ball are formed the

outward-projecting trunnions K, having shoulders L, which trunnions are journaled in bushings M, secured in any suitable manner in the ends of the forked support. 50

In practice the parts being arranged, as shown and described, the two sections C C' are free to rotate on the axis of the pin G, while at the same time the ball is free to rotate upon the axis of the trunnions, which is at right angles thereto, thereby permitting a joint universal rotation of the hemispherical sections of the ball, sufficient clearance being made between the adjacent faces of the sections of the ball. At the same time the ball will present in whichever direction it may be turned a perfect spherical outline. 55 60

By reason of the antifriction devices the caster will turn as freely with heavy furniture as with furniture of lighter description. 65

What I claim as my invention is—

1. A caster comprising a forked support, a ball, composed of two hemispherical end sections and a central equatorial section, each provided with an apertured hub in the common axis of the sections, a pin passing loosely through the hub of the central section and having its ends secured in the hubs of the end sections, ball-races formed in the adjacent faces of the hubs, balls in said races and trunnions formed in the equatorial sections and journaled in bearings in the forked support. 70 75

2. In a ball-caster, a ball composed of two hemispherical sections axially united together and an equatorial section rotatorily secured between said hemispherical sections and forming therewith a complete ball and ball-bearings between adjacent faces of said sections. 80 85

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED COUSEN.

Witnesses:

GEORGE S. LOVELACE,
HERMAN O. LANGE.