A. C. MARTIN.

FURNITURE CASTER.

No. 190,152. Patented May 1, 1877.

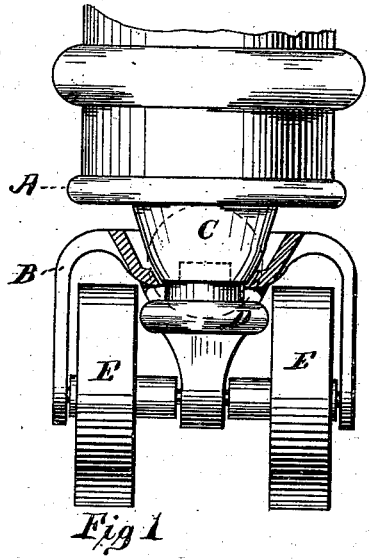

Fig 1

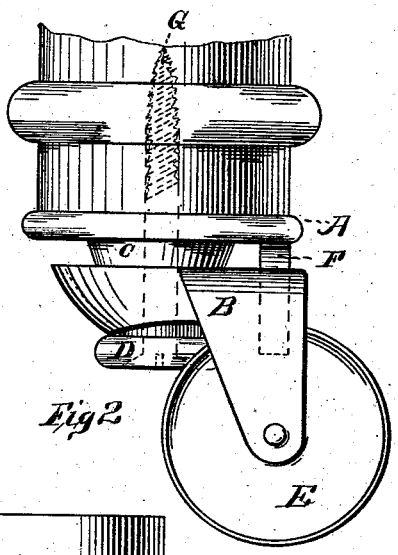

Fig 2

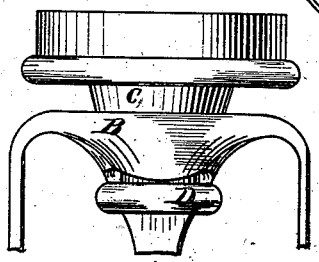

Fig 3.

Witnesses;
R. B. Davidson.
L. L. Beeler

Inventor;
Alexander C. Martin
by James N. See.
his atty.

UNITED STATES PATENT OFFICE.

ALEXANDER C. MARTIN, OF HAMILTON, OHIO.

IMPROVEMENT IN FURNITURE-CASTERS.

Specification forming part of Letters Patent No. **190,152**, dated May 1, 1877; application filed September 16, 1876.

To all whom it may concern:

Be it known that I, ALEXANDER C. MARTIN, of Hamilton, Ohio, have invented an Improved Caster, of which the following is a specification:

This invention relates to swiveling-casters; and the objects of the invention are to secure in such casters freedom from pivotal wear of carpet or floor, and increased mobility in swiveling.

The first object is attained by the use of two floor-wheels whose axes are coincident, in connection with devices which insure the contact of both wheels with the floor, regardless of ordinary irregularities of floor-surface.

The second object of the invention is a natural result of the suppression of floor-friction.

In the accompanying drawing, Figure 1 is an elevation of my improved caster. Part of Fig. 1 is a vertical section. Fig. 2 is a side elevation, and Fig. 3 is a part elevation, exhibiting the portion cut away in Fig. 1.

Common casters, in swiveling, pivot upon the floor. The point of pivot motion is the point of contact between wheel and floor. Such pucker and wear carpets, and are sluggish in their swiveling action. Two rollers side by side will, in swiveling, turn in opposite directions, and it will be found that they roll upon the floor instead of pivoting, as does the single wheels; but if the floor should be irregular, as is often the case, one wheel of the pair would not touch the floor, and the two-wheeled caster would become practically a one-wheeled caster.

My improvement consists in making the axis of the two wheels oscillatory with reference to the article to which the furniture-caster is attached. The axis of oscillation being at right angles to the floor-wheel's axis, allows the wheels to accommodate themselves to ordinary inequalities of floor.

Referring to the drawing, A is a flange, from which depends the stem or boss C. This stem serves as a pivot for the swiveling-motion, as a draft-pin for the wheel-housing, and as a means of uniting the parts.

The housing B furnishes bearing-supports for the two floor-wheels E E and the anti-friction pivot-wheel F. The latter wheel is situated centrally between and vertically above the floor-wheels. The housing swivels upon the stem in the usual manner. Were only a swiveling motion of the housing desired, its fit upon the central pivot might be close, allowing only looseness enough for the swiveling action; but the object sought by my improvement demands that the housing should have a compound motion with reference to the central pivot. It must revolve upon a vertical axis, and oscillate upon a horizontal axis.

This compound bearing is formed by making the housing-bearing slightly elliptical, and the housing-collar bearing in rocker-form, as shown in Fig. 3.

The rocker may be on the side of the hole nearest the anti-friction wheel, or on the opposite side, and the axis of the rocker should be in line with and a continuation of the axis of the anti-friction wheel F, so that the anti-friction wheel may not impede the oscillating motion.

By means of the relief resulting from the elliptic nature of the housing-opening and the rocker-bearing freedom for oscillation is secured without interfering with the functions of the central pivot as a bearing of rotation, draft-pin, and means of union.

I claim as my invention—

A furniture-caster composed of the following elements: the floor-wheels E E, the anti-friction pivot-wheel F, the housing B, the elliptical housing-opening, or its mechanical equivalent, and the rocker-formed collar-bearing, or its mechanical equivalent, all combined so as to allow the floor-wheel axis to oscillate horizontally, substantially as and for the purpose specified.

ALEXANDER C. MARTIN.

Witnesses:

A. MYERS,

MARTIN A. EISELE.