

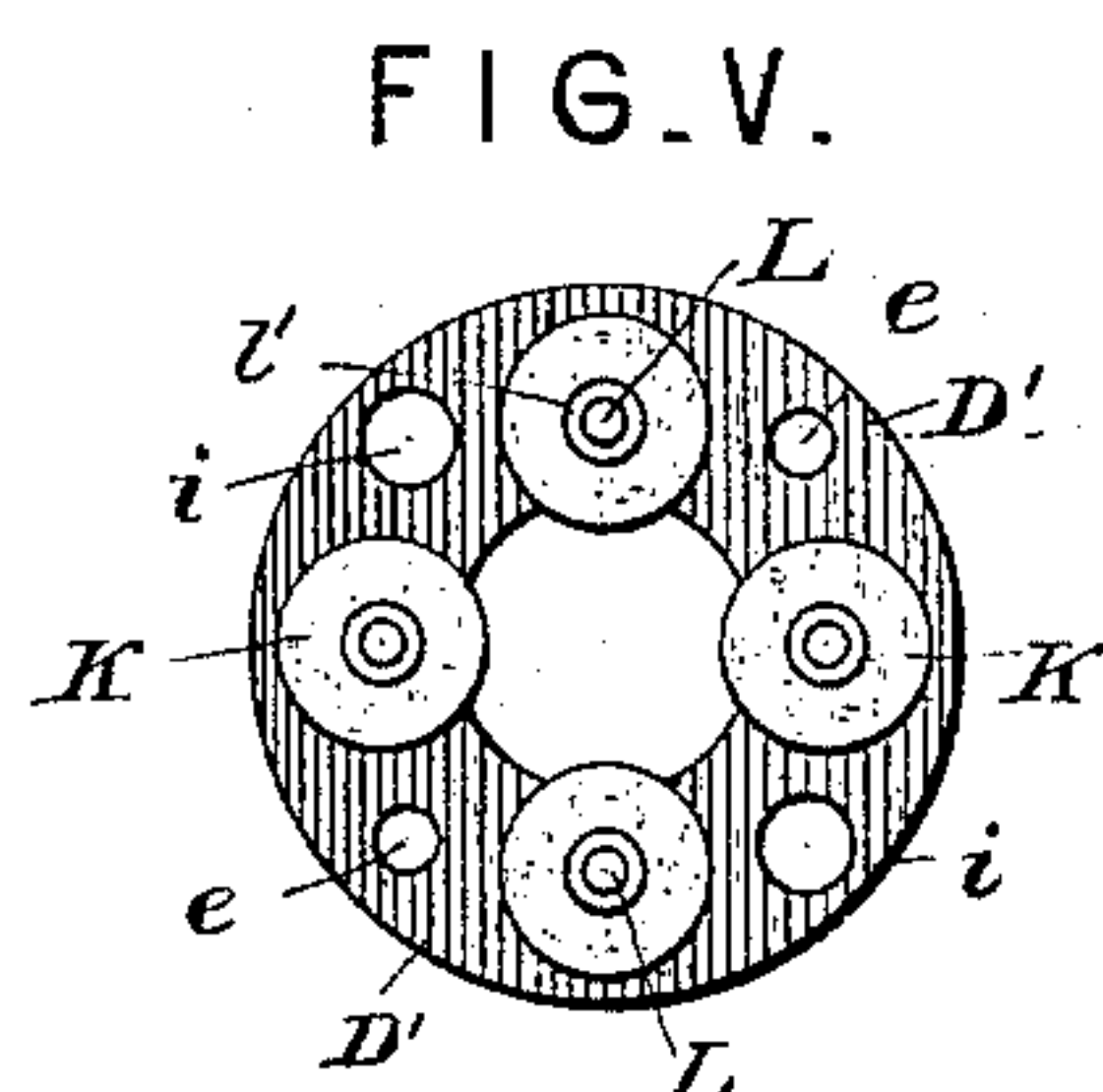
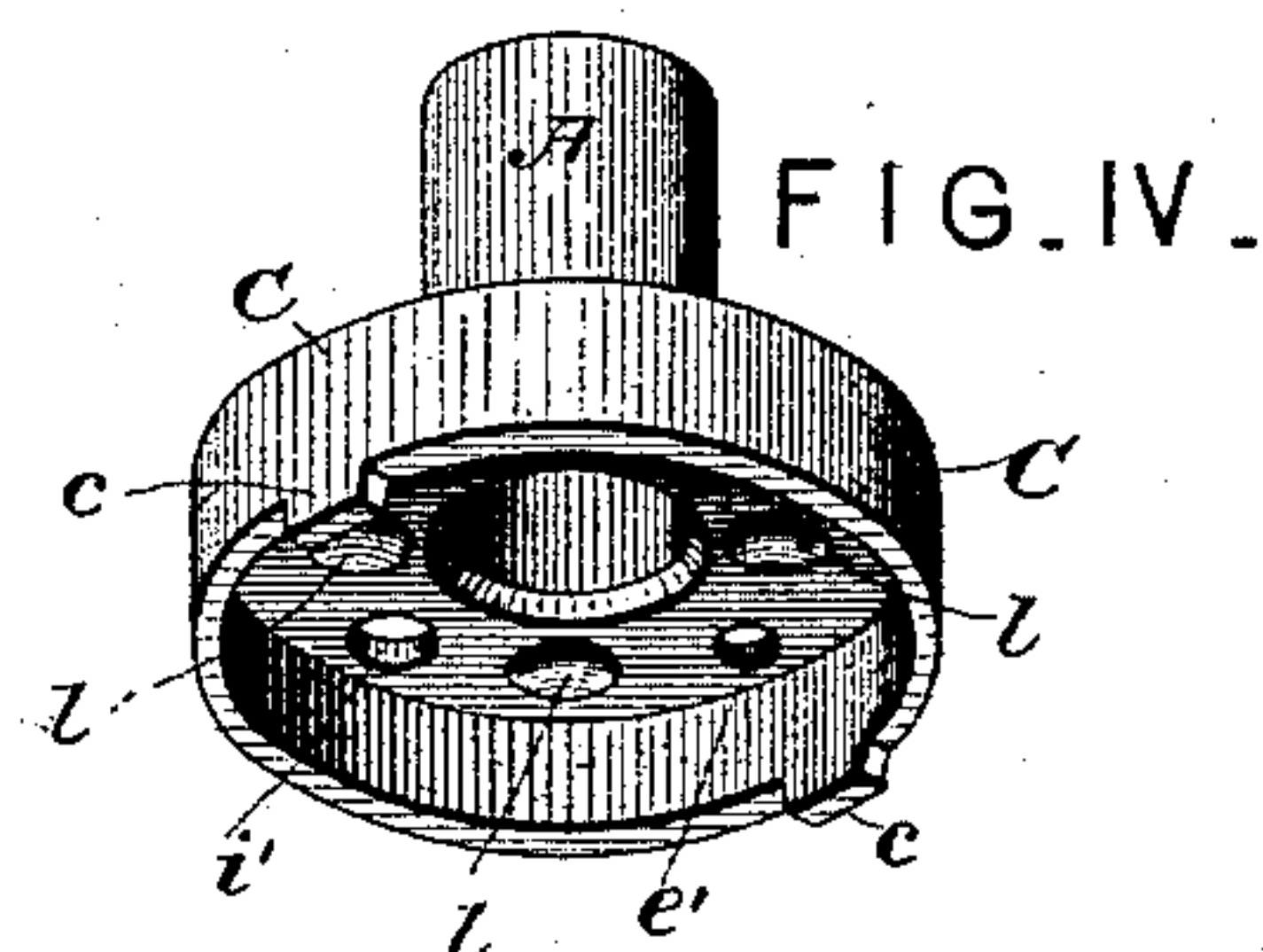
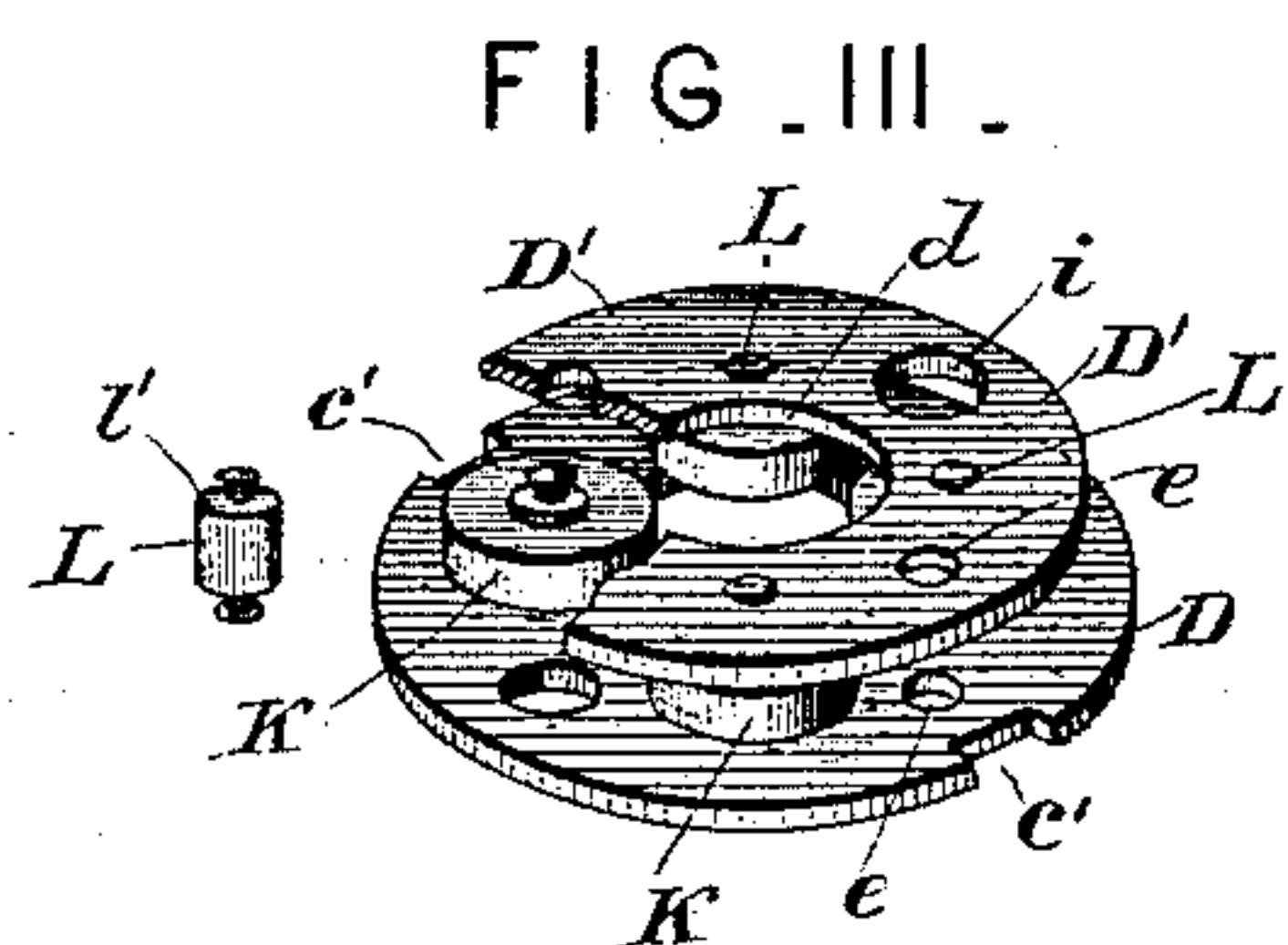
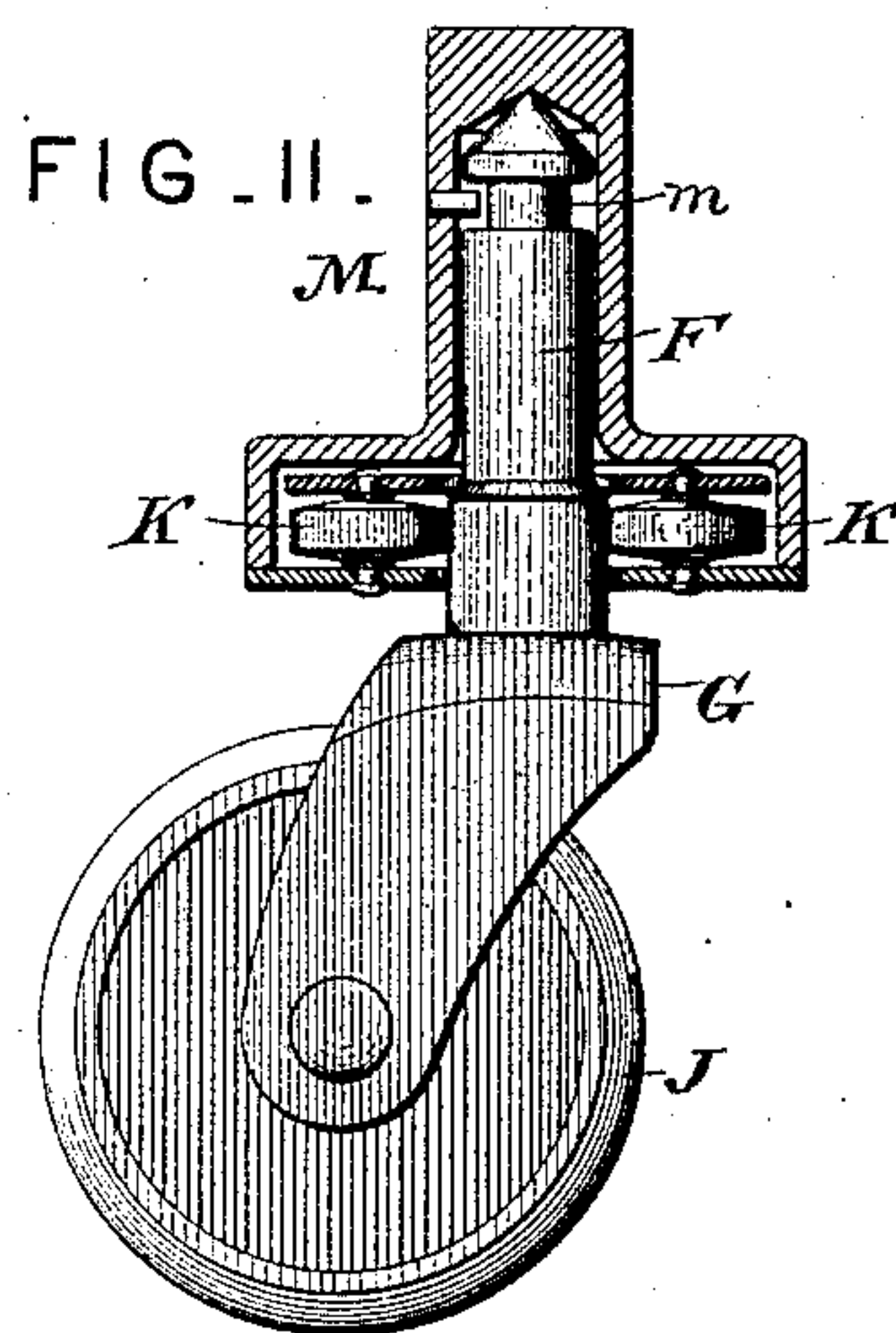
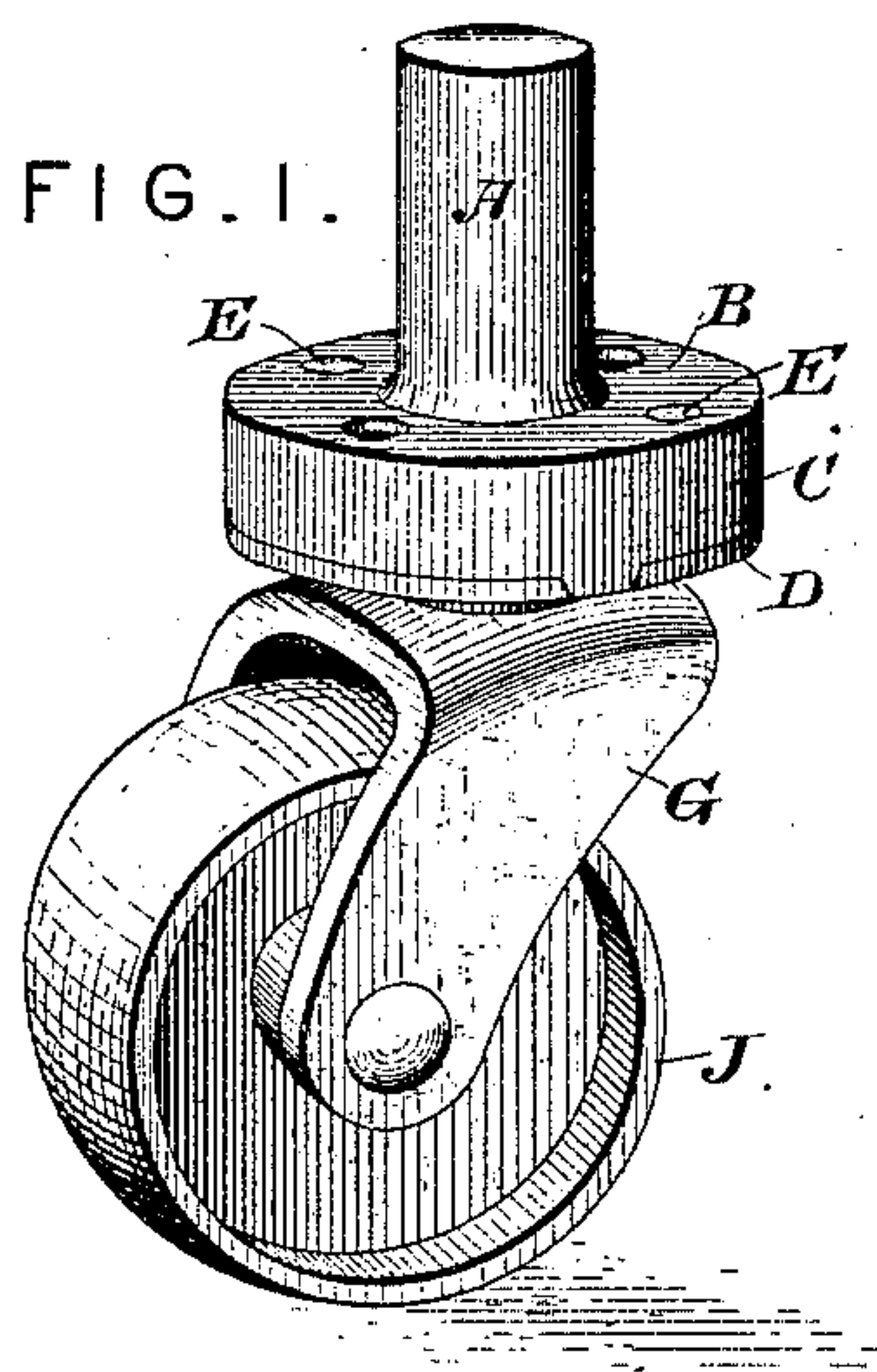
(No Model.)

S. C. MENDENHALL.

CASTER.

No. 314,950.

Patented Mar. 31, 1885.



Attest.

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# UNITED STATES PATENT OFFICE.

STEPHEN C. MENDENHALL, OF RICHMOND, INDIANA.

## CASTER.

SPECIFICATION forming part of Letters Patent No. 314,950, dated March 31, 1885.

Application filed August 26, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, STEPHEN C. MENDENHALL, a citizen of the United States, residing at Richmond, in the county of Wayne and State of Indiana, (present business address Cincinnati, Ohio,) have invented certain new and useful Improvements in Furniture-Casters, of which the following is a specification.

My invention relates particularly to stem-casters; and it consists in a peculiar means of application of the anti-friction rolls—called by me “the movement”—to such a caster.

The use of horizontal anti-friction rollers placed in a chamber formed by the enlargement of the base of the socket or pod of a stem-caster is a well-known expedient for preventing friction between the caster-spindle and the walls of the socket, and thus insuring the free rotation of the spindle.

The present improvement consists in making this anti-friction bushing in a separate ring, which is capable of being fixed movably or immovably to the shell top or socket of the caster. The advantage of such an arrangement is that the movement, being all drop work, can be made more accurately and cheaply than in the form of an anti-friction caster in which the roller-bearings have to be formed in the socket and in the cap-plate by casting or drilling.

The improved movement is applicable as well to non-separating as to separating casters—*i. e.*, as well to those casters in which the wheel is held to place when the article of furniture to which it is applied is lifted as to those in which the wheel falls away from the socket when the latter is lifted.

In order that my invention may be more fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I is a perspective view of a caster embodying my improvement. Fig. II is a vertical sectional view of the same. Fig. III is a detail perspective view of the movement, part of the upper washer or ring being broken away to show one of the anti-friction rollers. Fig. IV is a detail perspective view of the shell top or socket. Fig. V is a plan of the movement, the upper ring being removed.

A is the socket of a stem-caster, the bottom flange, B, of which has downturned rim C,

forming an enlarged chamber, within which is placed the anti-friction movement. Upon the lower edge of rim C are formed lugs *c*, which occupy corresponding notches, *c'*, in the periphery of an annular plate, D, and prevent said plate from turning relatively to the socket. A second annular plate, D', is supported above plate D, and between the two are journaled the anti-friction rollers K K. The plates D D' have central opening, *d*, for the spindle F, two holes, *e*, for rivets E, two holes, *i*, for wood-screws, and four holes for pins L. The flange B also possesses holes *e'* and *i'* for the rivets and wood-screws, as well as slight depressions *l* for the heads of pins L.

The pins L are made with shoulders *l'*, serving as stops for the plates D D', and upon the central portion of the pins are journaled the anti-friction rollers K. The plates are thus prevented from being jammed together so far as to impede the free rotation of the rollers.

The spindle F is carried by the yoke or saddle G, having customary axle, H, for caster-wheel J. The weight of the article of furniture is transmitted to the spindle through its conical top *f*, the rollers K receiving horizontal strain only.

When in position, the spindle may be held in place by a screw, pin, or other projection, M, entering an annular groove, *m*, in the spindle.

The method of putting the caster together is as follows: The pins L are placed in their holes in plate D, resting upon their lower shoulders. The rollers K are then placed on the pins, and the upper plate, D', put on. The movement-ring is then placed in a press suitably arranged, and the heads of the pins flattened out. The ring thus assembled may then be fixed to the socket by rivets or screws E and the socket fixed to the furniture by wood-screws. The rivets may, if desired, be dispensed with and wood-screws alone used for fixing the movement in the socket-chamber; but it is preferred to use the rivets, as securing a greater nicety in the fixing of the parts to correct concentric position.

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

1. In combination with the caster-socket having a downwardly-projecting rim for in-

closing the anti-friction rollers, vertical ears on the edge of said rim, and the cap-plate on which said rollers are supported, and having peripheral notches for receiving the ears on said rim, substantially as set forth.

2. In a caster, the combination, with a chambered socket, of a movement to be inserted therein, consisting of two annular plates and anti-friction rollers mounted between the same, substantially as set forth.

3. In combination with rings or plates D D' and anti-friction rollers K, the shouldered pins L, on which said rollers are mounted, substantially as set forth.

4. In combination with a movement-ring held together by shouldered pins, as shown, a chambered socket, rivets for fixing said movement-ring in said socket, and screw-holes passing through both ring and socket for fixing the caster-top to the furniture-leg or other part, substantially as shown.

STEPHEN C. MENDENHALL.

Witnesses:

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EDWARD STEER.