

(No Model.)

A. A. MINOR.
FURNITURE CASTER.

No. 481,963.

Patented Sept. 6, 1892.

Fig. 1.

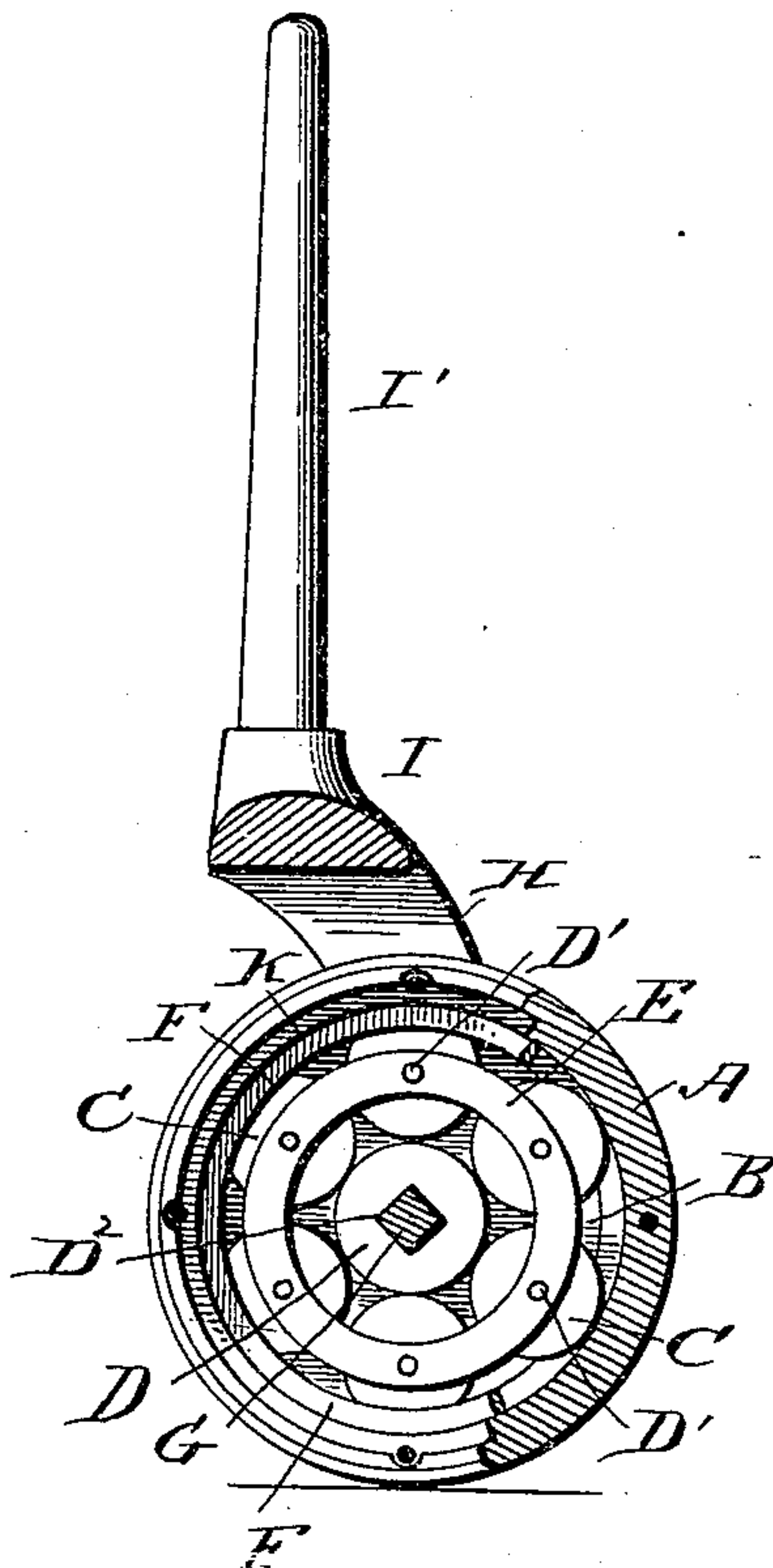


Fig. 2.

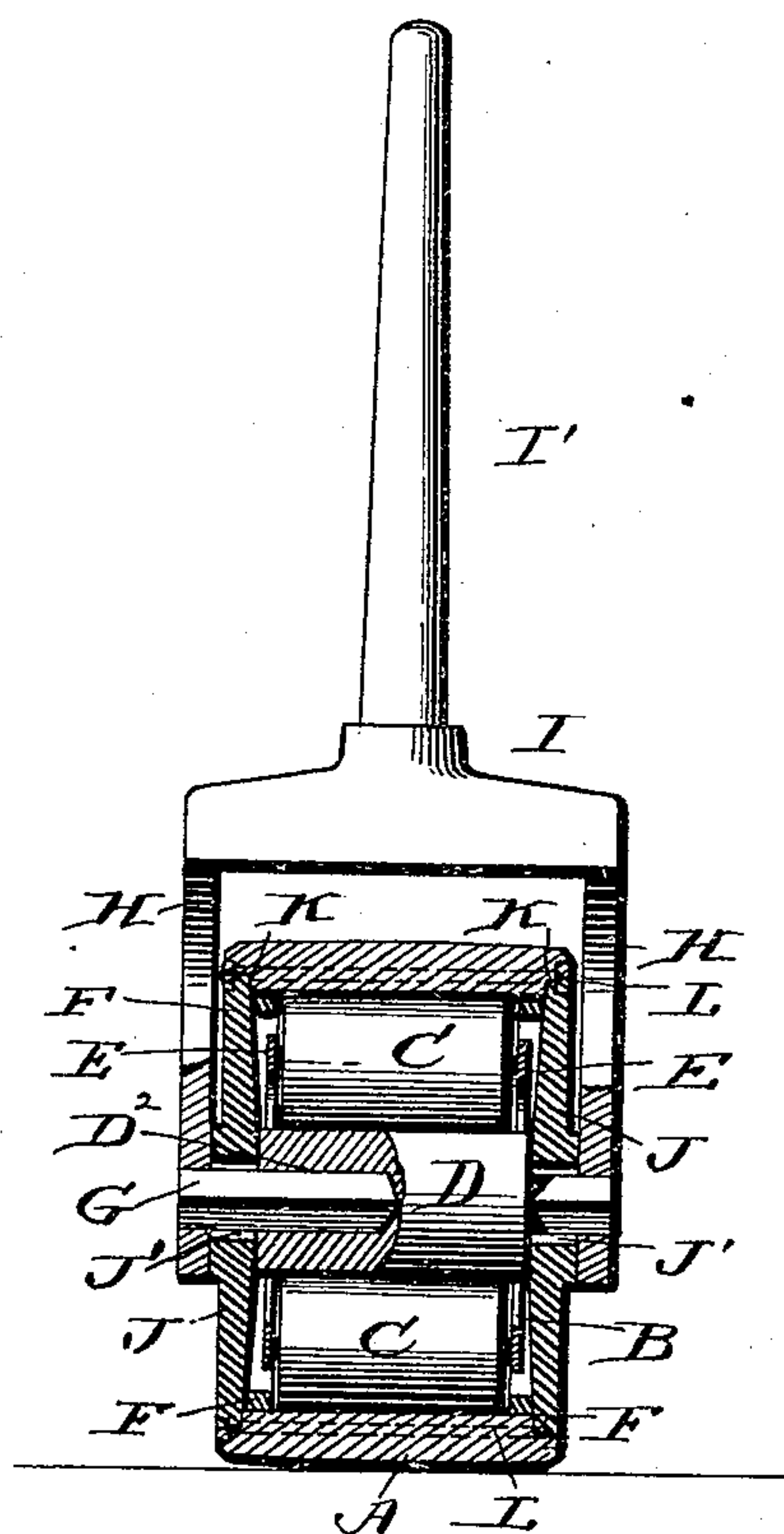
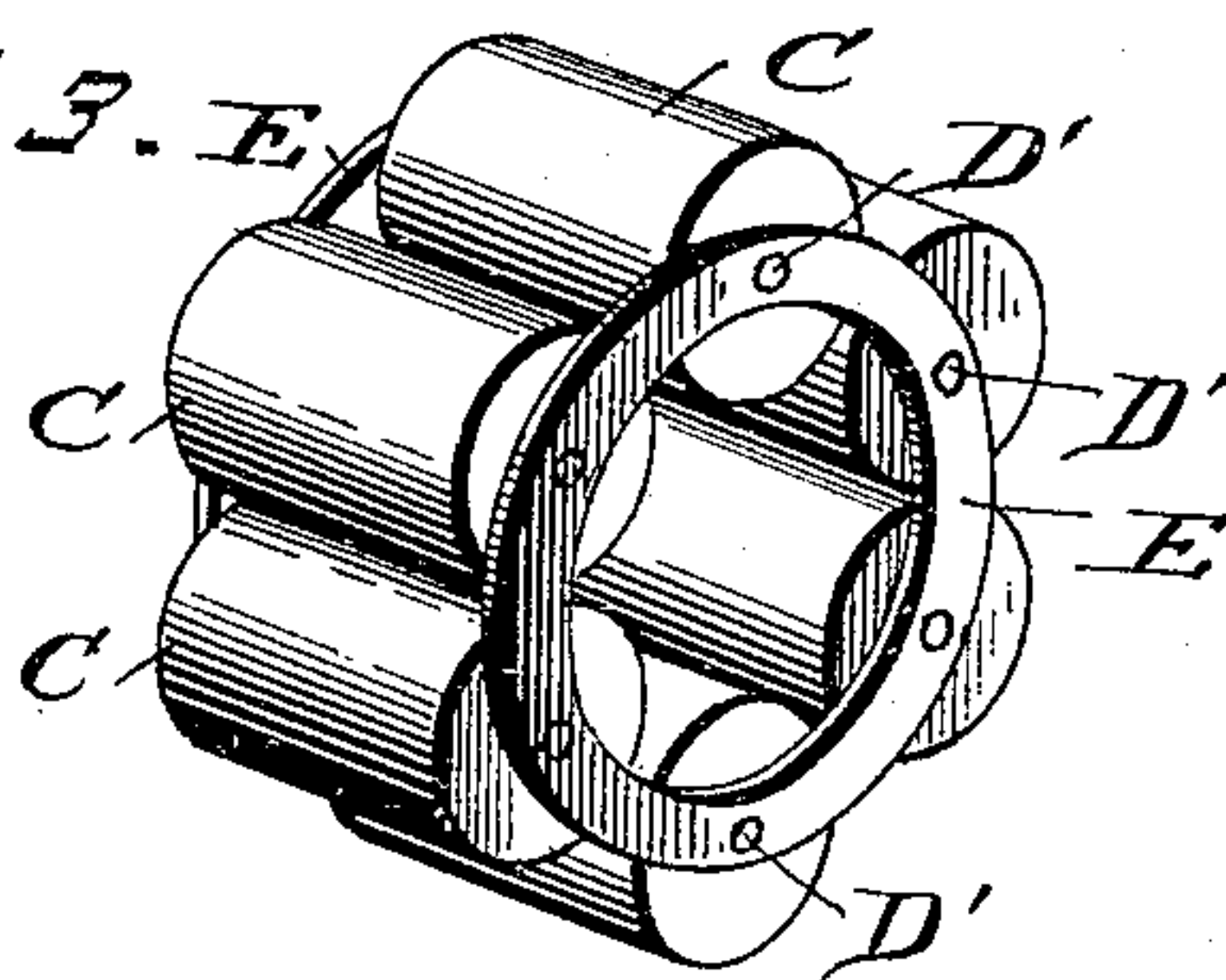


Fig. 3.



Witnesses
[Signature]
P. J. Rogers.

Inventor
Alfred A. Minor,
By his Attorney
[Signature]

UNITED STATES PATENT OFFICE.

ALFRED AUGUSTUS MINOR, OF EGG HARBOR, WISCONSIN.

FURNITURE-CASTER.

SPECIFICATION forming part of Letters Patent No. 481,963, dated September 6, 1892.

Application filed January 12, 1892. Serial No. 417,854. (No model.)

To all whom it may concern:

Be it known that I, ALFRED AUGUSTUS MINOR, a citizen of the United States, residing at Egg Harbor, in the county of Door and State of Wisconsin, have invented certain new and useful Improvements in Furniture-Casters; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in furniture-casters; and it has for its object, among others, to provide a furniture-caster the body portion of which will be provided with an annular chamber or recess, within which are arranged a number of rollers, which are arranged in a continuous series around a central roller and are adapted to be rotated by frictional contact with the said central roller. The pivot-shaft of the caster is rectangular in cross-section and is passed through a rectangular opening extending longitudinally through the central roller, the said shaft thus serving to rotate the central roller.

The immediate object of the present invention is to provide a furniture-caster in which the frictional resistance will be reduced to a minimum and the use of which will render the moving of heavy articles of furniture easy.

To these ends and to such others as the invention may pertain the same consists in the peculiar construction and in the novel combination, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the accompanying drawings, and then specifically defined in the appended claim.

The invention is fully illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, like letters of reference indicating the same parts throughout the several views, and in which drawings—

Figure 1 is a central vertical section through a furniture-caster embodying my improvements. Fig. 2 is a transverse section of the same. Fig. 3 is an enlarged detail view in perspective of the rollers removed from the caster.

Reference now being had to the details of the drawings by letter, A designates the main roller of the caster, which is preferably constructed of metal and may be of any convenient or suitable size. This roller is provided with a central longitudinal chamber B, within which are placed a number of rollers C C, which rollers are arranged in a series around a central roller D. When thus arranged, the said rollers C contact with the outer shell and also with the central roller. The rollers C are journaled at their ends upon stub-shafts D', which project inwardly from the inner faces of the plates E E, which plates are circular, the diameter of the plates being slightly less than the diameter of the chamber B. The rollers C C are considerably shorter than the chamber B, and at the ends of the rollers suitable packing-rings F are provided, which serve to prevent lateral displacement of the rollers and yet admit of their free rotary movement. The central roller D is slightly longer than the rollers C, which surround it. This roller has a longitudinal central opening D², which in cross-section is rectangular, and through this central opening in the roller is passed the rectangular shaft G, the outer ends of which shaft are secured to the lower ends of the forks H H of the caster-frame or casting I, which casting is in all respects similar in form to the castings which are ordinarily used upon furniture-casters, being provided with the usual shaft or shank I', which engages an opening in the lower ends of the legs of the table, bedstead, or other article of furniture upon which the caster is used.

Seated within the ends of the chamber B of the caster wheel or roller are plates or heads J, the said heads having bearings against the shoulders K and being held in place by means of bolts L, which pass entirely through the caster at the outer edges of the same. The said plates J are provided with central openings J', which are considerably larger than the shaft G, which passes therethrough.

The advantages presented by the construction above set forth will be at once evident. The roller D being fixed upon the shaft G, the rollers C C will revolve around it, having a bearing against the outer face of the roller, while at their opposite sides the said rollers bear against the inner walls of the chamber

B. By this construction the frictional resistance to the movement of the parts is in a very great measure overcome.

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

10 As an improved article of manufacture, the herein-described furniture-caster, the same comprising, in combination, the roller A and its casting, the shaft G, the roller D, carried thereby, the rollers C, arranged in a series within the roller A and around the roller D,

the rings E, carrying stub-shafts on which the rollers C are journaled, the packing-rings F within the roller A at the ends of the rollers C, and the plates H, all arranged and operating substantially as and for the purpose specified. 15

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

ALFRED AUGUSTUS MINOR.

Witnesses:

T. W. McCULLOUGH,
SHERNAM KINSEY.