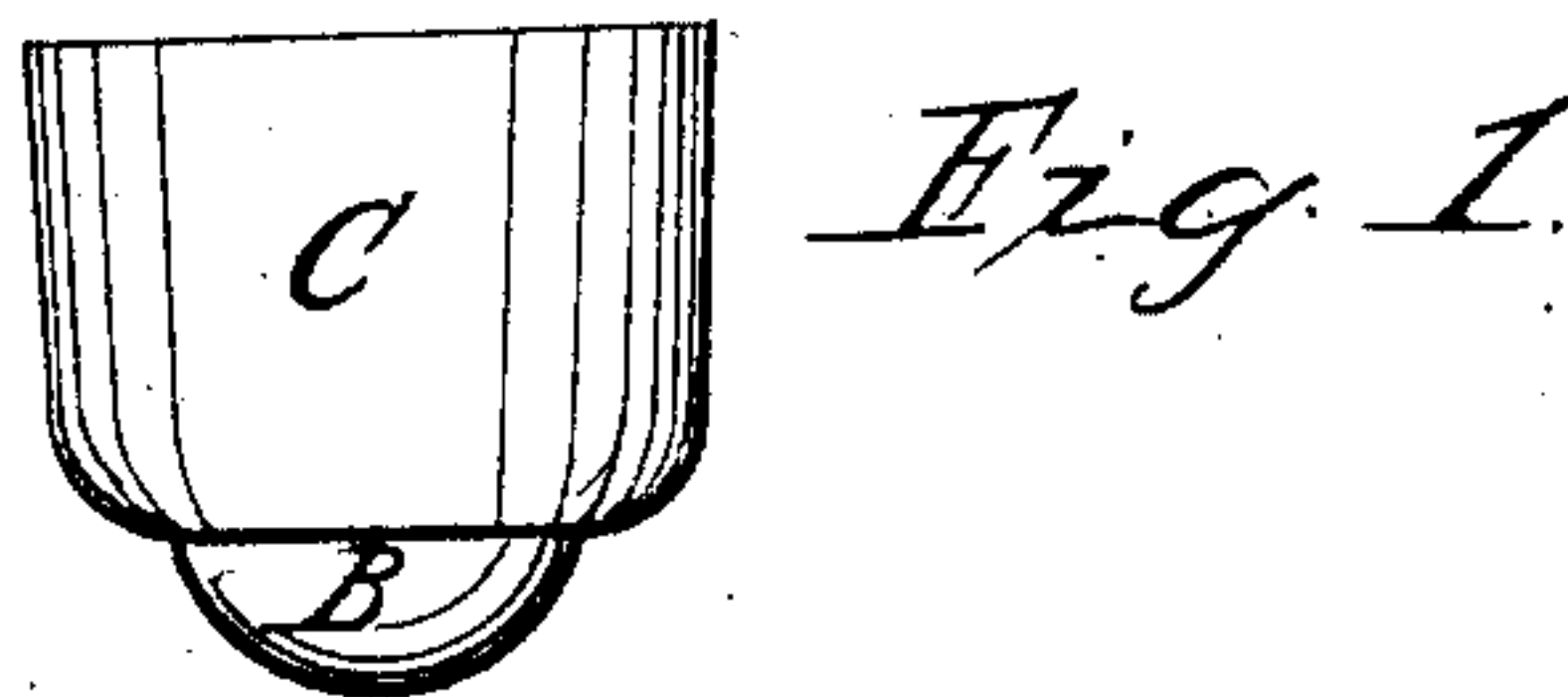
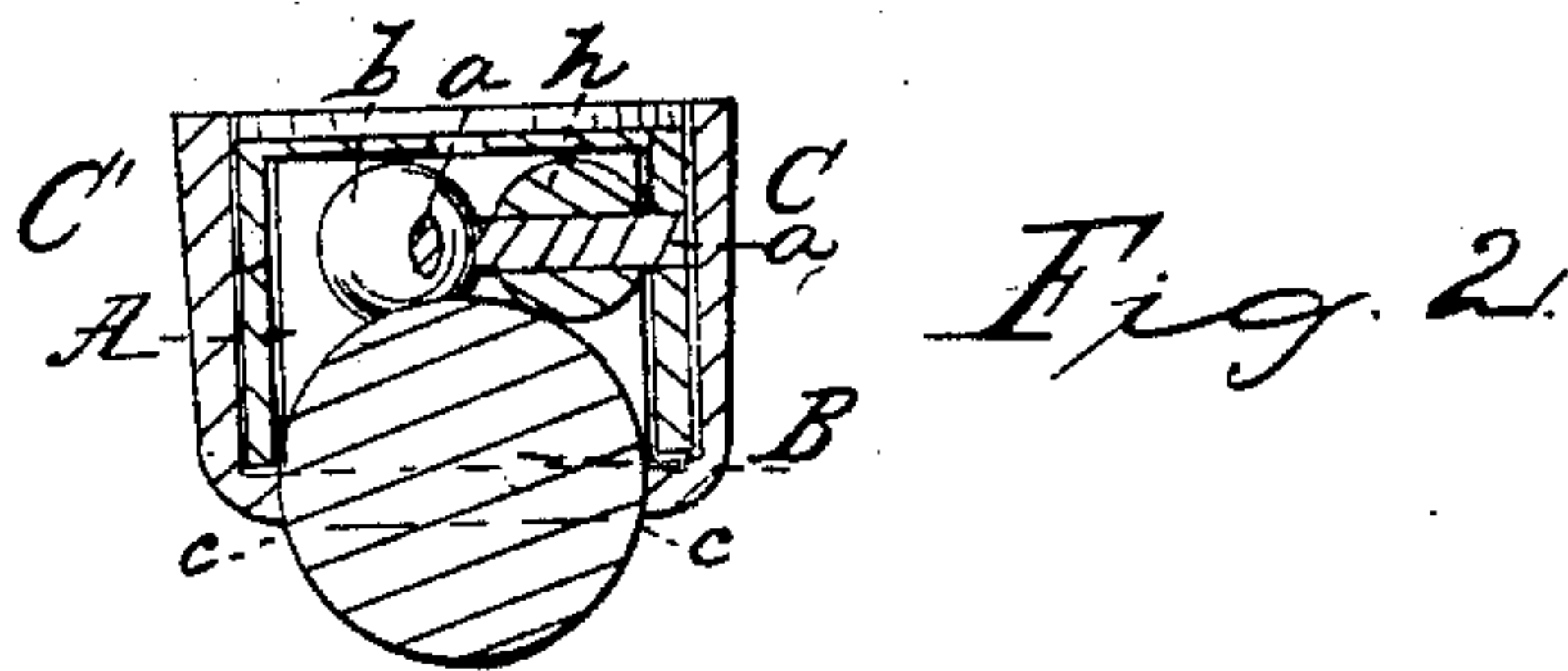
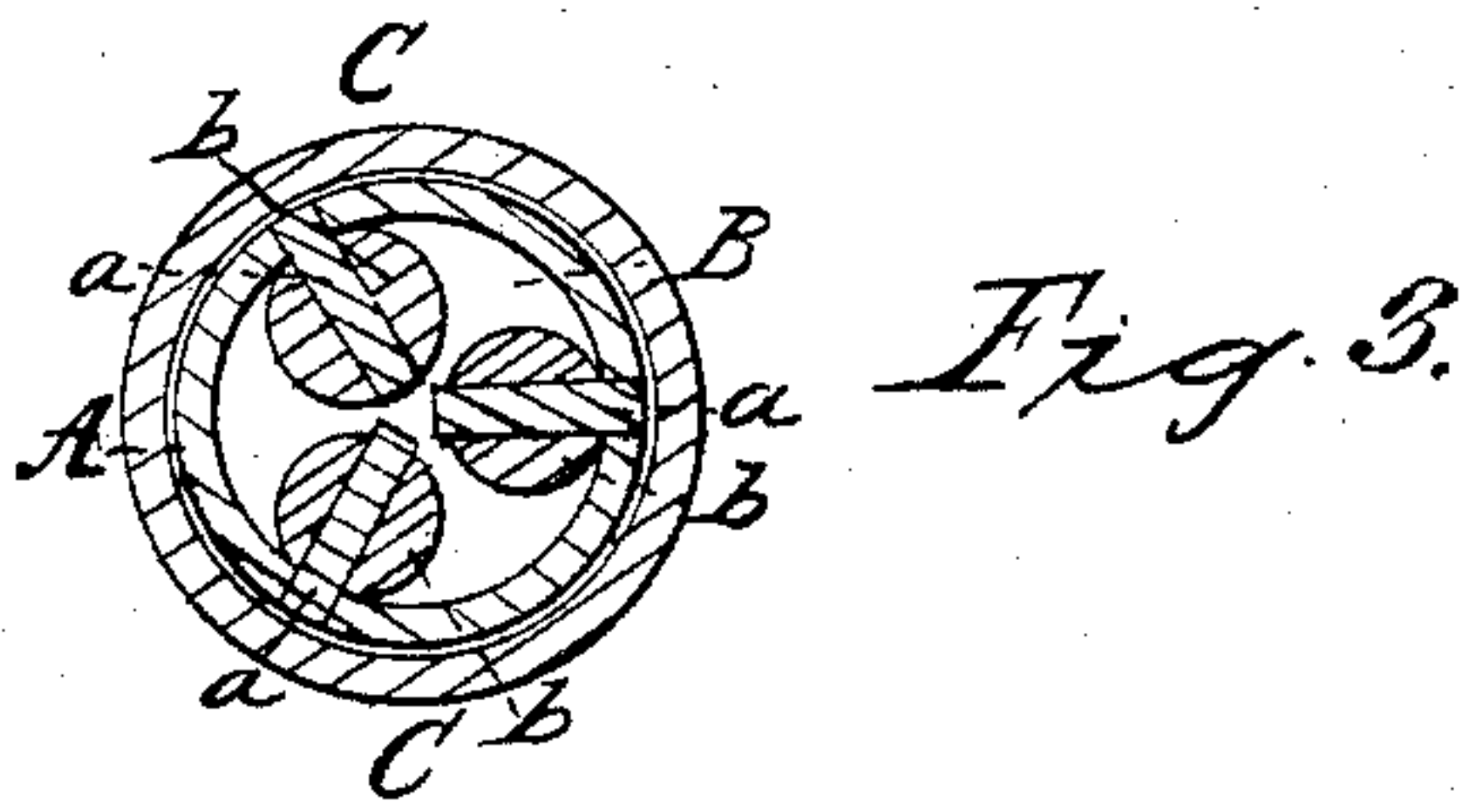


*J. Holmes,*

*Furniture Caster.*

*N<sup>o</sup> 34,833.*

*Patented Apr. 1, 1862.*



*Witnesses:*  
*R. H. H. H.*  
*J. R. Hale Jr.*

*Inventor:*  
*John Holmes*

# UNITED STATES PATENT OFFICE.

JOHN HOLMES, OF BOSTON, MASSACHUSETTS.

## IMPROVED BALL FURNITURE-CASTER.

Specification forming part of Letters Patent No. 34,833, dated April 1, 1862.

*To all whom it may concern:*

Be it known that I, JOHN HOLMES, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Ball-Caster for Furniture; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a front elevation, and Fig. 2 a longitudinal section, of it. Fig. 3 is a transverse section taken through the journals of the bearing-rollers of the ball.

The nature of my invention consists in an improved ball-caster as made with its two ball-cases arranged together, and with the ball and a set of ovated bearing-rollers and their axles, as hereinafter described.

It is not new to support the ball of a "ball-caster" by means of another ball placed directly over it, an instance of this being shown in the United States Patent No. 18,839; nor is it new to support the ball by means of a plate or flat bearing placed directly on its upper part, this also being exhibited in the said patent, and in reference to the lesser or auxiliary ball therein represented; nor is it new to support the ball by a single cylindrical roller having a stationary axis. The first of these three modes of supporting the main ball of a caster is objectionable, because the lesser ball while being rotated by the main ball must rub against, and so as to more or less abrade or wear the surface against which it may be borne by the main ball. In the second of the said modes the main ball while revolving is borne and operates against a stationary surface, and consequently cannot fail to soon wear into and indent the said surface, or be so worn by it as not to revolve when it should do so. Again, when a single wheel or roller is used to support the ball the said roller will only revolve while the ball may be in rotation in or about in a plane perpendicular to the axis of the roller. Instead, therefore, of such means of supporting the ball of a caster, I employ a set of balls or ovated rollers, each being mounted on a journal or axle so placed with reference to the top of the chamber for reception of the rollers and ball that the rollers may run or revolve

without contact with such top. The journals or axles of the several bearing-rollers I arrange in radial directions with reference to a common center placed in the vertical axis of the caster, the whole being as shown in the drawings, in which—

*a a a* are the axles or journals; *b b b*, the set of rollers; A, the chamber or box in which the rollers are placed; B, the ball, and C the external or cap case. This latter encompasses or is concentric with the case A, and has an opening *c c*, out of which the ball projects, the said opening being of a diameter less than that of the ball.

With a caster constructed in my improved manner and as represented in the drawings the ball while in revolution will be borne against the peripheries of all the rollers, and in whatever direction it may be revolved two, at least, if not all of them, will revolve with it, neither of them in the meantime being caused to rub against the top of the chamber of the case A. While therefore the set of rollers presents a bearing of three points for the ball, each roller operates as a friction-roller and rotates independently of or out of contact with either of the others, and constantly maintains its station within the chamber A. If desirable, the inner ends of the several journals may be supported by a common stud or bearing extended down from the central part of the top of the chamber A.

The arrangement of the two cases A C with the ball and the bearing-rollers is advantageous, as by means of it the outer ends of the axles are covered so as to prevent the axles from getting displaced, and, besides, it enables the axles and the bearing-rollers to be readily removed from their case A when the cap-case C is off the case A and the ball B.

I therefore claim—

The improved ball-caster as made with the two cases A C, arranged with the ball and the bearing-rollers and the axles of the latter, substantially as described.

JOHN HOLMES.

Witnesses:

R. H. EDDY,  
F. P. HALE, Jr.