

I. S. HYATT & J. W. HYATT.

Improvement in Casters for Furniture.

No. 128,884.

Patented July 9, 1872.

Fig. I.

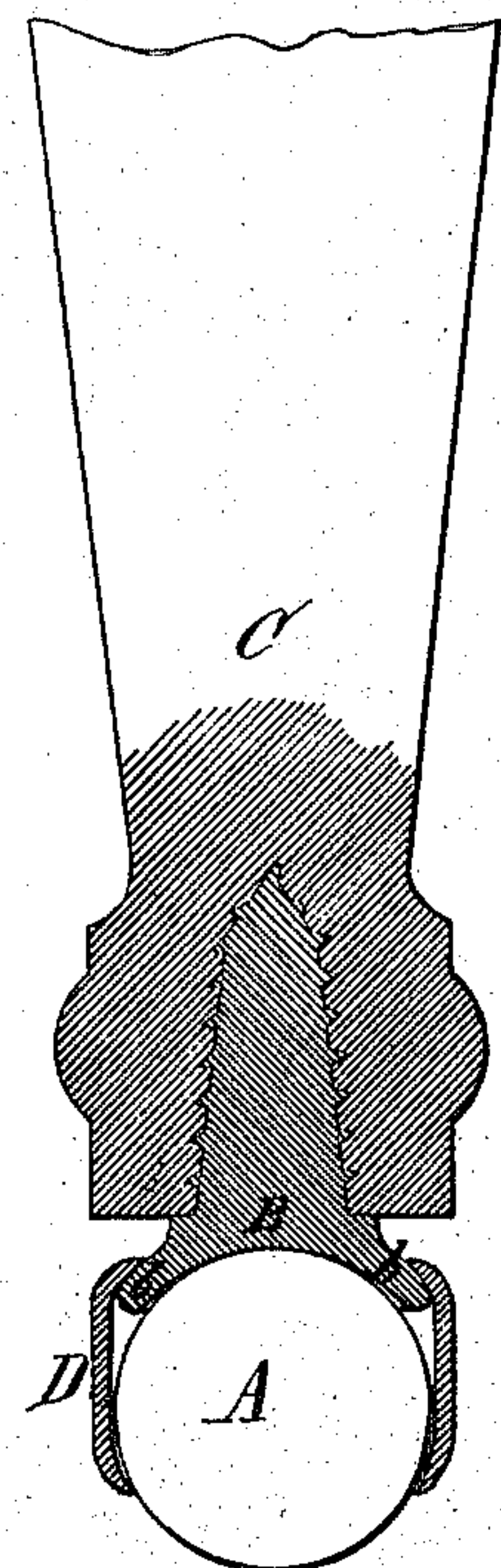


Fig. II.

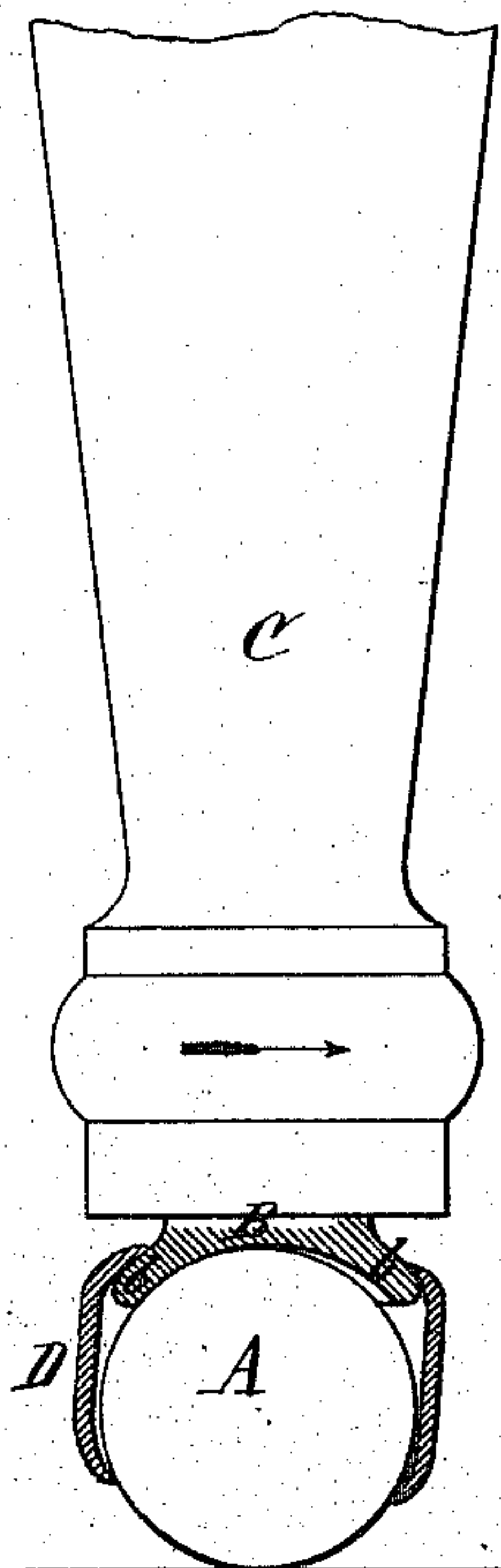
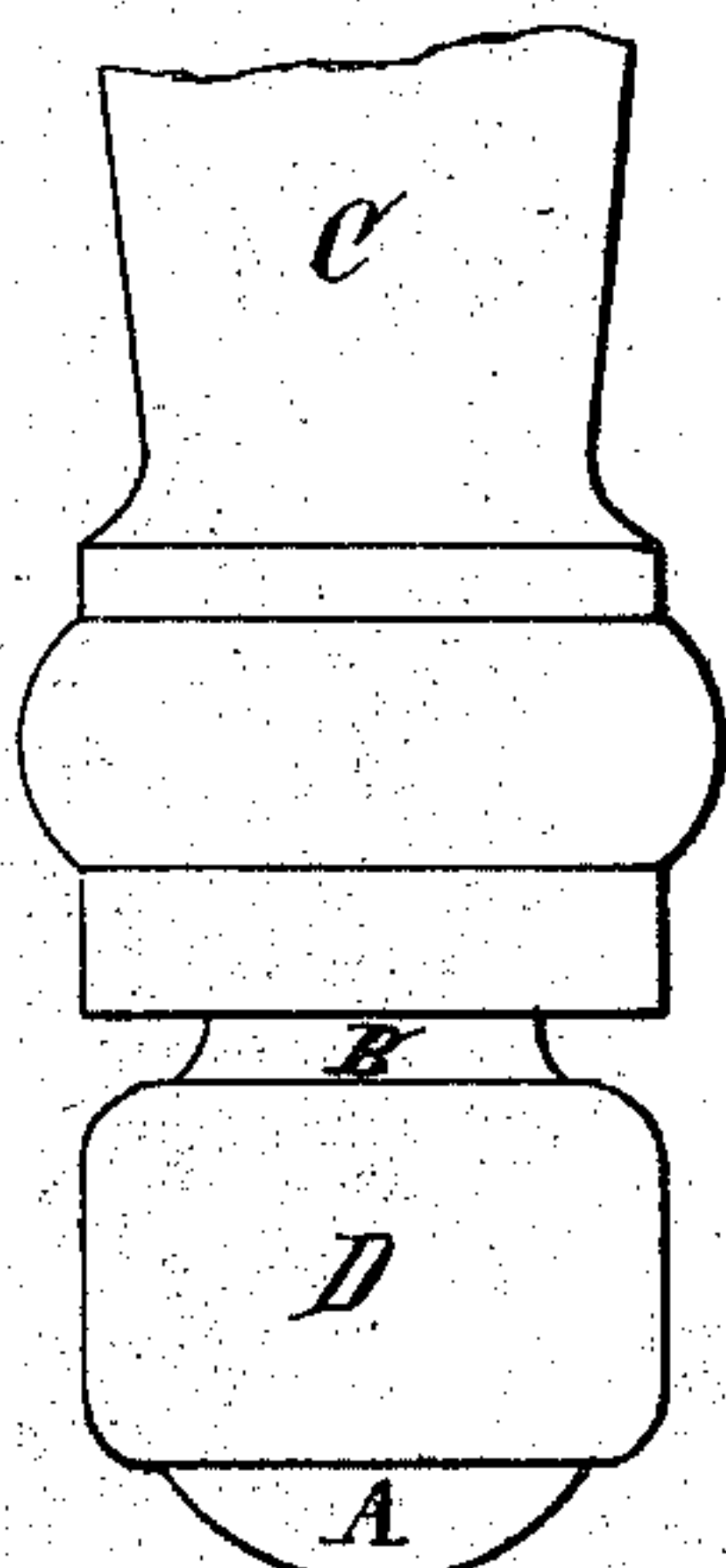


Fig. III.



ward Wilhelm
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UNITED STATES PATENT OFFICE.

I. SMITH HYATT AND JOHN W. HYATT, OF ALBANY, NEW YORK.

IMPROVEMENT IN CASTERS FOR FURNITURE.

Specification forming part of Letters Patent No. 128,884, dated July 9, 1872.

SPECIFICATION.

We, I. SMITH HYATT and JOHN W. HYATT, of the city and county of Albany, in the State of New York, have invented certain Improvements in Casters for Furniture, of which the following is a specification:

Our improvements relate to what is known as ball-casters, which, as heretofore made, have been found more or less objectionable on account of the friction in the socket or bearing for the ball, which is frequently greater than the friction between the surface and the ball on which the caster is placed, thereby causing the ball to slide instead of rolling thereon.

Our invention consists, first, in the combination, with the ball of a caster, of a spherical segmental socket, having a greater radius than the ball, so that when the caster is in operation the ball can have but one point of contact, and that near its top, as will be more fully set forth. Second, in the combination, with the ball-and-socket, of a caster of a shell loosely fitted on the socket so as to retain the ball in place therein and adjust with the ball, as hereinafter more fully explained.

In the accompanying drawing, Figure I is a vertical section of our improved caster as applied to the leg of a chair or table, and in a state of rest. Fig. II is a sectional elevation, showing the position of the parts when the table is being pushed in the direction of the arrow. Fig. III is an elevation.

Like letters designate like parts in each of the figures.

A is the ball, and B the socket thereof, represented as screwed into the leg C of a table. The curve of the socket, it will be perceived, is described with a longer radius than that of the ball, while the upper portion only of the latter is enveloped by the socket. D is a cylindrical shell or case for the ball. The upper ends of this case are turned inward so as to inclose and overlap the flange *b* or lower edge of the socket, the overlapped surface of the flange being made concentric with the socket so as to permit the case to adjust with the ball, as shown in Fig. II. The lower end of the

case is also contracted so as to retain the ball therein.

This case can be readily made of section of tube-brass, the edges of which can be readily turned in for contracting the ends, as represented in the drawing. This case, being adjustable with the ball, prevents the latter pressing against it with sufficient force to impede its rotary movement, while the lower edge of the case at the rear is kept lightly in contact with the ball, and operates as a scraper to prevent lint, &c., which may adhere to the surface of the ball, from being carried up and collecting within the case. When the edge of the socket extends down to the central line of the ball, or nearly so, as ordinarily constructed, and the article to which the caster is attached is moved, the power applied will press the lower edge of the socket against the ball in a direction so nearly coinciding with a horizontal line passing through the center of the ball as to frequently cause the latter, as it travels, to slide instead of roll, in consequence of the greatly-increased pressure produced by the ball wedging between two or more points of contact in the socket.

As our improved caster is constructed the power is applied at a point and in a direction best calculated to insure the desired rotation of the ball.

We claim as our invention—

1. The combination, with the ball A of a caster, of the spherical segmental socket B having a greater radius than the ball, so that when the caster is in operation the ball can have but one point of contact and that near its top, as hereinbefore set forth.

2. The combination, with the ball A and socket B, of the shell D, loosely fitted on the socket so as to retain the ball in place and adjust with the same, as hereinbefore set forth.

I. SMITH HYATT.

J. W. HYATT.

Witnesses:

W. W. NEWCOMB,
IRVING NEWCOMB.