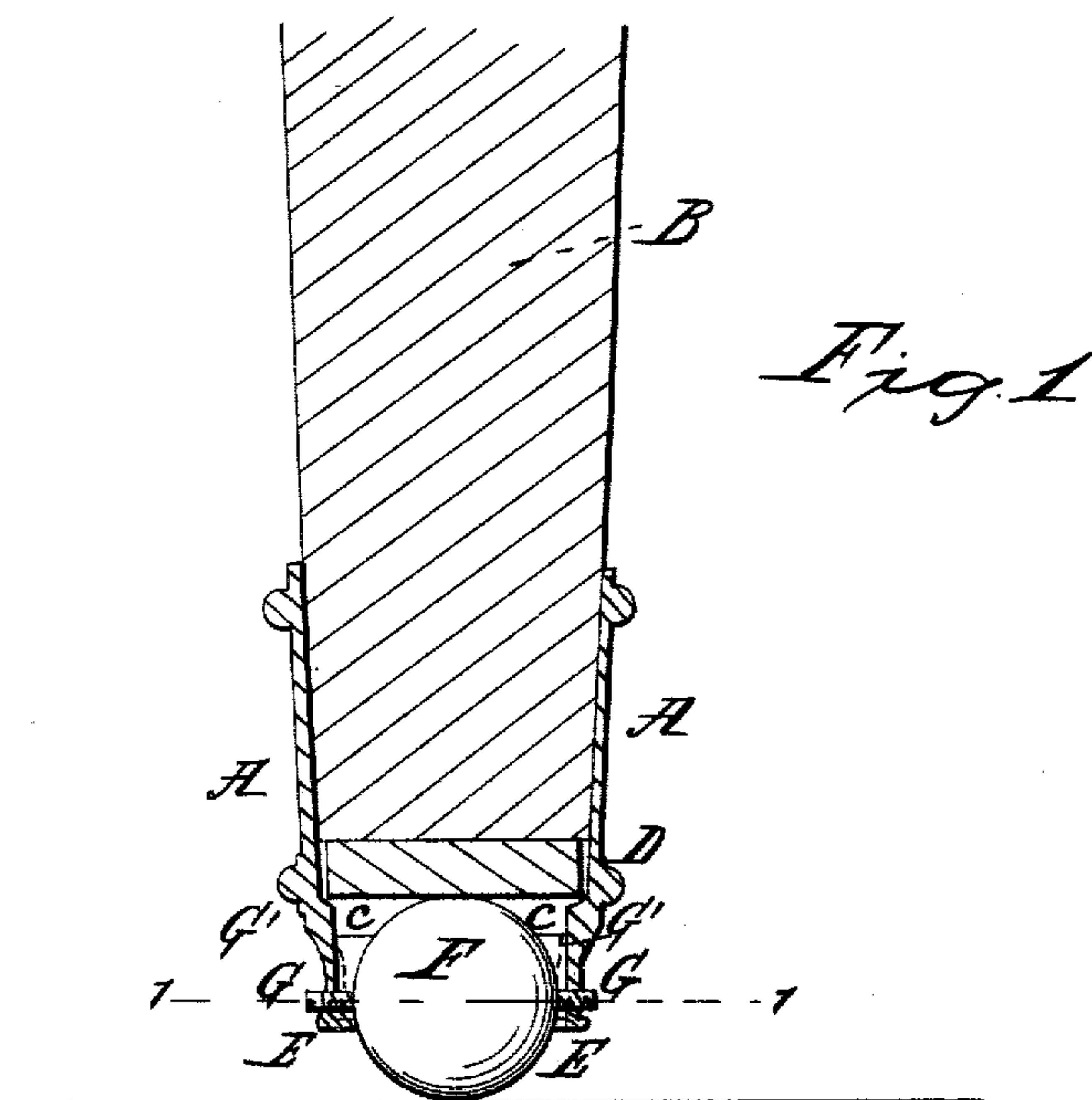


*B. A. Russell,*

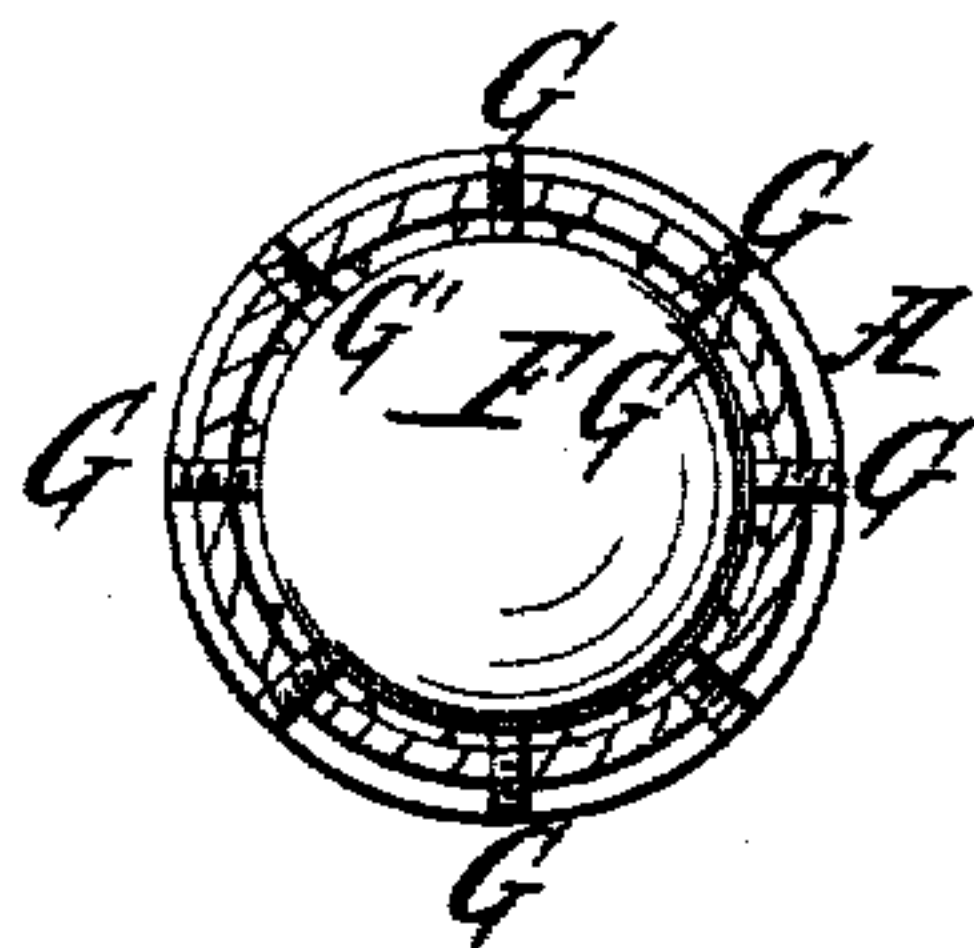
*Furniture Caster.*

*N<sup>o</sup> 22,751.*

*Patented Jan. 25, 1859.*



*Fig. 2.*



# UNITED STATES PATENT OFFICE.

B. A. RUSSELL, OF DEEP RIVER, CONNECTICUT.

## BALL FURNITURE-CASTER.

Specification of Letters Patent No. 22,751, dated January 25, 1859.

*To all whom it may concern:*

Be it known that I, B. A. RUSSELL, of Deep River, in the county of Middlesex and State of Connecticut, have invented a new  
5 and useful Improvement in Ball-Casters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification.

10 Figure 1, is a vertical section of the improved caster applied to a table leg. Fig. 2, is a horizontal section of ditto on line 1, 1, of Fig. 1.

Similar letters in the figures refer to corresponding parts.

The nature of this invention consists in a new article of manufacture of casters in lessening the friction of the ball in the casing inclosing the upper portion of the same,  
20 by causing its bearing surfaces to be confined to the surface of a horizontal plate at its upper part, on which the weight of the table or other article of furniture to which it is attached, rests, and to the ends or points  
25 of a series of horizontal set screws, or vertical ribs inserted radially in the casing on a line with the axis of the ball, at its sides.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and character.

The metallic casing or cylinder A, is made to fit over the end of the leg B, of a table or other article of furniture, and secured thereto in the ordinary manner, and is contracted  
35 near its lower end so as to form an inclined ridge C, around its inner periphery, on which a circular plate D, of hardened steel or cast iron beneath the leg B, rests, and its extreme lower end is provided with a small  
40 rim E, whose inner circular edge is of less diameter than the ball F, so as to prevent the said ball coming out of the lower end of the casing A, after being inserted therein from the upper part. A series of radial  
45 screws G, are inserted in corresponding openings in the periphery of the casing A,

immediately above the rim E, which screws extend through the casing on a line with the axis of the ball, and are made smooth on their inner ends, where they come in contact with the ball, so as to present a slight  
50 and smooth surface to the spherical surface of the sides of the ball, and thereby confine the side bearing or friction occasioned by rolling the article of furniture on the caster  
55 over the floor, exclusively to these points, and to a slight central bearing surface on the under side of the hardened steel or cast iron plate D, against which the upper spherical ridge of the ball is in contact. I  
60 use the screws G, when the casing or cylinder is made of brass, and when made of cast iron, I chill the ribs G', or smooth surface, to prevent wear, or in case I prefer to insert a chilled cylinder, either with or without the  
65 ribs G', inside of the lower end of the cylinder A when made of brass. By thus confining the ball between these points, whose aggregate bearing surfaces will be but slight, when compared to the large surface usually  
70 borne upon by the upper parts and sides of ball casters, the friction heretofore experienced in moving the article of furniture to which the caster is attached, will be materially lessened. In the event, moreover, of  
75 the ball becoming loose in the socket, thus formed for it, from constant wear, the screws can be turned and their ends always adjusted to its sides.

What I claim as new and desire to secure  
80 by Letters Patent, is—

As a new article of manufacture in my improved furniture caster, when composed of cylinder or casing A, either with or without the radial set screws G, or ribs G', in  
85 combination with the plate D, and ball F, when constructed arranged and operated in the manner and for the purposes set forth.

B. A. RUSSELL.

Witnesses:

N. A. STARKEY,  
H. G. LOOMIS.