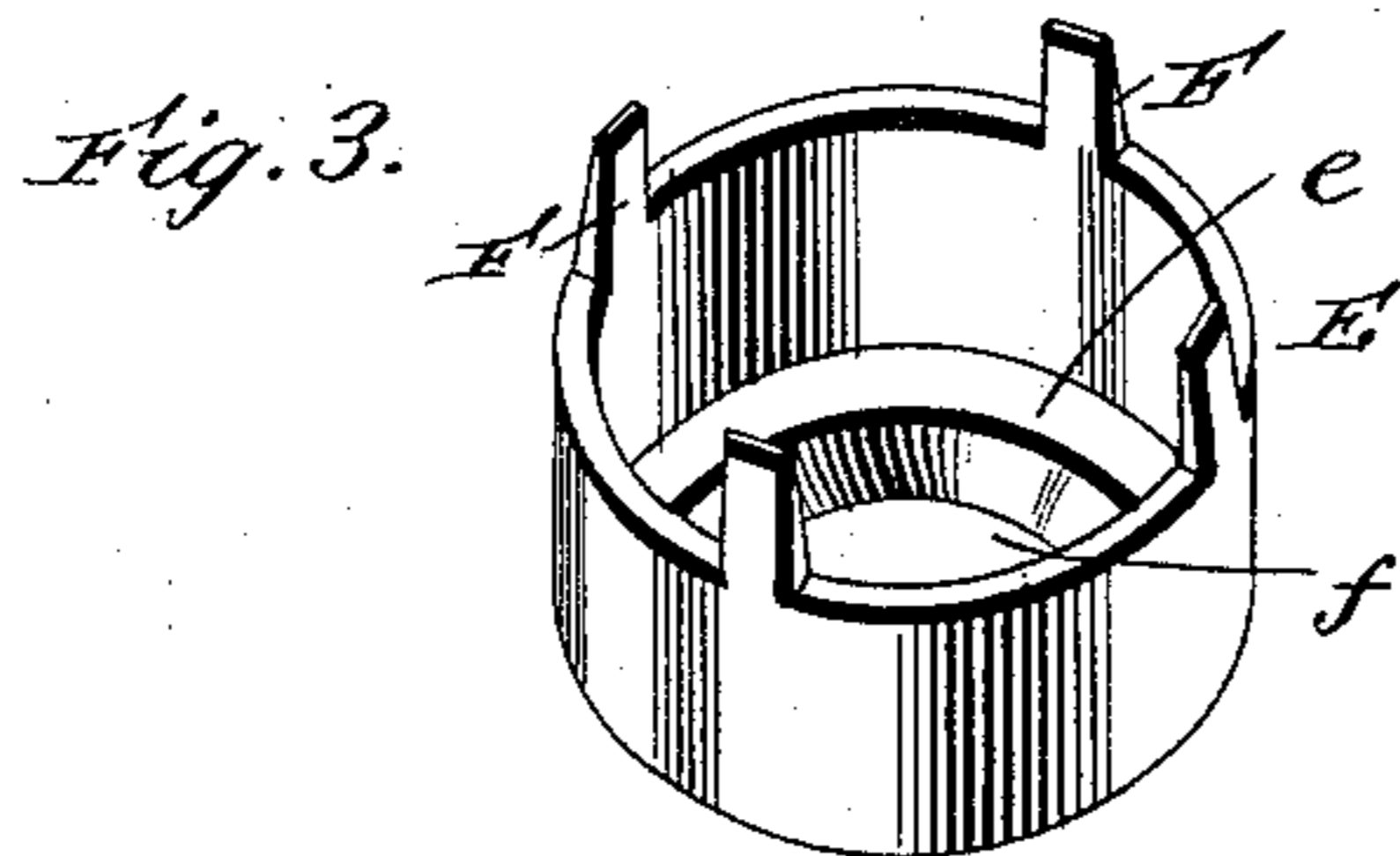
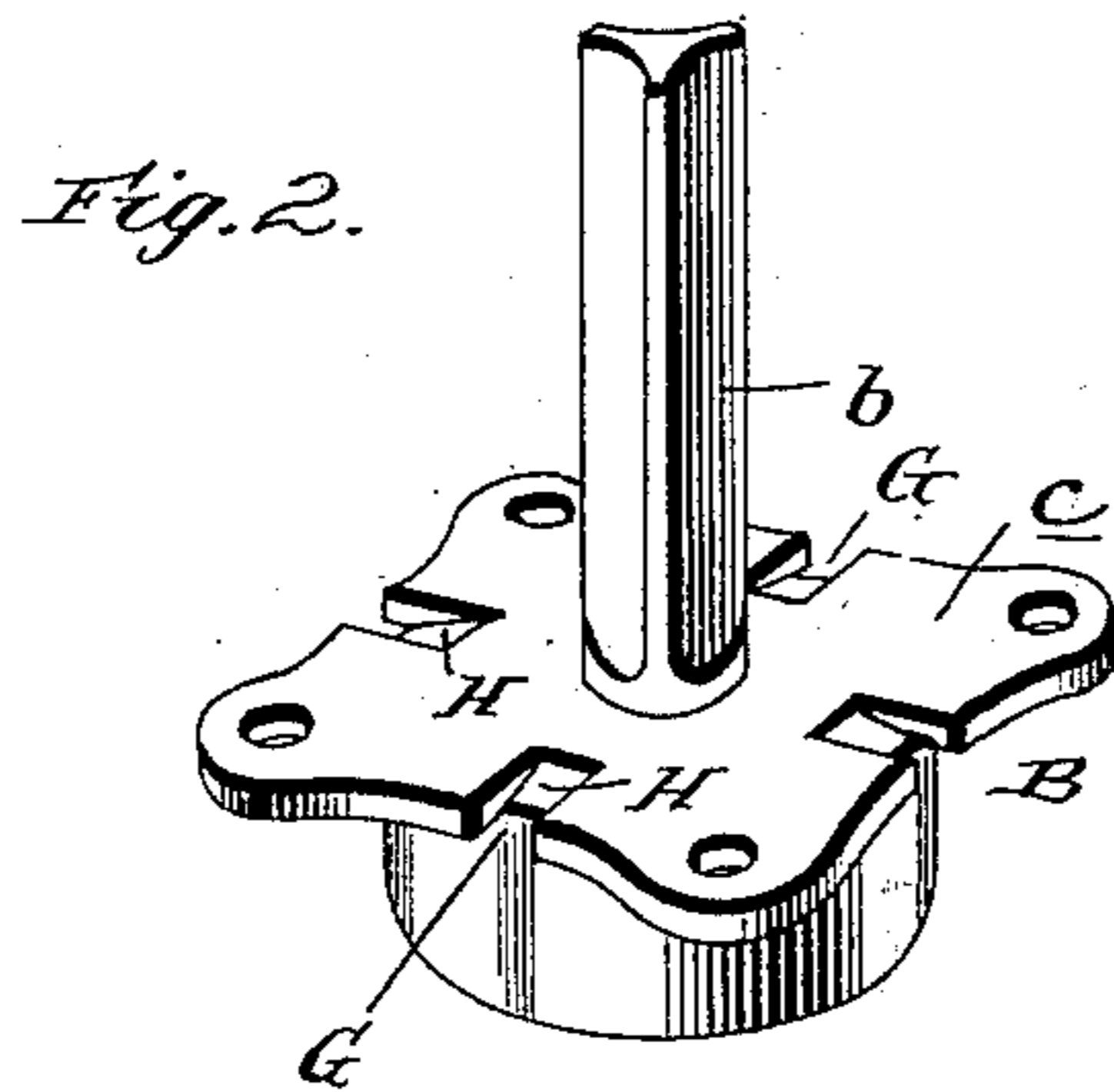
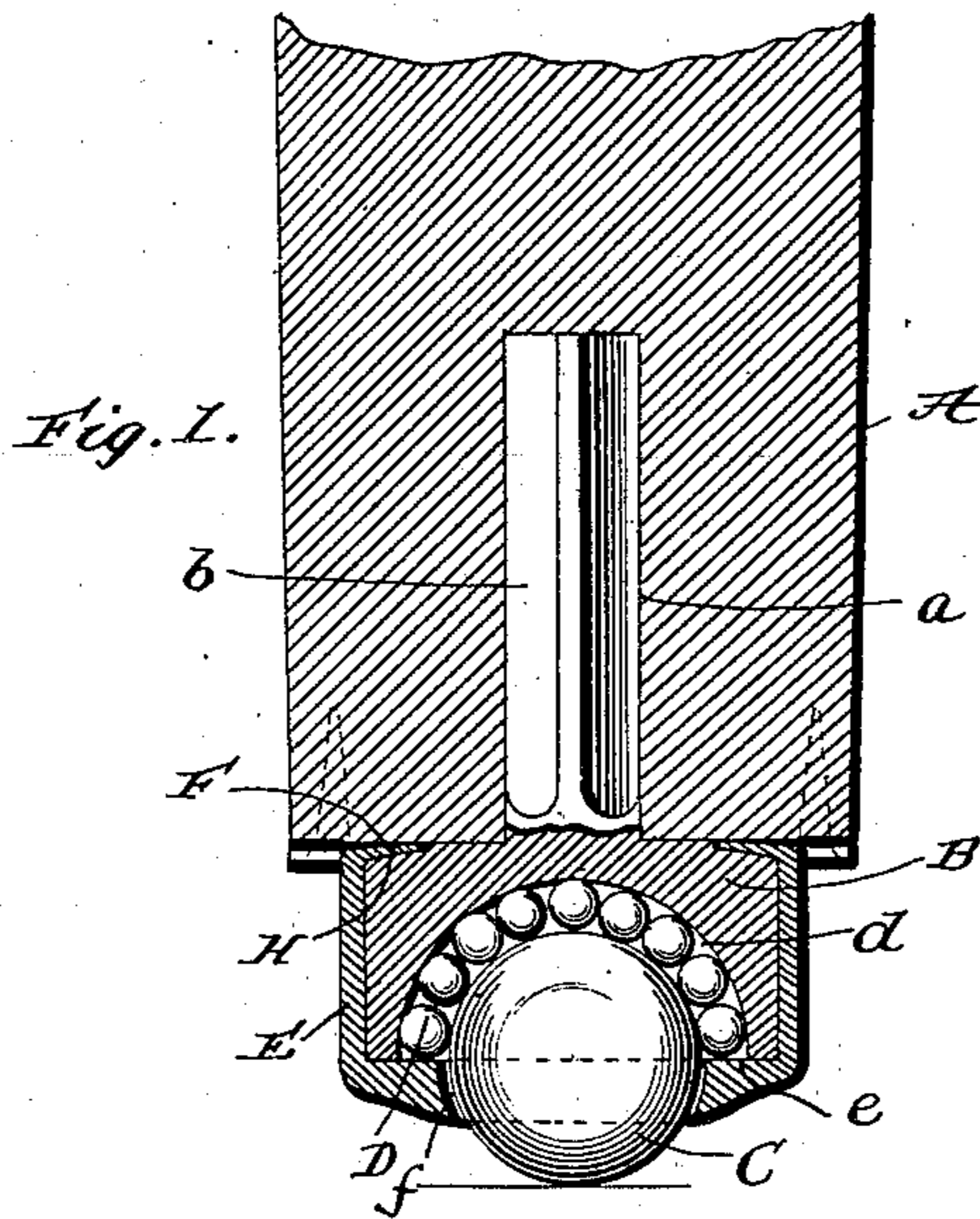


(No Model.)

K. A. KLOSE.  
BALL CASTER.

No. 604,400.

Patented May 24, 1898.



Witnesses:  
*C. H. Raeder*  
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# UNITED STATES PATENT OFFICE.

KARL AUGUST KLOSE, OF DES PLAINES, ILLINOIS, ASSIGNOR TO THE KLOSE BALL CASTER COMPANY, OF CHICAGO, ILLINOIS.

## BALL-CASTER.

SPECIFICATION forming part of Letters Patent No. 604,400, dated May 24, 1898.

Application filed November 15, 1897. Serial No. 658,614. (No model.)

*To all whom it may concern:*

Be it known that I, KARL AUGUST KLOSE, a citizen of the United States, residing at Des Plaines, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in 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.

My invention relates to that class of furniture-casters which comprise a principal or large ball rolling against a plurality of small balls arranged in a socket; and it has for its general object to provide such a caster of an exceedingly cheap and simple construction and one which admits of the several parts being very quickly and easily assembled and connected together.

The invention will be fully understood from the following description and claim when taken in conjunction with the annexed drawings, in which—

Figure 1 is a vertical section, partly in elevation, illustrating the caster as connected to the leg of a piece of furniture. Fig. 2 is a perspective view of the caster-body, and Fig. 3 is a similar view of the cap.

Referring by letter to the said drawings, A designates the leg of a piece of furniture having a socket *a*, and B designates the body of my improved caster, which is formed in one piece. This body B has a shank *b*, designed to be arranged in the socket of the leg, and an apertured flange *c*, designed for connection to the lower end of the leg, and it is provided in its under side with a hemispherical concavity *d*, for a purpose presently described.

C designates a large ball which is arranged in the concavity *d* and is designed to bear upon a floor or other base, so as to permit of the piece of furniture being easily moved.

D designates a plurality of small antifriction-balls which are also arranged in the concavity *d* and are interposed between the large ball C and the caster-body, so as to prevent undue friction and consequent wear of the parts, and E designates the cap, which has for its purpose to retain the large ball and the small balls in the caster. This cap E receives the caster-body, as shown, and it is provided in

its bottom *e* with an aperture *f* of less diameter than the ball C, through which said ball protrudes, as shown, so as to bear on the floor or other base, as before stated. The said cap, which is formed of some suitable metal, is also provided at its upper end with four (more or less) tongues F, as better shown in Fig. 3 of the drawings. These tongues F are designed, when the cap is placed on the caster-body, to take into the notches G, formed in the edges of the body-flange *c*, and be bent inwardly into the seats H, formed in the upper side of the flange *c*, coincident with the notches G, so as to rest flush with such upper side of the flange and permit of the same resting flat against the end of the piece of furniture to which the caster is applied, as shown. In this way it will be observed that the cap may be quickly and easily fastened to the caster-body and held against rotary as well as vertical movement thereon.

In assembling the parts of my improved caster the body B is held in an inverted position, and the small balls D and the large ball C are dropped into the concavity *d* thereof. The cap E is then placed on the body, with its tongue F resting in the notches G thereof, after which the said tongues are bent inwardly into the seats H of the body, so as to rest flush with the upper side of the same and permit of the body resting close against the end of the leg A.

It will be appreciated from the foregoing that my improved caster is made up of but a minimum amount of simple parts and that this, together with the facility with which the parts may be assembled and connected, renders the caster very cheap. It will also be appreciated that the construction of the caster is such as to permit of the body B being formed of cast-steel or other hard metal adapted to afford a hard bearing for the antifriction-balls D and withstand frictional wear.

Having thus described my invention, what I claim is—

The herein-described caster consisting essentially of the body having the hemispherical concavity in its under side and also having the lateral flange provided with the notches G in its edges and the seats H in its upper side coincident with said notches, a large ball

arranged in the concavity of the body, a plurality of small antifriction-balls also arranged in said concavity and interposed between the large ball and the body, and the cap E receiving the body and having the central aperture in its bottom of less diameter than the large ball and also having the tongues F at its upper end resting in the notches G of the body-flange and bent inwardly into the seats H in

said flange and resting flush with the upper side thereof, substantially as specified.

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

KARL AUGUST KLOSE.

Witnesses:

LEM M. THOMAS,  
ALBERT H. SMITH.