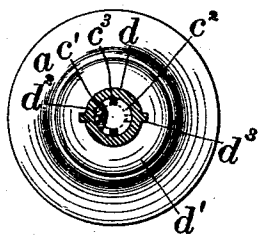
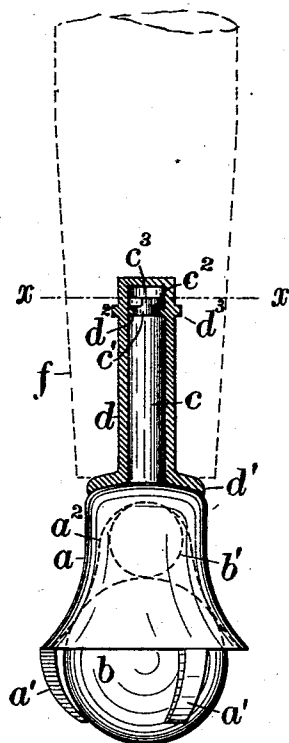


(No Model.)

R. MASON & F. ELY.
BALL CASTER.

No. 570,603.

Patented Nov. 3, 1896.



Attest:

Shepherd Lewis
William Barton

Inventors.

Richard Mason and Fred Ely,
per Henry J. Miller
att'y

UNITED STATES PATENT OFFICE.

RICHARD MASON AND FREDERICK ELY, OF NEWARK, NEW JERSEY.

BALL-CASTER.

SPECIFICATION forming part of Letters Patent No. 570,603, dated November 3, 1896.

Application filed February 5, 1896. Serial No. 578,083. (No model.)

To all whom it may concern:

Be it known that we, RICHARD MASON and FREDERICK ELY, citizens of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Furniture-Casters, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The object of this invention is to provide a simple and effective means of rendering ball-casters effective and of retaining them removably within the articles of furniture to which they are applied.

The invention consists in the specific improvements herein shown and described, and set forth in the claim annexed hereto.

The invention will be understood by reference to the accompanying drawings, in which Figure 1 is a side elevation of a furniture-caster embodying the improvement, showing the sleeve upon the shank of the socket or casing in section at the center; and Fig. 2 is a plan of the same with the said shank and its sleeve in transverse section on line xx in Fig. 1 and a portion of the upper or outer end of the shank broken away to expose one of the studs upon the interior of the surrounding sleeve.

The socket or casing a is shown provided with the bearing-ball b , projected partially below the mouth of the same and retained in position by convergent prongs a' , dependent from the edge of said socket, the shank c of the latter being projected axially from its top and contracted at the upper or outer end to form a neck c' with adjacent annular rib or bead c^2 , provided with lateral notches c^3 .

The fastening sleeve or sheath d is of tubular form, having flange d' at the lower end fitted upon the top of the socket a and provided upon the inner surface near the opposite end with the inwardly-projecting studs d^2 , adapted to pass through the notches c^3 in the bead c^2 to engage the under or inner side of the latter when the shank is suitably turned. The sleeve d is provided externally with teeth d^3 for retaining the same firmly in place when driven into a suitable hole for the same, as indicated in Fig. 1, in which the caster is illustrated as applied to a furniture-leg f , (indicated in dotted lines.)

It will be observed that in the use of the device, the sleeve d having been fixed within the article of furniture as indicated above, the shank c of the caster is then inserted in the sleeve with the notches c^3 presented to the internal studs d^2 therein to avoid the engagement of the bead c^2 with such studs until the flange d' becomes seated upon the top of the socket a , when the socket is turned a fraction of a revolution to lock the studs d^2 under the bead and thus retain the shank within its sleeve or sheath.

Heretofore in roller-casters it has been common to seat the end of the shank upon the inner end of the sleeve, so as to provide an axial bearing to oppose the least possible resistance to the free rotation of the shank. As the employment of an axial bearing-ball renders the rotation of the shank wholly unnecessary to the effective operation of the caster, it is desirable that the normal relation of such members should remain fixed so far as practicable, to which end we have devised the flange d' with a comparatively large area in contact with the body of the socket and as far removed from the axis of the shank as possible in order to oppose sufficient frictional resistance between said members to prevent their relative movement and the consequent disengagement of the parts d^2 and c^3 . Thus while the socket a is readily detachable from the sleeve by its mere rotation through a fraction of a turn when its removal is desired it is so firmly seated upon the under side of the flange d' as to form practically an integral part of the article of furniture to which it is attached when in its operative position, as indicated in the drawings.

It is obviously immaterial how many of the locking-studs d^2 and corresponding notches c^3 be provided in their respective parts, one of each of said parts being ample to render the device effective.

Having thus set forth the nature of the invention, what we claim herein, and desire to secure by Letters Patent, is—

The combination, with a caster provided with a socket or holder a formed with axial shank c with annular bead c^2 notched as described, and the spherical ball b retained in said socket or holder by its dependent prongs a' , of the fastening sleeve or sheath d pro-

vided at one end with the internal locking-
stud d^2 adapted to enter a notch in and en-
gage the under side of the bead c^2 upon the
shank c and formed externally at the oppo-
5 site end with a flange d' fitted to and adapted
to bear upon the body of the socket or holder,
as and for the purpose set forth.

In testimony whereof we have hereunto set

our hands in the presence of two subscribing
witnesses.

RICHARD MASON.
FREDERICK ELY.

Witnesses:

HENRY J. MILLER,
WILLIAM BATSON.