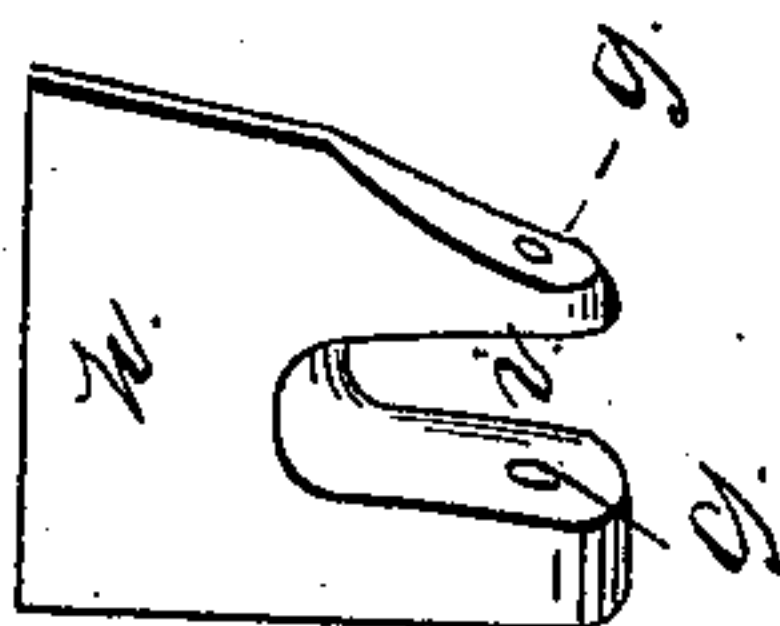


S. S. HICKOK & D. B. CLEMENT.  
BALL CASTER.

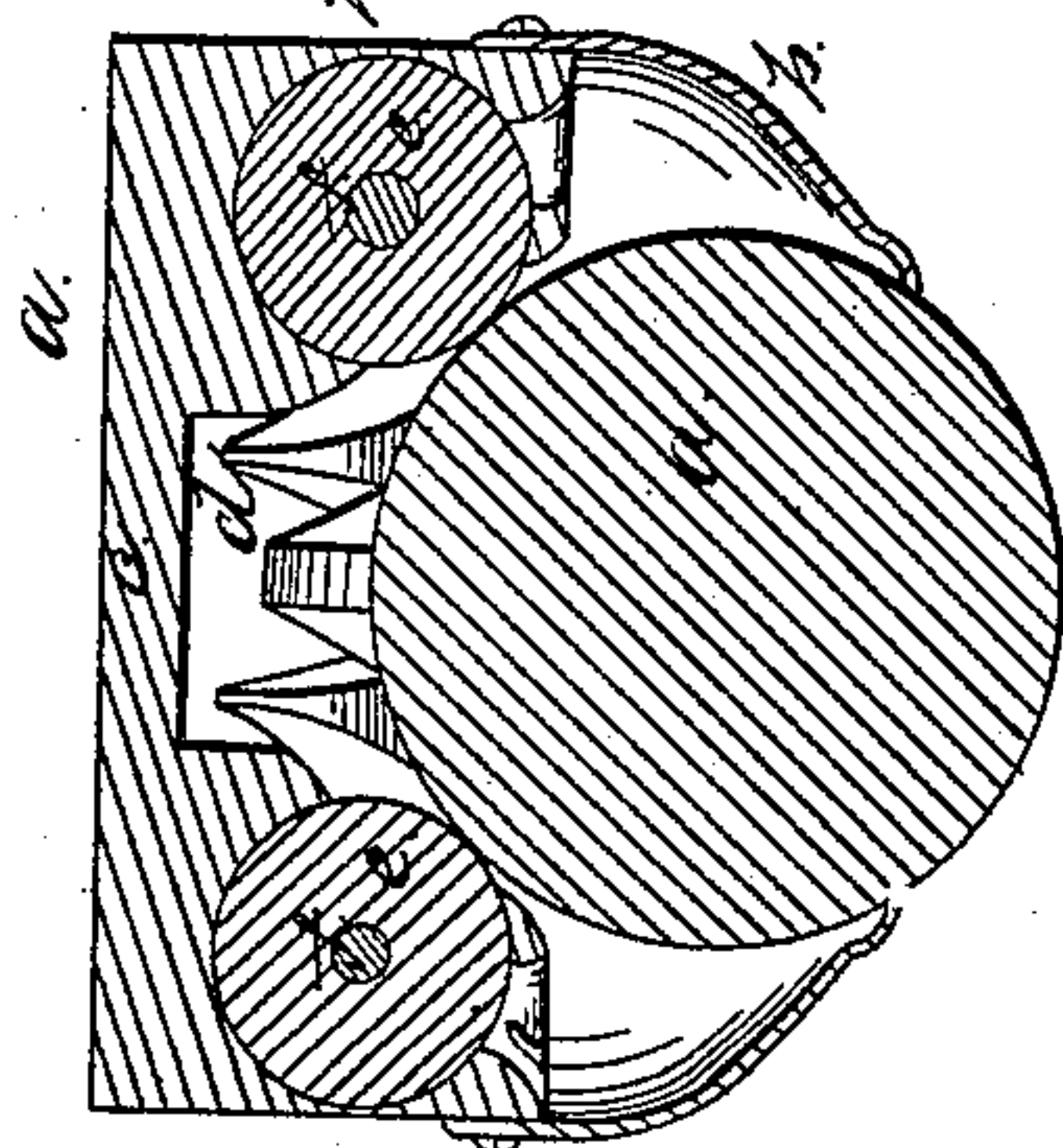
No. 76,630.

Patented Apr. 14, 1868.

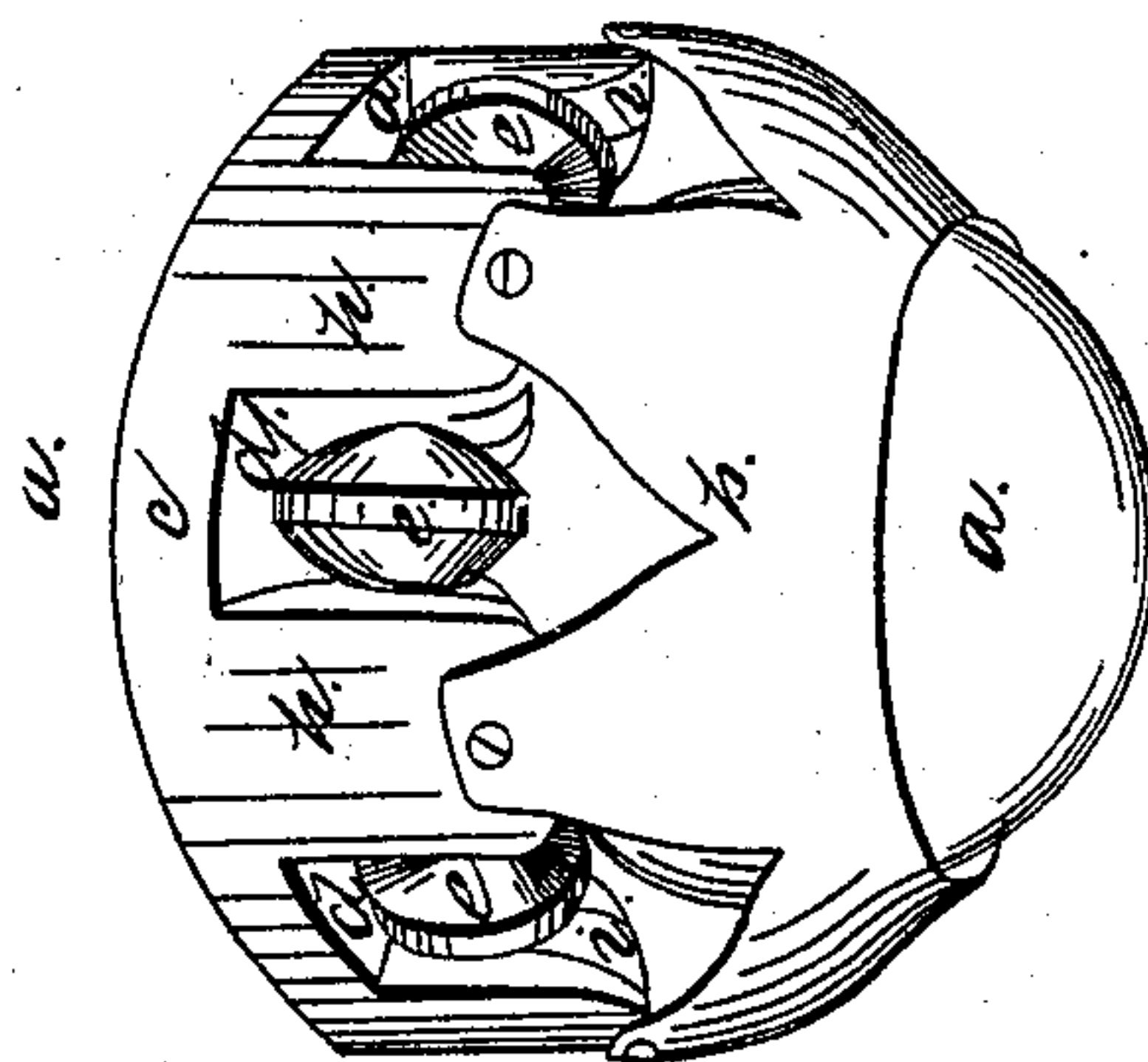
*Fig. 4.*



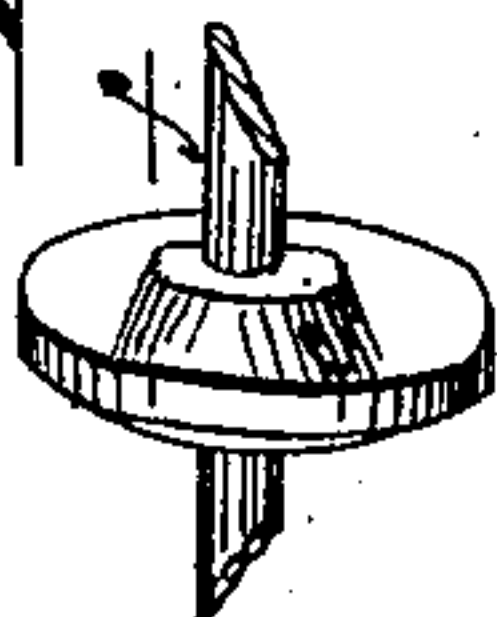
*Fig. 2.*



*Fig. 1.*



*Fig. 3.*



*Witnesses:*

*W. Geo. Alden  
Edward Griffith*

*Inventors:*

*S. S. Hickok and D. B. Clement.*

*by their Attorney,  
Frederick Curtis*

# United States Patent Office.

SAMUEL S. HICKOK, OF METHUEN, AND DANIEL B. CLEMENT, OF BOSTON,  
MASSACHUSETTS.

Letters Patent No. 76,630, dated April 14, 1868.

## IMPROVED BALL-CASTER.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that we, SAMUEL S. HICKOK, of Methuen, Essex county, Massachusetts, and DANIEL B. CLEMENT, of Boston, Suffolk county, Massachusetts, have made a new and useful invention of an Improved Ball-Caster; and do hereby declare the following to be a full, clear, and exact description of the same, due reference being had to the accompanying drawings, making part of this specification, and in which—

Figure 1 is a side elevation, and

Figure 2 a vertical and central section of a ball-caster constructed in accordance with the ideas of my invention.

Figure 3 is a perspective view of one of the friction-wheels or rollers to be hereinafter described, while

Figure 4 is a perspective view of one of the slotted or recessed brackets for supporting the friction-wheels.

The object of this invention is to produce a caster for use upon fire-proof safes, pianos, trunks, and various other objects, which shall allow such objects to be moved about with equal facility in any direction, and with ease.

The invention consists in a spherical ball or globe, retained in place upon the lower end or portion of a support or base by an annular cup or sleeve, which partially surrounds it, and allows it to revolve easily therein; the base itself being supported upon or over the ball by means of an interposed series of anti-friction wheels or rollers, duly supported within recesses made in the base, and turning upon axles duly inserted therein; the whole being substantially as hereinafter described.

By referring to the accompanying drawings, it will be seen that the caster is shown at *a'* as composed of a spherical ball, *a*, partially enclosed by an annular cup or sleeve, *b*, the lower edge of which extends below the centre of the ball, in order to prevent its dropping out of the same, while the upper periphery of the cup is serrated or recessed, and is secured in a suitable manner to a base or support, *c*.

The upper part of this base is provided with a screw for the purpose of readily applying the caster to the desired object, the screw being in the centre of such base.

The base, furthermore, is recessed or notched, as shown at *d d*, &c., for reception of a series of six or any suitable number of wheels or rollers *e e e*, &c., supported and turning upon axles *f f f*, &c., the ends of which are inserted within recesses *g g g*, &c., formed in opposite sides of the pendent posts *h h h*, making part of the base, *c*, before mentioned, the line of rotation of the wheels *e e e* being in a radial line from the centre of the base, *c*, or thereabouts.

The ball or globe *a* is to be of sufficient size to bear upon or touch the peripheries of all the wheels *e e e*.

The mode of supporting and securing the axles *f f f*, &c., in their supporting-posts *h h h*, as shown in the drawings, is to form in the lower end of such posts, and extending upward, a slot or recess, *i*, into which the end of the roller-axle is inserted, there being one of these recesses upon each side of the post; the axle being retained therein by a block of leather or other suitable material, which is inserted within the lower end of the said recess, and below the axle; the block of leather being in turn secured in its proper place by the same screws which serve to confine the annular cup to the base, or by any suitable means.

The construction of the above-described caster admits of very great strength and simplicity of parts. As the point of resistance or pressure is always at its centre, there is no danger of breakage, as with the ordinary caster.

As the line of rotation of the rollers *e e e*, &c., radiates from the centre of the base outward, the full advantage of these rollers is obtained in whatever direction the main ball or sphere is rotated, thus enabling the object to which the caster is attached to be moved about in various directions with equal facility and with ease. It obviates the great objection, common to ordinary casters, of becoming "set" in one direction, and which, upon being drawn along over a carpet or floor, tends to injure them to a serious extent.

We claim as our invention, and desire to secure by Letters Patent of the United States—

The ball-caster, made in two sections, as herein described, the one section consisting of the base *c*, constructed with the slotted legs *h*, in which the axles of rollers *e* are held, and the other of the cup *b*, with the caster-ball which it holds, attached to said base, in the manner and for the purposes shown and specified.

SAML. S. HICKOK,  
DANIEL B. CLEMENT.

Witnesses:

FRED. CURTIS,  
EDWARD GRIFFITH.