

D. A. MACCUAIG.
 CASTER RETAINING DEVICE.
 APPLICATION FILED OCT. 31, 1908.

929,964.

Patented Aug. 3, 1909.

Fig. 1.

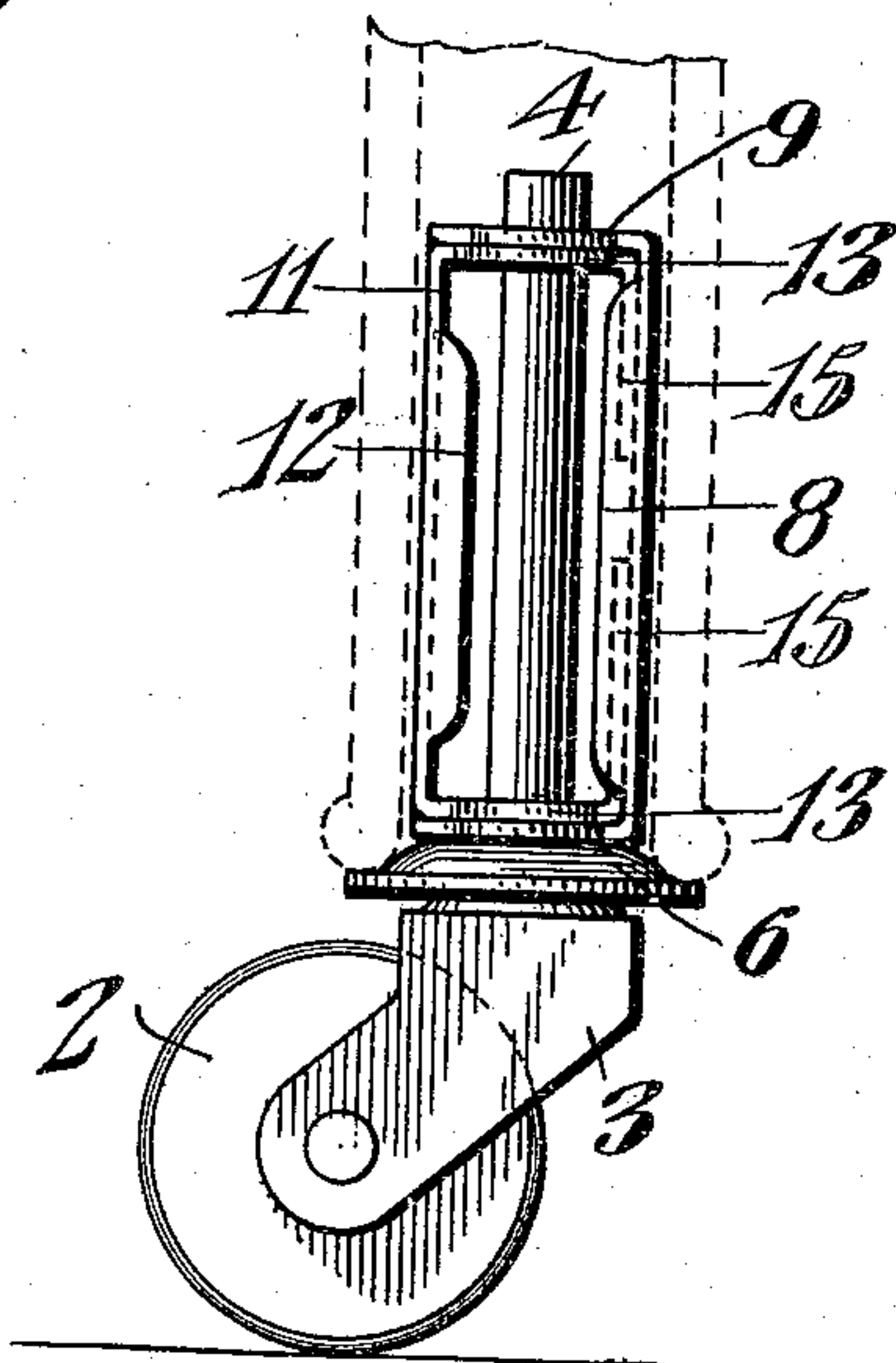


Fig. 2.

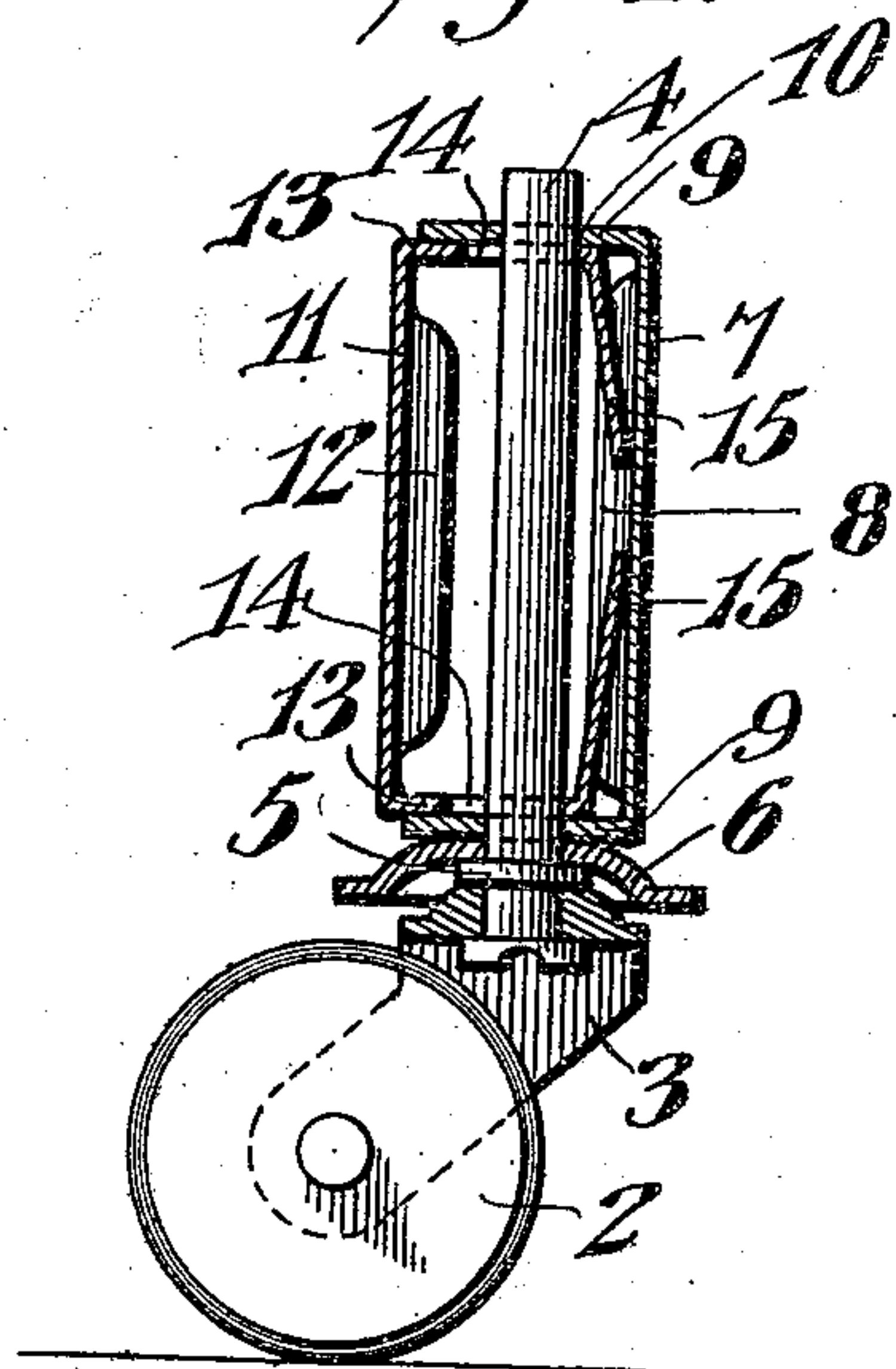


Fig. 3.

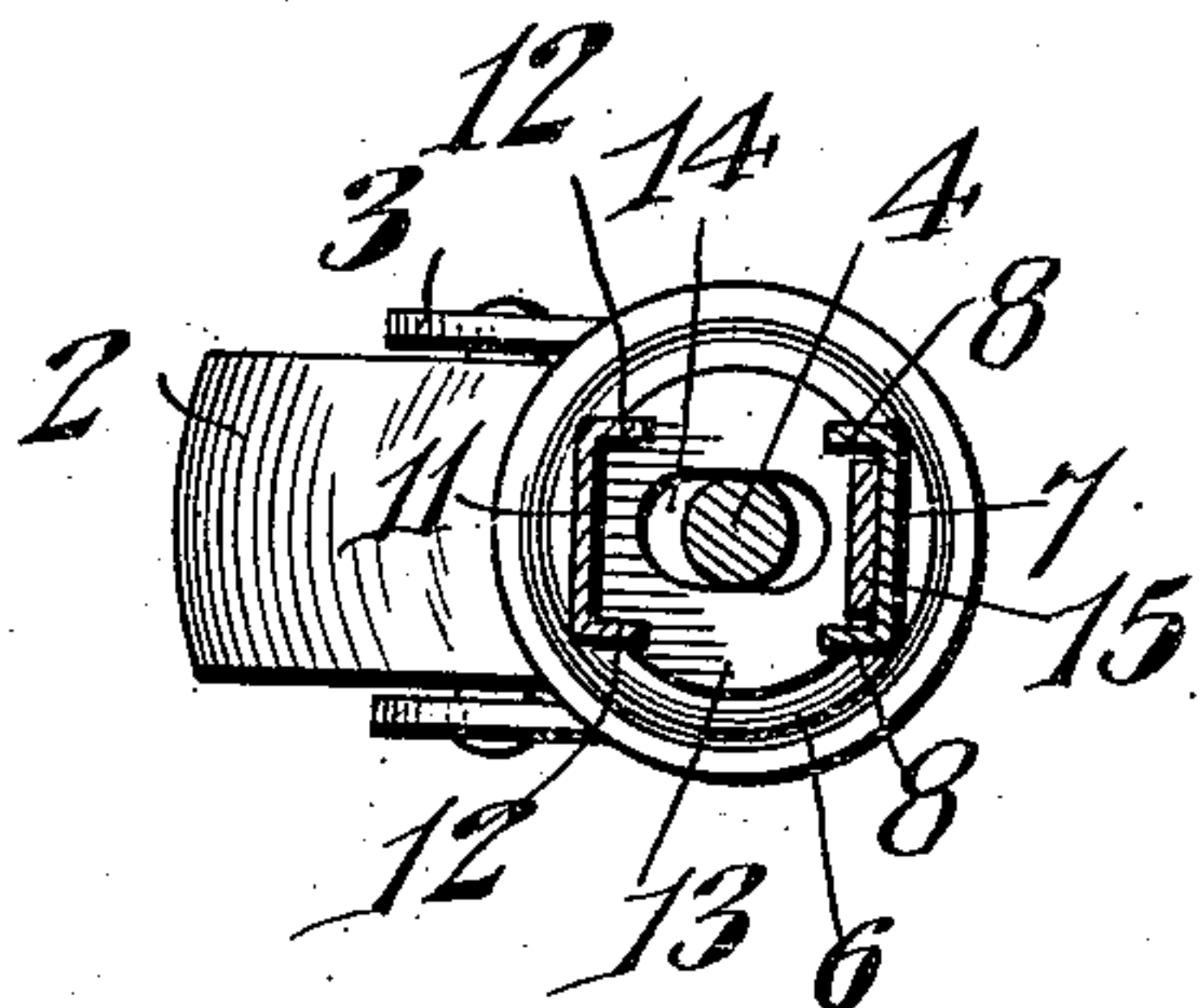


Fig. 4.

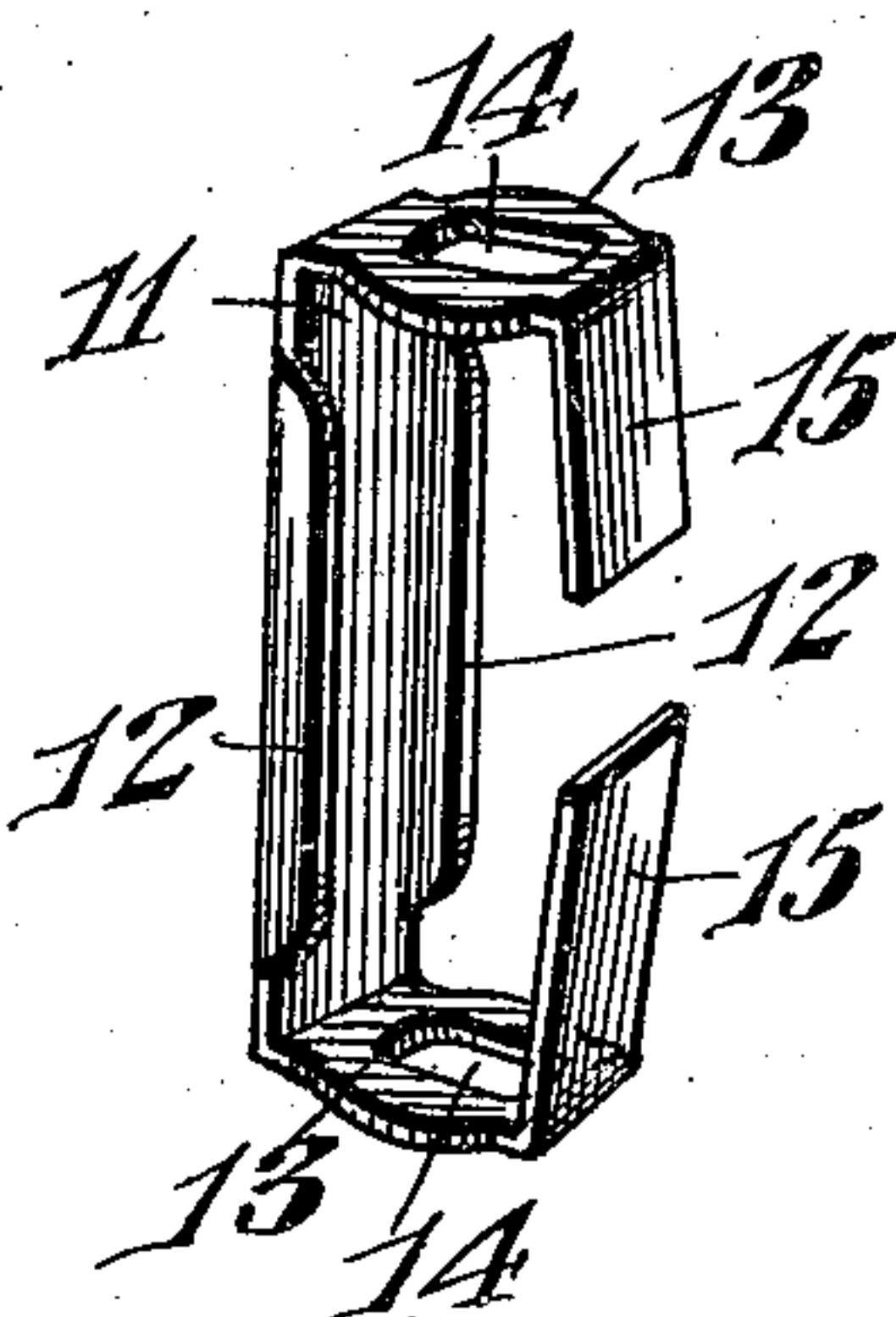
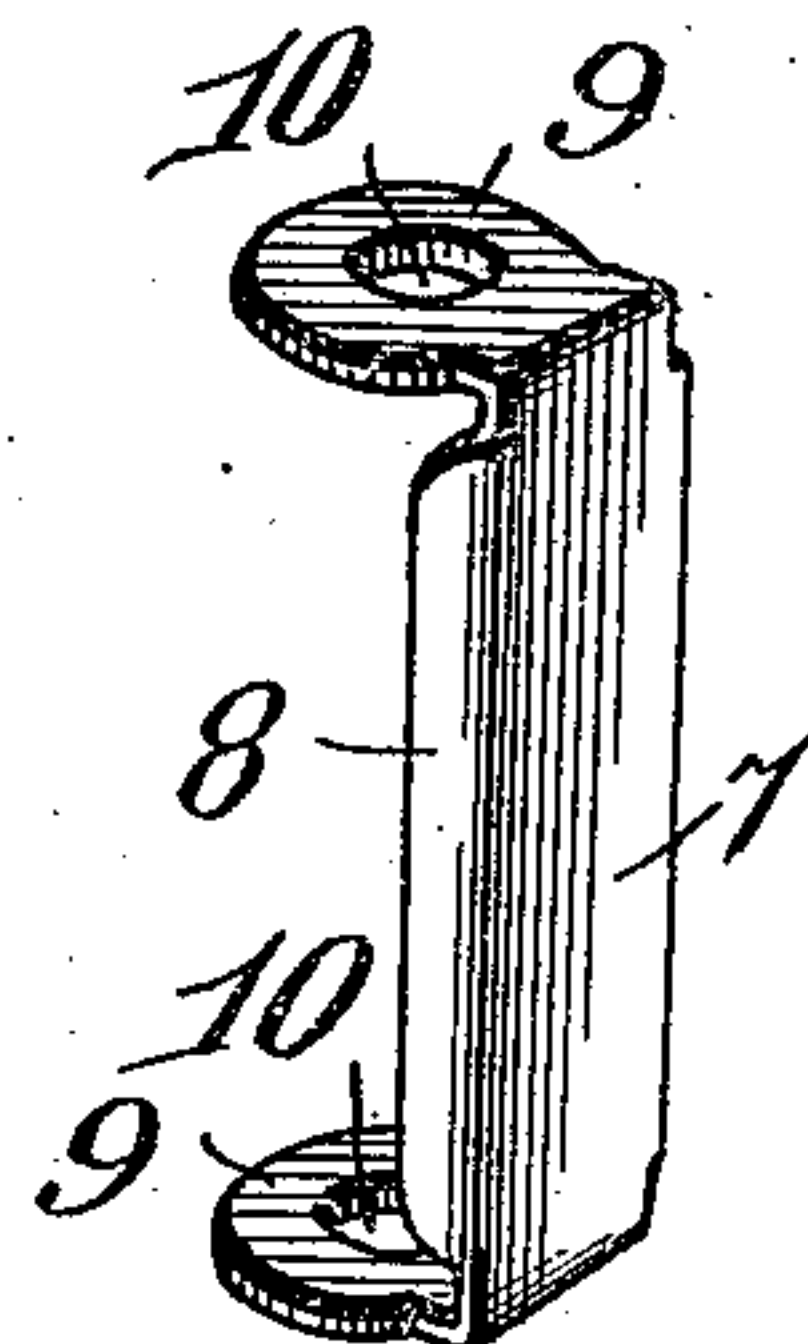


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

DUNCAN A. MACCUAIG, OF NEBRASKA CITY, NEBRASKA.

CASTER-RETAINING DEVICE.

No. 929,964.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed October 31, 1908. Serial No. 460,483.

To all whom it may concern:

Be it known that I, DUNCAN A. MACCUAIG, a citizen of the United States, residing at Nebraska City, in the county of Otoe and State of Nebraska, have invented a new and useful Caster-Retainer, of which the following is a specification.

My invention relates to devices for retaining casters within the tubular legs of articles of furniture, and particularly to resilient expansible retainers, which are placed over the pintle of the caster, compressed, inserted within the tubular leg of the article of furniture, and then expanded against the inside of the leg, thus holding the caster in place and centering the same.

The objects of my invention are to make a retainer of sheet metal, which will be strengthened so that it may successfully withstand all sidewise and torsional stress, to which it is subjected, to increase the expansive force of the retainer by providing double spring elements for expanding the retainer, to protect these spring elements by arranging them within the body of the retainer, and particularly to provide a retainer composed of two members, and having means whereby one of these members may be forced equally at top and bottom against the socket in which the retainer is received.

My invention consists in the arrangement of parts and details of construction set forth in the accompanying specification and more specifically stated in the appended claims.

In the drawings:—Figure 1 is a side elevation of my retainer in place within the socketed leg of an article of furniture. Fig. 2 is a like view showing the retainer expanded. Fig. 3 is a sectional view of Fig. 2. Fig. 4 is a perspective view of one member of my retainer. Fig. 5 is a perspective view of the opposed member.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the drawings, 2 designates a caster wheel, 3, the yoke, in which the wheel is mounted, 4 the pintle attached to the yoke, 5 the usual shoulder formed on the pintle, and 6, the inverted cup-like shield loosely mounted on the pintle and closing the recess in the leg of the article of furniture. All these parts are as usual in furniture casters, and need no extended description.

My retainer consists of two folded sheet metal members, preferably made of a strip

of sheet steel adapted to engage the pintle of a caster, one member being received within the other, having spring tongues formed upon it adapted to bear against the other member, and normally forced out therefrom to expand the retainer against the walls of the socket. The particular advantage due to this construction lies in the fact that the retainer is expanded along its whole length and is therefore forced out equally against the walls of the recess in the furniture leg.

Referring particularly to Fig. 5, which shows one member of the retainer, 7 designates a side plate of sheet steel having inwardly bent lateral strengthening flanges 8 and inwardly bent ends 9 of disk-like form perforated at 10 for the passage of the pintle 4. Fig. 4 shows the other member of my device consisting of a side plate 11 having inwardly bent lateral flanges 12 and inwardly bent ends 13 of disk like form, perforated at 14 for the passage of the pintle 4, these perforations being in the form of slots in order to allow an expansive movement of the member upon the pintle. This member of my device differs from that shown in Fig. 5 by being sufficiently shorter than the member 5 that it can be slipped in between the end disks 9, and also differs in having the spring tongues 15 extending over the end disks 13 and bent toward each other each at an obtuse angle to the end disks, as shown in Figs. 2 and 4. These tongues are of the same width as the plates 11 and 7, and will, when the parts are assembled, fit against the plate 7 between the flange 8 in the manner shown in Figs. 1 and 2.

In operation the two members are inserted one within the other, and the pintle 4 passed through the perforated ends thereof, as shown in Fig. 2. The two members are then forced toward each other, compressing or bending inward the spring tongues 15 and the retainer is inserted within the socket or recess in the leg of the piece of furniture. The pressure of the spring tongues will force the members out relative to each other, the slot 14 allowing this expansion. It will be seen that the members provided with the spring tongues will be forced out equally both at top and bottom and that the plates 7 and 11 will bear along their whole length against the walls of the recess into which the retainer is inserted. My construction therefore not only provides very strong, expansive action due to the use of two opposed

springs 15, but provides for a very firm frictional contact between the side plates of the retainer and the furniture leg to which it is applied.

5 From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

15 Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. A caster retainer formed of two opposed independent side plates having means for attachment to the pintle of a caster, one of said side plates resiliently bearing against the opposed side plate to force the said side plates relatively outward from each other.

2. A caster retainer formed of two opposed independent side plates having means for attachment to the pintle of a caster, one of said side plates having opposed spring tongues thereon bent toward each other and bearing against the opposed side plate to force said side plates relatively outward from each other.

3. A caster retainer formed of two opposed members, each composed of a side plate and

two perforated end disks, one of said members being shorter than the other, insertible 35 between the end disks thereof and having spring tongues formed therewith adapted to bear against the opposed side plate to force said side plates relatively outward from each other.

4. A caster retainer formed of two opposed members each composed of a side plate and two perforated end disks bent at right angles to the side plate, one of said members being shorter than the other to permit its end disks 40 to be insertible between the end disks of the other member and having spring tongues extending from the end disks of the same width as the opposed side plate and bent toward each other and outward at an obtuse angle 50 to the end disks and adapted when the parts are assembled to bear against the inside face of the opposed side plate to force said plates relatively outward from each other, said side plates being provided with lateral flanges 55 bent at right angles to the plane of the side plates one pair of said lateral flanges engaging on both sides of said spring tongues.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature 60 in the presence of two witnesses.

DUNCAN A. MACCUAIG.

Witnesses:

PAUL JESSEN,
F. A. BARTLING.