

No. 816,177.

PATENTED MAR. 27, 1906.

G. E. NEUBERTH.  
CASTER.

APPLICATION FILED SEPT. 20, 1904.

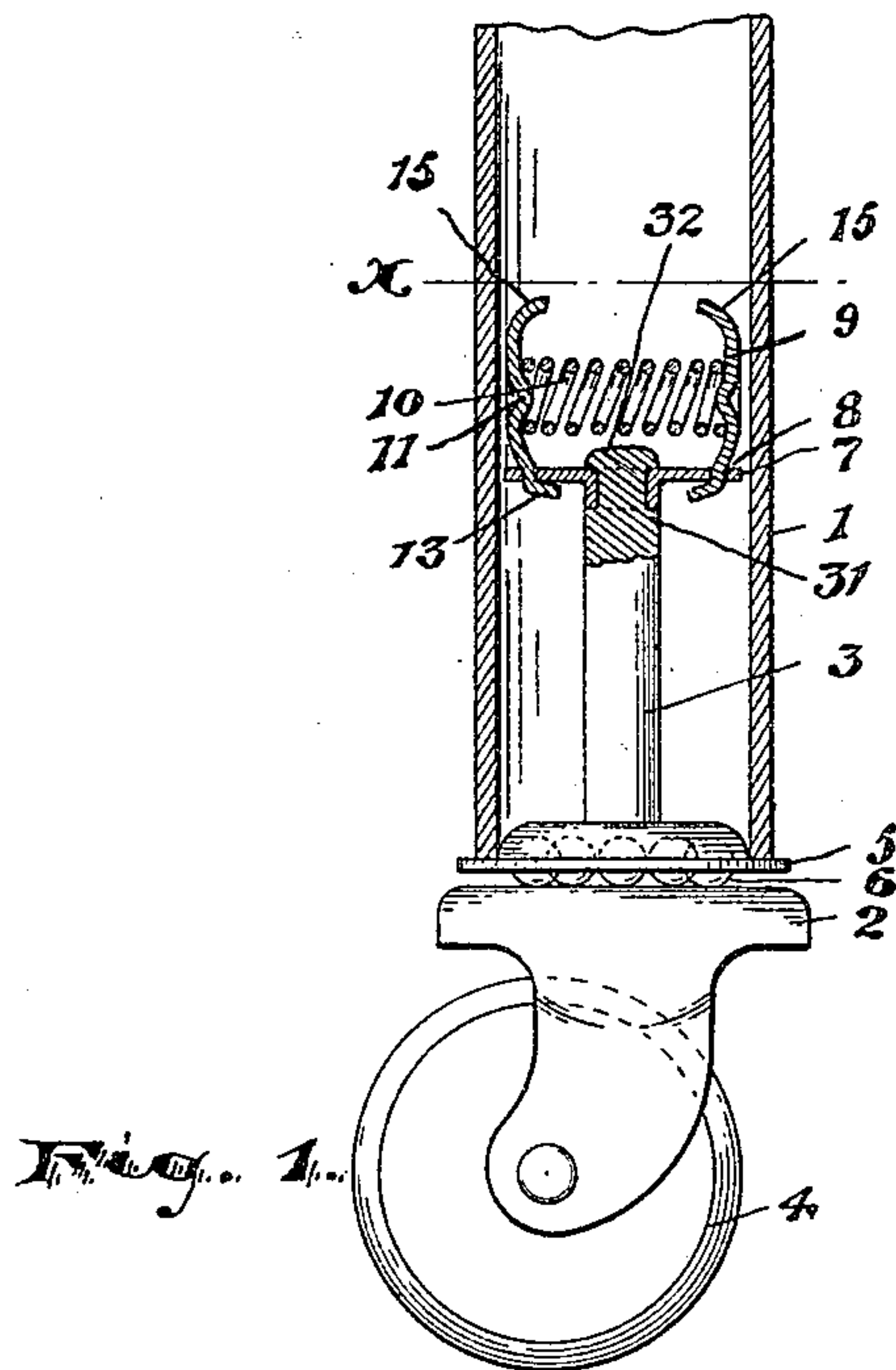


Fig. 1.

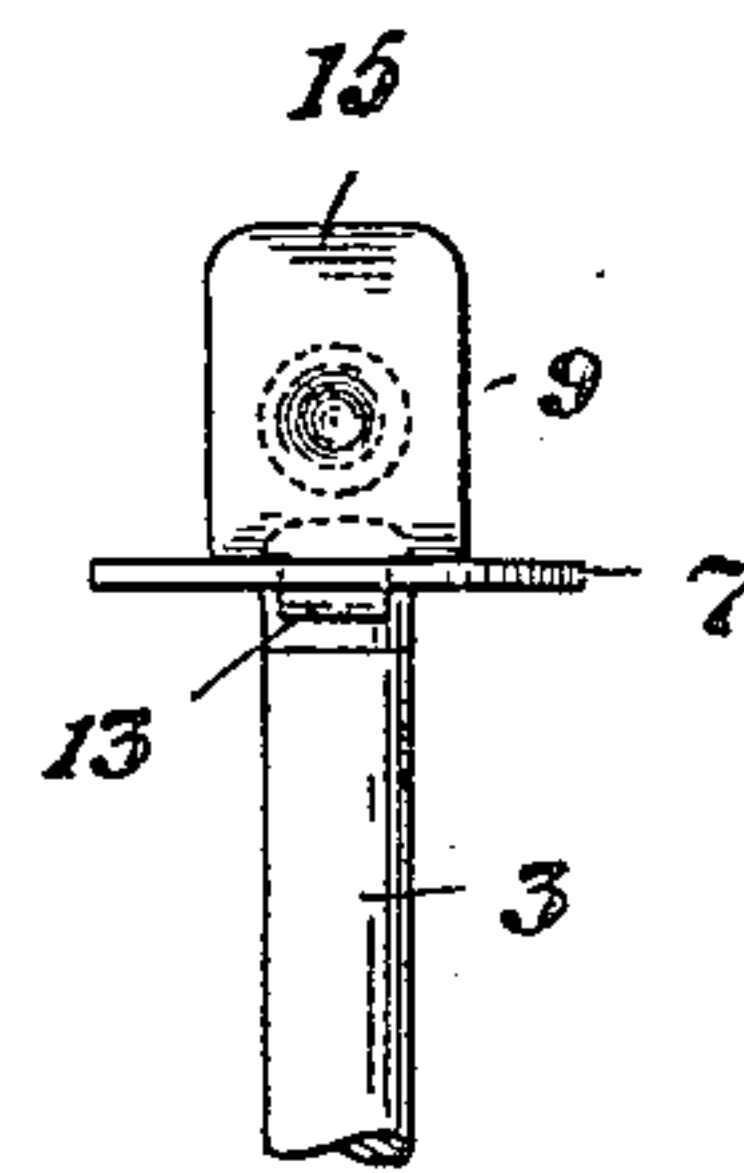


Fig. 3.

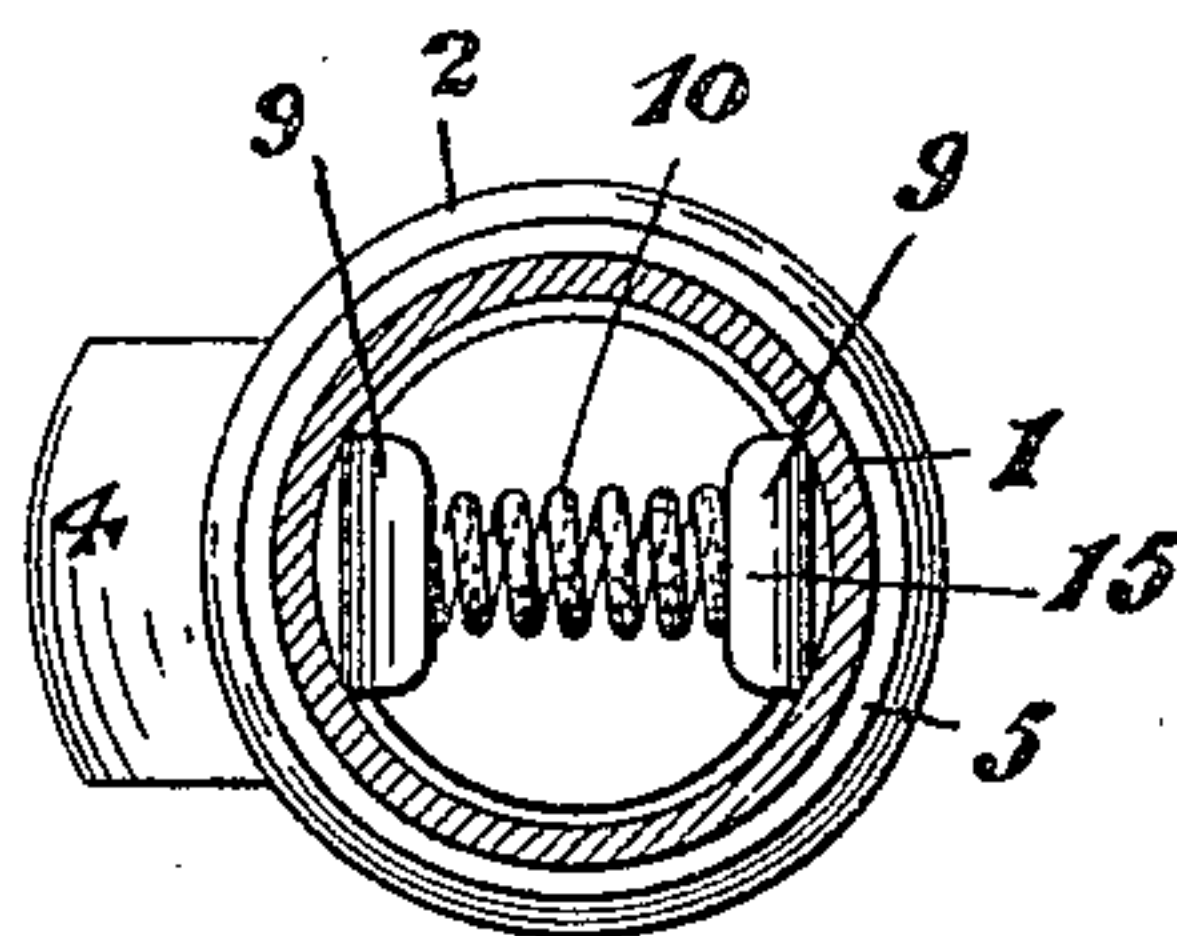


Fig. 2.

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# UNITED STATES PATENT OFFICE.

GEORGE E. NEUBERTH, OF NEWARK, NEW JERSEY.

## CASTER.

No. 816,177.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed September 20, 1904. Serial No. 225,165.

*To all whom it may concern:*

Be it known that I, GEORGE E. NEUBERTH, a citizen 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 Casters; and I do hereby 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, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

The objects of this invention are to more effectively prevent the caster from dropping out from its bearings in the tubular extremity of the leg of a bedstead or similar article of furniture, particularly such as are made of tubular iron or brass, to provide a more simple construction and one of reduced cost, and to secure other advantages and results, some of which may be hereinafter referred to in connection with the description of the working parts.

The invention consists in the improved caster and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like figures of reference indicate corresponding parts in each of the several figures, Figure 1 is a side elevation of a caster of my improved construction applied to a tubular leg of an article of furniture, the upper part of said caster and the said leg being in vertical section. Fig. 2 is a horizontal section taken at line *x* of Fig. 1, and Fig. 3 is a detail front view of the upper part of the pintle of the caster and its attachments.

In said drawings, 1 indicates the tubular leg, to which the caster is applied. 2 indicates the body of the caster, to which the pintle 3, roller 4, the ball-retaining plate 5, providing a bearing for the lower extremity of the leg and the balls 6, are applied in any ordinary manner, these parts being of any usual construction and being varied at will to suit specific conditions.

At the upper end of the pintle 3 the same is reduced to form a shoulder 31, on which the horizontal bearing-plate 7 is loosely held by upsetting the upper extremity of the said reduced portion, as at 32. The said bearing-plate 7 is perforated at its center to receive

said pintle and at opposite sides, as at 8, near the periphery of said plate, the latter perforations being preferably in the form of slots. In the said perforations or slots 8 are arranged vertical friction-plates 9, the said friction-plates having at their lower edges fingers 13, which are inwardly turned, as shown in Fig. 1, so as to permit an easy withdrawal, but prevent an undue outward pivotal movement of the said friction-plate on the bearing-plate. Above the upper extremity of the pintle, about midway between the upper and lower extremities of the friction-plates, the same are bent inward to form on the inner sides of the said friction-plates protuberances 11, adapted to enter the longitudinal axial passage or opening through the spring 10, the said protuberances thus holding the said spring horizontally in place between the said friction-plates, and the said spring thus held serving to hold the said friction-plates normally at their outward limit of movement and as a lock to prevent the withdrawal of the two said friction-plates from their bearings on the bearing-plate 7.

It is well understood in the art that different manufacturers employ tubes of slightly-varying standards—that is to say, a so-called “inch tube” of one manufacturer will vary from one-sixteenth to one thirty-second of an inch more or less from the inch tube of another manufacturer—and therefore because of the said variations the casters even when provided with spring holding devices or frames will oftentimes because of such variations not be properly held in place within the tubular legs. By my construction, as will be obvious, the pivotal friction-plates are free to accommodate themselves to the various diameters, and thus serve effectively the desired functions. The upper ends of the friction-plates are inwardly bent or turned, as at 15, forming at the outer sides of the upper ends of said plates inclines which guide the friction-plates into their proper relation within the legs as the pintle of the caster is thrust upward, thus allowing the said friction-plates to be brought automatically into proper relation.

The bearing-plate 7, lying horizontally at the upper end of the pintle, extends very close to the walls of the tube, the said plate 7 being sufficiently smaller than the varying standard sizes above referred to to easily enter all said tubes, and thus the said plate is adapted to bear against the inner walls of the



tubes and hold the pintle into proper relation thereto as the caster is being rolled with its load from place to place.

It may be noted that the friction-plates 9 are disposed above the upper extremity of the pintle 3 and in lines parallel or approximately parallel therewith. This arrangement of the friction-plates serves to permit the spring to be properly inserted directly between the center protuberances 11 of the said friction-plates without interference with the pintle 3, so that the latter may rotate in the bearing-plate freely, and yet the action of the spring 10 is direct, bearing oppositely against the friction-plates, and thus being more efficient in producing a strong frictional contact of parts, whereby the friction-plates are held on their bearings when the caster is detached, and said caster is held in place in the leg when inserted therein.

Having thus described the invention, what I claim as new is—

1. The improved caster herein described having a pintle with a bearing-plate at or near its upper end, said bearing-plate being provided with friction-plates extending upward therefrom and said friction-plates having a spring interposed therebetween, substantially as set forth.

2. The improved caster herein described, having a pintle adapted to extend vertically into the tubular leg of an article of furniture, said pintle having loosely secured to diametrically opposite sides thereof, at its upper end, oppositely-pressing spring-controlled friction-plates adapted to engage the opposite walls of the said tubular leg above said pintle.

3. The improved caster herein described

comprising a caster-body having a pintle and roller, a horizontal bearing-plate loosely arranged at the top of said pintle, vertical bearing-plates pivotally arranged on said bearing-plate and a spring.

4. The improved caster herein described comprising a caster-body having a pintle and roller, a horizontal bearing-plate at the top of said pintle, vertical bearing-plates pivotally arranged on said bearing-plate and having inward protuberances disposed oppositely and a spring, interposed between the vertical plates and in engagement with said protuberances.

5. The improved caster herein described comprising a caster-body having a pintle and roller, a horizontal bearing-plate at the top of said pintle, vertical bearing-plates pivotally arranged on said bearing-plate and having inwardly-turned upper ends, inwardly-projecting protuberances adapted to receive a spring and a spring disposed above the pintle on said protuberances.

6. The improved caster herein described, comprising a caster-body, pintle and roller, a centrally-perforated plate arranged on the pintle, and oppositely-bearing friction-plates extending upward therefrom and means for holding said friction-plates in frictional relation with the tubular leg, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of September, 1904.

GEORGE E. NEUBERTH.

Witnesses:

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RUSSELL M. EVERETT.