

A. B. DISS.

CASTER.

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1,062,897.

Patented May 27, 1913.

Fig. 1.

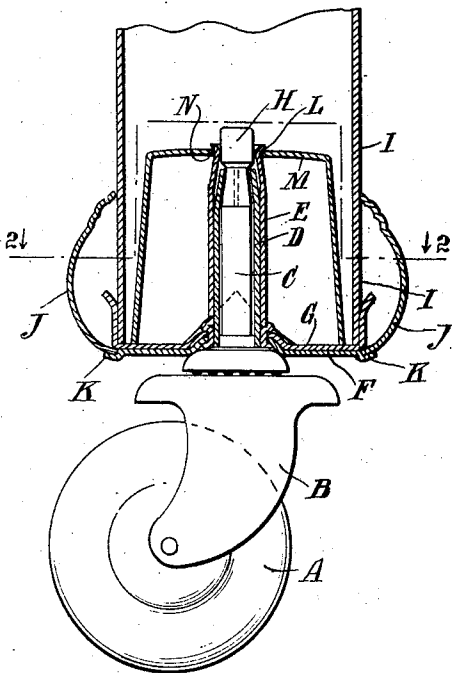


Fig. 2.

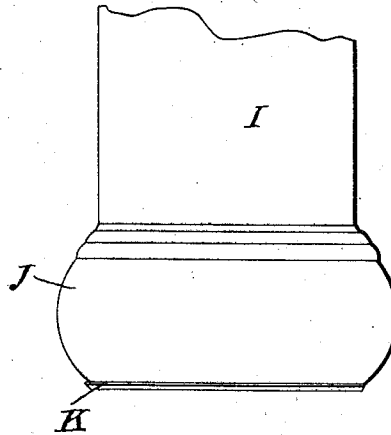
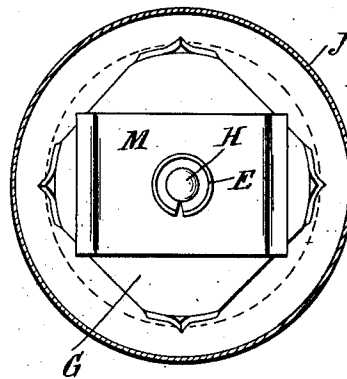


Fig. 3.



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by *Romey M. Masticke* Atty

UNITED STATES PATENT OFFICE.

ALBERT B. DISS, OF NEWARK, NEW JERSEY, ASSIGNOR TO UNIVERSAL CASTER & FOUNDRY COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

CASTER.

1,062,897.

Specification of Letters Patent.

Patented May 27, 1913.

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To all whom it may concern:

Be it known that I, ALBERT B. DISS, a citizen of the United States, residing in the city of Newark, county of Essex, State of New Jersey, have invented certain new and useful Improvements in Casters, of which the following is a specification, accompanied by drawings.

The invention relates particularly to casters which are designed for tubular legs of bedsteads and other furniture, and provides, in combination with means for holding the caster to the leg, a leg mount for receiving and surrounding the foot of the leg and a leg supporting plate to which the leg mount is securely held.

In its preferred form, the invention consists of a novel construction, arrangement and combination of parts in such a caster, as hereinafter described, and comprises two superposed leg supporting plates or disks which are secured together and center upon the exterior surface of the tubular leg by means of upturned portions which embrace the leg, and a leg mount which is secured firmly by and between the two plates, which also surrounds the leg, and spring means directly or indirectly secured to the said plates for holding the caster structure to the leg, the caster wheel, jaws and pintle being preferably detachably secured in respect to the leg supporting plate and leg mount.

The invention also comprises sub-combinations less than the whole, as will appear from the description and claims.

The invention is illustrated in the accompanying drawings, wherein,

Figure 1 is a side view, partly in vertical section, showing one embodiment of the invention, Fig. 2 is a perspective view of tubular leg and leg mount, as shown in Fig. 1, Fig. 3 is a plan view, partly in section, along line 2—2 of Fig. 1 omitting the leg.

In the drawings A represents a caster wheel, B the caster jaws and C the pintle attached by suitable means to the caster jaws. The pintle C is free to be inserted into or withdrawn from a socket composed of an inner spring member D and an outer tube E. The other pintle retaining tube E is made rigid with the leg supporting plates by any desired means here shown by crimping the lower part of outer tube E both above and below the leg supporting plates or disks F and G. The pintle C itself is at

its upper extremity enlarged or upset into a head H directly underneath which it is contracted to a neck of relatively smaller diameter than the rest of the pintle.

The inner spring member D acts against the pintle C about and below its neck while outer tube E is at its upper extremity contracted, so as to bear against the head H. As the tube E is rigid with the leg supporting plates F and G, it is seen that the pintle C is centered in respect thereto when inserted into and retained within the pintle socket by the action of the spring member D and outer tube E. The spring action of the member D is limited to its upper members, which spring under the head H when the pintle is thrust in. The lower end of the spring member furnishes the journal bearing for the lower end of the pintle, and the upper end of the outer tube E furnishes the journal bearing for the head H. The two leg supporting plates F and G are superimposed one above the other and individually and collectively not only support the tubular leg I and center same as presently described, but also support, retain and center the leg mount J. The upper disk G of the two superimposed leg supporting disks is an approximately square plate, the corners of which form upturned edges or portions thereof which act against the foot of the leg I and tend to center same. These are preferably outturned slightly at their upper ends, as seen at Fig. 1, where they lie against the outside surface of the leg, so that the leg may readily find its way into position when the caster structure is being applied to it.

It will be seen that, owing to the square shape of the upper disk G, it can be readily inserted into the upper end of the leg mount J, because its shortest diameter is less than the diameter of the leg, although its corners extend outside of the leg and act on the external surface thereof when in place. The lower disk F of the two superimposed leg supporting disks has a downward offset or shouldered flange forming a jaw K into which the base of the leg mount J fits. The flange or jaw K so fitting beneath the leg mount J as shown acts upon the exterior of the leg mount J and by reason of the upper disk G acting outwardly upon the interior of the leg mount, the leg mount is accordingly retained in the desired position and

centered in respect to the pintle socket and pintle as well as to the superimposed leg supporting plates or disks G and F and is secured between the said disks.

5 The outer tube E of the pintle centering socket is indented at L near its upper extremity and secured to this reduced or indented portion is a spring member M perforated as shown at N and through which
10 the tube E extends. This spring frame extends transversely of and surrounds the pintle at the upper portion of the pintle and there constitutes a horizontal leg centering plate, the free ends of which are downturned
15 and frictionally act outwardly against the interior of the leg. The spring member M acting frictionally outward against the interior of the leg tends not only to frictionally hold the caster to the leg, but at the
20 same time to help center the leg in respect to outer pintle socket tube E, the spring member D and consequently the pintle C itself. By the term "disk" I mean to include, as will be evident, angular and other
25 appropriate forms of plates.

As the form of construction herein shown has been found to be especially applicable for use with large or heavy tubular furniture legs, it is advisable to have affixed in
30 proper position ball-bearing or other friction-lessening device, and the drawings accordingly show same.

It will be clear from the construction shown that the leg mount, being a separate
35 piece, may be made in various designs to suit the customer, and any design selected may be secured by and between the two disks, as described. It will be seen that the upper of the two disks directly supports the
40 leg, which bears directly upon it, while the lower of the two disks acts in respect to the leg mount as a secondary disk centered with respect to the pintle and having a flange and shoulder forming a centering surface for
45 the leg mount. Preferably, also, the leg mount is secured as described, instead of being free as in my patent of June 16th, 1908, No. 891,046.

As it is evident that changes may be made
50 in details of the arrangements and combination of the parts shown and described, as for instance, spring member D may be retained in the tube E in any desired manner, therefore the invention is not limited to the exact
55 arrangements and constructions of the parts shown.

What I claim is:—

1. The combination of a caster wheel, jaws and pintle, and a leg mount structure comprising two superimposed leg supporting
60 disks and a separate leg mount ring or member secured between the said disks, and frictional means adapted to act within a tubular leg for securing said disks thereto.

65 2. The combination of a caster wheel, jaws

and pintle, and a leg mount structure comprising two superimposed leg supporting disks and a separate leg mount ring or member secured between the said disks, means for securing the said disks together and
70 thereby securing the said leg mount, and means for securing said pintle and disks to a tubular leg, said means acting on the interior surface of the said leg.

3. The combination of a caster wheel, jaws
75 and pintle and a leg mount structure comprising two superimposed leg supporting disks and a separate leg mount ring or member secured between the said disks, and means for securing the leg supporting disks
80 together, said means being part of a pintle socket which is rigid with the said disks.

4. The combination of a caster wheel, jaws and pintle, and a leg mount structure comprising two superimposed leg supporting
85 disks and a separate leg mount ring or member secured between the said disks, one of the said disks having upturned portions adapted to receive and to tend to center the foot of the tubular leg.

5. The combination of a caster wheel, jaws and pintle, two superimposed leg supporting plates which are secured rigidly together and which center the pintle, and the upper
90 of which has upturned portions adapted to act against the exterior surface of a tubular leg to center the plates and pintle relatively thereto, and a leg mount secured by and between said two plates and extending around
95 the leg above the said upturned portions.

6. The combination of a caster wheel, jaws and pintle, two superimposed leg supporting plates which are secured rigidly together and which center the pintle, and the upper
100 of which has upturned portions adapted to act against the exterior surface of a tubular leg to center the plates and pintle relatively thereto, and a leg mount secured by and between said two plates and extending
105 around the leg above the said upturned portions, and a pintle socket extending upward from the said plates and by means of which the said plates are secured together.

7. The combination of a caster wheel, jaws and pintle, two superimposed leg supporting
115 plates which are secured rigidly together and which center the pintle, and the upper of which has upturned portions adapted to act against the exterior surface of a tubular leg to center the plates and pintle relatively
120 thereto, and a leg mount secured by and between said two plates and extending around the leg above the said upturned portions, a pintle socket secured to said plates and means for holding the socket within the
125 tubular leg.

8. The combination of a caster wheel, jaws and pintle, two superposed leg supporting plates and a leg mount ring secured between
130 them the upper edge of which approximately

fits the leg, the upper of said leg supporting plates having upturned portions adapted to act upon the exterior surface of the leg within the leg mount, the shortest diameter 5 directly across said plate being less than the diameter of the leg, thereby admitting the insertion of the plate into the leg mount in assembling.

9. In a caster for a hollow metallic leg, 10 in combination, a yoke, a pintle, and a leg supporting disk carrying frictional means adapted to engage varying sizes of legs, a separate secondary disk centered with respect to the pintle and carrying and center- 15 ing a leg mount.

10. In a caster for a hollow metallic leg, in combination, a yoke, a pintle and a leg supporting disk carrying frictional means adapted to engage varying sizes of legs, a 20 separate secondary disk centered with re-

spect to the pintle and having a flange and centering surface, and a leg mount centered by such centering surface and supported upon said flange.

11. In a caster for a hollow leg, spring 25 means adapted to coact with said leg to secure said caster thereto, a supporting disk adapted to support the leg and on which the leg is adapted to rest, a secondary disk forming part of the complete structure, and a leg 30 mount separate therefrom and carried by the secondary disk.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses June 17, 1911.

ALBERT B. DISS.

Witnesses:

E. P. LA GAY,
A. PSCHIERER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
