Aug. 14, 1923. 1,465,044

J. A. JOHNSON

CASTER

Filed Oct. 11, 1921

Fig. 1.

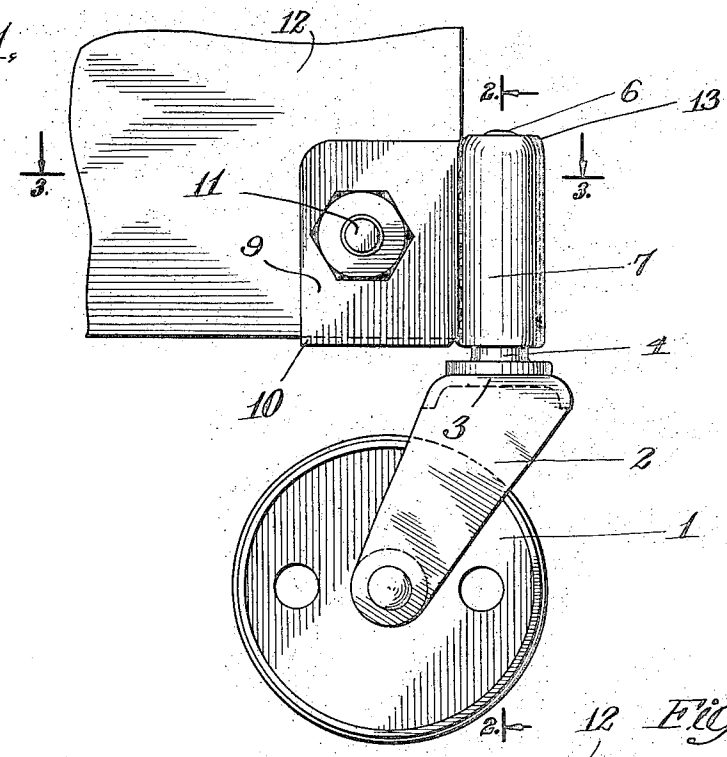



Fig. 2.

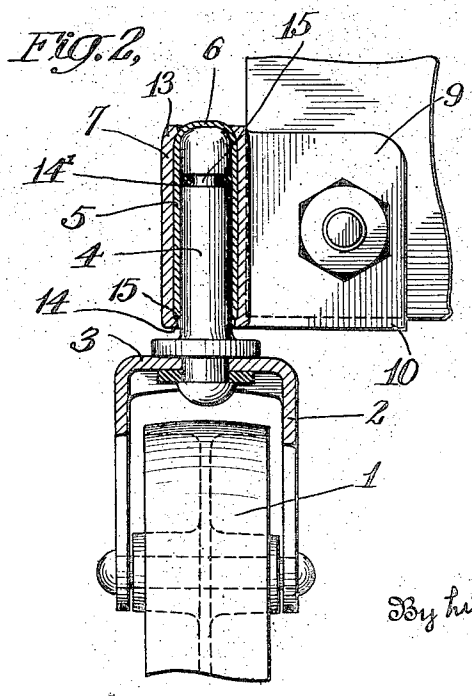
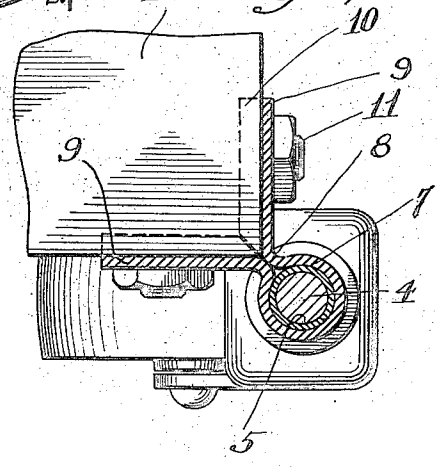



Fig. 3.

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# UNITED STATES PATENT OFFICE

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## CASTER.

Application filed October 11, 1921. Serial No. 506,946.

*To all whom it may concern:*

Be it known that I, JOHN A. JOHNSON, a citizen of the United States, and resident of Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Casters, of which the following is a specification.

The invention relates to casters, and particularly to casters which support an article by means of flanges secured to the exterior of the article, at the corners thereof. The invention is particularly intended for supporting washing machines although it is, of course, obvious that its usefulness is not limited to such articles.

The principal object of the invention is to provide a construction of the character referred to which shall be efficient and at the same time comparatively inexpensive and simple to manufacture. Another object of the invention is to provide a structure of the character refererd to in which various parts may effectively be made from sheet metal.

In the preferred form of the invention the socket into which the pintle of the caster is inserted is formed of an inner and an outer member. The inner member is a tube which is closed at the top to form a top pintle bearing. The outer member is preferably formed from a sheet of metal the intermediate portion of which is bent around the interior socket member and pressed slightly over the top of the inner member so as to support the outer member. The end portions of this outer member are bent outwardly at an angle to each other to provide flanges which are adapted to engage against and be secured to side surfaces of the article which is to be supported, adjacent to a corner of the same, these flanges preferably being provided with inwardly directed horizontal bottom flanges which form supports for the article. With this construction a strong and efficient socket member is provided. It may be noted that a difficulty of forming such a socket member of pressed metal is caused by the fact that a top bearing for the pintle cannot readily be formed when the construction is pressed from a single sheet of metal. I overcome this difficulty by providing the inner tube or socket member which provides a top bearing for the pintle and also greatly strengthens the construction.

In order that my invention may be more clearly understood, attention is hereby directed to the accompanying drawings forming part of this application and illustrating one embodiment of the invention. In the drawings Fig. 1 represents a side elevation of a caster embodying my invention, used to support a washing machine or other article, at one corner thereof; Fig. 2 represents a vertical section taken on line 2—2 of Fig. 1; and Fig. 3 is a horizontal section taken on line 3—3 of Fig. 1.

Referring to the drawings, the caster wheel 1, may be journaled within the downwardly extending arms of the horn 2, to the upper transverse portion 3, of which the pintle 4 is secured in any usual manner to extend upwardly therefrom.

The socket member into which the pintle is inserted comprises an inner member 5 of tubular construction open at the bottom and closed at the top as indicated at 6. This tubular member may be formed in any usual manner, preferably of sheet metal.

The outer member of the socket, in the form of my invention illustrated in the drawings, comprise a single integral sheet of metal the central or intermediate portion of which, as is indicated at 7, is pressed around the tube 5 to form an outer sleeve. When the sheet of metal is thus pressed around the inner socket member 5, the portions of the sheet which are thus brought into alinement with each other or pressed into engagement with each other along a vertical line at one side of the socket member as is indicated at 8. From this point the two end portions of the metal sheet are bent outwardly at an angle to each other as is shown at 9, 9. The angle between these two end portions or flanges 9 should be one of 90 degrees when the article of furniture to be supported is formed with right angles at its corners, and the apex of the angle between the two flanges 9 is of course formed at the vertical line 8 at which the opposite side portions of the metal sheet are pressed together.

The portions 9 of the metal sheet referred to are preferably provided with inwardly directed horizontal flanges 10, 10 at their lower edges. The flanges 9 are also preferably provided with openings therethrough through which bolts 11 or the like may be inserted to secure the flanges 9 to the side portions of an article of furniture, or other

article to be supported, which is indicated at 12 in the drawing.

The sleeve portion 7 of the outer metal sheet is secured to the inner tubular member 5 in such a manner that the same will be firmly supported therefrom. This is preferably accomplished by pressing the top edge portion 13 of the sleeve portion 7 of the metal sheet inwardly to a slight extent so that it will bear upon the outer portion of the closed top 6 of the tubular member 5. The lower end of the sleeve portion 7 of the metal sheet is preferably pressed inwardly to a slight extent as indicated at 14, below the bottom of tubular member 5, so as to prevent the latter from slipping downwardly out of place.

The device is used by securing a socket member at each corner of the article to be supported with the flanges 10 extended under the lower surface of the article and the flanges 9 engaging against the side surfaces of the article adjacent to a corner thereof, whereupon the bolts or screws 11 are extended through the openings in the flanges 9 into the sides of the article to be supported. The pintle 4 may then be inserted into the lower end of the tubular member 5. The pintle may be removably held in this position by any suitable means such for example as the expansion spring member $14^1$ indicated in Fig. 2 as mounted within a groove 15 formed around the pintle 4.

The socket member 5 is preferably given a slight taper at its lower end, as indicated at 15, to facilitate the easy insertion of the pintle 4. With this construction the bottom of the opening is slightly greater in diameter than the pintle, so that the pintle may be readily inserted, when the washing machine or other object to which the caster socket construction is secured, is standing on the floor, the socket member 5, however, fitting the pintle snugly above the tapered portion shown at 15.

It will be understood that the invention is not limited to the details of construction described but is as broad as is indicated by the accompanying claims.

What I claim is:

1. In a caster, the combination of a socket member closed at the top to form a top bearing for a pintle, and a sleeve member, comprising a sheet of metal having its intermediate portion pressed around said socket member and having its end portions bent outwardly at an angle to each other, from the apex of the angle adjacent one side of said socket member, said end portions being adapted to engage against side surfaces of an article to be supported, adjacent a corner thereof.

2. In a caster, the combination of a socket member closed at the top to form a top bearing for a pintle, and a sleeve member, comprising a sleeve portion extending around and supported by said socket member and integral flanges, extending outwardly at an angle to each other, from the apex of the angle at one side of the sleeve portion, said flanges being adapted to engage against side surfaces of an article to be supported, adjacent a corner thereof.

3. In a caster, the combination of a socket member closed at the top to form a top bearing for a pintle, and a sleeve member, comprising a sheet of metal having its intermediate portion pressed around said socket member and pressed somewhat over the top of said socket member, and having its end portions bent outwardly at an angle to each other, from the apex of the angle adjacent to one side of said socket member, formed by portions of the sheet being pressed into contact with each other, said end portions being adapted to engage against, and be secured to, side surfaces of an article to be supported, adjacent a corner thereof.

4. In a caster, the combination of a socket member closed at the top to form a top pintle bearing, and a sleeve member, comprising a metal sheet having a portion intermediate its ends pressed around, and somewhat over the top of, said socket member, and having its end portions bent outwardly at an angle to each other, from the apex of the angle adjacent to one side of said socket member, said end portions being adapted to engage against side surfaces of an article to be supported, adjacent a corner thereof, said socket member having its lower end portion slightly tapered to facilitate the insertion of a pintle, and the portion of said sleeve member surrounding said socket member having its bottom portion bent slightly under said socket member.

Signed at Meriden, in the county of New Haven and State of Connecticut this 13th day of Sept. A. D. 1921.

JOHN ADOLPH JOHNSON.