A. B. DISS.

CASTER FOR ANGLE BAR FURNITURE.

APPLICATION FILED MAY 28, 1915.

1,180,259. Patented Apr. 18, 1916.

Fig. 1.

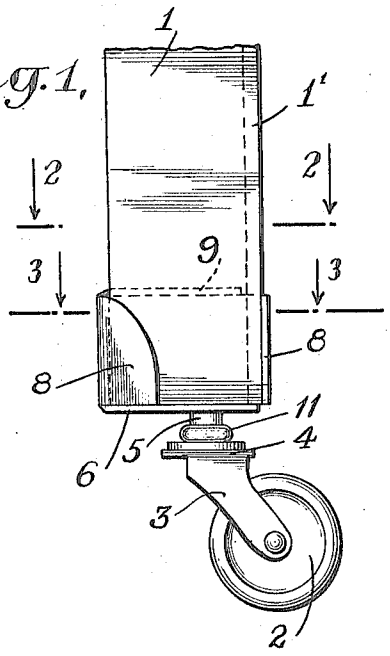



Fig. 2.

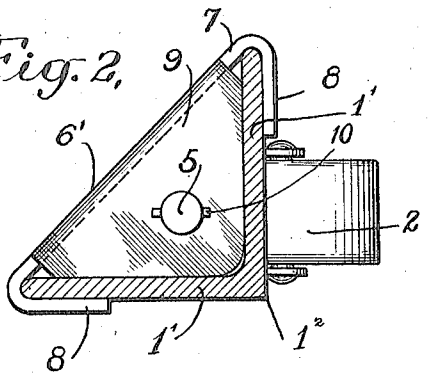



Fig. 3.

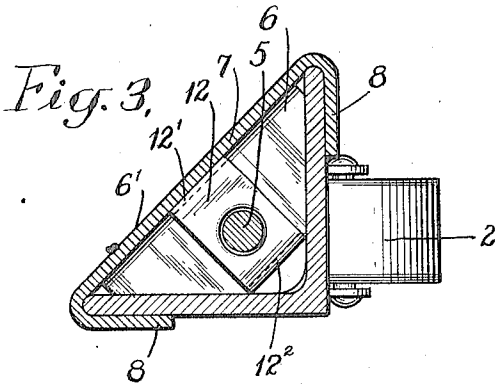



Fig. 4.

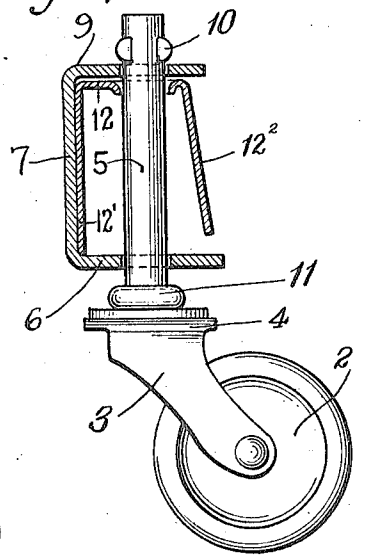
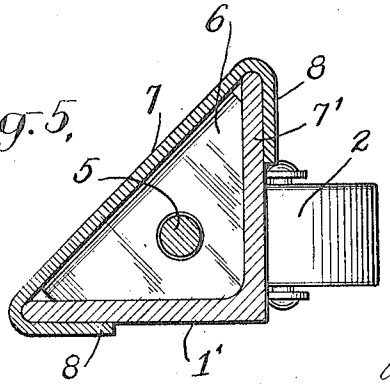



Fig. 5.




INVENTOR

Albert B. Diss

BY

J. C. Edmunds

ATTORNEY

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

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

## CASTER FOR ANGLE-BAR FURNITURE.

1,180,259. Specification of Letters Patent. Patented Apr. 18, 1916.

Application filed May 28, 1915. Serial No. 30,895.

*To all whom it may concern:*

Be it known that I, ALBERT B. DISS, 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 for Angle-Bar Furniture, of which the following is a specification.

My invention relates to casters adapted to support furniture having legs or a frame comprising vertical angle-bar members, such as metallic couches, divans, davenports, and the like. In such structures previously proposed a leg-supporting plate has been provided beneath the flanges of the angle-bar with ears struck upwardly therefrom riveted to the flanges of the angle-bar, the caster being revolubly mounted on a pintle secured in the leg-supporting plate.

My improved structure is an improvement on the above in that it provides a supporting frame of pressed metal so constructed as to be mounted upon the lower end of the angle-bar without the necessity of using rivets or other securing means. To this end a vertical flange extends upwardly from the leg-supporting plate to bridge across the opening of the angle-bar, this vertical plate being provided with end portions or ears which are bent around the flanges of the angle-bar. In one form of my device these ears are pressed against the outer surfaces of the angle-bar flanges to securely hold the structure in position, while in another form of my invention, these ears slidably engage the outer surfaces of the angle-bar flanges, the caster being held in position by a friction device mounted within the angle-bar and contacting the same and the caster frame. A top flange is also provided which extends between the flanges of the angle-bar and provides an upper journal for a revoluble pintle, which extends through the upper flange and the bottom flange or leg-supporting plate described. By the construction described, in either form, a strong and simple caster mount is provided which may be manufactured and assembled cheaply and quickly and presents a neat appearance.

In the following description the term "caster" is to be understood as including both the fixed and movable elements of the caster.

In order that a clearer understanding of my invention may be had, attention is hereby directed to the accompanying drawings forming part of this application and illustrating certain embodiments of my invention.

In the drawings Figure 1 represents a side elevation of a caster removably secured to the lower end of an angle-bar, Figs. 2 and 3 are horizontal sections taken on lines 2—2 and 3—3 respectively of Fig. 1, Fig. 4 is a vertical cross-section through the caster supporting frame, the caster wheel, jaws and pintle being shown in side elevation, and Fig. 5 is a horizontal section similar to that of Fig. 3 of a modification in which the caster frame is fixedly secured to the angle-bar.

Referring to the drawings, the angle-bar 1 is represented as having flanges 1′, 1′ at right angles to each other meeting in an apex $1^2$. The caster-wheel or rotatable element 2 is mounted between jaws 3 having a horizontal yoke portion 4 from which the pintle 5 extends upwardly. In the preferred form of my construction the pintle is mounted to rotate and accordingly is secured at its lower end to the yoke 4 of jaws 3.

The frame in which the pintle is journaled is formed from a sheet-metal blank pressed to form to provide a bottom flange 6, a vertical front flange 7 having ears 8, 8 at its ends and a top flange 9. The bottom flange 6 constitutes the leg-supporting plate for the caster and is of a generally triangular shape having one edge 6′ constituting the hypotenuse of the triangle bridging across the opening of the angle-bar and other side edges which are approximately in the same planes as the outer surfaces of the flanges 1′, 1′ of the angle-bar. The vertical flange 7 is bent upwardly from the edge 6′ of the bottom plate 6, extends across the opening of the angle-bar and is bent around the edges of the flanges 1′ to form the ears 8, 8 which as stated contact the rear surfaces

of the flanges 1′. The top flange 9 is bent horizontally at right angles to flange 7 and is shaped to fit within the flanges 1′ of the angle-bar, being of an approximately triangular shape. The pintle 5 is journaled in cylindrical openings in flanges 6 and 9 and is given an enlargement above the top flange 9, as by pressing the metal outwardly therefrom to form ears as shown at 10, to keep the pintle from falling out of its supporting structure. The pintle 5 is preferably provided with a bearing collar 11 below the bottom flange 6.

In the structure shown in Fig. 5 the caster is mounted fixedly in position by pressing the ears 8, 8 of the vertical flange 7 firmly into contact with the rear surfaces of flanges 1′ of the angle-bar. In mounting this structure it is merely necessary to slip the lower end of the flanges of the angle-bar between ears 8, 8, and the top plate 9 and the vertical flange 7 until the angle-bar flanges contact the leg-supporting plate 6 after which the ears 8 may be pressed tightly against the outer surfaces of the angle-bar to clamp the structure in position. The structure illustrated in Figs. 1 to 4, however, is made removable by the addition of a spring 12 which is formed preferably by bending a strip of spring metal into an approximately inverted U-shape having a depending leaf 12′ adapted to lie against the inner surface of flange 7 and a leaf $12^2$, connected by a horizontal yoke through which a hole is punched, through which the pintle extends, to support the spring in position. In this form of my invention, the ears 8, 8 are not pressed into securing engagement with the angle-bar but slidably engage the same. When the caster is mounted in position, the flanges of the angle-bar are slid between the ears 8, 8 and the flanges 7 and 9, the metal constituting flange 7 and ears 8 being bent to form slideways for the edges of the angle frame. When the caster is pressed into position, the leaf $12^2$ of the spring 12 engages the inner surfaces of the angle bar flanges across the junction of the flanges as is shown in Fig. 3, the frictional engagement of the leaves 12′ and $12^2$ of the spring with the flange 7 of the caster and the flanges 1′ of the angle-bar respectively, holding the caster frictionally in position. It is to be understood, however, that my invention is not limited to the use of the exact spring-holding means shown, but that the use of other forms of spring, performing the same function, is included within the scope of my invention. In the form illustrated the leaf 12′ of the spring, which rests against flange 7 of the caster frame, prevents the spring from turning out of position, and also the bottom of leaf 12′ may rest on the bottom flange 6 to support the spring.

Having described my invention, what I claim as new therein and desire to secure by Letters Patent of the United States is:

1. The combination with an angle-bar, of a caster for supporting the same, comprising a caster-wheel, jaws therefor, a pintle, extending upwardly between the flanges of said angle-bar, and a pressed metal frame in which said pintle is rotatively mounted, having a bottom flange beneath the lower end of said angle-bar, a top flange fitting within said angle-bar, a vertical portion connecting said flanges, extending across the opening of said angle-bar, and ears extending behind the flanges of said angle-bar to contact the outer surfaces thereof, said pintle extending through said top and bottom flanges, and having an enlargement above said top flange, substantially as set forth.

2. A caster adapted to be removably mounted in the lower end of an angle-bar of an object to be supported, comprising a caster-wheel, jaws therefor, a pintle, a support for said pintle having top and bottom flanges through which said pintle extends, a vertical side portion from which said flanges extend, and inwardly bent ears at the ends of said side portion, and a flat spring member mounted between said flanges, having a downwardly-extending leaf contacting said side portion, a top portion through which said pintle extends, and a downwardly-extending leaf adapted to contact the inner surfaces of the angle-bar adjacent the angle thereof, the bottom end of said first-named leaf resting on said bottom flange of said support, to support said spring member, and said support being adapted to slidably fit the angle-bar, with its top flange within the same, its bottom flange below and supporting the same, and its said inwardly bent ears contacting the outer surfaces of the same, substantially as set forth.

3. The combination with an angle-bar leg of a caster for supporting the same, comprising a caster-wheel, jaws therefor, a pintle, extending upwardly between the flanges of said angle-bar, a supporting member having a bottom flange adapted to support said angle-bar, a top flange adapted to fit within the flanges of said angle-bar, the pintle being revolubly mounted in said top and bottom flanges, a vertical side portion, from which said top and bottom flanges extend, adapted to span the opening of said angle-bar, and ears extending behind the flanges of the angle bar to contact the outer surfaces thereof, and a spring member mounted in said supporting member to press against an inner surface of said angle-bar to frictionally hold the caster in place, substantially as set forth.

4. A supporting frame for attaching a caster to an angle bar furniture leg, consisting of pressed metal having, as an integral construction, a bottom flange on which the

leg rests, a top flange fitting within the angle of the leg, a vertical portion connecting said flanges, extending across the opening of the angle-bar, and a pair of ears bent to position to contact with the outer surfaces of the flanges of the angle-bar, substantially as set forth.

This specification signed and witnessed this 26th day of May, 1915.

ALBERT B. DISS.

Witnesses:
DYER SMITH,
I. MCINTOSH.

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