April 13, 1926. 1,580,781

J. A. FITCH

FOOT FOR FURNITURE LEGS

Filed August 16, 1924

Fig. 1.

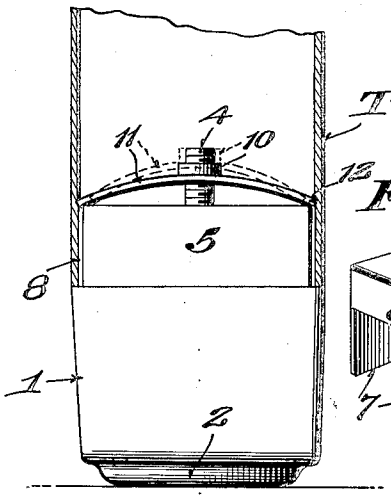


Fig. 2.

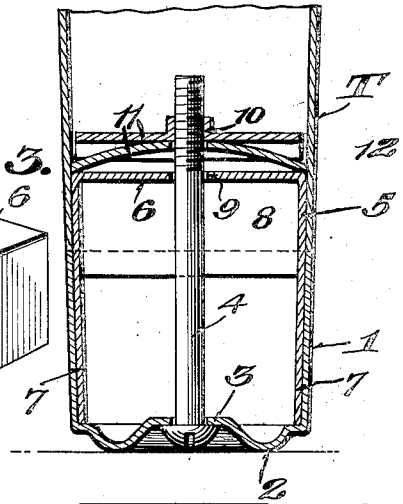


Fig. 3.

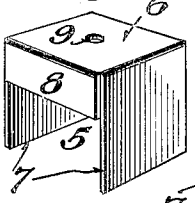


Fig. 4.

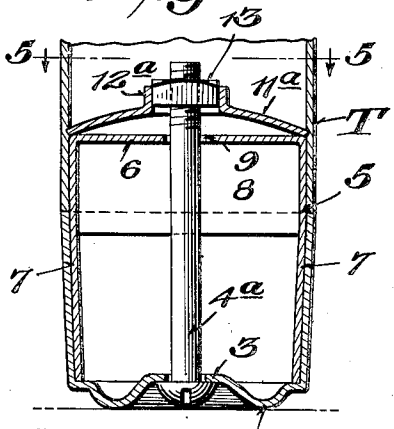


Fig. 6.

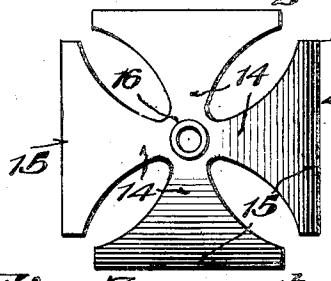
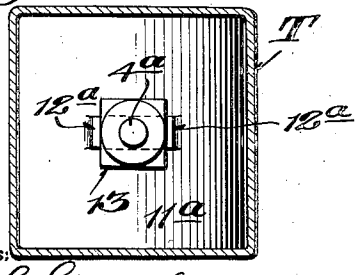


Fig. 7.



Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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FOOT FOR FURNITURE LEGS.

Application filed August 16, 1924. Serial No. 732,468.

To all whom it may concern:

Be it known that I, JASON A. FITCH, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Feet for Furniture Legs, of which the following is a specification.

This invention relates to a novel foot for metal table legs or the like, and has particular reference to a construction which may be readily applied to the hollow open end of a tubular leg member to provide a bearing foot which is ornamental as well as smooth to prevent the marring or scratching of the floor.

A primary object of the invention is to provide a simple and practical construction which may be readily locked within the end of the hollow leg construction and yet when the necessity requires may be as readily released. In that connection the invention aims to provide novel locking means which may be readily manipulated from the end of the foot to either lock or unlock the device as desired.

With the above and other objects in view which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

A preferred and practical embodiment of the invention is shown in—

Figure 1 of the drawings wherein Figure 1 is a sectional view of the lower end of a table leg having the present invention fitted thereto, the dotted lines indicating the position of the locking element before the actuating bolt is tightened.

Figure 2 is a vertical sectional view of a construction similar to Fig. 1 using a double clamping plate.

Figure 3 is a perspective view of the core member.

Figure 4 is a vertical sectional view of a modified form of locking nut.

Figure 5 is a horizonal cross sectional view taken on the line 5—5 of Figure 4.

Figures 6 and 7 are respectively plan and edge views of a modified form of double arched nut for gripping all four sides of the leg.

Similar reference characters designate corresponding parts throughout the several figures of the drawings.

According to the embodiment of the invention shown in Figures 1 and 2 it is proposed to provide a foot construction including a caster cup 1 having the depressed bottom wall 2 which assists in forming a countersunk portion 3 for accommodating the head of a clamping bolt 4. The said caster cup 1 is preferably rectangular in shape and is of more or less ornamental finish and appearance to provide a neat exterior end for the table foot. This cup is also preferably of dimensions corresponding to the cross-sectional shape of the table leg.

Within the cup 1 there is preferably fitted with a tight friction fit, a core member 5. This core consists of the top wall 6 and the depending long sides 7—7 and the depending short sides 8 which are all turned in the same direction and serve to stiffen and reinforce the top wall 6. The long ends 7 are of sufficient length to fit into the caster cup 2 and to engage with the bottom wall thereof, while at the same time leaving a core portion of smaller dimensions extending above the upper edge of the cup and adapted to telescopically fit into the open end of the tubular table leg T.

The top wall 6 is provided with an opening 9 for receiving the clamping bolt 4, and the latter is adapted to fit into the threaded nut portion 10 of a resilient locking or clamping plate 11 whose opposite ends 12 have a sliding engagement with the edges of the top wall 6 of the core member so that when the clamping bolt 4 is rotated by a screw driver, or its equivalent, in the proper direction, the said plate 11 will be elongated by flattening out so that the ends 12 thereof will bite into the inside face of the tubular metal table leg as shown in Figure 1. As shown in Fig. 2 two plates 11, one above the other may be used.

Therefore, it will be seen that the core member 5 not only serves to provide a member for telescopically fitting in the open end of the top leg T but also serves as an abutment for causing the expansion of the resilient plate 11.

In the form of the invention shown in Figures 1 and 2 the tapped nut portion 10 of the plate 11 is integral therewith but according to the embodiment of the invention shown in Figures 4 and 5 the plate 11ª

may be provided with struck up portions 12 for receiving and holding an ordinary nut 13 adapted to cooperate with the clamping bolt 4^a in the same manner as the bolt 4 cooperates with the tapped nut portion 10 of the member 11.

If it should be desirable to increase the clamping effect of the nut member with the inside portions of the leg T, the double arched spider type of plate shown in Figures 6 and 7 may be used. In this form of the invention the bowed flexible member 11^b is provided with the radial spring arms 14 having the enlarged gripping ends 15 and the central tapped portion 16. When the ends 15 of this nut are drawn toward the top of the core member 6 it will be apparent that expansion of the spider plate 11^b will take place in four directions, and thereby grip all four sides of the interior of the table leg.

One of the advantages of the present invention resides in the provision of the core member 5 which telescopically fits snugly within the table leg thereby providing a firm and rigid means of attachment which is not possible with other forms of construction where only single points of contact with opposite sides of the table leg are provided. The core member 5 fitting within the caster cup 1, and engaging with all sides of the hollow table leg, effectively prevents rotation or twisting of the caster cup, while at the same time the upper side of the core member constitutes a bearing for the spring washer plate which engages and grips the inside of the hollow table leg.

Without further description it is thought that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will of course be understood that changes in the form, proportion and minor details of construction may be resorted to, without departing from the spirit of the invention and scope of the appended claims.

I claim:—

1. A foot for furniture legs comprising in combination with the hollow leg, a caster cup having side wall portions adapted to match and aline with the walls of the leg, means within the caster cup for telescopically fitting within and engaging with the inner side walls of the leg, a clamping plate of bowed formation adapted to slidably bear against said means, and a screw engaging said plate at one end and having the head thereof exposed at the bottom of the caster cup, whereby manipulation of the screw will tend to flatten out the plate.

2. A foot for furniture legs comprising in combination with the hollow leg, a caster cup having side wall portions whose upper ends abut against the lower edge of the hollow leg, means carried by the caster cup for telescopically fitting within the hollow leg, expansible gripping means cooperating with said means fitting within the hollow leg and adapted to engage the inside of said leg, and manually manipulated means for expanding said expansible gripping means.

3. A foot for furniture legs comprising a caster cup having bottom and side wall portions, the latter extending upwardly whereby the edges thereof abut with the bottom edge of the hollow table leg, a core member fitted within the caster cup and telescopically entering the hollow leg, an arched locking plate having the ends thereof slidably bearing on the core member, and a screw loosely mounted in the caster cup and operatively engaging with the central portion of the arched plate whereby when the screw is turned the ends of the arched plate will slide on the abutment member and be guided into gripping relation with the interior side walls of the hollow leg.

4. A foot for furniture legs comprising a caster cup having side walls, a core member fitted within and engaging the inside walls of the caster cup by projecting above the upper edges of said side walls thereby to telescopically enter the end of the hollow leg until the bottom edges of the latter meet the upper edges of the caster cup, a resilient bowed locking plate resting upon the core member, and means for drawing the bowed locking plate toward the core member to cause the same to expand laterally and grip the side walls of the table leg.

In testimony whereof I hereunto affix my signature.

JASON A. FITCH.