Dec. 20, 1932. A. G. HENRIKSON 1,891,643

TIP FOR FURNITURE LEGS

Filed May 14, 1932

Fig. 1.

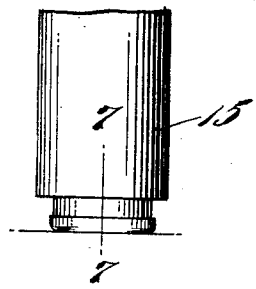


Fig. 2.

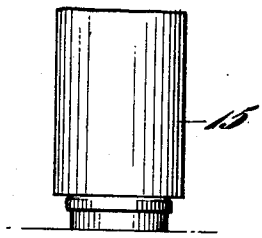


Fig. 3.

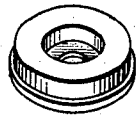


Fig. 4.

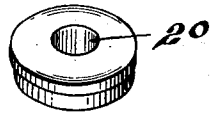


Fig. 5.

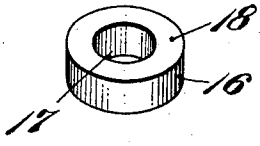


Fig. 6.

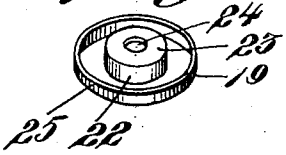


Fig. 7.

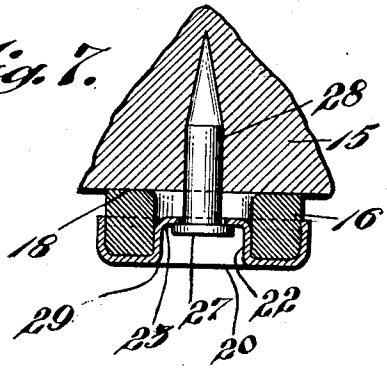


Fig. 10.

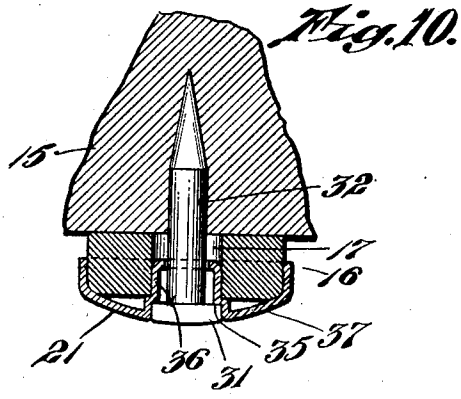


Fig. 11.

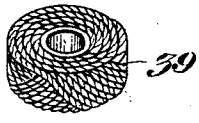


Fig. 12.

Fig. 13.

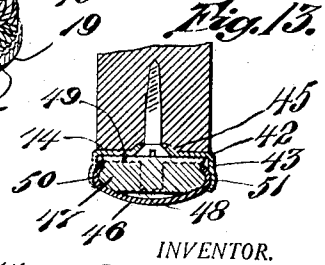


Fig. 8.

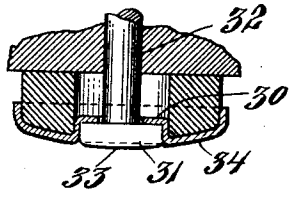
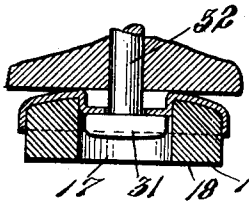


Fig. 9.



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UNITED STATES PATENT OFFICE

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TIP FOR FURNITURE LEGS

Application filed May 14, 1932. Serial No. 611,327.

This invention relates to a tip for furniture legs and has for its object to provide a construction which may be used to present either a hard surface to slide along a carpet or the like, or a cushioning surface to prevent scratching of a hardwood floor or the like.

Another object of the invention is the provision of a construction formed of metallic or non-metallic members which may be held in assembled relation by the shaping of the members.

Another object of the invention is the provision of a construction in which the head of a securing member may cooperate with an outer metallic surface for sliding action to complete the contour of the surface and cause an easier sliding action with less resistance than where an annular surface with a recess or opening is presented to the support upon which the furniture rests.

A further object of the invention is the provision of a shell construction which may have different resilient or cushioning members mounted therein for different purposes for which it may be desired to be used.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawing:

Fig. 1 is a side elevation of a fragmental portion of a furniture leg with the tip mounted in one position to present the metallic surface to a rug or the like.

Fig. 2 is a view similar to Fig. 1, showing the tip reversed to present its cushioning surface to a hardwood floor or the like.

Fig. 3 is a perspective view looking at one side of the tip.

Fig. 4 is a perspective view showing the opposite side thereof.

Fig. 5 is a perspective view of the cushioning member.

Fig. 6 is a perspective view of the cup or cap for receiving the cushioning member.

Fig. 7 is a sectional view of the fragmental portion of a furniture leg with the tip having its metal or hard surface outermost, and a securing member for holding the same in position.

Fig. 8 is a view similar to Fig. 7 showing a somewhat modified construction of tip and with a securing member, the head of which conforms to the outer surface configuration of the cap portion of the tip.

Fig. 9 is a view similar to Fig. 8 with the tip in reverse position.

Fig. 10 is a sectional view of a fragmental portion of a furniture leg, the modified form of tip showing shouldered abutments for receiving the enlarged head of the securing member.

Fig. 11 is a perspective view of the modified form of cushioning member.

Fig. 12 is a perspective view of the cushioning member shown in Fig. 11 as mounted in a cap.

Fig. 13 is a modification showing a permanent attachment to the furniture leg and a removable and reversable insert therein.

In the use of tips for furniture, it is desirable where the furniture is to rest upon a rug or the like, to provide a hard metal surface which will easily slide over the rug without undue wear thereof. When furniture is to rest upon a hardwood floor, it is desirable to provide a soft or cushioning surface so that the same will not scratch the floor. I have, therefore, provided a tip, one construction of which may serve to supply either of these wants by selecting the manner in which the same will be secured to the furniture leg, or if desired, I may remove the tip when functioning in one manner and by turning it over, use it to function in the other manner. In cases where the tip is to present a hard metal surface for sliding, in some instances, I have provided the securing means with a head so shaped as to conform to the contour of the tip thus presenting a continuous surface for sliding action along the carpet or the like, which sliding action will be smoother than where a head having a recess therein is used; and the following is a detailed description of the present embodiment of the invention illustrating the preferred means by which these advantageous results may be accomplished:—

With reference to the drawing, 15 desig-

nates a fragmental portion of the furniture leg to which a tip is to be secured. A cushioning member 16 as illustrated in Fig. 5, is formed of leather, rubber, fiber, celluloid or any other suitable desired material, preferably softer than the surface upon which it is to rest. The member 16 is shown as cylindrical in form with a circular bore 17 presenting an annular bearing surface 18. The cup-shaped cap member 19 is also generally circular in form with a countersunk portion 20 centrally thereof presenting an annular bearing surface 21. This countersunk portion 20 comprises a tubular formation having a wall 22 with a bottom portion or web 23 provided with an aperture 24.

The cushioning member 16 sets within the cap 19 and is surrounded by a cylindrical wall portion 25 while the tubular countersunk portion 20 extends into the annular bore 17 a portion of the depth thereof, as illustrated in Figs. 7, 8, 9 and 10, and so confines the cushioning member between the walls 25 and 22 as to slightly compress the same and maintain the same in position. Further, as soon as any pressure is placed upon the tip the cushioning portion tends to laterally expand and bind against the walls to be held in place. If however, a greater binding action is desired, the wall 25 may be crimped, as at 26, as shown in Fig. 12 or rolled inwardly as shown in Fig. 13 to further assist in holding the same in position. The bottom wall or web 23 of the countersunk portion 20 provides an abutment portion which may be engaged by the head 27 of the securing member 28 which may be passed through the aperture 24 and be forced into the furniture leg 15 to hold the tip in position.

This tip may be positioned either as shown in Fig. 7 or reversed to present the bearing surface 18 of the cushioning member outwardly, whereby the head 27 of the securing member 28 will engage the opposite surface of the web 23 in the manner similar to that shown in Fig. 7.

In the form shown in Fig. 7, the tip having the central recess formed by the countersunk portion 20 permits of the nap or fibers of the rug on which the same may rest, to extend into this recess and engage the edge 29 thereof. I have, therefore, rounded this edge 29 so that the furniture leg may be slid over the surface more easily.

In order, however, to lessen the frictional resistance to this sliding action, I may modify the shell or cap of the device to present the web portion 30, as shown in Fig. 8, and provide a larger head 31 on the securing member 32 so that the outer surface 33 of the head will conform to the contour or configuration of the outer surface 34 of the cap portion and afford an easier sliding action than could be had in the construction shown in Fig. 7. In Fig. 9 I have shown this same head 31 of the securing member 32 as positioned to present the cushioning member 16 with its bearing surface 18 outwardly, the head being received in the bore 17 to engage the opposite surface of the web 30 of the metallic cap portion of the device.

In some instances I may provide an abutment 35 by forming a shoulder in the countersunk portion 36, as shown in Fig. 10 and in which case the head 31 of the securing member 32 will rest against the abutment shoulder 35 and in this position will conform to the outer surface 37 of the cap. In this case the offset forming a shoulder is offset substantially the thickness of the stock so that it will not be necessary to use a different securing member for reversing the tip as the head will be received in the bore 17 of the cushioning member 16.

In Fig. 13 I have shown a separate securing member 42 in generally cup form having a plurality of resilient fingers 43 and a bottom wall 44 with a pressed-out portion 45 having a screw head to permanently fasten it in position on a furniture leg, and in this securing member 42 I have provided a removable cap 46 with a cushioning portion 47 which may be positioned to either present its hard bearing surface 48 with no depressions therein, as shown in Fig. 13, or may be reversed to present its cushioning bearing surface 49 to its support, it being held in position by its rounded convexed surface 50 snapping into engagement with the concaved portion 51 of the wall 43.

In some instances it is desirable to provide a cushioning member of a spiral coil of fabric or a winding of some strand material such as string or the like, which I have illustrated at 39, in Fig. 11, the same being formed with a universal wind and in such position that the fibers will present a large number of ends to the supporting surface for resisting wear thereon. I have shown in Fig. 12, this member as positioned in the cup 19 which has its wall 25 crimped as at 26 to more snugly bind the same in position. In the structure which I have shown, I have provided a core 40 upon which the winding is mounted and which serves as an annular bore or recess when assembled in the tip to receive the head of the securing device permitting it to be positioned inwardly from the bearing surface 41 of the cushioning member that it may be entirely protected from engagement with the supporting surface which it might abrade.

The foregoing description is directed solely towards the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

I claim:

1. A tip for furniture legs, comprising a body having a metallic surface on one side and a soft surface on the other side, and means including an additional member for securing said body to a furniture leg to present either the metal or soft surface outwardly.

2. A tip for furniture legs, comprising a body having a metallic surface on one side and a soft surface on the other side, and means including an additional member for securing said body to a furniture leg to present either the metal or soft surface outwardly, said means being so arranged as to prevent said additional member from contacting with the support on which the furniture leg rests.

3. A tip for furniture legs, comprising a body having a metallic surface on one side and a soft surface on the other side, and means including an additional member for securing said body to a furniture leg to present either the metal or soft surface outwardly, said means being so arranged as to prevent said additional member from contacting with the support on which the furniture leg rests, when the said soft surface is presented outwardly.

4. A tip for furniture legs, comprising a body formed of a metallic member, a non-metallic member secured thereto, a member for securing said body to a furniture leg, and means cooperating with the securing member to secure said body to the furniture leg so that either said metallic or non-metallic member may be positioned outwardly from the furniture leg.

5. A tip for furniture legs, comprising a body formed of a metallic member, a non-metallic member secured thereto, a member provided with a head for securing said body to a furniture leg, and means cooperating with the securing member to secure said body to the furniture leg so that either said metallic or non-metallic member may be positioned outwardly from the furniture leg, said means including recesses in opposite surfaces for receiving the head of said securing member.

6. A tip for furniture legs, comprising a body formed of a metallic member, a non-metallic member secured thereto, said metallic member having recesses extending inwardly from opposite surfaces with a web portion separating said recesses, and a member provided with a head of a size to be received in either recess and to engage said web to secure said body to a furniture leg with either surface thereof presented outwardly.

7. A tip for furniture legs, comprising a cushioning member with a bearing surface formed of resilient material and having an axial bore, a metallic cup-shaped cap having a bearing portion adapted to contact with and slide on the floor, a portion surrounding and confining a portion of said cushioning member, and a countersunk tubular central portion extending into said bore a portion of the length thereof and providing an abutment surface, a securing member provided with a head engageable with said abutment surface and of a size to be received in said axial bore or in said counter portion to selectively position said tip on the furniture leg with either the cushioning or sliding bearing surface outwardly.

8. A tip for furniture legs, comprising a cushioning member with a bearing surface formed of resilient material and having an axial bore, a metallic cup-shaped cap having a bearing portion adapted to contact with and slide on the floor and having a portion surrounding and confining a portion of said cushioning member, and a countersunk tubular central portion extending into said bore a portion of the length thereof with its bottom forming a web across the bore, said web being provided with an aperture and a securing member to extend thru said aperture provided with a head of a size to be received either in said axial bore or in said countersunk portion to selectively position the tip on the furniture leg with either the cushioning or sliding bearing surface outwardly.

9. A tip for furniture legs, comprising a cylindrical cushioning member with a bearing surface formed of resilient material and having an axial bore, a metallic cup-shaped cap having an annular bearing portion adapted to contact with and slide on the floor and having a cylindrical portion surrounding and confining a portion of said cushioning member and a countersunk tubular central portion extending into said bore a portion of the length thereof with its bottom forming a web across the bore, said web being provided with an aperture and a securing member to extend thru said aperture provided with a head of a size to be received either in said axial bore against one side of said web or in said countersunk portion against the other side of the web to selectively position the tip on the furniture leg with either the cushioning or sliding bearing surface outwardly.

10. A tip for furniture comprising a body member having an annular bearing surface with a countersunk central portion and a securing member provided with a head to be received in said countersunk portion, the surface of said head conforming to the shape and contour of said bearing surface.

11. A tip for furniture comprising a body member having an annular convex bearing surface with a countersunk central portion, and a securing member provided with a head to be received in said countersunk portion, the surface of said head also convexed and conforming to the shape and contour of said bearing surface.

12. A tip for furniture comprising a securing member to be attached to the furniture leg, an insert member having a metallic

surface and a non-metallic surface, and cooperating means between said member to removably secure said insert member to said securing member with either the metallic or non-metallic surface outwardly.

13. A tip for furniture comprising a securing member to be attached to the furniture leg, an insert member comprising a metallic cup and a cushioning material therein, and cooperating means between said securing member and said metallic cup to secure said insert member in position with either the metallic or non-metallic surface outwardly.

In testimony whereof I affix my signature.

ARTHUR G. HENRIKSON.