

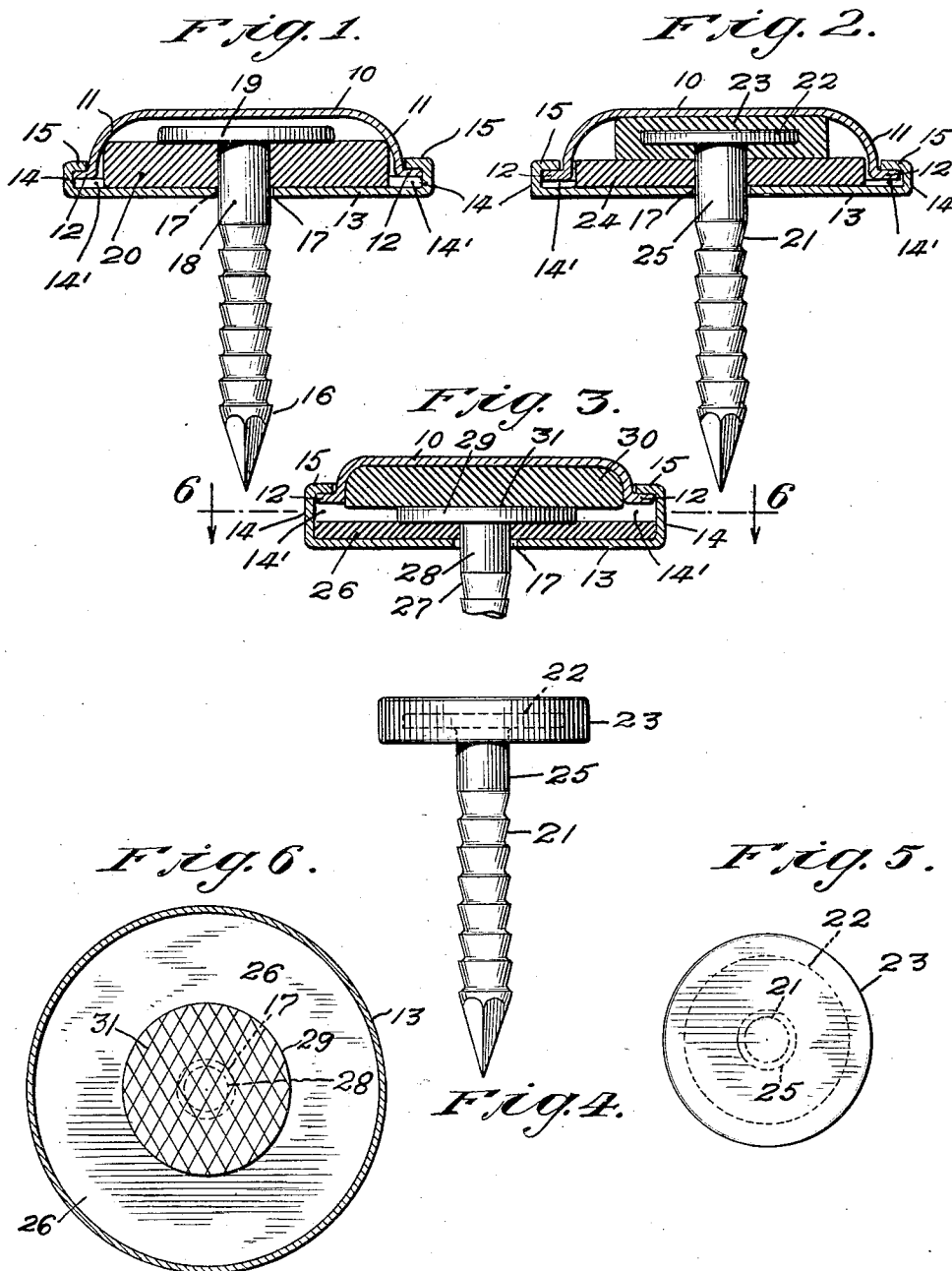
May 12, 1931.

R. E. MILLER

1,805,252

FURNITURE LEG SHOE

Filed April 19, 1928



INVENTOR
Robert E. Miller
BY
Melham Schust
ATTORNEY

UNITED STATES PATENT OFFICE

ROBERT E. MILLER, OF BRONXVILLE, NEW YORK

FURNITURE LEG SHOE

Application filed April 19, 1928. Serial No. 271,166.

This invention relates to a furniture leg shoe.

My invention has for an object thereof the provision of a furniture leg shoe which may be attached by a nail, screw or similar fastening device to the contacting portion of the leg of a piece of furniture or the like, whereby the same may be drawn over the floor or similar surface noiselessly and without marring the surface. More particularly, my invention contemplates the provision of a shoe for furniture legs or the like which includes a floor or the like contacting member, the same being attached to a furniture leg or the like whereby it may be drawn over the floor or similar surface and glide thereover noiselessly and without marring the surface, the floor contacting member being so attached as to be resiliently disposed to have self-aligning features giving maximum surface contact with the floor as the pressure thereon, due to the shifting of weight upon the piece of furniture, may change. It is further contemplated by my invention to have a contacting member attached to the leg or bottom of a piece of furniture and resiliently dispose the same whereby the same may be caused to glide over the floor or similar flat surface noiselessly and may also prevent marring of the surface when the furniture is forcibly positioned upon the floor.

A further object of my invention resides in the provision of a shoe for furniture legs or the like including a floor contacting member which may glide noiselessly over the floor or the like, the same being held in position by the fastening element of the nature which may be driven into position, it being contemplated by my invention to resiliently dispose the fastening element in respect of the floor contacting member, the association being such as to permit the driving action without marring any portions of the furniture shoe and whereby the furniture shoe may be quickly and efficiently attached and fastened into position.

My invention still further has for an object thereof the provision of a furniture leg shoe comprising a floor contacting member in the form of a dome-shaped metallic member

which may easily and quietly glide over a flat surface, such as the floor, and a shell for holding this member, serving as the means to attach a fastening element such as a nail or the like, the nail being resiliently disposed between the floor contacting member and the shell to permit self-alignment in respect of the piece of furniture and the flat surface upon which it contacts, the shell and contacting members being so disposed in relation to the fastening element as to permit driving attachment thereof quickly and efficiently and without marring or disfiguring either of the members.

Still further my invention has for an object thereof the provision of a furniture shoe including a metallic floor contacting and gliding member which is resiliently disposed in connection with the fastening element utilized to hold the same in position upon a piece of furniture, the fastening element being resiliently disposed, the association being one which is simple and inexpensive to manufacture.

To attain these objects and such further objects thereof as may appear herein or be hereinafter pointed out, I make reference to the accompanying drawings forming part hereof, in which—

Figure 1 is a sectional view of an embodiment of my invention;

Figure 2 is a sectional view of another embodiment of my invention;

Figure 3 is a sectional view of a still further embodiment of my invention;

Figure 4 is a side elevation of a detail element, particularly used in the assembly shown in Figure 2;

Figure 5 is a plan view of the same;

Figure 6 is a section taken on the line 6—6 of Figure 3.

Making reference to the drawing, it will be observed that my invention in the embodiment shown in Figure 1 comprises a furniture leg shoe in the nature of a "dome of silence" comprising a floor contacting member 10, dome shaped, having downwardly disposed flanges 11 and an outwardly disposed rim 12. Associated with this floor contacting member there is provided a shell 13,

having an upwardly directed flange 14 and an inwardly directed rim 15, which engages the rim 12 previously described and serving to hold the member 10 and the shell 13 in permanent associated relationship. It is preferred that the rim 12 have free movement within the flange 14 for purposes which will hereinafter appear. It is contemplated to associate with the dome 10 and the shell 13 a fastening element such as a nail 16 and for this purpose the shell 13 has provided an orifice 17 through which there is disposed the shank 18 of the nail. The orifice 17 is made sufficiently large to permit substantially free movement therein of the shank 18. It is contemplated to dispose the nail head 19 resiliently between the dome 10 and the shell 13 and for this purpose a resilient member such as a rubber washer 20 is disposed between the nail head and the shell 13. In its assembly, the washer 20 is formed oversize so that in crimping the rim 15 over the rim 12, the rubber washer is maintained compressed so that upon release of the pressure necessary to assemble the dome 10 and the shell 13, the rim 12 will be maintained spaced from the bottom wall of the shell 13, as shown at 14'. It will further be observed that it is contemplated to have the nail head 19 slightly spaced from the dome 10 whereby the dome 10 and the shell 13 are maintained in resilient spaced relationship by the interposed rubber washer 20. Thus, it will be observed that pressure upon the dome 10 will tend to force this member against the shell 13 through the resilient medium of the rubber washer. It will further be observed that for attaching the assembly, the dome portion 10 may be struck by an implement, such as a hammer, without marring the same as this member will give sufficiently to permit the force to be transmitted to the nail head 19 immediately thereunder. It will be observed that by this construction I have provided a furniture leg shoe in which the floor contacting member or dome may be attached to a furniture leg or the like by impelling the same and have the head of the fastening element maintained resiliently in position.

Making reference to Figure 2, I have herein shown a dome 10 and a shell 13, similarly associated as shown in Figure 1 except, however, that the fastening element 21, prior to its association, has its head 22 embedded in a nonmetallic composition such as rubber, vulcanized fibre or the like, forming a resilient head 23 thereupon. This head may be formed by molding the composition about the head in a manner which will be readily understood by those skilled in the art. For assembling the fastening element, such as 21, a shell such as 13 has concentrically positioned thereon a washer 24 made of resilient material such as rubber. The shank 25 of

the nail is then forced through the washer and then is passed through the orifice 17 as in the embodiment previously described. The thickness of the head 23 and the washer 24 is so calculated as to require considerable compression in assembling the dome 10 and the shell 13 so that the parts must be compressed together before crimping the rim 15 in engaging relationship over the outwardly disposed rim 12. Upon release of the compression, the dome 10 and the shell 13 will be maintained in spaced relationship by the head 23 and the washer 24, leaving a spaced portion 14', substantially the same as previously described in the embodiment shown in Figure 1. It will be observed that in the embodiment shown in Figure 2 substantially all the features reside therein as emphasized in connection with the previously described embodiment, with this addition, that not only are the members 10 and 13 resiliently disposed relatively to each other but the head of the fastening element is also resiliently disposed relatively to these parts.

Making reference to Figure 3, I have again illustrated a floor contacting member in the nature of a dome 10 and a shell for engaging the same 13, of substantially the same construction as previously described. In this embodiment, I may position within the shell and the flange 14 a relatively thin washer 26 concentric therewith. Through this washer I may force a fastening element such as a nail 27 so that the shank 28 passes therethrough and upwardly through the orifice 17. Upon the head 29 of the nail, I dispose a cushion block 30 so as to be retained within the dome-shaped member 10. The thickness of the washer 26 and the block 30 is so calculated that upon assembly of the dome 10 and the shell 13, these members will require considerable compression before engaging by crimping the rim 15 over the outwardly disposed rim 12 of the dome. Upon release of the pressure, the dome 10 and the shell 13 will be maintained in substantially spaced relationship as shown at 14'. It will be observed that in this construction the floor contacting member 10 and the shell 13 are spaced from each other and so maintained resiliently relatively to each other, as well as is the nail head 29 relatively to these parts. It will be further observed that in this construction as the shank 28 may be made somewhat smaller than the orifice 17 and to concentrically maintain the nail head in this position, I may form the nail head 29 with suitable knurled surfaces 31 so that the frictional contact against this member will be augmented and retain the nail head in the desired relationship.

It will thus be observed that I have provided a furniture leg shoe which has all the attributes of a metallic floor contact glider member which may be drawn over a flat sur-

face, such as a floor, noiselessly and without marring the surface; furthermore, one which when in use as upon the leg of a piece of furniture, such as a chair, the floor contacting member will accommodate itself to various movements thereof or shifting of the weight of the chair without marring the flat surface upon which the furniture is disposed. Furthermore, it will be observed that I have provided a furniture leg shoe which may be quickly and easily attached as by driving the same in position with a hammer, attachment being accomplished without marring or disfiguring the dome-shaped floor contacting member.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent, is—

1. A sliding shoe for furniture, comprising a rigid bottom member and a rigid upper member defining an enclosed chamber between them, said members being relatively movable to vary the distance between them, an attaching element having a head within said chamber and a stem extending out of said chamber through said upper member, and a resilient padding between said members for yieldably holding them apart, a portion of said padding lying between said head and said upper member.

2. A sliding shoe for furniture, comprising a rigid bottom member and a rigid upper member defining an enclosed chamber between them, said members being relatively movable to vary the distance between them, an attaching element having a head within said chamber and a stem extending out of said chamber through said upper member, and a resilient padding between said members for yieldably holding them apart, a portion of said padding lying between said head and said bottom member.

3. A sliding shoe for furniture, comprising a rigid bottom member and a rigid upper member defining an enclosed chamber between them, said members being relatively movable to vary the distance between them, an attaching element having a head within said chamber and a stem extending out of said chamber through said upper member, and a resilient padding between said members for yieldably holding them apart, a portion of said padding lying between said head and said upper member, and another portion of said padding completely enclosing said head.

4. A sliding shoe for furniture, comprising a rigid bottom member having an outwardly turned flange, a rigid upper member having an inwardly turned flange engaging around said first-named flange, said members defining an enclosed chamber and being relatively movable to separate said flanges and vary the distance between them, an attach-

ing element having a head within said chamber and a stem extending out of said chamber through said upper member, and a resilient padding entirely within said chamber and between said members for yieldably holding them apart, a portion of said padding lying between said head and said upper member.

5. A sliding shoe for furniture, comprising a rigid bottom member having an outwardly turned flange, a rigid upper member having an inwardly turned flange engaging around said first-named flange, said members defining an enclosed chamber and being relatively movable to separate said flanges and vary the distance between them, an attaching element having a head within said chamber and a stem extending out of said chamber through said upper member, and a resilient padding entirely within said chamber and between said members for yieldably holding them apart, a portion of said padding lying between said head and said upper member, and another portion of said padding lying between said head and said bottom member.

In witness whereof I have hereunto signed my name this 13th day of April, 1928.

ROBERT E. MILLER.