

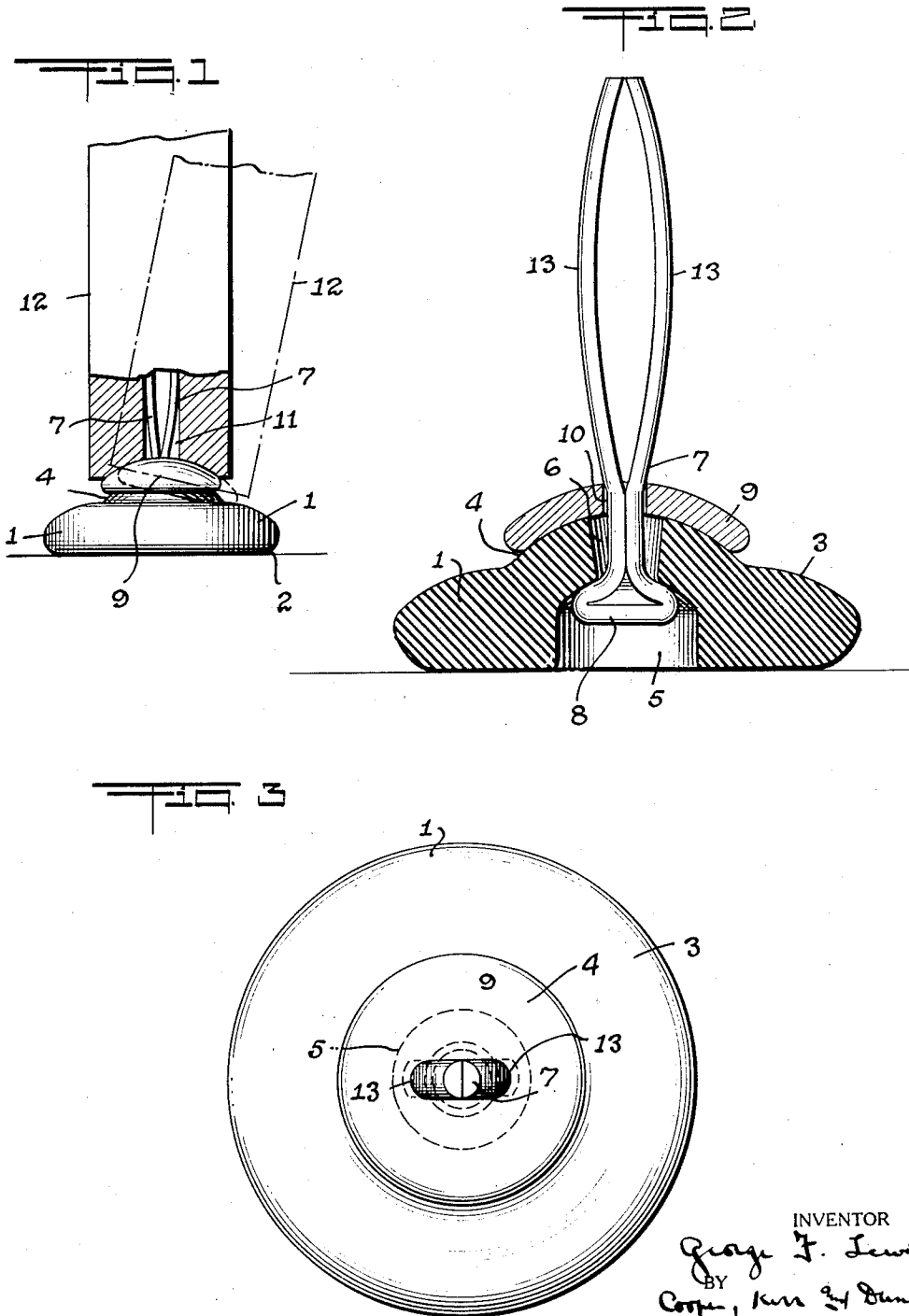
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SLIDING SHOE FOR FURNITURE

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## UNITED STATES PATENT OFFICE.

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## SLIDING SHOE FOR FURNITURE.

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My invention relates to sliding shoes for furniture, particularly for the legs of chairs and tables, and the object is to provide a smooth flat support which will not injure the fabric of the floor covering or mar a hard wood floor when the chair is tilted back or slid along the floor.

I have provided an extremely simple and durable form of device for allowing the shoe to rock or oscillate on the pintle thus maintaining the smooth flat surface of the shoe in contact with the floor under all conditions of use.

The simplicity and the various features of novelty which characterize my invention will more particularly appear from the detailed description taken in connection with the drawings.

Figure 1 is an elevation of my sliding shoe, showing the same connected with a leg of the furniture to be supported, the leg being shown in a vertical position by heavy lines and in an angular position by dotted lines.

Figure 2 is a sectional view of my sliding shoe and Figure 3 is a top plan view of my shoe.

Similar numbers indicate like parts in the several views.

In the drawings, 1 is a flat bottomed base whose lower edges are curved upwardly at 2 to present a smooth contact with the floor, which will not injure the floor covering, and whose top surface is rounded at 3 and with a dome-like portion 4. I prefer to make this base out of some moldable material such as hard rubber, bakelite or the like, but it may be made of any of the suitable metals. A cup shaped socket 5 is formed centrally of the base in its lower face and a hole 6 whose sides taper upward and outwardly extends through the base from the socket to the dome-like portion. The cotter pin 7 whose enlarged head 8 rides in the cup shaped socket of the base extends through the tapered hole 6 and is permitted to rock or oscillate with respect to the base. The washer 9 is provided with a hole 10 of substantially the same diameter as the pin 7 and is fitted over the pin, so that the under or concave surface of the washer contacts with the dome-like portion 4 of the base.

In use, the cotter pin 7 is inserted in a hole 11 in the bottom of the leg 12 of the furniture to be supported, just as is the pintle of the usual caster. The base of the leg rests on the top surface of the supporting washer 9 and no weight is supported by the pin, as the hole in the leg of the furniture is substantially longer than the distance from the upper supporting surface of the washer to the end of the pin. As shown at 13 the legs of the pin 7 are bowed so that their spring action holds the shoe firmly connected to the leg of the furniture. The relatively broad under surface of the washer in contact with the smooth dome-like portion of the base, distributes the weight on the furniture leg uniformly over the whole of the base and no undue strains are brought to bear on any portion of the base. In some of the older types of sliding shoes the entire weight on the leg is supported by the pin which is provided with some sort of ball and socket joint and distributed over only a small portion of the base, so that any undue strains will tend to distort the ball socket joint or crack the base.

My shoe also provides a simple arrangement whereby breakage or injury of the device is prevented in case the furniture is tipped beyond the usual limit as indicated by broken lines in Fig. 1. At that point washer 9 is in contact with base 1 and any further tipping of the furniture might cause damage, were it not for the fact that the lower end of leg 12 is formed to fit the upper convex surface of washer 9 as shown in the drawings. The above arrangement permits a slight sliding of leg 12 on washer 9, limited only by the take-up of the clearance between the split pin and the hole in washer 9, thus permitting leg 12 to tip further than the position indicated by the broken lines in Fig. 1.

It is noticeable that the washer and smooth dome-like portion of the base make an excellent sliding contact and offer little resistance to the free movement of the pin in the socket, while at the same time offering a firm support for the furniture.

I claim:

1. A furniture support comprising a base, a socket formed in the lower surface of the base, a pin loosely seated in said socket and extending through said base and a washer fitted over the pin and bearing on the upper side of the base and on the under side of the furniture.

2. A sliding shoe for furniture having a floor engaging lower surface, and having a socket formed therein extending upwardly

from the lower surface, and an opening from the socket extending through the upper surface of the shoe and tapering outwardly, in combination with a pin having an enlarged head and adapted to rock within said socket and means for supporting the chair leg in slidable relation with the smooth upper surface of the shoe.

3. A furniture support comprising in combination, a base to rest on the floor, and a washer intermediate the furniture and said base and in contact with said furniture and said base, said washer being rockable relatively to said base and said furniture, said base and said washer being locked together by a loosely fitted retaining device.

4. A furniture support comprising in combination, a base having a spherical upper surface, a washer having spherical upper and lower surfaces, the lower surface of said washer being fitted to the upper surface of said base and the upper surface of said washer being fitted to a cooperating surface on the furniture, and said washer being slidable relatively to both said furniture and said base.

5. The invention set forth in claim 4 in which said base and said washer are locked together by a loosely fitted retaining pin.

6. A furniture support comprising in combination, a base to support the furniture on a floor, and a member intermediate said base and the furniture, said base, member and furniture being so fitted together that there is a universal joint action between said member and the base and between said member and the furniture whereby said member, base, and furniture may have angular movement in any direction relatively to each other, said base and said member being locked together by a loosely fitted retaining device.

7. A sliding shoe for furniture comprising

a solid base, having a floor-engaging bottom surface, and having an opening extending therethrough from top to bottom, said opening being of larger lateral dimension in its lower than in its upper part, and a furniture-engaging pin extending upwardly through said opening and having an enlarged head rockably mounted within the enlarged lower part of said opening, said pin being free to oscillate through a limited arc in the upper part of said opening.

8. A sliding shoe for furniture comprising a solid base having a floor-engaging bottom surface, and having a socket entirely within the body of the base with an opening extending upwardly therefrom to the upper surface, and a furniture-engaging pin having a head rockably mounted and retained within said socket, the pin extending upwardly from said head, through said opening, with freedom for limited oscillation therein, said base having a curved upper surface on which the furniture is slidably supported, through which surface said opening extends.

9. A sliding shoe for furniture comprising a solid base having a floor-engaging bottom surface, and having an opening extending therethrough from top to bottom, and a headed pin for holding the shoe to the furniture, extending up through said opening with its head entirely within said opening, said opening being restricted above said head to retain the pin, the top surface of said base being upwardly domed with a suitable radius to provide a curved seat for the furniture and to provide ample material to resist crushing stresses between the said upper surface and the wall of said opening.

In testimony whereof I hereunto affix my signature.

GEORGE FENN LEWIS.