Jan. 10, 1933. J. SILVERMAN 1,893,910

FOOT FOR SUPPORTING LEGS AND THE LIKE

Filed May 29, 1931

Fig. 1

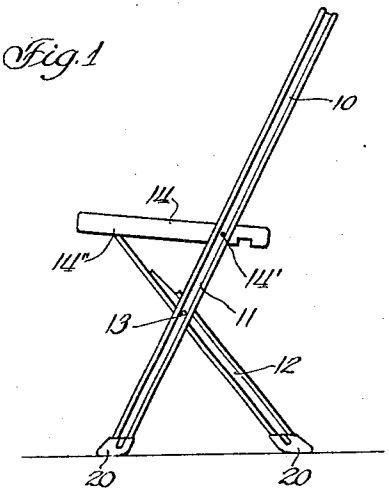


Fig. 2

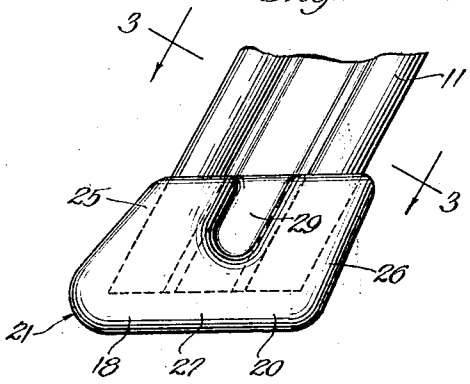


Fig. 3

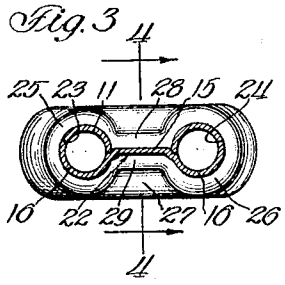


Fig. 4

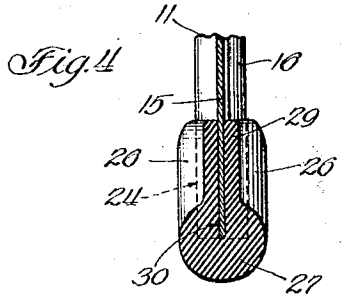
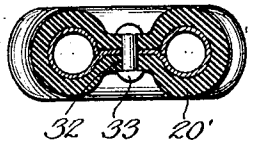


Fig. 5



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UNITED STATES PATENT OFFICE

JOSEPH SILVERMAN, OF CHICAGO, ILLINOIS

FOOT FOR SUPPORTING LEGS AND THE LIKE

Application filed May 29, 1931. Serial No. 540,875.

This invention relates to a foot or tip for supporting legs and the like, and contemplates an improved foot for supporting legs formed of metal and of the type comprising an intermediate connecting web provided with rolled edges.

Various tips or feet have heretofore been proposed for supporting legs of different types. In the case of supporting legs formed of metal and of the type comprising an intermediate connecting web provided with rolled edges, tips comprising blocks of resilient material with metal fasteners embedded in the blocks and adapted for engagement in the rolled edges of the supporting leg have been proposed. These devices involve metal fasteners in addition to the blocks of resilient material, and they also involve embedding the metal fasteners in the blocks in the vulcanizing process and formation of the fasteners for frictional engagement in the rolled edges of the leg. This increases the cost. In addition the resilient blocks of previously proposed constructions have had to be of sufficient height and thickness to accommodate the embedded end of the fastener, which embedded end in certain previously proposed schemes has been in the form of a connecting base between the prongs of the fasteners, which connecting base, heretofore, has had to be accommodated in the resilient block below the lower end of the leg and across the same.

The present invention aims to provide a simple, reliable and inexpensive foot for supporting legs of the type comprising an intermediate web provided with rolled edges.

Another aim is to provide a foot that may be easily applied to the leg.

Another aim is to provide a foot which is so formed and so cooperates with the leg that objectionable bending of the foot is avoided.

Another aim is to eliminate the matter of embedding and vulcanizing a fastener or other device in the resilient body of the foot.

Another aim is to enable, in a device of this sort, reduction in the height of the foot body below the lower end of the supporting leg.

Another aim is to eliminate allowance in the foot body for fasteners extending along the lower end of the leg.

Other aims and advantages will be apparent from the following detailed description taken in connection with the accompanying drawing, in which:

Figure 1 is a side elevational view of a folding chair provided with foot devices or tips embodying the present invention;

Figure 2 is a fragmentary enlarged side elevational view showing the lower end of one of the legs of the chair with the foot in place thereon;

Figure 3 is a horizontal sectional view taken on the line 3—3 of Figure 2;

Figure 4 is a generally vertical section taken on the line 4—4 of Figure 3; and

Figure 5 is a view similar to Figure 3 showing the foot riveted in place on the leg.

Referring to the drawing, the chair shown in Figure 1 is like the chair more fully disclosed in my United States Letters Patent No. 1,704,712, patented March 12, 1929. The showing of this chair in the present application is for purposes of illustrating the foot of the present invention in connection with one particular form of device having supporting legs of the construction with which the foot of the present invention is particularly adapted for use.

The details of the chair per se may vary widely and, in fact, the leg may be the leg of some other device than a collapsible chair within the scope of my present invention. Suffice it to say, therefore, that the chair shown comprises the frame 10 preferably of metal and having depending sides forming one pair of legs 11. A second pair of legs 12, also preferably of metal, are pivoted at 13 between and to the opposite legs 11. The seat 14 has fixed pivotal connection at 14′ between and to the opposite sides of the frame 10, and this seat 14 has sliding pivotal connection at 14″ with the upper ends of the legs 12.

The legs 11 formed by the depending sides of the frame 10 and the legs 12 are preferably formed of strips of sheet metal. The construction of the lower ends, at least, of the legs 11 and the legs 12 and the mounting of

the foot devices or tips 20 thereon are identical so that a description of one will suffice for all. The leg 11, for example (Figures 2 to 4, inclusive), has a flat intermediate web 15, the longitudinal edges of which are rolled to form parallel tubular edges 16 one along each of the opposite sides of the web 15. These tubular margins 16 are shown as of generally circular section, and while I have referred to rolling the same, it is to be understood that they may be formed in any other suitable or preferred manner. Angular offsets (not shown) may be provide between the opposite sides of the flat web 15 and the rolled margins 16 for receiving and firmly anchoring the rolled back edges of the leg. The extremities of the respective legs are preferably finished off at 18 to rest substantially squarely upon the floor or other support. The leg construction above described is light in weight, strong and rigid.

The foot 20 is formed of rubber or suitable resilient or pliable and preferably non-abrasive material, the lower edge 21 of the body of the foot 20 being formed to lie substantially parallel the lower edge 18 of the leg 11 when the foot is in place on the leg whereby, when the legs are unfolded for use, the foot will rest substantially squarely upon the floor. The foot body preferably has the lower and side edges and corners rounded off as shown.

Within the body of the foot 20 is a pocket 22 opening from the top of the foot and having spaced enlargements 23 and 24 one toward each of the opposite edges of the foot for receiving the tubular edges or rolled margins 16 of the leg. In the illustrated embodiment the rolled edges 16 are circular in section, and the pocket enlargements 23 and 24 are similarly formed, but this may vary. The walls 25 and 26 of the pocket enlargements 23 and 24 present enlarged and generally round edges at the opposite sides of the foot, and the foot is thickened marginally at 27 along the lower edge. The thickened edge 27 extends between the hollow walls 25 and 26 and is preferably of a thickness corresponding to the lower ends of the walls 23 and 24. The walls 28 and 29 of the foot 20 are preferably relatively thin and closely embrace the web 15 of the leg above the thickened lower edge 27 and between the walls of the pocket enlargements 23 and 24.

The pocket 22 preferably extends down at 30 into and between the sides of the thickened lower edge 27 of the foot so that upon placing the foot upon the leg the lower edges of the leg will enter between the sides of the thickened lower edge 27 of the foot whereby stability of the foot against bending is obtained along with relatively great freedom of the walls of the upper end of the foot for application to the supporting leg. The thickened lower edge 27 is rounded or of generally circular section in the illustrated embodiment. The opposite edges of the foot preferably flare downwardly to the lower edge to thicken the walls toward the thickened lower edge 27 as shown in Figure 2.

The foot may be held in place upon the leg solely by the gripping action of the walls of the foot thereon, or, if desired, a suitable cement or adhesive may be placed in the pocket before placing the foot upon the leg so that upon application of the foot to the leg it will be firmly cemented and secured thereto.

As another securing means the relatively thin walls 28 and 29 of the foot and the web 15 of the leg may be provided with apertures 32 (Figure 5), brought into register upon application of the foot to the leg and a rivet 33 or other fastener may be inserted through these apertures to secure the foot 20′ in place.

The pocket 22, together with its end enlargements 23 and 24, the thickened lower edge 27 and the relatively thin side walls 28 and 29, preferably is formed in molding the foot and where the side walls 28 and 29 are apertured, as in the embodiment shown in Figure 5, these apertures may be formed in molding the foot.

I claim:

1. The combination with a supporting leg having enlarged edges of a foot therefor comprising a resilient body having a pocket for receiving the lower end of the leg, said pocket having spaced enlargements for receiving the enlarged edges of the leg, said foot having a thickened lower edge and said leg extending down into and between the sides of the thickened lower edge of the foot whereby stability of the foot against bending is obtained.

2. The combination with a supporting leg having a flat intermediate web the opposite edges of which are rolled to form parallel tubular edges of a foot therefor comprising a resilient body having a pocket for receiving the lower end of the leg, the sides of said foot body closely embracing the web of the leg between the tubular edges and said pocket having enlargements at opposite edges of the web engaging sides of the foot to receive and engage the tubular edges of the leg, said foot having a thickened lower edge and said leg extending down into and between the sides of the thickened lower edge of the foot whereby stability of the foot against bending is obtained.

3. The combination with a supporting leg having a flat intermediate web with rolled side edges, of a foot therefor comprising a resilient body having a pocket for receiving the lower end of the leg, said pocket having its ends enlarged to receive the rolled edges of the leg, the sides of the pocket being relatively thin between the walls of the enlarged ends of the pocket and closely embracing the web of the leg, and said foot having a thickened lower edge extending between the walls of the enlarged ends of the

pocket, said leg extending down into and between the sides of the thickened lower edge of the foot whereby stability of the foot against bending is obtained.

4. As an article of manufacture a foot for supporting legs comprising a molded resilient body having a pocket therein, said pocket having its opposite ends enlarged, the body of the pocket being thickened marginally along the lower edge and between the walls of the enlarged ends of the pocket, and having relatively thin side portions above the lower thickened margin and between the walls of the enlarged ends of the pocket.

5. The combination with a supporting leg comprising an intermediate web having its opposite edges rolled to form tubular edges, of a foot therefor formed of resilient molded material and having a relatively thickened lower portion of circular section, and having enlarged upwardly extending recessed portions adapted to receive the tubular edges of said legs, said lower portion and said recessed portions being of the same lateral extent, said enlarged recessed portions being connected by relatively thin web-engaging portions adapted to receive the web of said leg, the lower edge of said leg extending into said foot substantially to the center of said lower portion of said foot.

6. The combination with a supporting leg comprising an intermediate web having its opposite edges rolled to form tubular edges, of a foot therefor formed of resilient molded material having a relatively thickened lower portion of circular section, and having enlarged upwardly extending recessed portions adapted to receive the tubular edges of said leg, one of said portions having a forwardly and angularly extending toe portion, said lower thickened portion and said enlarged recessed portions being of the same lateral extent, said enlarged portions being connected by relatively thin web-engaging portions adapted to receive the web of said leg, the lower edge of said leg extending into said foot substantially to the center of the thickened lower portion of said foot.

In witness whereof, I hereunto subscribe my name this 26 day of May, 1931.

JOSEPH SILVERMAN.