July 4, 1933. G. D. SCHERMERHORN 1,916,336

CUSHIONED FOOT FOR CHAIRS

Filed May 15, 1931

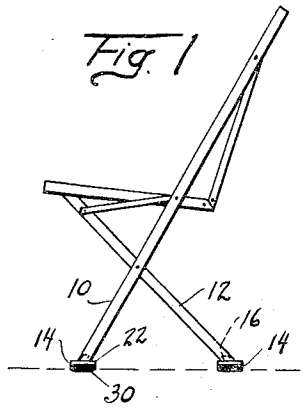


Fig. 1

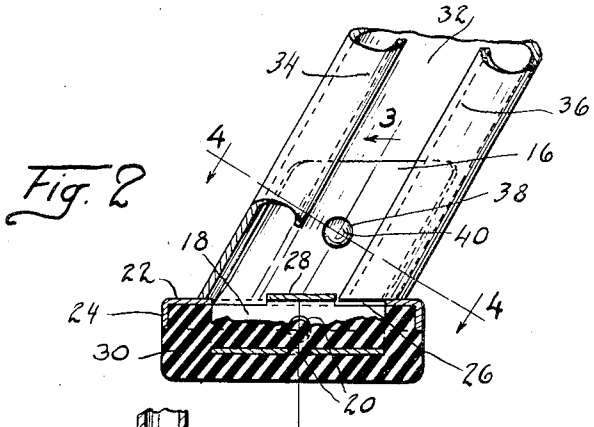


Fig. 2

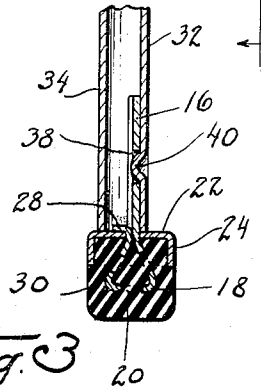


Fig. 3

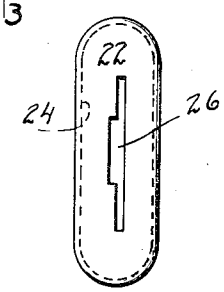


Fig. 5

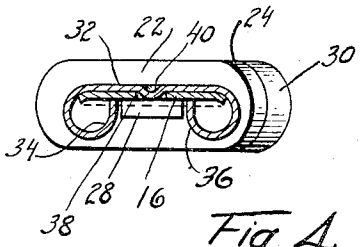


Fig. 4

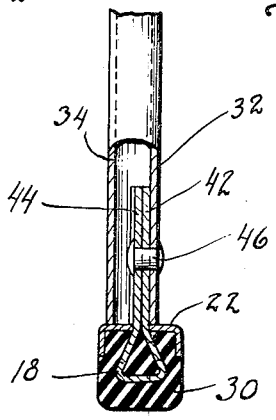


Fig. 6

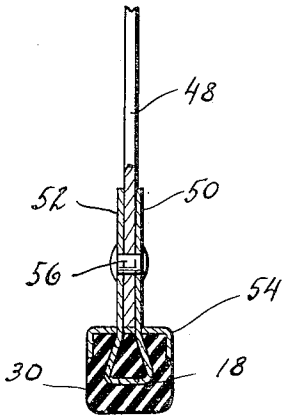


Fig. 7

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UNITED STATES PATENT OFFICE

GEORGE D. SCHERMERHORN, OF READING, MICHIGAN

CUSHIONED FOOT FOR CHAIRS

Application filed May 15, 1931. Serial No. 537,632.

My invention relates to folding chairs and has particular reference to an improved cushion foot associated with the legs thereof to form a shock absorbing, sound eliminating, and frictional floor engaging member.

An object of the invention is to provide a simplified structure, inexpensive to manufacture, and capable of production in large numbers with relatively little labor costs.

Another object of my invention is to so construct the cushion foot assembly per se that the yieldable cushioning material is firmly tied into its positioning element to provide a rigid, integral assembly.

A further object of my invention is to so couple the cushion foot assembly with the chair leg that it is readily removable therefrom for replacement purposes, and at the same time securely positioned on the leg during its useful life.

Various other objects and meritorious features of the invention will be apparent from the following description taken in conjunction with the drawing wherein like numerals refer to like parts throughout the several figures and wherein:

Fig. 1 is a chair embodying my improved cushion foot,

Fig. 2 is a side elevation, partly in section,

Fig. 3 is a section along 3—3 of Fig. 2,

Fig. 4 is a section along 4—4 of Fig. 2,

Fig. 5 is a plan view of the cap member,

Figs. 6 and 7 illustrate somewhat modified structures.

While I contemplate particularly the use of rubber as constituting the cushioning substance for my foot assembly, largely because of its adaptability to casting in a mold, it will be apparent that other types of yieldable material may be utilized in lieu of rubber.

Fig. 1 illustrates a conventional type of folding chair embodying front and rear legs 10 and 12 respectively, upon each of which is shown a cushion foot assembly illustrated broadly by the numeral 14. A metal stamping 16 is utilized for securing the assembly to the legs 10 and 12 of the chair, one end of the stamping being formed to interlock firmly with the cushioning material. In the preferred from illustrated in Figs. 2–4 this stamping comprises a flat strip of metal which is folded over at one end to form a triangular unit 18, the three sides of which are apertured as illustrated at 20.

A cap member 22 includes depending side flanges 24 exending around the periphery thereof and a slot 26 for the purpose of receiving the stamping 16. The folded extremity of the stamping is bent over the top of the cap as indicated at 28 after the cap has been positioned and the rubber foot 30 is molded in situ about the supporting assembly, the apertures 20 permitting this operation. In this way the rubber is tied into the stamping, at the same time surrounding it, and forming an integral structure of great durability.

In the structure illustrated in Figs. 2 and 4 I have shown one type of chair leg with which my improved cushion foot is adapted for use. This leg 32 consists of strip metal which is rolled over along either one or both of its longitudinal edges as at 34 and 36. In positioning the cushion foot upon such a leg, the positioning arm of stamping 16 may be inserted under the rolls as clearly illustrated in Fig. 4 to be positioned thereby, or the said positioning arm may be placed in juxtaposition to the flat portion of the leg 32 and the longitudinal edges thereof subsequently rolled over to position the cushion foot assembly.

To further insure the permanent positioning of the foot assembly I have illustrated a socket 38 in the positioning arm of stamping 16 which is adapted to engage a protuberance 40 provided in the flat portion of the leg 32. This constitutes what may be regarded as a snap fastener. It will be observed that in this preferred structure I have utilized but a single positioning arm. However, the side thrust upon the cushion foot assembly is adequately resisted in both lateral directions by virtue of the turned over end portion 28 of the stamping, thereby insuring rigidity of the assembly and the leg.

In Fig. 6 I have illustrated a somewhat different assembly wherein the stamping includes a plurality of positioning arms 42

and 44 which are riveted as at 46 to the flat portion of the leg 32. Obviously the leg may be of the type illustrated in Fig. 2 or any other type where this structure is utilized.

In Fig. 7 a different type of chair leg 48 is illustrated and the two positioning arms 50 and 52 of the stamping extend through spaced apart slots in the cap 54, thereby permitting the arms to lie against each side of the leg 48 and secured thereto by suitable means such as rivet 56.

Various other modifications of the structure herein illustrated will be apparent to those skilled in the art and for that reason I wish to limit myself only within the scope of the appended claims.

I claim:

1. A cushion foot assembly comprising a flanged cap having an apertured top, a shank element associated with said cap, said shank element bent upon itself providing arms extending upwardly through the apertured top of the cap and a hollow tubular extremity at the bend disposed within said cap, and yieldable cushioning material molded in situ about and within the tubular extremity of said shank within the cap.

2. A cushion foot assembly comprising a cap having depending flanges about its periphery and an apertured top, a shank element associated with the cap, said shank element comprising a flat metal strip bent upon itself providing arms extending upwardly through the apertured top of the cap and a hollow tubular bend forming the extremity within the cap, said cap seated upon said tubular bend extremity and cushioning material molded in situ about and within said tubular extremity within said cap.

3. In combination with a chair leg having longitudinally rolled edges, a foot structure therefor comprising a flanged cap having an apertured top, a shank element having a hollow head portion disposed within said cap and a block of cushioning material disposed within the cap about and within said head, said shank element having an end portion extending through the apertured cap and upwardly along the leg underneath the rolled over edge portions.

4. In combination with a channel form chair leg, a foot structure therefor having a shank element secured to the leg within said channel held against displacement by the channel walls, said shank element rolled upon itself at its lower end forming a tubular portion extending transversely the chair leg below the end thereof, and cushioning material molded within and around said tubular portion.

5. In combination with a chair leg, a foot structure therefor comprising a shank element bent upon itself to provide a hollow tubular portion arranged at the end of the chair leg with an end portion of the shank element overlapping and secured to the chair leg and cushioning material molded within and about said tubular portion of the shank element.

6. In combination with a chair leg, a cushion foot structure associated therewith comprising a shank element formed by a flat stamping folded transversely upon itself adjacent one extremity to form a tubular head, a slotted cap receiving said stamping and seated upon said head, the folded extremity of said stamping being doubled back through the slot in the cap and turned over the upper face thereof, and cushioning material molded about said head within said cap.

7. In combination with a chair leg, a cushion foot structure associated therewith comprising a shank element formed by a flat stamping folded transversely upon itself adjacent one extremity to form a tubular head having apertures in its side walls, and a slotted cap receiving said stamping and seated upon said head, the folded extremity of said stamping being doubled back through the slot in the cap and turned over the upper face thereof, and yieldable cushioning material positioned within the cap about and within the tubular head.

8. In combination with a chair leg having longitudinal tubular edge portions, a cushion foot structure therefor comprising a flanged cap having an apertured top, a shank element associated with said cap and comprising a hollow head portion disposed within the cap and a single portion extending upwardly therethrough and into each of the tubular edge portions of the leg of the chair to be frictionally engaged thereby, and cushioning material disposed within said cap completely surrounding the walls of the head on the shank element.

In testimony whereof, I, GEORGE D. SCHERMERHORN, sign this specification.

GEORGE D. SCHERMERHORN.