

Sept. 23, 1958

J. F. WALSH

2,852,883

LEG CUSHION

Filed Jan. 26, 1954

Fig. 1

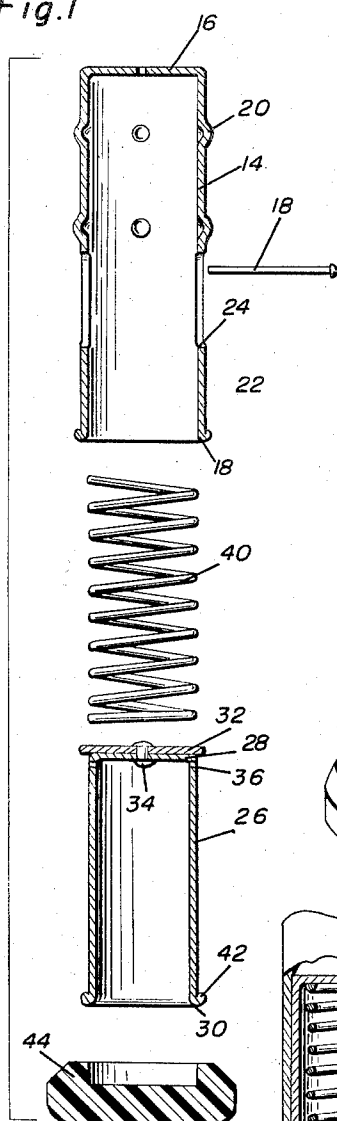


Fig. 2

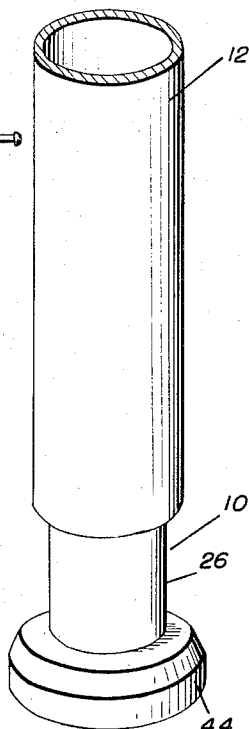


Fig. 4

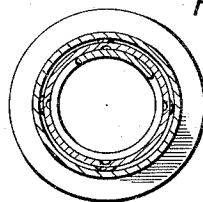


Fig. 3

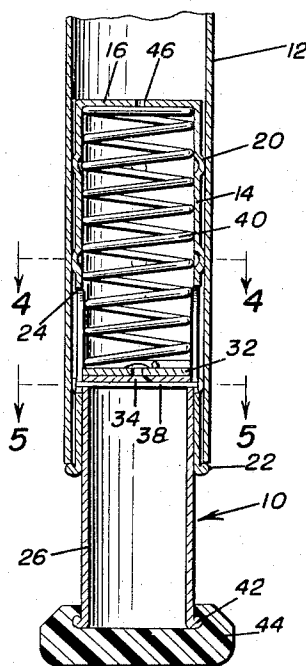


Fig. 6

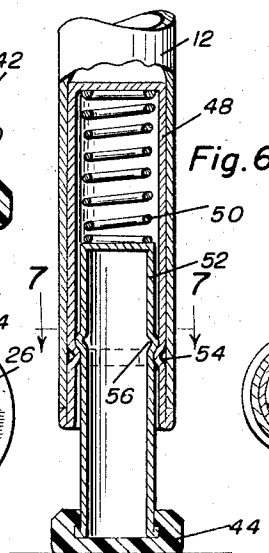


Fig. 5

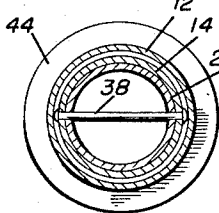
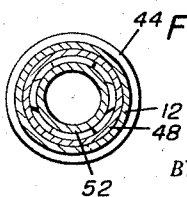


Fig. 7



John F. Walsh
INVENTOR.

BY *Almonce A. O'Brien*
and *Harvey B. Jackson*
Attorneys

1

2,852,883

LEG CUSHION

John F. Walsh, Roselle Park, N. J.

Application January 26, 1954, Serial No. 406,126

1 Claim. (Cl. 45—137)

This invention relates to a leg cushion and more specifically provides a device for attachment to the lower ends of legs for chairs, beds or the like.

An object of this invention is to provide a leg cushion to be utilized on the bottoms of the legs of a chair, bed or the like thereby resiliently supporting the weight of the chair or bed as well as the weight of the person occupying the chair or bed.

Another object of this invention is to provide a leg cushion which may be attached to various type legs in a simple and efficient manner.

Yet another object of this invention is to provide a leg cushion having a spring urged telescoping member positioned in the bottom of each leg thereby providing a resilient support for the person occupying the chair or bed or the like device.

Still another important object of this invention is to provide a leg cushion which is simple in construction, inexpensive to manufacture, well adapted for its purposes, universal in adaptability and relatively inexpensive to manufacture.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a group view showing the elements of the leg cushion of the present invention in section;

Figure 2 is a perspective view showing the leg cushion of the present invention assembled on the bottom of a tubular leg;

Figure 3 is a longitudinal section taken substantially along the center line of the construction shown in Figure 2 showing the details of construction and the relationship of the various elements of the leg cushion;

Figure 4 is a top plan section taken substantially along section line 4—4 of Figure 3 showing the telescoping relationship of the various elements of the leg cushion;

Figure 5 is a top plan section taken substantially along section line 5—5 of Figure 3 showing the details of the guide and limiting pin;

Figure 6 is a longitudinal section showing a modified form of the leg cushion of the present invention; and

Figure 7 is a top plan section taken substantially along section line 7—7 of Figure 6 showing the details of construction of the inter-engaging arcuate projections for retaining the leg cushion of the present invention in assembled relation.

Referring now specifically to the drawings, it will be seen that the numeral 10 generally designates the leg cushion of the present invention for insertion in the bottom end of a tubular leg 12. The leg cushion 10 includes a tubular cylindrical member 14 having a closed upper end 16 and an open lower end 18. The exterior surface of the tubular cylindrical member 14 is provided with a plurality of outwardly extending projections 20

2

for engaging the inner surface of the tubular leg 12. The lower open end 18 of the tubular member 14 is provided with an upwardly flared rib 22 for purpose described hereinafter. Adjacent the central portion of the cylindrical tubular member 14 is provided diametrically opposed slots 24 which have closed ends. A hollow or tubular piston 26 having a closed upper end 28 and an open lower end 30 is slidably positioned in the cylindrical tubular member 14 and the closed end 28 is provided with a flexible washer 32 secured thereto by a suitable rivet 34. Adjacent the closed end 28 of the piston 26 is provided a pair of diametrically opposed openings 36 for alignment with the slots 24 wherein a transverse pin 38 may be positioned therein for vertical sliding movement in the slots 24 thereby limiting and guiding the sliding movement of the piston 26 in the cylindrical member 14. A compression coil spring 40 is disposed between the felt washer 32 and the closed end 16 of the tubular member 14 thereby continuously urging the piston 26 outwardly of the cylindrical member 14. The lower open end of the piston 26 is provided with an external rib 42 for engagement of a cap 44 which is constructed of suitable material for engaging a supporting surface such as a floor or the like that the leg 12 may be positioned on. The flared end 12 of the cylindrical member 14 engages the lower end of the tubular leg 12 thereby preventing the tubular member 14 from entering completely into the tubular leg 12. As specifically shown in Figures 1 and 3, an air vent opening 46 is provided in the closed end 16 of the cylindrical tubular member 14 thereby providing an air cushion between the washer 32 and the closed end 16 of the tubular member 14.

In operation, the tubular member 14 is inserted in the lower end of the tubular leg 12 and held therein by the projections 20. The rib 22 at the opened bottom 18 of the tubular member 14 limits the inward movement of the tubular member 14 into the leg 12. The spring 40 is then inserted in the tubular member 14 and the piston 26 is inserted and the pin 38 positioned in the apertures 36 and slots 24 thereby limiting and guiding the movement of the piston 26 and the tubular member 14. In practical operation, the tubular cylinder 14 and the piston 26 may be assembled with the transverse pin 38 prior to insertion of the cylinder 14 into the tubular leg 12. Obviously, the tubular leg 12 may be the legs of a chair, bed or the like.

As specifically illustrated in Figures 6 and 7, the cylindrical member 48 is positioned in the tubular leg 12 and held therein by suitable friction or other fastening means and the coil spring 50 is positioned therein on top of a slidable piston 52. Adjacent the lower end of the cylinder 48 is provided a pair of oppositely disposed arcuate projections 54 forming an interrupted rib about the interior surface of the cylinder 48. A pair of externally projecting ribs 56 is provided on the exterior surface of the piston 52 thereby forming a broken external rib on the piston 52. The piston 52 may be assembled with the cylinder 48 by passing the projections 56 through the interrupted portion on the projections 54 and then giving the piston 52 a slight turn thereby engaging the projections 56 over the projections 54 wherein the device will be retained in assembled relation.

The device of the present invention may be so constructed to be attached to any type leg whether it be tubular or merely an attachment on the bottom of the leg. Also, the device may be constructed so that it is adaptable for attachment by the manufacturer. In this instance, it may be feasible to omit the cylindrical portions 14 and 48. Obviously, the cap 44 may be of any well known resilient rubber, plastic or a suitable metal conventional in furniture leg caps. In certain instances, it may be desirable to make the piston members 26

and 52 of chrome or other such materials to match the piece of furniture to which it is attached such as a kitchen chair or table. Normally, the piston 26 extends outwardly of the bottom of the leg 12 in its normal position and when a person sits on the chair or the table is loaded, the spring 40 compresses an equivalent amount until the load is supported thereby providing a cushion for the leg 12 and especially providing a comfortable chair when employed in conjunction therewith.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claim.

What is claimed as new is as follows:

A leg cushion for insertion into the lower end of a hollow furniture leg comprising a cylindrical member having a closed upper end and an open lower end reversely bent outwardly and forming a peripheral shoulder thereby providing a stop for limiting the insertion of the cylindrical member into the hollow furniture leg, a tubular piston slidably mounted in said cylindrical member in concentric spaced relation, said piston having a closed inner end and an open outer end defined by a peripheral outwardly extending flange, a compression coil spring disposed between the closed end of the cylindrical member and the closed end of the tubular piston for urging the piston downwardly, a cap of resilient material

disposed on the outer end of the piston with the peripheral flange embedded therein, a pair of arcuate circumferential projections extending outwardly from the periphery of the piston intermediate the ends thereof, a pair of arcuate circumferential projections extending inwardly from the inner surface to the cylindrical member intermediate the ends thereof, each pair of projections totaling less than one half of the inner circumference of the cylindrical member and the outer circumference of the piston respectively whereby the projections may be misaligned for insertion of the piston into the cylindrical member after which the piston may be rotated a partial turn for positioning the projections on the piston inwardly of and in alignment with the projections on the cylindrical member thereby releasably locking the piston in said cylindrical member, said coil spring permitting inward sliding movement of the piston into the cylindrical member.

References Cited in the file of this patent

UNITED STATES PATENTS

114,812	Hartman	May 16, 1871
808,866	Oedbauer	Jan. 2, 1906
1,022,858	Markus	Apr. 9, 1912
1,273,939	Sidel	July 30, 1918
1,400,974	Parker	Dec. 20, 1921
1,761,502	Sullivan	June 3, 1930
1,798,272	Phillips	Mar. 31, 1931
1,886,740	Richardson	Nov. 8, 1932
1,913,629	Fredrickson	June 13, 1933
2,145,037	Bennett	Jan. 24, 1939
2,176,551	Solem	Oct. 17, 1939