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3,134,566

FURNITURE LEG AND ATTACHING MEANS THEREFOR

Filed April 18, 1963

2 Sheets-Sheet 1

Fig 1.

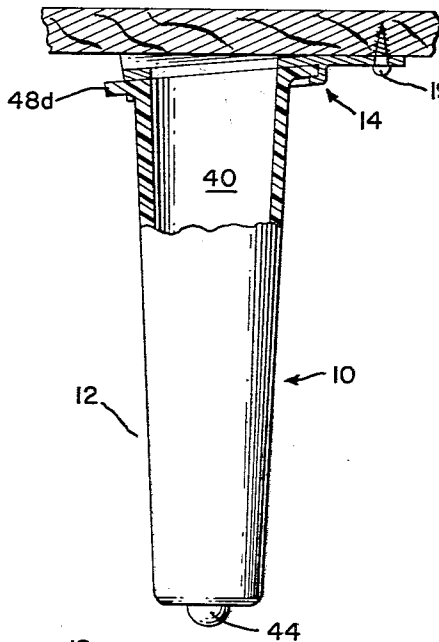
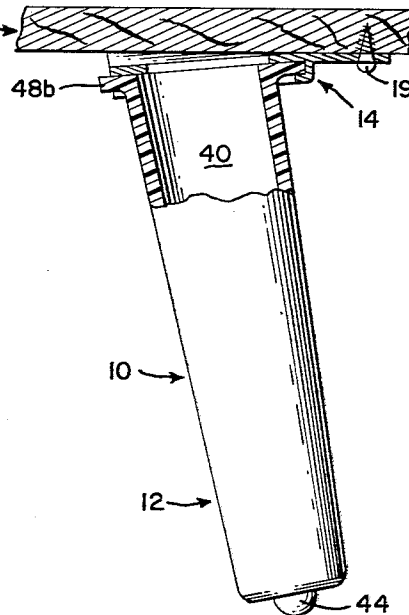
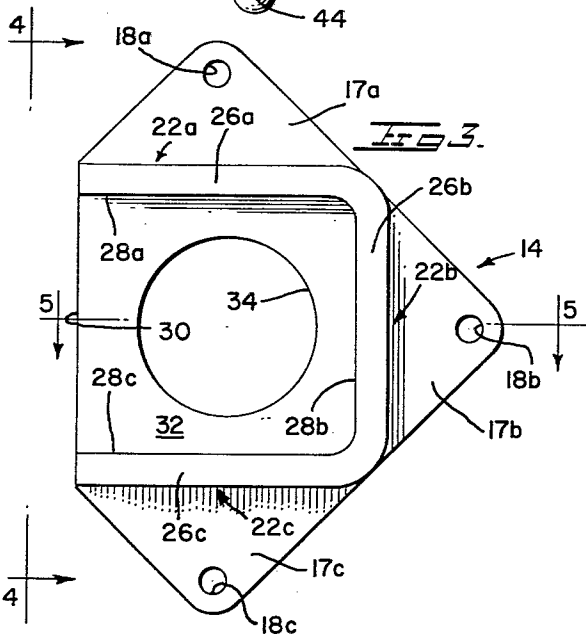
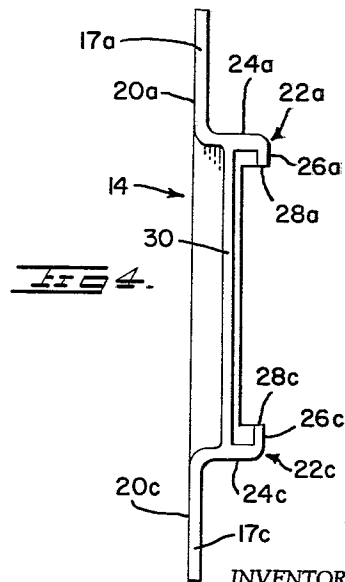


Fig 2.



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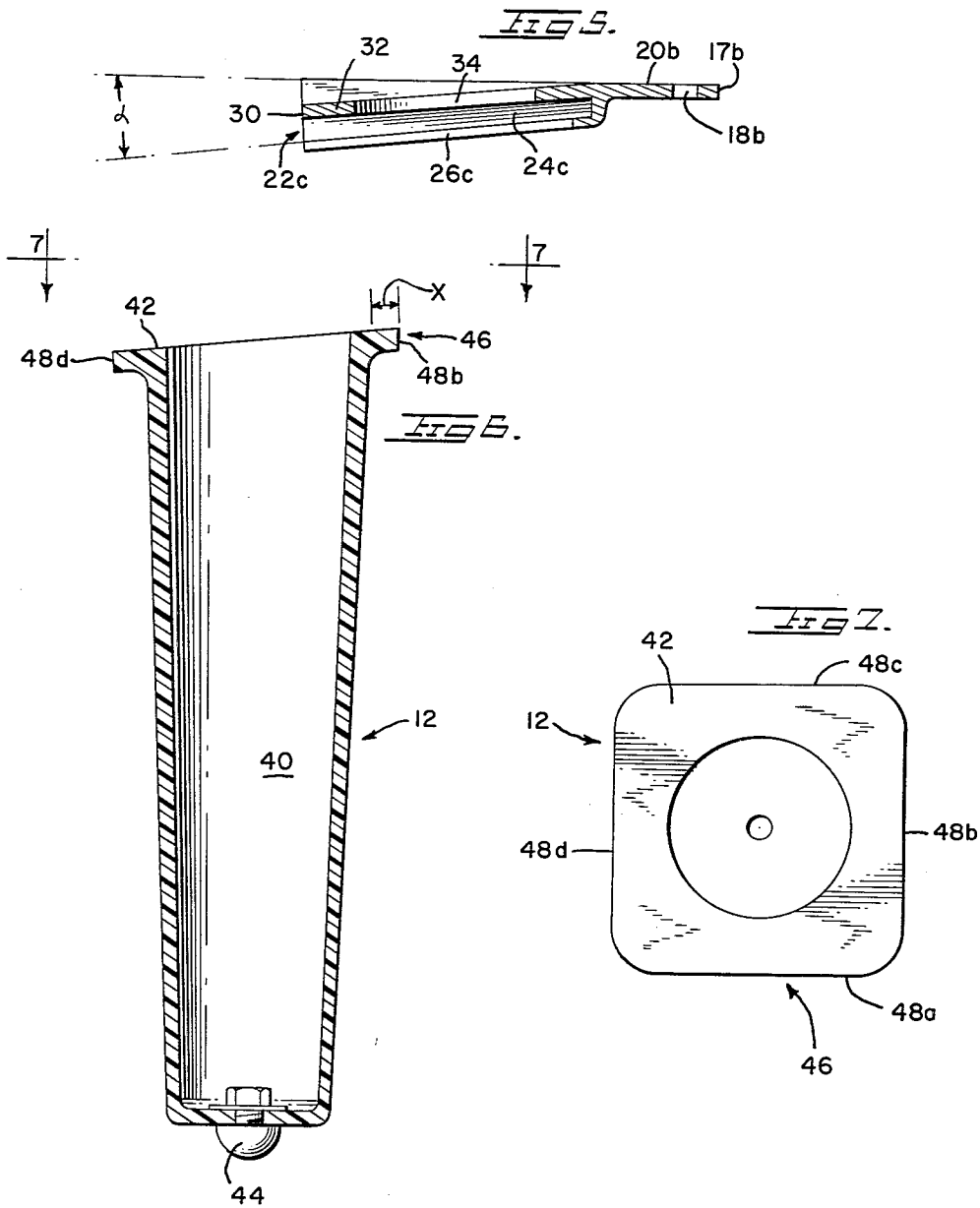
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2 Sheets-Sheet 2



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3,134,566 FURNITURE LEG AND ATTACHING MEANS THEREFOR

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This invention relates to improvements in legs for furniture and attaching means for furniture legs, and more particularly to furniture legs that may be simply attached to furniture in plural positions.

It is a principal object of the present invention to provide a furniture leg and attaching means therefor that are simple and rugged in construction and economical to manufacture.

A further object is to provide a furniture leg which may be connected to its attaching member in plural positions without the use of tools.

Another object of the present invention is to provide a furniture leg and attaching means assembly whereby the leg may be selectively positioned, for example, with the longitudinal axis of the leg, perpendicular to its surface of attachment or at an angle thereto.

A further object is to provide such an assembly consisting entirely of cast or molded members thereby substantially reducing the most of production of furniture legs and attaching means therefor and to provide an assembly that is particularly adapted to mass production.

These and other objects and advantages of the present invention are provided by a assembly of a furniture leg and leg attaching means, said furniture leg including a shank portion and a top portion, the top portion including at least a pair of opposed, parallel, peripheral flange members, each of said flange members being positioned at a first predetermined slope relative to the longitudinal axis of the shank portion, said attaching means comprising a plate, said plate having at least one surface adapted to engage a piece of furniture to be supported, a pair of parallel, spaced, track forming members, said track forming members positioned on a surface of the plate opposite to the plate surface adapted to engage a piece of furniture and spaced to snugly receive the pair of leg carried flange members, and said track forming members being positioned at a second predetermined slope relative to the furniture engaging surface of the plate member.

The invention will be more particularly described with reference to the accompanying drawings wherein:

FIG. 1 is a fragmentary vertical sectional view of a preferred embodiment of the assembly of a furniture leg and leg attaching means in one position of assembly;

FIG. 2 is a view similar to that illustrated in FIG. 1 with the leg and attaching means in another assembled relationship;

FIG. 3 is a plan view of a preferred embodiment of a leg attaching means of the invention;

FIG. 4 is a view substantially on line 4—4 of FIG. 3;

FIG. 5 is a section substantially on line 5—5 of FIG. 3;

FIG. 6 is a partial sectional view of a preferred embodiment of a leg of the assembly of the invention; and

FIG. 7 is a view substantially on line 7—7 of FIG. 6.

Referring to FIGS. 1 and 2 of the drawings, 10 generally designates an assembly of a furniture leg and leg attaching means. The assembly 10 includes a furniture leg, generally designated 12, and a leg attaching plate member, generally designated 14. In FIGS. 1 and 2, the plate member 14 is shown attached to a portion of the undersurface of a table or stand having a top generally designated 16.

The attaching plate generally designated 14 is more clearly shown in FIGS. 3, 4 and 5 of the drawings. Referring to these drawings, the illustrated attaching plate

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14 is adapted for use in attaching a leg to a table, stand or the like and includes three flanges 17a, 17b and 17c. In an outward portion of each of the flanges 17a, 17b and 17c is a bore or opening 18a, 18b and 18c, respectively, which bores or openings are adapted to receive wood screws, bolts, studs or the like 19 which engage the undersurface of the table or the like to be supported. As more clearly shown in FIGS. 4 and 5, the surfaces 20a, 20b or 20c of each of the flanges 17a, 17b and 17c lie in the same rectilinear plane whereby the illustrated attaching plate is constructed for attachment to a plane undersurface of a table or the like.

The attaching plate also includes at least a pair of parallel, spaced, track forming members generally designated 22a and 22c. In the illustrated form of the invention, the tracks formed by the pair of track forming members 22a and 22c are joined adjacent flange 17b with a continuation track or channel 22b. Further, the tracks formed by the track forming members 22a and 22c are open along edge 30 of the plate. Each of the track forming members includes a generally upstanding portion 24a, 24b and 24c and an inwardly directed portion 26a, 26b and 26c, with each of the inwardly directed portions 26a, 26b and 26c having an inner edge 28a, 28b or 28c. The base of the channels or tracks formed by the track forming members 22a, 22b and 22c comprises a common plate element generally designated 32 and which may be provided with an opening as illustrated at 34. The opening has no particular function other than to reduce the weight of the attaching plate and the amount of metal required in casting or forming the attaching member.

As more clearly illustrated in FIG. 5 of the drawings, the longitudinal axis of the channels or tracks formed by the track forming members 22a and 22c lie at an angle α to the surfaces 20a, 20b and 20c of the flange elements 17a, 17b and 17c. In the illustrated form of the invention, the angular relationship between the plane of the undersurface of the flange members and the longitudinal axis of the channels is $5\frac{1}{2}^\circ$.

Referring particularly to FIGS. 6 and 7 of the drawings, the furniture leg 12 comprises, in its preferred embodiment, a generally hollow shank portion 40 and a top portion 42. The shank portion 40 and the top portion 42 are preferably made of a plastic material as by casting or molding, and while this form of construction is inexpensive in manufacture, through the proper selection of the plastic composition, an extremely rugged leg is provided. Further, by proper molding techniques, the outer surface, as molded, is polished and attractive in appearance, requiring no further machining, polishing, coating, coloring or the like. The illustrated leg is generally conical in vertical section and the lower end is provided with a suitable foot element 44.

The top portion of the leg 12 is provided with an integral flange generally designated 46. The flange 46 has side edges 48a, 48b, 48c and 48d. The thickness of the flange 46 in vertical section is substantially equal to the height of the channels or tracks formed by the channel or track forming members 22a, 22b and 22c. Further, the projection of the flange 46 as indicated at X is such that when the flanges are received within the track forming members, the outer surface of the shank portion 40 of the leg is inset slightly from the inner edges 28a, 28b and 28c of the leg attaching plate. Further, as more clearly illustrated in FIG. 6, the plane of the top surface of the flange 46 is at a slope to the vertical axis of the shank portion of the leg. Preferably, the angular relationship between the plane of the top surface of the flange 46 and the longitudinal axis of the shank 40 is the same as the angular relationship between the tracks 22a and 22c and the plane of

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the flanges 17a, 17b and 17c, hereinbefore described. In the illustrated form of the invention, this angular relationship comprises $5\frac{1}{2}^\circ$.

Referring again to FIG. 1 of the drawings, to assemble the leg 12 to the attaching plate 14, the flanges of the leg are merely slipped into the tracks or channels formed by the track forming members 22a, 22b and 22c. The position of the longitudinal axis of the leg relative to the top surface of the table or the like 16 is determined by the orientation of the edges of the flange 46 relative to the track forming elements 22a, 22b and 22c. For example, in FIG. 1, the orientation is such that flange edges 48a, 48b and 48c are in contact with track forming elements 22a, 22b and 22c, respectively, whereby the longitudinal axis of the leg is positioned in a vertical relationship to the top of the table as the $5\frac{1}{2}^\circ$ slope of tracks 22a and 22b and the $5\frac{1}{2}^\circ$ slope of the flange cancel one another when assembled as described above.

By reversing the direction of insertion of the leg in the track forming members 180° so that edge 48c is in contact with track forming member 22b, edge 48c is in contact with track forming member 22a, and edge 48a of flange 46 is in contact with track forming member 22c; the longitudinal axis of the leg 12 has an 11° slope relative to the top of the table 16, and the angle formed between the top of the table and the longitudinal axis of the leg is 79° .

Further, the leg may be assembled such that either edge 48d or 48b is in contact with track forming member 22a or 22c whereby the longitudinal axis of the leg 12 will have a slope relative to the top surface of the table of $5\frac{1}{2}^\circ$.

If it is desired to make an assembly of a furniture leg and leg attaching means, wherein in at least one position, the leg would be vertically positioned, it is necessary that the slope of the channels in the leg attaching plate and the slope of the flange member on the leg be identical.

Further, it will be appreciated that if the channel forming members 22a, 22b and 22c are not substantially the same length and if the flange 46 of the leg 12 is not generally square in top plan, it is only possible to have an assembly permitting two different assembled positions.

From the foregoing description of the present invention, it will be seen that the aims and objects hereinabove set forth are fully accomplished. It will be ap-

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preciated by those skilled in the art that various changes may be made in the form of the invention without departing from the scope of the appended claims. For example, an additional attaching flange may be formed on the plate member 14 opposite the flange portion 17b; the attaching plate 14a may be formed with upturned flanges for attachment in a recessed corner; the leg 12 need not be of the hollow construction; and the flange member 46 need not be cast or molded integrally with the shank portion of the leg.

I claim:

1. An assembly of a furniture leg and leg attaching means, said leg including a shank portion and a top portion, the top portion including at least a pair of opposed, parallel, peripheral flange members, each of said flange members being positioned at a first predetermined slope to the longitudinal axis of the shank portion, said attaching means comprising a plate having at least one surface adapted to engage a piece of furniture to be supported, a pair of parallel, spaced, track forming members, said track forming members positioned on a surface of the plate opposite to the plate surface adapted to engage a piece of furniture and spaced to snugly receive the pair of leg carried flange members, and said track forming members being positioned at a second predetermined slope to the furniture engaging surface of the plate member.

2. The invention defined in claim 1 wherein said first and second predetermined slopes are equal.

3. An assembly of a furniture leg and leg attaching means, said leg including a shank portion and a top portion, the top portion including a generally laterally extending, peripheral flange, the plane of said flange lying at a first predetermined angle less than 90° to the longitudinal axis of the shank portion of the leg, said attaching means comprising a plate having at least one surface adapted to engage a piece of furniture to be supported, a pair of parallel, spaced, track forming members, the track forming members positioned on a surface of the plate opposite to the plate surface adapted to engage a piece of furniture and spaced to snugly receive the laterally extending leg flanges, and said track forming members being positioned at a second predetermined angle to the furniture engaging surface of the plate member.

4. The invention defined in claim 3 wherein said first and second predetermined angles are equal.

No references cited.