Aug. 22, 1961 M. KRAMCSAK, JR 2,996,753

CASTER GLIDE

Filed Nov. 13, 1959

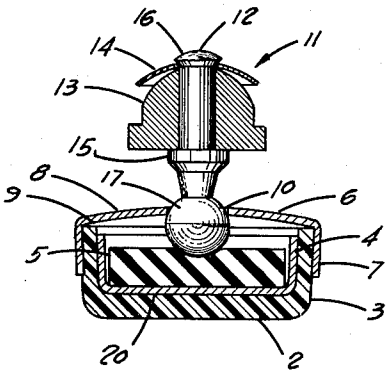


FIG. 1.

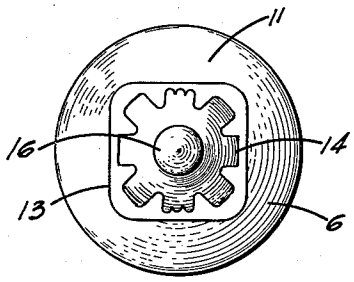


FIG. 2.

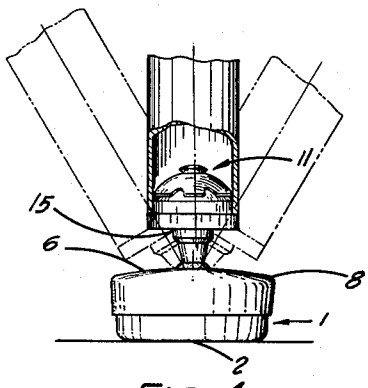


FIG. 4.

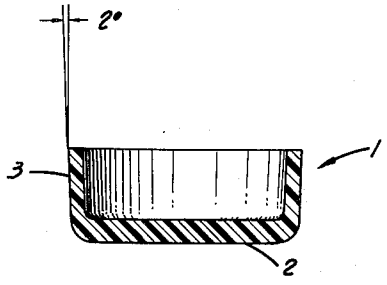


FIG. 3.

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CASTER GLIDE

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2 Claims. (Cl. 16—42)

This invention relates to caster glides.

The early prior art glides were characterized by the use of metallic guide surfaces. However, it became evident that the metallic glide surface resulted in marring of floor surfaces on which it was used. Manufacturers in this field subsequently attempted to make use of improved plastic materials such as nylon which exhibit desirable wear characteristics and which at the same time do not normally mar the floor surfaces over which they move.

However, the use of nylon over the years has not been satisfactory. The most perplexing problem has always been the tendency of nylon to cold flow during use. This not only affected the esthetic appearance of the glide but also resulted in sufficient damage to render its further use impractical. Because of the requirement of an unusually low cost, no satisfactory solution to this problem has been provided.

Accordingly, it is applicant's primary object to provide an economical caster glide with a nylon base which is protected against cold flow of the nylon.

This object and the various features of the invention will be apparent from the following description taken in conjunction with the accompanying drawings in which:

FIG. 1 is an elevation view partially in section showing the improved caster glide;

FIG. 2 is a plan view of the glide;

FIG. 3 is an elevation view showing the nylon base in section; and

FIG. 4 shows the glide secured to a furniture leg.

The improved glide comprises a generally cup-shaped nylon element 1 having a flat lower guide surface 2. The outer wall periphery 3 of the element 1 tapers downwardly preferably at an angle in the order of 2° from vertical. A cup-shaped steel element 4 is received snugly within the nylon element 1. A disk 5 of rubber-like material is received in the metallic element 4.

An inverted generally cup-shaped metallic base cover 6 is received over the nylon base 1. The annular wall 7 of the cover 6 is crimped radially inwardly to tightly trap the nylon base 1. The upper base portion 8 of the cover 6 is held against the upper end 9 of the nylon base 1. The wall 7 and base 8 thereby prevent relative up and down and/or rotational movement of the nylon base 1.

The base 8 includes a central aperture 10 which receives a stem assembly 11 therethrough. The assembly 11 comprises an elongated stem 12, a leg supporting washer 13 and an umbrella-shaped lock washer 14. The washers 13 and 14 are tightly retained between a shoulder 15 and an upper riveted head portion 16 of the stem.

The lower end of the stem is spherically headed at 17 for smooth pivotal movement of the assembly 11 within the aperture 10. The base 8 maintains the lower head portion 17 under compression against the disk 5.

The wall portions of the steel element 4 and the steel cover 6 overlap each other along most of the wall portion 3 of the nylon base 1. In addition, the base 20 of the steel element 4 rigidly supports the lower surface 2 of the nylon element 1. As a result of this entrapment of the nylon base 1 in steel, no observable cold flow of the nylon is effected even upon rough use.

While there has been described what is believed to be the preferred embodiment of the invention, it will be understood that various changes and modifications may be made therein; and it is contemplated to cover in the appended claims all such changes and modifications as fall within the true spirit and scope of the invention.

What is claimed is:

1. A caster glide comprising a generally cup-shaped nylon element having a downwardly tapering outer wall periphery, a generally cup-shaped metallic element snugly received within the nylon element with the adjacent wall and base peripheries in tight fitting engagement, a disk of rubber-like material received within the metallic element, an inverted cup-shaped metallic element having a side wall extending downwardly over the outer wall periphery of the nylon element and formed radially inwardly to trap the nylon element firmly between the metallic elements and having a central aperture, and a post structure extending through the aperture and having a headed lower end with a convex lower surface trapped under compression between the inverted element and the disk for smooth pivotal movement on the disk.

2. A caster glide comprising a generally cup-shaped nylon element having an outer wall periphery tapering downwardly at angle in the order of 2°, a generally cup-shaped metallic element snugly received within the nylon element with the adjacent wall and base peripheries in tight fitting engagement, a disk of rubber-like material received within the metallic element, an inverted cup-shaped metallic element having a side wall extending downwardly over the outer wall periphery of the nylon element and formed radially inwardly to trap the nylon element firmly between the metallic elements and having a central aperture, and a post structure extending through the aperture and having a headed lower end with a convex lower surface trapped under compression between the inverted element and the disk for smooth pivotal movement on the disk.

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