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ANTIFRICTION BEARING FOR SLIDING
DRAWERS, PANELS, AND THE LIKE
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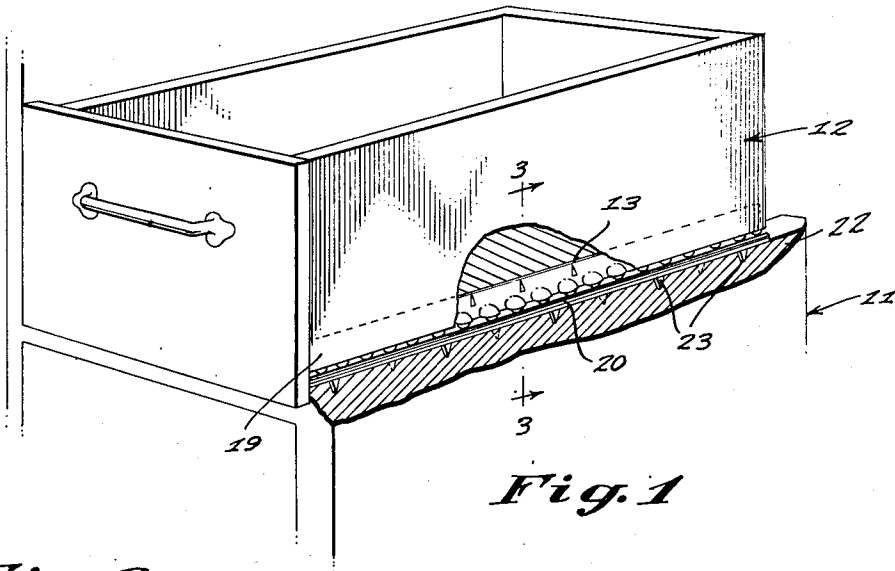


Fig. 1

Fig. 3

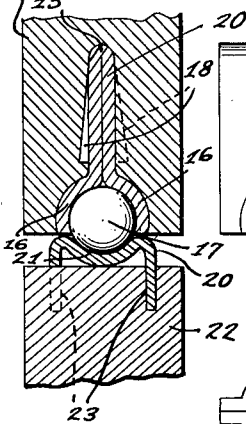


Fig. 2

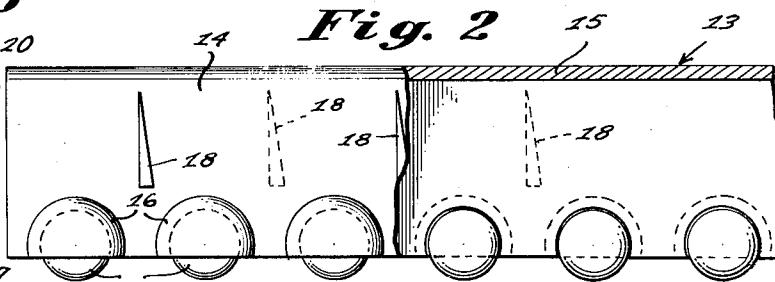


Fig. 4

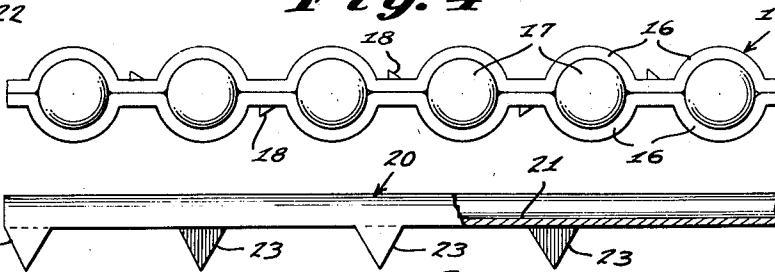


Fig. 5

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ANTIFRICTION BEARING FOR SLIDING
DRAWERS, PANELS, AND THE LIKE

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2 Claims. (Cl. 308—6)

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This invention relates to bearings for sliding members, such as sliding panels, drawers, or other objects which are to be drawn across a stationary surface.

A main object of the invention is to provide a novel and improved bearing device and guide track therefor for slidably supporting objects such as panels, drawers, or the like, for movement across a stationary surface, the elements of the structure being very easy to install, providing great smoothness in operation and involving very simple components.

A further object of the invention is to provide an improved anti-friction bearing device for sliding drawers, panels and the like, which may be installed rapidly and without the use of glue, nails, or other special fastening means, the bearing device being very sturdy in construction and inexpensive to manufacture.

Further objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawings, wherein:

Figure 1 is a perspective view of a drawer cabinet, partly broken away, and illustrating the employment of a sliding drawer bearing device constructed in accordance with the present invention.

Figure 2 is an enlarged fragmentary elevational detail view, partly in longitudinal cross section, of the upper member of the bearing assembly of Figure 1.

Figure 3 is an enlarged transverse cross-sectional detail view taken on line 3—3 of Figure 1.

Figure 4 is a bottom view of the bearing member illustrated in Figure 2.

Figure 5 is an enlarged fragmentary elevational view, partly in longitudinal cross section, of the bearing track member employed in Figure 1.

Referring to the drawings, 11 designates a drawer cabinet in which is slidably mounted a drawer 12. At the bottom edges of its side walls the drawer 12 is slidably supported for outward movement with respect to cabinet 11 by means of upper bearing members 13 secured to said drawer bottom edges which ride on track members 20 secured to the side portions of the cabinet.

Upper bearing members 13 comprise elongated strips 14 folded longitudinally at 15, the lower marginal portions of the strips being cupped outwardly at uniformly spaced intervals along the lengths of the strips to define opposing rounded seats 16, 16 in which are rotatively posi-

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tioned bearing balls 17, said balls projecting below the plane of the bottom edges of the strips. The upper side portions of the strips 14 are formed with staggered downwardly flaring spurs 18. Designated at 19 is a side wall of the drawer 12. The bottom edges of the drawer side walls are formed with longitudinal grooves and the strips 14 are driven upwardly into said grooves until the lower edges of the strips are substantially flush with the lower edges of the drawer side walls. The spurs 18 become embedded in the wall surfaces of the grooves in the drawer side walls and firmly lock the strips in position, as shown in Figure 3.

Designated at 20 is a track member which comprises an elongated strip bent to define a concave top channel 21 extending longitudinally of the strip and formed with staggered depending side spurs 23 spaced longitudinally of said strip. The track members 20 are fastened to the wall portions of the cabinet 11 immediately subadjacent the bottom edges of the drawer side walls 19 and the bearing balls 17 are received in the concave top channels 21 of the track members 20. Said track members are fastened to the cabinet by merely driving them downwardly, whereby the spurs 23 become embedded in the cabinet supporting edge 22, as shown in Figure 3. Since the weight of the drawer bears on the track members, said track members cannot readily become loosened.

The members 13 and 20 may be fabricated from any suitable material such as metal or plastic, or a combination of materials may be employed wherein the ball-carrying members 13 are fabricated from one material and the track members 20 are fabricated from another material.

While a specific embodiment of a bearing structure for sliding drawers, panels, or the like, has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore it is intended that no limitations be placed on the invention except as defined by the scope of the appended claims.

What is claimed is:

1. An anti-friction device for a sliding drawer or the like, comprising an upper unitary elongated bearing member to be embedded within the bottom longitudinal edge of the drawer, said upper member being formed of sheet material folded upon itself near its transverse center to form opposed flat contacting anchoring webs, the lower longitudinal edges of the webs being

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substantially flush with the bottom of the drawer, the opposed webs being formed at longitudinally spaced intervals to provide opposed companion spherically curved ball receiving seats adjacent to the lower longitudinal edges of the webs and projecting laterally outwardly of the webs, a lower unitary elongated track to be fixedly mounted beneath the upper member and formed to provide a transversely curved longitudinal groove extending for the entire length of the track, and balls disposed between the upper member and track and engaging within the ball receiving seats and groove.

2. An anti-friction device for a sliding drawer or the like, comprising an upper unitary elongated bearing member to be embedded within the bottom longitudinal edge of the drawer, said upper member being formed of sheet material folded upon itself near its transverse center to form opposed flat contacting anchoring webs, the lower longitudinal edges of the webs being substantially flush with the bottom of the drawer, the opposed webs being formed at longitudinally spaced intervals to provide opposed companion spherically curved ball receiving seats adjacent

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to the lower longitudinal edges of the webs and projecting laterally outwardly of the webs, a lower unitary elongated track to be fixedly mounted beneath the upper member, said track being formed of sheet material bent to form a central longitudinal generally U-shaped ball receiving trough and integral longitudinally spaced side depending spurs to be embedded within the support beneath the drawer, and balls disposed between the upper member and track and arranged within the ball receiving seats and trough.

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