

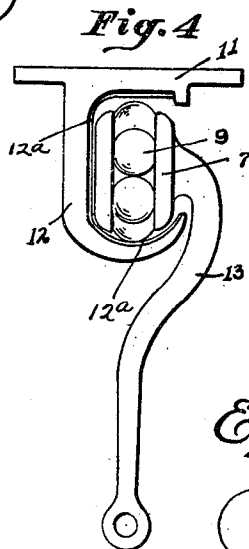
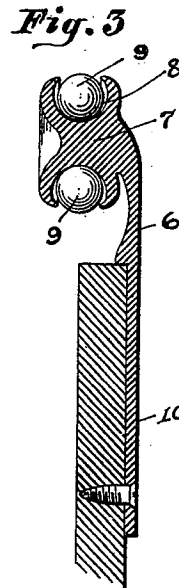
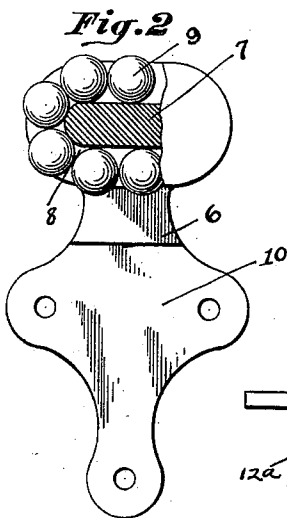
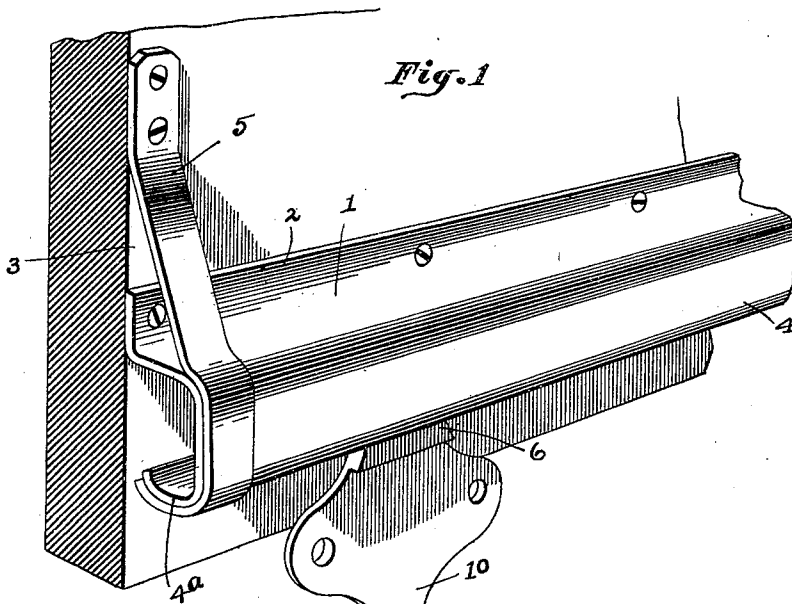
No. 642,760.

Patented Feb. 6, 1900.

E. L. SCHANCK.
DOOR HANGER.

(Application filed Mar. 25, 1899.)

(No Model.)



WITNESSES:

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DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 642,760, dated February 6, 1900.

Application filed March 25, 1899. Serial No. 710,428. (No model.)

To all whom it may concern:

Be it known that I, EPHRAIM L. SCHANCK, a citizen of the United States, residing at Delaware, in the county of Delaware and State of Ohio, have invented a certain new and useful Improvement in Supports for Sliding Doors and other Bodies, of which the following is a specification.

My invention relates to an improvement in sliding-door hangers and guides; and the objects of my invention are to provide an improved sliding support for doors and other suspended bodies of such construction and arrangement of parts as to contribute ease of operation and to protect the bearing parts from the weather; to so construct the same as to insure the retention of the supporting-hangers within the guides, and to produce my improvements in a simple and inexpensive form. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of a door-hanger supported in my improved suspending-guide. Fig. 2 is a partial face view and partial section of one of the hangers. Fig. 3 is a central vertical section of said hanger, showing in connection therewith a portion of a door or other suspended body; and Fig. 4 is an end view of the hanger, showing a modified form of supporting-bracket therefor.

Similar numerals refer to similar parts throughout the several views.

In carrying out my invention I employ a guide-bracket 1, which, as indicated in the drawings, is of a general channel form. This guide-bracket, which in cross-section has somewhat the form of a figure 5, is adapted to have its upper and vertical portion, which is indicated at 2, secured by screws or otherwise to the face of a side wall or other vertical surface—such, for instance, as that indicated at 3. The lower outwardly-projecting and thence inwardly-turned body portion 4 has its inturned terminating portion curved, as indicated at 4^a, to form a bearing groove or channel, in which the bearing-balls of the hanger hereinafter described are adapted to run. At desirable intervals the guide-body 1 is further supported or suspended in its position through the medium

of supporting hook-shaped strips 5, the upper end portions of which are secured to the wall 3 above the guide and the lower hook-shaped ends of which embrace the outer and under sides of the body 4.

6 represents one of my improved hangers, the desired number of which may be employed. As indicated in the drawings, each of these hangers is formed of one piece of metal, and the upper portion thereof is provided with a forwardly-projecting head 7, which is of a substantially elliptical form and which is provided with a continuous groove producing an elliptical raceway 8, in which are adapted to run bearing-balls 9, these bearing-balls being held in position by the curvature or inward projection of the lips of the raceway. The bearing-balls, however, are of such size as to provide bearing portions, which project between the lips of the raceway. The lower or depending portion 10 of the hanger is designed to be suitably secured to the upper portion of a door or other suspended body. The hangers formed as above described are adapted to have their head portions engage the curved bearing-surface 4^a of the guide-body 4, the depending or attaching portion of the hangers 10 extending downward between the wall 3 and the inner edge of said portion 4^a. From this construction it will be seen that those bearing-balls 9 which are on the lower side of the hanger-head will be retained in traveling contact with the upper surface of the portion 4^a of the guide. The hangers and the doors or other bodies with which they are connected being thus supported or suspended from the guide, it is obvious that any movement of said suspended body in the direction of the length of the guide may be readily accomplished, owing to the absence of undue friction between the contacting parts. The ease of movement of the bearing-balls over the surface of its supporting-track or guide is further enhanced by the fact that these balls, which are constantly in bearing contact with said track-surface, are running between two straight parallel surfaces, which results in an equal bearing contact of both the upper and lower sides of the balls.

It will be observed that in addition to providing a superior construction of hanger the form and manner of supporting the guide or supporting-bracket 1 is such as to protect the bearing portion of the hanger against rain, snow, or other elements.

In Fig. 4 of the drawings I have shown a slightly-different form of guide-supporting bracket, in which a horizontal head 11, adapted to be attached to a ceiling or other framework, is provided with a substantially C-shaped lower bearing portion 12, in which a substantially C-shaped guide or hanger-support 12^a is supported, the latter being adapted to form a bearing for a hanger 13, provided with the character of head hereinbefore described. It is obvious that this particular form of hanger and guide is particularly adapted for the support of traveling cranes or similar bodies. It is also evident that other forms of guides or supports may be

employed in conjunction with my improved form of hanger-head.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a support for sliding doors and other bodies, the combination with a horizontal guide-body having a substantially hook-shaped termination, of a hanger formed of a single piece of metal and adapted to be secured to a door or other similar body, said hanger having a head provided with a continuous substantially elliptical raceway and balls running in said raceway and adapted to bear in said guide, said balls being retained in said raceway by the partial closing of the lips thereof, substantially as specified.

EPHRAIM L. SCHANCK.

In presence of—

E. S. OWEN,
E. D. RUGG.