GUARDS FOR SLIDING DOORS

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This invention relates to guards for sliding doors and is directed particularly to resilient channel guards for the upper edges of glass sliding doors.

It is an object of this invention to provide a novel elongated resilient channel guard adapted to be mounted on the vertical edges of glass sliding doors.

It is another object of this invention to provide a channel guard of the character described preformed to provide inwardly-directed sides resiliently deformable to be pitted along the edges of a glass panel in secure, close-fitting, embracing relationship.

It is still another object to provide a channel guard of the above nature suitable for use in protecting all vertical edges of panel doors.

A still further object is to provide a resilient guard for the edges of sliding panel doors that can readily be installed and which maintains itself in place without the use of glue or other adhesive.

A further object is to provide a channel guard of the character described which is durable, inexpensive, easily mounted on existing sliding doors and highly effective in use.

Other objects and advantages of the present invention are inherent in the structure as claimed and disclose or will become apparent to those skilled in the art as the detailed description proceeds.

In the accompanying drawings:

Fig. 1 is a side elevational view of a sliding door arrangement with which the sealing strip of the present invention may be employed;

Fig. 2 is a horizontal sectional view taken along the line 2—2 of Fig. 1, and shows the guard channel strip mounted on the vertical edges of the sliding doors;

Fig. 3 is a vertical sectional view on the line 3—3 of Fig. 1 and shows a preferred arrangement for slidably mounting the doors;

Fig. 4 is an oblique view of the channel guard embodying the invention; and

Fig. 5 is a modification of the channel guard shown in Fig. 4.

Referring now to the drawings in greater detail, and in particular to Fig. 4 thereof, the channel guard in accordance with the present invention is indicated generally by the reference numeral 10 and is in the form of a longitudinal integral strip composed of resilient flexible material such as grey rubber. The channel guard 10 is generally of U-shape in cross-section, and is moulded so that the side portions 12, 14 are normally inclined toward each other by virtue of the back portion 16 being curved. When the side portions 12 and 14 are spread for installation along the vertical edges of the sliding door panels, the channel guard assumes a substantially rectangular cross-sectional shape, as illustrated in Fig. 2, and said side portions resiliently embrace the side portions along the edges of which they are affixed so as to be securely held thereon without additional holding means. The inner sides of the channel guard 10 are preferably ribbed, as indicated by numeral 18.

The modification of the invention illustrated in Fig. 5, is in all respects similar to that shown in Fig. 4 described above, except that it has an additional longitudinal angular blade portion 20 extending from one of the side portions. The purpose of said blade portion will be described hereinbelow.

Referring now to Figs. 1, 2 and 3, the reference numeral 22 indicates generally a sliding door arrangement comprising a frame 24 having a pair of vertical frame members 26, 28, connected at their lower ends to a horizontal frame member 30 extending therebetween. The upper ends of vertical frame members 26, 28, are joined to an upper horizontal frame member 32 in any conventional manner. The lower frame member 30 is provided with a pair of longitudinally-extending spaced parallel grooves 34, 36 extending downwardly from the upper surface 38 thereof. In each of the grooves 34, 36, there preferably is fitted a roller bearing 40 comprising spaced roller bearings 42 adapted to support the lower horizontal edges of the sliding door panels 44, 46. The door panels 44, 46, though preferably of glass, could also be of other suitable construction. For slidably supporting the upper horizontal edges of the door panels 44, 46, the upper horizontal frame member 32 is longitudinally recessed to receive a prefabricated upper channel guide 48 having spaced slots 50, 52 adapted to hold said panels in proper spaced relationship for sliding with respect to each other.

As best seen in Fig. 2, the channel guard 10 comprising the invention may be fitted to both the inner and outer vertical edges of the sliding door panels 44, 46. Fitted along the outer edges, they protect the doors from damage when pushed against the vertical frame members 26, 28. If desired for appearances, the vertical frame members 26, 28 could be vertically grooved to receive the channel guard members 10 when the doors are in the closed position.

The channel guard 10 when fitted along the inner edges, protects the edges against possible damage when accidentally struck by solid objects being placed within a case enclosed by the sliding doors for example. As can be seen in Fig. 2, the modification illustrated in Fig. 5 and designated by the number 48 has the tip of its longitudinal blade portion bearing against the inner surface of the opposing sliding panel 44 and thereby serves as a seal against dust, dirt, moisture, etc., passing through the panels when closed.

It is to be understood that the specific embodiments of the invention shown in the drawing and described above are merely illustrative of two of the many forms which the invention may take in practice without departing from the scope thereof as delineated in the appended claims and hence the claims are to be interpreted as broadly as possible in view of the prior art and are not to be unduly limited by said disclosures.

Having thus described the invention in some detail, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A guard device for the vertical edge of a sliding door panel comprising a one piece longitudinal member of resilient flexible material, said member comprising in transverse section, when not mounted on the panel, a curved back portion from which there extends side flanges disposed radially inwardly of the web portion, said flange portion being adapted to be spread apart to receive an edge portion of the panel therebetween, one of said flange portions being formed with an integral blade portion for gripping engagement with another panel parallel to the first mentioned door panel, said blade portion extending outwardly from said flange portion approximately perpendicular thereto and disposed
in spaced relation to the front edge of said flange portion and to said web portion and parallel thereto.

2. The combination of claim 1, said flange portions and web portion being formed at their inner sides with inwardly extending, longitudinal, parallel spaced ribs.

3. The combination of claim 2, said blade being of V-shaped cross-section, with the apex of the V at the outer end of the blade.

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