

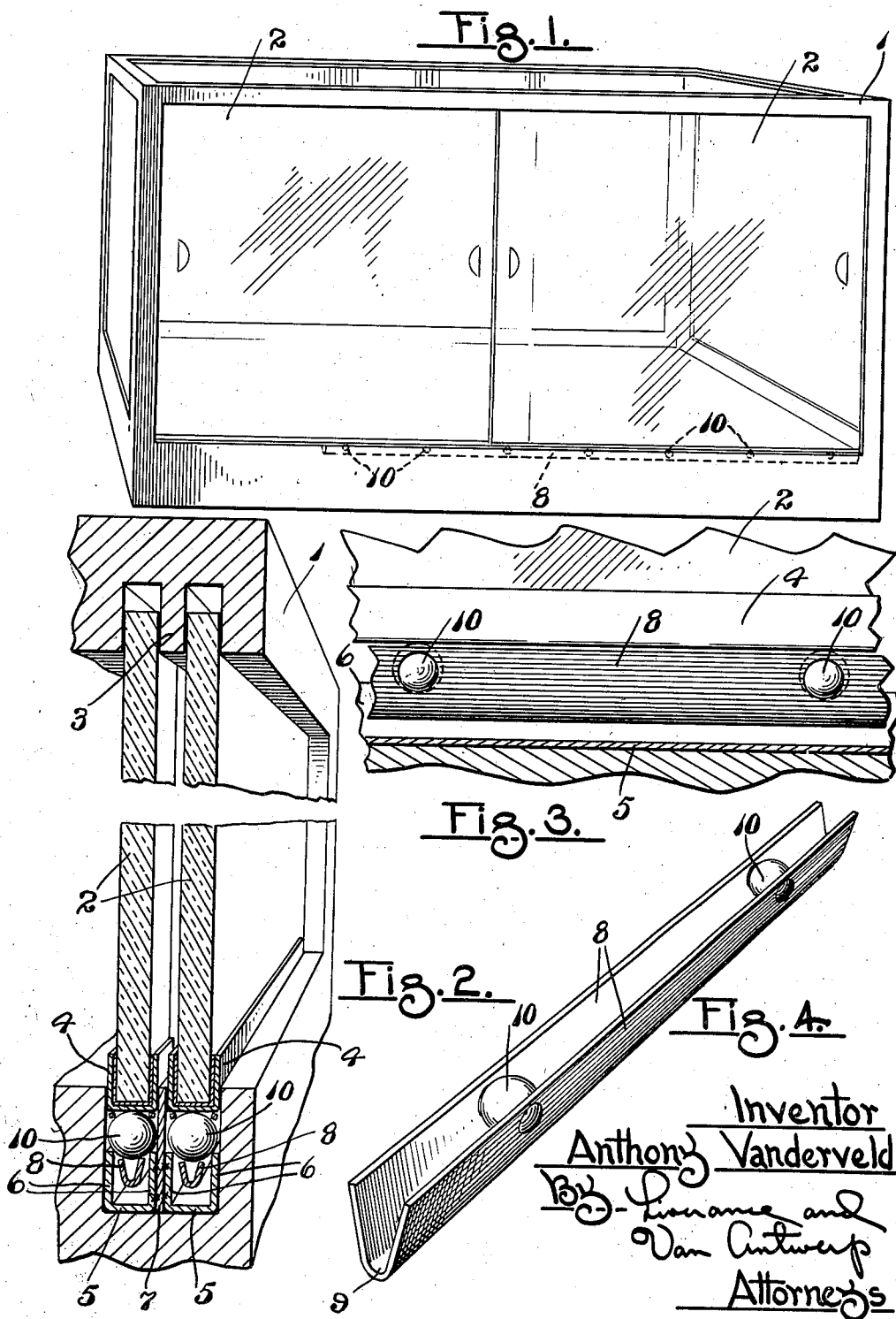
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SHOWCASE SLIDING DOOR MOUNTING

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SHOWCASE SLIDING DOOR MOUNTING

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1 Claim. (Cl. 308—6)

This invention relates to mountings for sliding doors, which mountings are particularly useful in connection with sliding doors of showcases. A showcase is largely of glass and the doors preferably are glass plates disposed at the back of the showcase and mounted to move in adjacent parallel vertical planes so that they may be slid one within the other for access to articles of merchandise supported and displayed in the case.

The present invention relates to a very practical, useful, simple and economical anti-friction mounting for the doors whereby they are very easily moved. The anti-friction mountings are carried upon adjacent parallel channels located lengthwise of and below the surface of the floor of the showcase and at the back. Such channels are liable to collect dust and dirt; and the mountings should be of such a character that they will not become fouled therewith and deteriorate as to their ease of operation and efficiency because of such dirt, dust and the like. With my invention the mountings for the doors, upon which the lower edges of the doors rest, are located wholly above the bottoms of the supporting channels in which the dirt or dust may collect so that there is no interference with the operation of the mountings because of dirt or dust collection.

An understanding of the invention and the preferred form of structure embodying the same may be had from the following description, taken in connection with the accompanying drawing, in which,

Fig. 1 is a rear elevation of a showcase showing the doors located for sliding movement, one within the other.

Fig. 2 is a fragmentary perspective and section showing the doors and the mounting therefor in vertical cross section.

Fig. 3 is a fragmentary longitudinal section showing the immediate anti-friction movable carriage in side elevation and the channel which carries the same in longitudinal section, and

Fig. 4 is a perspective view of the movable anti-friction carriage which is disposed between the lower edge of a door and a channel which carries the same.

Like reference characters refer to like parts in the different figures of the drawing.

The showcase 1 may be of any conventional structure and have the usual framework in which plates of glass are secured at the front, at both ends and at the top, the rear side being adapted to be closed by doors 2 which are glass plates disposed in parallel vertical planes between the

upper and lower rear frame members of the case. In the upper frame member of the case are parallel grooves to receive the upper edge portions of the glass door plates 2 with a tongue 3 between the grooves to space the plates from each other. Each door 2 at its lower edge enters a longitudinal channel 4 of sheet metal which is permanently secured to each of the plates 2 with the web of the channel at the lower edge of each of the plates 2 and the flanges extending upwardly one at each side thereof as best shown in Fig. 2.

In the floor or bottom frame member at the back of the case a relatively wide longitudinal groove is cut to receive therein an assembly of two channels with a separator plate between the channels. Said channels each have a lower web 5 and vertically extending flanges 6. The channels are located side by side with a vertical separating plate 7 between the adjacent flanges 6 of the same to which the separating plate is permanently secured as by spot welding. The groove in the rear bottom frame member of the showcase is considerably greater in depth than the height of the flanges 6. The separator plate 7 extends above said flanges substantially flush with the upper surface of the bottom rear frame member in which the groove is made.

A movable anti-friction carriage is carried on the upper edges of the flanges 6 of each of the channels described. Said carriage includes a metal body formed from a single length of thin sheet metal bent longitudinally between its edges to provide sides 8 connected by a curved portion 9. At spaced apart points in the sides 8 opposed openings are made and metal balls 10 are held between the sides with opposite side portions of the ball extending through the openings in said sides 8.

This carriage member is made so that the sides 8 are inclined to the vertical and converge downwardly toward each other to the connecting curved portion 9, thereby providing a substantially V-shaped carriage body.

One of these carriages is located on and above each of the channels located at opposite sides of the separator plate 7. The length thereof is substantially three-fourths of the length of the showcase. The balls 10 at their upper portions extend above the upper edges of the sides 8. The movable carriages are assembled by merely placing them upon the flanges 6 as shown in Fig. 2, after which the glass doors are put in place, the lower web portion of the metal border members 4 at the lower edges of the doors bearing upon

the upper parts of the balls 10, all as fully disclosed in Fig. 2.

- When the door is moved laterally it rides upon the balls which in turn ride upon the upper edges 5 6 of the channels described. The friction is greatly reduced or substantially eliminated so that a very free and easy movement is obtained. The lowermost points of the metal carriage body members, that is, the curved connecting sections 10 9, are located sufficiently above the bottom or web portions 5 of the channels to provide amply sufficient spaces for such dirt and dust as may collect, so that it in no way interferes with the ease of movement of the doors.
- 15 The construction, while of a simple character, is especially practical and useful for the purpose for which it is designed. The invention is defined in the appended claim and is to be considered comprehensive of all forms of structure coming 20 within its scope.

I claim:

A construction of the class described comprising a sliding door, a channel member located therebelow having upwardly extending sides, a V-shaped carriage member mounted within said 5 channel having a plurality of opposed openings therein spaced from the top and bottom edges thereof, balls carried between the sides of said carriage and extending through said openings and above said carriage, said balls resting on the 10 upper edges of said channel member, the upper edges of said V-shaped carriage member being spaced apart the same distance as the sides of the channel member, said sliding door having a channel member about the lower edge thereof 15 having a horizontal lower edge equal in width to the width of the first-named channel member and having a point contact with each of said balls at a point substantially in the center of said lower edge.

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