

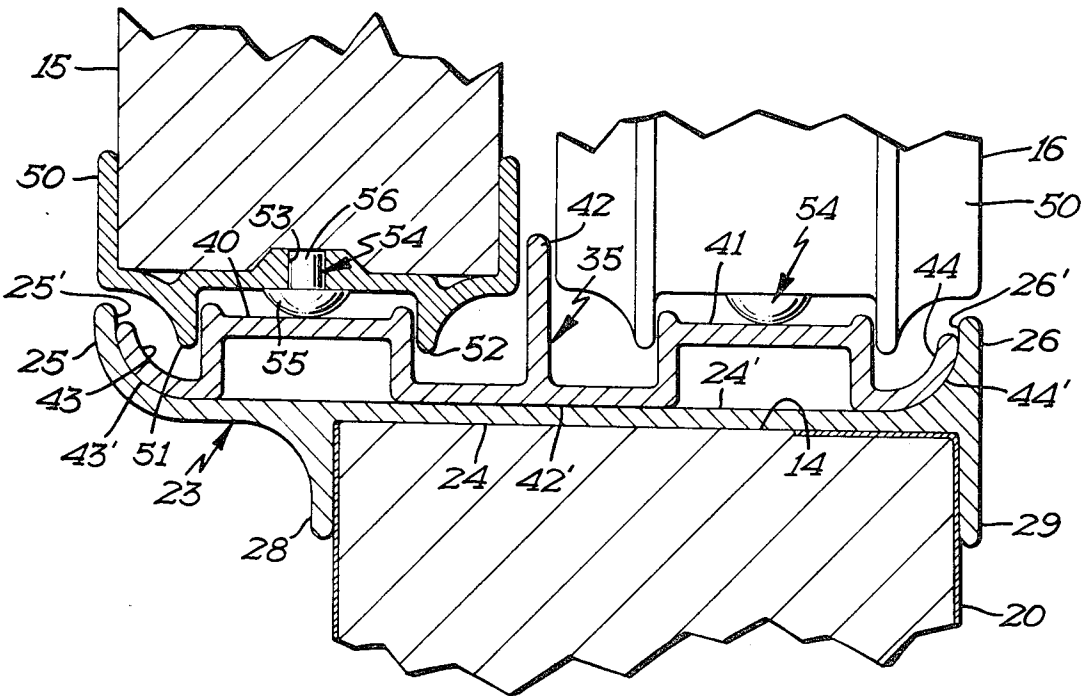
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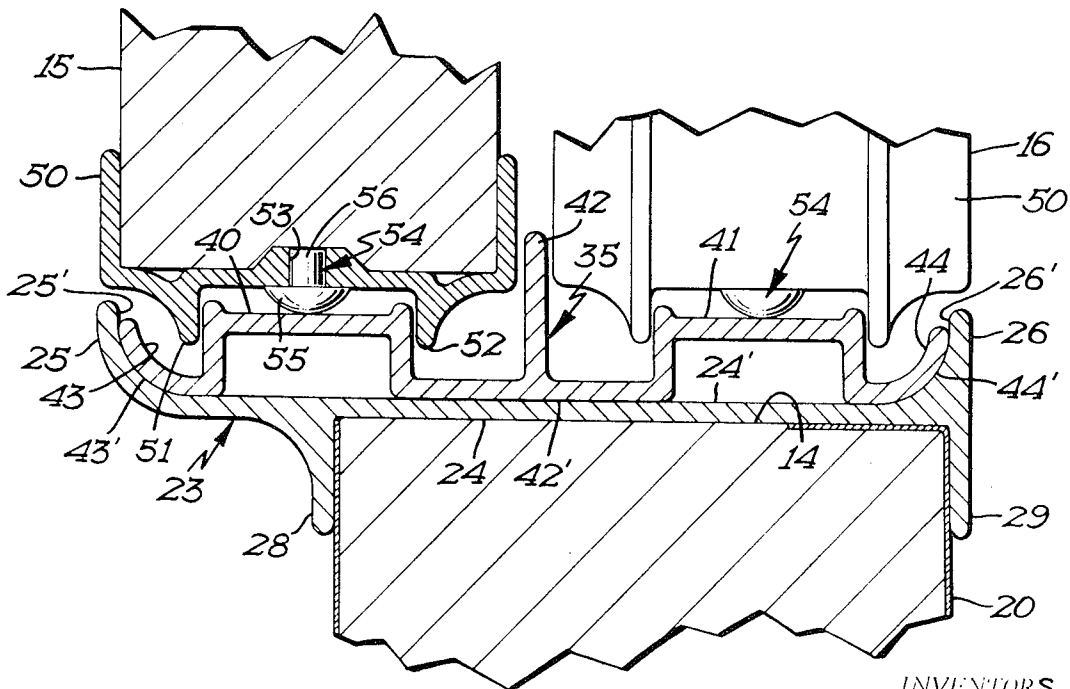
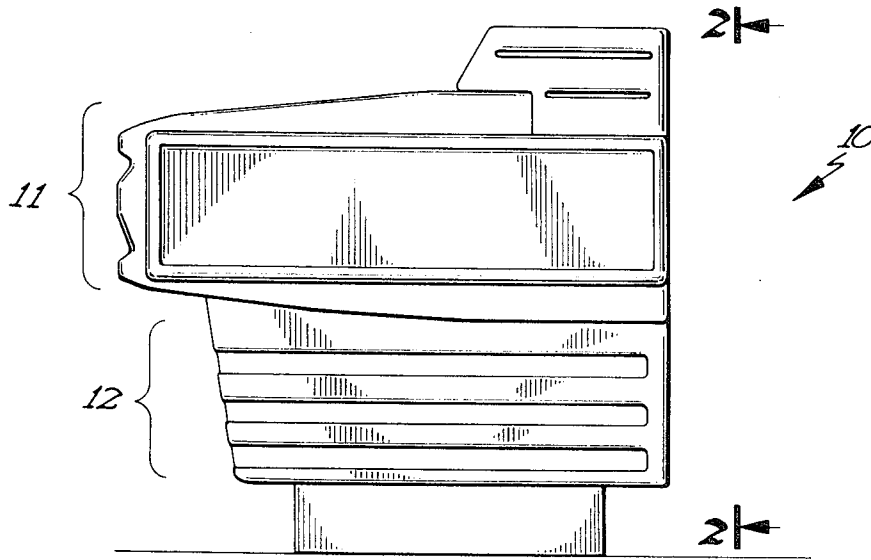
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[54] REMOVABLE SLIDING-DOOR TRACK
2 Claims, 4 Drawing Figs.

[52] U.S. Cl. 49/404,
312/116, 312/138
[51] Int. Cl. E05d 15/08
[50] Field of Search..... 49/404,
411, 410, 420, 440, 441, 425, 196, 456, 504, 457,
413, 471; 16/90, 94, 96; 312/114, 116, 138, 349,
350

ABSTRACT: The invention relates to a sliding door track of the type which is mounted on the door sill and functions to both support the weight of and provide longitudinal guidance for sliding doors. The invention resides in providing a two-piece assembly of a track frame which is fixedly mounted on the sill and a track member which is easily removable to facilitate cleaning.





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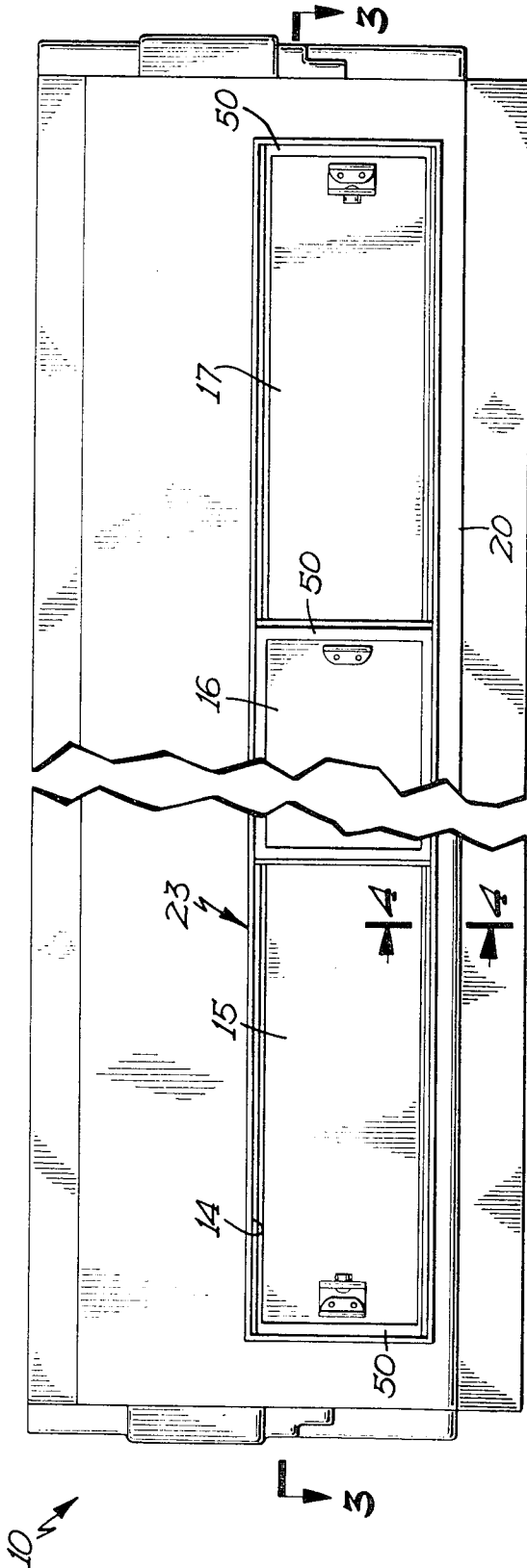


FIG 2

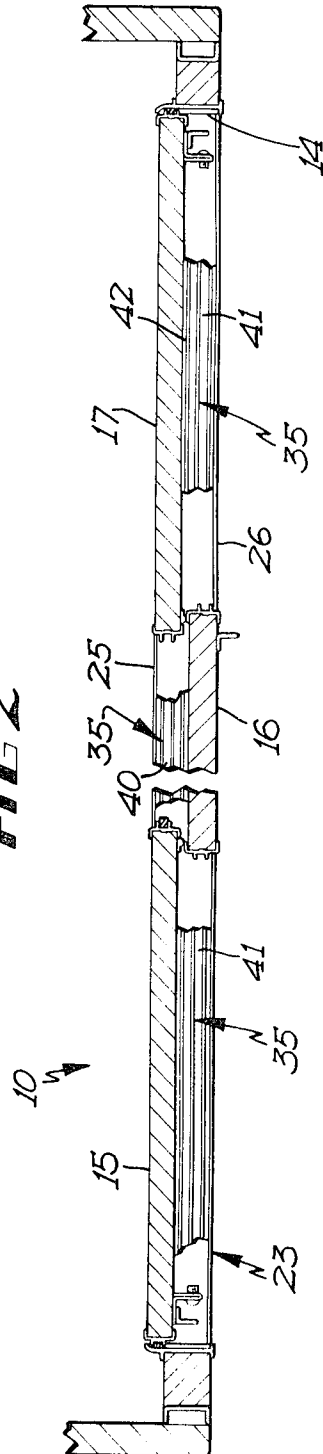


FIG 3

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REMOVABLE SLIDING-DOOR TRACK

The invention relates to a new and improved sliding door track assembly.

Sliding door track members are notoriously difficult to clean because the contours of the tracks by reason of their nature form narrow grooves which can be cleaned only with painstaking difficulty by a person kneeling in an uncomfortable position. It is normally desirable to have clean surroundings for the sake of contentment but in instances where food products are involved, cleanliness is a necessity for the sake of maintaining hygienic conditions.

The present invention involves a two-piece sliding door track assembly comprising a track member which is easily removable for the purpose of cleaning and track frame member which is adapted to be fixedly attached to a door sill and has a smooth exposed surface which lends itself to being easily cleaned.

A main object of the invention is to provide a new and improved sliding door track assembly of the type referred to above. Other objects and advantages of the invention will become apparent from the following specification, drawings and appended claims.

FIG. 1 is a side elevational view of an air curtain-type refrigerated meat display case;

FIG. 2 is a rear elevational view of the display case shown in Fig. 1 showing the sliding door arrangement for the rear loaded meat storage compartment;

FIG. 3 is a plan sectional view taken on line 3-3 of Fig. 2 showing the sliding door arrangement; and

FIG. 4 is an elevational sectional view taken on line 4-4 of Fig. 2 showing the removable sliding door track arrangement which embodies the invention.

In the drawing there is shown in Fig. 1 an air curtain type refrigerated meat display case 10 of the type commonly found in super markets. The upper portion 11 of the case is for the display of food products such as meats and has a top opening through which products selected by customers may be withdrawn. The lower portion 12 of the case encloses a compartment for the storage of food products prior to their being transferred to the display portion 11 of the case. Access to the storage compartment of the lower portion 11 of the case is from the rear in which there is a doorway opening 14 closed by three sliding doors 15, 16 and 17 as shown in FIGS. 2 and 3.

The bottom part of the door opening 14 is bordered and defined by a longitudinally extending sill 20 which is illustrated as having a rectangularly shaped cross section. A track frame 23 is mounted on sill 20 as shown in Fig. 4 and extends longitudinally the length of the door opening 14. Track frame 23 may be a one piece member or, if the door opening 14 is unduly wide, may be segmented.

Track frame 23 comprises a flat horizontally extending base section 24 having two horizontally spaced, upwardly extending wall sections 25 and 26 and two horizontally spaced, downwardly extending flange sections 28 and 29. Flange sections 28 and 29 are spaced apart a distance which is nominally the same as the width of the sill 20.

The track frame base section 24 has a smooth, upwardly facing floor surface 24' and the wall sections 25 and 26 have smooth inwardly and oppositely facing surfaces 25' and 26'. The floor surface 24' merges smoothly with the wall surfaces 25' and 26' and this facilitates the easy cleaning of these surfaces.

Track frame 23 may be fixedly attached to sill 20, as with screw or the like, or it may be maintained in the position illustrated by gravity and the weight of the door assembly it supports. In the former case the smooth surfaces 24', 25' and 26' could be easily cleaned without detaching the track frame 23 from the sill 20 and in the latter case the track frame could be easily removed and cleaned.

A track member 35 which extends the full longitudinal length of track frame 23 is disposed or nested in the track frame 23. It is anticipated within the scope of the invention

that no fastening means be provided for maintaining track member 35 in its illustrated position but it would also be within the scope of the invention if fastening means were provided which would permit track member 35 to be very easily detached from track frame 23 for the purpose of cleaning.

Track member 35 as well as track frame 23 may be easily and economically formed by extrusion. The illustrated track member 35 has dual rails 40 and 41, a center guide wall 42 and positioning walls 43 and 44.

The entire underneath side of track member 35 does not contact the track frame surfaces 24', 25' and 26' because of the raised construction of rails 40 and 41. Portions of the underneath side of track member 35 have surface portions 42', 43' and 44' which bear on and are respectively complementary relative to track frame surfaces 24', 25' and 26'.

Rail 40 supports doors 15 and 17 and rail 41 supports door 16. Appropriately formed sash rails are provided for the bottoms of the doors such as the sash rail 50 attached to the bottom of door 15 as illustrated in Fig. 4. Sash rail 50 has two depending portions 51 and 52 which straddle the rail 40 and doors 16 and 17 are similarly equipped with sash rails. Sash rail 50 has a plurality of centrally located, longitudinally spaced bores such as the bore 53 illustrated in Fig. 4. Bearing buttons 54 having semispherically shaped heads 55 and shanks 56 have their shanks press fitted into the bores 53. The bearing buttons are made of a material such as nylon and function to slidably support the doors on the rails 40 and 41.

Although it does not pertain to the invention, it will be understood that means (not shown) are provided which facilitate the removal of the doors 15, 16 and 17 from the door opening 14. Normally a sliding door is removable by lifting it vertically into a pocket formed in the framework above the door, to facilitate clearing the lower door track, and then swinging the door outwardly to remove it. It is usually easy to remove a sliding door in this manner.

When it is desired to clean the track member 35, the sliding doors are removed as referred to above and the track member is also removed by simply lifting it out of the track frame 23. The track member 35 is relatively easy to clean upon being removed from the track frame 23. With the track member 35 removed, it is a simple chore to clean the smooth merging track frame surfaces 24', 25' and 26' with the track frame in its illustrated position or, alternatively, after the track frame is removed from the sill 20.

One embodiment of the invention is described here, it will be understood that it is capable of modification, and that such modification, including a reversal of parts, may be made without departure from the spirit and scope of the invention as defined in the claims.

What we claim is:

1. A food storage cabinet or the like comprising a vertical wall having a rectangularly shaped opening having a lower side defined by a longitudinally extending door receiving pocket, a longitudinally extending track frame mounted on said sill, said track frame having longitudinally and vertically extending walls on opposite sides thereof with smooth inwardly and generally oppositely facing surfaces, said track frame having a smooth floor surface, concave junctions formed by fillets between said inwardly facing wall surfaces and said floor surface to provide a smooth merging of said surfaces, a track member nested in said frame having convex surface portions complementary to and in abutting engagement with said concave junctions, said track member having groove means on the upper side thereof for supporting and guiding sliding-type doors, sliding-type doors resting on said track frame with the upper ends thereof disposed in said pocket, said doors being readily removable by being raised into said pocket and swung outwardly, and said track member being readily removable to allow easy cleaning of it and said track frame.

2. A food storage cabinet or the like according to claim 1 wherein said floor surface is planar.