

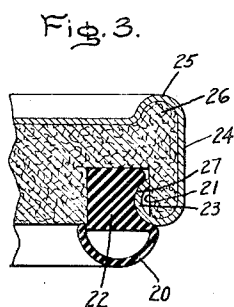
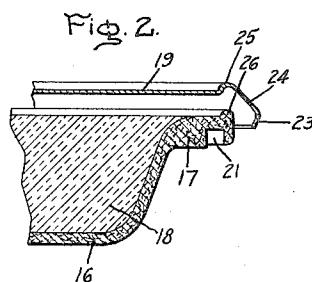
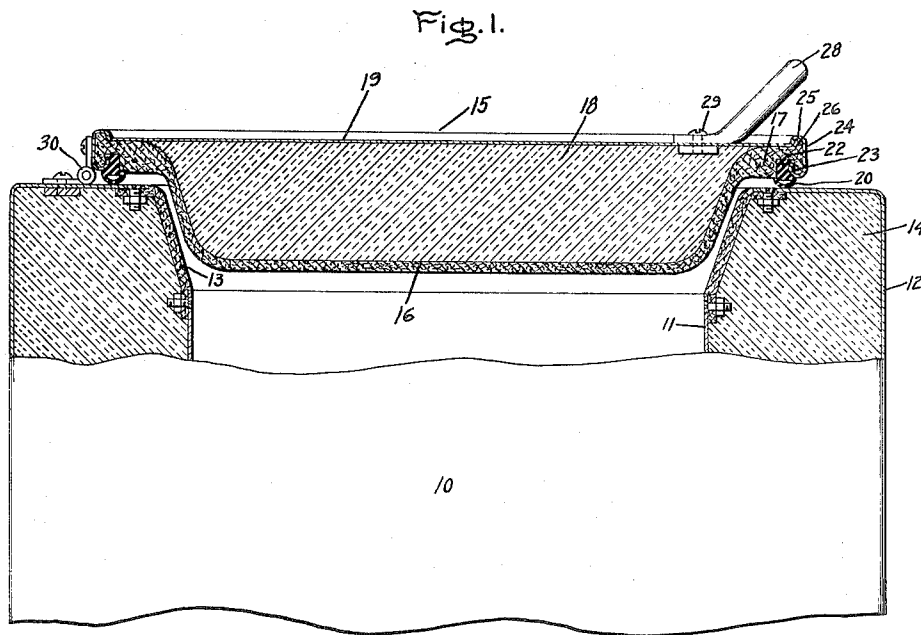
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CABINET DOOR

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2,036,781

CABINET DOOR

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3 Claims. (Cl. 20—35)

My invention relates to doors for refrigerator cabinets and the like.

It has been found desirable to construct refrigerator cabinet doors with a body or frame formed of heat insulating material. It is essential to provide some arrangement for sealing the door opening to prevent leakage of air there-through and resultant thermal loss when the door is closed. A gasket of rubber or similar material is commonly employed for this purpose. It is also desirable so to construct this gasket that it may readily be attached or detached from the door for cleaning or replacement. A satisfactory arrangement for attaching a gasket is to form a portion of the gasket so that it may be inserted into a recess in the door and will be retained therein by a restriction at the entrance to the recess. It is readily apparent, however, that it requires a somewhat complicated operation to construct a groove or recess with a restricted opening either by forming, machining or molding.

Accordingly, it is an object of my invention to provide a cabinet door comprising a frame of insulating material and having an improved arrangement for removably attaching a gasket for sealing the door when closed.

Further objects and advantages of my invention will become apparent as the following description proceeds, and the features of novelty which characterize my invention will be pointed out with particularity in the claims annexed to and forming a part of this specification.

For a better understanding of my invention reference may be had to the accompanying drawing, in which Fig. 1 is a side elevation partly in section of the top portion of a refrigerator cabinet provided with a door embodying my invention; Fig. 2 is a sectional view of the door shown in Fig. 1 with the metal cover in position ready to be placed on the door frame, and Fig. 3 is an enlarged sectional view of the frame of the door shown in Fig. 1.

Referring now to the drawing, in Fig. 1 I have shown a refrigerator cabinet 10 comprising inner and outer metallic walls 11 and 12 respectively, and a strip 13 of moisture impervious material of low heat conductivity, such as a filler material with rubber or a resinous condensation product binder, connecting the walls 11 and 12 about the door opening at the top of the cabinet. The space between the walls 11 and 12 is filled with heat insulating material 14. A door 15 is provided to close the door opening in the cabinet. The door 15 comprises a lower wall or dished

body portion 16 of molded rubber composition, or other suitable material such as a filler material with a resinous condensation product binder. The body portion 16 is provided with an integral rectangular flange 17 constituting a frame for the door. The body portion 16 is filled with heat insulating material 18 and a metal cover 19 is provided to form the outer wall of the door and to enclose the heat insulating material therein. When the door is closed the opening is sealed by a hollow gasket 20 arranged between the door frame 17 and the cabinet wall 12. The lower side of the frame is provided with a groove or recess 21 of rectangular cross-section, and a solid base 22 of the gasket is seated therein. The gasket is retained securely in place in the groove by an arcuate portion 23 of a flange 24 formed on the cover 19 and extending around the frame 17, the base of the gasket being provided with an indentation 27 engaging the arcuate portion 23 on the flange. In order to provide a more rigid fit between the cover 19 and the frame 17, an arcuate channel 25 is formed on the cover and fits closely over a ridge 26 on the upper edge of the frame. The door is secured to the cabinet by a hinge 30 which may be of any suitable type, and a handle 28 is secured to the top 19 by a bolt 29.

In the construction of the door 15 the groove or recess 21 is preferably molded in the frame 17, but may be formed in any convenient manner. The cover 19 is initially formed with the flange 24 at some angle less than 90 degrees with respect to the cover, it being shown in Fig. 2 at about 45 degrees. When the insulating material 18 has been placed in the molded portion 16, the cover 19 is placed thereover, and the flange 24 is bent around the sides of the frame 17 so that the channel 25 fits closely over the ridge 26. The arcuate portion 23 of the flange 24 is then pressed around the edge of the frame and rolled into the groove 21, so that it restricts the opening of the groove. This operation firmly secures the cover 19 to the body portion 16 and provides a rigid door structure. Fig. 3 clearly shows the construction of the door frame after the flange of the cover has been rolled around the frame 17. The base 22 of the gasket 20 is then pressed into the groove 21, so that the indentation 27 which conforms to the arcuate portion 23 on the flange retains the gasket securely in place.

While I have described my invention as embodied in a refrigerator cabinet, I do not desire my invention to be limited to the specific construction shown and described, and I intend in

the appended claims to cover all modifications within the spirit and scope of my invention.

What I claim as new and desire to secure by Letters Patent in the United States is:

5 1. A door for refrigerator cabinets and the like comprising a frame having a ridge on the outer side thereof and a recess therein on the underside thereof, a sheet metal cover for said door having an indentation conforming to said
10 ridge, a flange on said cover extending around said frame, a gasket extending about said frame and having a portion extending into said recess, and means including a portion of said flange for retaining said portion of said gasket in said recess.
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2. A door for refrigerator cabinets and the like comprising a dished body portion of heat insulating material, a frame formed integrally with said body portion, said frame having a groove
20 extending about the under side thereof, a sheet metal outer cover for said door closing the top of said dished body portion, a flange on said cover extending around the outer edge of

said frame, a gasket extending about said frame and having a portion arranged within said groove, and means including a portion of said flange extending into said groove for retaining said gasket in said groove.

5 3. A door for refrigerator cabinets and the like comprising a dished body portion of heat insulating material, a mass of heat insulating material substantially filling said body portion, a frame formed integrally with said body portion,
10 said frame having a groove extending about the under side thereof, means including a sheet metal outer cover for said door for enclosing said mass of heat insulating material within said
15 dished portion, a flange on said cover extending around the outer edge of said frame, a gasket extending around the underside of said frame and having a portion arranged within said groove, and means including an arcuate portion of said
20 flange extending into said groove for retaining said gasket in said groove.

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