

Sept. 16, 1941.

J. L. KNIGHT

REFRIGERATOR CABINET

Filed April 6, 1938

-2,256,206

Fig. 1.

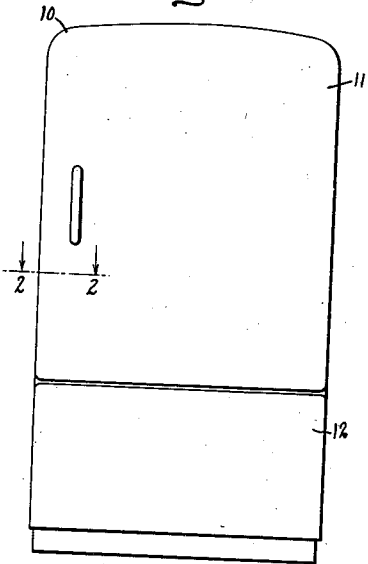


Fig. 2.

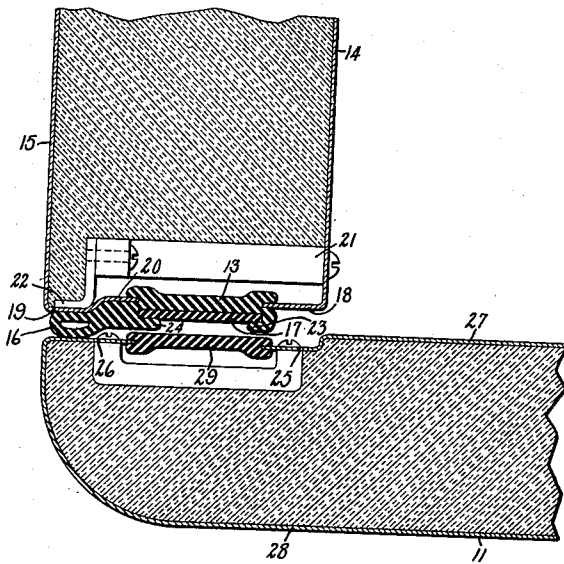
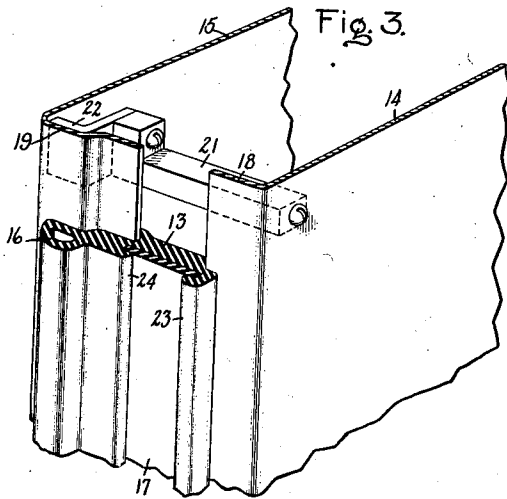


Fig. 3.



Inventor:
James L. Knight,
by *Harry E. Dunham*
His Attorney.

UNITED STATES PATENT OFFICE

2,256,206

REFRIGERATOR CABINET

James L. Knight, Erie, Pa., assignor to General Electric Company, a corporation of New York

Application April 6, 1938, Serial No. 200,394

5 Claims. (Cl. 220—9)

My invention relates to a refrigerator construction and more particularly to a breaker strip and gasket to be used in connection with refrigerator doors or other closure members.

The 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 front view of a refrigerator embodying my invention; Fig. 2 is an enlarged view partly in section taken on the line 2—2 of Fig. 1; and Fig. 3 is an enlarged perspective view partly in section of a portion of my refrigerator.

Referring to the drawing, I have shown a refrigerator 10 of the household type having a food compartment closed by a door 11 and a machinery compartment closed by a door 12, the doors being of the full-width type.

I have provided a thermally resistant breaker strip 13 of relatively flexible material such as rubber to close the opening between an inner shell 14 and an outer shell 15 of a cabinet side wall. A door sealing gasket 16 is made integral with the strip 13. Inasmuch as the material used for this combination breaker strip and gasket must be soft enough to meet gasket requirements, the strip is preferably reinforced to prevent collapse inwardly when subjected to pressure. Therefore, in the embodiment of my invention illustrated in the drawing an open groove or channel, the width of which is approximately the same as the distance between the shells, is provided in the surface of the strip to retain a reinforcing member of relatively stiff material, preferably non-metallic and non-hygroscopic, which serves to reinforce the strip and give a finished appearance to the door jamb, the reinforcing member being exposed to view when the door is open.

In the embodiment of my invention illustrated in the drawing, the marginal edge of the inner shell 14 is bent inwardly to form a flange 18, while the marginal edge of the outer shell 15 is bent first into an approximately U-shaped portion 19 and then into an inwardly extending flange 20 in substantial alignment with flange 18 of the inner shell. The U-shaped portion serves as a seat for the door gasket 16 which is laterally offset from strip 13 and shaped to seat

against portion 19 of the outer shell and flange 20.

Breaker strip 13 is suitably formed, as by extrusion, with a pair of longitudinal grooves adapted to engage flanges 18 and 20 thus closing the opening between the inner and outer shells.

A pair of outstanding opposing ribs 23 and 24 is formed in the outer surface of the strip thus forming a longitudinal groove or channel to receive the reinforcement member 17. As mentioned above, this member 17 is preferably made from a non-metallic non-hygroscopic material. Resinous products, such as those known under the trade-names Textolite, Bakelite, etc., are well adapted to this purpose.

In order to rigidly support the inner and outer shells of the cabinet in the desired spaced relationship, the shells are connected by a plurality of jumper blocks 21 within the construction. These blocks are preferably of non-metallic, non-hygroscopic material to minimize heat loss between the shells. Blocks 21 may be fastened in any suitable manner. For example, one end may be bolted to brackets 22 which in turn may be welded to flange 19 of the outer wall 15 while the other end of the blocks may be bolted to the inner shell 14.

The door or front wall 11 of the cabinet illustrated is provided with inner and outer shells 27 and 28 having opposing flanges 25 and 26 respectively supported in spaced relationship by jumper blocks. The opening between flanges 25 and 26 is closed by a breaker strip 29 of suitable material.

While I have shown and described my invention as applied to a specific refrigerator door construction, other modifications will readily be apparent to those skilled in the art. I do not therefore desire my invention to be limited to the specific arrangement 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 of the United States is:

1. In combination with a cabinet having a door opening and a door for closing said opening, a wall construction including inner and outer metallic shells and insulating material therebetween, a thermally resistant breaker strip of relatively resilient non-hygroscopic material extending between adjacent edges of said shells, a relatively wide channel in the outer surface of said breaker strip, said breaker strip being provided with a reinforcing member of relatively

stiff material lodged in said channel and exposed to view when the door is open.

2. In a refrigerator cabinet having a door opening and a door to close said opening, a wall construction including inner and outer metallic shells and insulating material between said shells, a breaker strip of relatively resilient non-hygroscopic material extending between adjacent edges of said shells including a relatively wide channel in the outer surface thereof disposed intermediate the side edges thereof, an integral door sealing portion, and a reinforcing member of relatively stiff material in said channel and exposed to view when the door is opened.

3. In combination with a cabinet having a door opening and a door for closing said opening, a wall construction including inner and outer metallic shells and insulating material between said shells, a breaker strip of relatively resilient non-hygroscopic material between adjacent edges of said shells, a laterally offset sealing portion integral with said breaker strip, an open channel in the outer surface of said breaker strip, said channel having a width approximately equal to the distance between said shells, and a reinforcing member of relatively stiff material lodged in said channel and exposed to view when the door is opened.

4. In a refrigerator, a wall construction in-

cluding inner and outer shells and insulating material therebetween, a breaker strip of relatively resilient non-hygroscopic material between adjacent edges of said shells, said breaker strip having a longitudinal groove along each edge, each groove receiving the adjacent edge of the adjacent shell to close the space therebetween, a pair of outstanding oppositely directed longitudinal ribs defining a channel in the outer surface of said strip, a reinforcing strip of relatively stiff material adapted to be positioned within said channel, and a sealing portion integral with said breaker strip.

5. In a refrigerator having a door opening and a door for closing said opening, a wall construction including inner and outer shells and insulating material therebetween, a breaker strip of relatively resilient non-hygroscopic material extending between the adjacent edges of said shells, said breaker strip having a longitudinal groove along each edge thereof, each of said grooves receiving the edge of one of said shells and conforming to said edge of said one of said shells, said breaker strip also being provided with an open channel in the outer surface thereof, and a reinforcing member of relatively stiff material disposed in said channel and exposed to view when the door is open.

JAMES L. KNIGHT.