

June 25, 1940.

G. F. FORSTHOEFEL

2,205,780

CABINET CONSTRUCTION

Filed Sept. 29, 1936

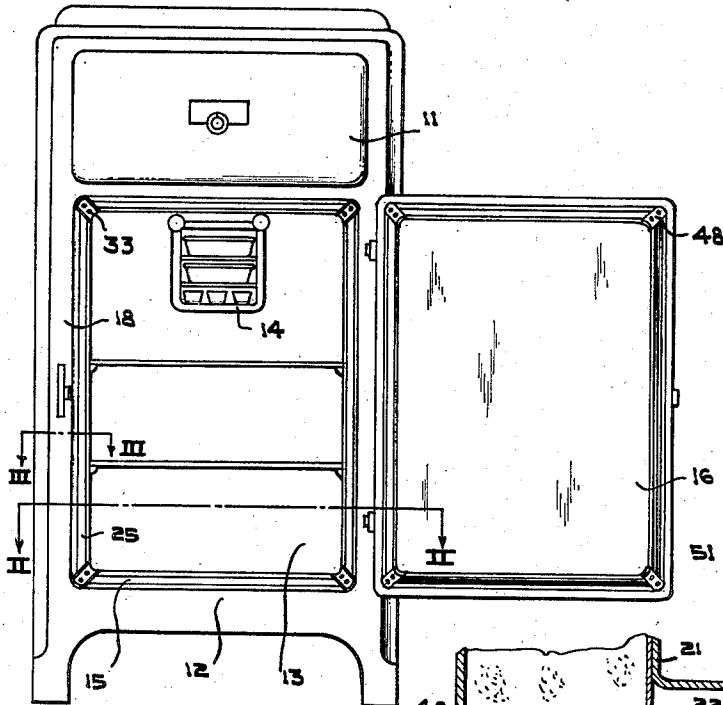


FIG. 1.

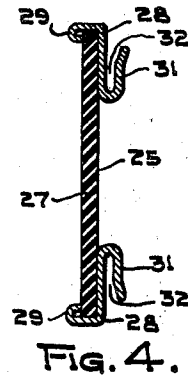


FIG. 4.

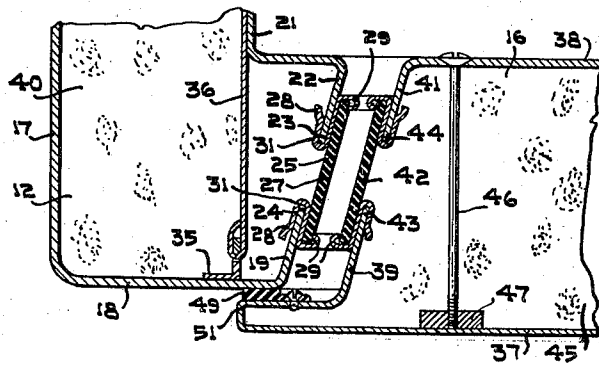


FIG. 3.

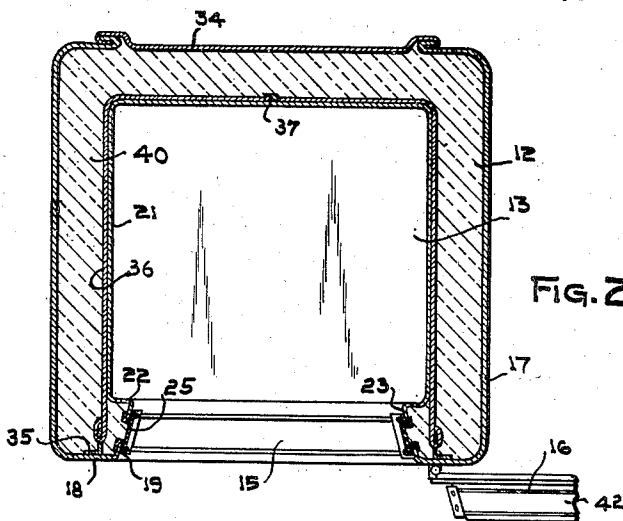


FIG. 2.

INVENTOR
GREGG F. FORSTHOEFEL
BY *W. Steiner*
ATTORNEY

UNITED STATES PATENT OFFICE

2,205,780

CABINET CONSTRUCTION

Gregg F. Forsthoefel, Springfield, Mass., assignor
to Westinghouse Electric & Manufacturing
Company, East Pittsburgh, Pa., a corporation
of Pennsylvania

Application September 29, 1936, Serial No. 103,074

2 Claims. (Cl. 220—9)

My invention relates to a cabinet construction for heat insulated refrigerator cabinets.

It is an object of my invention to provide an improved breaker strip construction for such a cabinet and to provide a breaker strip and cabinet construction in which nails and screws for fastening the breaker strip to the cabinet are dispensed with.

It is another object of my invention to provide a breaker strip which is extremely pleasing in appearance and which is exceptionally durable.

These and other objects are effected by my invention as will be apparent from the following description and claims taken in connection with the accompanying drawing, and forming a part of this application, in which:

Fig. 1 is a front view of a refrigerator cabinet embodying my invention, shown with the door open;

Fig. 2 is a sectional view of the refrigerator cabinet taken on line II—II of Fig. 1;

Fig. 3 is an enlarged sectional view taken on the line III—III of Fig. 1, showing the cabinet with the door closed, and also the breaker strips; and,

Fig. 4 is an enlarged sectional view of my improved breaker strip.

Referring specifically to the drawing for a detailed description of my invention, in Figs. 1 and 2, numeral 11 designates generally a refrigerator cabinet embodying a cabinet body portion 12. The body portion 12 includes a food storage compartment 13 having a heat-absorbing element 14 disposed therein and an access opening 15 provided in the front of the cabinet. A door 16 is provided for closing the access opening.

Referring now to Fig. 2 of the drawing, the body portion 12 of the cabinet is formed of an outer metal shell 17 having a front marginal portion 18 and an intumed flange 19 extending peripherally of the access opening 15. The food storage compartment 13 is formed from a five-sided metal inner shell 21 having an outturned flange 22 extending peripherally of the access opening with the edge 23 thereof facing the edge 24 of the flange 19 on the outer shell 17. A heat breaker 25, shown in detail in Figs. 3 and 4, is provided for connecting and spacing the edges 23 and 24 of the inner and outer shells, respectively.

The heat breaker 25 is formed preferably of a non-hygroscopic non-metallic impregnated moulded material in the form of a relatively rigid strip 27. Strips of metal 28 are provided on each longitudinal edge of the rigid strip 27 and extend

substantially the entire length thereof. The strips of metal are preferably formed of a non-corroding material, such as stainless steel, or are coated with a bright metal, such as chromium. The strips of metal 28 are bent to provide a groove or clip 29 at one longitudinal edge thereof to engage the longitudinal edge of the rigid non-metallic strip 27. The metal forming the strips 28 is preferably of sufficient thickness that once bent, it is not readily deformable, but nevertheless, is inherently flexible to a slight degree so that the clip 29 will grip the edge of the strip 27 with sufficient force that the metal strip 28 will not fall off the non-metallic strip 27. The metal strips 28 are provided with another clip 31 bent to form outwardly facing grooves 32 extending substantially the entire length of the non-metallic strip 27. As shown best in Figs. 1 and 3, the assembled heat breaker 25 is formed in four pieces and is attached to the cabinet by inserting the edge portions 23 and 24 of the inner and outer shells 17 and 21 in the grooves 32 formed in the metal strips 28. The clips 31 forming the grooves 32 also preferably grip the edge portions of the inner and outer shells 17 and 21. Corner clips 33 cover the joint between the heat breaker 25 at the corners of the access opening (Fig. 1).

After the heat breaker 25 has been assembled by sliding the metal strips 28 onto the non-metallic strip 27, and the assembled breaker attached to the cabinet body portion 12 in the manner described above, the inner shell 17 and the outer shell 21 are pulled together to clamp the breaker 25 between them, the breaker then serving as a heat break and as a spacing member for the inner and outer shells 17 and 21. In order to pull the inner and outer shells together, the back of the outer shell 17 is provided with a removable panel 34 (Fig. 2). Brackets 35 are attached to the front marginal portions 18 of the outer shell and steel straps 36 are attached thereto, encompassing the inner shell 21, as shown in Fig. 2. The straps 36 are pulled up tight and connected as shown at 37, thereby holding the inner and outer shells in proper position. Heat insulation 40 is disposed between the shells, and the removable back panel 34 is attached to the outer shell 17.

The door 16 for the cabinet is formed of an outer shell 37 and an inner shell 38. The shells have intumed flanges 39 and 41, respectively, formed peripherally of the door opening. A heat breaker 42 of the same construction as the heat breaker 25, is attached to edge portions 43 and

44, respectively, of the flanges 39 and 41. Heat insulation 45 is inserted between the outer and inner door shells 37 and 38 and the shells are pulled together by means of a screw 46 which engages a threaded block 47 welded to the outer shell 37. Corner clips 48 are provided at the corners of the door 16 to cover the joint between the heat breaker 25 at the corners. A sealing gasket 49 is attached to an overlapping portion 51 of the door 16 and engages the marginal portion 18 of the cabinet body portion 12.

When heat breakers 25 and 42, formed as shown and described are applied to a refrigerator cabinet, nails and screws for attaching the heat breakers are completely dispensed with. Furthermore, if the grooves for attaching the heat breakers to the cabinet are formed in the non-metallic strip 27 rather than in the metal strips 28, there is a tendency for the edges of the inner and outer shells to cut the non-metallic strip, which results in wear and permits moisture to enter the heat insulation. In addition, the metal trim at the edge of the breaker strip which is exposed to view presents an extremely pleasing appearance. The heat breaker is easily constructed and may be attached to the cabinet with very little time and effort.

From the foregoing it will be apparent that I have provided an improved refrigerator cabinet and breaker strip construction which is durable, inexpensive and pleasing in appearance.

While I have shown my invention in but one form, it will be obvious to those skilled in the art that it is not so limited but is susceptible of various changes and modifications without departing from the spirit thereof, and I desire, therefore, that only such limitations shall be placed thereupon as are imposed by the prior art or as are specifically set forth in the appended claims.

What I claim is:

1. In a refrigerator cabinet construction embodying a cabinet having a substantially rectangular access opening therein and a door for closing the access opening, the combination of spaced inner and outer shells having opposed flanges with spaced-apart edge portions surrounding the access opening, the flange of the inner shell defining the boundaries of the access opening, the flanges on any one side of said opening lying in substantially a common plane, a breaker strip of non-hygroscopic heat-insulating material bridging the space between the shells

and overlapping the outer surface of the flange of at least one of the shells, means extending between said shells for preventing separation thereof, means extending substantially around the periphery of said rectangular access opening for securing said breaker strip to the flange of said one shell and including a connecting strip of metal having one edge bent to engage the breaker strip on both of its opposing surfaces adjacent the edge thereof and having its other edge bent to form a pocket on the inner side thereof for receiving the edge portion of the flange of said one shell, the bends in the edges of the connecting strip extending in substantially opposite directions and the intermediate portion of the connecting strip being substantially flat and lying between the outer face of the flange of said one shell and the breaker strip, and means for securing the other edge of the breaker strip to the other shell in overlapping relation with a portion thereof.

2. In a refrigerator cabinet construction embodying a cabinet having a substantially rectangular access opening therein and a door for closing the access opening, the combination of spaced inner and outer shells having opposed flanges with spaced-apart edge portions surrounding the access opening, the flange of the inner shell defining the boundaries of the access opening, the flanges on any one side of said access opening lying in a substantially common plane, a breaker strip of non-hygroscopic heat-insulating material bridging the space between the shells and overlapping the outer surfaces of the respective flanges, means extending between said shells for preventing separation thereof, and means extending substantially around the periphery of said rectangular access opening for securing said breaker strip to the flanges of both of said shells and including connecting strips of metal, each having one edge bent to engage the breaker strip on both of its opposing surfaces adjacent the edge thereof and having its other edge bent to form a pocket on the inner side thereof for receiving the edge portions of the flanges of said shells, the bends in the edges of the connecting strips extending in substantially opposite directions and the intermediate portions of the connecting strips being flat and lying between the outer faces of said flanges and the breaker strip.

GREGG F. FORSTHOEFEL.