

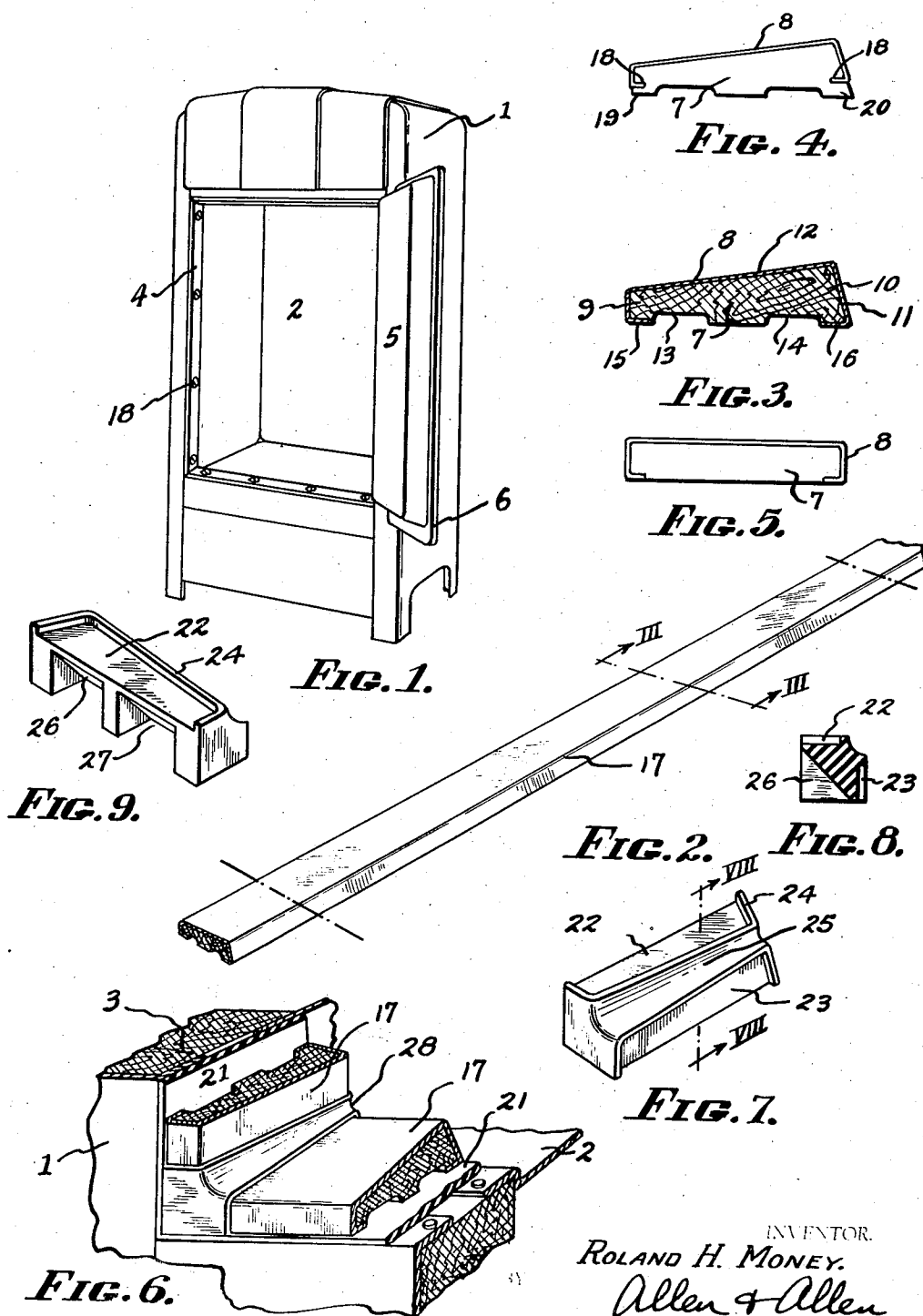
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BREAKER STRIP AND FITTING

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BREAKER STRIP AND FITTING

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1 Claim. (Cl. 220-9)

My invention has for its primary object the provision of a new and improved breaker strip construction for domestic refrigerators and the like. It is understood in the art that a breaker strip is a finishing material or strip used to line the inner sides of the opening of the refrigerated cabinet in a domestic refrigerator, a refrigerated counter, various kinds of commercial refrigerators and the like. Wooden breaker strips have been employed, but these are not advantageous for a number of reasons. Breaker strips of moulded plastics such as Bakelite, have also been employed. These are limited, however, as to color, and are expensive.

It is my object to provide a breaker strip construction which, while inexpensive, is strong, durable, completely sanitary and of attractive appearance. It is a further object of my invention to provide a breaker strip which may be made in long pieces and after fabrication cut apart into units for a particular use, so that one type of preformed structure may be economically employed in furnishing breaker strip material for a wide variety in size and shape of refrigerator cabinets. Still another object of my invention is to provide a breaker strip which can be made of non-uniform or specially shaped cross section for particular uses. More specifically, it is an object of my invention to provide a breaker strip which will be thicker at one side than at the other and in which one or more edge portions may readily be made to conform to any given plane, irrespective of the face plane of the breaker strip. It is still another object of my invention to provide a breaker strip which, while it has all of the advantages of a metal breaker strip, can be made very much more cheaply.

It is also an object of my invention to provide a novel breaker strip fitting, and a novel breaker strip assembly as will hereinafter be set forth.

These and other objects of my invention which will be set forth hereinafter or which will be apparent to one skilled in the art upon reading this specification, I accomplish by that certain construction and arrangement of parts of which I shall now describe an exemplary embodiment, namely, a breaker strip designed primarily for use in a domestic refrigerator.

Reference is now made to the drawing, wherein:

Figure 1 is a perspective view of an exemplary form of a domestic refrigerator with the door

open and showing the breaker strip material in position therein.

Fig. 2 is a perspective view of a preformed length of breaker strip material ready to be cut apart into individual breaker strips.

Fig. 3 is a sectional view through the breaker strip material taken along the lines III-III of Fig. 2.

Figs. 4 and 5 are cross sectional views of still other forms of breaker strip which may be made in accordance with my invention.

Fig. 6 is a perspective view showing a portion of a breaker strip assembly including my new corner fitting.

Fig. 7 is a perspective view of the face portion of my fitting.

Fig. 8 is a sectional view of the fitting taken along the lines VIII-VIII of Fig. 7.

Fig. 9 is a perspective view of the rear portion of my fitting.

In Fig. 1, I have shown a domestic refrigerator of a type which, as usually manufactured, comprises an assembly forming an outer metallic shell 1 and an inner food compartment 2. The food compartment and the outer shell are both fastened at their meeting edges to a wooden framework located interiorly of the outer shell and shown at 3 in Fig. 6. The insulation for the food compartment is located between the inner and outer shells. The breaker strip material 4 is fastened about the opening of the food compartment, usually being secured to the wooden frame mentioned above, and serves to line the opening of the food compartment and to cover the adjacent or meeting edges of the inner and outer shells. A door 5 is hung on the usual hinges and has an outer flange 6 usually provided with some sealing material to form a substantially air-tight closure about the opening of the food compartment.

Briefly, in the practice of my invention, I provide a breaker strip consisting of a body 7 and a metallic sheath or covering 8 for the body. The body may be of wood, suitably shaped, or it may be of other materials including, but without limitation, any of the various artificially prepared panel-like materials of felted or consolidated fibre such as Masonite, Celotex and the like. Other materials may also be employed including preformed condensation resin bodies if desired, or bodies made up of layers of heavy cardboard, or rubber materials, or other types of composition including asphaltic moulding compositions. When the breaker strip is in use, the body 7 will be entirely concealed and, therefore, the choice

of materials is quite wide and considerations of economy may serve as a guide. A material is required which will have enough body to permit the use of a relatively thin metal covering, and preferably a material which will be sanitary, reasonably moisture-resistant, and not subject to disintegration or decomposition.

The body material may be shaped in any way appropriate to the particular material chosen. Thus if the material is a plastic it may be moulded. If the material is wood or may be worked like wood, the breaker strip stock may be made on a suitable planer or wood shaper. My breaker strip material may be made in a variety of cross sections as will be clear. In Fig. 5, I have shown a strip of substantially rectangular cross section. In the particular embodiments shown in Figs. 3 and 4, the edge portion 9 is thinner than the edge portion 10. The edge portion 10 is the part to be located toward the rear of the food compartment, so that a breaker strip in the form shown in these figures will give a tapered lining to the opening of the food compartment. The edge plane 11 will preferably be made at not less than a right angle to the face plane 12 so as to avoid a re-entrant angle within the refrigerator. As has been explained, the breaker strip covers or masks the lines along which the outer and inner shells of the refrigerator are joined to the wood frame. As a consequence, I have illustrated grooves 13 and 14 in the under side of my breaker strip material, which grooves not only allow room for the heads of nails or screws which fasten the inner and outer shells of the refrigerator to the wooden frame, but also, if the body material be of wood, tend to prevent transverse warpage of the strip.

The metallic covering 8 may be of any suitable material. Stainless steel is an excellent material to employ because of its continuously bright and sanitary appearance. Other metals may of course be used, including iron or mild steel which has been given a suitable surface treatment or softer metal such as zinc, copper, aluminum and the like, which metals preferably will be surface coated, or plated with a non-tarnishing metal.

The use of a very thin metallic covering is necessary so as to lessen heat conductivity. It is, of course, especially important to prevent heat interchange between the inner metallic food compartment shell 2 and the outer metal cabinet shell 1.

The metallic covering may be partially preformed by a die or rolling operation; but where a preformed body is employed, such as a body of wood, Masonite, Bakelite or the like, the metallic covering will preferably be rolled in place. It will cover and closely conform to the face and edge portions of the body and may be turned over upon the under side of the body as at 15 and 16. This can easily be accomplished by a rolling operation; and my breaker strip material may be made in any convenient manufacturing length. In some instances, it will be possible to form the metallic covering complete and in final shape, afterward casting or moulding the body substance within it.

In Fig. 4 I have shown a modified form of breaker strip in which the side edges 18 of the metallic covering 8 are interned and pressed into grooves in the sides of the breaker strip body, leaving narrow tongues 19 and 20 of the body projecting therebelow. These tongues prevent the metallic covering of the breaker strip from

contacting the inner and outer shells of the refrigerator and prevent the conduction of heat from one to the other.

However, with any type of breaker strip shown herein, it will be competent to employ, beneath the breaker strips as installed thin strips or pads of insulating material as shown at 21 in Fig. 6.

A length of the breaker strip material is indicated generally at 17 in Fig. 2. This material may be manufactured in long strips and stored preparatory to use. For use it is cut apart into suitably dimensioned pieces, the ends of the pieces being suitably beveled. This may be accomplished either by hand or by machine with the aid of a suitable saw.

The breaker strip material may be fastened in place in any desired way. Usually breaker strips are held in place with screws passing through the strips and entering the frame of the refrigerator. This has been indicated at 18 in Fig. 1. Holes may be formed in my breaker strip by a simple operation of drilling, and where the body material 7 is of compressible material such as wood, Masonite and some types of moulding composition, it will be readily possible to counter-sink about the holes to accept the heads of screws by a denting operation with a suitable tool.

In Figs. 7, 8 and 9 I have shown a breaker strip fitting which has the several-fold effect of securing the ends of the breaker strips, of obviating the necessity of mitering and exact and careful cutting, and of providing greater sanitation and a more attractive appearance at the corners of a breaker strip assembly.

This fitting comprises a substantially rectangular body of a length somewhat greater than the width of the breaker strips with which it is to be used. Adjacent, and therefore substantially right angularly related faces 22 and 23, are made of a shape to correspond substantially to the cross sectional shape of the breaker strip, and these faces are preferably enclosed upon three sides at least by ridges indicated at 24. At the place where these faces would normally meet, there may be formed a rounded configuration as at 25 for the sake of appearance and ease of cleaning. The configuration of the several parts thus far described will vary in accordance with the dimensions and cross sectional configurations of various kinds of breaker strips, as will be clear.

The body of the fitting may be made of any suitable material, such for example, as various moulded compositions; but I prefer to make it of rubber. Cut out portions at the rear of the body and indicated at 26 and 27 may be made so as to accommodate screw heads and the like; but such cut away portions when the article is made of rubber, will tend to give it greater resilience.

In the use of a fitting of this character the breaker strips need not be mitered but may be cut square. The fitting is positioned in the corner of the door opening and the ends of the cut sections of the breaker strips engage the faces 22 and 23, the juncture being finished by the ridge members 24. This not only gives a corner joint which is more attractive than the miter joint, but one which is also more sanitary. If the fitting is resilient, as I prefer it to be, it will be clear that less care need be exercised in cutting the breaker strip sections to exact and measured length. When the breaker strip sections 17, as in Fig. 6, are in position as shown, the fitting member, indicated in this figure generally by the index numeral 28, will be held in position and

against dislodgment, but without any direct fastening to the frame 3, the shell members 1 and 2, or the insulative pads 21.

5 Modifications may be made in my invention without departing from the spirit thereof.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

10 A fitting for a breaker strip installation comprising a body of a length slightly greater than the width of the breaker strip material with which it is to be used, said body being substan-

tially rectangular in cross section and having adjacently disposed faces shaped to conform to the cross section of said breaker strip material, said faces being surrounded on a plurality of sides at least with ridges adapted to overlap said breaker strip material, said fitting having an arcuately concave configuration between said adjacent faces and said fitting being provided with hollowed portions in the other faces to accept the heads of fastening devices for said breaker strips. 10

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