

Feb. 17, 1953

J. POTH

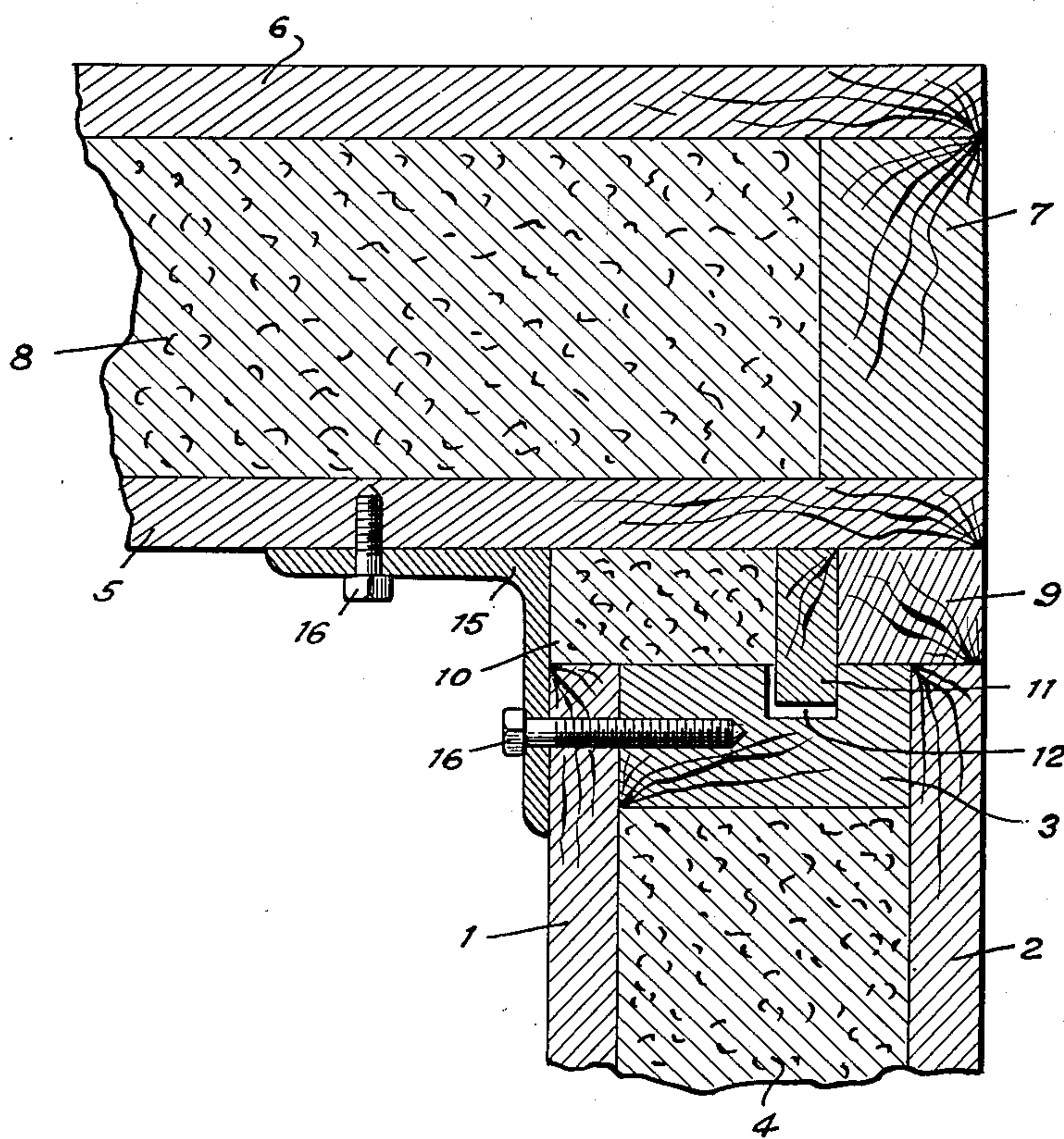
2,628,388

REFRIGERATOR CONSTRUCTION

Filed April 3, 1951

2 SHEETS—SHEET 1

*Fig. 1.*



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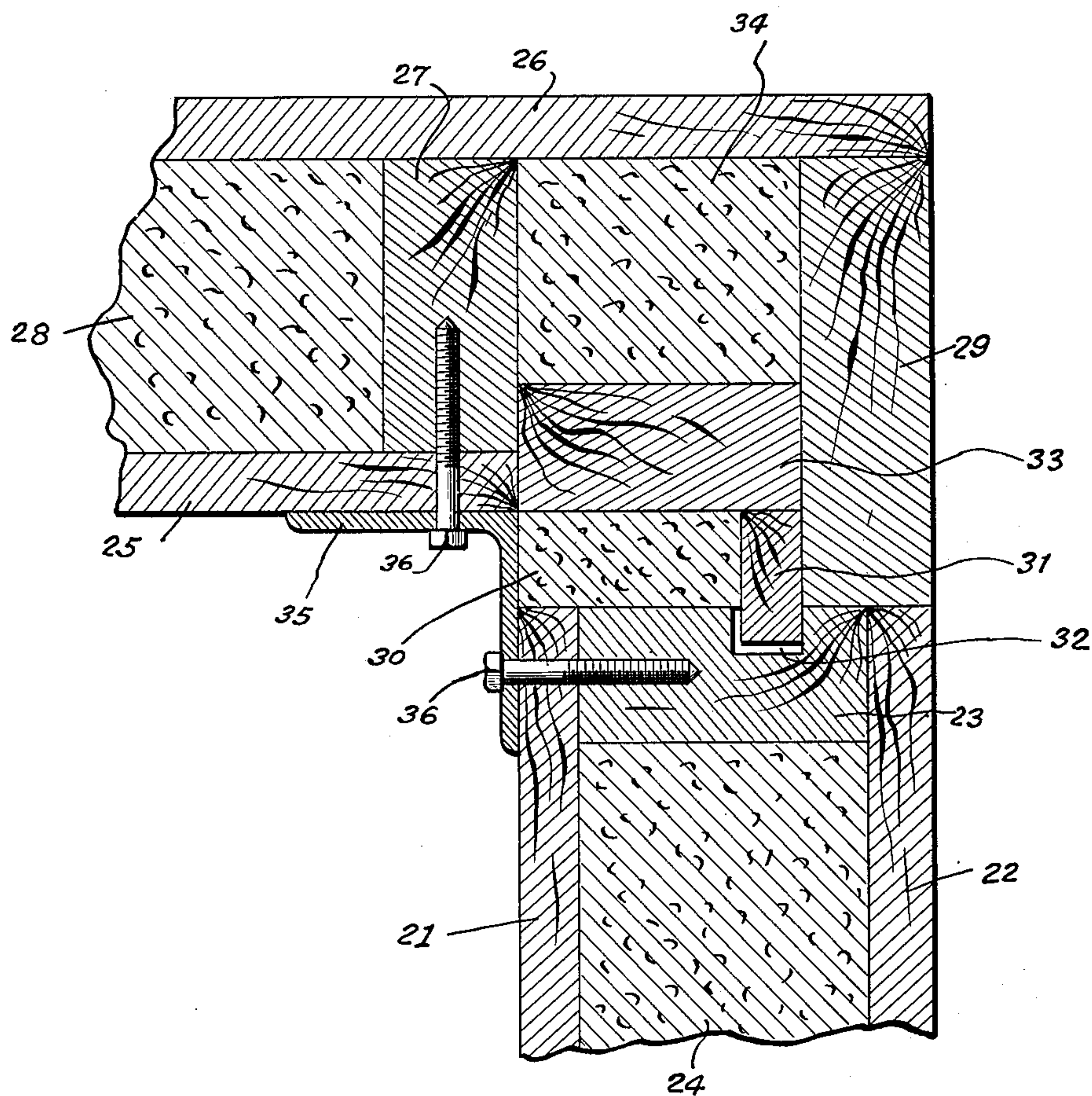
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## REFRIGERATOR CONSTRUCTION

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2 SHEETS--SHEET 2

*Fig. 2.*



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## UNITED STATES PATENT OFFICE

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## REFRIGERATOR CONSTRUCTION

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5 Claims. (Cl. 20—2)

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This invention relates to refrigerator constructions, and pertains particularly to that type of refrigerator construction which is commonly employed in commercial establishments such as butcher shops, grocery stores and the like. Such establishments usually require refrigerators of rather large cubical capacity, and it is customary to erect them on the site using suitable prefabricated, insulated panels.

There has been a long standing difficulty in providing a satisfactory joint between the vertical panels and the horizontal panels of such refrigerators, particularly at the top of the refrigerator. It has been virtually impossible to provide a joint between the upper edges of the vertical panels and the bottom faces of the horizontal top panels which would prevent leakage of air. Any leakage of warm air from the outside to the inside of the refrigerator along this joint results in condensation of moisture which is extremely undesirable.

It is an object of the present invention to provide a joint packed with insulating material which can be easily and quickly assembled and disassembled when necessary.

It is a further object of the invention to provide a construction which requires only slight modification of standard refrigerator panels.

Other objects and advantages of the invention will appear hereinafter.

A preferred embodiment of the invention selected for purposes of illustration is shown in the accompanying drawings, in which,

Figure 1 is a fragmentary vertical cross section through a refrigerator wall at an upper corner thereof, illustrating a joint embodying my invention between a vertical panel and a horizontal top panel.

Figure 2 is a similar view showing a modified form of the invention.

Referring to the drawings, the vertical panel is of a standard construction comprising inner and outer sheets of sheathing 1, 2 spaced by the horizontally extending runners 3. The space between the sheets of sheathing is filled with a suitable insulating material 4.

The horizontal top panel also comprises inner and outer sheets of sheathing 5, 6 spaced by the horizontally extending runners 7, with the space between the sheets of sheathing filled with insulating material 8.

The vertical panel is spaced from the horizontal panel by a runner 9 which is of a thickness less than the thickness of the vertical panel so that it engages only a portion of the end sur-

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face of the vertical panel, thereby separating the panels to provide a space 10 therebetween. Preferably the runner 9 is secured to the horizontal panel, and a guide rail 11 is then secured to the runner 9 to project into a groove 12 which extends lengthwise of the rail 3. The rail 11 preferably fits loosely in the groove 12, merely serving to locate the panels approximately in their proper relative positions.

In the erection of a refrigerator, after erecting the vertical panels, the top panels may be put in place, as shown, it being noted that the runner 9 is resting on the top surface of the vertical panel, carrying the weight of the top panel.

After the panels are thus assembled, the space 10 is packed with suitable insulating material, after which the open side of the space 10 is closed by a molding strip such as the angle strip 15 fastened to the panels by screws 16, as shown.

In the modified form of Figure 2, the vertical panel is of standard construction as before, comprising inner and outer sheets of sheathing 21, 22 spaced by runners 23, with the space between the sheathing filled with insulating material 24.

The horizontal panel, however, is of modified construction. It comprises inner and outer sheets of sheathing 25, 26, spaced by the horizontally extending runners 27 with the space between filled with insulating material 28, but in this case the outer sheathing 26 extends beyond the runner 27 a distance approximately equal to the thickness of the vertical panel.

The vertical panel is again spaced from the horizontal panel by a runner 29 which engages only a portion of the end surface of the vertical panel to provide a space 30 therebetween. The runner 29 is secured to the sheathing 26 near the edge thereof, and a guide rail 31 secured to the runner 29 projects into a groove 32 as and for the purposes previously described.

An additional runner 33 is interposed between the runners 29 and 27 and the space 34 is filled with suitable insulating material.

After the panels are assembled, as previously described, the space 30 is packed with suitable insulating material and the open side of the space is closed by a molding strip such as the angle strip 35 fastened to the panels by screws 36 as shown.

Joints so formed have been found to be so air tight that no observable leakage of air or resulting condensation of moisture has occurred even over relatively long periods of time. Furthermore refrigerators so constructed may be easily and quickly assembled and disassembled.



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It will be understood that the invention may be variously modified and embodied within the scope of the subjoined claims.

I claim as my invention:

1. In a refrigerator construction having a vertical panel and a horizontal panel secured together to form a corner joint, said panels each comprising spaced inner and outer sheets of sheathing, said vertical panel including a runner having a horizontal surface forming an end surface of said panel, in combination, a runner interposed between said panels and secured to one of said panels, said runner being of a thickness substantially less than the thickness of the vertical panel and engaging a portion only of the end surface of said vertical panel and forming a space of substantial volume between the remainder of the end surface of said vertical panel and the opposed surface of said horizontal panel, and insulating material packed in said space.

2. The construction set forth in claim 1, in which said vertical panel is a side panel and said horizontal panel is the top panel of the refrigerator.

3. The construction set forth in claim 1 in

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which the open side of said space is closed by a molding strip.

4. The construction set forth in claim 1 in which a guide rail attached to said horizontal panel projects beyond said runner and extends into a groove formed in the end surface of said vertical panel.

5. The construction set forth in claim 1 in which the open side of said space is closed by a molding strip, and in which a guide rail attached to said horizontal panel projects beyond said runner and extends into a groove formed in the end surface of said vertical panel.

JOHN POTH.

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