

Aug. 15, 1939.

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2,169,904

THERMOMETER BRACKET

Filed Oct. 26, 1936

2 Sheets-Sheet 1

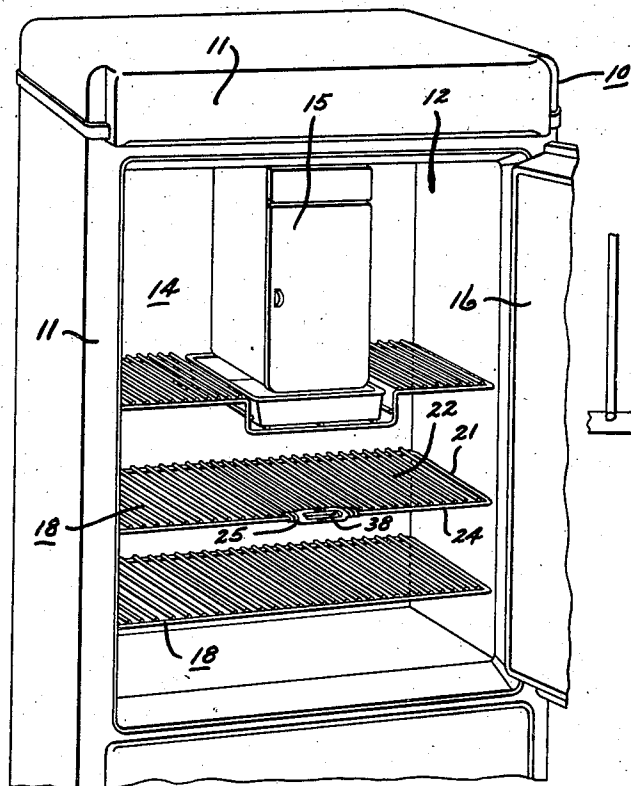


Fig. 1

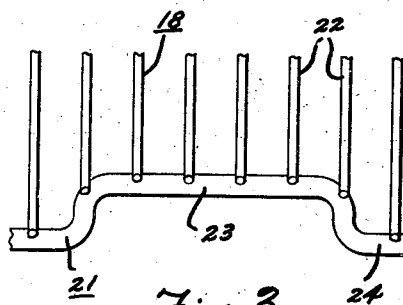


Fig. 3

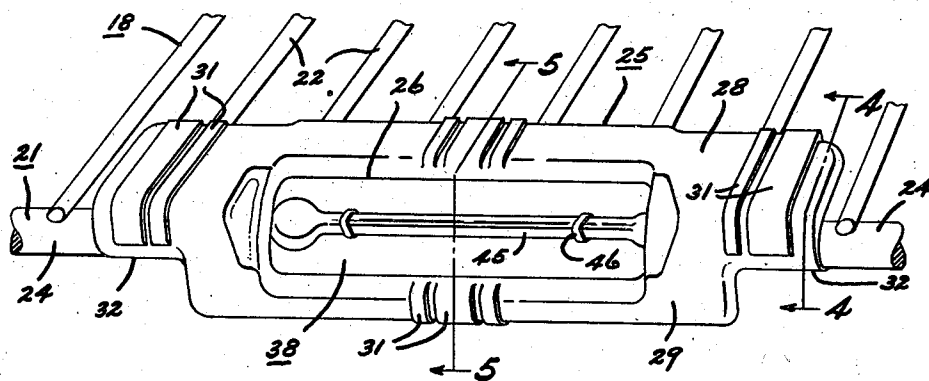


Fig. 2

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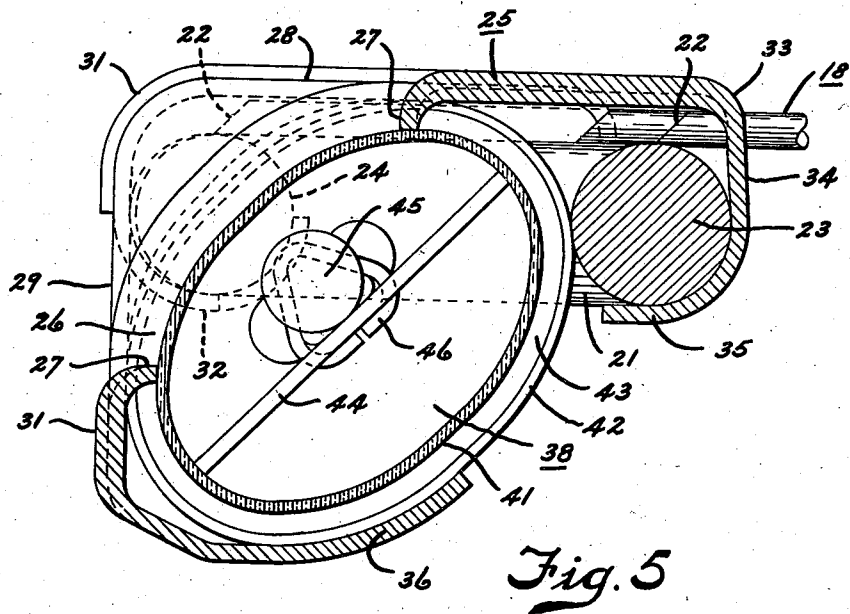
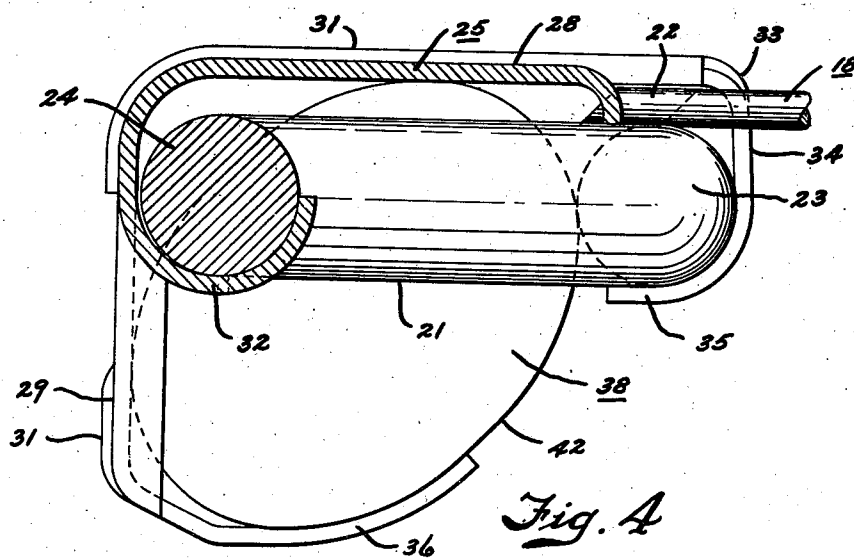
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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THERMOMETER BRACKET

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Application October 26, 1936, Serial No. 107,653

2 Claims. (Cl. 73-343)

The present invention relates to refrigerator cabinets and particularly to an arrangement of means for indicating temperatures existing within such cabinets.

I am aware of the fact that refrigerator cabinets have, in the past, been equipped with means to indicate the temperature of a compartment within the cabinet but such means have heretofore either been constructed in an insulated wall of the cabinet, with provisions for viewing the means from the exterior thereof, or positioned within the food storage compartment of the cabinet in such a position that it occupied a portion thereof adapted to receive articles to be stored therein, or the indicating means has been mounted on a cooling element or evaporator of a refrigerating system positioned in the compartment. It is very difficult to seal or insulate the means which permits a thermometer, constructed in an insulated wall of the cabinet, to be viewed from the exterior of the cabinet and the cost of such a structure is prohibitive. When a thermometer is placed in a food compartment of a refrigerator along the wall of a compartment or in a position adapted to be occupied by articles to be stored in the compartment it is likely to be broken during the transference of food to and from the compartment. Thermometers mounted on a cooling element positioned in a food storage compartment of a refrigerator cabinet will not indicate the true temperature of air circulating within the compartment due to its being affected by the low temperature of the cooling element. Thus it is apparent that these former provisions of temperature indicating means for food compartments of refrigerator cabinets have either been too expensive to produce or have not been entirely satisfactory. My invention is directed to overcoming difficulties encountered in the production and use of these prior temperature indicating means.

An object of the present invention is to provide a refrigerator cabinet with a thermometer for indicating the temperature therein and to mount the thermometer in a food storage compartment thereof in a conspicuous but out of the way position so that the same will not interfere with the transference of objects to and from the food compartment.

Another object of the invention is to mount a thermometer within the food storage compartment of a refrigerator cabinet in a position whereby a thermometer will not occupy a portion of the compartment adapted to receive and support articles to be stored therein.

A further object of the invention is to provide an improved means for mounting a thermometer on a food supporting shelf of a food storage compartment of a refrigerator cabinet which means is ornamental and thereby improves the appearance of the cabinet.

In carrying out the foregoing objects it is a still further and more specific object of the present invention to provide a bracket for mounting a thermometer along the front edge of a shelf of a food storage shelf of a refrigerator cabinet which bracket cooperates with the shelf to maintain the thermometer in a predetermined fixed position so as to be conspicuous when the food compartment access door is open.

Further objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawings, wherein a preferred form of the present invention is clearly shown.

In the drawings:

Fig. 1 is a front perspective view of a refrigerator cabinet having food storage chamber provided with a food supporting shelf and a thermometer mounted thereon in accordance with the present invention;

Fig. 2 is an enlarged perspective fragmentary view looking from the front downwardly upon the upper surface of a shelf and the mounting bracket for the thermometer;

Fig. 3 is a fragmentary plan view of the front edge of the shelf showing an inwardly offset portion thereof;

Fig. 4 is an enlarged sectional view taken on the line 4-4 of Fig. 2 and illustrating the attachment of an end portion of the thermometer mounting bracket to the shelf; and

Fig. 5 is an enlarged sectional view taken on the line 5-5 of Fig. 2 showing the attachment of a central portion of the bracket to the shelf and the mounting of a thermometer in the bracket.

Referring to the drawings, for the purpose of illustrating my invention, I have shown in Fig. 1 thereof a refrigerator cabinet of the household type generally represented by the reference character 10. Cabinet 10 includes a plurality of insulated walls 11 preferably covered by a metal shell or a plurality of metallic panels. The walls 11 surround and enclose a metallic liner member 12 which forms walls of a food storage chamber 14 within cabinet 10. Any desirable or conventional cooling element or evaporator 15 of a mechanical refrigerating system is preferably mounted within the food storage chamber 14 by

being suspendingly supported from the top wall thereof. The refrigerating effect produced by evaporator 15 cools and causes circulation of air within chamber 14 through shelves disposed therein. One of the walls 11 is provided with an opening affording access to chamber 14 and which opening is normally closed by a door 16. In order to divide chamber 14 into a plurality of food storage compartments or food supporting surfaces I provide a plurality of horizontally disposed reticulated shelves within chamber 14. The shelves may be supported in any suitable or conventional manner within chamber 14 such, for example, as by shelf supports secured to the vertical side wall portions of the metallic chamber liner 12.

The shelves shown in Fig. 1 of the drawings are of similar construction but it will be noted by referring to Fig. 2 of the drawings that one of the shelves 18 comprises a rather heavy round wire rim member 21 which forms the peripheral edges of the shelf and is adapted to have portions thereof engaged by a shelf support. A plurality of small round wires 22 are spaced apart a predetermined distance and extend parallel to one another from the front to the rear of the rim member 21. It will be noted that the wires 22 are all disposed on the same horizontal plan and provide the shelf 18 with a flat food supporting surface. The ends of wires 22 are preferably welded or otherwise secured to the top surface of rim member 21. The reticulated shelf 18 has a portion of its front edge or rim member 21 offset or bent inwardly as at 23 relative to other front edge portions 24 thereof (see Fig. 3). This offset portion 23 of shelf 18 provides a space within chamber 12 adjacent and along the inner wall of door 16.

A thermometer mounting generally represented by the reference character 25 is adapted to be secured to shelf 18 at the inwardly bent or offset front edge portion 23 thereof. This member 25 comprises an elongated ornamental metal bracket which is substantially L-shaped in cross section and is preferably stamped or punched from sheet material. The member 25 is provided with an elongated opening 26 intermediate the ends thereof and adjacent or inwardly of the connecting corner portion of the L. The material of member 25 at the corners of opening 26 is bent inwardly as at 27 (see Fig. 5) for a purpose to be presently described. Bracket 25 includes a substantially flat horizontal top part 28 and a substantially flat vertical front part 29 which parts form the L-shaped structure above referred to. Thus it will be noted that opening 26 extends into or over a portion of both substantially flat parts of the mounting bracket member 25. There are a plurality of rib-like portions 31 raised in the face parts 28 and 29 of member 25 and the plating of these portions 31 is highly polished relative to the finish of the remainder of the bracket and serve to increase the ornamental character of the mounting bracket. The end portions of the front face 29 of member 25 are bent inwardly as at 32 (see Fig. 4) to provide legs adapted to engage the front portion 24 of the rim 21 of shelf 18. A centrally located portion 33 (see Figs. 4 and 5) extending beyond the back edge of the top face 28 of member 25 adjacent the central raised decorative ribs 31 therein is bent downwardly as at 34 and inwardly as at 35 to form a leg adapted to fit over the inwardly directed offset portion 23 of the rim 21 of shelf 18. It will be noted that when the legs formed

by the extended portions of member 25 are bent around the rim 21 of shelf 18 these legs are positioned between certain cross wires 22 of the shelf 18. The bottom edge portion of the front face 29 of member 25, intermediate the bent in portion 32 thereof, is extended or bent inwardly as at 36 (see Figs. 4 and 5) to provide a ledge adapted to support, with the cooperation of the shelf rim, a temperature indicating device or thermometer generally represented by the reference character 38. This thermometer 38 may be of any suitable or conventional construction and it will be noted by referring to Fig. 1 of the drawings that the thermometer 38 is positioned adjacent the inner wall surface of the refrigerator cabinet door 16 at the front of chamber 14 so as to be in a readily accessible position for reading the temperature indicated thereby when door 16 is open.

The construction of the thermometer, generally indicated by the numeral 38, in the present disclosure includes a glass tube 41 which is oval shaped in cross section and has metal cap members 42 secured to the ends thereof. A suitable sealing washer 43 may be located between the metal caps 42 and the glass tube. The tube 41 and closure caps 42 form a chamber or housing having a flat plate 44 positioned therein and which plate is graduated in any suitable manner. A small glass tube 45 having mercury or other suitable fluid sealed therein is stationarily attached to plate 44 by a pair of clips 46. The mercury within tube 45 is adapted to cooperate with and move relative to the graduations on plate 44 in response to temperature changes for indicating the temperature existing within the food storage chamber 14. By mounting the tube 45 within the sealed chamber or housing, formed by the glass tube 41 and end cap members 42, the thermometer is prevented from being directly exposed to air within the room in which the refrigerator cabinet 10 is located at the time door 16 is opened. Thus the thermometer will maintain the true temperature of the food storage chamber 14 for a considerable length of time after door 16 has been opened.

The elements forming the thermometer 38 are constructed and arranged to cooperate with the bracket 25 and also with the rim 21 of shelf 18 to maintain the thermometer 38 in a predetermined position within the mounting bracket 25. It is to be noted by reference to Figs. 4 and 5 of the drawings that the ledge 36 formed on bracket 25 is of the same general contour as the thermometer 38 and that it supports same with the glass tube portion 41 thereof in abutting relationship with the edge portion 27 of opening 26 in bracket 25. An upper portion of thermometer 38 is adapted to be located in abutting relationship with the inwardly bent or offset portion 23 of rim 21 of shelf 18 to prevent turning of the thermometer within the mounting bracket. The end cap members 42 of the element 38 may be arranged to abut the connecting leg portion of the inwardly bent or offset part 23 which connects part 28 with part 24 of the rim 21 of shelf 18 to thus prevent horizontal movement of the thermometer 38 within the mounting bracket 25.

From the foregoing it is apparent that I have provided an improved mounting of a temperature indicating means within the food storage chamber of a refrigerator cabinet. By providing for the support of a thermometer as disclosed it is obvious that the thermometer is disposed

within the space formed by the inwardly directed edge portion of the food supporting shelf and that the thermometer mounting bracket conceals the inwardly bent shelf rim or edge and also forms a continuation of the edge of the shelf adjacent the bent in rim part thereof. The improved mounting locates the thermometer in a position wherein it does not interfere with the storage of articles adapted to be supported on the shelf or with the transference of these articles to and from the refrigerator chamber. The improved mounting bracket is of an ornamental character and provides a shield for the thermometer for protecting same against breakage during the act of rearranging of food products in the refrigerator chamber or during the act of moving the products into or from the cabinet.

While the form of embodiment of the present invention as herein disclosed, constitutes a preferred form, it is to be understood that other forms might be adopted, all coming within the scope of the claims which follow.

What is claimed is as follows:

1. In combination with a bar having a U-shaped portion formed therein, a bracket associated with said bar and having a part thereof constructed and arranged to receive and support a thermometer within the space formed by said U-shaped portion of the bar, said bracket including an extended part attached to the yoke intermediate the legs of the U-shaped portion of

said bar and at least one other extended part embracing said bar beyond a leg of the U-shaped portion thereof, said bracket also having other extended parts which cooperate to secure the thermometer within the space formed by the U-shaped portion of said bar with the legs of the U-shaped portion limiting longitudinal movement of the thermometer.

2. In combination with a bar providing one edge of a shelf adapted to be disposed in a food storage compartment of a refrigerator cabinet and having a U-shaped portion formed therein, a bracket associated with said bar and having a part thereof constructed and arranged to receive and support a thermometer within the space formed by said U-shaped portion of the bar, said bracket including an extended part attached to the yoke intermediate the legs of the U-shaped portion of said bar and two other extended parts one of which embraces said bar beyond one leg of the U-shaped portion thereof and the other of said two other parts of said bracket embracing said bar beyond the other leg of the U-shaped portion thereof, said bracket also having a plurality of extended parts intermediate said two other parts thereof which cooperate to secure the thermometer within the space formed by the U-shaped portion of said bar with the legs of the U-shaped portion limiting longitudinal movement of the thermometer.

EDMUND F. SCHWELLER.