Feb. 15, 1944. R. E. KRUCK 2,341,924

REFRIGERATION APPARATUS

Filed Nov. 28, 1942

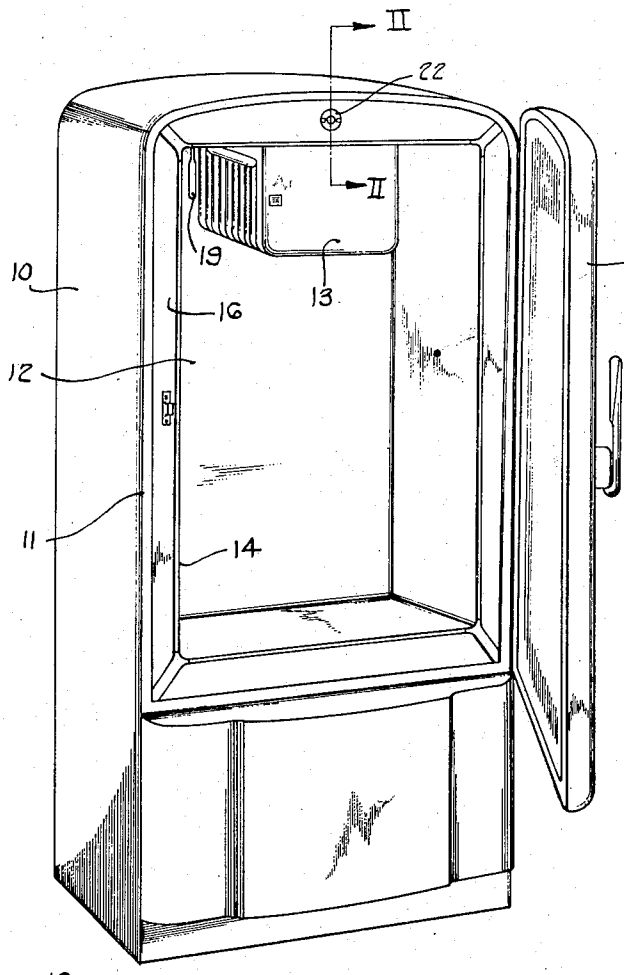


FIG. 1

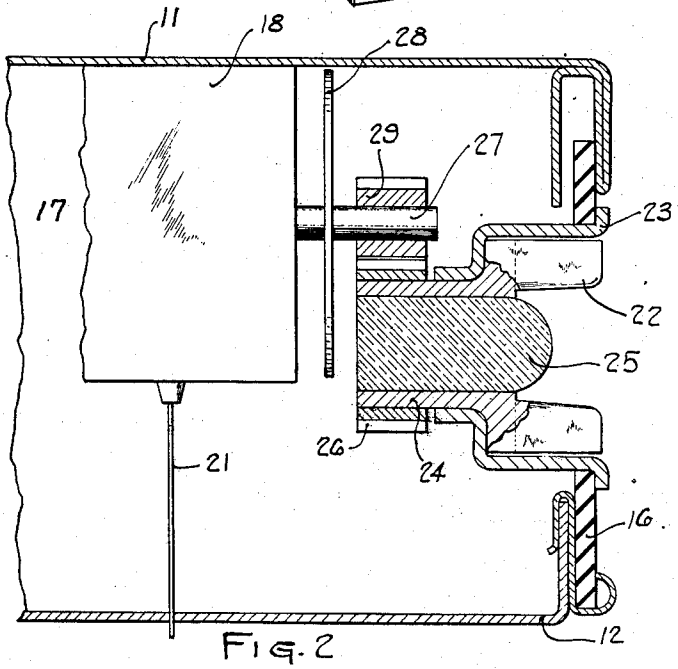


FIG. 2

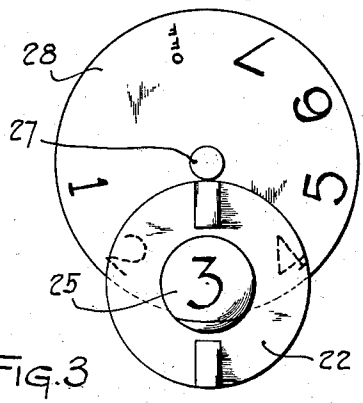


FIG. 3

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Patented Feb. 15, 1944

2,341,924

UNITED STATES PATENT OFFICE

2,341,924

REFRIGERATION APPARATUS

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Application November 28, 1942, Serial No. 467,171

1 Claim. (Cl. 62—1)

My invention relates to temperature-adjusting devices and particularly to readily accessible and manually-operable temperature-adjusting devices which also indicate the temperature setting of a range or refrigerator, for example.

I have shown my invention applied to an adjustable refrigerator control, but it is to be understood that it is not so limited. In many cases where an adjustable temperature control is required, it is desirable to use a small temperature-adjusting knob or handle because of space factors and appearance. A small knob or handle ordinarily provides sufficient leverage for operating the temperature control. However, it is customary to provide indicia to indicate to the operator the setting of the temperature control, either in degrees Fahrenheit, by number, or by some other legends such as "cold," "coldest," etc. Because of the smallness of some adjusting knobs and handles and the impracticability from a design or appearance standpoint of placing the indicia adjacent to the adjusting device, it has been a problem to make the indicia clearly legible to the operator.

It is, therefore, an object of my invention to provide a small readily-accessible manually-adjustable temperature control adjusting device in which the indicia associated therewith is clearly legible to the operator.

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

Fig. 1 is a perspective view of a refrigerator cabinet embodying my invention;

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

Fig. 3 is a diagrammatic view of the control knob and indicia dial of the control.

Referring specifically to the drawing for a detailed description of the invention, numeral 10 designates a refrigerator cabinet having an outer shell 11 and an inner shell or food liner 12 defining a food-storage compartment cooled by an evaporator 13. The food-storage compartment is provided with an access opening 14 which is closed by a door 15. A breaker strip 16 bridges the space between the inner and outer shells 11 and 12 peripherally of the access opening 14. Heat insulation (not shown) is disposed between the inner and outer shells, as shown in Fig. 2.

A manually adjustable temperature control is shown diagrammmatically at 18 and is preferably the standard type of pressure-operated temperature control having a temperature-responsive bulb 19 disposed adjacent the evaporator 13 and connected to the control mechanism by a conduit 21 extending through the upper wall of the inner shell 12. The control mechanism 18 is disposed in the insulation 17 between the top walls of the inner and outer shells 11 and 12. In this type of control, changes in temperature of the bulb 19 cause opening and closing of a switch to energize or deenergize a motor for driving a compressor of the refrigerating system, in a manner well known in the art.

In order to render the adjustment for the temperature control 18 readily accessible and provide legible indicia thereon, I provide a temperature control knob 22 which is positioned in a metal cup 23 inserted in the breaker strip 16 between the upper walls of the inner and outer shells. The cup 23, however, may be composed of any suitable material not necessarily metal. The cup 23 may be of the same material as the breaker strip, and may also be an integral part of the breaker strip. In this position, the knob 22 is readily accessible when the door 15 is open. A sleeve 24 is attached to the knob 22, and the sleeve and knob have registering openings in the center thereof in which a magnifying lens 25 is inserted. The sleeve 24 extends through a hole in the base of the cup 23 and is provided with a gear 26 at its inner end. A shaft 27 protrudes from the control 18 and rotation thereof effects temperature adjustment. A coacting gear 29 on the shaft 27 engages with the gear 26 so that rotation of the control knob 22 rotates the shaft 27 in a predetermined ratio.

As shown in Fig. 3, a disc 28 having suitable indicia on its surface is fastened at its center to the shaft 27. As the shaft 27 is rotated by rotation of the knob 22, the indicia appear in back of the magnifying lens 25 and may be readily observed by the operator. Only one of the indicia is visible at a time. If desired, the disc may be illuminated in any suitable manner.

From the foregoing, it will be apparent that I have provided a novel temperature control adjustment which fits into a small space, is readily accessible, and has indicia associated therewith which are clearly legible to the user.

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 specifically set forth in the appended claim.

What I claim is:

In a refrigerator including a cabinet structure defining a food compartment having an access opening, door for closing said compartment, and a breaker strip surrounding said opening and against which said door closes, a bearing countersunk in said strip, a temperature-control member rotatable in, and extending inwardly through said bearing, said control member having a through centrally-disposed bore therein, a magnifying lens in said bore, an indicating mechanism including a disc and relatively small indicia carried by said disc and adapted to indicate the setting of said control member, and means interconnecting said control member and said disc for rotating said disc upon rotation of said control member, said disc being offset with respect to said control member and being concealed by said strip, with only one of said indicia visible through said lens at any one time.

RALPH E. KRUCK.