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C. H. NAUERT

2,139,244

REFRIGERATOR

Filed July 3, 1936

2 Fig. 1.

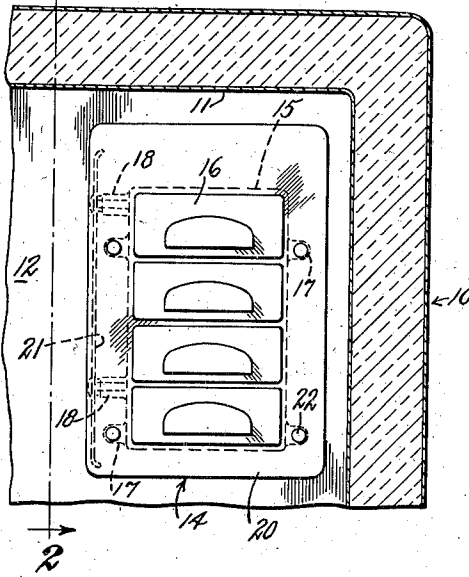


Fig. 2.

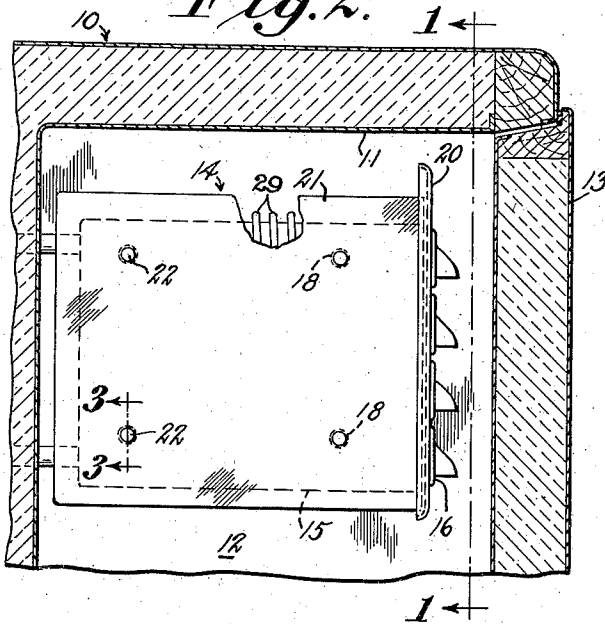
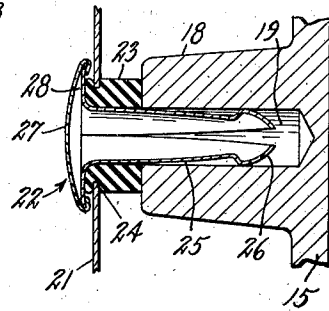


Fig. 3.



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UNITED STATES PATENT OFFICE

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REFRIGERATOR

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5 Claims. (Cl. 62-126)

My invention relates to cooling units for refrigerators, and more particularly to cooling units having baffle plates mounted thereon.

It is an object of my invention to provide an improved cooling unit for refrigerators having one or more baffle plates secured thereon in such a manner that each baffle plate is quickly mounted on and easily removed from the cooling unit.

The invention, together with the objects and advantages thereof, will become apparent from the following description taken in conjunction with the accompanying drawing forming a part of this specification, and of which:

Fig. 1 is a sectional view taken on line 1-1 of Fig. 2 illustrating a cooling unit embodying my invention arranged within the storage compartment of a refrigerator;

Fig. 2 is a sectional view taken on line 2-2 of Fig. 1; and

Fig. 3 is an enlarged fragmentary sectional view taken on line 3-3 of Fig. 2 illustrating more clearly the manner in which the baffle plates are removably secured to the cooling unit.

Referring to Figs. 1 and 2, I have shown my invention in connection with a refrigerator cabinet 10 having thermally insulated walls 11 defining a storage compartment 12 into which access may be had by a door 13 hinged to the front of the cabinet. Within the storage compartment 12 is arranged a cooling unit 14 comprising a metal shell 15 having a plurality of compartments for receiving trays 16 adapted to contain water. An evaporator coil 29 of refrigeration apparatus may be arranged adjacent to or about the shell 15 for producing cold in a well-known manner to freeze the water in the trays 16 and maintain the storage compartment 12 at a desired low temperature.

The shell 15 at the forward end of each side wall is provided with a plurality of outwardly extending ears of projections 17 which have openings and are substantially flush with the end of the shell. The side walls of the shell 15 are provided with bosses or projections 18 which have openings or recesses 19. The shell 15 is provided with front and side baffle plates 20 and 21, respectively, which may be formed of porcelain or metal having a baked enamel finish to provide a neat external appearance for the cooling unit 14.

In accordance with my invention the baffle plates 20 and 21 are secured to the shell 15 by means of fasteners 22 or other quick detachable yieldable means so that each baffle plate is quickly mounted on and easily removed from the shell 15. The plates 20 and 21 are provided with a plurality of openings which are in alignment with

the openings or sockets in the ears 17 and bosses 18 when the plates are placed in position at the front and side walls of the shell 15. The baffle plates are maintained in fixed spaced relation from the outer surfaces of the ears 17 and bosses 18 by grommets or hollow members 23 each having an annular recess, as indicated at 24 in Fig. 3, to receive the edge of the baffle plate about an opening therein. The fasteners 22 are forced through the grommets 23, which may be formed of rubber, into the openings in the ears 17 and bosses 18 whereby the baffle plates are rigidly held in position.

The fasteners 22, as shown in Fig. 3, comprise a tapered split sleeve 25 having an enlarged head 26, and a flat head 27 having its edges bent back upon itself to receive the flanged inner ends 28 of the two parts of the split sleeve 25. The two parts of the head 26 are tapered so that they automatically press together and slide into an opening when pressure is applied to the flat head 27 of the fastener. After insertion, the two parts of the split sleeves 25 of the fasteners tend to spread apart whereby the heads 26 frictionally engage the inner walls of the openings into which they extend. The baffle plates 20 and 21 are easily removed by force applied to the underside of the flat heads 27 of the fasteners 22.

In view of the foregoing, it will be understood that by providing removable fasteners to secure the baffle plates to the cooling unit, the plates are quickly mounted on and easily removed from the cooling unit. Further, the mounting and removing of the baffle plates may be effected without the use of tools. Yet further, other advantages are that the rubber serves as thermal insulation and compensates from any slight irregularities or misalignment of the sockets and apertures.

Although I have shown and described a specific embodiment of my invention, it will be understood that modifications and changes may be made without departing from the spirit and scope of my invention.

What is claimed is:

1. In a refrigerator, a cooling unit including a shell, a cover plate and one or more snap fasteners mounting said plate on said shell, said shell having one or more bosses each having an aperture for receiving a fastener, each of said fasteners having resilient prongs for engagement in one of said apertures, said plate having one or more apertures through which the prongs pass, and each of said fasteners having a head positioned on the exterior of said plate, whereby

the head or heads may be grasped to remove the fastener or fasteners and separate the plate from the shell without use of tools.

2. In a refrigerator, a cooling element, a cover
5 plate, one or more thermal insulating spacers,
and one or more fasteners removably mounting
said plate on said element, said element having
one or more apertures for receiving the fasteners,
10 each of said fasteners having resilient prongs for
engagement in one of said apertures, and said
plate and said spacers having apertures through
which the prongs pass.

3. In a refrigerator the combination of a cool-
ing element having a plurality of sockets asso-
15 ciated therewith, a readily detachable baffle plate
having apertures therein substantially in align-
ment with said sockets, yieldable means detach-
ably engaging said sockets and securing said plate
in quick detachable relation with respect to said
20 cooling element, and means thermally insulating
and spacing said plate from said cooling element
whereby to prevent the formation of frost and
the conduction of cooling effects between the
cooling element and the baffle.

4. In a refrigerator the combination of a cool-
ing element having a plurality of sockets asso-
ciated therewith, a readily detachable baffle plate
having apertures therein substantially in align-
ment with said sockets, yieldable means detach-
ably engaging said sockets and securing said plate
in quick detachable spaced relation with respect
to said cooling element, and means flexibly con-
necting said yieldable means and said plate.

5. In a refrigerator the combination of an
evaporator having a plurality of sockets asso-
10 ciated therewith, a readily detachable baffle plate
having apertures therein positioned substantially
for alignment with said sockets, and quick de-
tachable means flexibly engaging said apertures
15 and said sockets and removably affixing said
plate in insulated spaced relation with respect to
said evaporator for ready detachment therefrom
whereby any slight irregularities in said align-
ment are readily compensated. 20

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