Sept. 4, 1934. P. O'CONNELL 1,972,631

AUXILIARY REFRIGERATOR CLOSURE

Filed June 20, 1933

FIG. 1

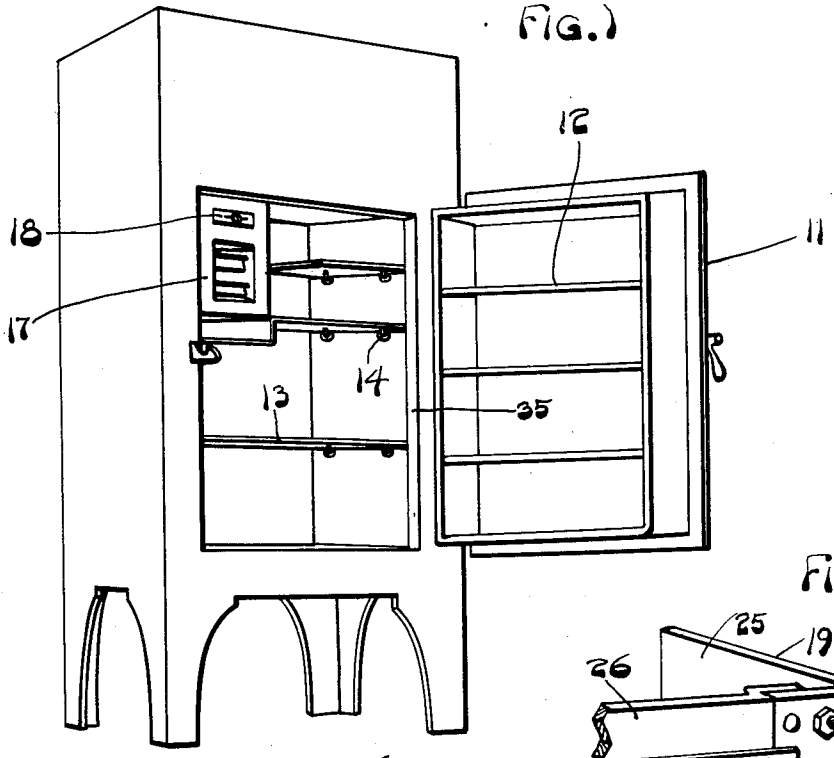


FIG. 3

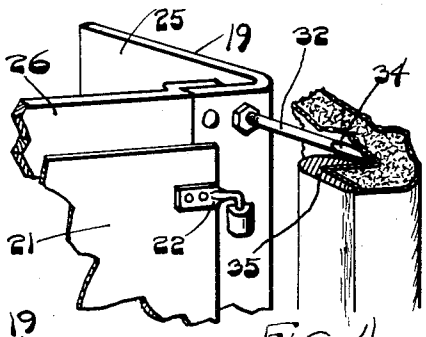


FIG. 2

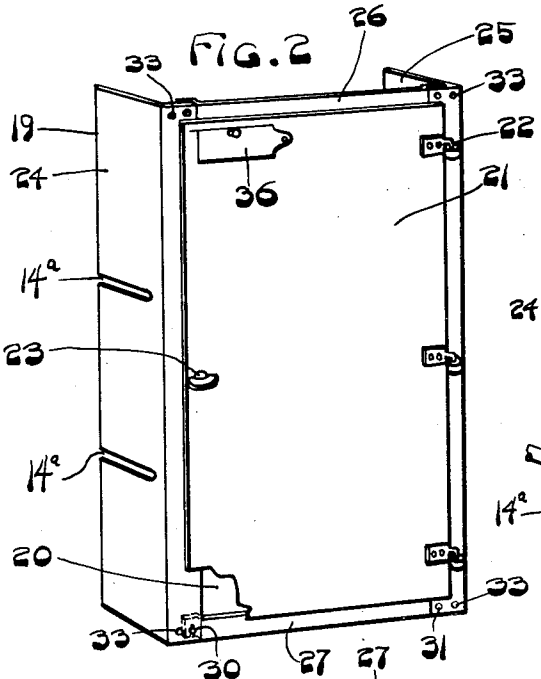


FIG. 4

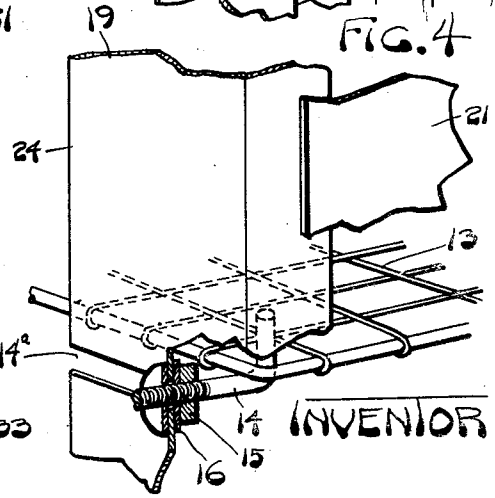
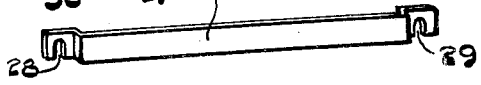


FIG. 5



INVENTOR

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AUXILIARY REFRIGERATOR CLOSURE

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2 Claims. (Cl. 312—189)

Recently a type of refrigerator has been placed on the market, in which the door is equipped with shelves for the support of articles to be kept in a refrigerated atmosphere, thus increasing the capacity of the refrigerator as well as rendering its contents much more readily accessible. Inasmuch as it has been found convenient to employ the door shelves for articles in the best position for immediate access without having to disturb the arrangement of the food in the body of the refrigerator.

In order that the temperature within the refrigerator may be conserved to best advantage it is desirable that the body of the refrigerator be closed additionally to the insulated closure afforded by the door, since the opening of the door merely to reach an article supported by the door shelves allows the chilled air within the body of the refrigerator to be lost, thus reducing the efficiency of the refrigerator as well as rendering its operation expensive.

An object of my invention is to produce means in the form of an auxiliary refrigerator closure which will overcome the objection to the loss of refrigerated air as described above, which will not reduce accessibility to the refrigerator body or control devices by means of which the degree of refrigeration is regulated, and which will not occasion alteration of the refrigerator construction or injure its convenience for cleansing purposes and the like.

These and other objects are attained by the auxiliary refrigerator closure described in the following specification and illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view of the type of refrigerator to which my invention is directed.

Fig. 2 is an enlarged perspective view of the auxiliary closure designed for use with the type of refrigerator shown in Fig. 1.

Fig. 3 is an enlarged fragmental section perspective view of one corner of the auxiliary closure shown in Fig. 2, in cooperation with a portion of the refrigerator wall and a fastening device by means of which the auxiliary closure is held in proper relation to the refrigerator opening.

Fig. 4 is an enlarged fragmental perspective view of the auxiliary closure in association with one of the refrigerator shelf supports showing the manner in which the auxiliary closure is locked in closing position within the refrigerator.

Fig. 5 is a slightly enlarged perspective view showing a bar embodying a provision I have made to enable the refrigerator to be cleaned with the auxiliary closure occupying mounted position therein.

The refrigerator to which my invention is especially adaptable is that type employing a door 11 in which shelves 12 are mounted for holding articles to be refrigerated. The interior of this type of refrigerator contains shelves 13 which are supported by the usual studs or hooks 14 extending from the sides of the refrigerator and locked therein by nuts 15 bearing against washers 16 pressed against the inner walls of the refrigerator. Also, the usual refrigeration unit 17 is located in the refrigerator, with its temperature control 18 located conveniently accessible for manipulation.

My invention, being applicable to the type of refrigerator just set forth, consists of a frame 19 having a central opening 20 which is closed by a door 21, preferably of sheet metal mounted on hinges 22 on the frame and having a catch 23 by means of which the door is held closed. The frame has two angular sides 24 and 25 of metal, connected across the front by respective top and bottom bars 26 and 27, the former being riveted to form a unit with the sides, and the latter being similarly shaped but being made so as to be detachable by providing slots 28 and 29 therein at its ends for engagement with the rivets 30 and 31 at the bottoms of the sides 24 and 25. This removability of bar 27 has been made so that the refrigerator bottom may be cleaned readily while the auxiliary closure remains in mounted position.

In order to mount the auxiliary closure in position, the sides 24 and 25 are provided with slots 14*a* which extend at intervals from the rear edges toward the front of the closure, in registration with the shelf hooks 14 and in condition to be gripped between the nuts 15 of the hooks and the inner walls of the refrigerator as suggested in Fig. 4. In this manner the closure is locked against movement. However, the positioning and contributory locking of the closure structure in its mounted position, are accomplished by means of a simple expedient comprising a set of four fingers, one of which is located at each corner of the closure as shown at 32 in Fig. 3. One finger is located in each of the holes 33 provided in the front edge corners of the frame 19. Each finger for the purposes of adjustment has a threaded end adapted to take on a front and back nut, its forward end 34 adapted to be sprung back of the edge moulding 35 which surrounds the edge of the opening within which the door fits for closure purposes.

Thus, definite positioning of the closure structure is secured preparatory to its locking by means of the shelf hook nuts 15.

An added feature of convenience lies in the small door 36 at the top of door 21 and in registration with the control 18 of the refrigerator cooling mechanism. In this manner the temperature control may be reached without having to subject the refrigerated interior of the refrigerator to warm exterior air.

By means of the auxiliary closure, the mostly used small articles may be kept on the door shelves 12 while the less frequently used articles may be kept in the body of the refrigerator back of the secondary door 21, thereby making it unnecessary to cause the refrigerator body interior to be subjected to warm air merely for the purpose of obtaining an article which as readily could have occupied the door shelves without having the entire refrigerator temperature raised unnecessarily.

Having thus described my invention what I claim is:

1. An auxiliary door closure for the interior of refrigerators having a molding-edged opening, article supporting shelves within the refrigerator, locking means mounting the shelves on the refrigerator sides, a door closing the opening, and article supporting shelves attached to the inside portion of the door, comprising a frame substantially fitting the interior sides of said refrigerator and the shelves therein, a secondary door on the frame and closing the opening therein, whereby the space between the door portion and back wall of the refrigerator is divided into two article-receiving portions, slotted sides integral with the frame, the slots registering with the locking means, the front edge corners of the frame having holes therein and fingers with adjustable locking means passing through said holes for engaging back of the edge molding of the refrigerator opening, whereby the auxiliary door closure will be definitely positioned within the refrigerator.

2. An auxiliary door closure for the interior of refrigerators having a molding edged door opening and article supporting shelves within the refrigerator, hooks extending from the refrigerator sides to support the shelves, a door closing the opening, and article-supporting shelves attached to the inside portion of the door, comprising a frame substantially fitting the interior sides of the refrigerator, a secondary door closing the opening in the frame, slotted sides integral with the frame, the slots registering with the hooks, and nuts on said hooks for gripping the slotted sides to the inner walls of the refrigerator, fingers having one end of each threaded, the frame having each front face corner provided with a hole to receive the threaded end of a finger, and nuts mounted on the threaded ends of the fingers for adjustment thereof to bring their forward ends to engage back of the edge molding of the refrigerator opening, whereby the auxiliary door closure will be definitely positioned.

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