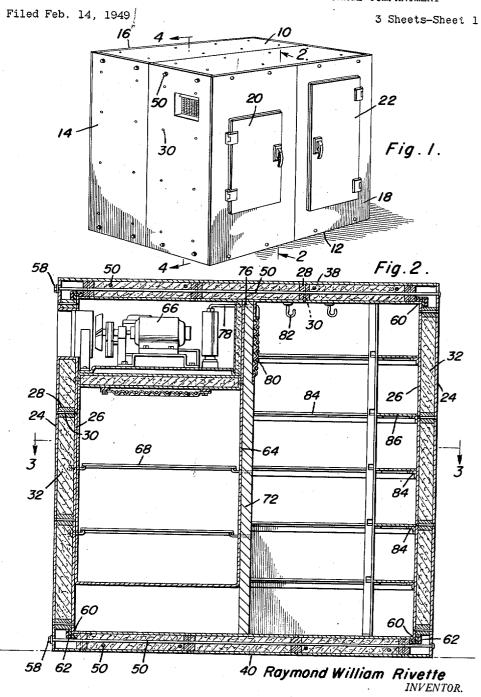
COMBINATION REFRIGERATOR AND WALK-IN STORAGE COMPARTMENT

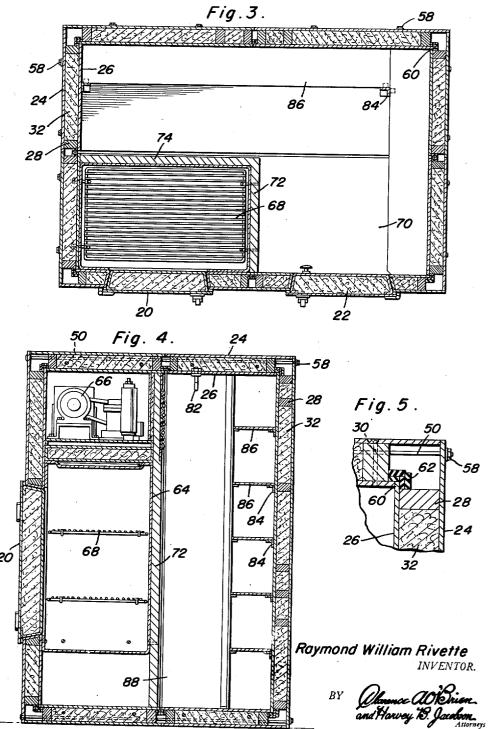


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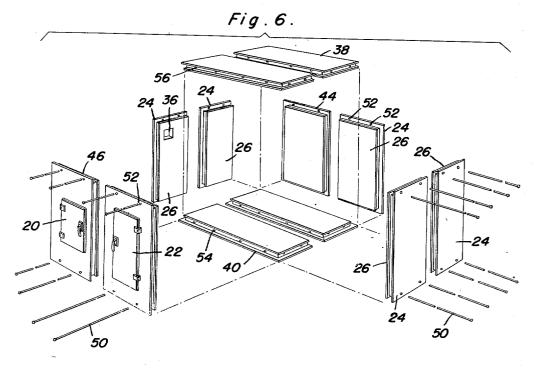
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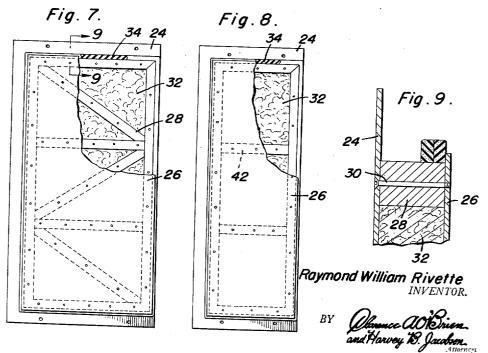


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UNITED STATES PATENT OFFICE

2,601,634

COMBINATION REFRIGERATOR AND WALK-IN STORAGE COMPARTMENT

Raymond William Rivette, San Francisco, Calif. Application February 14, 1949, Serial No. 76,274

4 Claims. (Cl. 62-89)

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This invention relates to a combination refrigerator and quick freeze and walk-in storage compartment constructed of segmental discerptible sections, the primary object of which is to permit one to carry the sections through a small size entrance and then assemble, rapidly and easily, the entire box in an appropriate place, such as a kitchen, small closet, cellar, etc.

Yet another object of this invention is to provide a combined refrigerator and walk-in freeze 10 compartment, the sides of which can be readily and easily extended by the addition of segmental sections to the already existing box structure.

Another object of this invention is to provide a device of the character described which can be 15 constructed from metal, wood or wood fiber including discerptible segments that are properly insulated within and without.

Another object of this invention is to provide a device of the character described including shelves and hooks for retaining material and foodstuffs in the box.

Yet another object of the invention is to provide a combination refrigerator and walk-in freeze compartment comprising a substantially 25 rectangular container and a refrigerating unit in said container, the walls of said container including separable panels, means for retaining said panels in assembled relation, and means for insulating said panels.

These, together with various ancillary objects and features of the invention which will later become apparent as the following description proceeds, are attained by the device, a preferred embodiment of which has been illustrated by way of example only in the accompanying drawings, wherein:

Figure 1 is a perspective view of the assembled box of the instant invention;

Figure 2 is a vertical sectional view taken substantially in the plane of section line 2-2 of Figure 1;

Figure 3 is a sectional view taken substantially in the plane of section line 3-3 of Figure 2;

Figure 4 is a sectional view taken substantially in the plane of section line 4-4 of Figure 1;

Figure 5 is an enlarged fragmentary sectional view illustrating the construction of a corner 50 for retaining the hinged doors 20 and 22.

Figure 6 is a group assembly view of the panels ready to be assembled into the box shown in Figure 1:

the side panels, parts being broken away to show details of construction;

Figure 8 is a view similar to Figure 7 showing a bottom and top panels; and

Figure 9 is a sectional view taken substantially on the plane of section line 9-9 of Figure 7.

Specific reference is now made to the drawings. In the several views in the accompanying drawings and the following specification reference characters indicate corresponding elements throughout.

As will be seen clearly in Figure 1, the assembled box is preferably substantially rectangular in shape and consists of a top wall 10, a bottom wall 12, side walls 14, a back wall 16 and a front wall 18. The front wall 18 is further provided with a hinged door 20 for access to the refrigerator compartment and a hinged door 22 for access to the walk-in freeze compartment.

The construction of the combined refrigerator and freeze box will best be understood with reference to the structure of the individual panels shown clearly in Figures 6 to 9. The panels making up the side walls 14 consist of an outer wall 24 and an inner wall 26 which is somewhat shorter in overall dimensions than the outer walls between which walls will be found cross braces 28. A number of recessed screws 30 will be provided which extend through suitable apertures 30 in the outer and inner walls 24 and 26 and through the cross braces 28. The recessed screws 30, therefore, serve to retain the outer and inner walls in spaced relationship to each other and between the walls and the braces will be found suitable insulating material 32 such as of cork, glass wool, etc. About the outer edge of the inner wall is entrained a rubber gasket 34 for further insulation purposes. One of the side walls will be provided with a window 36 for ex-40 hausting warm air from the interior of the box.

It will be noted that the top and bottom panels 38 and 40 are of the same essential construction as the side panels except that the inner and outer walls are separated by horizontal braces 42, there 45 being no need for any diagonal braces. With regard to the front and back panels, shown at 44 and 46, the construction is exactly the same as the construction of the side panels except that the front panels 46 are provided with cut-outs

To better understand the manner of assembling the individual panels side by side so that a unitary structure as shown in Figure 1 is obtained, reference will be had to the sectional Figure 7 is a front elevational view of one of 55 views shown in Figures 2 to 5. After the side

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panels have been assembled and placed edge to edge, elongated headed bolts 50 are positioned through suitable apertures 52 in the outer walls of the side panels and through suitable apertures 54 and 56 in the top and bottom panels. As will 5 be seen clearly in Figure 2, the bolts 50 extend entirely through the top and bottom panels, that is, between the outer and inner walls of these panels, and the bolts are threaded at their outer extremities to receive locking nuts 58. Where 10 space is limited, a flexible cable with a bolt brazed or welded on each end may be used. The bolt or cable opening through the panels will have conduits inserted to accommodate the size of cable or bolt used. It will, of course, be under- 15stood that these bolts can vary in size so that more panels can be added to extend the overall size of the assembled box. As will be seen clearly in the figures the inner walls 26 of the assembled panels meet to form corners 60 and vertically 20 extending gaskets 62 are provided which are secured as by adhesion to the corners 60 to insure proper installation thereabout.

It will be noted that at one position within the assembled box a conventional refrigerator 64 is 25 positioned having a refrigerating unit or motor 66 mounted preferably at the top thereof and the usual wire shelves 68. The refrigerator itself is separated from the freeze compartment 70 by means of a pair of vertical partitions 12 and 14 30about the refrigerator 64. Adjacent the top of the partition 12 is an aperture 76 for receiving a conduit 18 connected to the refrigerating unit 66 and carrying a cooling coil 80 disposed against the partition 72 and within the freeze compart- 35 ment. To suspend meat and other food particles from the top wall of the freeze compartment, appropriate hooks 82 are provided. Vertically spaced aligned angle brackets 84 are secured in any appropriate manner to the inner walls of 40 the back and side members in the freeze compartment 70 for supporting shelves 86 upon which many food items can be retained. It is preferable that these shelves merely line the back and side walls so that a space is left as at 88 to per- 45 mit one to walk into the freeze compartment.

It should also be noted at this point that both the refrigerator door 20 and the freeze compartment door 22 are constructed of inner and outer walls and connecting side walls with appropriate insulation between these walls, as shown clearly in Figures 3 and 4.

Thus it will be seen that a novel discerptible combination refrigerator and walk-in freeze box or container is provided which can be readily and easily assembled with a minimum of parts, which can, therefore, be transported easily through a narrow entrance, and which can be readily extended to any desired size by the mere addition of appropriate panels and the provision 60 of bolts of sufficient length,

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In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having described the invention, what is claimed

as new is:

1. A refrigerator unit comprising a substantially rectangular housing having side, end, top and bottom walls, a pair of perpendicularly connected vertical partitions in said housing adjacent one corner thereof dividing the same into a small refrigerating compartment and a relatively large walk-in freeze compartment, a horizontal partition in said refrigerating compartment spaced from said top wall, a motor and compressor mounted on said horizontal position, and a cooling coil connected to said compressor mounted on one of said vertical partitions in said freeze compartment and having a portion extending through said one vertical partition, said walls of said housing including separable insulated panels and means for removably securing said panels together to form the rectangular housing.

2. The combination of claim 1 wherein said means includes a first set of tie rods extending through said side wall panels and said top wall panels, a second set of tie rods extending through said side wall panels and said bottom wall panels, a third set of tie rods extending through said end wall panels and said top wall panels, and a fourth set of tie rods extending through said end wall panels and said bottom wall panels.

3. The combination of claim 2 and insulating strips engaging the corners of said housing and

disposed within the joined panels.

4. The combination of claim 1 and removable shelf means within said freeze compartment and within said refrigerating compartment beneath said horizontal partition for retaining food items.

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