Nov. 21, 1939. C. C. THOMAS 2,180,886

CABINET AND METHOD OF MAKING AND ASSEMBLING THE SAME

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Fig. 1.

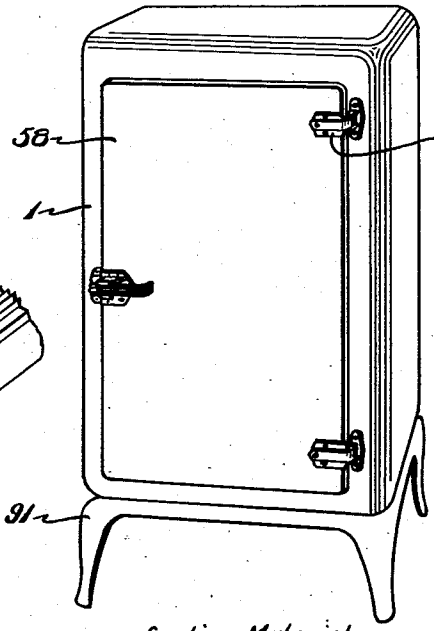


Fig. 16

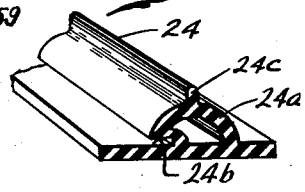


Fig. 15

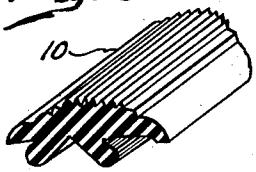


Fig. 17

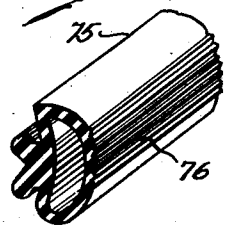
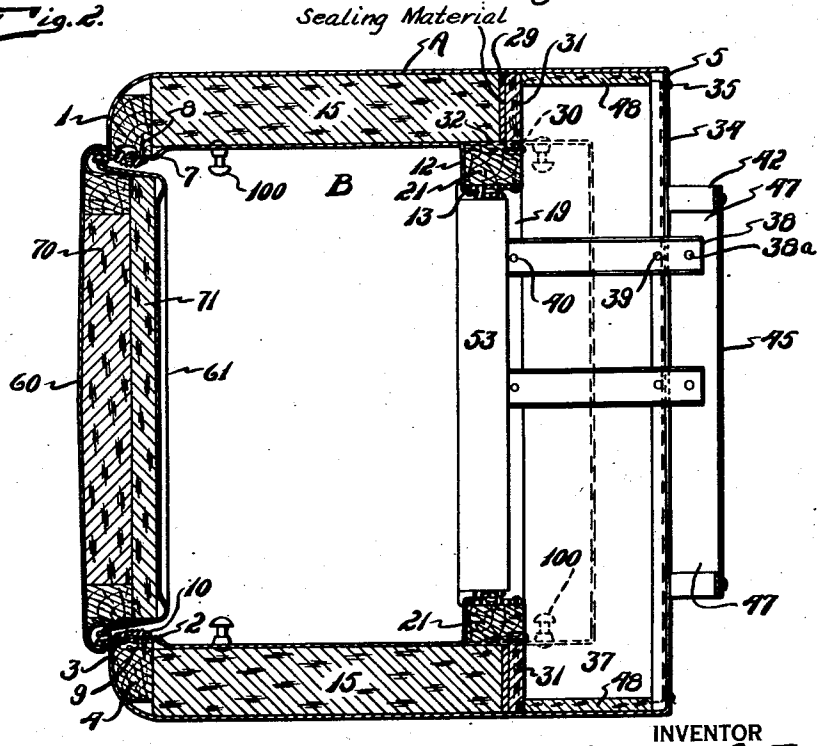


Fig. 2.



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Fig. 3.

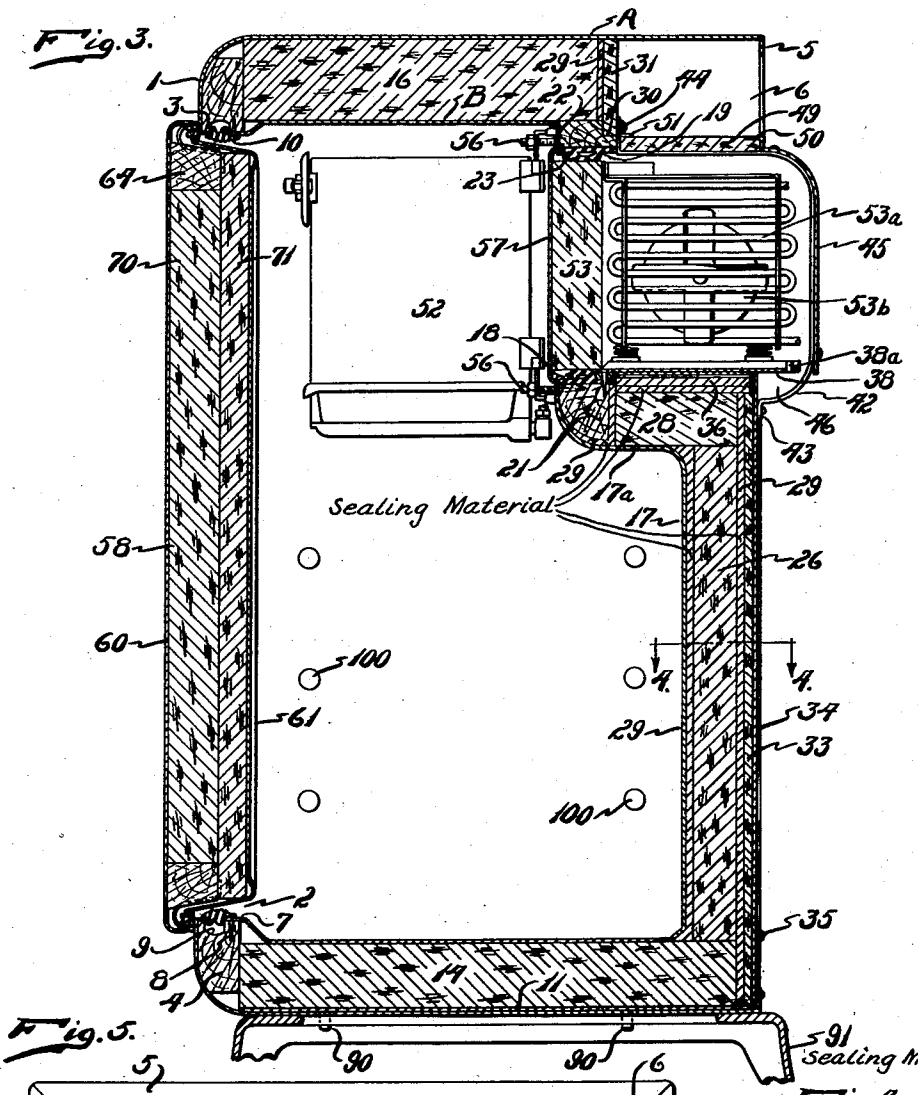


Fig. 5.

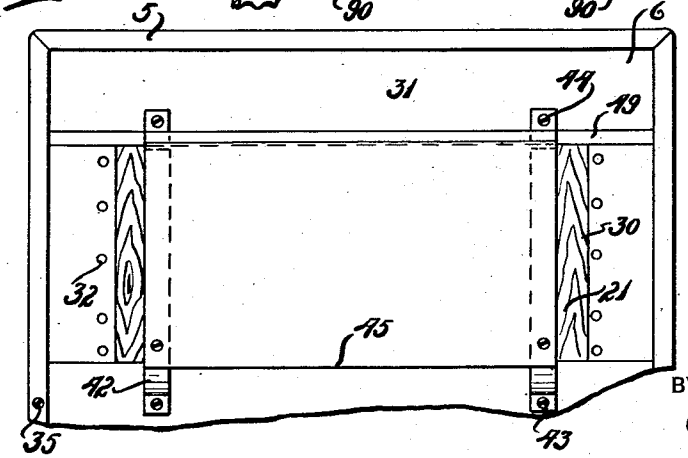
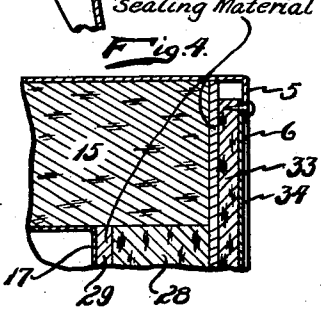


Fig. 4.



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Fig. 6.

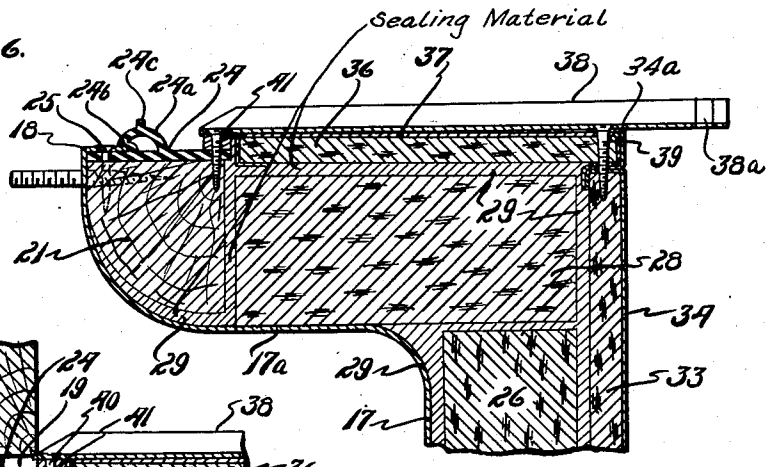


Fig. 7.

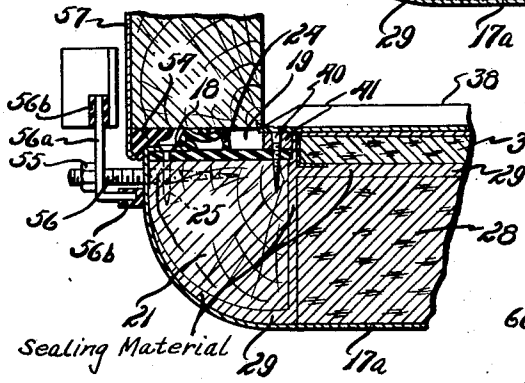


Fig. 8.

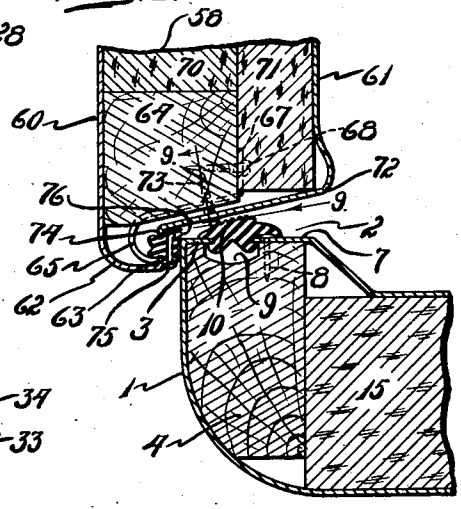


Fig. 14.

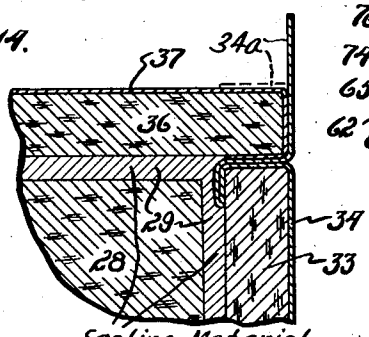


Fig. 11.

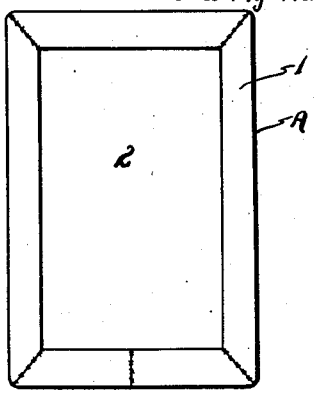
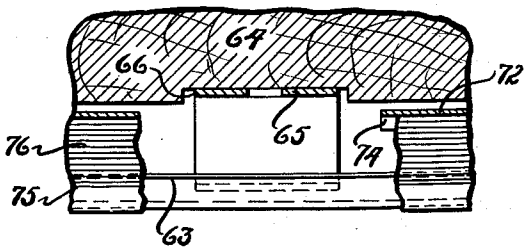


Fig. 9.



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CABINET AND METHOD OF MAKING AND ASSEMBLING THE SAME

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Fig. 12.

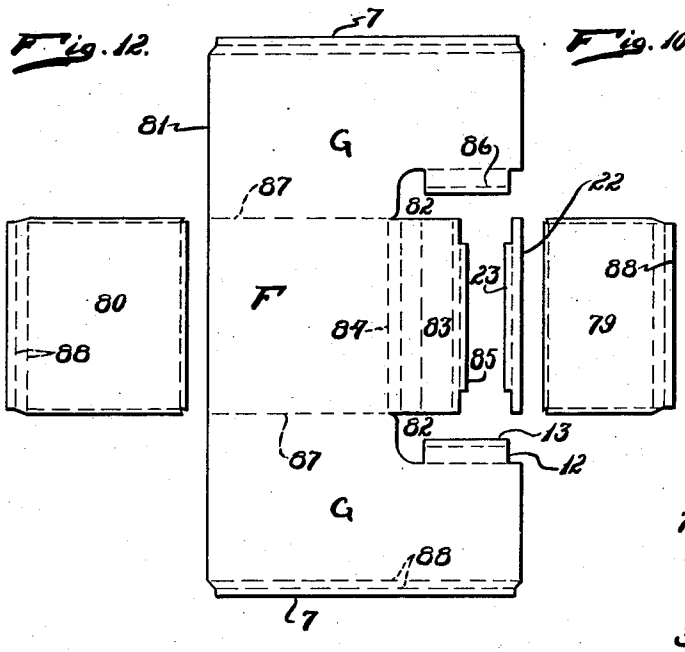


Fig. 10.

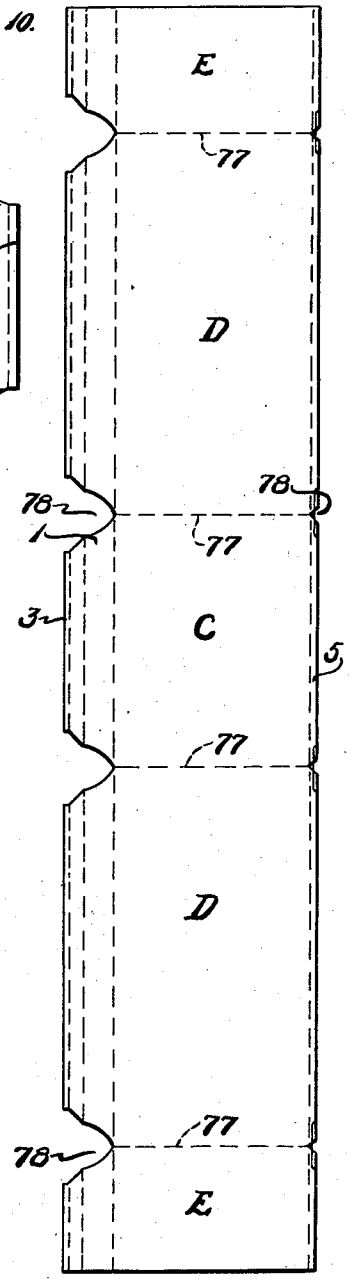
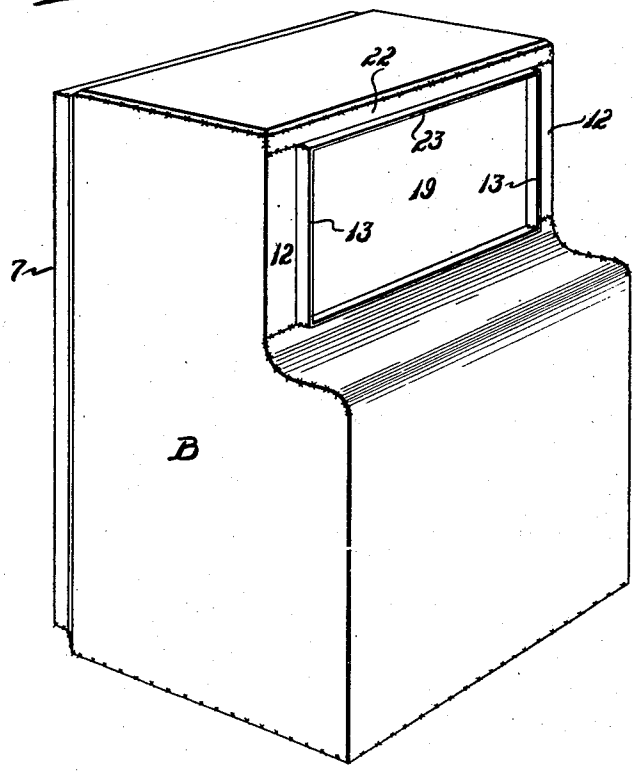


Fig. 13.



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Patented Nov. 21, 1939 2,180,886

UNITED STATES PATENT OFFICE

2,180,886

CABINET AND METHOD OF MAKING AND ASSEMBLING THE SAME

Charles C. Thomas, Detroit, Mich., assignor, by mesne assignments, to Nash-Kelvinator Corporation, Detroit, Mich., a corporation of Maryland

Application July 20, 1933, Serial No. 681,349

6 Claims. (Cl. 20—35)

This invention relates to cabinets and a method of making and assembling the same, and more particularly to insulated cabinets for refrigerators and the like.

One of the objects of the present invention is to provide a rigid refrigerator cabinet of new and improved construction which can be economically manufactured and which can be easily assembled.

Another object is to provide a refrigerator cabinet in which the inner casing is assembled as an individual unit to the outer casing.

Another object is to provide a refrigerator cabinet in which the outer casing thereof is formed of a single sheet of metal without the use of securing screws, bolts and the like.

Another object is to provide a refrigerator cabinet incorporating new and improved sealing gaskets and mounting means therefor.

Another object is to provide a refrigerator cabinet with a door of new and improved construction.

Another object is to provide a refrigerator cabinet of such construction that screws, bolts and the like are concealed from view.

Another object is to provide a refrigerator cabinet having a self-contained refrigerating unit, of such construction that useful space is not utilized for housing and supporting the motor and compressor of the unit, and in which such parts are suitably mounted adjacent the cooling element but at the upper rear portion of the cabinet in a new and improved manner.

A further object is to provide a new and improved method of constructing and assembling refrigerator cabinets.

With the above and other objects in view, which will be apparent from the following detailed description, the present invention consists in certain features of construction and combinations of parts that will be readily understood by those skilled in the art to which the invention appertains.

In the drawings which illustrate a suitable embodiment of the present invention,

Figure 1 is a perspective view of the refrigerator cabinet to be hereinafter described;

Fig. 2 is a transverse section taken approximaely on the line 2—2 of Fig. 3;

Fig. 3 is a vertical section of the cabinet illustrated in Fig. 1;

Fig. 4 is a fragmentary transverse section taken approximately on the line 4—4 of Fig. 3;

Fig. 5 is a rear elevational view of the upper portion of the cabinet;

Fig. 6 is an enlarged fragmentary section taken approximately on line 6—6 of Fig. 2, the refrigerating unit being removed;

Fig. 7 is a fragmentary view corresponding to Fig. 6 but showing the mounting block for the refrigerating unit in position;

Fig. 8 is an enlarged section taken approximately on line 8—8 of Fig. 3, showing the door and adjacent corner of the cabinet in greater detail;

Fig. 9 is a section through the door taken approximately on line 9—9 of Fig. 8;

Fig. 10 is a diagrammatic view showing the blank from which the outer casing is formed;

Fig. 11 is a front elevational view of the outer casing showing the regions at which it is welded;

Fig. 12 is a diagrammatic plan of the blanks which form the inner casing of the cabinet;

Fig. 13 is a perspective view of the formed inner casing showing the regions at which the corners are welded;

Fig. 14 is a fragmentary section through the back panel showing the manner in which the facing thereof is formed so that a portion thereof may be clamped against one of the supporting portions for the mechanical refrigerating unit;

Figure 15 is an enlarged fragmentary perspective view of the sealing gasket employed between the edges of the outer and inner shells of the cabinet;

Figure 16 is an enlarged perspective view of the sealing gasket shown in Figure 7; and

Figure 17 is an enlarged perspective view of the gasket employed between the edges of the inner and outer door panels.

The present invention contemplates many new and improved features for insulated refrigerator cabinets which tend toward simplified and economical production of, and toward more efficient cabinets of this character, and also includes improved methods of construction and assembly of the various parts of the cabinet.

Referring to the accompanying drawings in which like numerals refer to like parts throughout the several views, the refrigerator cabinet illustrated is of the character used in connection with mechanical refrigeration, but it is to be understood that many of the improved features of the present invention are applicable to cabinets employing other refrigerating mediums or means.

In general, the refrigerating cabinet illustrated in the drawings includes an outer casing A of metal, an inner casing B of metal which forms the lining for the refrigerating chamber and in-

sulating material between these casings. These parts are so arranged that an opening is provided near the upper rear portion of the cabinet for the reception of a mechanical refrigerating device, the cooling element, coils, motor, compressor, and associated parts being so arranged that they can be assembled at the location of such opening as a unitary structure, while providing an efficient seal with the inner casing so that the cooling element only extends into the refrigerating chamber. The present invention also includes an efficient rigid means for mounting and supporting the refrigerating unit in a cushioned manner at the above location of the cabinet.

The casing A is of one piece metal construction and the metal at the forward edge of the top, bottom and sides thereof is flanged toward the casing B to a width substantially the same as, or to a desired degree greater than the spacing between the two casings, as indicated in Figs. 2 and 3 to provide the front face 1 of the cabinet, and the inner marginal edges of the front face 1 are turned inwardly substantially parallel to the top, bottom and sides to provide a continuous flange 3 extending toward the rear of the cabinet, which flange defines the door opening 2.

The front portion of the outer casing A carries an open, rectangular frame 4, preferably of wood, which at its forward face abuts the front face 1 and at its inner periphery abuts the continuous flange 3, the continuous flange 3 serving as a locating means for this frame. The rearward edges of the top, bottom and sides of the outer casing A are also flanged toward the casing B to provide a substantially continuous flange 5 which defines the opening 6 at the rear of the outer casing A and which as will be later described holds the rear panel in position.

The overall dimensions of the frame 4 are slightly less than the corresponding dimensions of the rear opening 6 so that the frame 4 may be inserted as a unit through the opening 6.

The inner casing B having the general shape illustrated in perspective in Fig. 13, is positioned within the casing A in peripherally spaced relation and is preferably provided at its forward edge with a continuous inwardly offset flange 7 which abuts against the inner peripheral faces of the frame 4 and which is secured to such faces by any suitable means such as the screws 8. The edge of this continuous flange, however, is spaced from the edge of the continuous flange 3 at the front face 1 of the outer casing A, and the inner faces of the frame 4 are provided with grooves 9 therein that are continuous with each other and underlie the space between flanges 3 and 7. In order to conceal the edges of the flanges 3 and 7 and to conceal the screws 8 which secure the flange 7 to the frame 4, a flexible molding or gasket 10 of any desired material is employed. This gasket which is more clearly shown in Fig. 8, is formed with opposed narrow recesses extending throughout the length thereof which, when the gasket is placed within the grooves 9, will receive the edges of the flanges 3 and 7 which project over the edges of the grooves 9, in the manner indicated in Fig. 8. It will be noted in this connection that this molding thus conceals the edges of the flanges 3 and 7 and also extends over the screws 8 to conceal the same and to seal the space between these flanges. The portion of the gasket 10, as shown in Fig. 8, which extends between the edges of the flanges 3 and 7 and into the grooves 9, is formed with a V-shaped longitudinal recess so that this portion can be compressed to permit insertion into the grooves 9 and has sufficient resiliency when inserted that it securely grips the flanges 3 and 7 to exclude moisture from the space between the inner and outer casings.

In order to strengthen the bottom of the casing A it is preferred to employ a reinforcing plate 11, which is merely positioned upon the bottom, or which, if desired, may be welded or otherwise secured thereto.

The inner casing B extends rearwardly within the outer casing A and terminates short of the rear face of the casing A to provide a rear insulation space. Near the upper end of the inner casing B the sides thereof are cut back as indicated in Figs. 1 and 13, and the top of the casing B extends to the region of the edge of the cut back portions of the sides. The marginal edges of the side portions at this cut back region are flanged inwardly at 12 and are flanged rearwardly parallel to the sides as indicated in Fig. 2 to provide inwardly offset flanges 13 for a purpose to be later described.

Suitable insulation material 14 in block or other suitable form is disposed between the bottoms of the inner and outer casings, as indicated in Fig. 3, and this insulation abuts the frame 4 and extends rearwardly beyond the rear portion of the inner casing B nearly to the flange 5 of the outer casing A, but spaced therefrom. Similarly, insulation material 15 is disposed in the space between the sides of the inner and outer casings as indicated in Fig. 2, and insulation material 16 is disposed in the space between the tops of the casings A and B. The insulation material 16 extends slightly beyond the rear edge of the top of the casing B as indicated in Fig. 3, to the same extent as the side insulation 15 adjacent the cut back portions.

The rear of the inner casing B is closed in by means of a back 17 which is formed with a reversely curved portion 17a at its upper edge which fits over the cut back portions of the side and is welded thereto. The back 17 is also formed with a rearwardly extending flange 18 which is adjacent the flanges 13 of the sides and which has its ends securely welded thereto.

It will be noted that the flange 18 of the back 17 is disposed some distance below the edge of the top of the shell B to provide the space or opening 19 in the back of the inner casing B for the reception of a mechanical refrigerating unit which will be later described.

The region surrounding this opening 19 is reinforced by an open rectangular frame 21 which abuts against the flanged portions 12 of the side portions of the casing B and against the curved portion 17a of the back 17, and is confined within the flanges 13 and 18 and a flange 23 of an angular member 22 which is welded at its upper edge to the rear edge of the top of the inner casing B and which is welded at its ends to the flanges 13.

The frame 21 is held in place by means of screws 25 which extend through the flanges 13, 18 and 23. Interposed, however, between the flanges 13, 18 and 23 and the inner periphery of the frame 21, is a continuous molding or sealing gasket 24 of a hollow construction, the hollow portion of which extends inwardly beyond these flanges into the space 19. This gasket 24, as more clearly shown in Figs. 6 and 7, comprises the rectangular portion which is secured to the framework and a flexible arched portion

24a joined at its ends with the rectangular portion and which has a recess 24b that receives and conceals the edges of the flanges 13, 18 and 22. The arched portion 24a also has a central longitudinally extending rib 24c. It will be noted that the arched portion 24a projects well beyond the flanges 13, 18 and 22, so that when the refrigerating unit is in place as indicated in Fig. 7, this portion will flex inwardly to provide a continuous 3-point longitudinal contact with the separator block 53 of the refrigerating unit. When the portion 24a is distorted in this manner it provides a perfect seal and yet does not exert such a binding effect on the block 53 as to prevent difficult removal of the block. Positioned rearwardly of the back 17 is a body of insulation material 26, the rear face of which is substantially in alignment with the rear faces of the insulation material 14 and 15. The insulation material 26 extends upwardly to the same height as the vertical portion of the back 17, and a block of insulation material 28 is disposed to seat on the curved portion 17a of the back 17 and the upper end of the insulation material 26.

The insulation material 15 between the sides of the inner and outer casings A and B is shaped to correspond substantially to the sides of the inner casing, and the portions of this insulation material, as before stated, at the upper end of casing B extend slightly beyond the flanges 13 and the horizontal flange 25. The frame 21 is rabbeted at 30 at its outer rear corner throughout the sides and top thereof to provide a recess and the insulation material 15 and 16 extends substantially to the edge of this recess, as shown in Figs. 2 and 3. In order to locate the insulation material 15 and 16 adjacent the frame 21, retaining panels 31 of Celotex or other suitable loosely pressed material, are disposed between the framework 21 and the sides and top of the outer casing, these elements being disposed in the recesses in the frame 21 and being secured to the frame 21 by means of suitable screws or nails 32.

Interposed between the insulation material 26 at the rear of the lining back 17 and the inwardly turned flange 5 of the outer casing is a back panel 33 of a suitable material, such as Celotex, which is provided with a metal facing 34. This panel 33 extends from the bottom of the outer casing A rearwardly of the lower insulation material 14 substantially up to the height of the horizontal insulation material 28 as indicated in Fig. 3, and is held in place by means of screws 35 extending through the continuous flange 5 and into the panel 33.

Extending horizontally over the insulation material 28 is sealing panel 36 of Celotex or other suitable material, which panel 36 is provided with a facing 37 of metal. This panel also seats upon the upper horizontal edge of the back panel 33 and extends from the flanges 5 of the sides of the outer casing over to the edge of the horizontal portion of the wooden frame 21 slightly above the edge of the frame.

As more clearly shown in Figs. 6 and 14, the facing 34 which extends over the end of the back panel 33 is doubled back upon itself and then flanged to form a continuation of the surface facing 34 to provide a flange 34a. After the sealing panel 37 is in position over the insulation 28, this flange 34a is bent downwardly over the panel 37 to securely locate this panel.

An extremely rigid and efficient mounting is provided for the mechanical refrigerating unit at this location through the medium of a number of spaced guides 38 of suitable channel shape which are secured by means of screws 39 extending through the flange 34a, the horizontal panel 36 and into the back panel 33 at the rear side, and by screws 40 at the forward ends extending into the horizontal portion of the frame 21, a suitable spacing strip 41 being interposed between the guides and the gasket 24.

In order to prevent the formation of admission of moisture to the insulation material, a plastic material 29 preferably having an asphaltic content such as Hydrolene is interposed between the back insulation 26 and lining back 17 at the one side and the back panel 33 at the other side, and also between the horizontal insulation 28 and curved portion 17a of the back, the lower portion of the frame 21, and the sealing panels 28 and 33 as indicated in Fig. 3. Such sealing material 29 may also be disposed between the frame 21 and portion 17a of the lining back, and between the sealing panels 31 and side and top insulation 15 and 16.

Extending from the back panel 33 upwardly and then horizontally within the outer casing 1 are strap members 42 which are secured by means of screws 43 to the back panel and by means of screws 44 to the upper horizontal portion of the frame 21. These straps form the support for a shield or housing 45 which substantially closes in the back of the opening 19, leaving a space 46 opening downwardly and spaces 47 opening horizontally outwardly at the ends of the shield 45 for the circulation of air to the mechanical refrigerating unit.

Additional panels 48 of Celotex or other suitable material abut against the sides of the outer casing and extend between the panels 31 and flange 5 from the horizontal panel 36 upwardly to the top of the outer casing.

The straps 42 also support a horizontal panel 49 which extends between the panels 48, and between the flanges 5 of the sides of the outer casing and the edge of the upper portion of the frame 21, this panel being held in place by a flange 50 formed on the housing 45 and clips 51 carried by the screws 44 which secure the straps to the frame 21.

The refrigerating unit is assembled as a unitary structure and comprises the cooling element 52 which is secured to one side of a vertical mounting block 53 and the condensing coils 53a, and motor and compressor unit 53b which are carried on the opposite side of the mounting block 53, and this unit is so arranged that it can be inserted through the door opening 2 of the cabinet into the cabinet and positioned upon the guides 38, openings 38a being in the guides 38 for the reception of bolts to additionally hold the refrigerating unit against end play. The mounting block 53, when in position, is confined within the endless hollow gasket 24, this molding being compressible when the block is inserted so as to form an airtight seal with the block. An additional seal is also provided by forming the mounting block 53 with an additional endless gasket 54 which engages with the entire periphery of the unit opening 19 defined by the flanges 13, 18 and 22, this gasket being so arranged that when the refrigerating unit is secured in place by means of nuts 55 threaded on screws 56 carried by the frame 21, it will be pressed between these flanges and the sealing plate 57 carried by the block 53 to further provide an airtight seal.

In order to avoid metal to metal contact with

the inner casing B and to also cushion the refrigerating unit, the ends of the angle elements 56*a* which contact with the casing B above and below the opening 19, and the refrigerating unit are enclosed within rubber insulators 56*b*.

The door 58 is mounted on hinges 59 and is formed from an outer panel 60 of metal and an inner panel 61 of metal. The outer panel is formed with a continuous flange 62 at its periphery, which flange is inturned to provide a continuous inwardly extending ledge 63. The outer panel 60 is reinforced with an endless frame 64 preferably of wood, which seats against the panel in spaced relation with respect to the continuous flange 62, and this frame 64 is held in place by means of clamping straps 65 which are disposed in transversely extending recesses 66 arranged at intervals around the periphery of the frame 64. Each of these straps 65 is formed with a flange 67 at one end which is secured by means of a screw 68 to the frame 64 and at the other end with a reversely curved portion 69 disposed to seat against the ledge 63. This strap is of such a length and is so disposed that when the screw 68 is screwed into the frame 64 a fulcruming action is produced which causes the reversely curved portion 69 to securely abut the ledge 63 and thereby force the frame 64 firmly against the outer panel 60. Positioned within the inner periphery of the endless frame 64 is a body of suitable insulation material 70 and extending across this material and across the frame 64 is another body 71 of suitable insulation material. The inner panel 61 of the door is dished and provided with a peripheral flange 72 which surrounds the insulation material 71 and the wooden frame 64 and which is secured to the frame 64 through the medium of screws 73. The margin of the continuous flange 72 is turned outwardly to provide a continuous flange 74 the edge of which flange is spaced inwardly from the ledge 63 but substantially in the same plane as the ledge 63. The spacing between the flange 74 and the ledge 63 provides an opening for the reception of a flexible door gasket 75. This gasket 75 is tubular and provided with a projecting portion at one side, which portion is recessed to receive the edges of the continuous flange 74 and ledge 63 when the projection gasket is inserted within the opening between the flange 74 and ledge 63. The gasket furthermore is provided with a series of corrugations or teeth 76 which, when the door is closed, engage with the portion of the outer shell of the casing which defines the door opening. When the door is closed the tubular gasket is distorted somewhat and these corrugations 76 exert a gripping effect against the door frame and insure a perfect seal.

The bottom portion of the outer shell is provided with downwardly extending lugs 90 which are arranged to extend into recesses formed in a suitable supporting base 91 for the cabinet structure.

Secured to the sides of the inner casing B to project inside the same are a number of button-like elements 100 for supporting shelves (not shown) within the refrigerating chamber.

While the cabinet described is adapted for use with a mechanical refrigeration unit, it is to be understood that the present invention may be carried out in substantially the same manner to provide an ice receiving cabinet, in which case, the opening 19 can be omitted and the lining back 17, insulation 26 and back panel extend to the top of the cabinet. A suitable shelf or partition may then be provided for supporting a cake of ice.

It is preferred to form the outer casing A from a single blank of metal, which in the preferred form has the approximate shape, illustrated in Fig. 10, having portions C and D representing the top and side portions, and bottom portions E at the ends. The edges of the blank at the dividing lines indicated in dotted outline by the numeral 77 are notched out at 78 to provide the rear flanges 5 and at the opposite edge to provide the flanges 1 which form the front face of the cabinet. Prior to the bending operation the sheet is stamped, either after the formation of the notches 78 or simultaneously therewith to form the flanges 5 and to form the front face flanges 1, and subsequently the marginal flanges 3 are formed at the edge of the flanges 1. Then the blank in such formed condition is shaped by bending on the bending lines 77 to form the same to final shape. The transverse edges of the two bottom portions E of the blank are welded together throughout their width and the ends of each flange provided by the notched out portions 78 are welded to the end of the next adjacent flange and similarly the ends of the flanges 1 are in contact when the blank is formed to shape and are welded together at 1*a* as indicated in Fig. 11. The ends of the inturned flanges 3 are also welded together to form the continuous flange around the door opening. After the blank is formed to shape and the welding operation performed the formed blank is vitrified or finished by painting alone or in any other suitable manner. It will be noted that the welding 1*b* which unites the transverse ends of the blank occurs intermediate the ends of the bottom portion of the casing, but it is to be understood that this may take place at any other location such as at one of the corners of the casing.

The outer shell may also be made of one sheet of metal by first notching at 78, next forming at lines 77, and then welding the ends together. After this the shell may be dropped over a metal box-like core of collapsible form and struck with a die which forms and flanges the entire front face 1 and 3 in a single operation. The rear flange is then formed over the core, after which the core is collapsed and the shell removed and the meeting edges of the front face thereof welded.

The inner casing, which forms the lining for the refrigerator is preferably made from four blanks of metal, namely, a rectangular blank 79 forming the top, a rectangular blank 80 forming the bottom, a blank forming the flange 23, and a blank 81 forming the sides and back of the casing B. If desired, however, the casing B may be formed from a one piece blank. The blank 81 is notched out at 82 to provide for the opening in the back of the lining for the mechanical refrigerating unit, and it will be noted that the portion F, representing the back of the lining, is formed with a projection 83 extending beyond the notched-out portions 82 which provides for the curved portion 17*a*. This projecting portion 83 is stamped to a curve shape starting at dotted line 84 and is reversely bent at the dotted line 85 to form the rearwardly extending flange 18 that defines the bottom of the opening 19 for the refrigerating unit. The inwardly extending projections formed at the edges of the side portions G are shaped by bending the same at right angles to the side portions and then by reversely bending the same along the dotted lines 86 to provide

the flanges 13 which define the sides of the opening 19 for the refrigerating unit. The two side portions G are then formed by bending the blank along the dotted lines 87 and in this position the lateral edges of the projecting portion 83 rest against the edges of the notched-out portions of the side portions G and the end edges of the flange 18 rest against the bottom edges of the flanges 13. The angle member 22 which provides for the top flange 23 that defines the top of the opening 19 is welded along one edge of the top blank 79 and the top blank is then positioned on the formed blank 81 and along the transverse edges and are welded to the upper edges of the side portions G and the ends of the angle member 23 are welded along their edges to the corresponding edges of the flanges 13. The bottom blank 80 is also placed in position and it is securely welded along its three edges to the bottom edges of the back and side portions F and G, respectively. The welding of these various edge portions together is indicated at 89 in Fig. 13.

Although the inner shell is shown and described as being made of four pieces, it may be desired to form the same of three pieces by forming the flanges 22 and 23 as an integral part of the top blank 79, which eliminates the necessity of providing the long weld between the edges of the top blank 7 and flange 22.

It will also be understood that during the forming operations of the blanks 79, 80 and 81 the end edges thereof are shaped along the dotted lines 88 to provide for the inwardly offset flanges 7. This forms the complete lining for the cabinet, it being noted that the parts are securely welded together along their intersecting edges. The inner surface of the lining is then painted or vitrified or otherwise finished to provide for the desired internal surface.

Prior to the assembly of the cabinet, the frame 21 surrounding the opening for the refrigerating unit is assembled to the inner casing and secured to the flanges 13, 18 and 23 in the manner previously described, the molding 24 having a portion thereof extending between these flanges and the frame 21.

In the assembly of the cabinet the frame 4 is first positioned within the outer casing A and the insulation material 14, 15 and 16 forming the bottom, side and top insulation is next inserted. The inner casing B is placed in position within the insulation material and secured along the continuous flange 7 to the frame 4. When this is done the cabinet is, of course, supported on its front face to permit an easy assembly of these parts. After the inner casing is in position the end surfaces of the insulation material 14, 15 and 16, and the surface of the back 17 of the inner shell are coated with the plastic sealing material 29. Subsequently the narrow panels 31 surrounding the top and sides of the frame 21 are placed in position and the back insulation material 26 is placed in position. The surface of the back insulation 26 is provided with the sealing material 29 and the back panel 33 is assembled by inserting the same between one of the flanges 5 of one side portion and insulation material at that side and then sliding the same transversely to locate the panel underneath the opposite flange 5, and in which position the screws 35 are inserted. Subsequently the horizontal insulation material 28 is positioned between the frame 21 and the back panel 33, and this insulation material is coated with the sealing material 29 and the horizontal panel 36 is placed in position over the insulation material 28 and the end of the back panel 33. The flange 34a which forms a continuation of the panel facing 34 is then bent over and downwardly against the panel 36 to assist in locating the same. The guides for the refrigerating unit are then assembled by means of screws 39 which extend through the bent-down portion of this flange 34a through the panel 36 and into the back panel 33. The straps 42 which form the support for the back housing 45 are then assembled, and the insulating panel 49 is disposed over these straps and clamped in position by means of the screws 44 which secure the straps to the frame 21 and the screws 43 which secure the housing to the straps.

After the two shells A and B are thus assembled, the door molding 10 is then snapped in place, and the door which has been previously assembled is then mounted, after which the cabinet is mounted on its base.

The refrigerating unit can then be assembled and this is done by merely inserting the same through the door opening and entering it on the guides 38 and sliding the same rearwardly until the flexible gasket 54 engages with the face of the inner casing that surrounds the frame 21. The angle clamps 56a are assembled on the screws 56 and the nuts 55 then tightened to clamp the gasket 54 between the edges of the opening 21 and the flange 57 of the refrigerator unit.

The refrigerator cabinet described is of rigid construction throughout by reason of the particular manner of joining the various parts and is efficiently insulated throughout, efficient sealing gaskets being provided around the door opening and around the opening which receives the refrigerating unit.

The method of forming the inner and outer casings provides for economical production and increased rigidity of the structure.

Aside from the specific embodiments of the invention herein shown and described, it will be understood that numerous details of the construction may be altered or omitted without departing from the spirit and scope of this invention, and it is not the desire to limit the invention to the exact construction herein set forth, but to claim the invention broadly as well as specifically as indicated in the appended claims.

What I claim is:

1. A door for refrigerator cabinets including an outer metal panel having a continuous peripheral flange, said peripheral flange having an inwardly extending marginal flange, a reinforcing frame for said panel abutting the same and being peripherally spaced from said peripheral flange, and a plurality of tensioning members engaging the under side of said marginal flange and being secured to said frame under tension to securely hold said frame against said panel.

2. A door for refrigerator cabinets including an outer metal panel having a continuous peripheral flange, said peripheral flange having an inwardly extending marginal flange, a reinforcing frame for said panel abutting the same and being peripherally spaced from said peripheral flange, a plurality of tensioning members, each having a reversely bent portion engaging the under side of said marginal flange, and a portion engageable with said frame, and means securing said last portion to said frame to place said member under tension and thereby clamp said frame against said panel.

3. A door for refrigerator cabinets including an outer metal panel having a continuous peripheral

flange, said peripheral flange having an inwardly extending marginal flange, a reinforcing frame for said panel abutting the same and being peripherally spaced from said peripheral flange, a plurality of tensioning members, each having a body portion, a reversely bent portion at one end of said body portion engaging the under side of said marginal flange, and an angle portion at the opposite end of said body portion, said member seating on the corner of said frame at the junction of said angle portions, and means clamping said angle portion against said frame to tension said member and thereby hold said frame and panel in assembled relation.

4. A sealing strip for sealing the joint between a pair of relatively movable members, said strip comprising a cushion adapted to lie along the joint and to be compressed between the members, a web attached to said cushion continuously along its extent to enter a slot provided in one of the members, and resilient lip means attached to said web and adapted by deflection to pass through the slot and therebeyond to regain its normal attitude thereby retaining the strip in said slot.

5. A sealing strip for sealing the joint between a pair of relatively movable members, said strip comprising a hollow rubber cushion adapted to lie along the joint and to be compressed between the members, a web integral with said cushion and extending therealong to enter a slot in one of the members, and resilient means hingedly attached to said web within the slot for retaining the strip in the slot.

6. A sealing strip for sealing the joint between a pair of relatively movable members, said strip comprising a hollow rubber cushion adapted to lie along the joint and to be compressed between the members, a web integral with said cushion and extending therealong to engage a slot in one of the members, and a pair of resilient sealing lips hingedly attached to said web and adapted to seal the slot throughout the extent of the strip.

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