May 1, 1956 R. E. MOORE 2,743,981

FREEZER CABINET WITH EXTERNALLY ACCESSIBLE MACHINERY COMPARTMENT

Filed Nov. 5, 1952 2 Sheets-Sheet 1

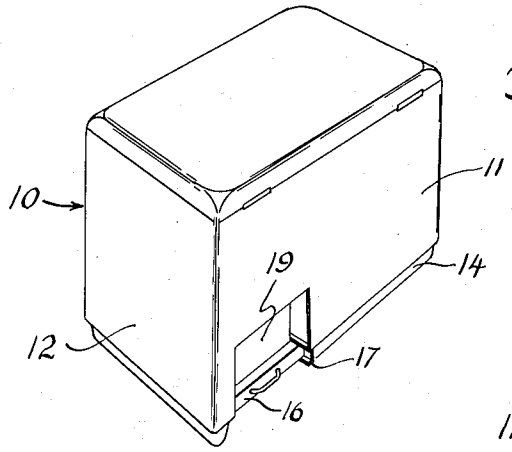


Fig. 1

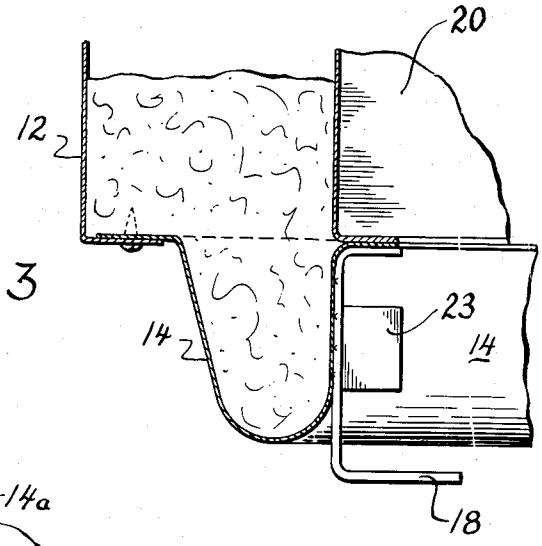


Fig. 3

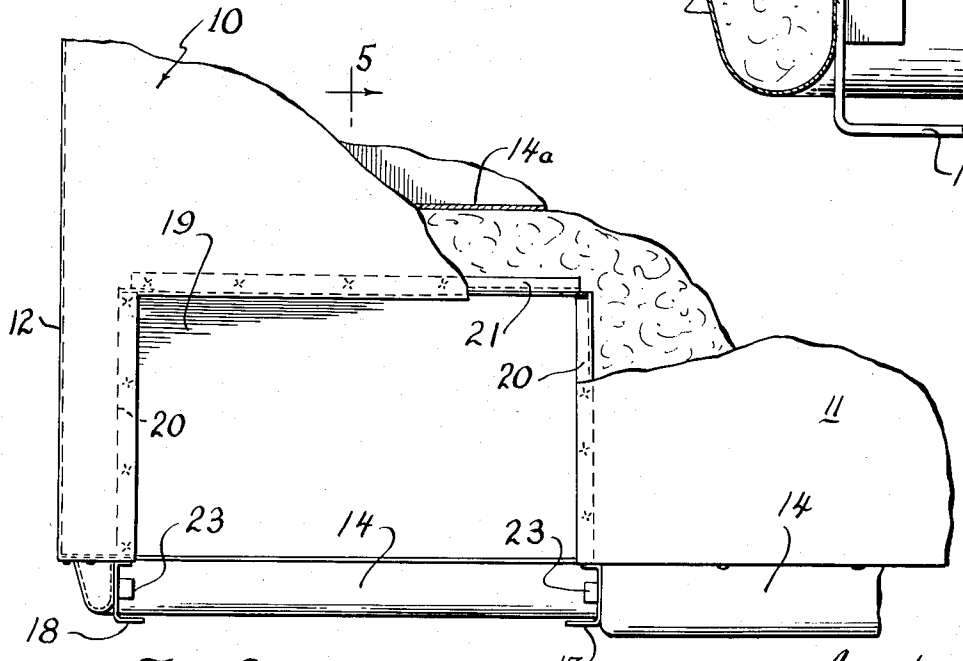


Fig. 2

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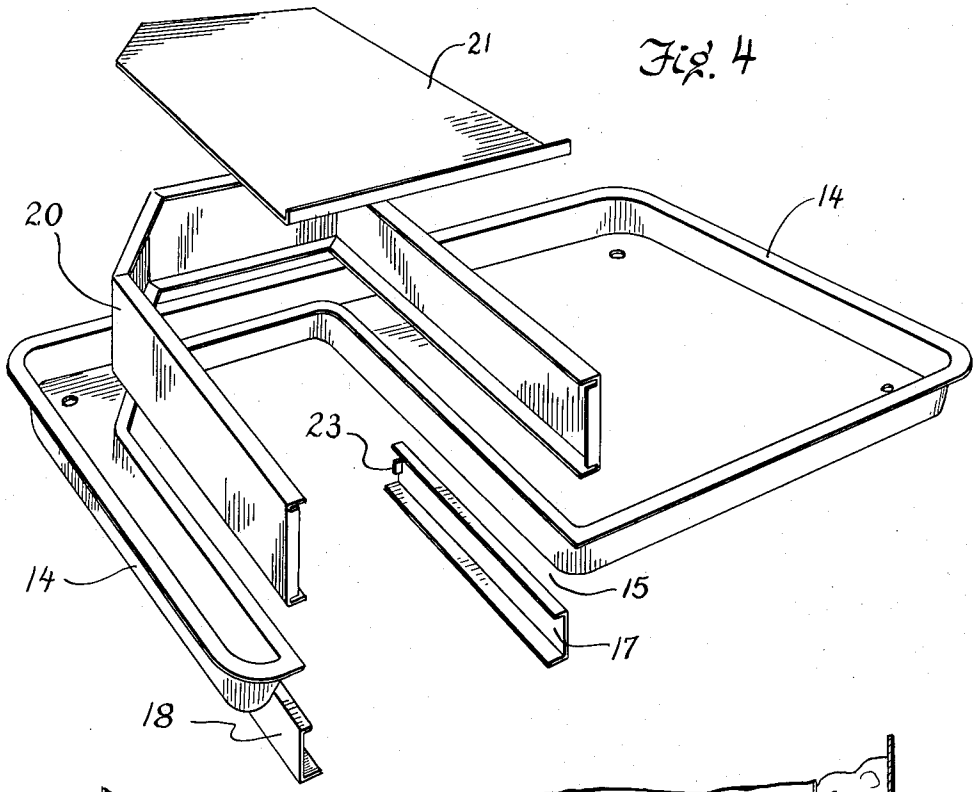
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Fig. 4



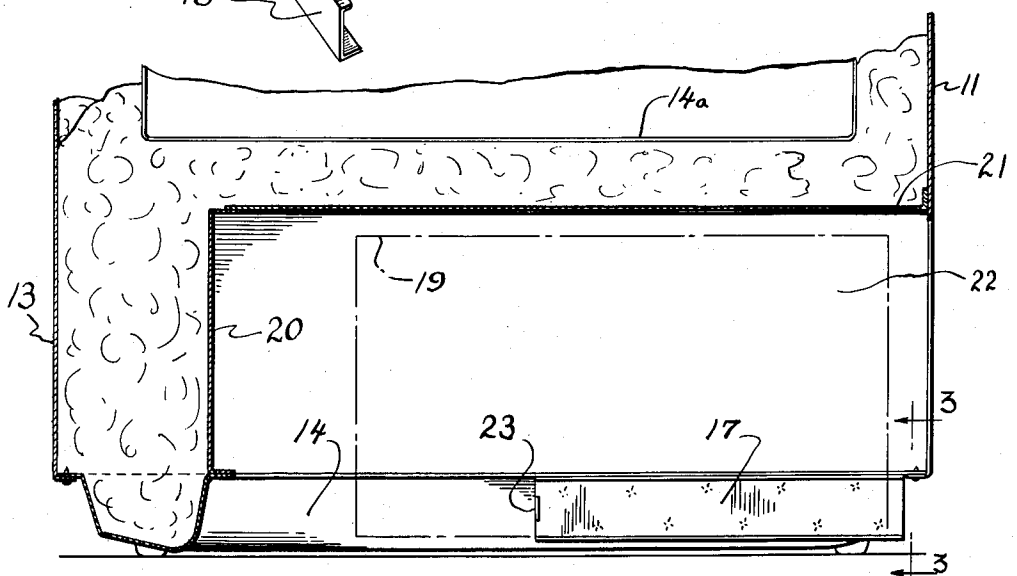


Fig. 5

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FREEZER CABINET WITH EXTERNALLY ACCESSIBLE MACHINERY COMPARTMENT

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This invention relates to a cabinet for a freezer of the chest-type with a top opening.

Such chests have long been constructed with an outer casing, comprising front, side, and back walls and a bottom, and an inner lining therefor, providing an interior space for the storage of articles of food. The space between the inner liner and outer casing is customarily filled with a thermal insulating material. A hinged cover is provided at the top of the chest to afford access to the interior space.

In some freezers of the chest-type, the freezer machine unit, comprising compressor, pump, etc., has been hung on the back of the chest. The disadvantages of this construction are obvious, in that the chest cannot be placed directly against a wall.

It has also been the practice in a freezer of this type to provide a compartment or space adjacent the bottom of the chest for the freezer machinery unit. This space has commonly been provided in chest-type freezers by having an off-set in the bottom of the outer casing, the off-set extending to a height greater than that of the freezer unit. From this upwardly extending portion, the bottom extends horizontally over the machinery unit space to a side wall. The inner liner is offset likewise to accommodate the structure of the outer casing, and thus provides a shallow interior space in the cabinet directly above the machine compartment.

Since it is necessary that the outer casing be sealed to prevent moisture, etc. from reaching the thermal insulation material, it has been common practice to weld the top of the machine compartment to a side wall and the front wall. This results in unsightly weld-spots on the outer casing, and it is necessary that they be finished off by expensive finishing operations, or covered by expensive trim or bars, or other decoration. It has also been common practice to provide a removable panel in a side wall adjacent the machine compartment, to afford access to the freezer unit. This opening in the side wall greatly weakens the chest construction at or near the point where the outer casing must support the heavy freezer unit. In this type of construction, the side walls adjacent the machinery space, and extending below the horizontal portion of the offset in the bottom, must carry the entire weight of the heavy freezer machinery.

A principal object of the present invention is to overcome these deficiencies and limitations in cabinet structure by providing a cabinet in which it is unnecessary to weld the outer casing to the side wall above the machinery space, and unnecessary to have a removable panel in the side wall for access to the freezer unit.

A further object of my invention is to provide a cabinet in which the freezer unit is strongly and firmly held in the base of the outer casing. This is accomplished with a maximum economy of material, and without attaching the machine compartment top to the outer casing at a point where the welding thereof will disfigure the front or sides of the cabinet.

My present invention contemplates a cabinet in which the machinery compartment, comprising side walls and a top, is positioned in the bottom of the outer casing but spaced from the side walls of the cabinet, thus affording continuous, uninterrupted front and side walls, and greatly improving the appearance and styling of the cabinet, and providing strength where the freezing unit is supported. My invention further affords a cabinet in which the machinery compartment is always easily accessible, and yet has no removable panels in the cabinet side walls. In the structure herein disclosed, the freezer unit is mounted on a base which is slid into position within this machine compartment on channel guides, and thus can be conveniently and easily removed for inspection or servicing.

My invention is capable of being utilized in various forms and with various modifications. A preferred embodiment is shown in the drawing, in which:

Figure 1 shows a rear perspective view of a chest-type freezer cabinet embodying my invention.

Figure 2 shows a fragmental rear elevational view of the machine compartment in which the freezer machine unit is housed.

Figure 3 is a detail sectional view taken on the plane of the line 3—3 of Figure 5, showing one of the channel members into which the base of the freezer machine unit is slid, to position the unit within the housing.

Figure 4 is an exploded perspective view of the parts comprising the machine compartment, showing the said walls and top thereof and the channel members supporting the freezer machine unit.

Figure 5 is a sectional view of a cabinet embodying my invention, the view being taken on the plane of the line 5—5 of Fig. 2, and showing the machine compartment.

Referring in detail to the drawing, in Fig. 1, the chest, indicated generally by the numeral **10**, has an outer casing, comprising a rear wall **11**, side walls **12**, a front wall **13** (see Fig. 5), and a bottom **14**. A cover is hinged to back wall **11**, to provide a top opening for the chest. Within the outer casing there is disposed an inner liner **14a**, spaced from the outer casing and providing an interior space within the freezer for the storage of articles of food. The space between the inner liner and outer casing is filled with a thermal insulation material to facilitate the maintenance of the desired temperature within the interior of the cabinet.

The side walls **12** and the front wall **13** of the outer casing are continuous and uninterrupted. The bottom of the outer casing is provided with an opening **15** extending from the back edge of the bottom. The opening is spaced from the side edges and front edge of the bottom, and is of sufficient size to accommodate the freezer machinery base **16** (see Fig. 1), and the channel supports **17** and **18**.

The back wall of the outer casing of the cabinet has an opening **19** which at the bottom edge of the back wall is coextensive with the opening **15** in the bottom of the outer casing. The opening **19** is of sufficient size to permit the freezer machine unit to be moved through it into position in the cabinet.

The vertical panel member **20** is secured along the edge of the opening **15** and provides vertical side walls and the front wall of the machine compartment. A cover **21** is fixed over the panel member **20** to provide a top for the machine compartment. The freezer machinery unit, indicated generally by the numeral **22** (see Fig. 5), is positioned within the compartment afforded by the vertical panel member **20** and the top **21**.

With the channel members **17** and **18** positioned on the side edges of the opening **15** in the outer casing bottom, the freezer unit **22**, fixed on its base **16**, may be readily

slid into position along the channel members. The stops 23 on the channel members prevent any over-riding when the unit base is slid between the channel members.

It will be observed that the herein disclosed structure affords a chest-type freezer cabinet structure in which the bottom of the outer casing contains no off-set which is welded to the front and a side wall of the outer casing. The result is that the front and side walls of the cabinet are continuous and uninterrupted, and do not bear any disfiguring weld marks which must be covered by expensive trim or decoration, or removed by expensive finishing operations. The machine compartment is readily accessible in the cabinet structure embodying my invention, and yet the opening affording access is on the back of the cabinet where it is out of view when the cabinet is placed in position for use.

The top of the machine compartment may be made from the portion of the bottom cut out to form the opening 15, thus, accomplishing a substantial saving of material.

Having thus described my invention, I claim:

1. In a top-opening, chest-type freezer cabinet, an outer casing and an inner liner therefor providing interior space within said cabinet, said outer casing comprising a front wall, a back wall, side walls, and a bottom, said bottom having an opening therein defined by edges spaced from the said front and side walls and extending to said back wall, a housing covering said opening and providing space for a freezer machinery unit, said housing having front and side vertical walls, said back wall having an opening therein adjacent to and affording access to said housing, and means securing the vertical walls of said housing to said edges and said back wall exclusively whereby the sole support for said housing is derived from said bottom and back cabinet walls.

2. In a top-opening, chest-type freezer cabinet, an outer casing and inner casing providing interior space within said cabinet, said outer casing comprising a front wall, a back wall, side walls, and a bottom, said bottom having an opening defined by edges spaced from the said front and side walls and extending to the said back wall, said back wall having an opening forming an extension of said opening in the bottom, a housing covering said openings and affording space for a freezer unit, said housing having front and side vertical walls and a top wall, and means securing the vertical walls of said housing to said edges and said back wall exclusively whereby the sole support for said housing is derived from said bottom and back cabinet walls.

3. In a chest-type freezer cabinet, an outer casing and an inner liner therefor providing interior space within said cabinet, said outer casing comprising a front wall, a back wall, side walls, and a bottom, said bottom having an opening therein defined by front and side edges spaced from said front and side walls and extending to the back edge of said bottom, an upwardly turned flange fixedly secured to each of said edges, said back wall having an opening adjacent said bottom opening, and channel members rigidly secured to said upturned flanges and opening toward said rear wall opening to support refrigeration machinery for sliding movement into and out of said opening.

4. In a cabinet, an outer casing and an inner liner therefor providing interior space within said cabinet, said outer casing comprising a front wall, a back wall, side walls, and a bottom, said bottom having an opening therein defined by edges spaced from the said front and side walls and extending to said back wall, said edges having upwardly turned flanges fixedly secured thereto and extending around said opening except at the said back wall, an opening in said back wall adjacent said bottom opening, channel members rigidly secured to said upturned flanges and opening toward said back wall opening to support refrigeration machinery for sliding movement into and out of said back wall opening, and a housing having the supporting walls thereof secured to said flanges and said back wall whereby said upturned flanges and said back wall provide the sole support for a housing positioned above said opening in said bottom and said apparatus is covered when positioned in said opening.

5. In a top-opening, chest-type freezer cabinet, an outer casing and an inner liner therefore providing interior space within said cabinet, said outer casing comprising continuous, uninterrupted front and side walls, a back wall and a bottom, an edge defining an opening in said bottom, a vertical panel member secured along and to said edge, said panel member being spaced from said front and said side walls and secured to said back wall, and a top covering said panel member, thereby affording space within said panel member for housing a freezer machinery unit which space is independent of said front and said side walls.

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