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Kenyon

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[54] REFRIGERATED CABINET CANOPY

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[52] **U.S. Cl.** **312/116,** 312/114

[51] **Int. Cl.** **A47f 3/04**

[58] **Field of Search** 312/114, 116, 137, 140.4

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Attorney, Agent, or Firm—Dorsey, Marquart, Windhorst, West & Halladay

[57] **ABSTRACT**

A refrigerated cabinet having a canopy supported over an opening in the cabinet by a frame and normally resting on a surface of the cabinet which surrounds the opening, and having a substantially vertical panel of the canopy which is slidably mounted in and supported by an oversized channel of the frame for limited vertical displacement from the surface of the cabinet to permit thorough cleaning of the surface and of the panel. When cleaning is desired, it can be accomplished by temporarily displacing the substantially vertical panel upwardly into the oversized channel. When the panel is vertically displaced from the surface of the cabinet, both the surface and the lower portion of the panel can be wiped clean by use of a suitable cleaning agent. When the cleaning process is completed, the panel can be lowered, causing the panel to once again be supported by the oversized channel in a normal position in which the lower edge of the panel is resting on the surface of the cabinet surrounding the opening therein.

7 Claims, 5 Drawing Figures

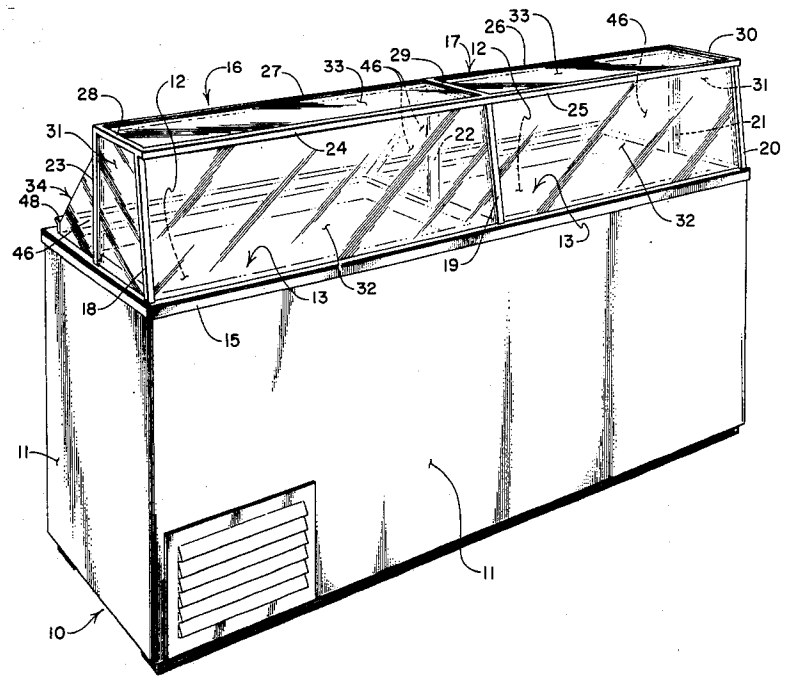

Fig. 1

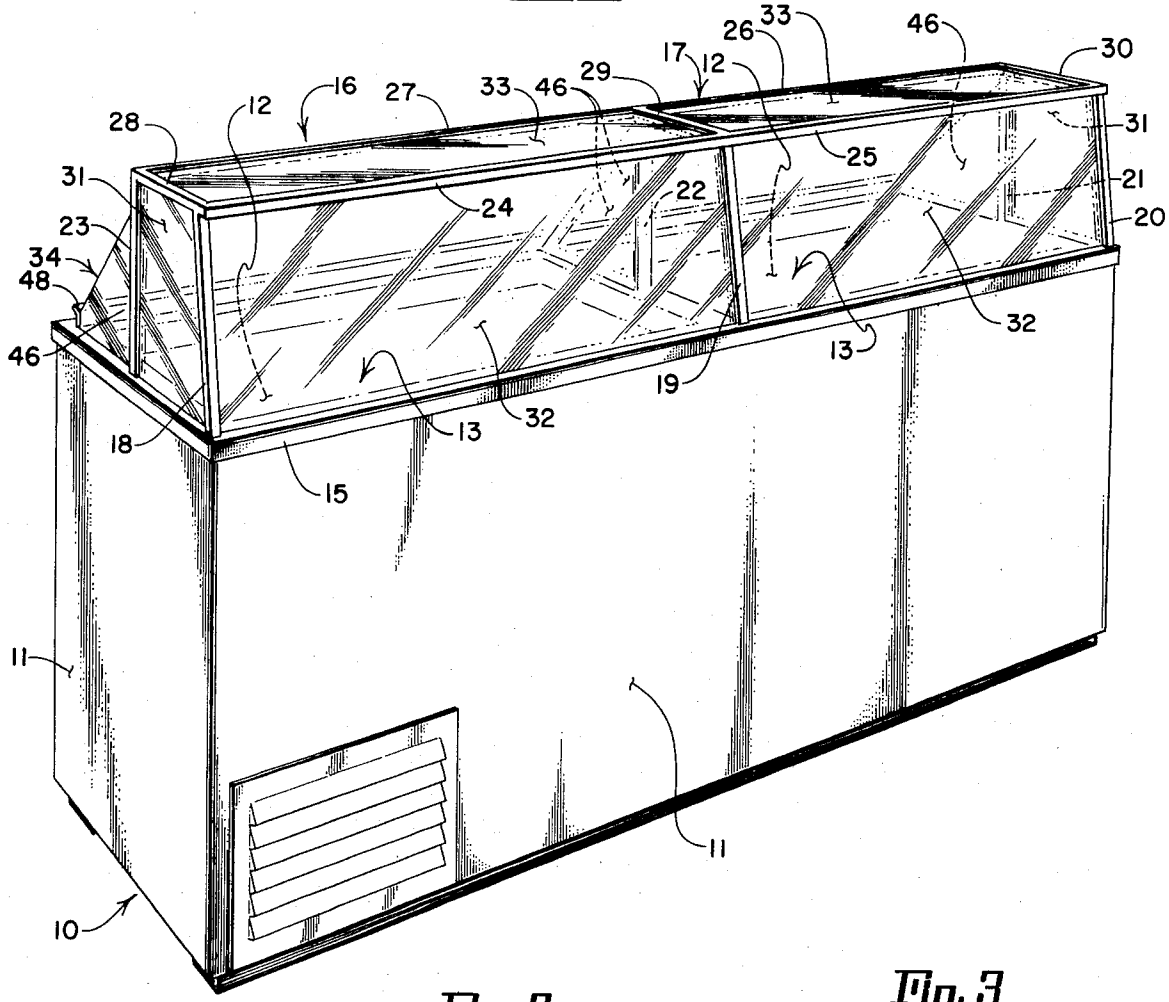

Fig. 2

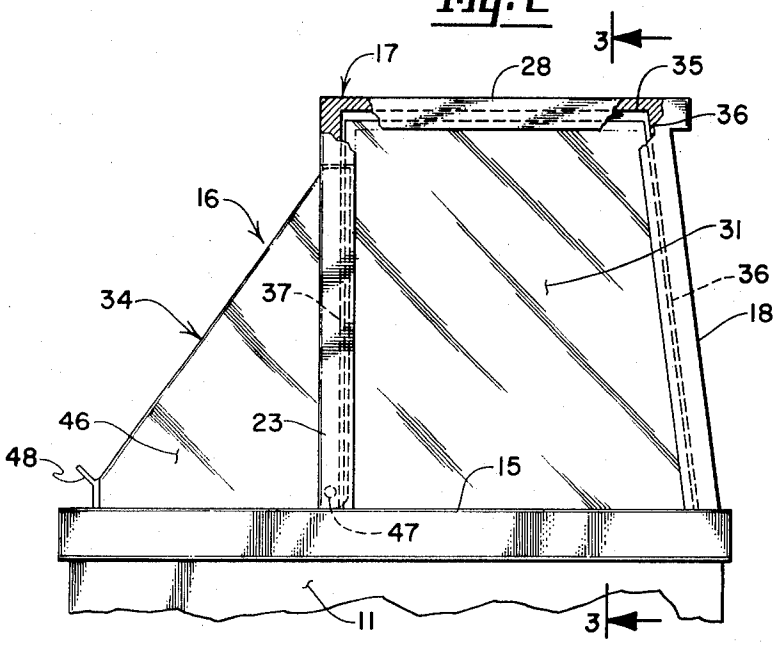

Fig. 3

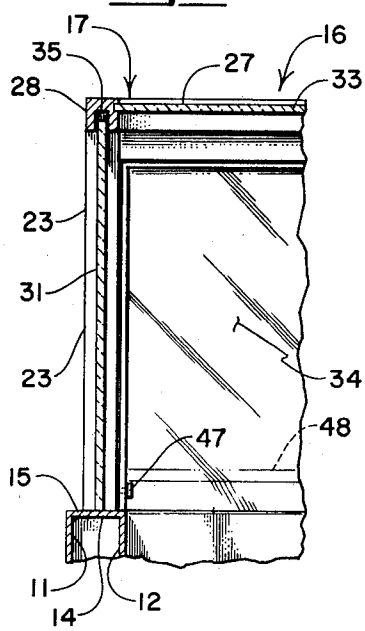

Fig. 4

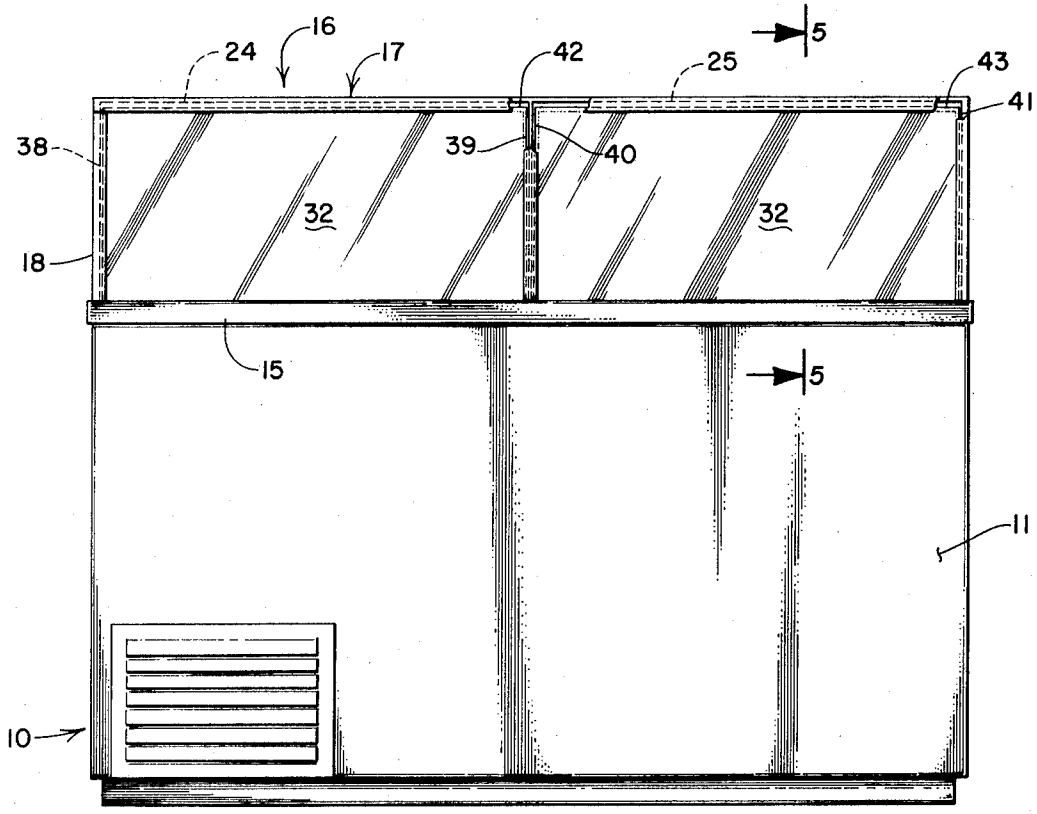
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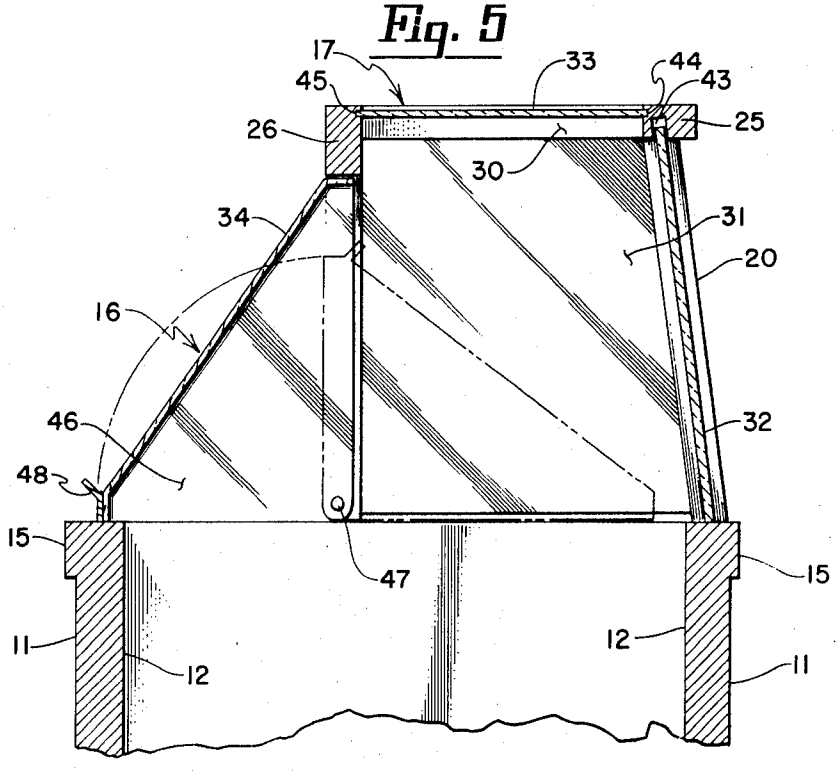
Fig. 5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REFRIGERATED CABINET CANOPY

BACKGROUND OF THE INVENTION

Refrigerated cabinets adapted for commercial use have commonly been provided with transparent canopies to seal the refrigerated compartments of such cabinets from the outside environment while at the same time facilitating visual identification of products contained therein. In the past, a significant portion of the canopy, including glass panels thereof, would be permanently fixed to the refrigerated cabinet. The joints formed by a fixed portion of the canopy and the surface of the cabinet were often glazed to make the joints moisture-proof. While providing relatively moisture-proof joints, the glazing proved to be undesirable since, in practice, it was most difficult to clean and particularly susceptible to an accumulation of foreign matter. As an example, refrigerated cabinets being used for dipping ice cream would often result in ice cream becoming lodged in the glazing and other locations not susceptible to cleaning. This proved to be both unsightly and unsanitary.

Another method developed in the past to aid in permanently securing a canopy to a refrigerated cabinet and to overcome the problems associated with glazed joints was to supply a gasket between the fixed portion of the canopy and the surface of the cabinet. While providing relatively moisture-proof joints, securing the canopy to the cabinet by use of this method also had the disadvantage of providing a location not easily susceptible to cleaning. Gaskets provided a joint in which an accumulation of foreign matter would become trapped, rendering its removal quite difficult. Thus, the use of gaskets between the fixed portion of the canopy and the surface of the refrigerated cabinet would also result in unsightly and unsanitary conditions within the cabinet.

Until the present invention, in order to clean the joints formed by the fixed portion of a canopy and the adjoining surface of a refrigerated cabinet, it has always been necessary to reach into the area under the canopy and vigorously scrub the joints. This has been true whether the joints were provided with glazing, gaskets or any other previously known sealing means. As a result, a great deal of time and effort has been required to remove accumulated foreign matter due to the difficulty with which access is had to the permanent joints under the canopy as well as the inherently difficult task of removing the foreign matter for the reasons set forth above. Even then, it has often been found that the joints between the canopy and the cabinet simply could not be cleaned by any conventional cleaning process. Since frequent cleaning is both necessary and desirable in order to avoid unsightly and unsanitary conditions in refrigerated cabinets used for commercial purposes, these characteristics are undesirable.

SUMMARY OF THE INVENTION

The present invention is concerned with a canopy for a refrigerated cabinet having substantially vertical panels which are slidably mounted in and permanently secured by a frame for limited vertical displacement to aid in cleaning both the panels and the surface of the cabinet on which the panels normally rest. The present invention is also concerned with a canopy which promotes a seal between the canopy and a surface surrrounding an opening in the refrigerated cabinet during

periods in which neither access to the contents of the cabinet nor cleaning of the panels or cabinet surface is desired.

The canopy consists of a frame having oversized horizontal channels and vertical channels acting to support a pair of substantially vertical side panels, a substantially horizontal top panel, a substantially vertical front panel and a back panel. The substantially vertical panels are slidably mounted in the channels, and the oversized horizontal channels of the frame have sufficient clearance to permit the substantially vertical panels to be vertically displaced from the surface of the cabinet for a limited distance. The displacement is of a distance sufficient to permit a cleaning agent such as a paper, a cloth or a sponge to be placed between the panels and the surface of the cabinet.

The frame provided for the canopy is secured to the refrigerated cabinet. The substantially vertical panels and the substantially horizontal top panel of the canopy are permanently confined within the frame and cannot be removed without disassembling the canopy. The substantially horizontal top panel is fixedly mounted within the frame with the substantially vertical side and front panels being slidably mounted therein. The back panel is movably mounted on the frame for movement from a closed position, in which the refrigerated compartment of the cabinet is sealed from the outside environment, to an open position, in which an area of access is provided from which an operator can easily remove a portion of the contents. This design is particularly useful with regard to a refrigerated cabinet used commercially for dipping ice cream.

After a period of use, and a corresponding accumulation of foreign matter in the joints formed by a substantially vertical panel and the adjoining surface of the cabinet, the foreign matter may easily be removed and the joint quickly cleaned by utilizing the principle of the present invention. The substantially vertical panel is simply vertically displaced in the corresponding oversized horizontal channel of the frame for a limited distance defined by the normal clearance of the horizontal channel above the top edge of the panel to permit access to the surface of the cabinet and the lower portion of the panel. Generally, a paper, a cloth or a sponge is placed in the gap resulting from separation of the displaced panel and the cabinet surface and the accumulated matter can simply be wiped away from both elements. When the cleaning operation is completed, the substantially vertical panel is simply lowered to its normal position where it once again rests on the surface of the cabinet. This operation is repeated for each of the substantially vertical panels.

Since no foreign matter can be expected to accumulate in the joints formed by the horizontal top panel and the frame by reason of normal use of the refrigerated cabinet, the horizontal top panel is fixed within the channels of the frame provided for it in a stationary position. Nevertheless, any accumulation of common dirt or grime caused by the periodic exposure of the interior of the top panel to the outside environment may easily be removed by commonly known cleaning techniques. Also, since the back wall of the canopy is movably mounted on the frame of the canopy, it can be moved to any position between the extremes of a closed position and an open position to permit easy access to the interior surface area of the canopy for cleaning purposes. Finally, it is obvious that the exterior surface

area of the canopy can be cleaned using commonly known techniques. therefore, the entire surface area of the canopy can be thoroughly cleaned with relative ease and in a minimum of time.

It should be noted that in the present invention the joints formed by the substantially vertical panels of the canopy for a refrigerated cabinet and the surface of the cabinet, which are highly susceptible to an accumulation of foreign matter, may quickly be cleaned at frequent intervals to maintain the cabinet free from unsightly and unsanitary conditions. This, in turn, enhances customer desire for the products contained in the cabinet. In addition, the present invention permits uninterrupted use of the refrigerated cabinet for the period during which the joints are being cleaned. Thus, a highly useful refrigerated cabinet is provided having a canopy which is easily and quickly cleanable with uninterrupted use of the cabinet and through which the customer can view the contents in an appealable, sanitary environment.

Various other features and objects of the invention will be apparent from a consideration of the accompanying specifications, claims and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of my refrigerated cabinet bearing the canopy in which substantially vertical, slidably mounted panels are provided.

FIG. 2 is a side elevation of my canopy with portions of the frame broken away to show the oversized horizontal channel in the frame and the relation of a substantially vertical side panel thereto;

FIG. 3 is a sectional view of the canopy taken along the line 3—3 of FIG. 2 showing the oversized horizontal channel in the frame and more clearly demonstrating the relation of a substantially vertical side panel thereto and the limited displacement thereof provided by my invention;

FIG. 4 is a front elevation of my refrigerated cabinet bearing the canopy with a portion of the frame broken away to show the oversized horizontal channel in the frame and the relation of substantially vertical front panels thereto;

FIG. 5 is a sectional view of the canopy taken along the line 5—5 of FIG. 4 more clearly demonstrating the relation of a substantially vertical front panel to the oversized horizontal channel in the frame and showing a substantially vertical side panel raised by the limited displacement provided by my invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIG. 1, the refrigerated cabinet **10** has a plurality of vertical outer walls **11** which are attached to form an enclosure. Within the enclosure and spaced by insulation from outer walls **11** are interior walls providing an interior liner surface **12**. This liner surface **12**, together with a false floor, defines the refrigerated compartment **13**.

Referring to FIG. 3, the vertical outer walls **11** and liner surface **12** have spacer walls **14** extending there between. The spacer walls **14** extend perimetrically around the refrigerated compartment **13** of the cabinet **10**. Preferably, the spacer walls **14** are covered with a handrail **15** having an inverted U-shaped construction and constructed from a durable and easily cleanable material such as stainless steel. In FIG. 1, it can clearly be seen how the handrail **15**, which covers the spacer walls **14**, defines a top opening in the cabinet **10**.

In the area between the vertical outer walls **11** and the liner surface **12** and below the spacer walls **14** of the cabinet **10** are the coils of an evaporator of a refirgerationsystem including, refrigeration system addition to the evaporator coils, a compressor, a condenser and an expansion device. The latter elements are located at suitable locations within the cabinet **10** but outside of the refrigerated compartment **13**. Since the refrigeration components are of a type well-known in the art, they have not been shown.

A canopy **16** is provided to cover the top opening of the refrigerated compartment **13** of the cabinet **10**. The canopy **16** is supported on the spacer walls **14** or handrail **15** of the cabinet **10**. Preferably, the canopy **16** is of a transparent material such as glass to permit easy customer identification and selection of products contained within the refrigerated compartment **13**.

The canopy **16** is supported on the spacer walls **14** or handrail **15** by a frame **17**. Referring to FIG. **1**, the frame **17** consists of a plurality of substantially vertical struts, including front struts **18, 19** and **20** and back struts **21, 22** and **23**. In addition, the frame **17** consists of a plurality of horizontal support beams, including lateral support beams **24, 25, 26** and **27** and cross support beams **28, 29** and **30**. In practice, each of the substantially vertical struts **18, 19, 20, 21, 22** and **23** has a lower end attached to a spacer wall **14** or handrail **15** and an upper end attached to an end of each of at least two horizontal support beams.

Referring to FIG. **1**, it can be seen that the upper ends of front struts **18** and **19** are attached to the ends of lateral support beams **24**; upper ends of front struts **19** and **20** are attached to the ends of lateral support beam **25**; upper ends of front strut **20** and back strut **21** are attached to the ends of cross support beam **30**; upper ends of back struts **21** and **22** are attached to the ends of lateral support beam **26**; upper ends of back struts **22** and **23** are attached to the ends of lateral support beam **27**; upper ends of back strut **23** and front strut **18** are attached to the ends of cross support beam **28**; and, finally, upper ends of front strut **19** and back strut **22** are attached to the ends of cross support beam **29**. In this manner, the box-like frame **17** is formed by which the canopy **16** is supported on the refrigerated cabinet **10**.

The frame **17** provides support for at least a pair of substantially vertical side panels **31**, a substantially vertical front panel **32**, a horizontal top panel **33** and a back panel **34**. In practice, it is often desirable to provide the substantially vertical front panel **32**, horizontal top panel **33** and back panel **34** in pairs as shown in FIG. **1**. The reason for this will become apparent below.

Referring to FIGS. **2** and **3**, the oversized horizontal channel **35** of the cross support beam **28** can clearly be seen and understood. In addition, it can be seen that front strut **18** and back strut **23** have substantially vertical channels **36** and **37**, respectively. The substantially vertical side panel **31** is slidably mounted in and permanently supported by the channels **35, 36** and **37**.

In practice, the panel **31** is generally in a normal position in which it rests on handrail **15** as shown in FIG. **2**. The panel **31** can temporarily be vertically displaced from the handrail **15**, as shown in FIG. **5**, for cleaning by the limited distance defined by the normal clearance

of the oversized horizontal channel **35** above the top edge of the panel **31**. Accordingly, the maximum vertical displacement possible by using the present invention can be varied by varying the clearance in the channel **35**. However, it is clearly evident that the depth of the channel **35** is limited by the size of the cross support beam **28**. As a result, the maximum clearance between the top edge of the panel **31** and the channel **35** is similarly limited. Accordingly, the maximum vertical displacement obtainable is limited to distances of a magnitude defined by the size of the horizontal support beams. However, the vertical displacement obtainable by use of the present invention is of a distance sufficient to conveniently introduce a cleaning agent such as a paper, a cloth or a sponge between the lower edge of the panel **31** and the handrail **15**.

Looking closer to the channels **36** and **37**, they are not provided with a clearance of generally the same magnitude as the oversized horizontal channel **35**. Since displacement is limited to the vertical direction, channels **36** and **37** are merely of a sufficient depth to permit sliding movement while at the same time permanently supporting the panel **31**.

In the preferred embodiment shown in FIG. **2**, the front strut **18** is somewhat inclined while the back strut **23** is vertical. While the front strut **18** may also be vertical, it is preferred to incline it at a slight angle from the vertical to provide front panels **32** which are substantially vertical, but somewhat inclined, to aid customers in identifying and selecting the products contained within the refrigerated cabinet **10**. When this embodiment is used, the depth of the channels **36** and **37** must be somewhat greater than when both the front and back struts are vertical. This is clearly necessary in order to be able to practice the present invention since the distance between the two struts decreases as the panel **31** is vertically displaced.

With regard to the opposite substantially vertical side panel **31** slidably mounted in and permanently supported by front strut **20**, back strut **21** and cross support beam **30**, application of the principles of my invention are identical to those taught above. While not shown, an oversized horizontal channel similar to channel **35** is provided in the cross support beam **30** and channels similar to channels **36** and **37** are provided in the front strut **20** and the back strut **21**. With application of the principles taught above, the additional substantially vertical side panel **31** can be vertically displaced for the limited distance defined by the normal clearance of the oversized horizontal channel above the top edge of the panel **31** and, the lower portions of the additional panel **31** and the surface of the handrail **15** relating thereto may be cleaned by introducing a cleaning agent there between.

Referring now to FIGS. **4** and **5**, it can be seen that the substantially vertical front panels **32** can be vertically displaced for cleaning purposes in substantially the same manner as the side panels **31**. With regard to the front panels **32**, the lateral support beams **24** and **25** are provided with oversized horizontal channels **42** and **43**, respectively. Again, the depth of the channels and the maximum possible clearance between the channels and the top edges of the panels **32** are limited by the size of the lateral support beams **24** and **25**. And when the front struts **18**, **19** and **20** are somewhat inclined, the oversized horizontal channels **42** and **43** in the lateral support beams **24** and **25**, respectively, are inclined at the same angle to receive the similarly inclined panels **32**.

The front struts **18**, **19** and **20** have channels **38**, **39**, **40** and **41** provided to permanently support the panels **32** in the frame **17** of the canopy **16** while at the same time permitting limited vertical displacement for cleaning purposes by sliding the panels **32** into the oversized horizontal channels **42** and **43**. However, since the front struts **18**, **19** and **20** are substantially parallel, the channels **38**, **39**, **40** and **41** do not need to be oversized in the same manner as the channels **36** and **37** used for the substantially vertical side panels **31** where the front and back struts are not parallel. The channels provided in the front struts to support the panels **32** need only be of a sufficient depth to provide slidable support for them.

In practice, the panels **32** are generally in a normal position in which they rest on handrail **15**, as shown in FIGS. **4** and **5**. The panels **32** can temporarily be vertically displaced from the handrail **15** for cleaning purposes by the limited distance defined by the normal clearance of the oversized horizontal channels **42** and **43** above the top edges of the panels **32**, as shown in FIG. **5**. The maximum vertical displacement obtainable by use of the present invention is limited in the same manner as taught above with respect to the side panels **31**. When the panels **32** have been displaced, a cleaning agent, such as a paper, a cloth or a sponge, can be introduced between the lower edge of the panel **32** and the surface of the handrail **15**. Any accumulated foreign matter which may have been deposited in this area may quickly and easily be wiped away. When the cleaning process is completed, the panels **32** may once again be lowered to rest in a normal position on the handrail **15**.

Looking once again to FIG. **1**, the structure supporting the top panels **33** can be seen. It is clear that lateral support beams **24** and **27** and cross support beams **28** and **29** support one of the top panels **33** and lateral support beams **25** and **26** and cross support beams **29** and **30** support the other top panel **33**. Referring to FIGS. **3** and **5**, the structure can be more fully understood. From these views it can be seen that the horizontal support beams actually form a casing around the horizontal top panels **33**. More particularly, referring to FIG. **5**, the lateral support beams **25** and **26** have channels **44** and **45**. Similarly, cross support beams **29** and **30** have channels which are not shown. The channels **44** and **45** in the lateral support beams **25** and **26** act together with the channels in the cross support beams **29** and **30**. The channels are of an adequate depth to provide permanent support and to hold one of the horizontal top panels **33** in a stationary position. In a like manner, lateral support beams **24** and **27** and cross support beams **28** and **29** have channels of an adequate depth to provide permanent support and to hold the other horizontal top panel **33** in a stationary position.

The relationship between the frame **17** and the back panel **34** is somewhat different from the relationship of the other panels therewith. Referring to FIG. **1**, the back panel **34** is supported on a pair of triangular sections **46**. Each triangular section **46** is provided with pivotal mounting means **47** on the frame **17**, as seen in FIG. **5**. Thus, the back panel **34** is movably mounted in relation to the frame **17**. The design of the back panel **34** and triangular sections **46** is such that when the back panel **34** is in a closed position, as shown in solid

lines in FIG. 5, the back panel 34 and triangular sections 46, in conjunction with the remaining portions of the canopy 16, serve to seal the refrigerated compartment 13 of the cabinet 10 from the outside environment. When an operator or customer wishes to have access to the contents of the cabinet, a lip member 48, which is provided along the lower edge of the back panel 34, is lifted, thereby rotating the back panel 34 to an open position, as shown in phantom lines in FIG. 5, from which access to the contents is readily available.

It is for this reason that, in practice, a pair of back panels 34, as shown in FIG. 1, are used. In this way, when the operator or customer has visually selected a desired item from the contents of the cabinet 10, he may lift the back panel 34 corresponding thereto and retrieve the item from the refrigerated compartment 13 of the cabinet 10. Once the item has been obtained, the opened back panel 34 may once again be closed. During the interim, a limited portion of the top opening of the refrigerated cabinet 10 is exposed to the outside environment. This limited exposure helps to maintain the refrigerated cabinet 10 at a desired temperature and serves to retard the formation of frost within the cabinet 10 by limiting the amount of saturated warmer air from outside the cabinet 10 which may enter. Thus, the contents of the cabinet 10 may be maintained at a relatively stable temperature, and the refrigerated cabinet 10 itself may be operated more efficiently due to the retardation of frost formation.

As with the back panels 34, it is often desirable to provide the substantially vertical front panels 32 and horizontal front panels 33 in pairs. This is especially true where the refrigerated cabinet 10 is relatively long. In order to provide panels sufficiently strong to withstand the forces which are experienced during normal use when, for instance, customers may lean on the canopy or panels, it is desirable to provide the frame 17 with intermediate support and, accordingly, to limit the size of the panels. Thus, in cabinets of the size normally used in commercial operations, as shown in FIG. 1, an intermediate support consisting of front strut 19, back strut 22 and cross support beam 29 is provided. As taught above, use of the intermediate support requires the use of a pair of substantially vertical front panels 32 and a pair of horizontal top panels 33 with the intermediate support being provided with channels to practice the present invention. Of course, the particular design of any refrigerated cabinet 10 utilizing the present invention will depend upon its contemplated use.

It should be understood that if the front panels 32 were movably mounted to provide access to the contents of the cabinet in a manner similar to that provided by the back panels 34, it would provide access for an operator through the back panels while at the same time providing for customer self-service through the front panels. While this embodiment is possible, the preferred embodiment shown and described above has substantial advantages.

In the preferred embodiment of the present invention, a single pane of glass is provided for each substantially vertical side panel 31, horizontal top panel 33, and front panel 32. Also, each back panel 34 and each corresponding triangular section 46 thereof is preferably of a material such as the transparent plastic sold under the trademark PLEXIGLASS. The reason for using a plastic material for the back panels 34 is because of its strength and durability which is an important factor for this portion of the canopy 16 due to its frequent manipulation. In addition, the struts and beams are preferably of aluminum having extruded channels. Finally, referring to FIG. 3, the cross section of the handrail 15, preferably of stainless steel, can be seen. This element of the cabinet, while preferred, is optional. Nevertheless, it is highly desirable because it covers the vertical side walls 11, spacer walls 14 and liner surface 12 construction which is otherwise unfinished. In addition, it is durable, easy to clean and attractive.

In operation, the refrigerated cabinet 10 of the present invention provides a functional and attractive unit. For instance, when a unit is in operation as an ice cream cabinet, an operator may easily manipulate the back panels 34 of the canopy 16 from a closed position to an open position, as shown in FIG. 5, to dip ice cream and then the back panels may be closed again. In addition, the back panels 34 may be alternately swung open and shut to gain access to the contents of the cabinet. Furthermore, the back panels 34 are of a transparent and durable material and require a minimum of maintenance and repair under normal use.

The canopy 16 of the present invention provides a useful cover for a refrigerated cabinet 10 which is effective in sealing the top opening of the cabinet 10 from the outside environment during periods when access to the contents of the cabinet 10 is not sought. In addition, the canopy 16 is supported by a unique frame 17 having channels which provides for the cleaning of locations highly susceptible to accumulation of foreign matter with relative ease. The joints between the substantially vertical panels of the canopy 16 and the top edges 14 or handrail 15 of the vertical side walls 11 of the cabinet 10 can be cleaned by merely vertically displacing the substantially vertical panels for a limited distance into the channels and introducing a cleaning agent such as a paper, a cloth or a sponge between the top edges 14 or handrail 15 and the lower portions of the vertically displaced substantially vertical panels. The foreign matter may then simply be wiped away. Also, due to the ease with which access may be had to the refrigerated compartment 13 of the cabinet 10, the remaining portions of the interior of the canopy 16 may be cleaned by using commonly known techniques. Thus, the interior of the canopy may be maintained in a clean and sanitary condition, thereby enhancing the appeal of the contents of the cabinet 10 to the customer, with relative ease and at frequent intervals.

Since the cleaning operation can be performed frequently and with ease, harmful cleaning agents and vigorous scrubbing of the areas from which accumulated matter has in the past proved to be most difficult to remove need not be used. As a result, the refrigerated cabinet may be maintained in use while the cleaning process is undertaken. This is particularly beneficial with regard to refrigerated cabinets used for commercial purposes. Once the cleaning process has been completed, the substantially vertical panels may be released from vertical displacement and lowered so that they once again rest in a normal position upon the top edges 14 or handrail 15 of the vertical side walls 11 of the cabinet 10.

While I have shown a specific embodiment of the cabinet and canopy for purposes of illustration only, it

is to be understood that the invention is to be limited solely by the scope of the appended claims.

I claim as my invention:

1. A refrigerated cabinet having a canopy, said cabinet having a plurality of vertical walls attached to define a top opening in said cabinet, said walls having top edges, and said canopy being supported by a frame on said top edges, said frame supporting a front panel, a back panel, a pair of side panels and a top panel of said canopy, at least one of said panels serving as an access door panel and being movably mounted on said frame for movement from a closed position in which said canopy covers said top opening to a fully open position in which said top opening is substantially exposed to the outside environment, and at least one other of said panels having a lower edge normally directly engaging a corresponding top edge of one of said walls, said other panel being slidably mounted in a channel of said frame and being restrained by said frame and channel to limited upward displacement to temporarily separate the lower edge of said slidably mounted panel of said canopy from said top edge of said wall for cleaning said panel and wall edge without substantially opening said cabinet.

2. The refrigerated cabinet of claim 1 in which said canopy comprises a pair of substantially vertical side panels, a substantially vertical front panel, a substantially horizontal top panel and a back panel and in which at least one of said substantially vertical panels is slidably mounted in said channel of said frame for limited vertical displacement.

3. The refrigerated cabinet of claim 2 in which said back panel is movably mounted on said frame for movement from a closed position to a fully open position and in which said pair of substantially vertical side panels and said substantially vertical front panel are slidably mounted for limited vertical displacement.

4. The refrigerated cabinet of claim 3 in which said frame has at least four substantially vertical struts and at least four substantially horizontal support beams, said frame having lower ends of each of said struts attached to said cabinet, and having a first end of each substantially horizontal support beam attached to an upper end of a substantially vertical strut and a second end of each substantially horizontal support beam attached to an upper end of a next adjacent substantially vertical strut, said frame forming a box-like structure.

5. The refrigerated cabinet of claim 4 in which each substantially horizontal support beam of said frame provided for a slidably mounted panel has an oversized channel of a depth sufficient to support said panel in said frame and to permit limited vertical displacement of said panel and in which each substantially vertical strut of said frame provided for a slidably mounted panel has a channel of a limited depth sufficient to support said panel in said frame and to permit slidable movement of said panel.

6. The refrigerated cabinet of claim 4 in which said four substantially vertical struts comprise two front struts and two back struts and in which each front strut converges with a next adjacent back strut from said lower ends to said upper ends.

7. The refrigerated cabinet of claim 6 in which said substantially horizontal support beams of said frame attached to said upper ends of each front strut and next adjacent back strut and said substantially horizontal support beam attached to said upper ends of both front struts have oversized channels of a depth sufficient to support said slidably mounted panels in said frame and to permit limited vertical displacement of said panels, each front strut and next adjacent back strut having an oversized channel of a depth sufficient to support a substantially vertical side panel in said frame and to permit limited vertical displacement of said side panel, and each front strut of said frame having a channel of a limited depth sufficient to support said substantially vertical front panel in said frame and to permit slidable movement of said front panel.

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