

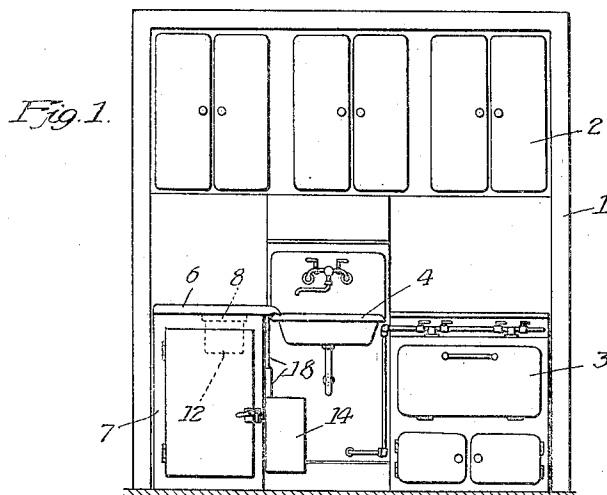
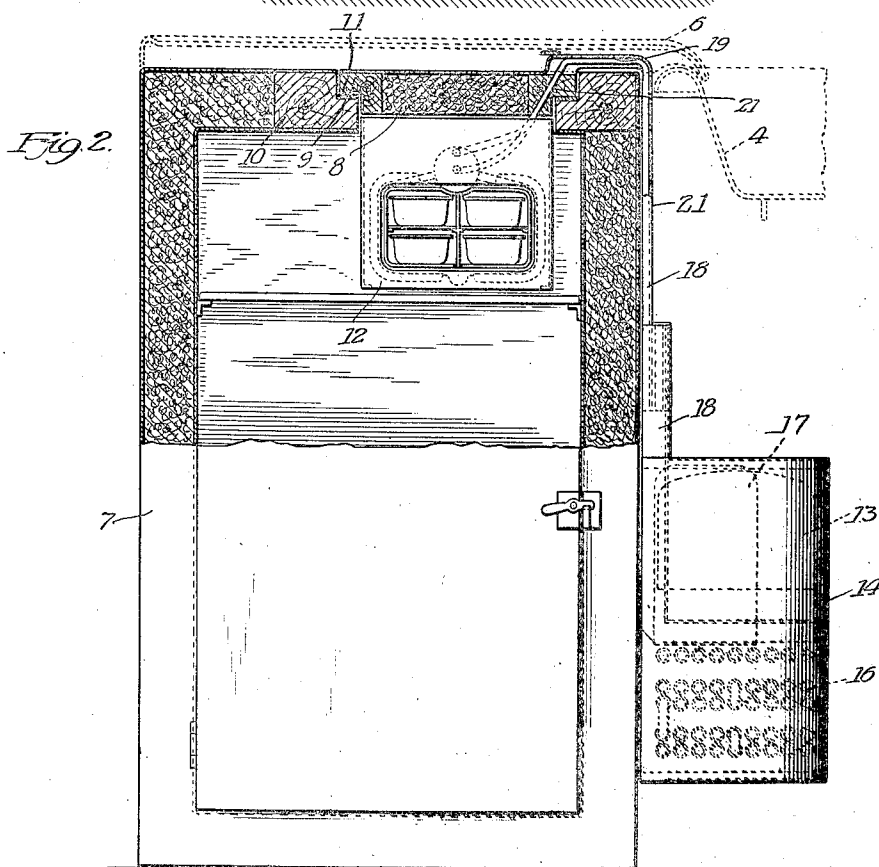
Sept. 12, 1933.

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APARTMENT REFRIGERATOR

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2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 3.

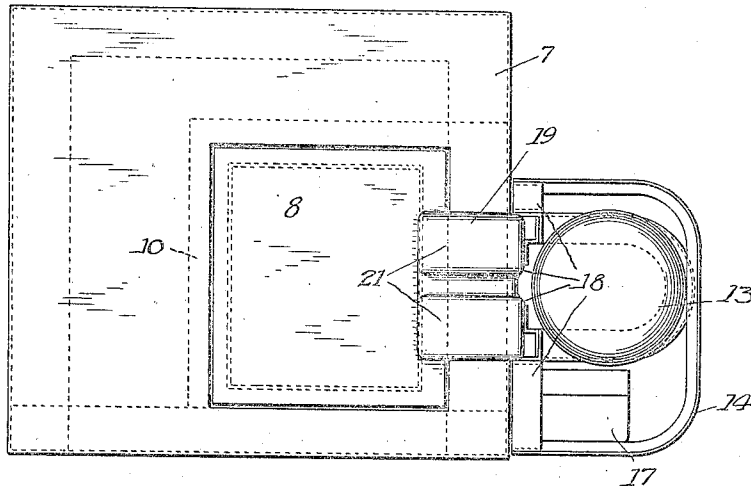
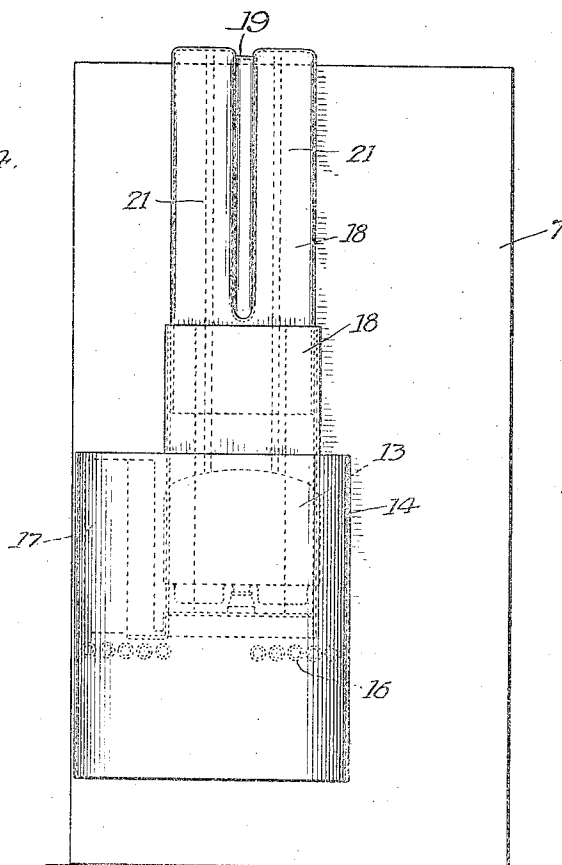


Fig. 4.



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UNITED STATES PATENT OFFICE

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APARTMENT REFRIGERATOR

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8 Claims. (Cl. 62—116)

This invention pertains to refrigerators of the so-called mechanical type and more particularly to refrigerators of this type that are especially well adapted to be incorporated into a cabinet such as a kitchen cabinet.

It is the purpose of this invention to provide a refrigerator which may be incorporated into a cabinet and in which the entire refrigerating unit including the cooling element and the refrigerant circulating apparatus is removable from the refrigerator box or cabinet without disturbing the box.

It is also an object of this invention to provide such a removable equipment that is particularly well adapted to be installed in a kitchen cabinet in combination with a sink and its accompanying drain board.

In accordance with this invention the top insulating wall of the refrigerator box or cabinet is provided with a removable section which will permit the insertion and removal of the refrigerating unit. The refrigerant circulating apparatus for supplying the cooling element is preferably suspended along one side of the cabinet exteriorly thereof and the cooling unit within the cabinet by a bracket which also provides a protective covering for the connecting tubes between the cooling element and refrigerant circulating apparatus. This construction permits the top of the cabinet to be placed to one side of a sink and serve as a support for a removable drain board for the sink all of which permits of compactness in a kitchen cabinet as a whole. It will be manifest from the following description that although the invention is illustrated as applied to a kitchen cabinet, the invention will have utility in other applications.

A better understanding of this invention will be had from the following description given in connection with the drawings, in which:

Fig. 1 is a front elevation of a kitchen cabinet to which this invention is particularly adaptable and illustrates the incorporation and combination of a refrigerator therein constructed in accordance with this invention.

Fig. 2 is a front elevation partly in section of the refrigerator cabinet and unit.

Fig. 3 is a plan view of the refrigerator cabinet and unit.

Fig. 4 is a side elevation of the refrigerator cabinet and unit.

Referring more particularly to the drawings, it will be seen that this invention is illustrated as incorporated in and combined with a kitchen cabinet 1 including cupboards 2, stove 3, sink 4,

drain board 6 and refrigerator 7, all combined into one unitary cabinet structure. As can be seen, the refrigerator cabinet is disposed to one side of the sink, the top of the cabinet constituting a support for the drain board of the sink. This arrangement permits of compactness of the constituents of a kitchen cabinet that would ordinarily incur difficulties involving more particularly inaccessibility to the refrigerator cooling coils and the refrigerating unit.

To overcome this difficulty the drain board of the sink is made removable and the top of the refrigerator cabinet is provided with a removable section or plug 8 including a rabbeted frame 9 which seats upon a correspondingly rabbeted frame 10 formed in the upper wall of the refrigerator cabinet. A suitable gasket 11 may be inserted between frames 9 and 10 if desired. Secured to and depending from the removable section or plug is the cooling element such as cooling coils or evaporator 12 which may be of any suitable type. The cooling coils are supplied with a refrigerant from a refrigerant circulating apparatus 13 mounted within a container 14 which also houses the condenser 16 and regulating member 17. The container 14 is secured to the cabinet or box 7 by being suspended upon a bracket 18 having an upper hooked portion 19 extending across the upper end of one wall of the cabinet and overlying the removable section 8. The bracket is of sufficient length to permit the container 14 to be raised until evaporator 12 is clear of the box, i. e., sufficient clearance is provided between the sink and the top of container 14. The bracket is preferably of hollow sheet metal construction serving to house and protect tubes 21 which conduct the refrigerant from the motor compressor unit to the cooling coils.

In order to remove both the cooling coils and the refrigerating unit it is only necessary to remove the drain board 6 and raise section 8 with the cooling coils attached thereto and the bracket 18 carrying therewith container 14 and the refrigerating unit therein until the evaporating unit is clear of the top of cabinet 7 after which the entire unit may be moved forwardly.

It follows from the foregoing description that there has been provided a construction whereby the evaporator or cooling coils and the refrigerating unit may be removed as a complete unitary structure for repairs or replacement and at the same time the structure permits of extreme compactness and ease of removability which makes the invention particularly adaptable for

installation in kitchen cabinets or other uses as will be apparent.

It is obvious that changes may be made particularly in the details of construction illustrated, without departing from the spirit and scope of this invention defined in the claims appended hereto.

I claim:

1. The combination of a cabinet having a removable section in the upper wall thereof, with a refrigerating unit removably associated therewith comprising a cooling element secured to said section and depending into said cabinet, a refrigerant apparatus for supplying said element with refrigerant and a bracket for suspending said apparatus along one side of said cabinet, said bracket being of sufficient length to support said apparatus in position adjacent the bottom of said cabinet, said bracket and apparatus being removable with said section and element by raising and moving transversely.

2. In a refrigerator, an insulated cabinet having a removable section in the upper wall thereof, and a refrigerating unit comprising a cooling element secured to said section and depending into said cabinet, a refrigerant circulating apparatus for supplying said element with refrigerant and a bracket for suspending said apparatus along one side of said cabinet, said bracket serving as a protective covering for the connecting refrigerant tubes extending between said apparatus and element.

3. In a refrigerator, an insulated cabinet having a removable section in the upper wall thereof, and a refrigerating unit comprising a cooling element secured to said section and depending into said cabinet, a refrigerant circulating apparatus for supplying said element with refrigerant and a bracket for suspending said apparatus along one side of said cabinet and adjacent the lower portion thereof, said unit being removable with said section, said bracket also serving as a protective covering for the connecting refrigerant tubes extending between said element and apparatus.

4. The combination of a kitchen cabinet, a sink, a removable drain board therefor, with a refrigerator cabinet disposed below said drain board and to one side of said sink and constituting a support for said drain board, said refrigerator cabinet having an opening through the upper wall thereof underlying said drain board, a removable section for closing said opening, a refrigerant circulating apparatus suspended on the exterior of said cabinet below said sink and a cooling element permanently connected to said circulating apparatus and extending into said cabinet through the opening therein, said cooling element being removable through said opening and with said circulating apparatus as a unit without disturbing said refrigerator cabinet and sink.

5. The combination of a kitchen cabinet, a sink, a removable drain board therefor, with a refrigerator cabinet disposed below said drain board and to one side of said sink and constituting a support for said drain board, said refrigerator cabinet having an opening through the

upper wall thereof underlying said drain board, a removable section for closing said opening, a cooling element permanently connected to said circulating apparatus and extending into said cabinet through the opening therein, and a refrigerant circulating apparatus suspended on the exterior of said cabinet below said sink a distance at least equal to the depth said cooling element extends into said cabinet, and said cooling element being removable through said opening and with said circulating apparatus as a unit without disturbing said refrigerator cabinet and sink.

6. The combination of a kitchen cabinet, a sink, a drain board therefor, with a refrigerator cabinet disposed below said drain board and to one side of said sink, said refrigerator cabinet constituting a support for said drain board and having an opening through the upper wall thereof beneath said drain board, a removable section for closing said opening, a refrigerating unit removably associated therewith and comprising a support and extending through said opening into said cabinet and a refrigerant circulating apparatus also suspended from said support on the exterior of said cabinet below said sink, said apparatus being connected to said element to supply refrigerant thereto, said unit being removable through said opening without disturbing said refrigerator cabinet or sink.

7. The combination of a kitchen cabinet, a sink, a drain board therefor, with a refrigerator cabinet disposed below said drain board and to one side of said sink, said refrigerator cabinet constituting a support for said drain board and having an opening through the upper wall thereof beneath said drain board, a removable section for closing said opening, a refrigerating unit removably associated therewith and comprising a support, a cooling element suspended from said support and extending through said opening into said cabinet and a refrigerant circulating apparatus also suspended from said support on the exterior of said cabinet below said sink a distance at least equal to the depth said unit extends into said refrigerator cabinet, said apparatus being connected to said element to supply refrigerant thereto, said unit being removable through said opening without disturbing said refrigerator cabinet or sink.

8. The combination of a kitchen cabinet, a sink, and a removable drain board therefor, with a refrigerator cabinet disposed below said drain board and to one side of said sink, said refrigerator cabinet having an opening through the upper wall thereof underlying said drain board, a removable section for closing said opening, a refrigerant circulating apparatus suspended on the exterior of said cabinet below said sink, and a cooling element permanently connected to said circulating apparatus and extending into said cabinet through the opening therein, said cooling element being removable through said opening and with said circulating apparatus as a unit without disturbing said refrigerator cabinet and sink.

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