

Feb. 22, 1949.

R. O. ABELING

2,462,705

MOISTURE REMOVING DEVICE FOR DEEP FREEZERS

Filed Dec. 31, 1947

Fig. 1.

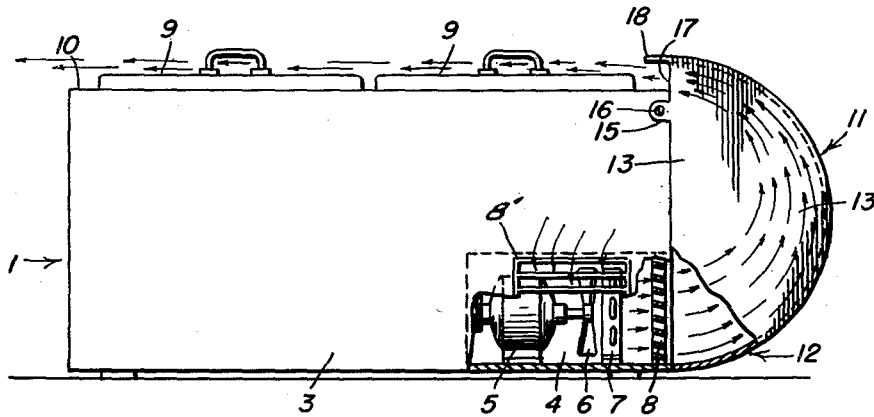


Fig. 2.

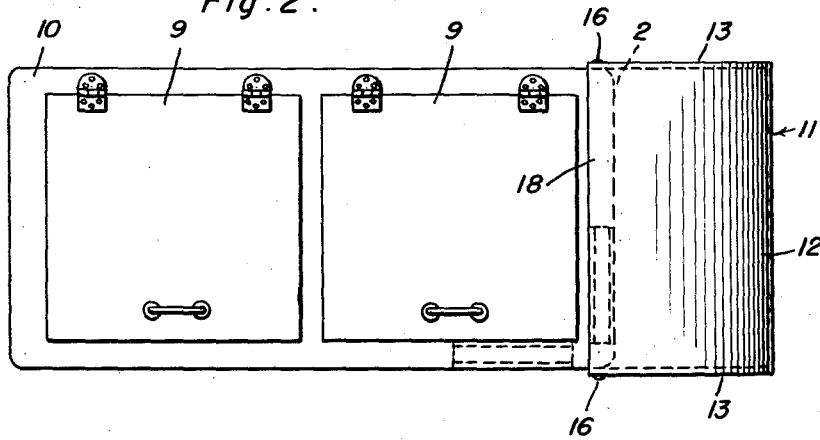
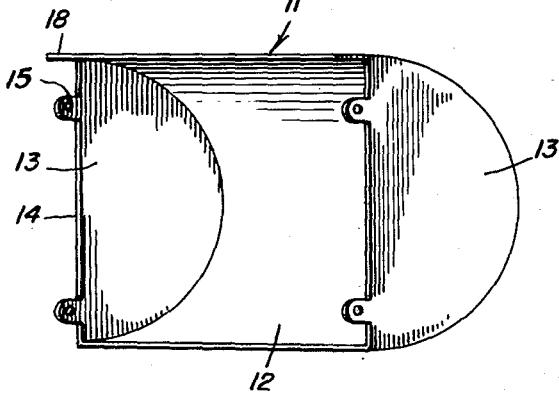


Fig. 3.



Raymond O. Abeling  
INVENTOR.

BY *Clarence W. Simon*  
and *Harvey B. Jacobson*  
Attorneys

# UNITED STATES PATENT OFFICE

2,462,705

## MOISTURE REMOVING DEVICE FOR DEEP FREEZERS

Raymond O. Abeling, Torrington, Conn., assignor  
of fifty per cent to John Hirschak, Torrington,  
Conn.

Application December 31, 1947, Serial No. 795,015

3 Claims. (Cl. 62—89)

1

My invention relates to improvements in moisture removing devices for domestic type deep freezers.

As explanatory, deep freezers for household use and other purposes, equipped with top lids frequently accumulate moisture on the top and lids which freezes and glues the lids shut, if such moisture is not frequently removed by wiping off the same, or similar procedure.

With the foregoing in mind, it is the primary object of my invention to equip such freezers with means of simple form and inexpensive construction whereby moisture on the top and lids will be removed and the closed lids maintained dry so that the lids will not freeze shut, and the drudgery of having to wipe the top and lids dry at frequent intervals to prevent such freezing of the lids will be obviated.

To the accomplishment of the above and subordinate objects presently appearing, a preferred embodiment of my invention has been illustrated in the accompanying drawing set forth in detail in the succeeding description, and defined in the claims appended hereto.

In said drawings:

Figure 1 is a view in side elevation of a deep freezer equipped according to my invention and partly broken away to show the internal mechanism thereof;

Figure 2 is a view in plan;

Figure 3 is a view in perspective of the moisture remover detached.

Referring to the drawing by numerals, my invention has been illustrated therein as forming part of the equipment of the usual box type deep freezer 1 having near one end 2 and side 3 a bottom chamber 4 for a motor 5 driving a fan 6 for blowing air through the usual refrigerant condenser coil 7 and out of louvers 8 in said end 2 near the bottom of said end, such air being taken into the chamber 4 through a grill 8' on said side of the freezer 1 to be forced through the chamber 4 and out to the atmosphere through the louvers 8 to cool the motor 5, fan 6 and said coil 7. Such freezers are provided with hinged top lids, as at 9, which easily become glued shut by moisture freezing on the top 10 of the freezer around said lids.

According to my invention, as illustrated, a moisture remover in the form of an air deflector shell 11 is provided at the louver equipped end 2 of the freezer 1 for deflecting warm air issuing from the louvers 8 over the top 10 and lids 9 to keep the same dry by drying up moisture tending to accumulate on said top in the manner specified.

The air deflector shell 11 is preferably semi-

2

cylindrical in shape with a circumferential wall 12 of accurate cross section, straight, parallel end walls 13, and a rectangular open side 14 fitting against the louver equipped end 2 of said freezer 1 over said louvers 8 and being secured to the sides 3 of said freezer 1 by apertured edge ears 15 on the end walls 13 secured to said sides 3, as by screws 16. The deflector shell 11 projects at its open side 14 above the top 10 of the freezer 1 to provide a discharge opening 17 extending from front to back of the freezer clear across said top and at the top of said shell. The circumferential wall 12 is extended past the end walls 13 to form a ledge 18 projecting forwardly over said opening 17 to direct air issuing from said opening over the top 10 and lids 9 of said freezer.

The operation of my invention will be readily understood. The warm air blown out of the chamber 4 and the louvers 8, under pressure by the fan 6, discharges into the deflectors 12 and is deflected by the circumferential wall 11 thereof upwardly and out of the opening 17 over the top 10 and lids 9 of the freezer 1 whereby said top and lids are maintained dry by quick evaporation of moisture accumulating thereon. As will be clear, this positively obviates the objectionable feature of having the lids 9 freeze or glue shut and also the objectionable feature of having to wipe the top and lids clean of moisture.

The foregoing will, it is believed, suffice to impart a clear understanding of my invention, without explanation.

Manifestly, the invention, as described, is susceptible of modification, without departing from the inventive concept, and right is herein reserved to such modifications as fall within the scope of the appended claims.

Having described my invention, what is claimed as new is:

1. The combination with a deep freezer having a top lid, a condenser coil compartment with an outlet adjacent the bottom and in one vertical wall thereof, and means for discharging air under pressure out of said outlet, of means for deflecting such discharging air upwardly to the top of said freezer having a discharge opening extending across said top from one side of said freezer to an opposite side and in a plane perpendicular to said top, whereby such air is discharged along said top and lid to remove moisture from the same.

2. The combination with a deep freezer having a top lid, a condenser coil compartment with an outlet adjacent the bottom and in one vertical wall thereof, and means for discharging air under

3

pressure out of said outlet, of means for deflecting such discharging air upwardly to the top of said freezer having a discharge opening extending across said top from one side of said freezer to an opposite side and in a plane perpendicular to said top, whereby such air is discharged along said top and lid to remove moisture from the same, said means comprising a shell having an open side opposed to the first mentioned vertical side of the freezer over said outlet, said shell extending above said top with a part of its open side above the same.

3. The combination with a deep freezer having a top lid, a condenser coil compartment with an outlet adjacent the bottom and in one vertical wall thereof, and means for discharging air under pressure out of said outlet, of means for deflecting such discharging air upwardly to the top of said freezer having a discharge opening extending across said top from one side of said freezer to

4

an opposite side and in a plane perpendicular to said top, whereby such air is discharged along said top and lid to remove moisture from the same, said means comprising a shell having an open side opposed to the first mentioned vertical side of the freezer over said outlet, said shell extending above said top with a part of its open side above the same, said shell being of substantially semi-cylindrical shape with a circumferential wall curving from said outlet over the top of the freezer to deflect the warm air over said top.

RAYMOND O. ABELING.

## REFERENCES CITED

15 The following references are of record in the file of this patent:

## UNITED STATES PATENTS

Number	Name	Date
20 2,229,569	Hoesel	Jan. 21, 1941