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REFRIGERATOR AND AIR CONDITIONER

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Fig. 1.

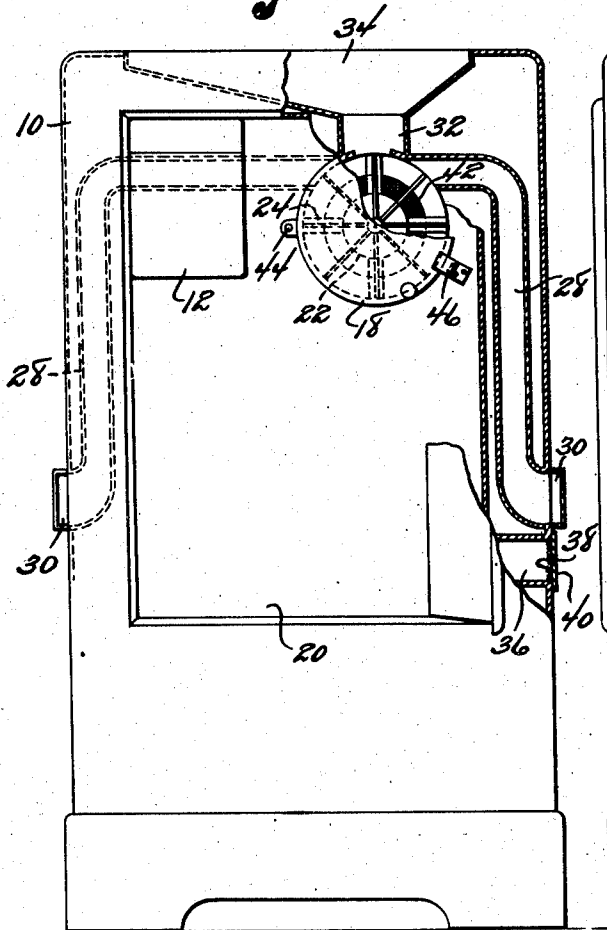
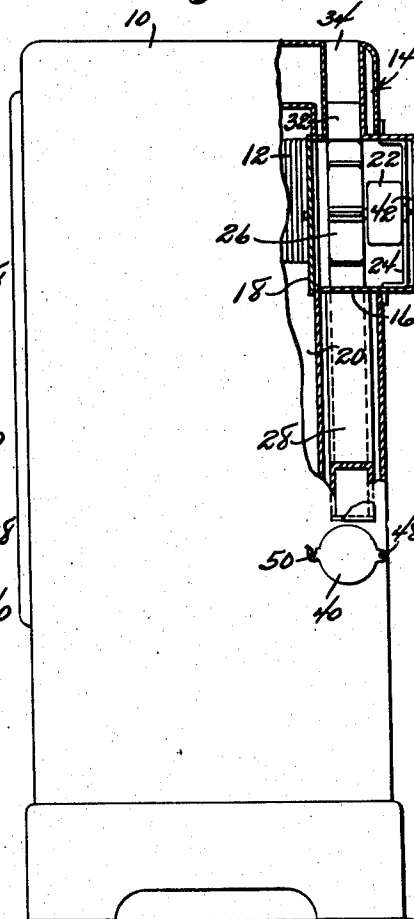


Fig. 2.



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REFRIGERATOR AND AIR CONDITIONER

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1 Claim. (Cl. 62-89)

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My invention relates to household refrigerators, particularly of the mechanical type, and has among its objects and advantages the provision of an improved combination refrigerator and air conditioner.

In the accompanying drawings:

Figure 1 is a face view partly in section of a mechanical refrigerator illustrating my invention incorporated therein, and

Figure 2 is a side view partly in section.

In the embodiment of the invention selected for illustration, the refrigerator 10 may be of conventional construction and includes the usual evaporator 12. To the rear wall structure 14 is attached a fan and motor housing 16. This housing is provided with a front door 18 which may be opened to place the housing 16 in communication with the refrigerating chamber 20 of the refrigerator 10.

The motor 22 is mounted on a spider 24 attached to the housing 16. The fan 26 which is driven by the motor 22 lies forwardly of the motor 22 and rotates about a horizontal axis within the housing 16.

Two air outlet ducts 28 are incorporated in the side wall structures of the refrigerator 10 and extend upwardly and have communication at their inner and upper ends with the housing 16. Both ducts 28 extend out through the side wall structures and are open at 30 for the outlet of air from housing 16. A third air outlet duct 32 communicates with the housing 16 and extends upwardly therefrom and is fanned at 34 to discharge cold air upwardly and outwardly from the top wall structure of the refrigerator. It will therefore be seen that the fan housing has three air outlets.

When the fan is in operation air is drawn into the refrigerating chamber 20 through an inlet duct 36 extending through one side wall structure. This duct is provided with a screen 38 and a cover 40 for opening and closing the duct. A screen covered air inlet opening 42 is also provided in the rear of the housing 16. In operation, room air is drawn into the chamber 20 by opening the door 40 and setting the fan 26 in operation. Since the interior of the chamber is cold and the refrigeration apparatus of the refrigerator has a cooling effect on all air admitted thereto, not only the air already in

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chamber 20 but additional air admitted thereto is cooled. This cooled air is drawn into the fan housing by the fan. An additional supply of air is also drawn into the fan housing through the opening 42. Air admitted to the fan housing is discharged by the fan through the three ducts 28, 28 and 32. The refrigerator operates in a normal manner when doors 18 and 40 are closed. The door 18 is pivoted at 44 and normally rests in closing position on a supporting bracket 46. The door 40 is pivoted at 48 and may be secured in its closed position by a wing nut 50.

Without further elaboration, the foregoing will so fully explain my invention, that others may, by applying current knowledge, readily adapt the same for use under various conditions of service.

I claim:

In a refrigerator having a chamber provided with an evaporator cooler, a fan housing adjacent the top of the refrigerator communicating with said chamber and a screened inlet communicating with the outside atmosphere through the wall of the refrigerator, a door on said housing adapted to seal said housing from said chamber during normal operation of said refrigerator, an air inlet duct placing the chamber in communication with the atmosphere and having a door to control admission of air thereto, a plurality of air outlet ducts from the fan housing to the atmosphere, certain of which pass downwardly and outwardly through the side walls of the refrigerator and another through the top, the outlet duct at the top being fanned throughout the greater width of the top, and a motor driven fan in the fan housing.

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