

one for chilled water or brine circulation. The outer cabinet is commonly of wood-grained steel or baked enamel and is insulated from the cool air chamber to prevent external condensation. The drip from the coil is collected in an insulated drip pan and carried to a drain. The inlet to the unit is provided with a lint screen to protect the cooling surface. Such units are normally used for recirculation only but may be connected for ventilation through short full-size ducts. Similar units are available with twin housed fans of the same general construction, although usually such fans draw the air instead of blow it through the coils.

A self-contained completely portable cooling air conditioning unit is illustrated in Fig. 14. For the operation of this unit, it is only necessary

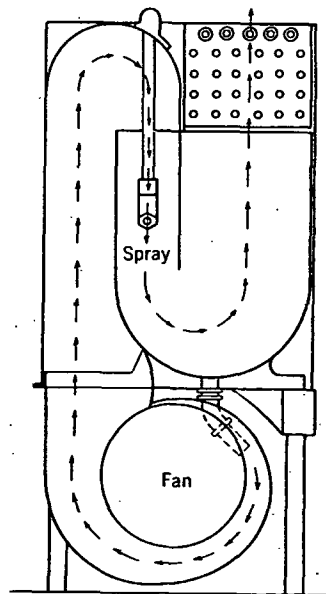


FIG. 12. SIMPLE SPRAY AND COIL UNIT

that it be located adjacent to a window or shaft to which air connections can be made and to plug in the motors to a convenient light socket. In this unit, the conditioned air enters on the side, passing through a grille, filter, and cooling coil and is delivered vertically to the room through a special motor and fan assembly. Refrigeration is furnished by a reciprocating compressor driven from a motor located in the base. This compressor utilizes an air cooled condenser. Air is drawn into the base by a fan mounted on the compressor motor, so arranged that the air passes through the refrigeration condenser and is again discharged out through the window connection. A novel feature of this design is that the condensate from the cooling coil is sprayed over the condenser surface and there vaporized, thus eliminating the need for drain connections. One

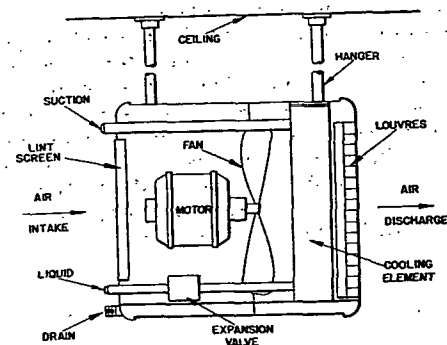


FIG. 13. SUSPENDED PROPELLER FAN TYPE COOLING AIR CONDITIONING UNIT

advantage of this type of conditioning unit is that it may be removed from the occupied space during the winter season when cooling is not needed.

Another type of portable unit for occupied space locations differs from the former in that the compressor is water cooled and a connection to water and drain must be provided in addition to the electric connection. Water and drain lines are carried in a composite hose, especially built for this purpose and connections are usually made to a nearby washbowl. In order to reduce the starting load, one model has two separate motors brought on to the line at delayed intervals thereby decreasing the initial line surge and reducing light flicker. These water cooled units either eliminate or reduce the need for outdoor air connections. Due to the necessity of water and drain connections they are not as portable as the air cooled type.

Remotely located conditioning units vary widely in details of construction. Figs. 15, 16 and 17 indicate one type built in sections thereby permitting interchangeability of application with a minimum change in

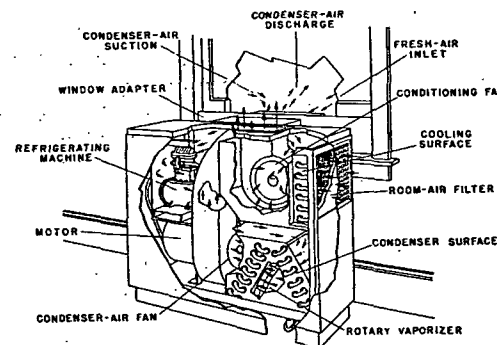


FIG. 14. PORTABLE SELF-CONTAINED CONDITIONING UNIT FOR COOLING