

either direct expansion refrigerant, chilled water, or brine. These two sections are supported on a third or drip pan section. The distributing duct system is attached to the fan outlets and return and outside air connections are made to the drip pan. A filter box is illustrated attached to the drip pan section.

A horizontal remote type of air conditioning unit is illustrated in Fig. 4. This unit is similar in construction and operation to the vertical type explained previously. In the smaller sizes this type is installed in the

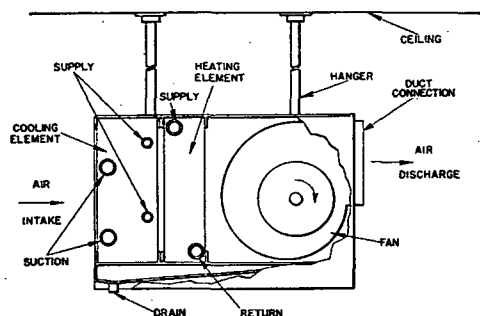


FIG. 4. HORIZONTAL REMOTE TYPE AIR CONDITIONING UNIT, YEAR 'ROUND

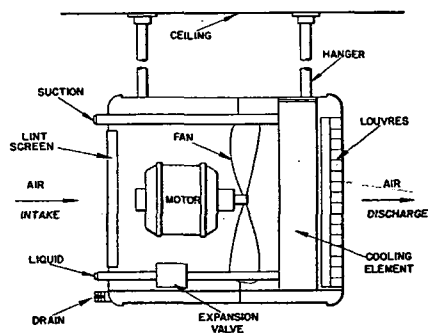


FIG. 5. SUSPENDED PROPELLER FAN TYPE COOLING AIR CONDITIONING UNIT

conditioned space discharging the air directly from an air distributor. A common type of suspended unit for exposed location utilizing a propeller type fan and suitable for summer conditioning only is illustrated in Fig. 5. Such units are equipped with either a direct expansion coil or one for chilled water or brine circulation. The outer cabinet is made 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 blowing it through the coils.

A spray type remote conditioning unit is illustrated in Fig. 6. This spray type unit, which is similar to the arrangement given in Fig. 3, provides for the complete washing of the air and the cooling coil. For winter operation the spray provides means for humidification. The units may be obtained with by-pass dampers as shown in Fig. 6, to provide control of cooling in summer and humidification in winter. The spray type unit without the cooling coil may be used for humidification and heat control. This type of air conditioning unit is used in industrial process air conditioning as well as for comfort air conditioning.

All of these types of remote air conditioning units are usually located

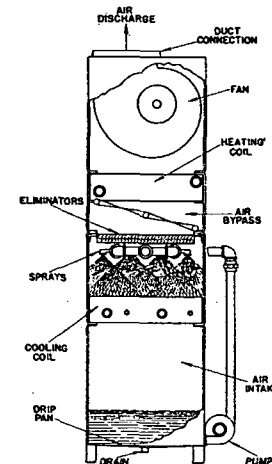


FIG. 6. SPRAY TYPE REMOTE AIR CONDITIONING UNIT

outside the conditioned space with duct work from the unit to the conditioned space and are used mostly in commercial application.

Another type of remote room air conditioner is the type used for multiple installations in office buildings or hotels. An all-year-round floor type remote heating and cooling unit for an exposed location and with direct expansion coil supplied with refrigerant from a remotely located compressor is shown in Fig. 7. A cooling coil for use with chilled water may be substituted for the direct expansion coil indicated. The fans below the separate cooling and heating elements deliver the air against deflectors thereby obtaining distribution across the face of the element and preventing condensate from dripping down into the fans. The plate upon which the fans are mounted serves as the drip pan from which the water is conducted to the drain. Separate elements are used for heating and cooling without manual control. When the unit is used for summer conditioning only, the heating coil may be omitted. The illustration indicates an evaporative type humidifier and drain pan.