

Dirt pockets, desirable on all systems employing thermostatic traps, should be so located as to protect the traps from scale and muck which will interfere with their operation. Dirt pockets are usually made 8 in. to 12 in. deep and serve as receivers for foreign matter which otherwise would be carried into the trap. They are constructed as shown in Fig. 24.

On vapor systems where the end of the steam main is dripped down into the wet return, the air venting at the end of the main is accomplished by an air vent passing through a thermostatic trap into the dry return line as shown in Fig. 25. On vacuum systems the ends of the steam mains are dripped and vented into the return through drip traps opening into the return line. The same method may be used in atmospheric systems.

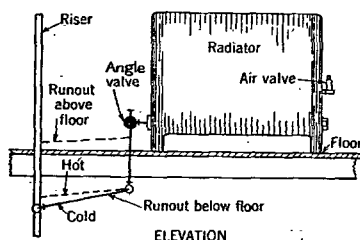
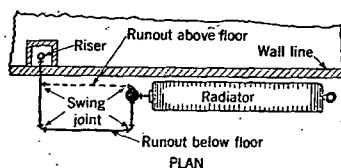


FIG. 28. ONE-PIPE RADIATOR CONNECTIONS

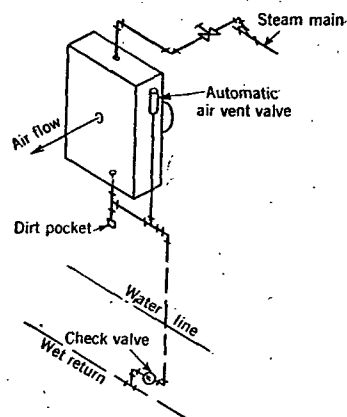


FIG. 29. UNIT HEATER CONNECTED TO ONE-PIPE AIR-VENT SYSTEM

A float type trap is preferable to a thermostatic trap for dripping steam mains and large risers. If thermostatic traps are used, a cooling leg (Fig. 26) should always be provided. The cooling leg is for cooling the condensation sufficiently before it reaches the trap, so the trap will not be held shut by too high a temperature. On down-feed systems of atmospheric, vapor, and vacuum types, the bottoms of the steam risers are dripped in the manner shown in Fig. 27. On large systems it is desirable to install a gate valve in the cooling leg ahead of the trap.

CONNECTIONS TO HEATING UNITS

Riser, radiator and convector connections must not only be properly pitched at the time they are installed but must be arranged so that the pitch will be maintained under the strains of expansion and contraction. These connections may be made by swing joints which permit the expansion or contraction to occur under heating and cooling without bending of pipes. To take care of expansion in long risers, either expansion joints of commercial construction or pipe swing joints are used. Anchoring of pipes between expansion joints is desirable.

Two satisfactory methods of making runouts for one-pipe systems for either the up-feed or the down-feed type are shown in Fig. 28. Where the vertical distance is limited and the runouts must run above the floor,

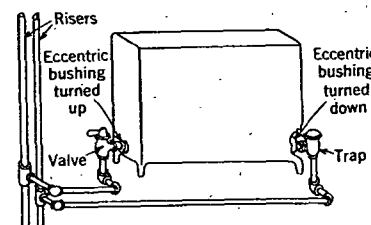


FIG. 30. TYPICAL CONNECTIONS FOR TWO-PIPE SYSTEM

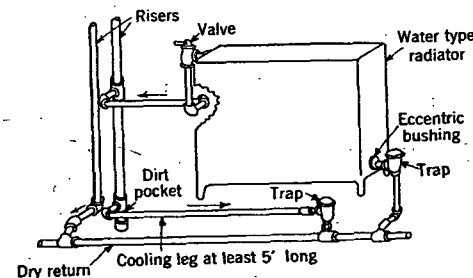


FIG. 31. TOP AND BOTTOM OPPOSITE END RADIATOR CONNECTIONS

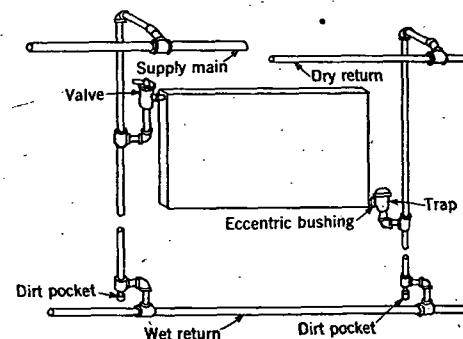


FIG. 32. CONNECTIONS TO RADIATOR HUNG ON WALL

the radiator may be set on pedestals or raised by means of high legs. A method of connecting a unit heater to a one-pipe steam heating system is illustrated in Fig. 29.

Typical two-pipe radiator or convector connections are shown in Figs. 30, 31 and 32. While the top is the preferred location for the control