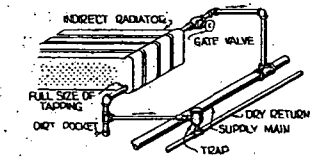

FIG. 20. TYPICAL PIPING CONNECTIONS TO INDIRECT RADIATORS WITH DRY RETURN

Note.—Suitable for atmospheric, vapor, vacuum, sub-atmospheric, and orifice systems.

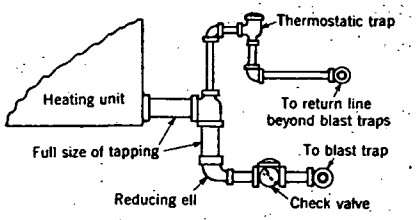

FIG. 23. HEATING UNIT RETURN CONNECTION WITH SEPARATE AIR LINE

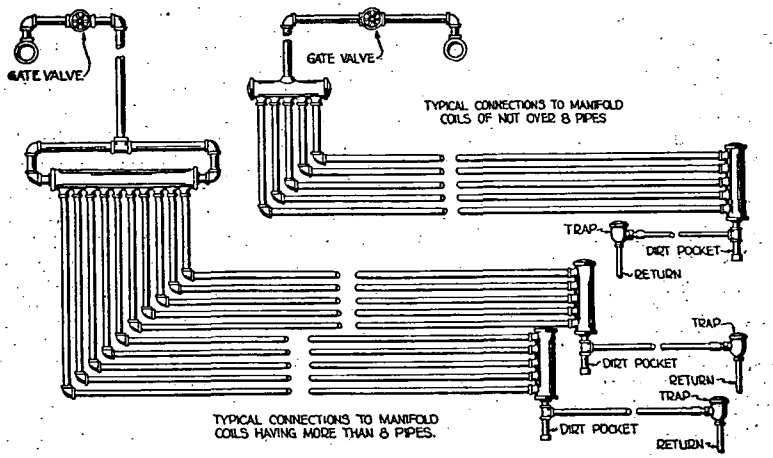

FIG. 21. TYPICAL PIPE COIL CONNECTIONS

Note.—Suitable for up-feed or down-feed. For atmospheric, vapor, vacuum, sub-atmospheric, and orifice systems.

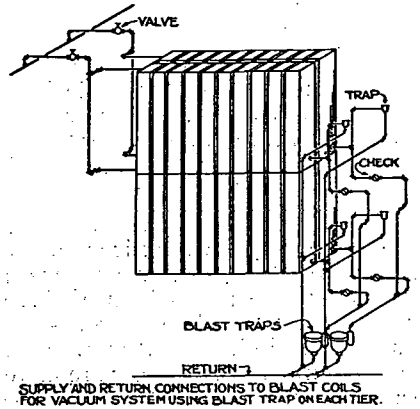

FIG. 22. CONNECTIONS FOR HEATING UNITS OF CENTRAL FAN SYSTEMS

Note.—Suitable for atmospheric and vacuum systems.

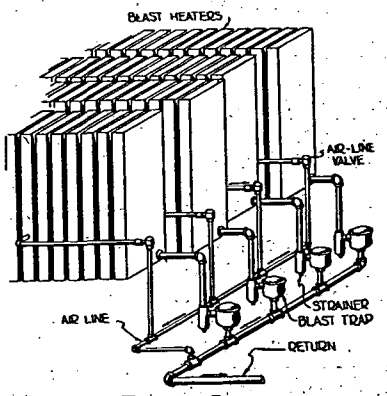

FIG. 24. TYPICAL CONNECTIONS TO CENTRAL FAN SYSTEM HEATING UNITS EXCEEDING 12 SECTIONS

Note.—Suitable for vacuum and atmospheric systems.

together through check valves and are passed through blast traps which are connected to the vacuum return or to an atmospheric return. The air from the stacks, in the case illustrated, passes up into a small air line and through a thermostatic trap into a line connecting into the return beyond the blast trap. It is important to use a nipple the full size of the outlet tapping on the stack and to reduce the pipe size to the normal return size required, by the use of a reducing ell, as indicated in Fig. 23.

Where the stacks contain some thirteen or more sections, an auxiliary air tapping is made to the lower portion of one of the middle sections, in the manner illustrated in Fig. 24, to prevent air collecting at this point. Thermostatic control as applied to such heating units in modern practice

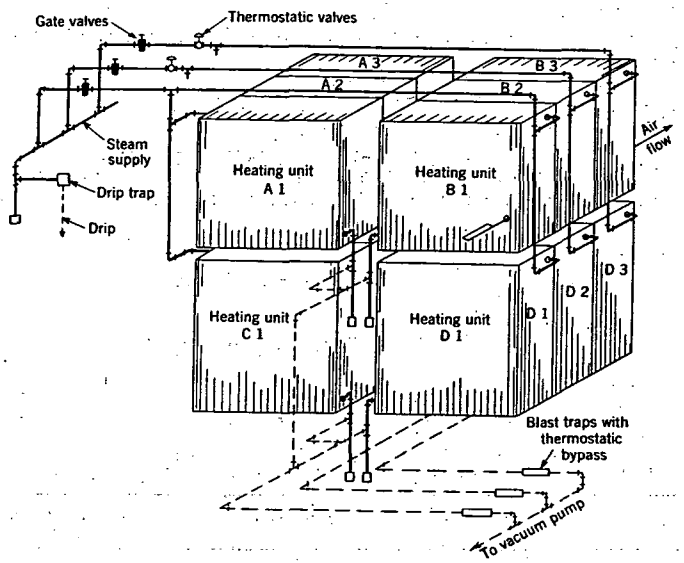

FIG. 25. TYPICAL PIPING FOR ATMOSPHERIC AND VACUUM SYSTEMS WITH THERMOSTATIC CONTROL (CENTRAL FAN SYSTEM)

consists of a thermostatic valve located in each main branch from the steam line so that each valve will open or close a complete row of stacks across the entire face of the heating unit. The stack closest to the outside air intake usually is not equipped with a thermostatic valve. A gate valve on the steam pipe to the first coil is operated manually to supply steam continuously in freezing weather. Good practice demands that the returns be connected in parallel with the steam supplies, with a separate steam trap for each bank of coils having a separately valved steam supply. This arrangement is illustrated in Figs. 22 and 25, for blast traps having external thermostatic bypasses and integral thermostatic bypasses, respectively.

A method of connecting a unit heater to a one pipe air-vent steam heating system is illustrated in Fig. 26.