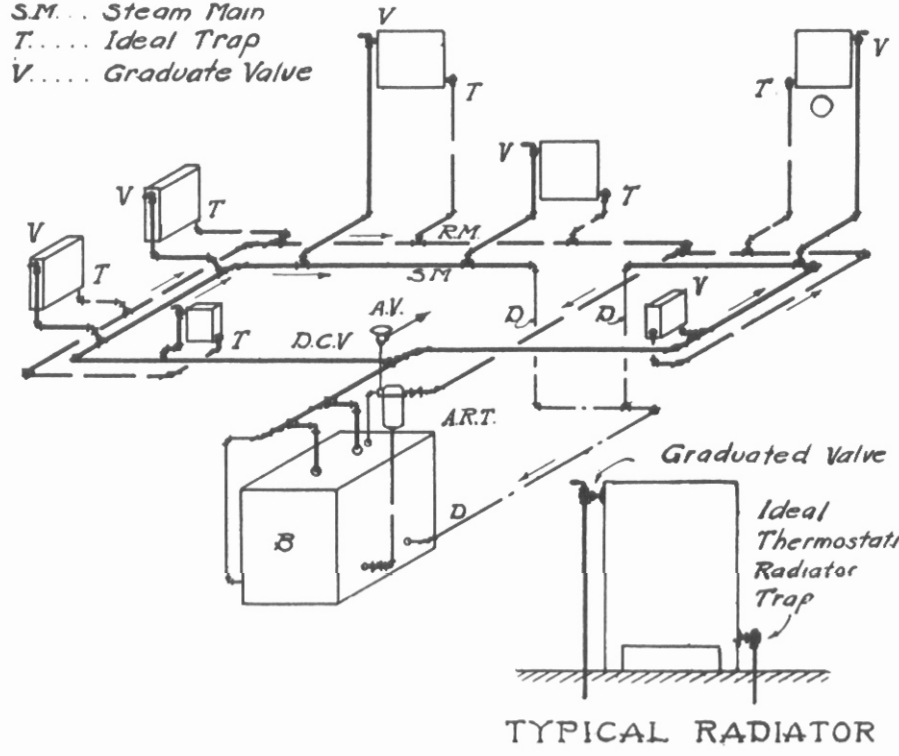
VAPOR HEATING.

The Ideal System.

A typical piping diagram of the Ideal System is shown in Fig. 1. Its outstanding feature is the use of the Ideal alternate return trap, shown in Fig. 2, which serves to drain the system of condensation, discharging the same directly into the boiler at any pressure up to 20 lbs. per square inch. This trap is designed to prevent the burning and cracking of boilers due to faulty circulation. It also serves to overcome spitting of water from air eliminators, receivers, or venting valves. The Ideal alternate return trap can be



IDEAL SYSTEM

installed as low as 8 in. above the water line in case the boiler room ceiling is low, but a greater height is recommended if possible.

When the system is operating under a few ounces of pressure, the alternate return trap acts simply as an open receiver and air vent. But, if for any reason the boiler pressure rises, the accumulating condensation in the trap lifts a float which automatically closes the air valve and opens the steam valve, admitting boiler pressure to the top of the trap and forcing the water in the trap down into the boiler. After this discharge (or rather along with it) the float drops, closing the steam valve and opening the air valve. A few repetitions of this process will serve to reduce the boiler pressure to a few ounces, allowing the condensation to return again by gravity.

(*Concluded on Data Sheet No.* 132-AA)

VAPOR HEATING.

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(Concluded from Data Sheet No. 132-Z)

Air leaving the alternate return trap, passes through the Ideal diaphragm check valve, shown in Fig. 4, which offers no resistance to its outward flow but prevents any return of air to the system.

What the Ideal alternate return trap is to the system as a whole, the Ideal thermostatic radiator trap is to the individual radiator. This trap as shown in section in Fig. 3, is seen to be of the vertical type which is self-cleaning in operation. Attached to the return

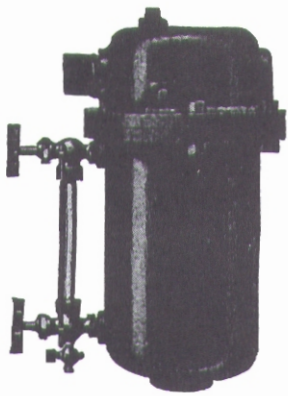

FIG. 2—IDEAL ALTERNATE RETURN TRAP.

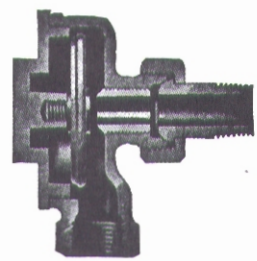

FIG. 3—IDEAL THERMOSTATIC RADIATOR TRAP

FIG. 4—IDEAL DIAPHRAGM CHECK

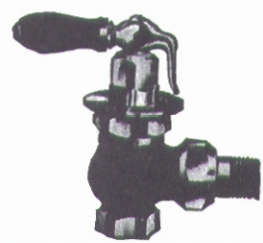

FIG. 5—IDEAL RADIATOR VALVE.

end of the radiator this trap serves to drain it of condensation and to maintain within it under proper operating conditions, a satisfactory vacuum.

The Ideal radiator valve shown in Fig. 5, is placed at the supply end of the individual radiator and by reason of its graduated dial offers a means for regulating the rate of heat supply. This valve is packless and quick-acting and is so designed that its disc is readily renewable.

Water type radiation is recommended for use in connection with the Ideal System by its manufacturer, the Ideal Heating Equipment Company, Cleveland, O.