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VAPOR HEATING.

The Mouat System.

The MOUAT vapor heating system will be found distinctive in its simplicity. It is a Vapor System in a true sense, the range of operating pressure being entirely above atmosphere, running from a fraction of an ounce to a maximum of not over three ounces at the boiler.

There is an absence of any mechanical or thermostatic devices designed either to produce a vacuum or to serve as radiator or boiler return traps.

The pressure is controlled by the MOUAT vapor and damper regulator. This is a sensitive device designed to automatically operate the boiler drafts, producing the low, constant pressure so necessary for successful graduated heat control.

The operation of the regulator is as follows: The stationary tank "A" (Fig 1) is connected to the boiler steam space by pipe "B", and is automatically kept full of water to the overflow level "E" by the condensing surface of tank "A" itself. The boiler pressure is transmitted to the top of the water in tank "A," forcing the water through the flexible connection "K" and the hollow arm "C" into the tilting tank "F." The weight of the water causes tank "F" to drop, closing the ash pit damper "G" and opening the check draft damper "H." A slight decrease in the boiler pressure causes a reverse operation to take place. "J" is an adjustable weight permitting the regulator to operate at varying pressures. The regulator is entirely separate from the boiler water-line and is not affected by high or low water in the boiler or by fluctuation due to an unsteady water-line.

The MOUAT packless graduating supply valve (Fig. 2) is of the lift seat, compression type; a sleeve attached to the bottom of the seat providing the graduating feature. A sliding stop and locking collar provide a means for adjusting the valve lift, thus enabling individual valve adjustment at each radiator.

The MOUAT radiator return fitting (Fig. 3) consists of a vented water seal constructed so as to drain completely when the radiator is turned off, thus preventing freezing. The return fitting presents a retarding influence to the flow of vapor at the radiator outlet, causing the radiator to fill completely with vapor.

The entire system is vented through the MOUAT main vent valve (Fig. 4). This valve provides for the removal of all air from the radiators and mains, but prevents the loss of vapor. This is accomplished by a water-seal that forms in the vent valve only when vapor is present, effectually preventing its escape. The vent has no thermostatic or mechanically operated parts.

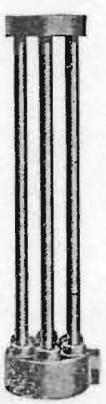

FIG. 4.

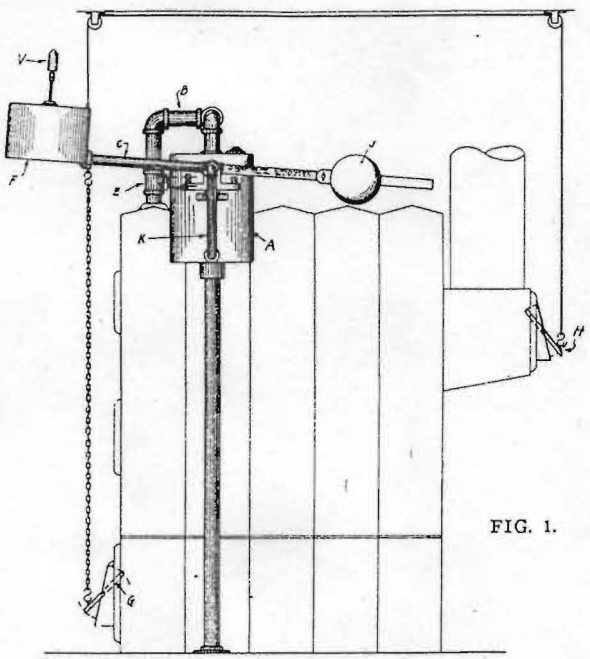

FIG. 1.

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

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(Concluded from Data Sheet No. 132-V)

The general system of piping is shown in (Fig. 5) and is self explanatory. The piping is arranged to produce an even distribution by placing the last radiator to get heat nearest the vent: this will be found to prevent sluggish circulation in the radiators at a distance from the boiler.

With a maximum pressure of 3 oz., at the boiler it is possible to heat buildings of almost any size, the range of satisfactory installations running from a few radiators to hundreds of units. The low, constant pressure carried results in comfort and economy due to successful graduated heat control at the radiators and sensitive regulation of the boiler drafts.

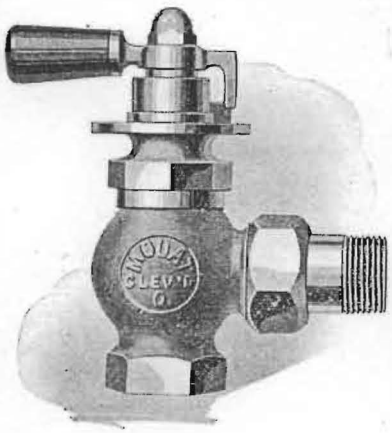

FIG. 2.

FIG. 3.

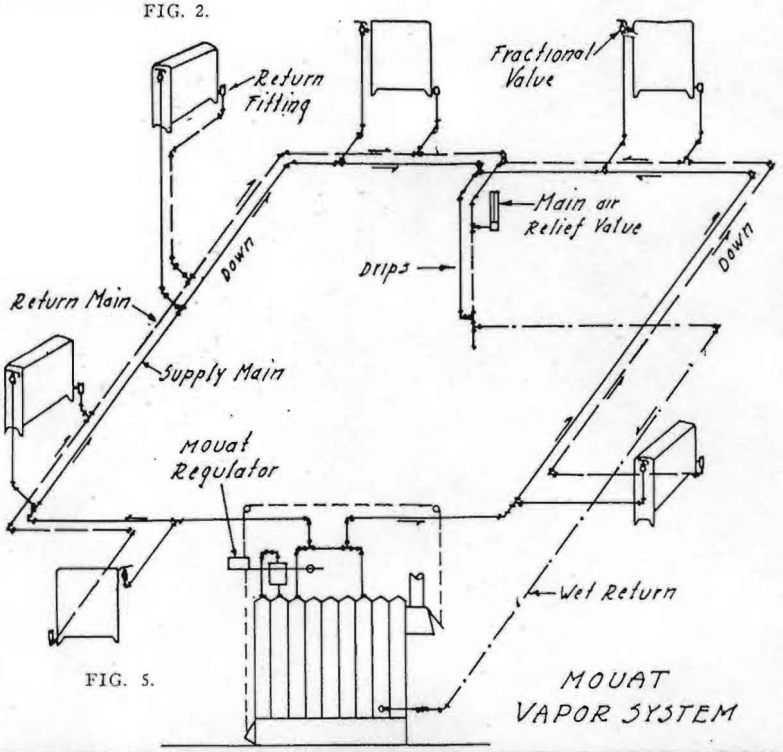

FIG. 5.