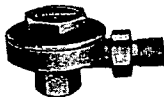
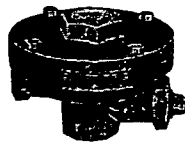
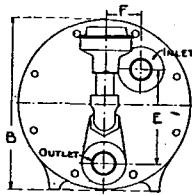
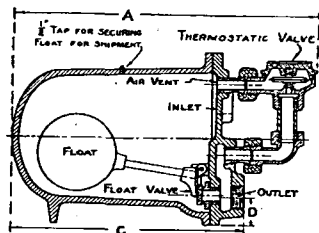
**No. 1. All Patterns**Tapping $\frac{1}{2}$ "; Capacity 100 sq. ft. Rad.1
Trap No. 1**No. 2. All Patterns**Tapping $\frac{1}{2}$ "; Capacity 350 sq. ft. Rad.2
Trap No. 2**No. 3. All Patterns**Tapping $\frac{3}{4}$ "; Capacity 800 sq. ft. Rad.3
Trap No. 3**No. 4. Angle and Straightway**Tapping $\frac{3}{4}$ "; Capacity 1500 sq. ft. Rad.**No. 5. Angle and Straightway**

Tapping 1"; Capacity 3000 sq. ft. Rad.

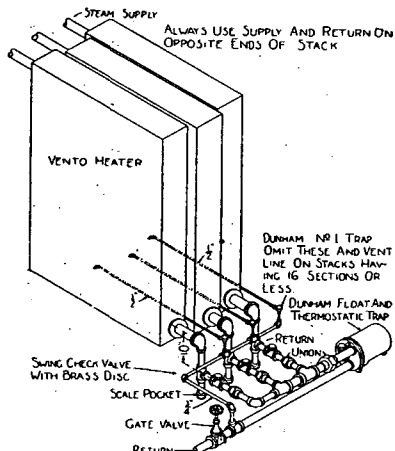
4
Trap No. 45
Trap No. 5**DUNHAM FLOAT AND THERMOSTATIC TRAP**

These traps handle large volumes of water and sudden calls for maximum duty. They open automatically for water and air and close for steam. They are suitable on either gravity or vacuum heating systems. The water is handled by the float operated valve which is so constructed that the opening is always sealed with water with no opportunity for steam leakage. The air is handled by the thermostatic valve. They combine the Dunham Thermostatic Principle with the float. They automatically open for air and water and close for steam. This trap adjusts itself slowly like a thermometer to the temperature conditions present and permits a continuous flow, at a rate within its capacity limits, to keep the heaters free from air and water, without waste of steam.

They may be applied to any type or make of cast iron or pipe coil blast heater. They are unsurpassed for dripping low-pressure steam mains and risers, vento heaters, unit heaters, blast coils, domestic hot water heaters, dry kilns, milk condensers, evaporators, paper machines and any industrial heater in which low-pressure steam (not exceeding 10 lbs. gauge) is used as a heating medium.

This type of trap not only drains the heater of its water of condensation but automatically releases the air, thus obtaining as nearly 100 per cent heating efficiency as may be obtainable, which results in the operation of the equipment at its maximum potential output.

In many industrial processes, it is desirable to operate on a vacuum, a condition that is fully met in this type of trap.



Typical connections using Thermostatic and Float Trap on a Vento Heater

Size	Pipe Connection, In.	Capacity, Direct Radiation, Sq. Ft.
No. 22	$\frac{3}{4}$	3,000
No. 23	1	4,000
No. 16	$\frac{3}{4}$	6,000
No. 17	1	7,000
No. 18	$1\frac{1}{4}$	9,000
No. 19	$1\frac{1}{2}$	11,000
No. 20	2	16,000

Dunham Pressure Reducing Valve

Made only in standard weight for a pressure range of 125 lb. down on high side, to 10 lb. and atmosphere on low side, in straight and expanded outlet patterns.

Dunham Vacuum Pump Governor

Used on steam driven vacuum pumps to control vacuum in vacuum return lines. Made in all sizes from $\frac{1}{2}$ to 2 in., inclusive.

Dunham Damper Control

The Dunham Diaphragm Damper Regulator controls the steam pressure in ounces. It operates check and draft damper with chains.

Dunham Air Eliminator

Used in connection with the Dunham Home Heating System for venting the air from the system. Two types. Capacities respectively 2000 and 6000 sq. ft. radiation.

Dunham Oil Separator

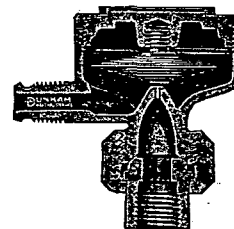
Made in all sizes from $1\frac{1}{2}$ to 6 in. Flanged connections.

Dunham Strainer

Has a large brass screen basket for catching and holding the dirt; easily accessible for cleaning and at once commends itself for this purpose. Made in all sizes from $\frac{3}{4}$ to 6 in.

Dunham Air Line Valve

The principle of operation is identical, and design similar, to the Dunham Radiator Trap. Its efficiency is high, and service in connection with air line systems invaluable. Can be furnished with either $\frac{1}{8}$ or $\frac{1}{4}$ -in. radiator connection. Air piping is required in connection with its use. It must not be subjected to steam pressures exceeding 10 lb. gage.

**Dunham Air Line System**

This is a one-pipe steam system using a Dunham Air Line Valve on each radiator, with a system of air line piping which may discharge the air by gravity, or be attached to an air line Vacuum Pump. This system is particularly adapt-

able in making old one-pipe heating systems more efficient. It is easily and economically installed, and insures the quick removal of air from the radiators.

The Dunham Home Heating System

This is specially for the home or small building. It uses steam at very low pressure. Steam is admitted into the radiator by the Dunham Packless Radiator Valve, where it is retained by the Dunham Radiator Trap until it has given off its heat, when, as water, it passes through the trap together with the air, and back to the boiler through the return piping. The air is released by the Dunham Air Eliminator, and the water returns naturally to the boiler. The design is such that a partial vacuum can be obtained on receding fire, with water continuing boiling. Hot water pattern radiators with top inlet connections are required. The end of each steam main is vented through a Dunham Trap into the return piping, and is dripped through wet or dry drip pipe directly back to the boiler return header.

The Dunham Return System

This System differs from the Home Heating System in that it makes use of the Dunham Return Trap in place of the Dunham Air Eliminator, which introduces the added feature of a positive automatic return of water to the boiler when it is desired to raise the steam pressure.

The feature of a positive return under varying steam pressures makes this Dunham System particularly adaptable to apartment houses, small hotels and medium size commercial buildings, schools and churches. This System makes possible the modernizing of old one-pipe and two-pipe gravity systems, and eliminates the sputtering, leaking air valves which are such trouble makers in these old heating jobs.

The Dunham Vacuum System

Simplicity is the key note of Dunham design. There is the system of steam mains and piping to supply all radiation, and the return piping to carry away the air and water of condensation by means of a vacuum pump. Steam may be supplied direct from boiler, or through a Dunham Reducing Valve, where boiler pressure is too high for direct service. Or exhaust steam may be used, supplemented by live steam through a Reducing Valve.

Bulletins

Bulletins of standard architectural size with detailed information covering each System, and all products, including roughing-in dimensions, will be furnished on request.