

H. A. Thrush & Company

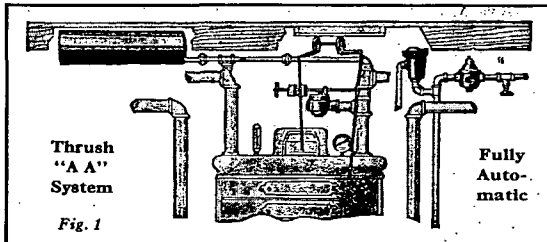
Thrush
Differential
Pressure
Relief

Automatic
Dual Control
Unit

Makers of Thrush Systems
Factory and Offices
Peru, Ind.

Thrush
Electric Water
Circulator

Thrush
Automatic
Damper
Regulator



Thrush System comprises equipment to be added to any unregulated gravity Hot Water Heating plant to make it a "Closed System" operating under additional pressure and with automatic control of dampers. It increases heat transmission and reduces fuel consumption. It is made in four types as listed below.

DATA and SPECIFICATIONS

Class AA Equipment consists of Thrush Differential Pressure Relief Valve, Automatic Temperature Damper Regulator, Pressure Reducing Valve, Copper Bearing Steel Pressure Tank and special Gauge and Thermometer. It is automatic filling.

Reducing Valve, Copper Bearing Steel Pressure Tank and special Gauge and Thermometer. It is automatic filling.

Class B Equipment

Same as above except that it does not have Pressure Reducing Valve for automatic filling.

Class A Equipment

This is the same as Class AA Equipment except that it has no Pressure Reducing Valve for automatic filling.

Class BB Equipment

Consists of Thrush Differential Pressure Relief, Pressure

Automatic Dual Control Unit

An inexpensive heating system for competitive job. The Automatic Dual Control Unit may be used for small to medium sized hot water heating plants, easily and economically, by merely installing the Dual Control Unit in the water supply line. Furnished with or without strainer, as desired.

Thrush Differential Pressure Relief



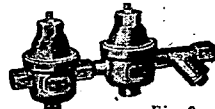
This valve is designed with large valve area and has a capacity for relieving excess pressure for both large and small installations. The valve seat is submerged in water, so designed that corrosion or sediment accumulation is prevented. It is always Safe. (Tapping $\frac{3}{4}$ in.).

Thrush Electric Circulator

Here is a method of assuring positive circulation on any Hot Water Heating job. The Thrush Electric Circulator will pay for itself in less than one season in fuel saving.

Highly recommended for oil and gas fired boilers, also for greenhouses, garages, apartments, store buildings, works perfectly with blower units. Cheaper to install than low pressure steam, vapor or vacuum vapor jobs. 110 or 220 A.C. 60 cycle motor for light or power line. Low operating cost. Any type motor shipped from stock.

Tapping	Gallons Capacity	Radiation Capacity	Price
No. 22—2 inch	30 per minute	2500 sq. ft.	\$131.25
No. 23—3 inch	70 per minute	6000 sq. ft.	150.00



Thrush Automatic Temperature Damper Regulator

The operation of this Regulator depends upon the temperature change of the water circulating through the heating system and not upon pressure. Easily installed and very efficient. (Tapping $1\frac{1}{2}$ in.).

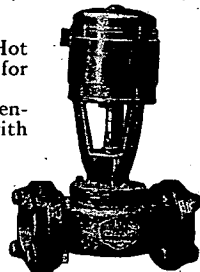
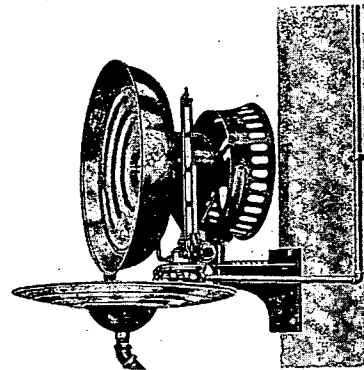


Fig. 5

The Bahnson Company

BAHNSON HUMIDIFIERS
Winston-Salem, N. C.



The Bahnson Humidifier

Bahnson Humidifiers are individual, self-contained humidifying units. In operation water is fed near the center of a revolving disk from the rim of which it flows off and strikes a series of stationary teeth surrounding the rim of the disk. A fan mounted on the end of the motor shaft opposite the disk carries out into the air of the room all particles of water which are fine enough to float in the air. This fan also provides the proper degree of air movement for thorough moisture distribution.

The speed of the disk is such that when the water leaves the rim of the disk it strikes the teeth with an impact corresponding to the speeding velocity at approximately 110 lb. pressure.

Due to the method of producing finely-divided water particles, the amount evaporated by each unit may be varied without sacrificing efficiency, the percentage of feed water evaporated being practically constant throughout the range of the unit. The actual amount evaporated is around 50 lb. per hour under average conditions, and may be increased to 75 or more pounds under particularly favorable conditions or may have to be materially reduced in rooms where ceilings are low or where there is a large amount of machinery or belting or shafting. Each unit is equipped with an individual automatic humidity control which operates to increase or decrease the amount of water fed to the machine in accordance with the conditions of the air around it. This control will hold the humidity condition uni-

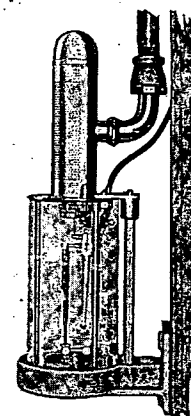
form within plus or minus 5 per cent variation.

Power required is approximately 200 watts per unit for 3-phase, 60-cycle, 110 or 220 volt motors. Single-phase motors require 225 to 230 watts. On account of the unavoidably low-power factor and efficiency of all small motors, allow one KVA of transformer capacity to each 3 single-phase or 4 polyphase units. All motors are mechanically interchangeable.

The Bahnson Master Control

The Bahnson Master Control has been developed to give a sensitive and accurate instrument to open or close a valve in response to changes in relative humidity of the air. Bahnson Master Controls are adjusted at the factory and the mechanism is then sealed in a glass tube case. Changes in humidity may be obtained by a regulating screw, whereby the humidity may be raised or lowered as much as 10 per cent either way from normal setting.

For ordinary commercial use the Master Control is set to operate on a variation of relative humidity of 1 per cent between high and low. Where the instrument is to be used for laboratory purposes it may be set to operate on changes of relative humidity within average reading error of the ordinary sling psychrometer. The expansive element used which is of specially prepared vegetable fiber is extremely rapid in its response to changes in atmospheric humidity and has been proven to hold a constant humidity through-



wide variations of Temperature. The control is entirely electrical in its action and may be located regardless of the location of the valve. Each control is a unit and is connected up with a three-wire polarised attachment plug to a properly-wired electrical valve. Current is used only while the valve is opening or closing, and is taken from any 110 volt line through a 1 ampere fuse.