(No Model.)

A. YOUNT.

PRESSURE REGULATOR FOR GAS BURNING STOVES, &c.

No. 531,891. Patented Jan. 1, 1895.

Fig. 1.

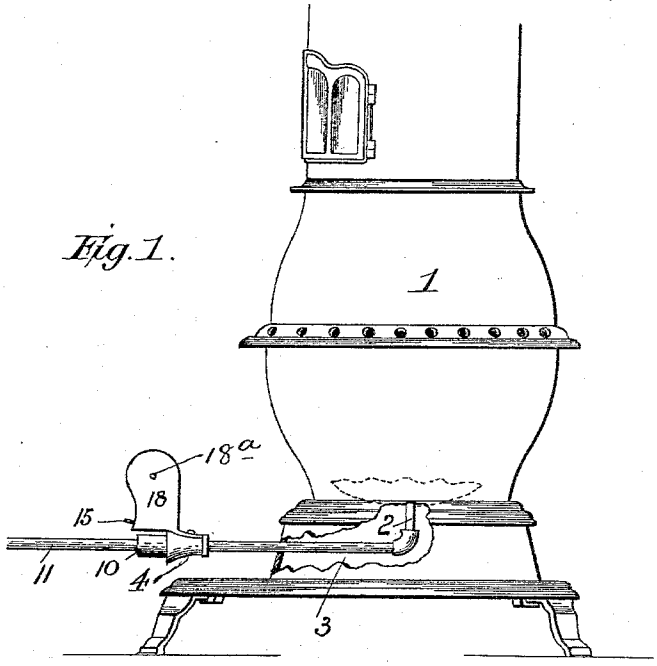
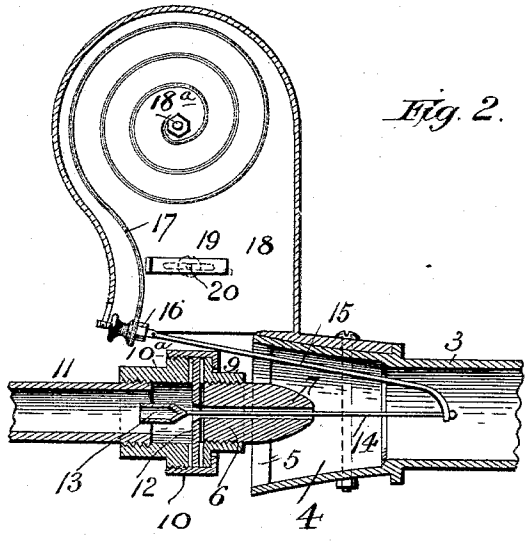


Fig. 2.



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UNITED STATES PATENT OFFICE.

ANDREW YOUNT, OF INDIANAPOLIS, INDIANA.

PRESSURE-REGULATOR FOR GAS-BURNING STOVES, &c.

SPECIFICATION forming part of Letters Patent No. 531,891, dated January 1, 1895.

Application filed March 23, 1894. Serial No. 505,443. (No model.)

To all whom it may concern:

Be it known that I, ANDREW YOUNT, a citizen of the United States, and a resident of Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Pressure-Regulators for Gas-Burning Stoves, &c.; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in pressure regulators for gas burning stoves, furnaces, and heaters, and its object is to provide improved means for automatically regulating the supply of gas to the burner, whereby liability of accidents, due to varying pressure in the mains or service pipes, is obviated.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings: Figure 1 is an elevation of a heating stove partly broken away, with my improvements applied thereto. Fig. 2 is a longitudinal sectional view of the regulator.

In the said drawings the reference numeral 1 designates a heating stove, of any ordinary or suitable construction, in the lower part of which is located a gas burner 2, which, however, forms no part of the present invention. Connected with this burner is a pipe 3, which in turn is connected with a mixer 4. The outer end of this mixer is open and is provided with two arms 5, to which is secured a plug or block 6, having a central bore 7. The outer end of this plug or block 6 is screw threaded to receive a correspondingly threaded coupling 9, with which is connected a screw threaded collar 10, provided with a coupling 10^a to which is connected the service or supply pipe 11, leading to the gas main.

Located in the collar 10, is a disk 12, having a circular opening and forming a seat for the valve 13. This valve is secured to a rod 14 passing loosely through the central bore in the plug 6, into the mixer. The inner end of this valve rod is secured to a connecting rod 15, passing through the open end of the mixer and provided with nuts 16, between which is confined the end of a thermostat 17, located in a casing 18, secured to the mixer in close proximity to the stove. This thermostat consists of two coiled metal strips of different degrees of expansibility, firmly riveted together. The opposite end of the thermostat is secured to a rod 18^a passing through the sides of the casing. Located in said casing is a slide 19, provided with a pin 20 projecting through a slot in the side of the casing, by which said slide may be actuated. By means of the slide 19, the end of the thermostat to which rod 15 is secured can be pushed outwardly throwing the valve wide open and holding it in such position.

The operation is as follows: The gas is fed from the service pipe, through the mixer, to the burner, where it is ignited, in the ordinary manner. If the pressure in the main and service pipe should become too great it will cause an increased supply of gas to be fed to the burner, and the heat or temperature of the stove to be increased. The thermostat, as before stated, being in close proximity to the stove, will be correspondingly heated, causing it to buckle or bend and the end connected with the rod 15, to be drawn toward the stove. This will cause the valve and valve-stem connected with said rod to be drawn inward, decreasing the area between the valve and its seat, and consequently reducing the supply of gas to the burner. On the other hand should the supply be insufficient to properly heat the stove, the thermostat will expand, so as to increase the passage-way between the valve and its seat. By means of the nuts 16, the rod 15 is adjustably connected with the thermostat, so that the valve case may be adjusted with respect to its seat.

It will be seen that the valve-stem passes loosely through the mixer head and bosses, without contacting therewith, so that there is no friction therebetween.

Having thus described my invention, what I claim is—

1. In a gas regulator for stoves, the combination with the mixer, the plug connected therewith having a central bore, the valve and its stem passing through said bore, of the casing located in close proximity to the stove, the thermostat located therein and having one end

connected with said valve stem, and the slide located in said casing having a pin projecting through the side thereof, substantially as described.

2. The combination in a stove or other heater, of the mixing tube having a burner connected with its inner end and its outer end open, the arms at the said open end of the mixer, the plug having a central bore supported by said arms, the coupling connected with said plug, the collar connected with said coupling, the coupling connected with said collar, the service or supply pipe connected with said last mentioned coupling, the disk located in the collar, the valve, the valve stem passing through said plug and the thermostat connected with said stem, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

ANDREW YOUNT.

Witnesses:
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