F. MUMMELTHEY.

GAS BURNER.

APPLICATION FILED NOV. 27, 1908.

970,382.

Patented Sept. 13, 1910.

Fig. 1.

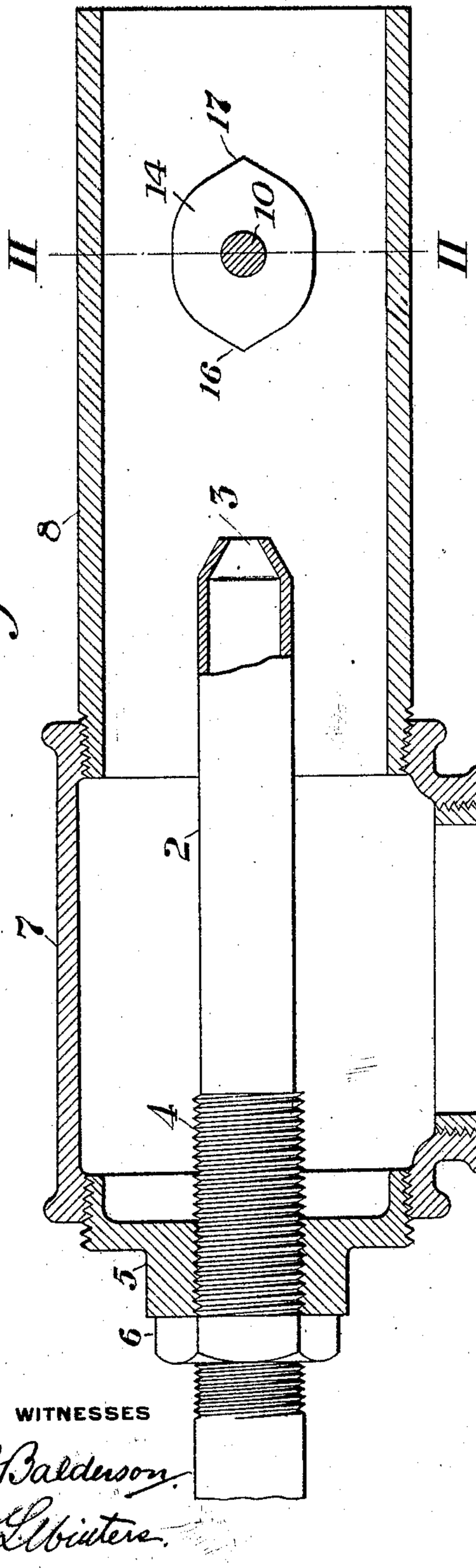


Fig. 2.

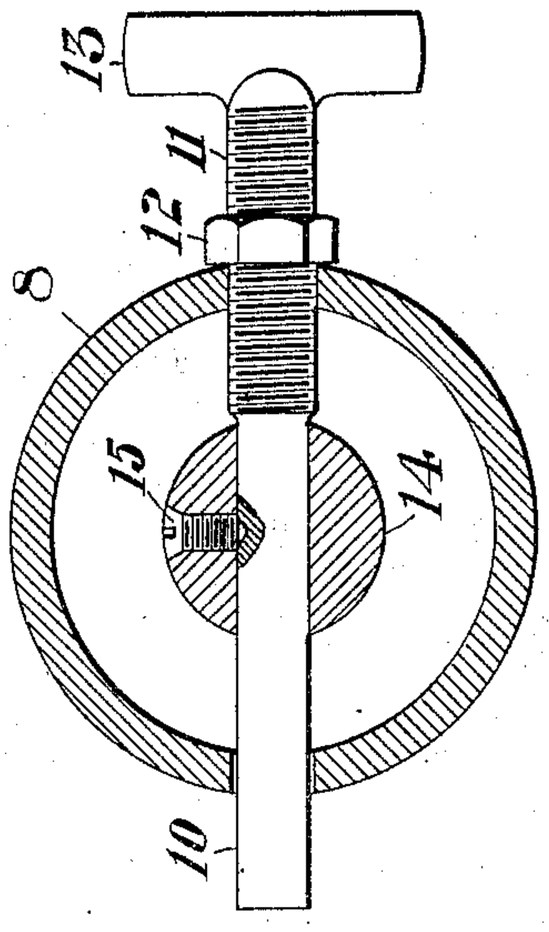
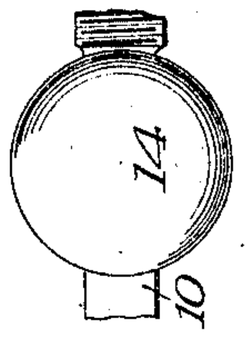
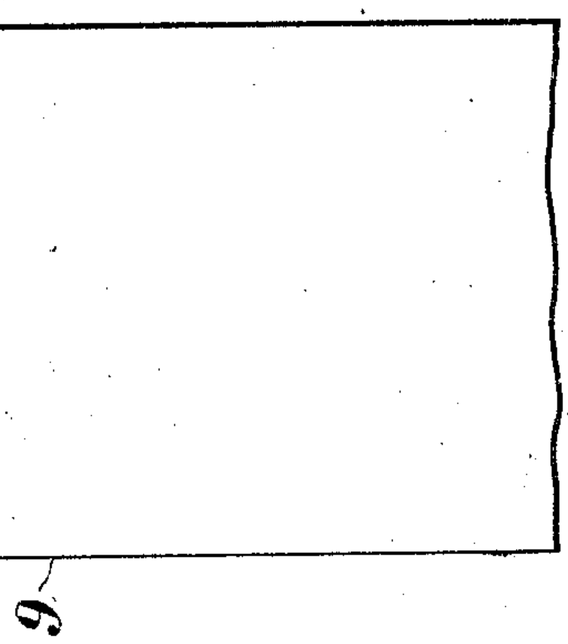


Fig. 3.





WITNESSES

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UNITED STATES PATENT OFFICE.

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GAS-BURNER.

970,382. Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed November 27, 1908. Serial No. 464,708.

To all whom it may concern:

Be it known that I, FERDINAND MUMMELTHEY, of Coraopolis, Pennsylvania, have invented a new and useful Gas-Burner, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical section through one form of burner embodying my invention; Fig. 2 is a vertical section through the mixing chamber, on the line 11—11 of Fig. 1; Fig. 3 is an end view of the flame deflector.

My invention relates to gas burners for heating furnaces and is designed to provide a cheap and efficient device, which is adapted to direct the flame to the desired point.

The precise nature of my invention will be best understood by reference to the accompanying drawings, which will now be described, it being premised, however, that changes can be made in the details of construction herein shown and described.

In the drawings, the numeral 2 designates a nipple, having the contracted end 3 and the exteriorly screw threaded portion 4, which projects through the tapped head 5, and is also provided with the jam nut 6. The other end of this nipple 2 is connected in any manner to a gas supply pipe.

The head 5 is secured to one end of T pipe-coupling 7 and projecting from the other end of this coupling is a pipe 8 which forms the mixing chamber for the air and gas; the air entering through the pipe 9 which is connected to the lower end of the coupling 7 and receiving its supply from any suitable source.

Projecting transversely through the mixing chamber 8 is a rod 10 having a threaded portion 11 extending through a tapped orifice in the wall of the pipe 8 and also provided with a jam nut 12 to lock it in its adjusted position. Secured to the outer end of this shaft is the head 13 which is provided to rotate the shaft for the purpose hereinafter described. Secured to this rod 10 and between the walls of the pipe 8 by means of the set screw 15 is a deflector 14. This deflector is circular in cross section on a line with the rod 10 and the walls converge toward the points 16 and 17 at the ends thereof.

As illustrated in the drawings the deflector is located in the center of the pipe 8 and the jet of gas coming from the nozzle 3 strikes the center of the point 16 and is equally deflected on all sides thereof.

If it should be desired to increase the heat on one side of the burner the jam nut 12 is released and the rod 11 is rotated in the proper direction to move the deflector away from the side requiring a greater amount of heat which will direct a greater portion of the air and gas mixture to that side, and the greater the movement of the deflector the greater the disproportion of the flame on each side thereof. By rotating the rod 10 a short distance the point of the deflector may be elevated or lowered, to deflect a greater portion of the mixture upwardly or downwardly.

The adjustment of the burner is accomplished by advancing or retracting the nipple 2 through the medium of the screw-threads 4 passing through the head 5.

The advantages of my invention result from the simple and effective manner in which the gas mixture can be proportioned to supply the required amount to that particular part of the furnace, also, in the simple and effective means for adjusting the burner, its cheapness and simplicity of construction.

I claim:

1. A gas burner having a mixing chamber, a gas tube extending into said mixing chamber, an air inlet to the mixing chamber back of the outlet from the gas tube, a deflector in the mixing chamber, means to adjust the gas tube toward and from the deflector, and means to adjust the deflector transversely with relation to the gas tube; substantially as described.

2. A gas burner having an air inlet, a gas inlet, a mixing chamber, a pointed deflector supported within the mixing chamber, and means to adjust the deflector transversely across the gas inlet; substantially as described.

3. A gas burner having an air inlet, a gas inlet, a mixing chamber, a pointed deflector in the mixing chamber, and means to adjust the point of the deflector upwardly or downwardly to divert the mixture in said chamber; substantially as described.

4. A gas burner having an air inlet, a gas inlet, a mixing chamber, a pointed gas de-

flector within the mixing chamber, means to adjust the point of the deflector upwardly or downwardly, and transversely to divert the gas toward the desired point in the mixing chamber, and means to secure the deflector in its adjusted position; substantially as described.

5. A gas burner having an air and gas inlet, a mixing chamber, a rod extending transversely through the walls of the mixing chamber, a deflector within the mixing chamber and connected to said rod, and means to adjust the rod to move the deflector toward and away from the walls of the mixing chamber to deflect a greater amount of the mixture toward the one side of the chamber than toward the other side thereof; substantially as described.

6. A gas burner having an air and gas inlet, a mixing chamber, a screw threaded rod extending through the walls of the mixing chamber, a deflector secured to said rod, means to shift said rod to adjust the position of the deflector, and means to secure the rod in its adjusted position; substantially as described.

In testimony whereof, I have hereunto set my hand.

FERDINAND MUMMELTHEY.

Witnesses:

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J. E. MCADAMS.