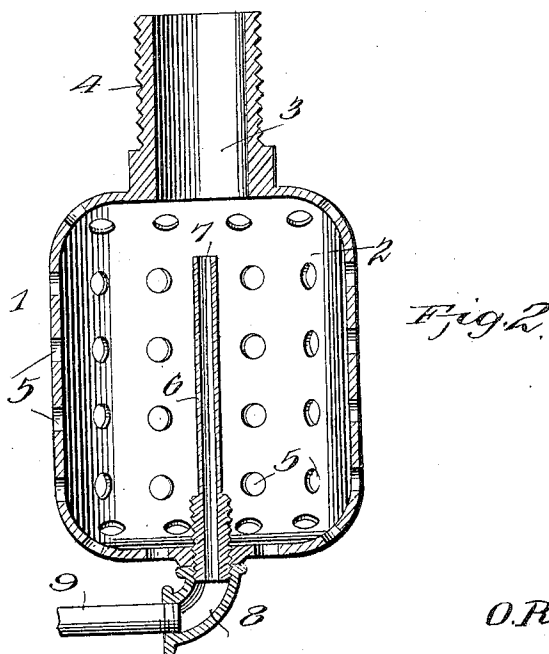
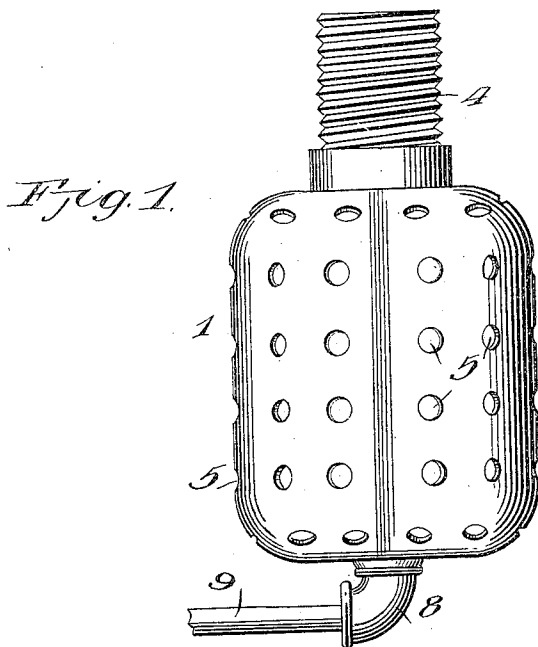


No. 822,771.

PATENTED JUNE 5, 1906.

O. ROBBEL.
GAS MIXER.

APPLICATION FILED AUG. 5, 1905.



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Witnesses
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OSCAR ROBBEL, OF KENOSHA, WISCONSIN.

GAS-MIXER.

No. 822,771.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed August 5, 1905. Serial No. 272,849.

To all whom it may concern:

Be it known that I, OSCAR ROBBEL, a citizen of the United States, residing at Kenosha, in the county of Kenosha and State of Wisconsin, have invented new and useful Improvements in Gas-Mixers, of which the following is a specification.

This invention relates to gas-burners designed for use in connection with heating or cooking stoves, and has for its object to produce a comparatively simple inexpensive device of this character in which a suitable quantity of air will be mixed with the gas to insure perfect combustion and one wherein the gas-pipe will discharge at a point adjacent the outlet-port of the air-drum, thus establishing an induced draft for drawing air into the latter.

With these and other objects in view the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of a portion of a burner embodying the invention. Fig. 2 is a central vertical section longitudinally therethrough.

1 designates a hollow shell or drum surrounding a mixing-chamber 2 and having a discharge-port 3 leading through an externally-threaded tubular extension or neck 4, designed in practice to be coupled with the burner, (not shown,) the wall of the drum being provided with numerous perforations 5 appropriately spaced over its entire surface area and constituting air-inlet ports.

Extending centrally and longitudinally through the chamber 2 in axial alinement with the outlet 3 is a gas tube or nozzle 6, terminating at its free discharge end 7 at a point adjacent the outlet end of the drum and having its other end tapped into the normally outer or lower end of the drum, there being coupled to said nozzle by means of an elbow 8 a pipe or duct 9, leading from a suitable source of supply and having communication with the nozzle through the medium of the elbow.

In practice the gas under pressure flows through the pipe-section or nozzle 6, and is delivered from the discharge end thereof at a point adjacent to but slightly remote from the outlet-port 3 for passage through the tubular neck 4 to the burner, it being apparent that owing to the nozzle extending substan-

tially through the drum 1 and discharging immediately in rear of the outlet-neck a forced draft will be established for drawing a supply of air into the mixing-drum through the ports 5, and, further, that owing to the number of ports and their disposition over the entire surface of the drum the quantity of air drawn into the chamber under the influence of the forced draft will at all times be sufficient to insure perfect combustion. It is also to be noted that by extending the nozzle substantially the entire distance through the drum liability of the gas finding its way into and escaping from the latter is wholly obviated.

From the foregoing it is apparent that I produce a simple device admirably adapted for the attainment of the ends in view, it being understood that minor changes in the details herein set forth may be resorted to without departing from the spirit of the invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A device of the class described comprising a hollow drum having side and end walls and presenting a mixing-chamber, said drum being perforated at spaced intervals over the entire surface area of its side and end walls and being provided on one of the latter walls with a tubular neck situated wholly outside of and constituting an outlet-port for the chamber and the latter being wholly closed against communication with the exterior atmosphere except through the medium of said port and the perforations, a gas-nozzle extending centrally through the drum and having one of its ends threaded through the end wall of the latter opposite the outlet-port, said nozzle being terminated at its discharge end immediately in rear of the port and having its threaded inlet end projected in the adjacent end wall of the drum to form a nipple, and a pipe-coupling threaded onto the projecting end of the nozzle and a supply-duct terminally engaged with the coupling for communication with the nozzle.

In testimony whereof I affix my signature in presence of two witnesses.

OSCAR ROBBEL.

Witnesses:

F. G. BABCOCK,
A. LAMPE.