J. ROY.

GAS BURNER.

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1,038,965.

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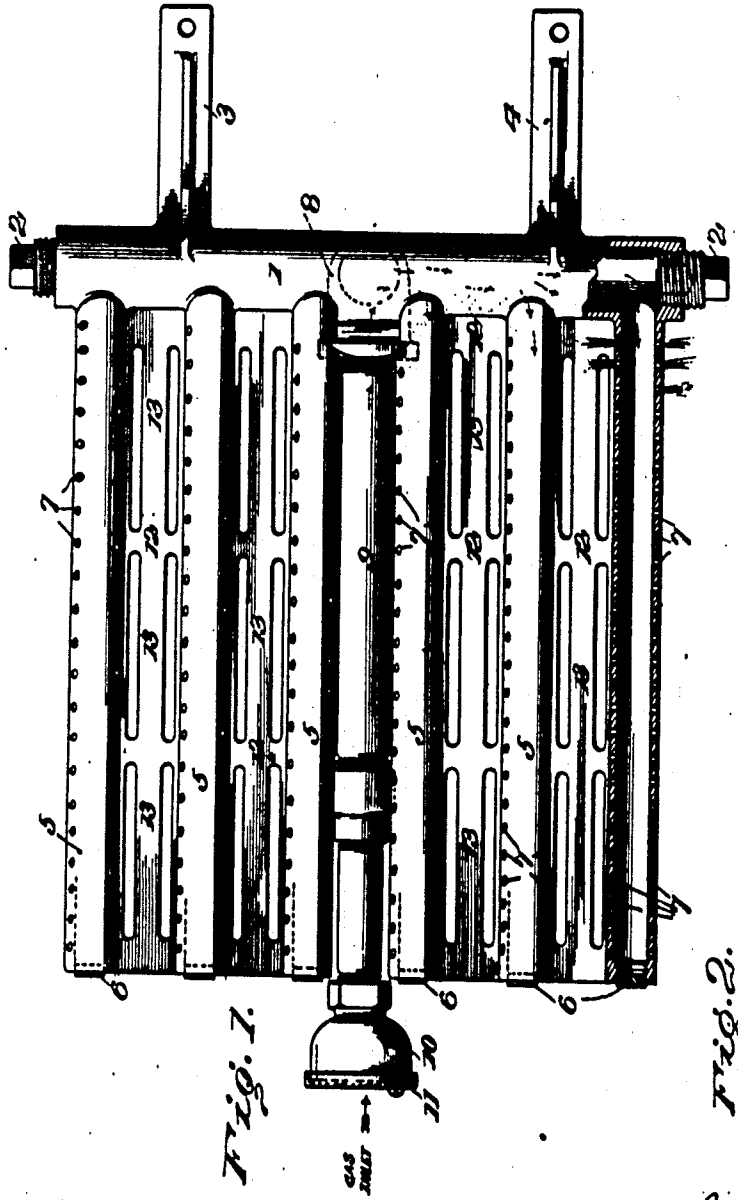

Fig. 1.

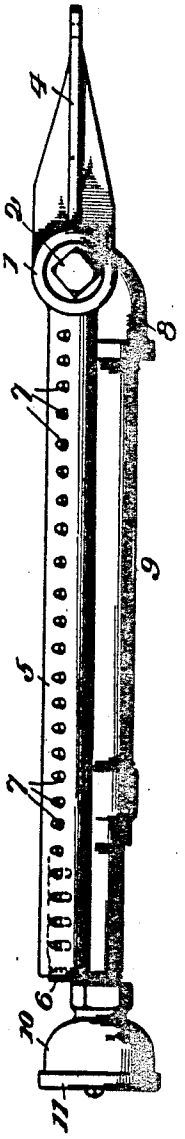

Fig. 2.

Witnesses

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GAS-BURNER.

1,038,965. Specification of Letters Patent. Patented Sept. 17, 1912.

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To all whom it may concern:

Be it known that I, JOSEPH ROY, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Gas-Burners, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in gas burners.

The object of my invention is to provide a burner of this character in which a single gas mixing tube is employed, supplying a distributing chamber or manifold with the proper mixture and having the several burner tubes in direct communication therewith.

Another object of my invention is to provide a burner of this character having certain details of structure hereinafter fully set forth.

In the accompanying drawings—Figure 1 is a top plan view partly in section of my improved burner. Fig. 2 is a side elevation of the burner shown in Fig. 1.

Referring now to the drawings, 1 represents the distributing chamber which is of an elongated cylindrical form having open ends. The ends of said chamber are closed by the screw plugs 2, whereby ready access may be had with the interior of the chamber for cleaning the same. The rear side of the chamber is provided with two outwardly extending arms 3 and 4, by means of which the distributing chamber and the burner tubes and mixing tube carried thereby are supported, all of which will be hereinafter more fully described.

The front side of the distributing chamber is provided with a series of spaced burner tubes 5, extending at right angles to the chamber and of an elongated form. The burner tubes as shown are of an elongated form and formed integral with the chamber, but it will be understood that the same can be formed separate and secured thereto in any desired manner. The outer ends of the burner tubes are open and internally screw-threaded and into which the plugs 6 are screwed, whereby the outer ends of the tubes are closed, yet allowing for the ready cleaning of the tubes. The tubes as shown extend at right angles to the distributing chamber and are of a diameter less than that of the chamber. The upper faces of the burner tubes are provided with openings 7, which are arranged in parallel lines and through which the gas passes from the burner tubes. The arrangement of the openings could be varied without departing from my invention.

The lower side of the distributing chamber is provided with a downwardly and outwardly projecting coupling 8, communicating with the chamber. This coupling, as shown, is arranged midway the length of the chamber directly below the space between two of the burner tubes. Screwed within said coupling 8 is the mixing tube 9, which, as shown in Fig. 2, has its upper edges in a plane below the upper edges of the burner tube, yet slightly above the lower edges of the tubes.

The outer end of the mixing tube has a chamber 10 screwed thereon, provided with a shutter 11, by means of which the supply of air to the mixing tube may be regulated. The position of the mixing tube is such that it in no way interferes with the burner tubes. The burner tubes, as heretofore stated, are formed integral with a distributing chamber and are connected together by the transverse webs 12 formed integral with the tubes, and said transverse webs are connected together by the longitudinal webs 13, and said longitudinal webs 13 also connect the transverse web with the distributing chamber.

While I have shown and described my burner tubes as being of this form, it will be understood that any form of burner tubes can be used without departing from my invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A gas burner, comprising an elongated gas distributing chamber, a mixing tube connected to the lower face of the said chamber, a series of burner tubes connected to one side of the chamber at right angles thereto and extending in the same direction as the mixing tube and attaching means carried by the chamber on the opposite side from the burner tubes.

2. A gas burner, comprising an elongated gas distributing chamber, a series of burner tubes connected to one side of the chamber at right angles thereto, webs connecting said burner tubes, and a mixing tube connected to the lower face of the distributing

chamber and extending forwardly parallel with the burner tubes and below the same.

3. A gas burner comprising an elongated gas distributing chamber, a series of burner tubes connected to one side of the chamber at right angles thereto, attaching means carried by the said chamber, webs connecting said burner tubes, and a mixing tube connected to the distributing chamber and extending parallel with the burner tubes below the same.

4. A gas burner comprising an elongated gas distributing chamber, a series of parallel burner tubes connected to one side of the chamber and extending at right angles thereto, perforated webs connecting said burner tubes, and a mixing tube connected to the distributing chamber.

5. A gas burner comprising an elongated gas distributing chamber, a series of burner tubes connected to one side of the distributing chamber, attaching means carried by the opposite side of the chamber, and a mixing tube connected to the said chamber.

6. A gas burner comprising an elongated gas distributing chamber, a series of burner tubes connected to one side of the distributing chamber, webs connecting said burner tubes, attaching means carried by the opposite side of the chamber, and a mixture tube connected to the said chamber.

7. A gas burner comprising an elongated gas distributing chamber, a series of burner tubes connected to one side of the distributing chamber, perforated webs connecting said burner tubes, attaching lugs formed integral with the chamber on the opposite side from the burner tubes, and a mixing tube in communication with the lower face of the chamber and extending in the same direction and below the burner tubes.

8. A gas burner comprising an elongated gas distributing chamber, a series of burner tubes connected to one side of the said chamber, attaching means carried by the opposite side of the chamber, and a mixing tube in communication with the lower face of the chamber and extending in the same direction as the burner tubes.

9. A gas burner comprising an elongated gas distributing chamber, a series of burner tubes connected to one side of the chamber, perforated webs connecting said burner tubes, attaching means carried by the opposite side of the chamber, and a mixing tube connected to the distributing chamber intermediate its ends.

10. A gas burner comprising an elongated gas distributing chamber having open ends removable plugs closing said open ends, a mixing tube secured to the lower face of the chamber intermediate its ends and extending forward in a plane below the chamber, burner tubes connected to the side of the chamber and extending forward parallel with the mixing tube and having open ends, removable plugs closing said burner tubes, webs connecting the said burner tubes, and lugs carried by the opposite side of the chamber from the burner tubes and having attaching means.

11. A gas burner comprising an elongated gas distributing chamber, a mixing tube connected to the said chamber, a series of burner tubes connected to one side of the chamber, webs connecting said burner tubes, and attaching lugs carried by the chamber on the opposite side from the burner tubes.

12. A gas burner comprising a gas distributing chamber, a multiple of burner tubes in communication with one side of said chamber, a mixing tube secured to the distributing chamber and extending parallel with the burner tubes and receiving the gas beyond the ends of the burner tubes, and attaching lugs carried by the distributing chamber on the opposite side from the burner tubes.

13. A gas burner comprising a horizontal distributing chamber, a multiple of horizontal burner tubes extending laterally from one side of the said chamber, a mixing tube secured to the distributing chamber intermediate its ends, between two of the burner tubes and extending parallel thereto and having its upper edge in a plane slightly below the upper edge of the burner tubes, and laterally extending apertured horizontal lugs carried by the distributing chamber on the opposite side to the burner tubes.

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

JOSEPH ROY.

Witnesses:
H. C. THIER,
E. A. FRITZ.