

G. DALÉN.
INCANDESCENT GAS LIGHT BURNER.
APPLICATION FILED OCT. 26, 1911.

1,057,943.

Patented Apr. 1, 1913.

Fig. 1.

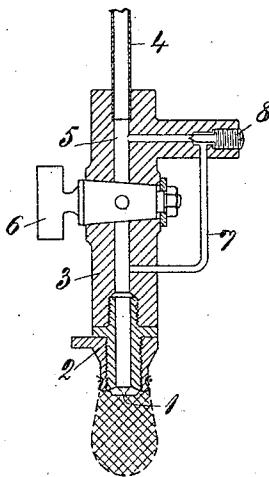


Fig. 2.

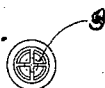
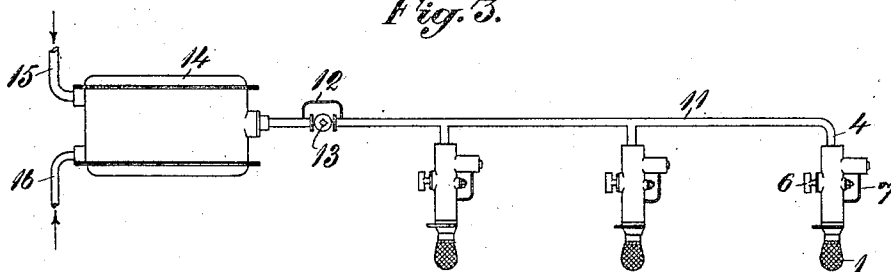


Fig. 3.



WITNESSES:

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INCANDESCENT-GAS-LIGHT BURNER.

1,057,943.

Specification of Letters Patent.

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Application filed October 26, 1911. Serial No. 656,895.

To all whom it may concern:

Be it known that I, GUSTAF DALÉN, engineer, subject of Sweden, residing at Odengatan 104, Stockholm, Sweden, have invented new and useful Improvements in Incandescent-Gas-Light Burners, of which the following is a specification.

The present invention refers to an incandescent gas light burner in which the pilot flame is burning only when the main flame is extinguished, whereby the consumption of gas is diminished. Several complicated constructions have been proposed for this purpose, which all have the view of keeping the gas conduit to the pilot burner closed, when the conduit of the main burner is open and vice versa, whereby the pilot flame is lighted by the main flame. By means of the present invention said purpose is obtained in a very simple manner and without the use of a special pilot flame.

The invention also has for its object means for keeping the pilot flame burning steadily and without fluttering.

On the drawings Figure 1 is a sectional view of a burner according to this invention, Fig. 2 is a plan, and Fig. 3 is an elevation, showing the use of the invention in connection with an apparatus for mixing gas and air.

1 indicates the incandescent body, 2 the incandescent gas light burner, which is screwed in the pipe section 3, containing the gas channel 5, connected with the gas conduit 4, and the shutting off cock 6. For supplying the burner 2 with the quantity of gas, intended for the pilot flame a by pass conduit 7 is connected with the gas conduit 4 or with the gas channel 5, opening on both sides of the shutting off cock 6. For adjusting the quantity of gas flow a screw 8, accessible from the outside, is inserted in the said by pass conduit 7.

It ought to be obvious, that when the cock 6 is closed, the burner 2 is supplied with the quantity of gas flowing through the conduit 7, and thus a pilot flame corresponding to

said quantity of gas, is burning in the burner 2.

In the end of the burner 2 two slots 9, intersecting each other at right angles and communicating with the channel 5 are cut, as will be seen in Fig. 2. In consequence of this arrangement the pilot flame will burn steadily at the point 10 where the slots intersect, instead of fluttering so as to be extinguished at one point and again lighted at another point, which is the case, if one single slot or more parallel slots are used.

In Fig. 3 14 indicates an apparatus of any suitable construction for mixing combustible gas and air, 15 being the supply pipe of the gas and 16 the supply pipe of the air to said apparatus. 11 indicates the conduit for supplying incandescent burners with the mixture of gas and air, and 12 indicates a by pass opening on both sides of a cock 13, inserted in the conduit 4. The burners are provided with a by pass pipe 7 as described above, but said by pass may also be omitted. When the cock 13 is closed the burners are supplied with a quantity of gas mixture through the by pass 12, sufficient for keeping a pilot flame burning in the main burners 2.

What I claim is:

A burner having a large passage to supply gas to a main flame, and a small passage connected with the large passage to supply gas to a pilot flame, and a delivering tip common to both passages, and provided with crossed slits for delivering the gas in large quantities to the main flame when the large passage is open, and for concentrating the flow of gas at a single point to feed the pilot flame alone when the large passage is closed.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

GUSTAF DALÉN.

Witnesses:

H. C. COXE,
VICTOR TERBOSH.