



Date of Application, 25th Mar., 1901—Accepted, 4th May, 1901

COMPLETE SPECIFICATION.

“Improvements in or relating to Incandescent Gas-burners”

I, FRANZ FÜRSTENHEIM, of Köpnickerstrasse 115, Berlin in the Empire of Germany, Doctor of Medicine, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:

5 This invention relates to improvements in or relating to incandescent gas-burners.

The purpose of the construction of the incandescent gas burner to which the present invention relates is to produce a Bunsen flame which will adapt itself to the greatest possible extent to the inner surface of the mantle and thus produce
10 as completely as possible the incandescence of the mantle at all points.

In the annexed drawings Fig. 1 represents a vertical section of the burner and Fig. 2 a section thereof on the line A—B of Fig. 1.

The gas passes through the pipe *a* to the passage *b* of the cock *c*. The gas supply can be regulated to a minimum quantity by means of the plug *f* having
15 the passage *d* and the groove *e*. From the passage *b* of the cock, the gas enters the head *g* and passes through the orifices *h* into the mixing chamber *i*, into which air enters through the orifices *k*. In the said chamber *i* the mixing of the illuminating gas with air takes place and the mixture passing through the orifices *l* is burnt underneath the mantle *m*. The head *g* is provided with radial
20 passages *n* which permit the central admittance of air. The air entering by the said radial passages *n* reaches the central pipe *o* which widens into the shape of a funnel *p* at its upper end. The air leaving this funnel shaped end of the pipe *o* forces the gas mixture being burnt against the interior surface of the mantle *m* so that combustion directly on the inner surface of the mantle at all
25 points is rendered possible. Admittance of air to the exterior surface of the mantle takes place through the openings *q*.

In connection with the burner described, mantles of exceptional size may be employed, by which means the illuminating area and thus the illuminating power, are of course increased. To prevent the flame firing back a constriction
30 is made in the mixing chamber *i*. In the form of constriction illustrated this constriction is obtained by means of two annularly bent opposed strips of sheet metal *r* and *s* the upper parts of which are arranged to form an annular slot *t* which allows of the passage of the ascending mixture of gas but prevents the flame from striking through to the head, *g*.

35 Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed I declare that what I claim is:

A burner for incandescent gas lighting characterized by a central admittance of air which compels the mixture of gas coming out in an annular cross-section
40 to spread over the inner surface of the mantle, whereby complete combustion of the mixture of gas on the inner surface of the mantle and uniform incandescence of the incandescent body for its whole extent is obtained.

Dated this 25th day of March, 1901

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FIG. 1.

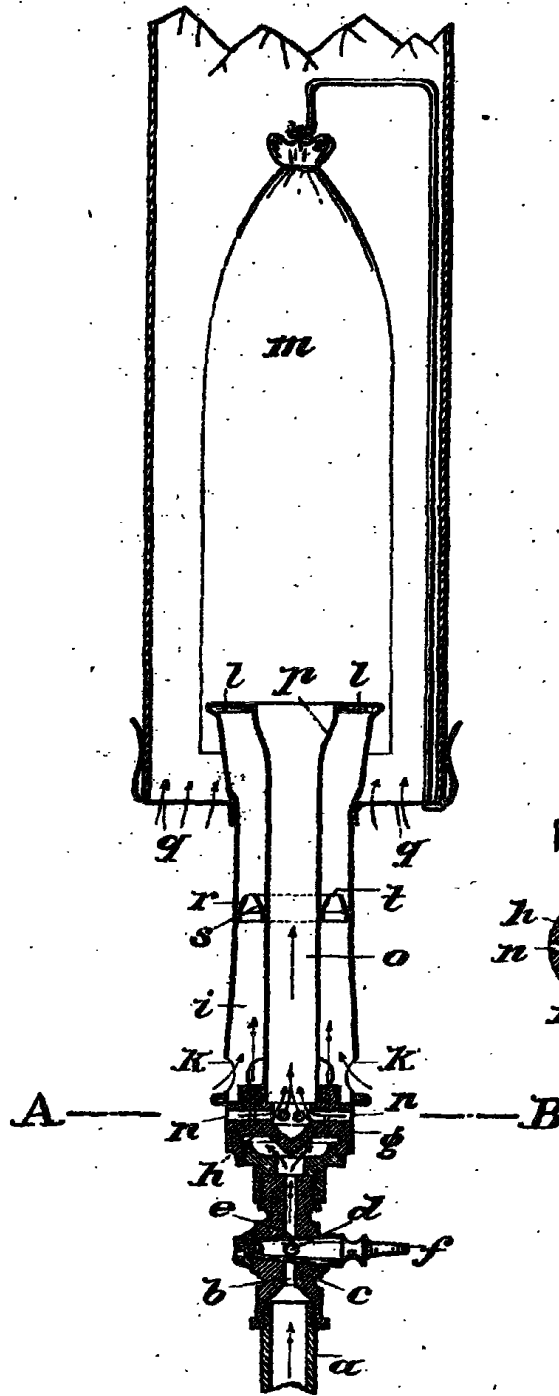
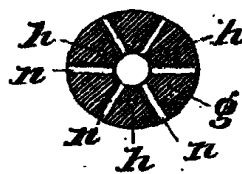


FIG. 2.



[This Drawing is a reproduction of the Original on a reduced scale.]

