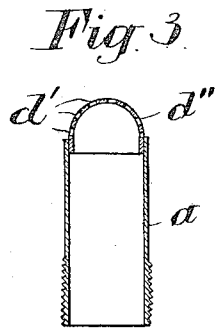
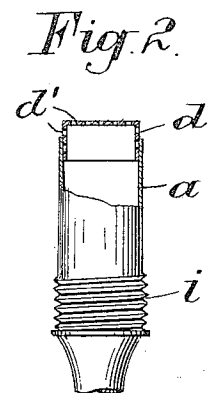
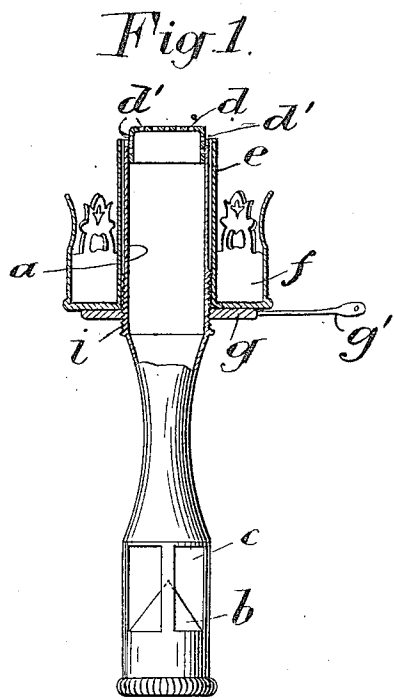


J. VISSEAU.
 INCANDESCENT GAS BURNER.
 APPLICATION FILED NOV. 29, 1911.

1,045,646.

Patented Nov. 26, 1912.



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JACQUES VISSEAU, OF LYON, FRANCE.

INCANDESCENT GAS-BURNER.

1,045,646.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed November 29, 1911. Serial No. 663,084.

To all whom it may concern:

Be it known that I, JACQUES VISSEAU, a citizen of the French Republic, and resident of 87-89 Quai Pierre-Scize, Lyon, France, have invented certain new and useful Improvements in Incandescent Gas-Burners, of which the following is a specification.

My present invention relates to incandescent gas burners, and relates to means for controlling the egress of the gas and air mixture adjacent the mantel of the burner.

The principal object of my invention is to regulate the velocity of the flow of the mixture subsequent to the admission of air with the gas, by resistance to egress of the mixture, and by this arrangement obtain a gas of such richness as will produce an incandescent light of the desired intensity.

It is well-known that the pressure of gas in its conductor, varies and that a burner in connection with the gas conductor must be regulated to obtain an intensity of light which is neither destructive to the mantel because of too much gas, or too little gas. In the event of too much gas, the flame is not confined within the fabric of the mantel but passes therethrough and when too small a pressure, there are fluctuations which expand and contract the mantel, which is very destructive.

The invention regulates the flow of the mixture and not the gas and the air independently one from the other.

Other objects of my invention are to provide a simple and efficient device of the character described, reducing the number of parts to a minimum and consequently reducing the cost of manufacturing and assembling.

In the drawings, forming a part of this specification:—Figure 1 is a side elevation of a burner constructed according to my invention, parts being shown in vertical central section to disclose details of construction. Fig. 2 is a detailed view of the upper portion of the mixture tube, parts being broken away to disclose details of construction. Fig. 3 is a central vertical sectional view in modified form of grate.

Similar characters refer to similar parts throughout the views.

In the drawing, *a* designates a tubular standard adapted for connection to the gas fixture or conductor, the lower portion being provided with the usual gas injector *b* and

air apertures *c* of predetermined size disposed adjacent to said injector *b* so that the flow of gas therefrom, directed toward the upper part of the standard *a*, draws in the air proportionate to the velocity of the flow of the gas.

The upper end of the tube *a* carries a tip or grate *d* of fire proof material projecting therefrom. This grate is provided with a plurality of apertures *d'* which open above the upper margin of the tube *a*. In other words, the grate is provided with apertures which are disposed to direct a part of the mixture laterally with respect to the axis of the tube *a*, as well as substantially parallel with the said axis.

The tube *a* is encircled by a collar *e*, which may be formed integral with a gallery *f* for the mantel and globe, this collar being movable longitudinally of the tube *a* and the portion adjacent the upper margin adapted to resist egress of the mixture laterally of the grate *d* by being passed above the margin of the tube *a*, to deflect the mixture flowing laterally with respect to the axis of the tube, to a desired degree. In other words, the collar *e* is adapted to sort of muffle the egress grate laterally and thus resist flow therefrom to a certain degree.

The collar is movable longitudinally of the tube by a nut *g*, which is in threaded engagement with a threaded portion *i* of the tube *a*. As disclosed in Fig. 1, by this nut *g*, which may be provided with a handle *g'* to facilitate operation, the collar *e* and gallery are both raised or lowered under control of the nut.

In Fig. 3 of the drawing, a grate *d''* is disclosed as of a hemispherical or convexo concave shell, with perforations *d'*, and similar to the flat drum-like grate disclosed in Figs. 1 and 2, the apertures directing the gas laterally being muffled by raising the collar *e* to lie laterally of the grate.

The operation of the device is as follows:—When the gas is admitted to become ejected from the ejector *b*, air is drawn and mixed with the gas as previously described. The mixture is lighted in any practical manner, and if upon the gas attaining a uniform velocity, the light is not of a desired intensity, say with too great a flow of gas, the collar *e* is raised through nut *g* and the egress laterally of grate *a* somewhat muffled. If the flow of gas is not sufficient to provide a light of desired intensity, the collar *e* is

lowered and the resistance to egress is reduced. During operation, the variable resistance to the flow of mixture regulates the quantity of air drawn through the aperture
5 c and no separate device is required at these openings for the regulation thereof.

I claim:

1. In an incandescent gas burner, the combination of a tube for conveying the gas
10 mixture, provided with externally disposed threads, an egress grate projecting from said tube, a collar encircling and movable axially of said tube to muffle said grate laterally,
15 and a nut in threaded engagement with the threads of said tube to operate said collar, substantially as and for the purpose set forth.

2. In an incandescent gas burner, the combination of a tube for conveying the gas
20 mixture, an egress grate projecting from said tube rigidly carried thereby and adapted to deliver gas laterally, a gallery having

a collar formed integral therewith, encircling and movable axially of said tube, and means for retaining said gallery with said
25 collar muffling said grate laterally in an adjusted position with respect to said tube, substantially as and for the purpose set forth.

3. In incandescent gas burners, the combination of a tube for conveying the gas
30 mixture, a convexo-concave grate at the end of said tube, rigidly carried thereby, adapted to deliver gas laterally, and projecting therefrom, and adjustable means for muffling said grate laterally, substantially as
35 and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two witnesses.

JACQUES VISSEAU.

Witnesses:

FRANCISCO CERONETTI,
MARIN VACHON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."