

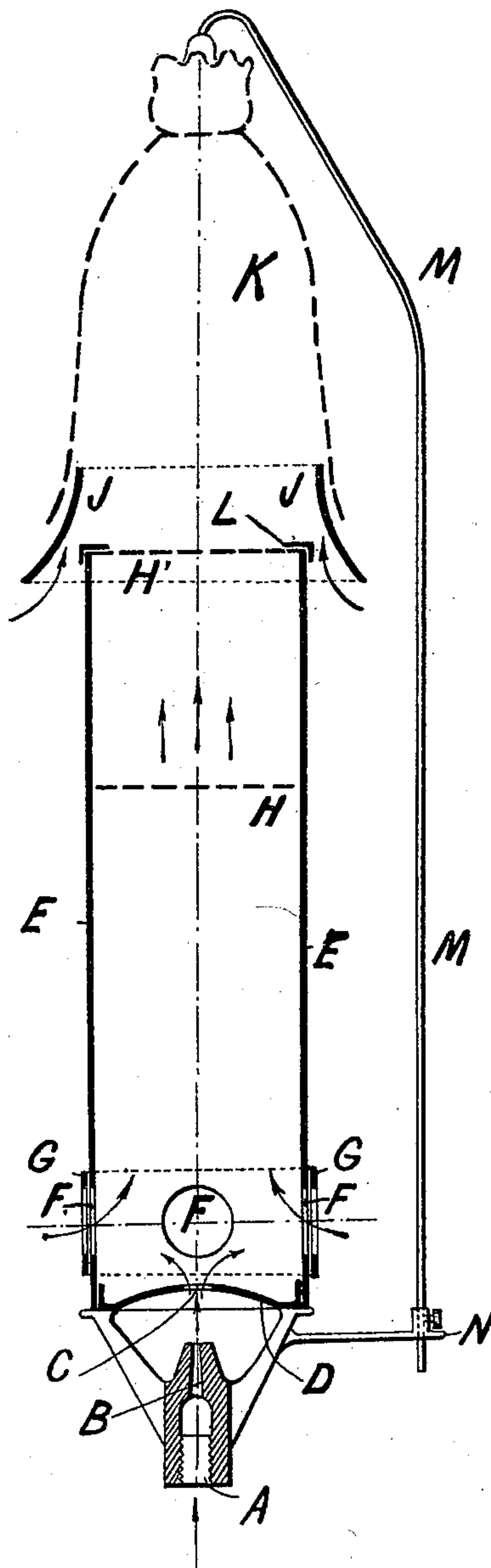
No. 616,295.

Patented Dec. 20, 1898.

G. DELIN.  
INCANDESCENT GAS BURNER.

(Application filed July 22, 1898.)

(No Model.)



WITNESSES:

*Wm. D. Bell.*  
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INVENTOR:

*Georges Delin*  
*by*  
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*Atty*

# UNITED STATES PATENT OFFICE.

GEORGES DELIN, OF BRUSSELS, BELGIUM.

## INCANDESCENT GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 616,295, dated December 20, 1898.

Application filed July 22, 1898. Serial No. 686,552. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGES DELIN, merchant, a citizen of the United States, residing at 111 Boulevard du Nord, Brussels, in the Kingdom of Belgium, have invented certain new and useful Improvements in or Relating to Incandescent Gas-Burners, of which the following is a clear description.

This invention relates to improvements in incandescent gas-burners; and its object is to provide a burner of that nature which is of simple, cheap, and durable construction and by the use of which the consumption of gas is greatly reduced and, on the other hand, the illuminating power increased.

The invention consists in the improved incandescent gas-burner and in the combination and arrangement of the various parts thereof, substantially as will be hereinafter more fully described and finally embodied in the clauses of the claim.

In the accompanying drawing, which represents in a central vertical sectional view my improved incandescent gas-burner, A is the inlet-tube, adapted to be secured on the end of a gas-supply pipe in any well-known manner. Supported by and secured to said inlet-tube A is a cylindrical tube E, provided near its lower end with a series of openings or perforations F for the admission of air, which openings can be closed or opened to a greater or less extent by an annular regulating sleeve or ring G, which is likewise provided with a series of openings or perforations and is revolvably mounted on the said tube E, as clearly shown.

The lower portion of the tube E is closed by an arched cover D, provided in its central portion with an aperture C of larger diameter than the outlet-opening B of the inlet-tube A. The top portion of the tube E is closed by a metallic netting or perforated plate H', while a similar netting or plate H is arranged within the tube E and below but parallel with the netting or plate H'. The last-mentioned netting or plate H' is preferably arranged in or secured to a cap or flanged ring L and is surmounted by a funnel J of larger diameter than the diameter of the tube E. The mantle K, which is arranged on said funnel J, is

suspended by a rod M, adjustably secured, as at N, to a bracket projecting from the tube E.

The novelty in the incandescent gas-burner just described consists chiefly in the arrangement of the arched bottom D, provided with a central orifice C, the diameter of which is larger than the diameter of the outlet B, by which arrangement a rotary motion is imparted to the gas within the lower part of the mixing-chamber or tube E, and consequently a considerably-greater suction of air through the openings or perforations F is produced.

The proximity of the outlet B and the orifice C and the small size of the former relatively to that of the latter render the escape of gas in passing from the one to the other practically impossible. The pressure of the gas must of course be approximately normal and not too low. If there is a tendency for the gas to escape at the opening F in the burner, this is overcome as soon as the gas is ignited, owing to atmospheric influences which, it will be apparent, thereupon immediately begin to act at these openings.

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

1. In an incandescent gas-burner, the combination with the inlet-tube, of a tube or mixing-chamber above said inlet-tube and provided in its lower portion with a series of openings or perforations, an arched bottom closing the lower end of said tube and provided with a central orifice in alinement with the inlet-tube but of larger diameter than the outlet-opening of the latter, metallic nettings arranged in the mixing-chamber, a flanged ring surmounting said tube, a mantle freely suspended above the top portion of said mixing-chamber, and a funnel of larger diameter than that of the mixing-chamber and sustaining the lower portion of said mantle and resting on said flanged ring, substantially as described.

2. In an incandescent gas-burner, the combination with the inlet-tube, of a tube or mixing-chamber above said inlet-tube and provided in its lower portion with a series of openings or perforations, a perforated regulating-ring surrounding said tube in the plane



of the said openings or perforations, an arched  
bottom closing the lower end of said tube and  
provided with a central orifice in alinement  
with the inlet-tube but of a larger diameter  
5 than the outlet-opening of the latter, metal-  
lic nettings arranged in the mixing-chamber,  
a flanged ring surmounting said tube and  
supporting one of said nettings, a mantle  
freely suspended above the top portion of said  
10 mixing-chamber, and a funnel of a larger di-  
ameter than that of the mixing-chamber and

sustaining the lower portion of said mantle  
and resting on said flanged ring, substantially  
as described.

In testimony that I claim the foregoing I 15  
have hereto set my hand this 6th day of July,  
1898.

GEORGES DELIN.

Witnesses:

P. POHLE,

GREGORY PHELAN.