No. 647,159. Patented Apr. 10, 1900.

A. SEYEWETZ.

GAS BURNER.

(Application filed Apr. 24, 1899.)

(No Model.)

FIG. 1.

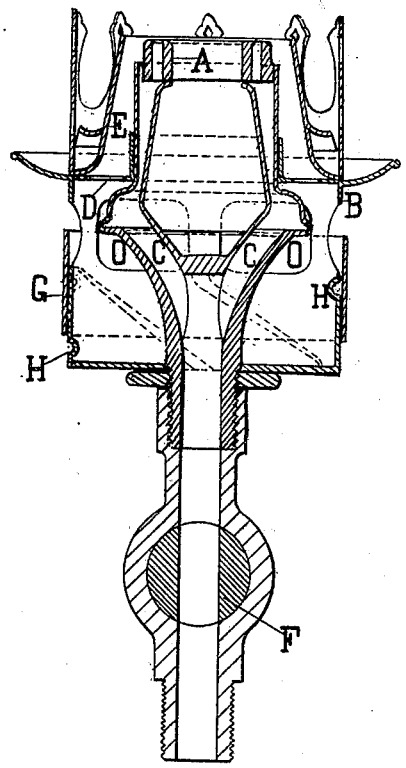


FIG. 2.

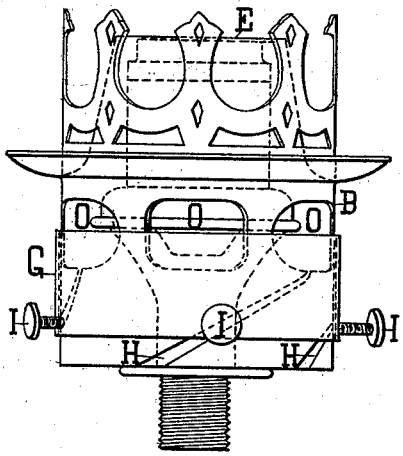
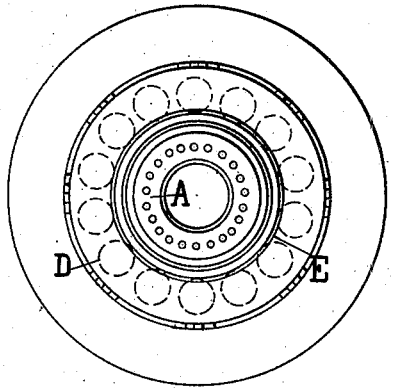


FIG. 3.



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UNITED STATES PATENT OFFICE.

ALPHONSE SEYEWETZ, OF LYONS, FRANCE.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 647,159, dated April 10, 1900.

Application filed April 24, 1899. Serial No. 714,325. (No model.)

To all whom it may concern:

Be it known that I, ALPHONSE SEYEWETZ, a citizen of France, residing at Lyons, France, have invented certain new and useful Improvements in Gas-Burners, of which the following is a full, clear, and exact description, and for which has been made application for British Patent No. 27,337, dated December 27, 1898.

The invention has for its object to utilize for lighting purposes gases of low pressure and of variable composition, especially those arising or formed by carburization of the air in apparatus known as "gas-fountains." The composition of these gases depends on the materials employed for the carburization and upon the degree of exhaustion of these materials. They flow by siphoning, solely by virtue of their density, which is slightly superior to that of air. At first the quantity of gas (or gaseous vapor) carried along by the air is very great, and its combustion can be effected by ordinary burners; but in proportion to the exhaustion of the materials there arrives in time only an insufficient quantity of gas or gaseous vapor to produce illumination.

I have succeeded in utilizing all the combustible material by applying the following modifications to the burners used for burning gas under pressure: first, by largely increasing the channels supplying the gas without diminishing the section of the burner-orifices, so that none of the small amount of disposable pressure may be lost, and, second, by regulating with precision from nothing to a very wide limit the quantity of air supplied to the burner. These conditions can be filled by various arrangements, among which I prefer those which do not greatly change the appearance and dimensions from the ordinary burners.

The accompanying drawings show one example of the invention.

Figure 1 is a vertical axial section of the new burner. Fig. 2 is an elevation, and Fig. 3 is a plan.

The burner A is annular. The gas is conducted to it by a forked tube C C, preceded by a regulating-cock F. The maximum opening of this cock and the section of the forked tube are much larger than the total section of the burner-orifices, so as to be able, when required, to burn the gas with the full pressure of the generator or gas-supply.

The lower part of the burner is surrounded by a cylindrical sleeve B, closed at its lower part, and around the circumference of which are openings O O for the admission of air, which passes to the burner through openings D D, made in the upper part of the sleeve and covered by the cone E, reaching to the level of the burner. By this arrangement the whole of the air necessary for combustion passes through the openings O O, and in order to regulate the combustion it suffices to partially or even entirely close these openings. This closing is effected by means of a collar G, of sufficient height, encircling the sleeve B and capable of sliding on it, so as to cover, more or less, the openings. In order to render the regulation easy and invariable, the sleeve is provided on its circumference with helicoidal grooves H H, in which engage the ends of as many screws I I, fixed to the collar G. It will be sufficient, therefore, to turn this collar in one or the other direction to obtain a partial or complete closing of the openings O.

What I claim, and desire to secure by Letters Patent, is—

The combination with a gas-burner, having a suitable gas-supply, of a sleeve surrounding said burner closed at its lower end and having perforations or openings in the side thereof, a series of spirally-arranged grooves in said sleeve and a collar surrounding said sleeve adapted to close said openings and screw I carried by said collar adapted to engage said grooves to hold said collar in place, substantially as described.

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

ALPHONSE SEYEWETZ.

Witnesses:
GASTON JEAUNIAURE,
M. FACHON.