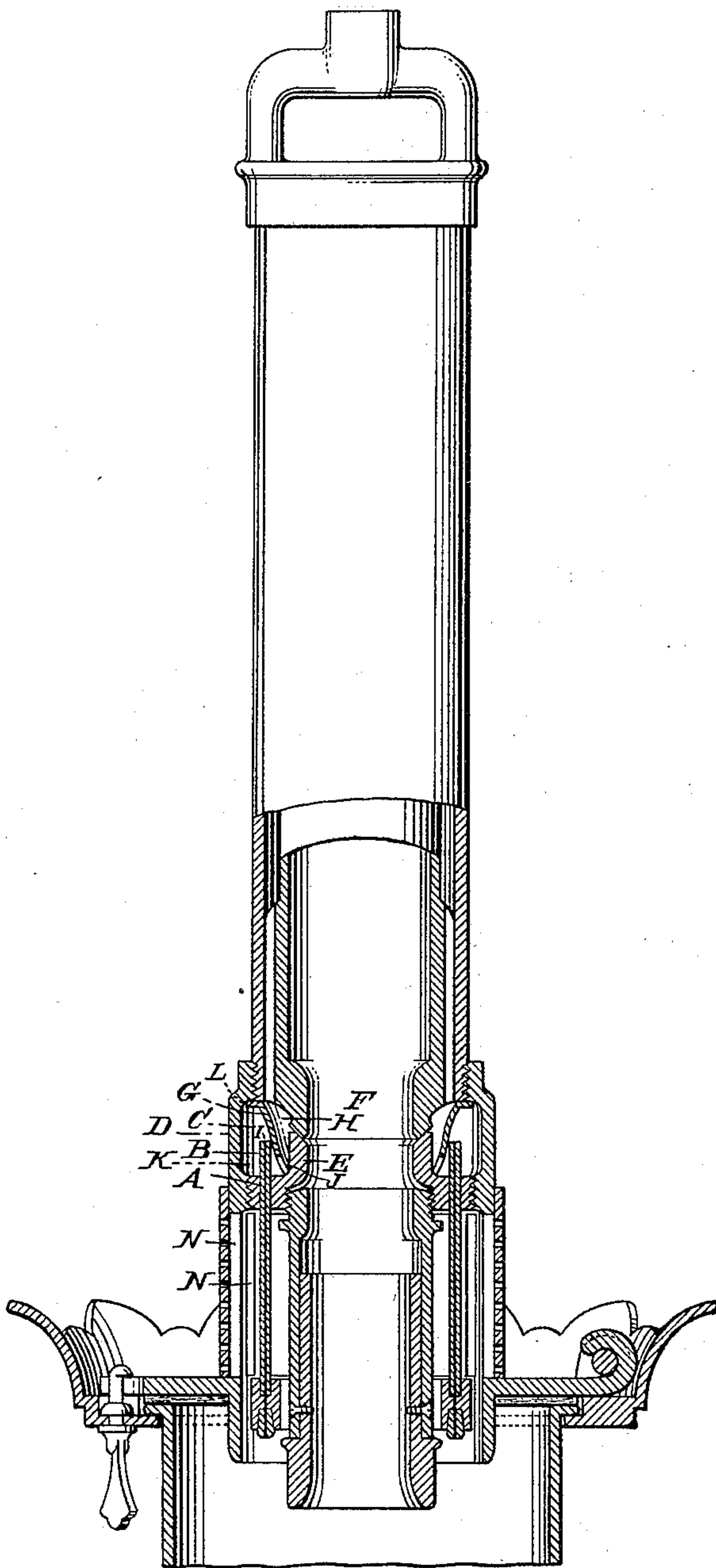


(No Model.)

J. FRANKLIN.
REGENERATIVE GAS LAMP.

No. 387,157.

Patented July 31, 1888.



WITNESSES.

Villette Anderson
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INVENTOR.

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UNITED STATES PATENT OFFICE.

JOHN FRANKLIN, OF CINCINNATI, OHIO.

REGENERATIVE GAS-LAMP.

SPECIFICATION forming part of Letters Patent No. 387,157, dated July 31, 1888.

Application filed December 20, 1887. Serial No. 258,492. (No model.)

To all whom it may concern:

Be it known that I, JOHN FRANKLIN, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Regenerative Gas-Lamps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters or figures of reference marked thereon, which form a part of this specification.

The drawing is a representation of this invention and shows a vertical section of the lower part, the upper part being in full lines.

This invention has relation to updraft regenerative gas-lamps; and it consists in the construction and novel combination of devices designed to prevent the clogging of the tubes which convey the gas to the burner-tips and the deposit of charred particles in the globe, as hereinafter set forth.

The invention refers particularly to the means of protecting the upper ends of the tubes which surround the lower portions of the updraft. These tubes, it will be observed, convey the gas immediately to the burner-tips, and, as everything which passes into these tubes becomes ignited, it is important to guard against the access of extraneous particles as well as to secure a deposit of impurities with which the gas may be unduly laden before it reaches the mouths of the tubes at their upper end. With this object in view, the upper ends of the gas-tubes B are constructed of sufficient length to project above the flanged ring A, in which they are secured as indicated, and into the chamber C, said flanged ring forming the floor of a gas-chamber, C, the outer wall of which is formed by the burner-case D, and the inner wall by the cylinder F, and the flange E of the ring supporting the upper section or cylinder, F, of the central updraft, around which are the downward gas passages leading to said chamber.

G is an annular deflector, which is located in said chamber C, separating it into an inner annular compartment, H, and an outer annular compartment, K, the projecting upper ends, I, of the gas-tubes being arranged in this outer compartment. A flange or ledge

partition, L, is arranged around the upper portion of the annular deflector-partition G, so that when the upper cylinder and burner-tubes are connected to the burner-case D the deflector-partition will separate the compartments, except where the openings J are made for the passage of the gas through said deflector. These openings are made at or near the lower edge of the deflector, so that the gas conveyed downward by the heating-flues around the updraft entering the inner compartment will be carried downward to the floor-ring A before rising to enter the mouths of the burner-tubes.

It will be observed that the burner-case has slots or openings N in its wall, through which air passes inward to feed the flame, and this draft of air keeps the floor-ring A comparatively cool, so that any deposit of impurities in the gas will be made thereon prior to the entrance into the burner-tubes. So, also, extraneous particles drawn into the downward gas-passages around the central updraft will be deposited in the floor-ring A instead of entering the mouths of the tube.

For ordinary coal-gas the openings J in the bottom of the deflector are preferably of large size compared with those which are found best for water-gas, and it is preferred in this case to make these openings by notching the lower edge of the deflector, as indicated below the plane of the tops of the tubes B. For water-gas small perforations in the deflector answer the purpose excellently.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

The combination, with the cylinder F, external casing D, and flanged ring A, together forming the annular gas-chamber C, of the gas-tubes B, having their upper ends projecting up into said chamber, and the flanged annular deflector G, dividing said chamber into compartments and formed with notch-openings in its lower edge below the plane of the tops of the tubes B, substantially as set forth.

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

JOHN FRANKLIN.

Witnesses:

C. R. FERGUSON,
M. P. CALLAN.