

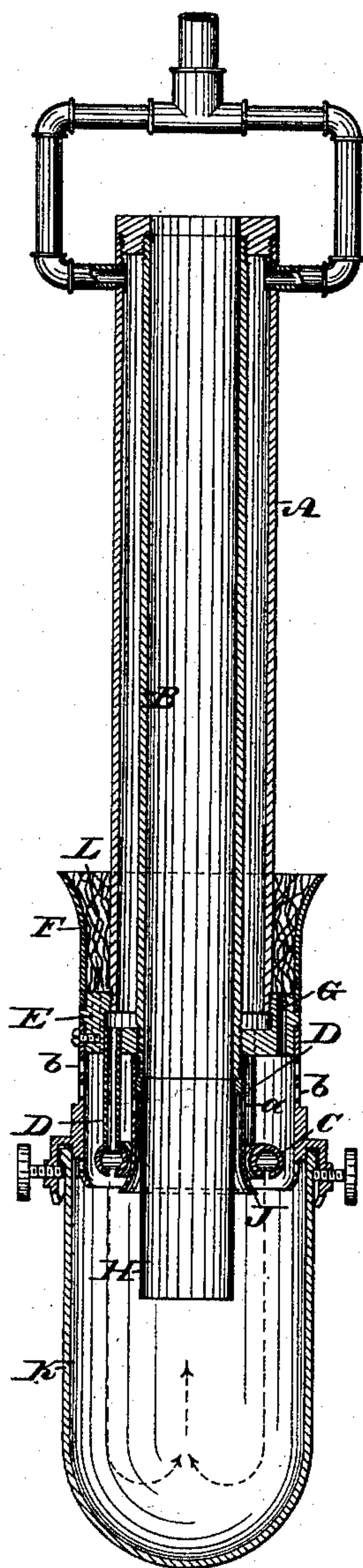
(No Model.)

J. STUERTZ.

GAS BURNER.

No. 331,261.

Patented Nov. 24, 1885.



WITNESSES:

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JOHN STUERTZ, OF PHILADELPHIA, PENNSYLVANIA.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 331,261, dated November 24, 1885.

Application filed May 11, 1885. Serial No. 165,056. (No model.)

To all whom it may concern:

Be it known that I, JOHN STUERTZ, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Gas-Burners, which improvement is fully set forth in the following specification and accompanying drawing, in which the figure is a central vertical section of a gas-burner embodying my invention, this consisting in so forming such burner that the flame is at the bottom of the same, and a light of great brilliancy is thereby produced, as will be hereinafter fully set forth.

Referring to the drawing, A represents a pipe, which is supplied with gas in any suitable manner.

B represents a flue or pipe, which is inclosed within and secured to the pipe A and open at top and bottom.

C represents a burner which is of the form of a ring having an opening or jet or openings or jets on its under side, and occupying a position at the bottom of the gas-pipe A, and is in communication therewith by means of a pipe or a number of pipes, as at D, the latter being secured to an annular block or band, E, and passing upwardly through the same, so as to reach the pipe A, said band being connected with the lower portion of the pipe B.

Surrounding the band E, and secured thereto, is a cylinder, F, whose top is open and surrounds the gas-pipe A, said band having tubes or passages G, which form a communication of the upper portion of the cylinder F with the lower portion thereof.

Connected with the bottom of the pipe B is a cylinder, H, of platinum, porcelain, or other material which when heated becomes incandescent, said cylinder being surrounded by a cylinder or cone, J, which, secured to the pipe B, is open at bottom, and has openings *a* for the admission of air within the same. Openings *b* are also formed in the cylinder F below the band E, for increasing the quantity of air supplied to the burner.

Depending from and attached to the cylinder F in any suitable manner is an inverted shade or globe, K, of glass or other suitable transparent material.

The operation is as follows: Gas is admitted

to the pipe A and directed into the burner C, whence it is discharged on the under side thereof. The globe K is removed in order to ignite the gas, and then closed or restored to its normal position. Air enters the cylinder F, and is directed by the passages G into the globe K, and so supplies the outside of the flame, and air also enters the cylinder J through the openings *a*, and so supplies the interior of the flame. The flame assumes somewhat of the form of the globe K, it first descending from the burner, and then being directed inwardly at the bottom, where it unites, the products of combustion ascending through the pipe B and serving to superheat the gas, thus producing a light having a long side wall and unbroken bottom, the same being brilliant and steady, the incandescent cylinder H assisting in such production, as by its nature it does not serve to check combustion.

In the top of the cylinder F is a loose packing, L, of wire or other suitable material, which serves to separate the air and cause a uniform admission of the same to the burner.

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

1. The gas-pipe A, in combination with the air-flue B, located in said pipe and open at both ends, burner C, having openings in its under side and connected to the pipe A by tubes D, band E, having passages G, globe K, closed at the bottom thereof, and cylinder F, surrounding said pipe A and having wire packing L, substantially as and for the purpose set forth.

2. In a gas-burner, the gas-pipe A and flue B, in combination with the burner C, cylinder H, cone J, open at the bottom and having side openings, *a*, band E, and cylinder F, having openings *b*, substantially as and for the purpose set forth.

3. The pipe A, having inclosed pipe B, in combination with pipes D, burner C, band E, having openings G, cylinder F, having packing L, and globe K, substantially as and for the purpose set forth.

4. In a gas-burner, a supply-pipe having a flue within the same, in combination with a burner, a cylinder surrounding the supply-pipe and properly secured to the same, with

passages for the admission of air between the two, and a globe closed at the bottom thereof, the said cylinder having a packing of wire, substantially as and for the purpose set forth.

5 5. A gas-burner provided with a band surrounding the same and having air-passages, in combination with a cylinder connected to said band, a globe secured to said cylinder, an
10 air-pipe leading into said globe, and wire packing in said cylinder, substantially as and for the purpose set forth.

6. The pipe A, having flue B, open-ended and located within the said pipe A, in combination with the band E, having openings G, burner C, cylinder F, having openings b, and 15 provided with wire packing L, and globe K, substantially as described.

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Witnesses:

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