

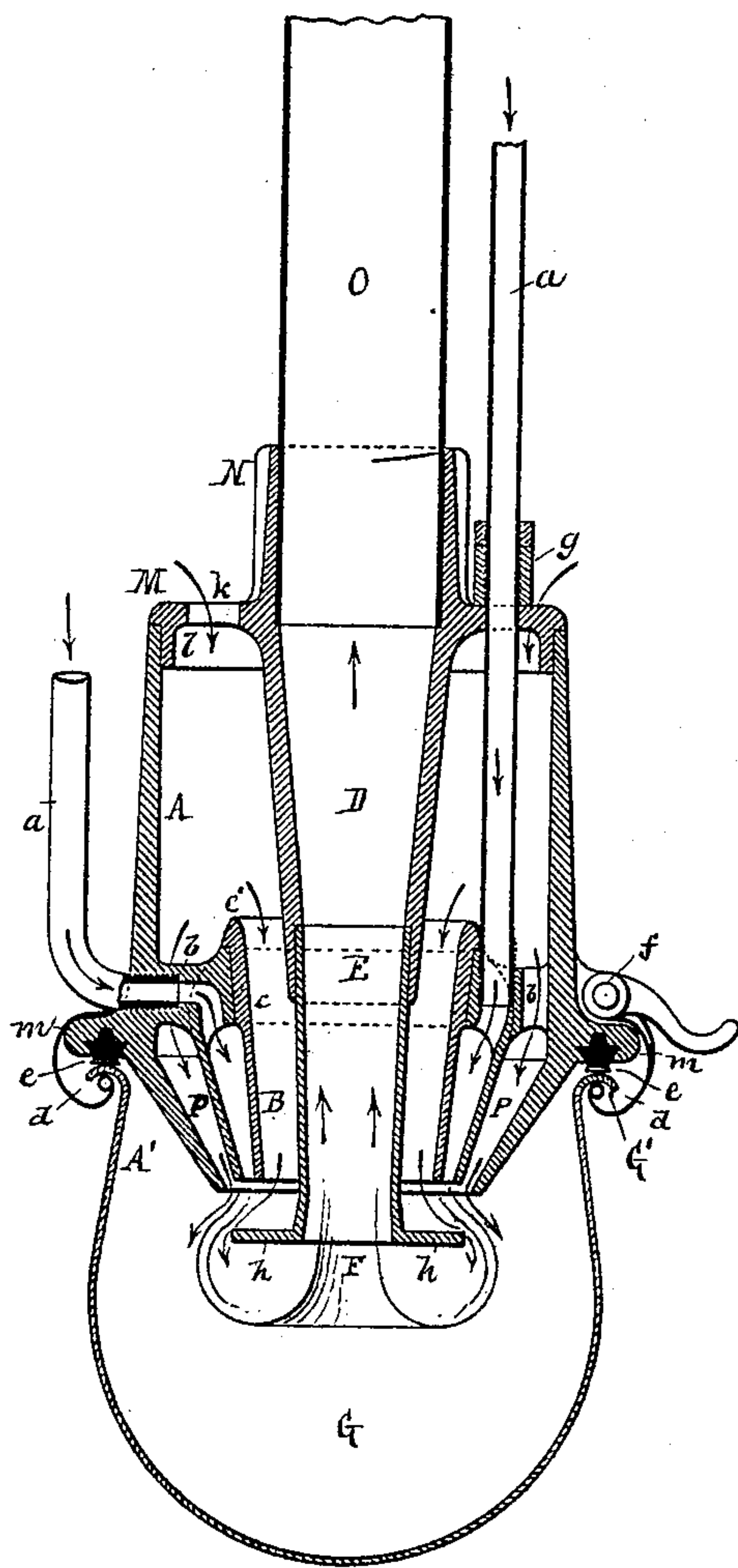
(No Model.)

C. WESTPHAL.

GAS LAMP.

No. 391,000.

Patented Oct. 9, 1888.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHRISTIAN WESTPHAL, OF BERLIN, GERMANY, ASSIGNOR OF ONE-HALF TO
JULIUS QUAGLIO, OF SAME PLACE.

GAS-LAMP.

SPECIFICATION forming part of Letters Patent No. 391,000, dated October 9, 1888.

Application filed November 22, 1887. Serial No. 255,848. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN WESTPHAL, a subject of the King of Prussia, residing in the city of Berlin, in the Kingdom of Prussia, Empire of Germany, have invented certain new and useful Improvements in Gas-Lamps, of which the following is a specification.

This invention relates to new and useful improvements in regenerative gas-lamps; and the object of my invention is to simplify the construction of the lamp.

The invention consists in the combination, with a casing having an inwardly and downwardly inclined bottom part, inwardly-projecting lugs, and a downwardly-tapered annular flange uniting the lugs, all made integral, a tapered cylinder resting on the inclined annular flange, and with the same forming the burner, a cover on the casing, a downwardly-projecting flue on said cover, a neck secured in the lower end of the flue, and a tube or tubes for conducting gas into the burner.

The invention also consists in the construction and combination of parts and details, as will be fully described hereinafter, and finally be pointed out in the claim.

In the accompanying drawing a cross-sectional elevation of my improved regenerative gas-lamp is shown.

The cylindrical casing A is provided with a downwardly and inwardly tapered bottom part, A', at the top of which an outwardly-projecting flange, m, is formed on the casing, and provided in its bottom with an annular groove for receiving the packing-ring e, of asbestos or other fire-proof material. On the top of the cylindrical casing A the cover M is placed, said cover being provided at its rim with the downwardly-projecting flange l, fitting against the side of the casing. The cover M is also provided with an upwardly-projecting neck, N, and a downwardly-projecting flue, D, cast integral therewith, and with a series of apertures, k, around the neck N, for the admission of air.

From the inner surface of the casing A a series of lugs, b, project inward, and their inner ends are connected by a downwardly and inwardly inclined annular flange, P, made integral therewith and forming the outer wall of the burner B. Upon the top edge of the

annular flange P an external shoulder, c', rests, formed on the upper end of the tapered cylindrical piece c, forming the inner wall of the burner B. The bottom edges of the inclined annular flange P and said tapered cylindrical piece c are on the same plane and slightly above the plane of the bottom edge of the tapered part A' of the casing, as shown in the drawing. The bottom tapered part, A', of the casing and the flange P incline toward each other, so that the annular space between them is gradually reduced in width from top to bottom, and the tapered cylindrical part c also inclines toward the inclined annular flange P, so that the annular burner-space between said tapered cylindrical part c and the inclined annular flange P also diminishes in width from top to bottom. The porcelain neck E, having a bottom external flange, h, is inserted in the lower end of the downwardly-projecting flue D, and is surrounded by the burner, the flange h being some distance below the bottom edges of the tapered part A' of the casing. The gas-inlet tube a passes through air-openings in the cover M, the lower part of said tube being screwed into the top of the annular inclined flange P. Nuts g are screwed on that part of the tube above the cover M, for the purpose of holding said tube in place. If desired, the lower end of the tube a may be connected with the outer end of a bore formed in one of the lugs b, said bore establishing communication between the tube a and the space between the tapered cylindrical piece c and the inclined annular flange P. The glass globe G is provided at its open end with an outwardly-projecting flange, G', against the bottom surface of which the ends of the springs d rest, secured to the flange m, which springs press the flange of the globe against a packing-ring, e. At one side of the lamp said spring d is secured to a lever, f, so as to permit raising the spring to release the globe.

This lamp is not provided with a gas-chamber, as the gas passes from the gas-inlet tubes directly into the burner-space. As the burner is heated by the flame, the gas is heated before issuing from the outlet opening or slit of the burner. The air for combustion, entering through the apertures k in the cover M, passes

down between the neck *e* and the inner wall, *e*, of the burner, and is thus heated, and some of the air also passes down through the space between the lugs *b* and then through the space
5 between the tapered bottom part, *A'*, of the casing and the outer wall, *P*, of the burner. The flame passes around the edge of the flange *h* and up through the neck *E* into the flue.

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

In a gas-lamp, the combination, with a casing having an inwardly and downwardly tapered bottom part, inwardly-projecting lugs,
15 a downwardly and inwardly inclined annular flange uniting said lugs, all made integral, a tapered cylindrical piece supported by the

top edge of the inclined annular flange and being surrounded by said flange, with which it forms the annular burner, a cover on the casing, a downwardly-projecting flue on said
20 cover, a neck on the lower end of said flue, surrounded by the burner, and gas-pipes leading into the burner-space formed between the tapered cylinder and the inclined annular flange, substantially as set forth.

In testimony whereof I have signed my name
25 to this specification in the presence of two subscribing witnesses.

CHRISTIAN WESTPHAL.

Witnesses:

B. ROI,

CHRISTNER HOOYS.