

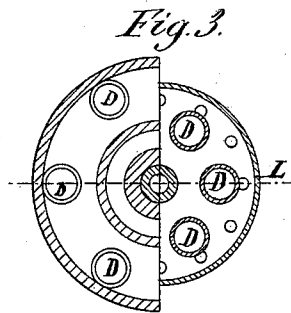
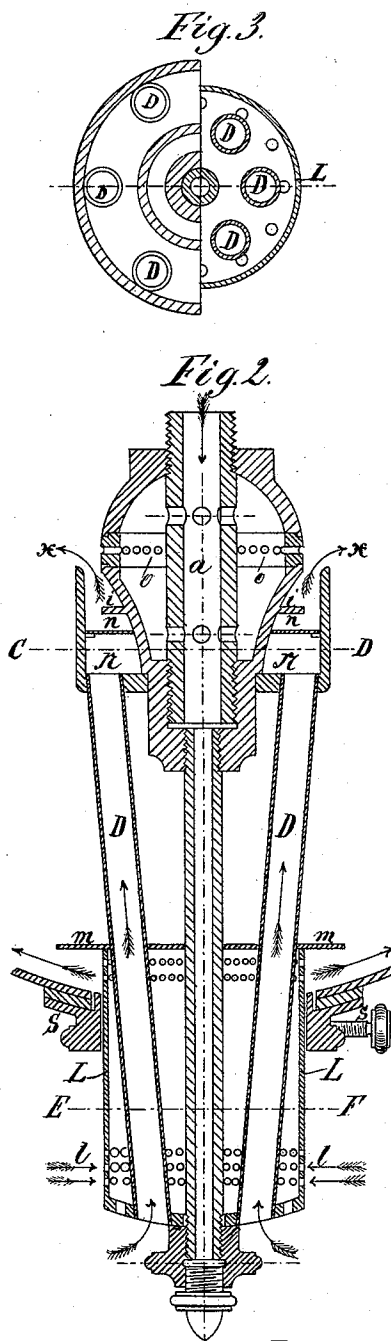
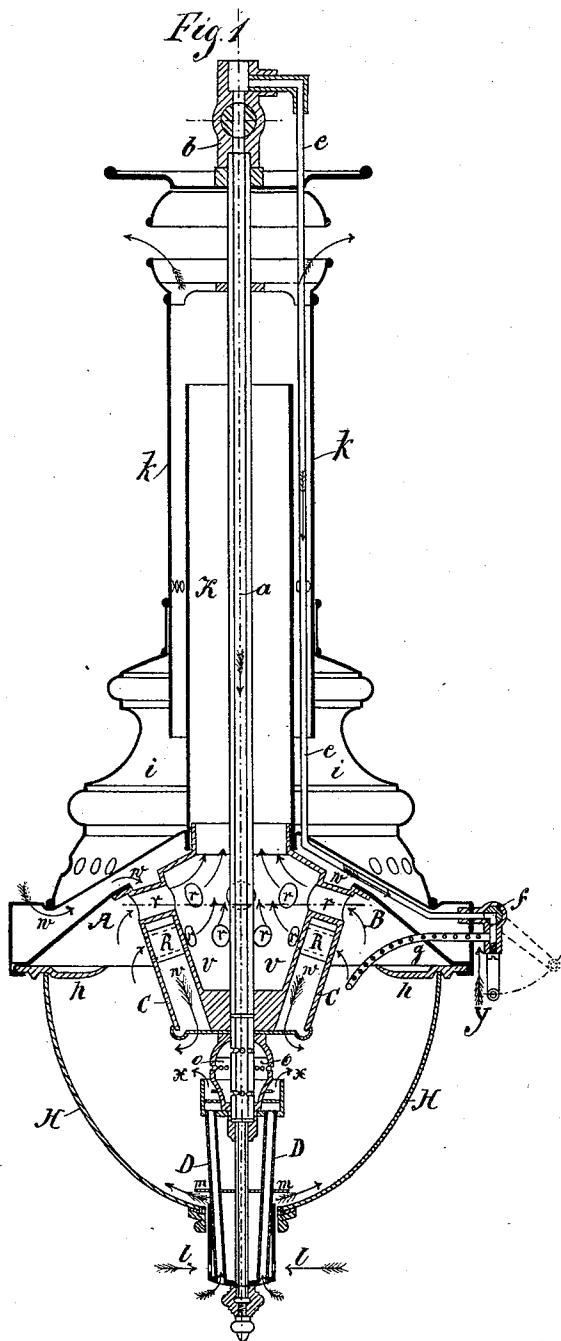
(No Model.)

2 Sheets—Sheet 1.

W. STEUTH & J. W. KÖRBER.
REGENERATING GAS LAMP.

No. 477,314.

Patented June 21, 1892.



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(No Model.)

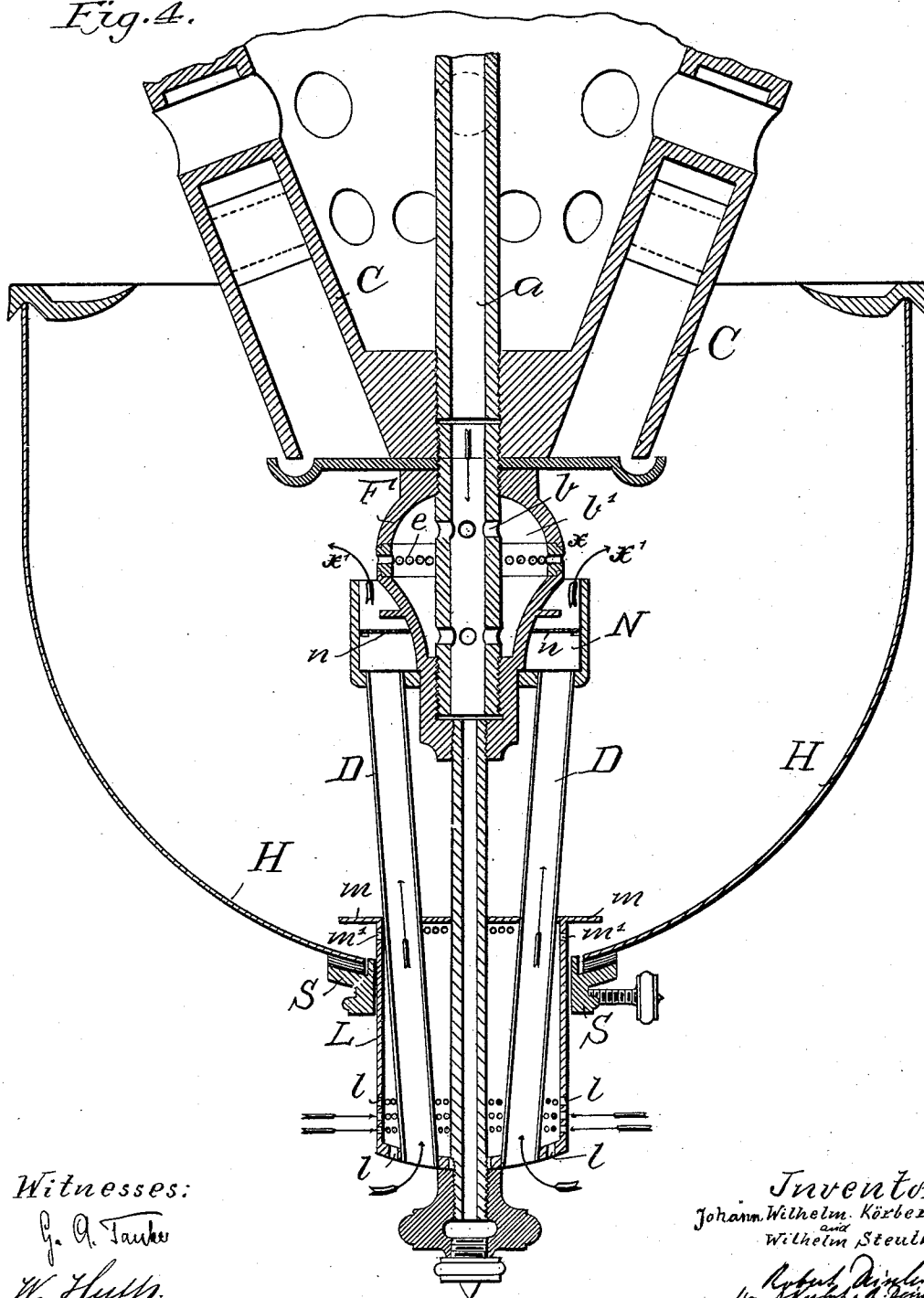
2 Sheets—Sheet 2.

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Fig. 4.



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UNITED STATES PATENT OFFICE.

WILHELM STEUTH AND JOHANN WILHELM KÖRBER, OF DÜSSELDORF,
GERMANY.

REGENERATING GAS-LAMP.

SPECIFICATION forming part of Letters Patent No. 477,314, dated June 21, 1892.

Application filed June 1, 1889. Serial No. 312,876. (No model.) Patented in Belgium April 26, 1888, No. 81,572; in France May 4, 1888, No. 190,396; in England May 18, 1888, No. 7,386; in Italy September 25, 1888, No. 23,566, and in Austria-Hungary November 30, 1888, No. 19,761 and No. 40,065.

To all whom it may concern:

Be it known that we, WILHELM STEUTH and JOHANN WILHELM KÖRBER, both subjects of the King of Prussia, German Emperor, and residents of Düsseldorf, in the Province of the Rhine, German Empire, have invented some new and useful Improvements in Regenerative Gas-Lamps, (for which we have obtained patents in France, No. 190,396, dated May 4, 1888; in Austria-Hungary, No. 19,761 and No. 40,065, dated November 30, 1888; in England, No. 7,386, dated May 18, 1888; in Belgium, No. 81,572, dated April 26, 1888, and in Italy, No. 23,566, dated September 25, 1888,) of which the following is a full and exact specification.

This invention relates to a bottom supply of air for regenerative gas-lamps; and it consists in the combination of a peculiar arrangement of tubes with chambers at the upper and under end of said tube.

In order to make our invention more clear, we refer to the accompanying drawings, in which—

Figure 1 is a vertical section through a regenerative gas-lamp, showing the improvements described hereinafter. Fig. 2 is a vertical section through the burner and the bottom air-supply for the latter, drawn on a larger scale. Fig. 3 is a horizontal section partly on line C D of Fig. 2 and partly on line E F of same figure. Fig. 4 is also a vertical section showing the under part of Fig. 1 in an enlarged scale.

The gas is supplied through tube *a* to the annular Argand burner C, which is connected with a bottom part formed by tubes D, arranged in the form of a ring for the supply of air from underneath. Said tubes D are connected at the bottom by and with the casing L and are provided at the top with an air-chamber N, this latter having inside a projecting edge and a strainer *n*, placed within said chamber for the purpose of distribut-

ing and balancing the supply of air which flows out at *x* in the direction indicated by the arrows *x'* against the lower surface of the flame. The gas discharged through the openings *b* enters a hollow space *b'*, provided in a casing F, which is arranged in the center of air-chamber N. Casing F is provided with an annular series of small openings *e*, serving for letting pass the gas, which is extended at the outer side of casing F.

The casing L is provided laterally and at the bottom with a number of perforations *l*, serving to lead air to the inner surface of the glass shade H. A deflecting-disk *m* is placed over the casing L and on the tubes D for the purpose of deflecting the air flowing in through the perforations *m'* from its direct course to the burner and to direct it against the inner surface of the glass shade, whereby the latter is kept somewhat cool and unsteadiness of the flame is prevented. The glass shade is fixed on casing L by means of a pressure-ring S.

Having thus fully described our invention, what we desire to secure by Letters Patent of the United States is—

The combination of the chamber N, fixed to the burner and having perforated disk *n*, and of the downwardly-extending tubes D, secured to the bottom of and communicating with chamber N, with the perforated casing L, fixed to the ends of tubes D and carrying the shade H, said casing being closed by disk *m*, projecting over the rim of the casing and having holes for letting pass the tubes D, the latter adapted to let air to the under side of the flame, for the purpose as described.

In witness whereof we have hereunto set our hands in presence of two witnesses.

WILHELM STEUTH.

JOHANN WILHELM KÖRBER.

Witnesses:

D. J. PARTELLO,

FRITZ POTTLE CUT.