(No Model.)

G. H. GREGORY.

RETORT GAS LAMP.

No. 343,708. Patented June 15, 1886.

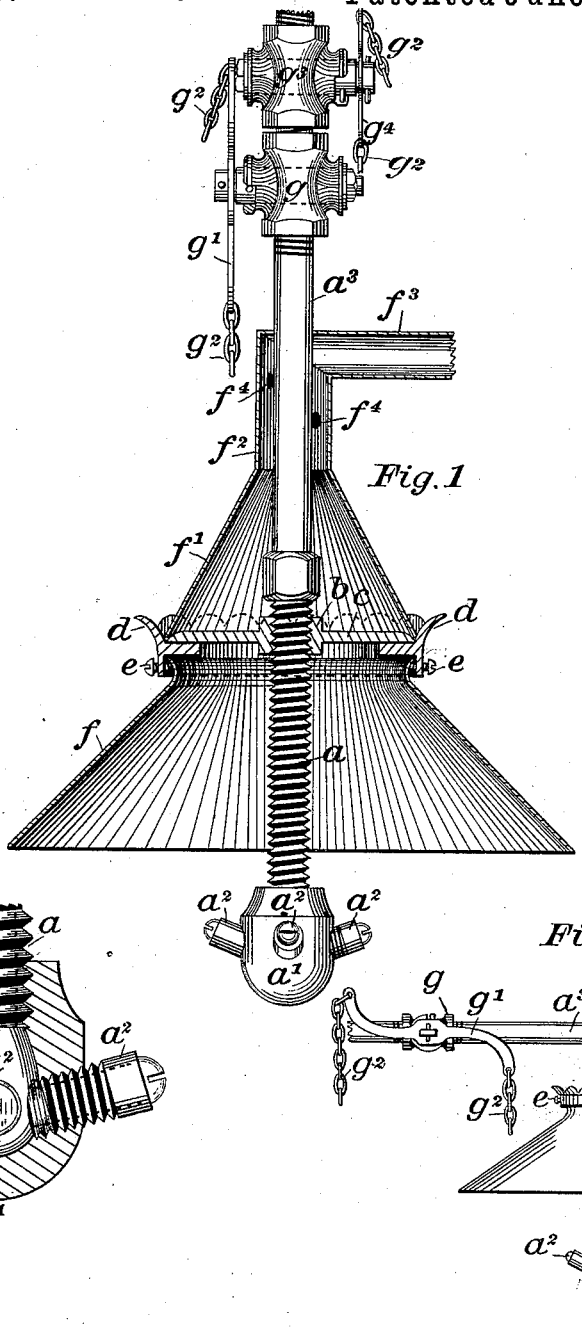

Fig. 1

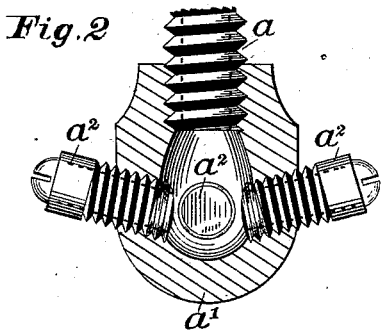

Fig. 2

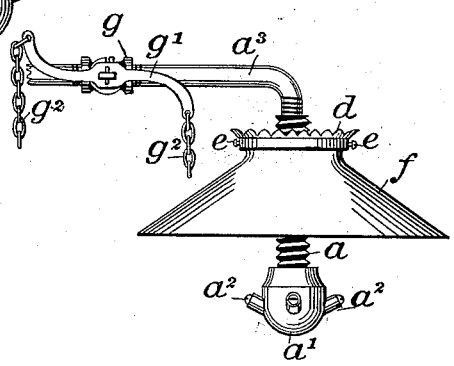

Fig. 3

Witnesses;

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UNITED STATES PATENT OFFICE.

GEORGE H. GREGORY, OF CHICAGO, ILLINOIS.

RETORT GAS-LAMP.

SPECIFICATION forming part of Letters Patent No. 343,708, dated June 15, 1886.

Application filed May 25, 1885. Serial No. 166,654. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. GREGORY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Retort Gas-Lamps, which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 shows an elevation of my pendent lamp partly in section. Fig. 2 shows the retort a' in section in an enlarged view with steel tips a^2 screwed in place. Fig. 3 shows the same arrangement as Fig. 1 on a horizontal arm without the cone f'.

Like letters refer to like parts.

The object of my invention is to construct a fixture for burning gas which shall give more light and less heat, and at the same time pass off the noxious products of combustion.

In the drawings, a is a pendent gas-pipe threaded in this case, upon which is carried a shade, f, which is made adjustable as to height to or from the burners a^2. The shade f is held in the supporting-ring d by screws e, and upon said ring d rests a cone, f', terminating in a pipe, f^2, surrounding the pipe a^3. Said pipe f^2 is turned by an elbow or bend into a horizontal pipe, f^3, which is connected with a flue, stove-pipe, air-shaft, or other means through which the products of combustion and noxious gases may escape. The tips a^2 are made of steel and are short, so as to heat the retort a' and pipe $a\,a^3$, and thereby heat the gas to a high degree as it passes to the burners. By this means the carbon becomes incandescent in the flame the moment it comes into the air and produces a brilliant white light; also, a great heat, which is communicated to the pipes and through them to the gas.

The ring d is held by the threaded nut b, having arms c; but the nut b may be simply a sleeve with a set-screw.

Openings f^4 are made in the pipe f^2 to prevent the pipes $a\,a^3$ from becoming too hot.

Two cocks, $g\,g^3$, are employed, one of which shuts off the supply of gas completely and the other only partly, so as to regulate the amount of both heat and light. The cocks are worked by levers $g'\,g^4$, to the ends of which chains g^2 are attached, reaching down to a convenient height to operate them.

It will be observed in this construction that the gas is burned at the lower instead of the upper end of the pipe a, as is the case in the usual construction; also, that the shade f is inverted to throw the light downward instead of upward, is adjustable, and at the same time performs the further office of causing an inward and upward draft of the heated air and gases arising from combustion around the pipe a.

To further facilitate the heating of the gas at the point of the tips a^2, they are made of steel or metal instead of the usual lava tips.

What I claim is—

The retort a', with burners a^2, attached to a threaded pipe, a, in combination with the adjustable ring d, supported by the bar or plate c, having internally-threaded head b, and conical shade f, attached at its smaller end to said ring, conical shade f', resting on ring d, and formed at its smaller end into a flue, f^2, substantially as specified.

GEORGE H. GREGORY.

Witnesses:

WM. ZIMMERMAN,

GUSTAV SCHILLING.