

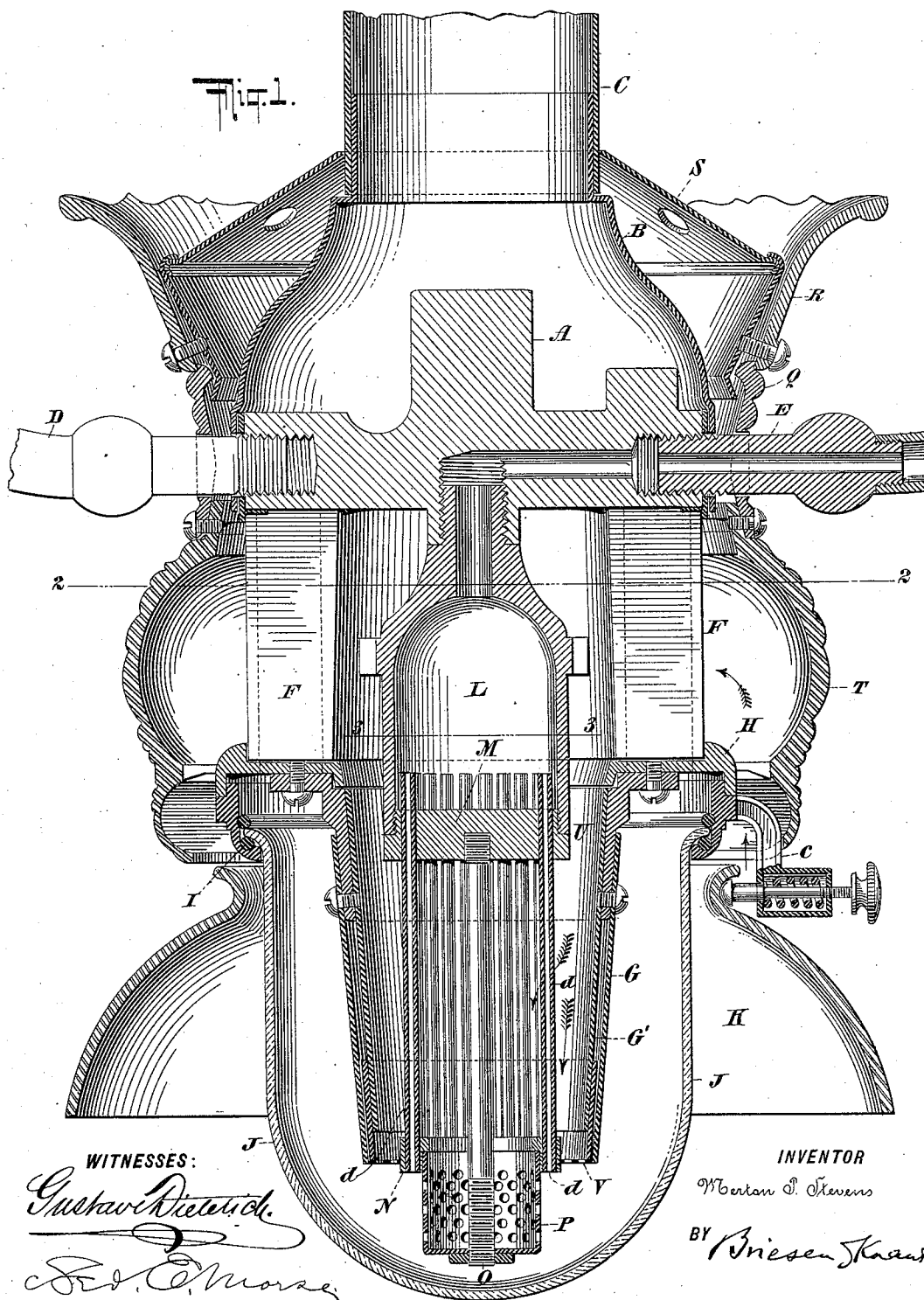
(No Model.)

2 Sheets—Sheet 1.

M. P. STEVENS.
LAMP.

No. 575,813.

Patented Jan. 26, 1897.



(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

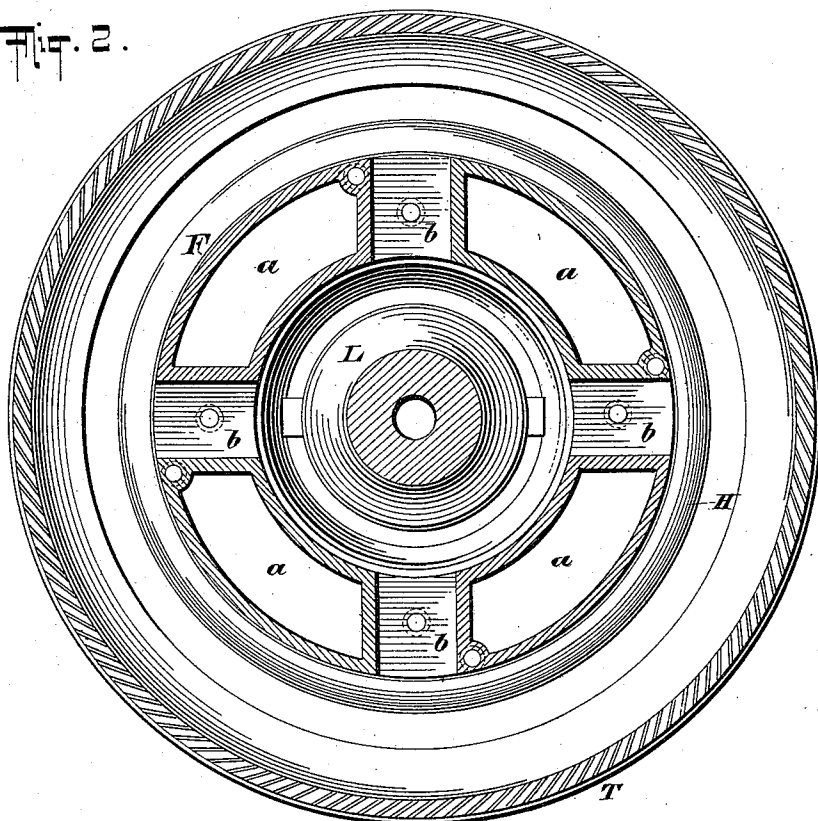
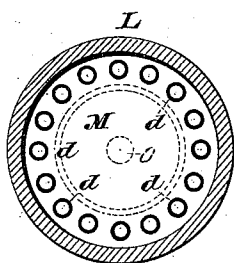


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

MERTON P. STEVENS, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO THE SAFETY CAR HEATING AND LIGHTING COMPANY, OF NEW YORK, N. Y.

LAMP.

SPECIFICATION forming part of Letters Patent No. 575,813, dated January 26, 1897.

Application filed March 20, 1896. Serial No. 584,021. (No model.)

To all whom it may concern:

Be it known that I, MERTON P. STEVENS, a resident of East Orange, Essex county, State of New Jersey, have invented certain new and useful Improvements in Lamps, of which the following is a specification.

My invention relates to lamps, more particularly to that class of gas-lamps which are used for lighting railway-cars.

My invention consists in the new and improved burner arrangement hereinafter set forth and claimed.

My invention will be understood by referring to the accompanying drawings, which exhibit a lamp made in accordance with my invention, Figure 1 being a transverse vertical section through the lamp, Fig. 2 being a section on line 2 2 of Fig. 1, and Fig. 3 a section through the distributing expansion-chamber on line 3 3 of Fig. 1.

In the drawings, A represents the main casting of the lamp, which supports above it the hood B and the chimney C, and is itself supported by the pipes D and E. Pendent from the casting A is a casting F, comprising ducts *a*, between which are passages *b*. (Best seen in Fig. 2.) Pendent from the duct-casting is a reflector G, which is preferably frusto-conical, as shown, and backed by a casing G', which is in communication with the ducts and extending to or about the lower ends of the burner-tubes forms a straight passage for the air-supply to the flame and has an air-distributor V in the path of the air. The duct-casting F also supports a two-part globe-supporting ring comprising the rings H I, which support a globe J, which surrounds the reflector. The ring I also supports a shade K, which surrounds the globe J and is maintained in position by suitable suspending-brackets *c*, only one of which is shown. The ducts *a* communicate with the inside of the globe J outside of the periphery of the reflector G, the ducts also communicating with the hood B, so that the products of combustion can pass between the reflector G and the globe J through the ducts *a* and the hood B and chimney C out of the lamp.

We come now to the description of the burner proper, to which my improvements are mainly directed.

It will be seen by reference to Fig. 1 that a distributing expansion-chamber L is suspended from the main casting A and in communication with the pipe E, which conducts gas to the lamp. This distributing expansion-chamber replaces the three pipes heretofore used for conducting gas to the flame and is preferably dome-shaped interiorly, as shown. The lower end of this expansion-chamber A is shown as closed by a screw-plug M, through which burner-tubes *d* are passed. These burner-tubes extend for some little distance into the distributing expansion-chamber L, and are shown as passed through a ring N, which serves to hold their lower extremities in position. A rod O, which carries a spreader P, is shown as socketed in the plug M.

The burner which I have just described is contained within the periphery of the reflector G, the space between the burner and the reflector being in open communication with the outside air through the ducts *b*. The main casting A, the duct-casting, the burner, the hood, and chimney are enveloped by a casing comprising a middle section Q, from which a top section R and perforated hood-section S are supported, which middle section also supports a lower section T, preferably of glass, which is shown as extending as far down as the lower edge of the two-part ring. Air is brought to the flame through the space between the enveloping section T through the ducts *b* into the straight frusto-conical passage U between the burner and the reflector, where part of the air passes between the burner-tubes into the spreader to spread the flame, and part passes outside of the burner-tubes to feed the upper side of the flame, so that the result is an outwardly-burning Argand flame. The gas is brought to the flame by the tube E into the distributing expansion-chamber L, whence it passes into the upper ends of the tubes and is emitted at the lower ends, where the air is brought in contact therewith.

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

The combination of a distributing expansion-chamber, burner-tubes spaced apart and

entered into the expansion-chamber for a portion of their length, a spreader extending from within the circle formed by the burner-tubes to a level below the lower end of the
5 burner-tubes, a removable combined reflector and casing surrounding the said burner-tubes and extending to a point at or near the lower ends thereof, and air-ducts leading into the combined reflector and casing, whereby the
10 gas may be evenly distributed to the flame by the distributing expansion-chamber and

both sides of the flame be fed with air from the inside of the reflector, the air contacting with the expansion-chamber on its passage into the lamp and passing around the outside 15 of the reflector on its passage from the lamp, substantially as described and for the purposes set forth.

MERTON P. STEVENS.

Witnesses:

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MAURICE BLOCK.