

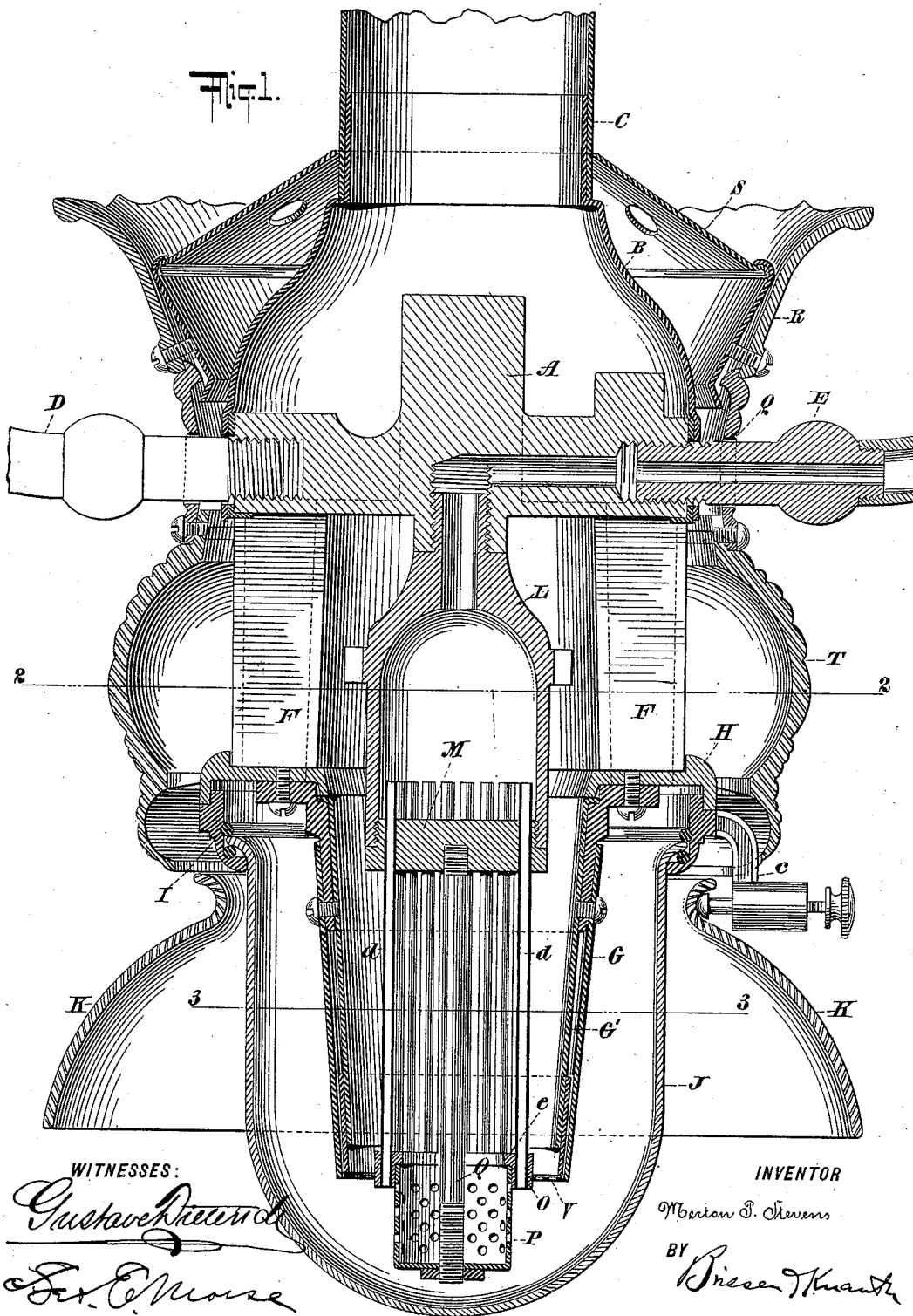
(No Model.)

2 Sheets—Sheet 1.

M. P. STEVENS.
LAMP.

No. 581,442.

Patented Apr. 27, 1897.



(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

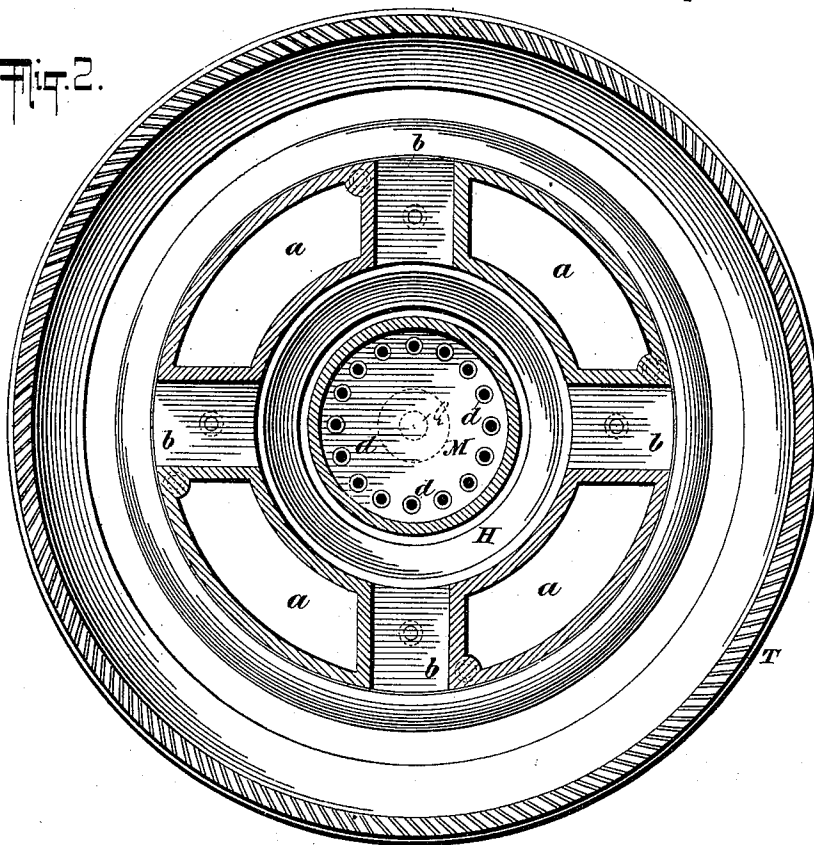
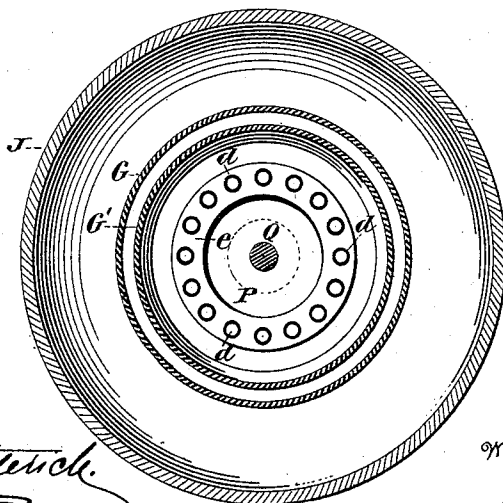


Fig. 3.



WITNESSES:

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Geo. C. Moore.

INVENTOR

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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. 581,442, dated April 27, 1897.

Application filed March 20, 1896. Serial No. 584,022. (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, and has for its object to produce a new and improved lamp specially adapted for use as a car-lamp.

My invention consists in the construction hereinafter set forth and claimed.

My invention will be understood by referring to the accompanying drawings, in which—

Figure 1 is a central vertical section of a lamp embodying my invention. Fig. 2 is a horizontal section on line 2 2 thereof, and Fig. 3 is a horizontal section on line 3 3 thereof.

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 longitudinal ducts *a*, between which are lateral passages *b*. (Best seen in Fig. 2.) Pendent from the casting A is a reflector G, which is preferably frusto-conical, as shown, and backed by a casing G', which is in communication with the lateral passages *b* and, extending to or about the lower ends of the burner-tubes, forms a straight passage for the air-supply to the flame. This casing is shown as terminating in a perforated air-distributor or air-distributing plate V, extending from the reflector to the burner-tubes to break up the current and properly distribute the air supplied to the flame. The 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 longitudinal 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.

Coming now to the burner it will be noted by referring to Fig. 1 that an expansion-chamber L is suspended from the casting A, and this expansion-chamber is plugged at its lower end by a plug M, which receives burner-tubes *d*, in communication with the expansion-chamber L. The lower ends of the burner-tubes are shown as passing through a ring O, which is flanged at *e* and receives a spreader P, which is supported by a bolt Q, socketed in the plug M. The upper edge of the spreader rests against the flange *e*, whereby the spreader and burner are held firmly together. The spreader P is perforated for the passage of air, and delivers its air below the level of the lower ends of the burner-tubes to feed the lower face of the flame, the principal face of the flame being fed by air which comes down through the casing G' outside of the series of burner-tubes. As shown in the drawings, the apertures are below the level of the exit of the flame from the burner-tubes.

The main casting A, with the ducts therein, 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 lateral passages *b* into the 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—

In a lamp, the combination of a gas-supply pipe, a single main casting having a gas-inlet duct therein, a longitudinal internal inlet air-

passage, a plurality of longitudinal outlet-ducts formed in said casting and surrounding said internal passage, a plurality of lateral inlet air-passages formed in said casting and
5 extending between said outlet-ducts and communicating with the internal air-inlet passage, said casting being supported by the gas-pipe which connects with the gas-inlet duct in said casting and itself supporting all of the
10 parts of the lamp that are not supported directly by the gas-pipe, a depending gas-burner communicating with the gas-inlet duct in the main casting, said gas-burner comprising an expansion-chamber, a series of burner-tubes
15 spaced apart and extending from said expansion-chamber, a removable foraminous spreader closed at one end and supported by the expansion-chamber within and filling an internal circular space formed by the burner-
20 tubes and extending below the outlet-openings thereof and out of the path of the spaces formed between the burner-tubes, a reflector

surrounding said burner and forming at the interior thereof a passage for conducting air from the inlet air-passage in the casting to the
25 burner, a foraminous partition extending between the reflector and the burner-tubes adjacent to the exit-openings thereof, whereby air which is admitted to the interior of the reflector passes around and between the burner-
30 tubes and through the foraminous spreader encircled thereby and through the foraminous partition encircling the tubes and passes off around the exterior of the reflector through
35 the longitudinal outlet-ducts formed in the casting, substantially as described.

The foregoing specification of my improvements in lamps signed by me this 14th day of March, 1896.

MERTON P. STEVENS.

Witnesses:

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MAURICE BLOCK.