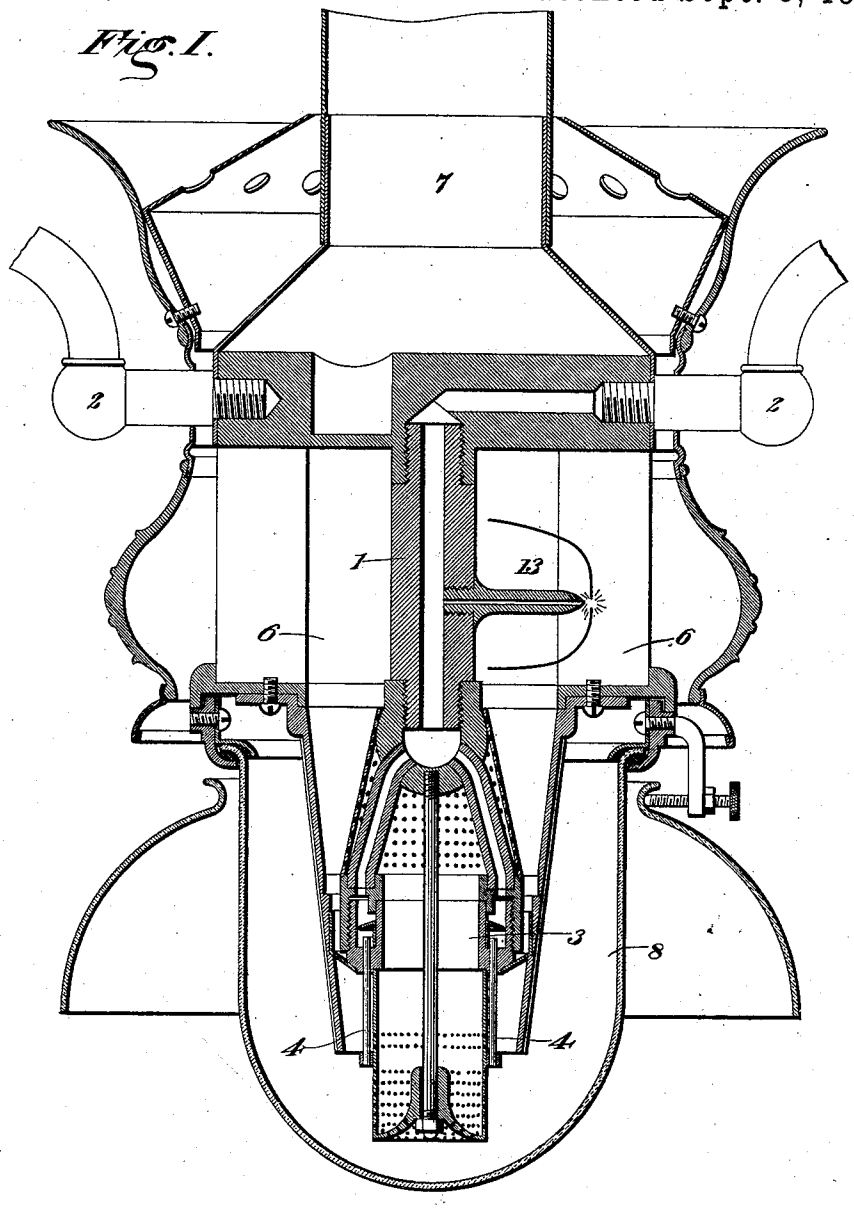
(No Model.) 2 Sheets—Sheet 1.

# R. M. DIXON.

## LAMP.

No. 567,304. Patented Sept. 8, 1896.

Fig. 1.




WITNESSES

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His Attorney

(No Model.) 2 Sheets—Sheet 2.

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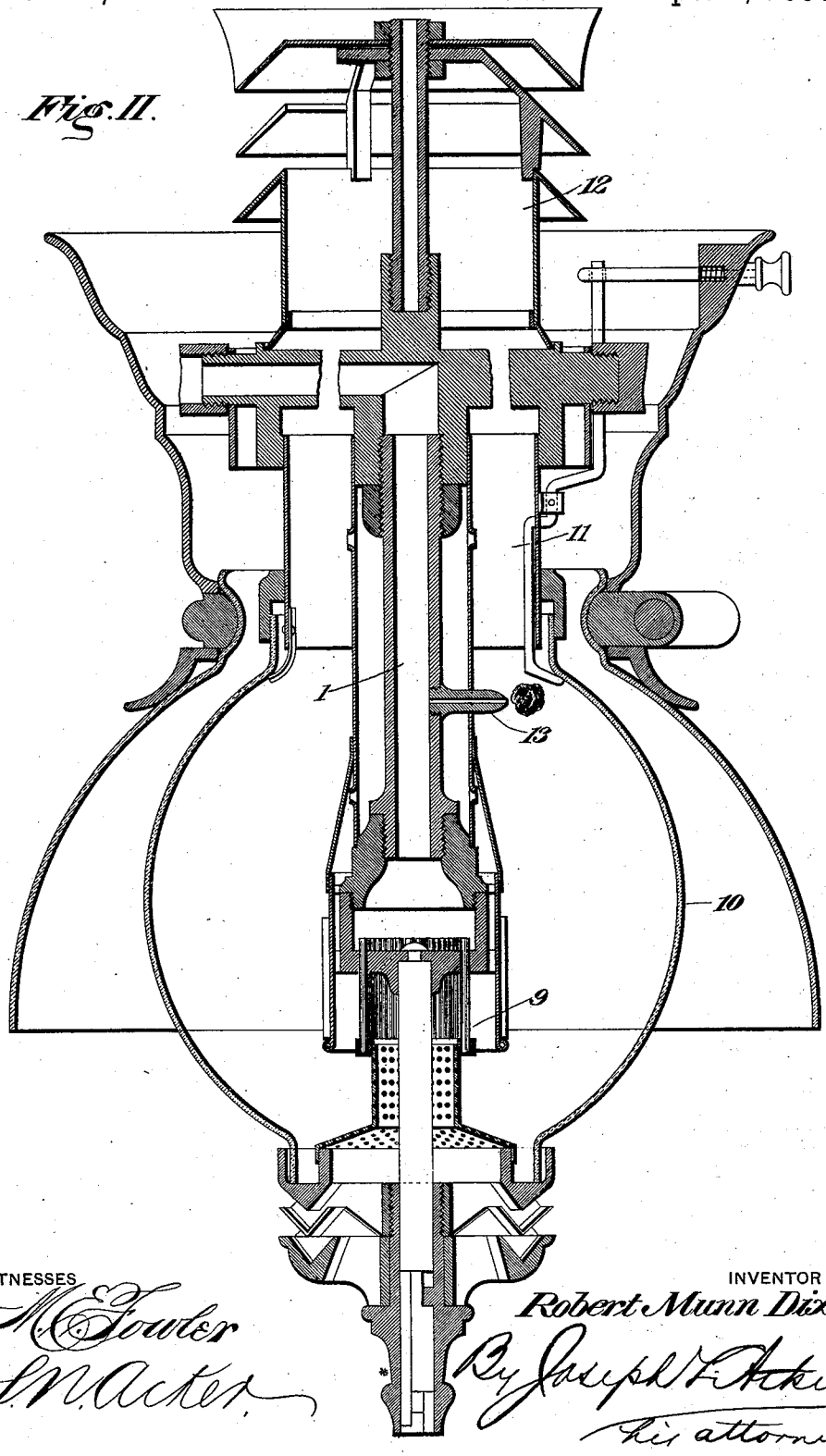
Fig. II.




WITNESSES

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INVENTOR

Robert Munn Dixon

By Joseph R. Atkins

His attorney

# UNITED STATES PATENT OFFICE.

ROBERT MUNN DIXON, 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. 567,304, dated September 8, 1896.

Application filed October 8, 1895. Serial No. 565,058. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT MUNN DIXON, of East Orange, county of Essex, State of New Jersey, have invented certain new and useful Improvements in Lamps, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce means of igniting inverted Argand or other gas-burners by employment of electric sparks, spongy platinum, or other similar means. Such means for lighting the gas from burners whose flames take the proper shape upon ignition have been readily available, but with inverted Argand burners it has hitherto been impossible to employ such means of lighting them. The difficulty has been owing to the tendency of the flame to take a wrong course after having been lighted.

My invention, by which this difficulty is overcome, consists in employing a small primary or auxiliary jet, extending from the gas-supply pipe into the passage for the outgoing gas or products of combustion. This, when lighted sufficiently above the burner, permits the gas from the burner to form previous to its ignition. This it does owing to the draft formed by the primary jet, which draws the air and inflowing gas into the proper outlet channel. When the mixture of air and gas from the burner reaches the primary jet, the gas will be ignited and the flame communicated to the burner.

My invention is applicable to all classes of inverted-burner lamps, of which in the drawings I have illustrated, for example, two forms. I desire to have it distinctly understood that they are only designed for the purpose of illustration.

In the accompanying drawings, Figure I is a central vertical section of one form of lamp. Fig. II is a similar view of another form of lamp.

Referring to the index numerals on Fig. I of the drawings, 1 indicates a burner-supply gas-pipe, and 2 the outside branch, by which it is supplied with gas. 3 indicates a burner of any suitable and ordinary construction communicating with the supply-pipe 1 and terminating in this instance in burner-tubes 4, from which the gas is discharged and around which the flame is formed. In this form of burner an inverted cone separates parts of the burner from the flue 6, through which when the lamp is lit the products of combustion pass to a funnel or pipe 7. The burner is inclosed by an inverted globe 8, which protects the flame and takes the products of combustion into the flue or channel 6.

It is unnecessary to describe the details of construction illustrated, since they are of well-known construction and do not in themselves form a part of the present invention.

In Fig. II of the drawings the pipe 1 is shown as communicating with a different kind of inverted burner 9, which is surrounded by a globe 10. A flue or channel 11, of somewhat different construction from the flue 6 shown in Fig. I, is adapted to conduct the products of combustion from the interior of the globe 10 to a funnel 12.

It will be perceived that in each of the lamps illustrated a supply-pipe 1, that is surrounded by the flues 6 and 11, respectively, is common to both.

My invention consists in locating a jet-tip 13 within the flue above the burner upon the pipe 1.

The gas from jet-tip 13 may be ignited by an electric spark passing between wires 14, (shown in Fig. I,) or may be discharged into a piece of spongy platinum 15. (Illustrated in Fig. II.) No special mechanism for lighting the jet-tip is necessary, and the elements shown are illustrated only suggestively. The jet-tip is preferably very short, and may be screwed directly into or otherwise fixed in the pipe 1. The jet-tip, being of very small bore, produces but a small flame and may burn all the time the gas is burning, or provision may be made for shutting off the gas from the jet-tip after the main burner is lighted if it is desired to do so.

What I claim is—

In an inverted-burner lamp, the combination with a burner, gas-supply pipe and discharge-flue in proximity to the latter, of a primary burner located upon the supply-pipe between the burner and the top of the lamp and projecting into the discharge-flue, and means within the lamp for lighting the primary burner, substantially as specified.

In testimony of all which I have hereunto subscribed my name.

ROBERT MUNN DIXON.

Witnesses:

H. G. DARWIN,

J. V. MACDONALD.