No. 832,886. PATENTED OCT. 9, 1906.

O. WIEDERHOLD.

INVERTED INCANDESCENT LAMP.

APPLICATION FILED JUNE 30, 1905.

Fig. I.

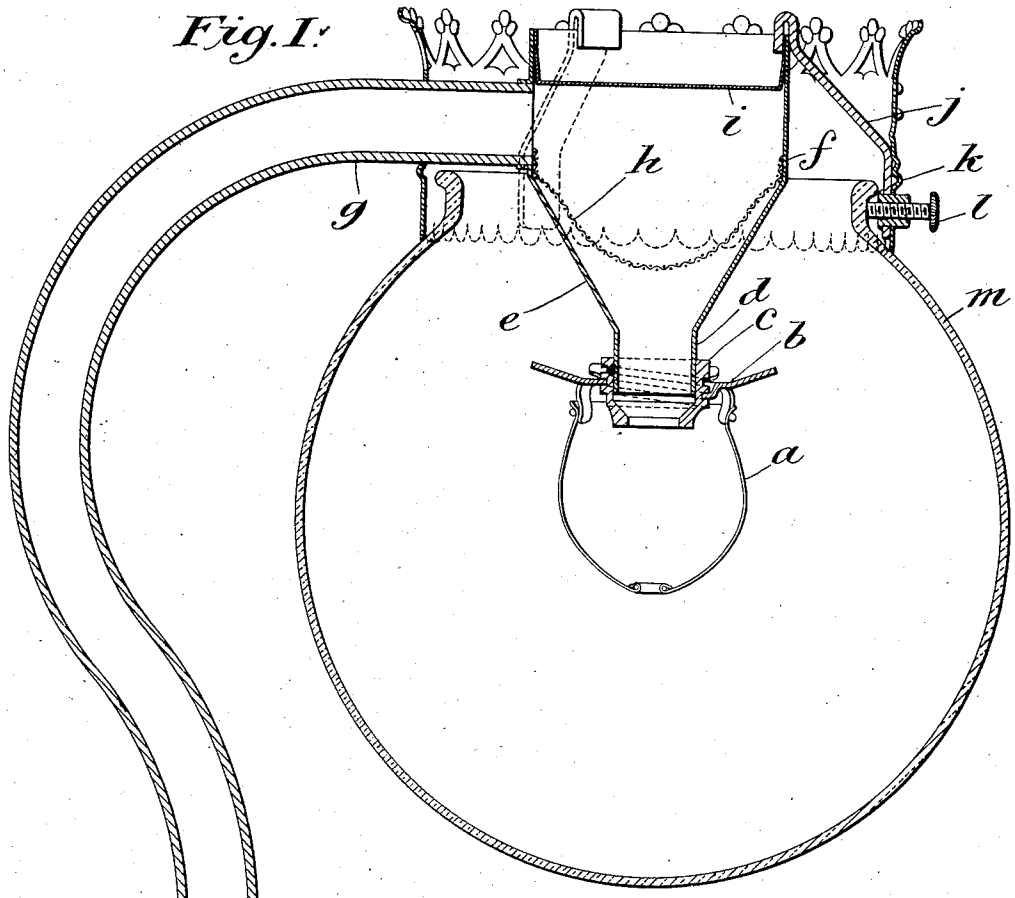
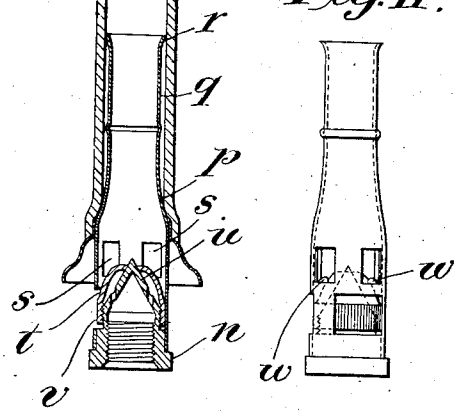


Fig. II.



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INVERTED INCANDESCENT LAMP.

No. 832,836. Specification of Letters Patent. Patented Oct. 9, 1906.

Application filed June 30, 1905. Serial No. 267,730.

To all whom it may concern:

Be it known that I, OSCAR WIEDERHOLD, a citizen of the United States, residing at Jersey City, county of Hudson, and State of New Jersey, have invented certain new and useful Improvements in Inverted Incandescent Lamps, of which the following is a specification.

My invention relates to inverted incandescent lamps, and has for its object to produce an inverted incandescent lamp in which the air and gas mixture can be brought to the mantle in a very efficiently-mixed condition and at the proper temperature.

In the accompanying drawings I have shown a lamp in which one embodiment of my invention is illustrated.

In the drawings, Figure 1 is a sectional elevation of the lamp. Fig. 2 is a side elevation of the feeder with the shield removed.

In the drawings, *a* indicates a mantle which may be suitably supported—as, for instance, by means of a mantle-support *b*, screw-threaded upon a nipple *c*, which is firmly attached to the delivery-tube *d* of a mixing-chamber of which the said delivery-tube *d* constitutes a part. This mixing-chamber is of a general form of an inverted cone *e* and is shown in the present instance as provided at its ends with cylindrical portions *f* and *d*, the lower cylindrical portion being the delivery-tube of the burner. Entering the side of the mixing-chamber is a gasway-tube *g*. This gasway-tube is curved, as shown, and seated on a delivery device, which will be hereinafter described.

Located within the mixing-chamber is a screen *h* of a general conical form, into which screen the mixture is delivered by the pipe *g*. It will be understood that this screen, while shown in the present instance as of a general "conical" or "conoidal" form, which terms, for the purpose of this specification, I regard as synonymous, may also be of other depressed or truncated forms so long as it receives gas from the gasway and extends sufficiently below the entrance of the gasway into the side of the mixing-chamber to bring about an efficient mixing and delivery of the air and gas mixture. The top of the mixing-chamber is preferably closed by a removable cover *i*, and upon the edge thus formed arms *j* may be hooked, which arms support a crown-piece *k*, provided with screws *l*, adapted to support the glassware *m* of the lamp.

Referring particularly to Fig. 2 and to the lower part of Fig. 1, I will now proceed to describe the delivery device. This delivery device consists of several elements. A threaded sleeve *n* is adapted to engage the nipple and the gas-fixture. Along this threaded sleeve is a shell whose lower portion is substantially straight and which is surmounted by a contracted portion *p*, surmounted in turn by a substantially straight portion *q*, which terminates at a flaring portion *r*. This shell is pierced laterally at *s* for the passage of air. Located within the shell is a regulator *t* in the form of a casing surrounding the cone-shaped upper end *u* of the nipple *o* and screw-threaded thereon and preferably milled at its lower portion *v*, so that by rotating the said casing the same will be raised or lowered and admit more or less gas to the shell. A pair of arms *w*, struck in the shell, are adapted to limit the movement of the regulator.

It will be observed that by taking the gas into the lamp at a point distant from the burner and taking it into the side of the mixing-chamber the vertical pipe, through which the gas must be forced downwardly, is very short and that consequently a very efficient Bunsen effect will be obtained—that is to say the vertical distance from the entrance-point of the gas into the mixing-chamber to the delivery-point of the gas at the burner is very short.

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

1. In an inverted incandescent lamp, the combination of a regenerative chamber of a general inverted conical form and a sieve of a general inverted conical form contained therein and a gasway entering the side of the inverted regenerative chamber.

2. In an inverted incandescent lamp the combination of an enlarged regenerative chamber having a short downtake, a sieve located in the said chamber in close proximity to the burning-point and above the downtake, a source of air and gas supply entering the regenerative chamber above the sieve and receiving its air-supply from a point below the delivery-point of the downtake, and sufficiently far away therefrom to be out of heat-conducting communication with the said delivery-point.

3. In an inverted incandescent lamp the combination of a regenerative chamber of decreasing area, a sieve contained therein, and a gasway entering the regenerative chamber

above the sieve, the distance between the sieve and delivery-point of the regenerative chamber being substantially short with respect to the entire length of the regenerative chamber.

4. In an inverted incandescent lamp the combination of an enlarged regenerative chamber, a gas-delivery downtake projecting downward from the said chamber to the burning-point, a sieve located in the said chamber in close proximity to the burning-point, a source of gas-supply entering the regenerative chamber at a point above the sieve, and means for affording a supply of air to the gasway at a point removed from the direct upward passage of heat from the burner, and at a sufficient distance therefrom to be substantially out of heat-conducting communication therewith.

5. In an inverted incandescent lamp the combination of an enlarged regenerative chamber having a short downtake, a sieve located in the regenerative chamber in close proximity to the downtake, a gasway entering the regenerative chamber above the sieve, and means for introducing an air-supply into the gasway at a point remote from the region of the direct upward passage of the products of combustion from the latter.

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