

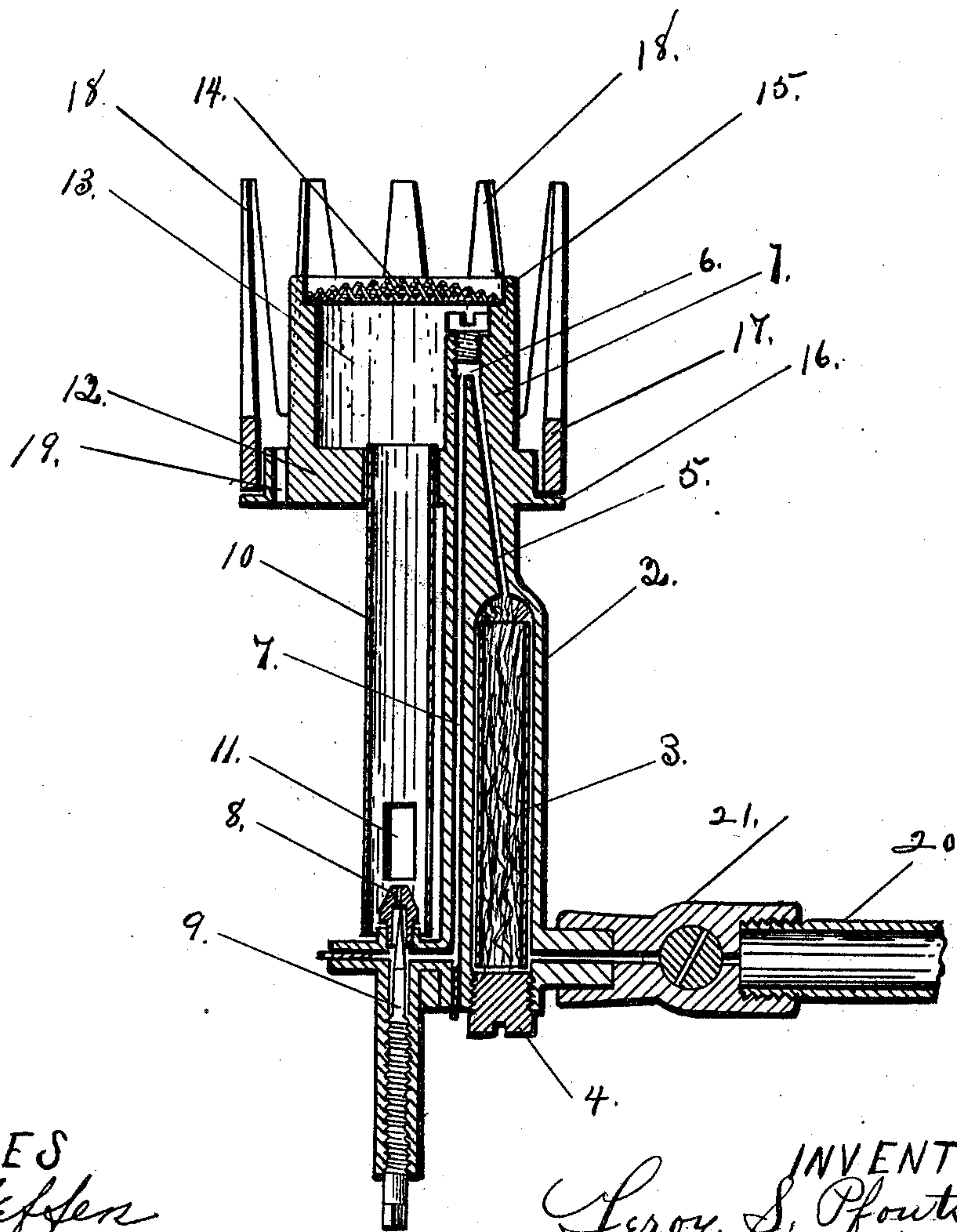
No. 670,887.

Patented Mar. 26, 1901.

L. S. PFOUTS.
INCANDESCENT VAPOR BURNER.

(Application filed July 7, 1900.)

(No Model.)



WITNESSES

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LEROY S. PFOUTS, OF CANTON, OHIO.

INCANDESCENT VAPOR-BURNER.

SPECIFICATION forming part of Letters Patent No. 670,887, dated March 26, 1901.

Application filed July 7, 1900. Serial No. 22,798. (No model.)

To all whom it may concern:

Be it known that I, LEROY S. PFOUTS, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have
5 invented certain new and useful Improvements in Incandescent Vapor-Burners; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing,
10 making a part of this specification, and to the numerals of reference marked thereon, in which the figure is a longitudinal section of the burner-head and mixing-tube.

The present invention has relation to incandescent vapor-burners; and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

In the accompanying drawing, 1 represents
20 the body of the generator, which is substantially of the form shown, and, as shown, it is provided with the hollow rib 2, within which hollow rib is located the removable tube 3, said removable tube being for the purpose of
25 holding a wick fiber or granulated substance through which the fuel passes.

For the purpose of holding the removable tube 3, together with its contents, in proper position the screw-threaded plug 4 is provided,
30 which screw-threaded plug closes the bottom or lower end of the hollow rib 2 and at the same time provides a proper support for said tube. From the top or upper end of the hollow rib 2 extends the passage 5, which passage leads to and communicates with the
35 chamber 6, and from the chamber 6 leads the down-passage 7, said down-passage extending to and communicating with the gas-tip 8.

For the purpose of regulating the supply of
40 fuel the ordinary needle 9 is provided. Directly over the gas-tip 8 is located the air-mixing tube 10, which air-mixing tube is provided with the air-inlets 11, it being understood that any desired number of inlets, such
45 as 11, may be provided; but only one is illustrated in the figure.

The top end of the body 1 is provided with the head 12, which head is provided with the gauze disk 14. The head 12 is provided with
50 the flange 16, which flange is for the purpose of holding in proper position the ring 17. The mantle is located between the inner pe-

riphery of the ring 17 and the outer periphery of the shell or casing of the chamber 13. For the purpose of producing better generation
55 and at the same time allowing the bottom or lower portion of the mantle to become properly incandesced the ring 17 is provided with the spaced projections or teeth 18, which projections or teeth are extended upward and
60 around the outer periphery of the mantle, so that a greater amount of heating-surface is provided without cutting off the supply of air to the mantle, by which arrangement the mantle becomes incandesced between the bottom
65 of the projections and their tops.

In the drawing I have illustrated the teeth spaced a short distance from each other; but it will be understood that it is immaterial as to the exact location as to the teeth, except that
70 they are to be located around the mantle and upon the outside thereof.

For the purpose of feeding air to the bottom or lower end of the mantle the head 12 is provided with the passages 19, which air-passages are located as shown in the drawing,
75 one passage being illustrated; but it will be understood that any desired number of passages, such as 19, may be provided without departing from the nature of my invention.

It will be understood that an ordinary feed-pipe, such as 20, is to be provided and said feed-pipe at some point provided with a cut-off valve, such as 21.

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

1. The combination of a burner comprising a body having a hollow rib and generating-passages formed in such body and rib, such
90 passages terminating in a vapor-discharge jet-tip, a mixing-tube located over such tip, a head mounted on such body and at the upper end of the mixing-tube such head being provided with a flanged collar, a ring supported on said collar and provided with spaced
95 projections so arranged that a space is formed between the head and such projections, into which the lower end of the mantle is received, substantially as and for the purpose specified. 100

2. The combination of a burner comprising a body having a hollow rib and generating-passages formed in such body and rib, such passages terminating in a vapor-discharge

jet-tip, a mixing-tube located over such tip, a head mounted on such body and at the upper end of the mixing-tube such head being provided with a flanged collar having air-passages, a ring supported on such collar and provided with spaced projections so arranged that a space is provided between the head and such projections, into which the lower end of the mantle is received, substantially as and for the purpose specified.

3. The combination of a burner comprising a body having a hollow rib and generating-passages, a removable tube located in one of the passages formed in such body, such passages terminating in a vapor-discharge jet-tip, a mixing-tube located over such tip, a

head mounted on such body and at the upper end of the mixing-tube, such head being provided with a flanged collar, a ring supported on said collar and provided with spaced projections so arranged that a space is provided between the head and such projections into which the lower end of the mantle is received, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

LEROY S. PFOUTS.

Witnesses:

J. A. JEFFERS,
F. W. BOND.