

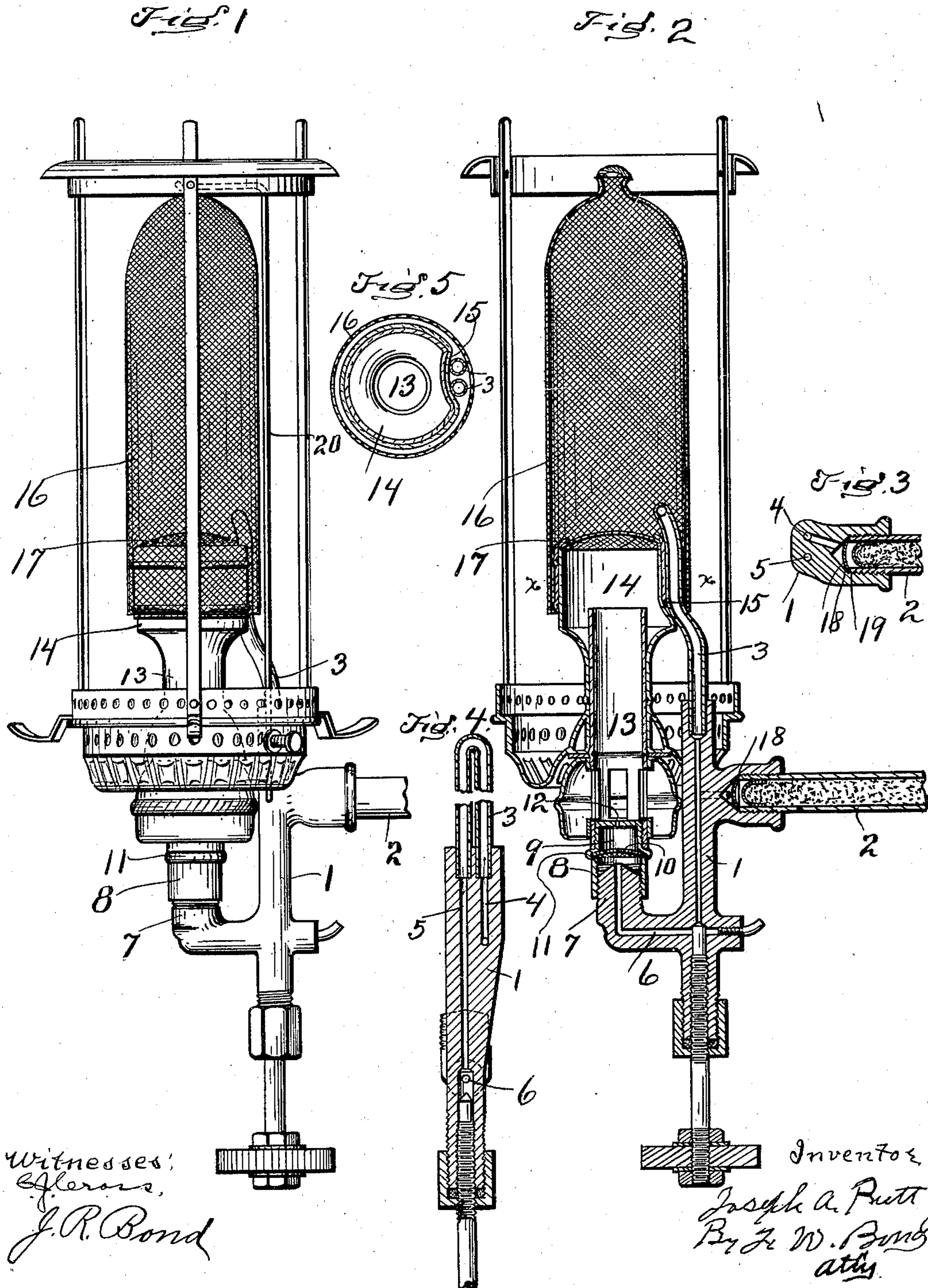
No. 686,334.

Patented Nov. 12, 1901.

J. A. PUTT.
INCANDESCENT VAPOR BURNER.

(Application filed Apr. 6, 1901.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEPH A. PUTT, OF CANTON, OHIO.

INCANDESCENT VAPOR-BURNER.

SPECIFICATION forming part of Letters Patent No. 686,334, dated November 12, 1901.

Application filed April 6, 1901. Serial No. 54,602. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. PUTT, 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 drawings,
10 making a part of this specification, and to the figures of reference marked thereon, in which—

Figure 1 is a side elevation. Fig. 2 is a vertical section. Fig. 3 is a section showing the
15 feed-pipe connected to the body. Fig. 4 is a vertical section showing a portion of the body and illustrating the vaporizing-pipe connected thereto. Fig. 5 is a transverse section on line *x x*, Fig. 2.

20 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 claim.

25 Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents the body, to which is attached the feed-pipe 2.
30 To the upper portion of the body is connected the vaporizing-pipe 3, which vaporizing-pipe extends upward and then downward, the lower ends being located directly over the up-
35 passage 4 and the down-passage 5, said down-passage 5 communicating with the cross-passage 6, which passage is extended upward, terminating at the upper end of the arm 7, which arm is formed integral with the body 1.
40 To the upper end of the arm 7 is connected the cylinder 8, which cylinder constitutes an ordinary gas-tip and at the same time is so formed that a subchamber 9 is provided, which subchamber is located directly over the upper end of the arm 7.

45 A short distance above the upper end of the arm 7 and within the chamber 9 is located the gauze disk 10, said gauze disk being held in proper position by means of the grooved flange 11, and for the purpose of providing
50 room for sediment stopped on its upward passage by the gauze disk 10 said gauze disk is

located a short distance above the upper end of the arm 7, and for the purpose of preventing the passage 6 from being closed by reason of the accumulation of sediment the upper
55 end of the arm 7 is coned and the vapor-jet orifice located at the apex of the cone, by which arrangement the sediment will find its way toward the base of the cone.

For the purpose of preventing the gas-pas- 60 sage 12 from becoming closed the meshes of the gauze disk 10 are smaller than the gas-passage 12, by which arrangement no sediment is permitted to find its way into the chamber 9 above the gauze disk 10 that will
65 close the passage 12.

To the cylinder 8 is connected the gallery proper, which consists of a suitable mixing-tube 13 and the various parts common to an
70 incandescent vapor-burner of the class described.

The burner proper is provided with the ordinary Bunsen head 14, which Bunsen head is provided with the indented portion 15, by
75 which arrangement a channel or groove is provided to receive the members of the vaporizing-tube 3, as illustrated in Fig. 5.

It will be understood that by my peculiar arrangement and location of the vaporizing-tube 3 the mantle 16 can be located upon
80 the outside of the vaporizing-tube, as illustrated in Figs. 2 and 5, thereby bringing said vaporizing-tube into a position where the greatest amount of heat is generated.

The top or upper end of the Bunsen head 14 85 is provided with the ordinary gauze disk 17, which is connected in any well-known manner.

For the purpose of removing sediment from the gasolene or other fuel as it passes through the feed-pipe 2 the inner end of said pipe is
90 provided with a gauze disk 18, said gauze disk being held in position by means of the end of the feed-pipe 2 coming in contact with said gauze disk and clamping the same between
95 said inner end of the feed-pipe and the wall of the aperture or opening 19, into which the feed-pipe 2 is inserted, said feed-pipe being connected by suitable screw-threads or in any other convenient and well-known manner.

It will be understood that the mantle 16 is 100 to be supported in the ordinary manner by means of the rod 20.

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

5 The combination with a supply-pipe, of a body, a vaporizing-pipe, said body having passages formed in it communicating with the passages in the supply and vaporizing pipes, an arm formed integral with said body and terminating in a coned end, said arm having
10 a passage formed therein communicating with the passages in the body and said passage ending in a vapor-jet orifice at the apex of the coned end of said arm, a cylinder connected to the end of said arm and provided

with a gas-outlet, a gauze disk in said cylinder spaced from the coned end of the arm, a mixing-tube arranged over the gas-outlet of the cylinder, and a burner-head surmounting said mixing-tube, substantially as and for the purpose specified. 15 20

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

JOSEPH A. PUTT.

Witnesses:

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