

E. CRAIG.
OIL BURNER.
APPLICATION FILED MAR. 13, 1916.

1,214,432.

Patented Jan. 30, 1917.

Fig. 1.

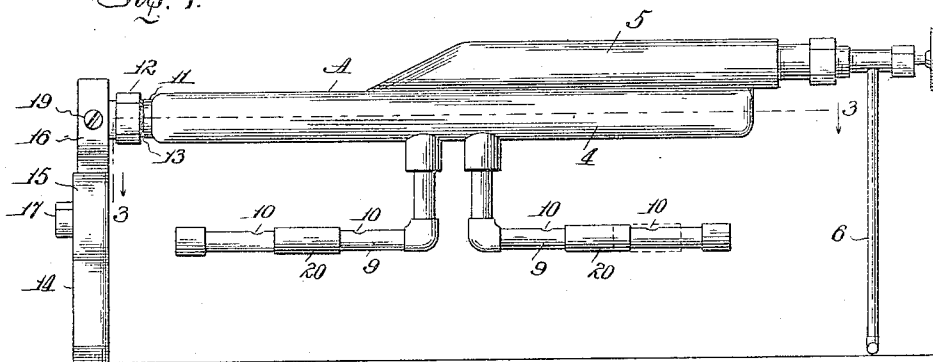


Fig. 2.

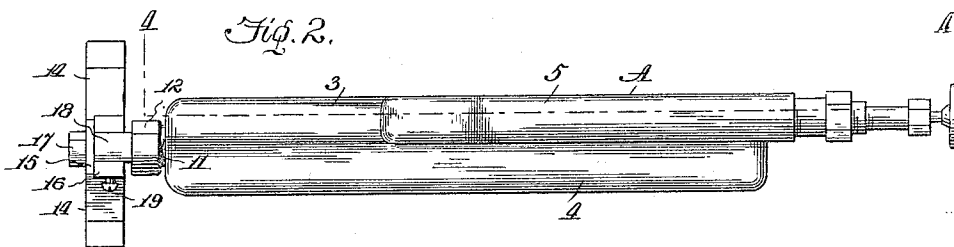


Fig. 3.

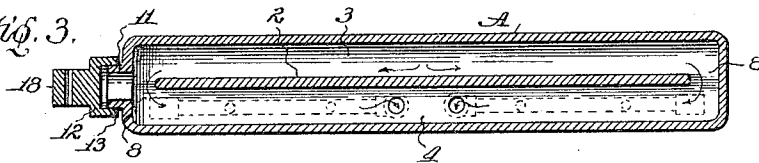


Fig. 4.

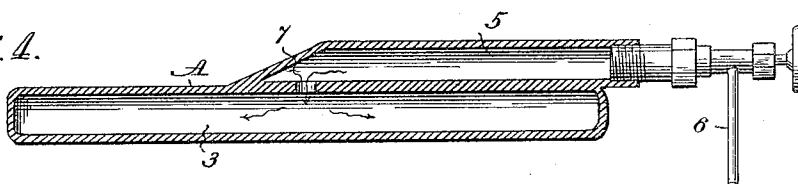


Fig. 5.

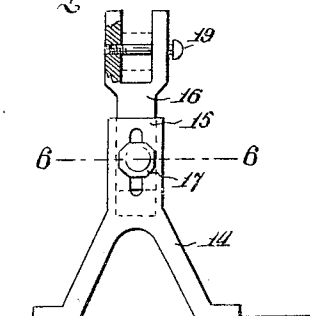
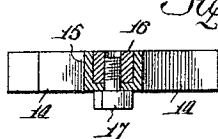


Fig. 6.



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EDWARD CRAIG, OF ALBION, ILLINOIS.

OIL-BURNER.

1,214,432.

Specification of Letters Patent.

Patented Jan. 30, 1917.

Application filed March 13, 1916. Serial No. 83,861.

To all whom it may concern:

Be it known that I, EDWARD CRAIG, a citizen of the United States, residing at Albion, in the county of Edwards and State of Illinois, have invented certain new and useful Improvements in Oil-Burners, of which the following is a specification.

This invention relates to an improvement in oil burners, and the object is to provide an enlarged generating chamber, so that the oil when admitted will be thoroughly heated before passing to the burner tube and will be in a vaporized condition when it reaches the burner tube.

This invention is an improvement on the Hilton Patent 1,070,469 August 19, 1913, which was intended for use in ranges, but it has been found from use that the arrangement of the chambers is such that the best results cannot be attained, because the oil cannot be properly and quickly vaporized. With this invention this objection is overcome, as a greater radiating surface is provided.

Another object of the invention is in the provision of a stand for supporting the outer or free end of the burner in the range or stove.

The invention consists of certain novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings:—Figure 1 is a view in side elevation of the invention. Fig. 2 is a top plan view of the burner. Fig. 3 is a sectional view on line 3—3 of Fig. 1; Fig. 4 is a sectional view on line 4—4 of Fig. 2; Fig. 5 is an end view of the stand; and Fig. 6 is a sectional view on line 6—6 of Fig. 5.

A, represents the burner casing which is provided with a longitudinal web or partition 2, for forming generating chambers 3 and 4. Located upon the casing and over the generating chamber 3 is an intake chamber 5, the intake chamber 5 being connected to a pipe 6 leading to the source of supply, and which acts as a support for an end of the casing.

An opening or passage 7 is formed in the housing for forming a communication between the intake chamber and the generating chamber 3, so that the oil when admitted to the intake chamber will pass into the generating chamber 3.

The partition 2 is of less length than the

length of the casing for forming passages 8 between the ends thereof and the casing to allow the oil to circulate from the chamber 3 to the chamber 4.

Connected to the chamber 4 are two burner tubes 9, 9, which are located beneath the chambers 3 and 4. The tubes are provided with outlet ports 10, and when the gas or vapor emitted through these ports is ignited, the heat from the flame will be directed against the chambers 3 and 4, for the purpose of generating the oil into a vapor. Sleeves 20 are mounted on the tubes 9, and are adapted to slide thereon for closing one of the openings 10 when it is desired to employ only one opening.

A nipple is formed at the outer or free end of the casing A so that access may be had to the chambers 3 and 4 for the purpose of cleaning. A cap 12 is adapted to be screwed onto the nipple 11 for normally closing the passage through the nipple, and an asbestos washer 13 is interposed between the nipple and cap for forming a tight connection.

A stand consisting of legs 14, a body 15 connected to the legs, and a bifurcated stem 16 adjustably connected to the body 15, is adapted to support the outer or free end of the burner casing A.

The body 15 is made U shaped in cross section, and received in the U shaped opening is the stem 16. A bolt 17 extends through a slot in the body 15 and into the stem 16, and is adapted to engage the outer surface of the body 15 for holding the stem at various elevations to accommodate it to stoves and ranges having varying sizes of fire boxes.

The bifurcated end of the stem receives a shank 18 formed on the cap 12. The shank 18 and bifurcated ends of the stem are provided with openings through which a screw, bolt 19 may pass for fastening the burner to the stand. The opening in one of the ends of the bifurcation is screw threaded to engage the threads of the bolt 19 for holding it in place.

The intake chamber and generating chambers are preferably cast or formed in a single piece, and it will be seen from the foregoing that by having the two generating chambers lying in the same horizontal plane that it is possible to heat and vaporize the fuel quickly.

The adjustable stand affords a means for

supporting and accommodating the burner to a fire box of a range.

What I claim is:—

1. An oil burner, comprising a casing 5 made in a single casting having two generating chambers in communication with each other and lying in the same horizontal plane, and an intake chamber located above one of the generating chambers and in communication therewith, burner tubes connected to the generating chambers, means for supplying fuel to the intake chamber and forming a support for an end of the casing, and a stand for supporting the other 10 end of the casing.

2. An oil burner, comprising a casing having an intake and generating chambers in communication with each other, said casing being provided with a nipple at one 20 end thereof for cleaning the generating chambers, a cap connected to the nipple for normally closing the same, and a stand con-

nected to the said cap for supporting the casing.

3. The combination with an oil burner 25 having an intake and generating chambers in communication with each other, a nipple on one end of the burner, and a cap for closing the nipple, of a stand consisting of a body having legs and a bifurcated stem, 30 said body being provided with an opening in which the stem is received, means for adjustably connecting the stem and body together, said bifurcated end of the stem being adapted to receive the cap therein, 35 and means for connecting the cap and stem together.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD CRAIG.

Witnesses:

MAURICE E. WEAVER,
JAMES E. WICK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."