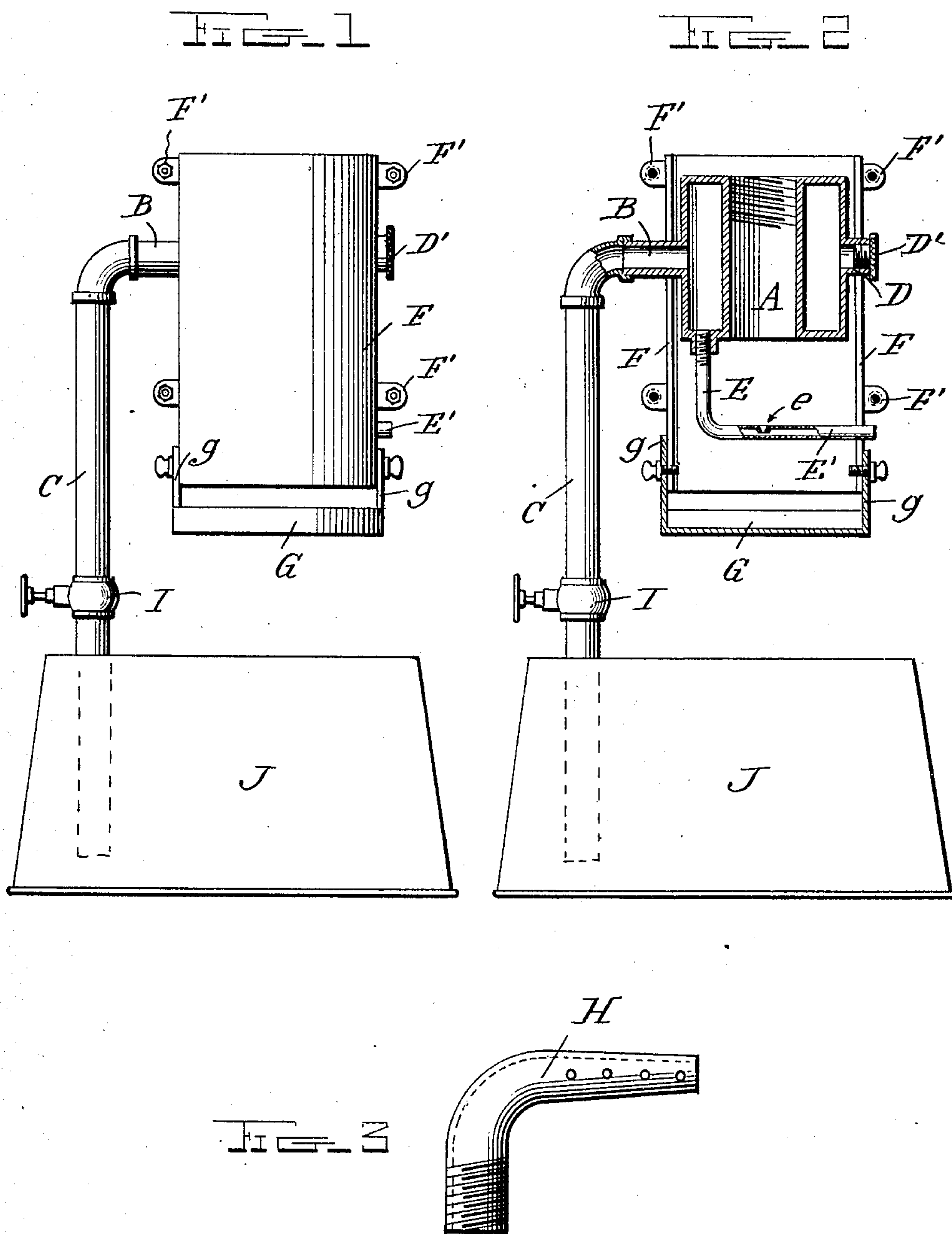


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GAS GENERATING OIL BURNER.  
APPLICATION FILED FEB. 3, 1908.

916,185.

Patented Mar. 23, 1909.



Witnesses  
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# UNITED STATES PATENT OFFICE

ALEXANDER JOHN O'BRIEN, OF BELOIT, WISCONSIN.

## GAS-GENERATING OIL-BURNER.

No. 916,185.

Specification of Letters Patent.

Patented March 23, 1909.

Application filed February 3, 1908. Serial No. 414,119.

*To all whom it may concern: -*

Be it known that I, ALEXANDER JOHN O'BRIEN, a citizen of the United States, residing at Beloit, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Gas-Generating Oil-Burners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a gas generating oil burner, and the object thereof is to provide a simply constructed efficient burner of this character.

In the accompanying drawings,—Figure 1 is a side elevation of this improved burner; Fig. 2 is a vertical section thereof with a supply tank shown connected therewith and in side elevation; Fig. 3 is a side elevation of a torch attachment for use in connection with the burner.

In the embodiment shown, the burner proper comprises a circular casting A with an opening through the center thereof to allow the flame to pass therethrough and provided with double walls to form an oil chamber around said center opening. This casting is provided at one side with a nipple connection B, with which the pipe C of the supply tank is adapted to be connected, and at the other side of said casting or chamber is arranged an opening D having a closure D' to permit cleaning out of the chamber.

A jet pipe E leads from the bottom of the oil chamber A and is preferably made in L-shape attached to the oil or generator chamber by screwing it into the bottom thereof. The horizontally disposed arm E' of this jet pipe has a small opening e in the upper face thereof arranged directly below the center opening in the generator and having outwardly flared walls to provide for the spreading of the flame to the bottom and sides of the generator, whereby the oil therein is quickly heated and kept hot during the use of the burner, and gas generated thereby. Surrounding this generator A is an outer protective casing F, preferably formed of two semi-circular castings, bolted together

through projections F' provided for that purpose. This jacket serves as a wind guard and as a heat retainer for the generator. Detachably connected with the bottom of this casing F is a drip cup G formed to fit on the bottom of said casing and preferably provided with two arms g for attachment to the casing by means of screws or otherwise. This drip cup being removable, provides for the cleaning out of any drippings of lead or solder that may fall through the outer casing, and this can be done while the furnace is in operation, thereby saving considerable time.

The upper end of the generator A is preferably screwthreaded on its interior to provide for the reception of a torch attachment H, preferably made in L-shaped form and having one end of one arm thereof exteriorly screw-threaded to engage the screwthreads of the casting. The other arm of this attachment is provided with apertures for the passage of gas therethrough.

This burner is provided with the usual throttle valve I, tank J, and all necessary connections, or it may be used to replace the old style pipe coil generator.

I claim as my invention:

A gas generating oil burner comprising an outer casing or shield, an oil receptacle mounted therein and having an opening through the center thereof with the upper end of said opening threaded to receive a torch, an oil supply pipe extending through said casing and connected with said receptacle, said receptacle having a cleaning out opening in one side provided with a removable closure, and an L-shaped jet pipe having one arm connected at its free end to said oil receptacle and its other arm extended horizontally under said oil receptacle and provided with a jet opening arranged in alinement with the opening in said oil receptacle.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALEXANDER JOHN O'BRIEN.

Witnesses:

C. A. GAULT,  
S. J. KELEHER.