

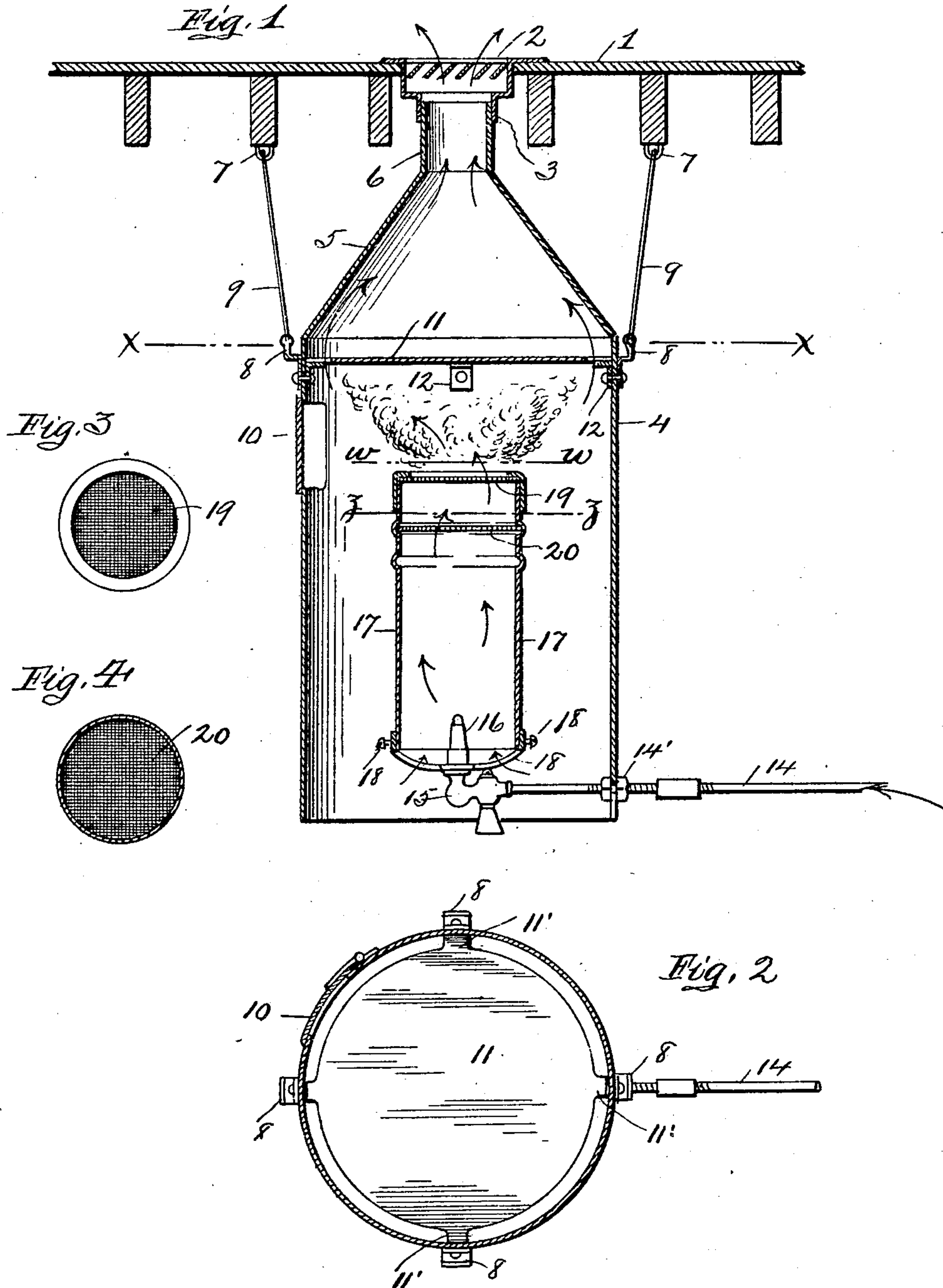
No. 680,223.

Patented Aug. 13, 1901.

L. O. CAMERON.
HEATER.

(Application filed Jan. 14, 1901.)

(No Model.)



Witnesses:
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J. A. Hervey.

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UNITED STATES PATENT OFFICE.

LOUIS O. CAMERON, OF BELLEVUE, PENNSYLVANIA.

HEATER.

SPECIFICATION forming part of Letters Patent No. 680,223, dated August 13, 1901.

Application filed January 14, 1901. Serial No. 43,179. (No model.)

To all whom it may concern:

Be it known that I, LOUIS O. CAMERON, a citizen of the United States of America, residing at Bellevue, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Heaters; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to that class of heaters using gas as a fuel which are adapted to be suspended beneath a register to distribute heat to the rooms of a building; and the invention consists, essentially, of the novel details of construction and combination of parts, as will be hereinafter described, and specifically designated in the claim.

In the accompanying drawings, Figure 1 is a central side sectional elevation of my improved heater, which is constructed and arranged in accordance with my invention. Fig. 2 is a sectional plan view of the same, the section taken on the line X X of Fig. 1. Fig. 3 is a plan view, on the line W W, of the mixer. Fig. 4 is a sectional plan view of the said mixer, taken on the line Z Z of Fig. 1.

To construct a heater for the purpose above mentioned and in accordance with my invention, I form from sheet metal a cylindrical casing 4, of a suitable size, having an open base, a conical top 5, terminating in a neck 6, adapted to fit neatly into the flange 3 of an ordinary register 2, and the said register preferably located in the hall of the building to be heated. This casing 4 is supported to the ceiling of the basement by means of wires 9, attached to staples 7 and to cleats 8, secured by rivets to the said casing 4. Arranged within the casing 4 and centrally located therein is a combined mixer and gas-burner, which consists in a cylindrical shell 17, the base of which is open and the top covered by a perforated plate or wire-netting 19 and having arranged in a horizontal position beneath the said plate or netting one or more similar plates or nettings 20, leaving intervening spaces or compartments, as shown at Fig. 1 of the drawings. This cylindrical shell 17 is supported upon a spider 18 and made fast or rigid by means of small screws 18', passing through an annular flange formed integral with the said spider. This spider 18 is supported upon the top of a valve and locked by an ordinary gas-

burner 16, such as are in common use for illuminating purposes, and the said burner and valve connected to a gas-supply pipe 14. This pipe is made rigid with the casing 4 by means of jam-nuts 14', and the burner is preferably an ordinary lava tip, such as is used for illuminating purposes, giving when burning a flat broad flame. Placed within the casing 4 and above the top of the combined mixer and burner is a baffle-plate 11 (see Figs. 1 and 2) of a less diameter than the inner diameter of the said casing, having projecting portions 11' which rests upon brackets 12, thereby permitting the heat to pass about the space between the periphery of the said plate and the inner wall of the casing and from thence to the hall above.

In operation the heater is suspended from the floor of the cellar, as above described, and the hot air is distributed through the register 2 in the hall or room above. The gas from the burner 16 is ignited at the top of the combined burner and mixer by passing a lighted match through an opening formed at the side of the casing 4 and the said opening closed by means of a hinged door 10 immediately thereafter. The gas passing up through the mixer and through the plates 19 and 20 is thoroughly mingled with air before ignition.

Various slight modifications and changes may be made in the general details of construction of the heater without departing from the spirit of the invention.

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

In a heater of the class herein described, the casing 4, adapted to be suspended beneath a hot-air register and provided with an open bottom, and a baffle-plate 11 and door 10 near its top, in combination with the combined burner and mixer consisting of a cylindrical shell 17, open at the bottom and supported upon a gas-supply pipe provided with a burner; said cylindrical shell having a perforated plate 19 at its top, and one or more of said plates beneath the top, all substantially as and for the purpose specified.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

LOUIS O. CAMERON.

Witnesses:

JOHN GROETZINGER,
H. E. HARRISON.