

A. C. MOTT, JR.
PILOT BURNER FOR GAS STOVES.
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Patented Aug. 27, 1912.

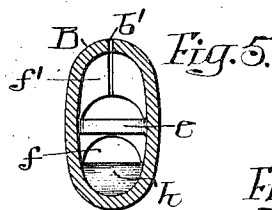
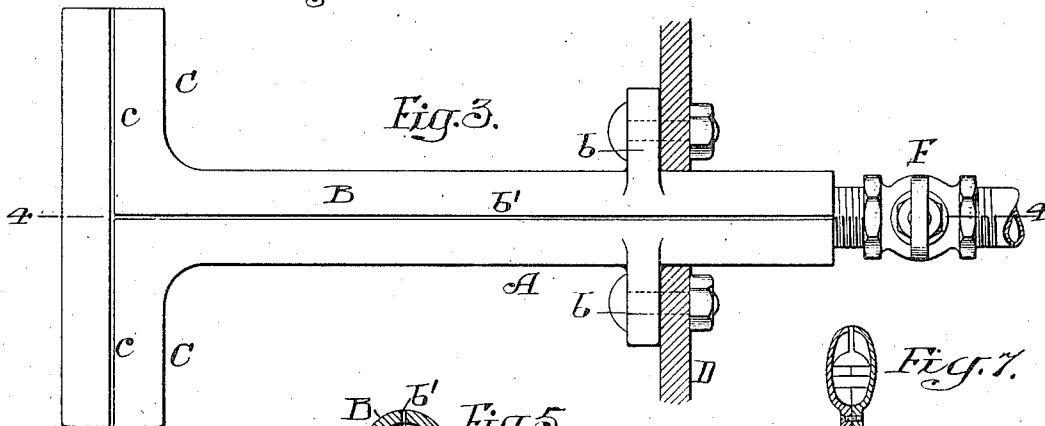
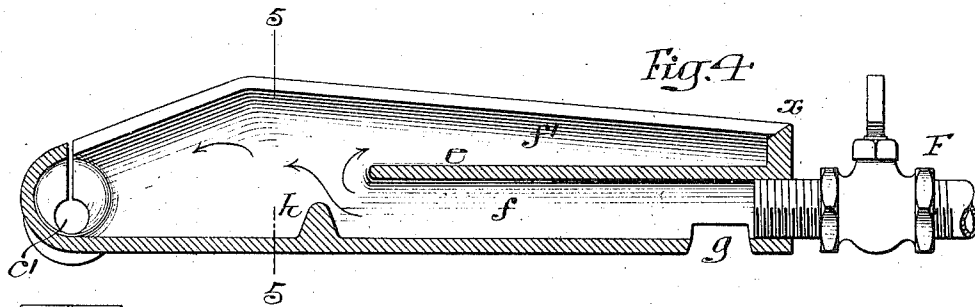
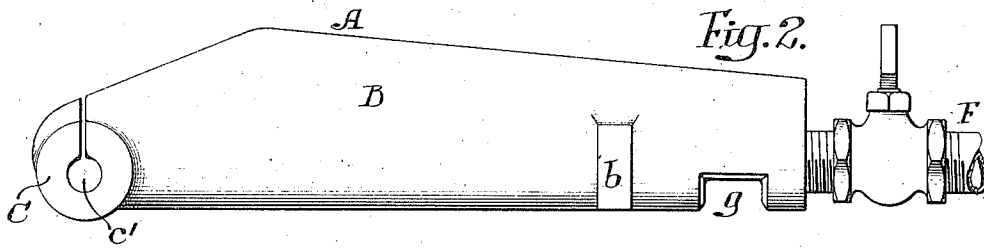


Fig. 1.

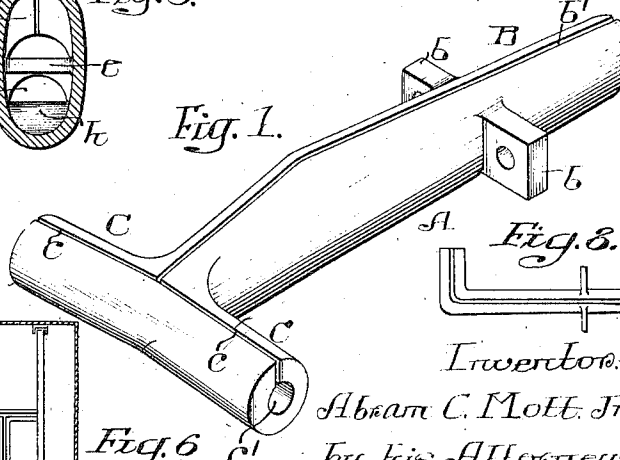
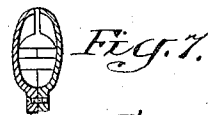


Fig. 8.

Inventor.

Abram C. Mott, Jr.

by his Attorneys.

Hornum & Hornum

Witnesses.
Walter Chism
Jesse H. Irons

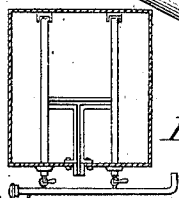


Fig. 6.

UNITED STATES PATENT OFFICE.

ABRAM C. MOTT, JR., OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THOMAS ROBERTS, STEVENSON COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

PILOT-BURNER FOR GAS-STOVES.

1,037,037.

Specification of Letters Patent.

Patented Aug. 27, 1912.

Application filed April 12, 1910. Serial No. 555,097.

To all whom it may concern:

Be it known that I, ABRAM C. MOTT, JR., a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain improvements in Pilot-Burners for Gas-Stoves, of which the following is a specification.

My invention relates to certain improvements in pilot burners for gas stoves.

The main object of the invention is to construct a small pilot burner in which the gas can be ignited on the outside of the stove and flame will be carried into the stove and properly ignite the gas escaping from the burners of the stove.

A further object of the invention is to make the burner in one piece, as fully described hereafter.

In the accompanying drawings:—Figure 1, is a perspective view of my improved pilot burner; Fig. 2, is a side view of the burner; Fig. 3, is a plan view of the burner; Fig. 4, is a longitudinal sectional view on the line 4—4, Fig. 3; Fig. 5, is a transverse sectional view on the line 5—5, Fig. 4; Fig. 6, is a diagram view illustrating my invention as applied to a gas stove; and Figs. 7 and 8, are views illustrating modifications of the invention.

A is the pilot burner having a body portion B and arms C, C, in the present instance cast in one piece. On the body portion are ears *b, b* by which the pilot burner is secured to the casing D of the stove. The pilot may be placed as indicated in Fig. 6, so as to direct and carry the flame to the two burners *d, d*. The body portion B has a narrow longitudinal slot *b'* throughout its length connecting with a transverse slot *c* formed in the arms C. In the body of the burner is a longitudinal partition *e* extending to a point about midway of the body portion and forming two chambers *f, f'*.

F is the gas supply pipe provided with a suitable valve, and *g* is the air intake opening located as shown, so that a certain amount of air will be drawn in with the gas.

h is an abutment projecting from the lower portion of the body B and slightly in advance of the end of the partition *e*, so that as gas flows through the passage *f* it is deflected by the abutment, as indicated by the arrows, and while a portion enters the chamber *f'* the balance travels along the

upper edge of the body and through the arms C and out the openings *c'* in the ends of the arms, a certain portion of the gas escaping through the slots *b'* and *c*; thus there is a narrow flame of gas escaping throughout the entire length of the arms C, C, and from the ends of the arms, so that when the gas is ignited at the point *a*, Fig. 4, on the outside of the gas range or heater, the flame travels along the upper edge of the body portion and along the arms, igniting the gas which escapes from the ends of the burners and the flame projected will ignite the gas escaping from the burners *d, d*.

It will be noticed in Fig. 4, that the greatest diameter of the gas chamber is at the point where the flow of gas is diverted; the chamber being tapered toward each end from this point. The portion *f'* of the chamber is narrow at the rear end and it is also narrow at the point where the body portion joins the arms. By this construction an even flow of gas is produced.

I prefer to make the burner in one piece, as shown in Fig. 1, but it will be understood that it may be made, in some instances, in two pieces, bolted together, as shown in Fig. 7, without departing from the main feature of the invention. In some instances, I may make the pilot burner with a single arm, as in Fig. 8, in place of the two arms shown.

I claim:—

1. A pilot burner for stoves comprising a slotted, hollow body portion adapted to extend from the outside to the inside of the stove, the said slot in the body portion also leading from the outside to the inside of the stove; a slotted hollow arm projecting from the inner end of the body portion, said body portion having a longitudinal partition extending part-way of its length; an air inlet and a gas inlet communicating with the chamber below the partition whereby the gas escaping through the slot can be ignited outside of the stove.

2. A pilot burner comprising a slotted, hollow body portion and hollow slotted arms projecting from one end of the body portion, said body portion having a longitudinal partition extending part way of its length, an abutment on the lower part of the body portion of the burner beyond the end of the partition, an air inlet, and a gas inlet communicating with the chamber below the

partition, so that the gas entering the burner will be distributed throughout the entire length thereof.

3. A pilot burner comprising a hollow
5 body portion having a longitudinal slot in its upper edge and two arms connected to the body portion and each having a slot in the upper edge, the slot in the arms communicating with the slot in the body portion,
10 a longitudinal partition extending from the rear of the burner, an abutment adjacent the end of the partition, the chamber in the body portion tapering toward each end from a point about on a line with the abutment, and means for supplying gas
15 to the burner.

6. A burner comprising a hollow body portion having a slot formed therein, the inner surface of the hollow body portion tapering
20 gas inlet and the slot; and a member having a deflecting surface and positioned within the hollow body portion to distribute the gas throughout the length of the slot.

5. A burner comprising a hollow body
25 portion having a slot and a gas inlet formed therein; a partition extending between the gas inlet and the slot; and a member having a deflecting surface and located adjacent the end of the said partition for distributing the gas throughout the length of the
30 slot.

6. A burner comprising a hollow body portion having a slot formed therein, the

inner surface of the hollow body portion tapering in opposite directions and having
35 a gas inlet formed therein; a partition extending between the gas inlet and the slot and terminating adjacent the widest portion of the hollow body; and means adjacent the end of the partition for distributing the gas
40 along the said slot.

7. A burner comprising a hollow body portion having a slot formed therein, the inner surface of the hollow body portion tapering in opposite directions and having
45 a gas inlet formed therein; a partition extending between the gas inlet and the slot and terminating adjacent the widest portion of the hollow body; and a member having a deflecting surface and located adjacent to
50 the end of the partition for distributing the gas along the said slot.

8. A burner comprising a hollow body portion having a gas inlet and an outlet formed therein; a partition extending between the gas inlet and the outlet; and a member having a deflecting surface and located adjacent the end of the said partition for deflecting the gas toward the outlet.

In testimony whereof, I have signed my
60 name to this specification, in the presence of two subscribing witnesses.

ABRAM C. MOTT, JR.

Witnesses:

WM. E. SHUPE,

WM. A. BARR.