

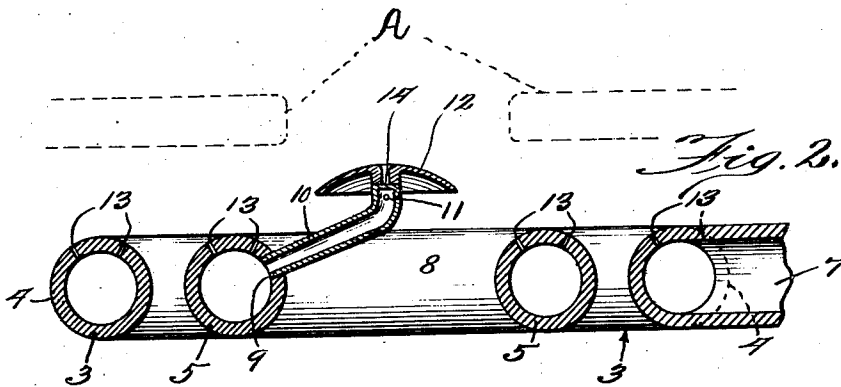
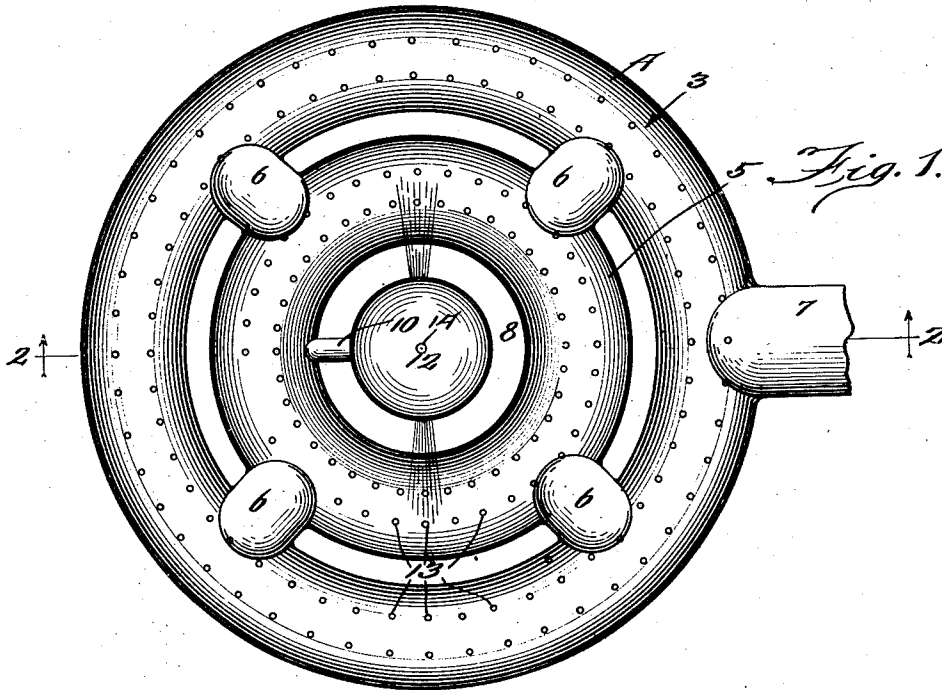
June 10, 1930.

W. ENGLUND

1,763,295

INDIVIDUAL PILOT LIGHT FOR GAS BURNERS

Filed March 22, 1928



Inventor:
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UNITED STATES PATENT OFFICE

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INDIVIDUAL PILOT LIGHT FOR GAS BURNERS

Application filed March 22, 1928. Serial No. 263,805.

My invention relates in general to that class of gas stoves provided with open burners over which utensils are supported for cooking purposes.

5 The invention has particular reference to an individual pilot light for such burners for relighting the burner in the event that the flame from the burner is unintentionally extinguished without turning the gas off, as
10 frequently happens as a result of the food in the utensil over the burner boiling over and smothering or otherwise extinguishing the flame.

Many serious accidents have resulted due
15 to carelessness in leaving cooking utensils unattended on gas stoves and as a result permitting the contents of the utensil to boil over and extinguish the flame with the gas thus permitted to escape.

20 The primary object of my invention is to provide each burner with an individual pilot light, so to speak, which is protected in such a way that foodstuff boiling over the cooking utensil will not extinguish the pilot light even
25 through it happens to extinguish the burner light, and, by this means, providing an automatic relighter for the gas burner and thus preventing the escape of gas with its dangerous consequences.

30 One of the important objects of the invention is to provide an individual pilot light of this character which may be made unusually cheap and which may be conveniently applied to various types of gas burners without
35 in any way changing the construction of the burner or interfering with the performance of its intended use.

Other objects of the invention will appear hereinafter, the novel features and combinations being set forth in the appended claims.

40 In the accompanying drawing, which illustrates the application of my invention to one type of gas burner:—

45 Fig. 1 is a plan view of a burner; and Fig. 2 is a view in cross section taken on the line 2—2 of Fig. 1.

Referring now to the drawing in detail, 3 represents the burner which, according to the present illustration, is made up of circular burner pipes 4 and 5, one within the other,

and communicating through the branches 6. The outer burner pipe or coil is supplied through the intake pipe 7 which communicates with the manifold pipe, not shown, and through which the introduction of gas is controlled by the customary valve, not shown.

In most gas burners, both in the type illustrated and other types, there is a circular or other shaped space in the center of the burner such as illustrated at 8 in the figures of the drawing.

In the preferred construction of the present invention, this space 8 is utilized to accommodate my pilot light. The same is applied to the burner preferably by boring or
65 otherwise providing a small opening, as at 9, on the inside of the inner coil or pipe 5 of the burner. This opening 9 is made to receive the end of a small tube 10, the outer end of which is closed and a plurality of orifices or jets 11 are provided in the thickness of the tube adjacent this closed end. Supported
70 on the end of the tube is a protecting cap or canopy 12, preferably curved or concave so as to shield the orifices or jets 11 in a manner substantially as shown.

In practice, the hole or opening 9 will be bored, as by a drill, for example, and the tube 10 inserted therein with the tube bent to center the orifices 11 in the opposite end
80 thereof in the space 8 within the inner burner pipe or coil 5. The cap 12 being also centered in this respect.

It is, of course, understood that in all gas stoves a grating A is mounted over the burners for supporting a cooking utensil. The grating in this respect is not supported very much above the burner and for this reason, the cap or canopy 12 should not project so far above the burner that it will interfere with the grating or the cooking utensil. Furthermore, the flame from the jets or orifices 11 must be close enough to the burner openings to insure lighting the gas. The showing
95 in Fig. 2, in this respect, should therefore be considered simply as diagrammatic. In any event, the idea is to present the orifices or jets 11 close enough to some of the multiplicity of orifices 13 in the burner pipes or coils so that
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the gas escaping from the orifices 13 will be ignited.

Since the tube 10 of the pilot light communicates with the burner, gas admitted to the burner will also supply the pilot light. When the burner is turned off by the customary valve at the end of the pipe 7, the pilot light will also be turned off. So long as the valve to the burner is open, the pilot light will burn, after once being ignited. Should it so happen that the contents of the cooking utensil boil over and extinguish the burner flame, the canopy 12 will protect the pilot light so that it will not be affected. Just as soon as the burner orifices 13 are cleared, the pilot light will again light the burner without requiring any attention on the part of an attendant. Therefore, it will be impossible for the gas to escape from the burner.

The tube of the pilot light may have a threaded engagement in the opening 9 or it may be otherwise fixed therein with a tight joint being provided for keeping the gas from escaping at this point. The canopy or cap 12 may be attached to the tube in any suitable manner, by the rivet 14, as shown, as an example, and the openings 11 may be of any desirable number: I have shown two for the present illustration, on opposite sides of the tube. The size of the tube 10 should be given some consideration as compared to the size of the openings 11 as it is highly desirable to have the gas escape through the openings 11 with some pressure behind it.

One feature of my invention resides in providing a device which may be sold as a separate article and applied by the user without difficulty. When applied to a gas burner in this way, the person making the attachment would necessarily have to bore the hole 9 at a slant as the space 8 is not sufficient to accommodate a bit at an angle which would enable the hole 9 to be bored at right angles to the pipe. Therefore, the tube 10 must be curved substantially as shown to accommodate it to the angle of the hole 9 and at the same time centering the cap 12 with respect to the burner. If the hole 9 is made at right angles to the burner pipe or coil 5, the tube 10 could be made with an acute elbow bend instead of a curve.

Obviously those skilled in the art may make various changes in the construction and arrangement of parts without departing from the spirit and scope of the invention, as defined by the claims thereto appended, and I therefore do not wish to be restricted to the precise construction contained herein.

I claim:—

1. An attachment for gas burners which have gas supply chambers and openings communicating therewith for permitting the gas to escape from said chamber and be burned, comprising a member having a longitudinal recess therein and an opening forming a

communicating means between said recess and the outer surface of said member, one end of said recessed member being adapted to be attached to said burner in such a manner that the recess therein communicates with the gas supply chamber and permits the gas to escape through said opening in said recessed member and be burned simultaneously with the gas escaping through said burner openings, said opening in the recessed member being adapted to lie in close proximity to some of the burner openings, and a cover for said opening in said recessed member for protecting the flame caused by the burning gases emerging therefrom and preventing it from being extinguished when something is spilled on said burner.

2. An attachment for gas burners having a gas supply chamber and openings communicating therewith through which the gas escapes and is burned, comprising a tubular member adapted to have one end thereof attached to said burner in such a manner that the opening in said tubular member communicates with the gas chamber of said burner, an opening at the other end of said tubular member adapted to lie in close proximity to the opening in said burner for permitting the gas to escape therefrom and be burned, and a protecting cover for said opening.

3. A device as claimed in claim 2 in which the tubular member is bent at an angle so that the protecting cover and opening can be symmetrically arranged relative to said burner.

4. A device as claimed in claim 1 in which a plurality of openings lead from said recessed member and are protected by said cover.

In testimony whereof I have signed my name to this specification on this 17th day of March, A. D. 1928.

WOLKE ENGLUND.