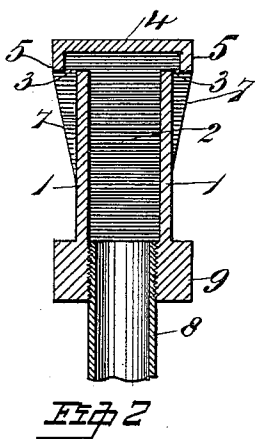
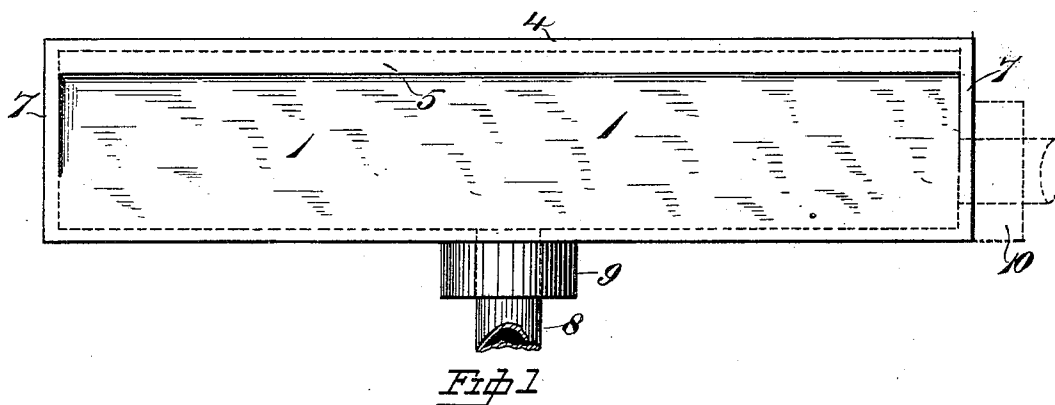


(No Model.)

D. P. STIRK & J. SUMMERS.
GAS BURNER FOR STOVES.

No. 473,410.

Patented Apr. 19, 1892.



Witnesses

W. W. Deane
Ford Hood

Inventors

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By their Attorney

Thompson & Bell

UNITED STATES PATENT OFFICE.

DAVID P. STIRK AND JACOB SUMMERS, OF INDIANAPOLIS, INDIANA.

GAS-BURNER FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 473,410, dated April 19, 1892.

Application filed December 20, 1890. Serial No. 375,316. (No model.)

To all whom it may concern:

Be it known that we, DAVID P. STIRK and JACOB SUMMERS, citizens of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Gas-Burners for Stoves, of which the following is a specification.

Our invention relates to that class of gas-burners used in cooking-stoves having a flame-deflecting lip opposite the gas-combustion opening and a gas superheating-chamber beneath said opening, as hereinafter more fully set forth.

The object of our invention is to secure the complete and noiseless combustion of the gas without odor and also to economize its consumption. We attain this object by means of the device illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of our duplex burner which we use for cooking-stoves, and Fig. 2 is a transverse elevation of the same.

Similar numbers of reference designate like parts throughout the several views.

1 designates the body of the duplex burner, having the superheating-chamber 2, which we provide for the purpose of expanding the volume of the gas as supplied therein to increase its volume. On the sides or body of the burner are formed the gas exit or combustion openings 3, formed on and extending the entire length of the top opposite sides of said burner.

Over the chamber 2 and formed integral therewith is the chamber-cover 4, on the edges of which are formed the depending or flame-deflecting lips 5, said lips extending downwardly and in front of said combustion-openings and parallel with the outer surface of the walls 1 of the burner, for the purpose hereinafter more fully set forth.

7 designates the end reinforcing webs or brackets which we employ, not only for the purpose of reinforcing the deflecting-lips, but also to prevent the flame from spreading endwise.

8 designates the feed-pipe of the burner screwed into the boss 9, formed on the center of the bottom edge thereof and integral therewith.

When it is desirable to connect the supply-pipe to the end of the burner, a boss, as 10,

(see dotted lines, Fig. 1,) is formed on the end of said burner wherein the said pipe is screwed or otherwise secured. It is obvious that the gas admitted into the chamber 2 through the supply-pipe 8 in its passage through the openings 3 will impinge against the inner surfaces of the lips 5, thus deflecting it, and consequently the flame, downwardly and against the front surfaces of the burner 1, thereby superheating and expanding the gas confined therein. The lips 5, owing to their position over the openings 3, retard the outward flow of the gas and cause it to be reverberated and expanded in the chamber 2, wherein it is superheated, and said gas, owing to its rarefied condition, acts as a cushion against the incoming gas that flows through the supply-pipe 8 and thereby effectually muffles the sound caused by the friction of the incoming and outgoing fluid to such an extent as to be inappreciable. It is also obvious that, owing to the downward flow of the fluid through the openings 3, the gas is thoroughly mixed with air, thereby securing perfect combustion and completely preventing odor.

Having thus fully described the nature and operation of our invention, what we claim as new and useful, and desire to cover by Letters Patent of the United States therefor, is—

1. In a gas-burner, the combination, with a rectangular chambered burner, of opposite gas-exit openings extending along the top sides and connecting said chamber and the atmosphere, depending lips adjacent to and extending along and in front of said exit-openings, substantially as set forth.

2. In a gas-burner, the combination, with a rectangular chambered burner, of opposite gas-exit openings extending along the top sides and communicating with the said chamber and the atmosphere, depending lips adjacent to and extending along in front of said exit-openings, and end reinforcing-webs, substantially as and for the purpose set forth.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

DAVID P. STIRK.
JACOB SUMMERS.

Witnesses:

THOMPSON R. BELL,
A. E. INGERSOLL.