No. 702,873. Patented June 17, 1902.

T. HOLLAND.

GAS BURNER.

(Application filed Jan. 24, 1901. Renewed Dec. 5, 1901.)

(No Model.)

Fig. 1

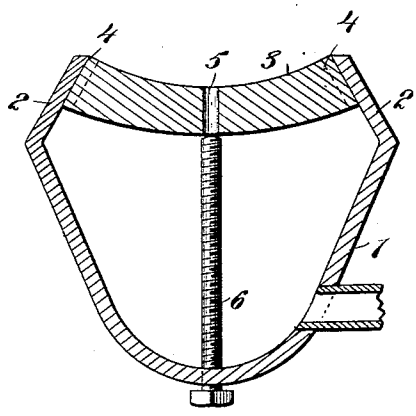
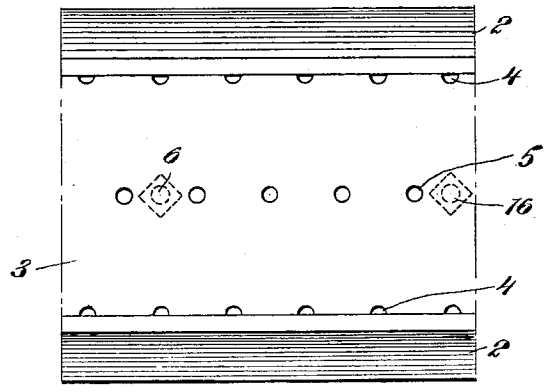


Fig. 2



WITNESSES:

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GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 702,873, dated June 17, 1902.

Application filed January 24, 1901. Renewed December 5, 1901. Serial No. 84,784. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY HOLLAND, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Gas-Burner, of which the following is a full, clear, and exact description.

This invention relates to improvements in gas-burners for radiators, cooking-stoves, and the like; and the object is to provide a burner of cast metal, the parts of which may be readily placed together and tightly clamped and so arranged that the three rows of jets may be directed to and mingled at the horizontal center of the burner, forming a practically continuous body of gas, resulting in a steady flame giving out a great heat with an economical supply of gas.

I will describe a gas-burner embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a cross-section of a burner embodying my invention, and Fig. 2 is a plan view of a portion thereof.

The burner comprises a trough-shaped body portion 1, the upper edges 2 of which are extended inward at an incline. The jet portion of the burner consists of a concaved plate 3, having its opposite edges inclined to engage tightly against the inclined inner surfaces of the portions 2 of the body, and these outer edges are provided with semicircular gas-outlets or jet-openings 4, the outer walls of said jet-openings being provided by the portions 2 of the body. The burner-plate 3 is also provided with a central row of jet-perforations 5. The burner-plate 3, as well as the body portion, consists of cast metal, and obviously the notches 4 may be formed at the time of casting the plate. Therefore a great saving in the cost of construction will be found as compared with the plates through which the jet-openings must be formed by drilling.

In inserting the plate in the body portion it is to be passed downward therein at a slant or transverse incline and then turned to a horizontal position to engage its inclined edges against the inclined inner surfaces of the portions 2 of the body, and it is to be firmly clamped in this position, as here shown, by means of screws 6, which pass through tapped openings in the bottom of the body portion and engage at their upper ends with the inner side of the plate 3, as clearly indicated in the drawings.

It will be noted that the inclined side outlets at their outer ends are spaced away or are remote from the center outlets. This causes the escaping gas from the several outlets to mingle at the longitudinal center of the burner-plate and a short distance above the plate, which results in a practically solid body of flame at the meeting-point, which gives out a great heat and directs a considerable amount of heat to the plate, which causes a large amount of blue flame. I have indicated the burner as being straight for use in connection, for instance, with a radiator; but it is to be understood that the burner may be made circular for use in connection with a cooking-stove or the like.

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

1. A gas-burner, having a trough-shaped body portion, the upper edges of which are turned inward at an incline, a burner-plate having gas-outlet notches in its opposite edges, and a central line of gas-outlet openings, the edges of said plate being inclined or beveled to engage tightly against the inclined inner surfaces of said side portions of the body, and means for fastening the plate in position, substantially as specified.

2. A gas-burner, comprising a trough-shaped body portion having its upper edges

inclined inward, a burner-plate having gas-outlet notches in its opposite edges, the said opposite edges being conformed to the inclines of the upper portions of the body, the said upper portions of the body forming the outer walls of the said side outlets, the said plate also having a central row of perforations, and clamping-screws passing through tapped holes in the body portion and engaging with the inner side of said burner-plate, substantially as specified.

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

TIMOTHY HOLLAND.

Witnesses:
JNO. M. RITTER,
C. R. FERGUSON.