(No Model.)

F. BARNHART.

BURNER FOR NATURAL GAS.

No. 345,825. Patented July 20, 1886.

Fig. 1.

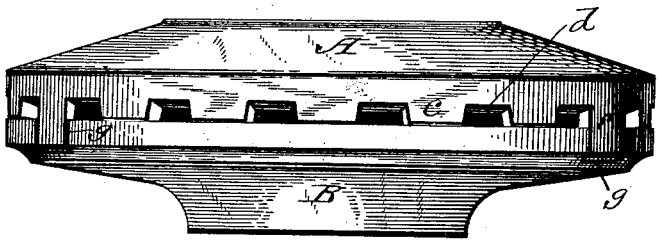
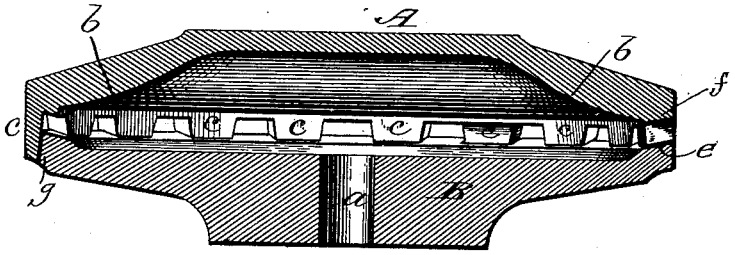


Fig. 2.



Witnesses
Wm. H. Speidel,
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UNITED STATES PATENT OFFICE.

FRANK BARNHART, OF WARREN, PENNSYLVANIA.

BURNER FOR NATURAL GAS.

SPECIFICATION forming part of Letters Patent No. 345,825, dated July 20, 1886.

Application filed December 17, 1885. Serial No. 186,011. (No model.)

To all whom it may concern:

Be it known that I, FRANK BARNHART, a citizen of the United States, residing at Warren, in the county of Warren and State of Pennsylvania, have invented certain new and useful Improvements in Burners for Natural Gas; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side view of a gas-burner constructed in accordance with my invention, and Fig. 2 a sectional view thereof.

The present invention has for its object to provide a burner for natural gas that can be manufactured at greatly-reduced cost, can be cast with comparatively little trouble and expense, and that will burn the gas without producing any smoke or unpleasant odors in a room; and it consists in the details of construction substantially as shown in the drawings, and hereinafter described and claimed.

In the accompanying drawings, A B represent the two halves or sections of the burner, the lower one having a central opening, *a*, through which the gas passes into the burner.

The two sections A B are interiorly concave, the upper section, A, having a concavity of greater depth, so that when the sections are together a chamber will be formed, the greater portion being above the lower section, the gas passing into such chamber and becoming heated before it escapes from the burner.

The concavity of the burner-section A is of peculiar shape, it having a swell, *b*, around its sides, thus not only increasing the area of heating-surface, but more effectually conducting the gas to the escape-openings of the burner.

The section A is formed with legs *c*, depending from the edge of the section and extending around its entire circumference. Thus when the two sections are connected together and the legs *c* rest on the edge of the section B escape-openings *d* will be formed for the discharge of the gas.

In order to conduct the gas in an upward direction, the edge of the section B flares or inclines upwardly, as shown at *e*, as does also the edge of the section A, as shown at *f*, the ends of the legs being inclined to correspond with the inclined edge *e*, upon which they rest.

Three or more of the legs *c* are extended, or of increased length, to fit in mortises *g* in the lower section, and screws or other means of fastening may be employed for securely holding the burner-sections together.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The natural-gas burner described, consisting of the base B, having gas-inlet *a*, upwardly-inclined ledge *e*, and vertical sockets *g*, and the cap or dome A, having short legs *c*, to form intervening spaces with upwardly-inclined roofs, and having long legs *f*, which engage the sockets *g* of the base to lock the parts together, as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FRANK BARNHART.

Witnesses:
JAMES CABLE,
H. E. DAVIS.