

No. 622,187.

Patented Mar. 28, 1899.

W. FRIEBERTSHAUSER.
GAS BURNER.

(Application filed Mar. 5, 1898.)

(No Model.)

Fig. 1.

Fig. 2.

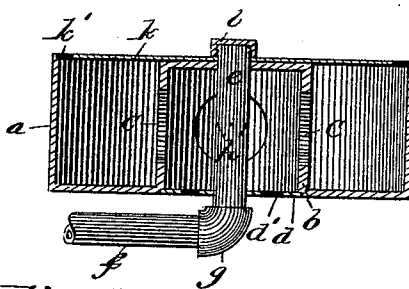
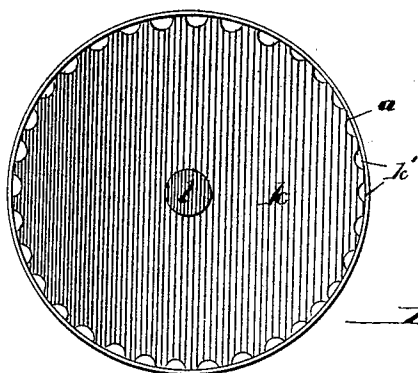


Fig. 3.

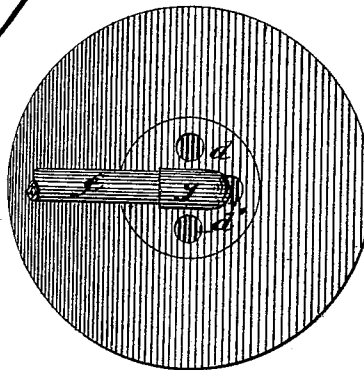
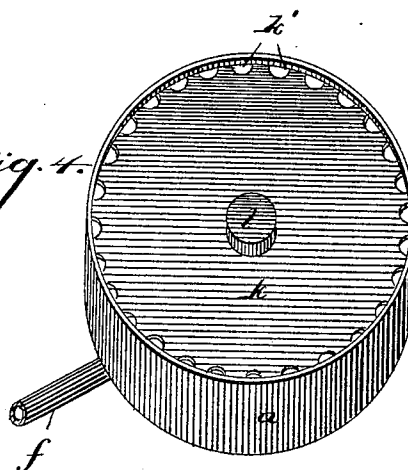


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILHELM FRIEBERTSHAUSER, OF PITTSBURG, PENNSYLVANIA.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 622,187, dated March 28, 1899.

Application filed March 5, 1898. Serial No. 672,737. (No model.)

To all whom it may concern:

Be it known that I, WILHELM FRIEBERTSHAUSER, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Gas-Burners, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in gas-burners; and it has for its object to reduce the quantity of gas consumed and at the same time retain or increase the heating capacity of the burner.

15 Other novel objects of my invention are to provide a burner in which the gas is brought into direct contact therewith and is heated in such a manner as to expand before it reaches the point of combustion.

20 My improved burner also aims to provide novel and effective means for the commingling of the gas and air previous to the gas reaching the point of ignition, and thereby obtain a perfect combustion. To assist in this, I aim to so construct the mixer that the
25 air will become heated before it is mixed with the gas.

The novel features of construction whereby the above results are obtained will be specifically referred to by reference to the accompanying drawings, in which—

30 Figure 1 is a top plan view of my improved burner. Fig. 2 is a vertical sectional view of the same. Fig. 3 is an underneath plan view.

35 Fig. 4 is a perspective view.

To put my invention into practice, I provide a circular drum or casing *a*, which may be of any suitable size and has formed integral therewith and centrally arranged an inner drum *b*, which extends upwardly to the top of the circular drum or outer casing *a*. This inner drum is provided with apertures *c*, arranged around its periphery, which permit the air and gas to escape from the inner
40 into the outer drum. The bottom of this inner drum is closed by means of the plate *d*, provided with perforations *d'* to admit the air into the said inner drum, said plate *d* being provided with a central aperture to receive the gas-pipe *e*, arranged centrally in

the inner drum and connected to the supply-pipe *f* by a union *g* or other suitable means. This supply-pipe *f* is provided with small openings *h*, through which the gas escapes into the inner drum. 55

Arranged in the top of the burner and fitting neatly within the outer drum is a plate *k*, which is provided with notches or serrations *k'* entirely around its periphery, which permit the gas to escape through the outer drum to the top of the burner, where it is ignited. This plate is held in its position by means of the nut or screw-cap *l*, which engages the top of the gas-pipe *e*, and thereby holds the burner in its position. 60

Through this construction of a burner it will be observed that when the gas is ignited the heat of the same will cause the gas and air passing into the outer drum to become heated previous to reaching the point of ignition, thereby materially aiding perfect combustion. It will be observed also that such a construction of the burner may be readily applied to any stove or furnace without requiring any special fitting, and the simplicity of construction will enable any one to readily apply the same. 65

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is— 70

1. In a gas-burner, an outer drum, an inner drum arranged centrally therein, said inner drum being provided with openings in its walls, a top plate or cover for the outer drum, said plate or cover being provided with notches or serrations entirely around its periphery which form outlets for the gas, a gas-supply pipe arranged centrally of said inner drum and passing through the plate or cover of the outer drum to receive fastening means to hold said plate or cover in position, said supply-pipe being provided with openings opposite to the openings in the walls of the inner drum for the escape of gas into the same, substantially as shown and described. 75

2. A gas-burner comprising in combination, an outer drum and a centrally-arranged inner drum provided with perforations communicating with the outer drum, a gas-supply pipe arranged centrally of the inner drum and pro- 80

vided with openings through which the gas
escapes, a top plate or cover for the outer
drum, said plate or cover being provided with
notches or serrations entirely around its pe-
riphery and provided also with a central
5 aperture through which the gas-supply pipe
passes, and a nut or screw-cap engaging the
end of said gas-supply pipe whereby the plate

or cover is held in position, substantially as
shown and described. 10

In testimony whereof I affix my signature
in the presence of two witnesses.

WILHELM FRIEBERTSHAUSER.

Witnesses:

JOHN NOLAND,

H. H. PATTERSON.