

No. 642,229.

Patented Jan. 30, 1900.

F. HOUBEN.

BURNER FOR GAS STOVES OR THE LIKE.

(Application filed Aug. 25, 1899.)

(No Model.)

Fig. 1.

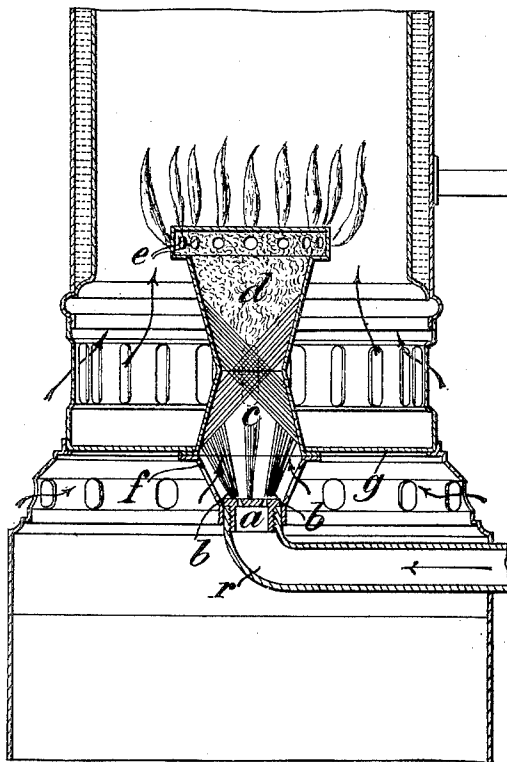


Fig. 2.

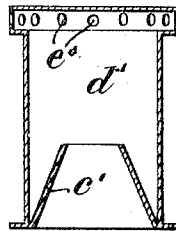
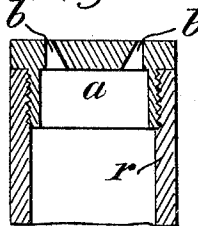


Fig. 3.



Attest
Walter Donaldson
Wm. F. Hall

Inventor
Franz Houben
by Richards & Co
Atty

UNITED STATES PATENT OFFICE.

FRANZ HOUBEN, OF AACHEN, GERMANY, ASSIGNOR OF ONE-HALF TO I. G.
HOUBEN SOHN CARL, OF SAME PLACE.

BURNER FOR GAS-STOVES OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 642,229, dated January 30, 1900.

Application filed August 25, 1899. Serial No. 728,521. (No model.)

To all whom it may concern:

Be it known that I, FRANZ HOUBEN, manufacturer, of Aachen, Germany, have invented a certain new and useful Burner for Gas-Stoves or the Like, of which the following is a full and clear specification.

The object of my invention is to provide such an arrangement as will effect a perfect mixture of the gas and air without using a mixing tube or chamber of great length.

In the drawings, Figure 1 is a vertical sectional view of the invention. Fig. 2 is a detail sectional view of a modified form of mixing-chamber. Fig. 3 is a detail sectional view of the mouthpiece of the burner.

A mouthpiece *a* is screwed into the gas-pipe *r*. This mouthpiece or nozzle has a plurality of outwardly inclined or diverging gas-orifices *b*. Immediately above the nozzle and surrounding the same is an outwardly-flaring wall having air-inlet openings *f* therein, and surmounting this wall there is placed a frusto-conical wall *c*. This is located in position to be impinged upon by the jets issuing from said inclined openings *b*. This wall *c* is surmounted, in turn, by a mixing-chamber *d*, the walls of the latter flaring outwardly and ending in a cylindrical portion provided with lateral holes *e*, through which the gas passes.

The jets impinging against the inclined wall *c* rebound, as indicated in Fig. 1, and

strike against the opposite wall of the chamber *d*. Thus the jets cross and recross the space, and the gas and air become thoroughly mixed before reaching the openings *e*. The parts *c* and *d* instead of being of the shape shown in Fig. 1 may be of different shape, as shown in Fig. 2, where the part *d'* is cylindrical and surrounds the frusto-conical part *c'*. The openings are marked *e'* in Fig. 2.

A plate *g* separates the space around the air-inlets *f* from the space around the upper part of the burner. This plate prevents any gas or mixture rising along the exterior of the parts *c* *d*, which might happen in case of unfavorable drafts.

I claim—

In a gas-stove, a burner-nozzle having a plurality of outwardly inclined or diverging gas-orifices, an outwardly-flaring wall encircling the same having air-openings, a frusto-conical wall surmounting said flaring wall and located in position to be impinged against by the jets issuing from said openings and an enlarged mixing-chamber above said frusto-conical wall, substantially as described.

Signed at Aix-la-Chapelle, Germany, this 10th day of August, 1899.

FRANZ HOUBEN.

Witnesses:

C. E. BRUNDAGE,
G. SCOTT.