

(No Model.)

E. BOURNE.

GAS BURNER.

No. 347,155.

Patented Aug. 10, 1886.

Fig 1

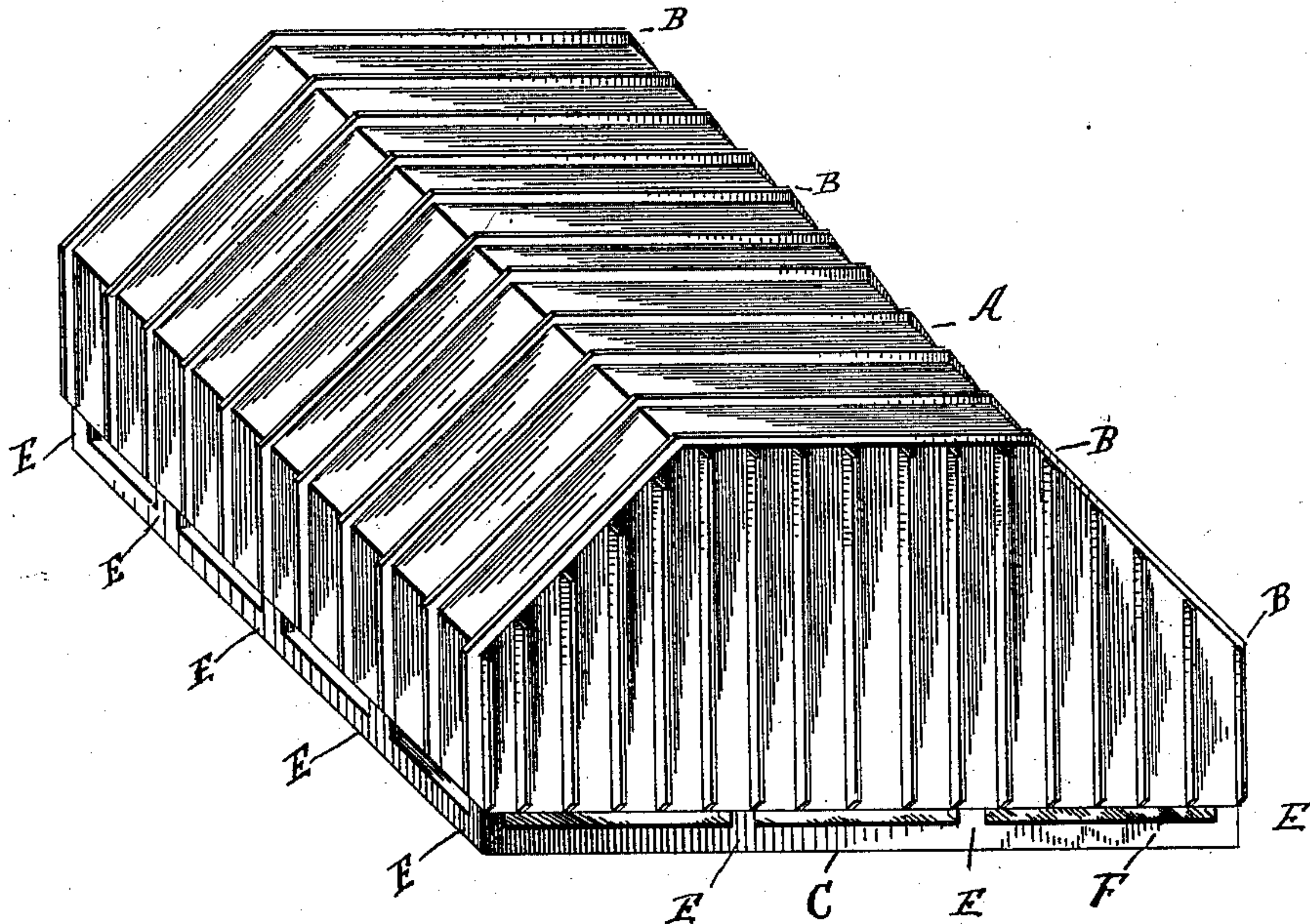
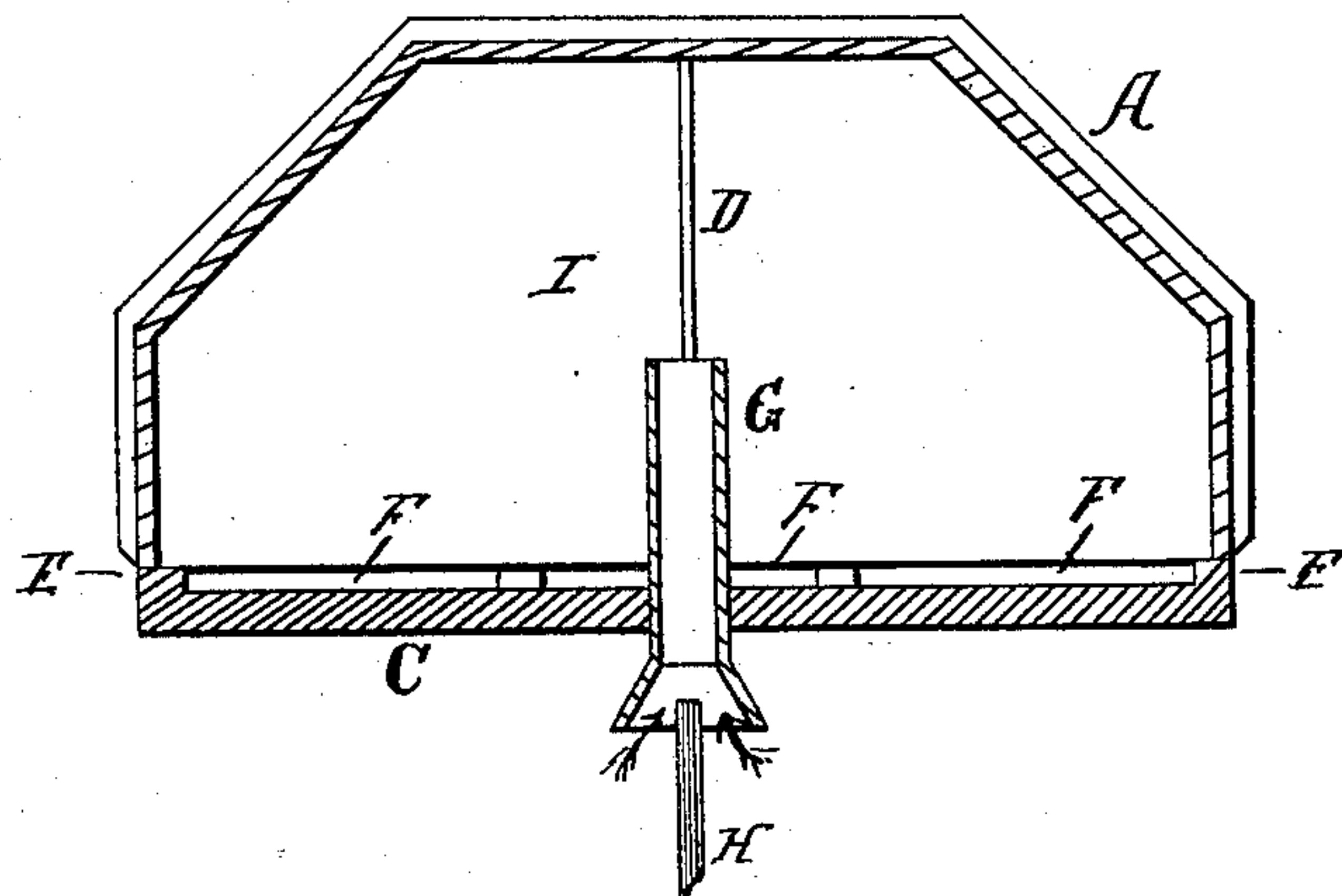


Fig 2



WITNESSES

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EDWARD BOURNE, OF ALLEGHENY, PENNSYLVANIA.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 347,155, dated August 10, 1886.

Application filed December 31, 1885. Serial No. 187,279. (No model.)

To all whom it may concern:

Be it known that I, EDWARD BOURNE, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Gas-Burners; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to an improvement in burners for natural or other gas; and it consists of a crown-piece, base, gas-pipe, and air-injector, and provided with suitable outlets, the whole constructed and operating as hereinafter described.

To enable others skilled in the art with which my invention is most nearly connected to make and use it, I will proceed to describe its construction and operation.

In the accompanying drawings, Figure 1 is a perspective view of my improvement. Fig. 2 is a transverse section of the same.

In the drawings, A represents the crown of the burner, on the outer surface of which are projecting ribs B. Said crown is secured to the base C, through the medium of screw-bolts D, said base having a series of projections, E, which, in connection with the crown A and base C, form narrow elongated openings F. In the base C is secured a pipe, G, the lower end of which is bell-mouthed. Within said bell-

mouth is inserted the gas-supply pipe H. The ribs B on the crown A are for the purpose of holding the material placed thereon for absorbing the heat of the burning gas, and at the same time to form channels for the distribution of the air and gas through said material. The openings F are for the purpose of outlets for the gas from the chamber I,

formed by the crown A and base C. The pipe G is for the purpose of forming an air-injector when combined with the pipe H. The current of gas flowing from pipe H inducts air which commingles with the gas in its passage through said pipe and prior to entering the chamber I, and, striking the crown A, the gas and air are thoroughly commingled and flow out the openings F, where the gas is ignited, and the flame passes up and through the channels formed by the ribs B, and is diffused through the material resting upon said ribs.

The burner hereinbefore described is adapted for stoves, fire-places, and fire-chambers of furnaces.

Having thus described my improvement, what I claim is—

1. In a gas-burner such as described, the combination, with a chamber provided with outlets around the base, substantially as shown, of a gas-supply pipe opening into said chamber and a crown or cover for said chamber, having ribs leading from said openings at the base of said chamber, for the purpose set forth.

2. In a gas-burner, the combination of a chamber provided with exterior ribs extending from base to top, and outlets around the base, a gas-supply pipe opening into a second pipe, and said second pipe open at both ends and extending into said chamber, substantially as set forth.

In testimony whereof I have hereunto set my hand this 15th day of December, A. D. 1885.

EDWARD BOURNE.

Witnesses:

A. C. JOHNSTON,
J. J. ARNOLD.