

B. A. GEURINK.
GAS BURNER.

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973,498.

Patented Oct. 25, 1910.

FIG. 1

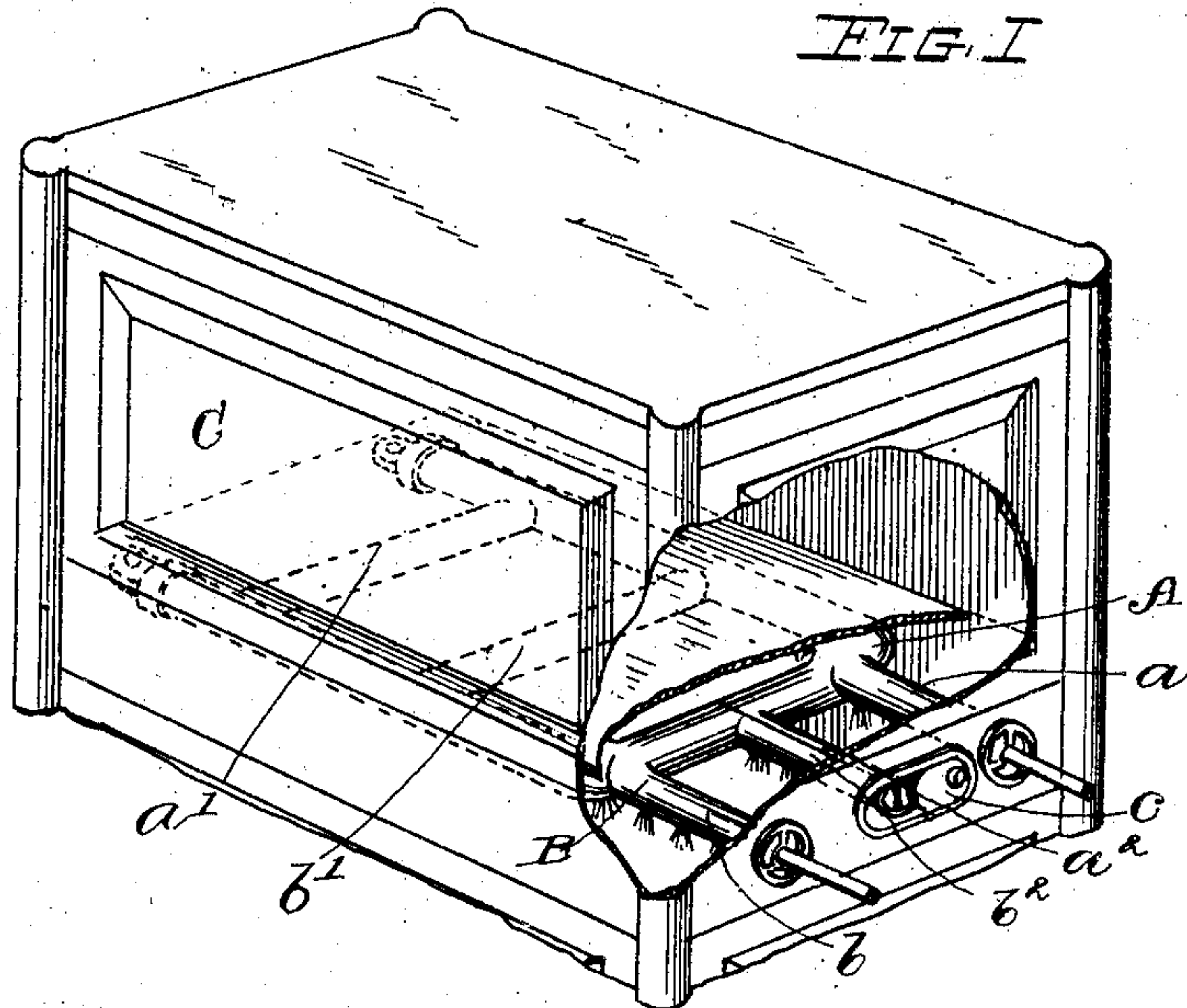


FIG. 2

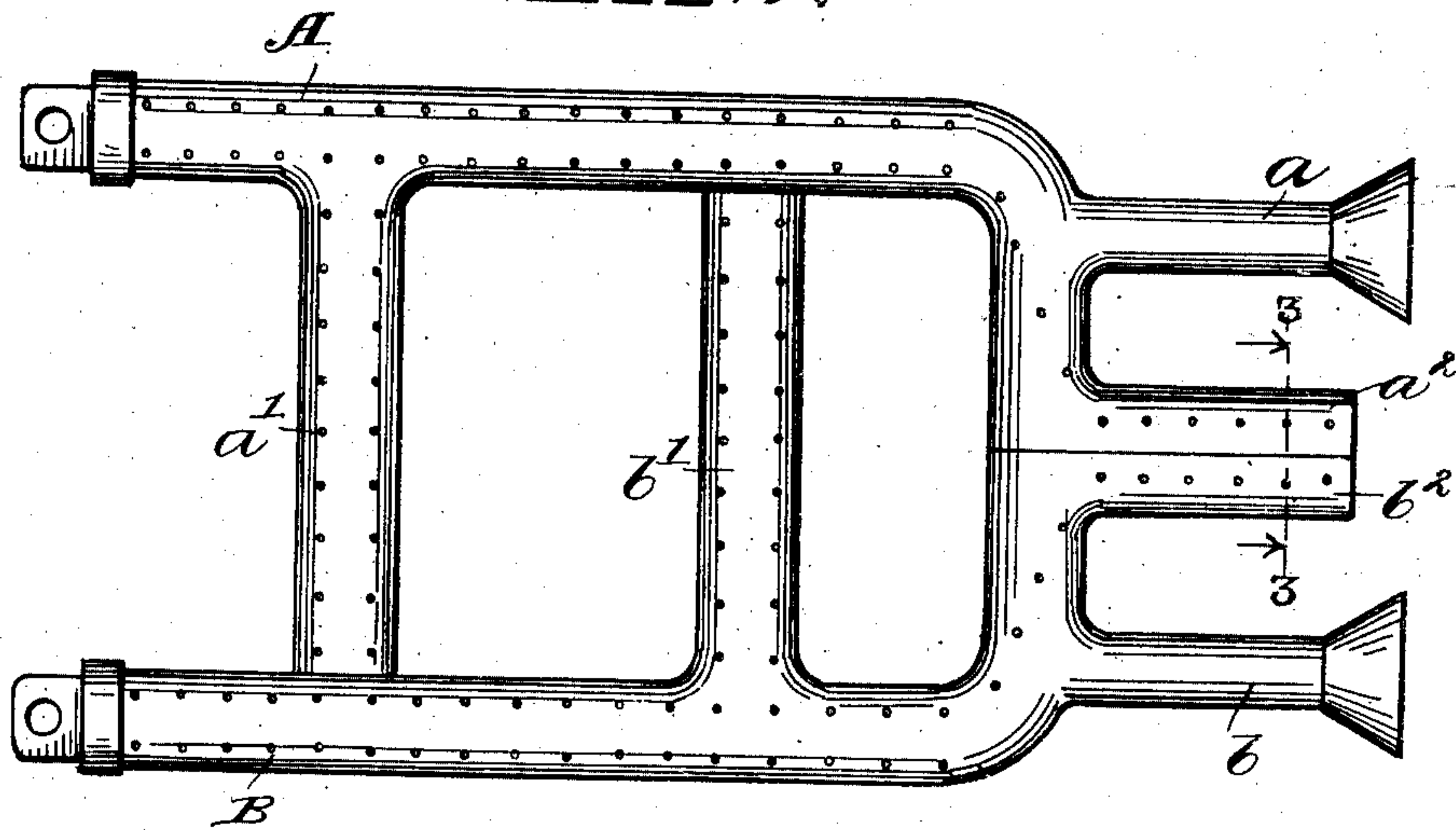


FIG. 3



Witnesses:
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by J. B. Fay
Attorney.

UNITED STATES PATENT OFFICE.

BERNARD A. GEURINK, OF EAST CLEVELAND, OHIO, ASSIGNOR TO THE TRENKAMP STOVE & MANUFACTURING COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

GAS-BURNER.

973,498.

Specification of Letters Patent.

Patented Oct. 25, 1910.

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To all whom it may concern:

Be it known that I, BERNARD A. GEURINK, a citizen of the United States, and a resident of East Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in Gas-Burners, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

My invention provides in general a gas burner for use especially in the heating of ovens of gas ranges. In particular the invention is designed to provide such a burner which will be of extremely convenient and safe operation, the invention comprising an improvement on the general form of such burners disclosed in U. S. Patent No. 941,708, granted to me on November 30, 1909.

To the accomplishment of these and related ends said invention, then, consists of the means hereinafter fully described, and particularly pointed out in the claims.

The annexed drawing and the following description set forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawing:—Figure 1 is a broken perspective view of an oven equipped with my improved gas burner; Fig. 2 is a plan view of the burner, and Fig. 3 is a section on the line 3—3 in Fig. 2.

My device consists of two complementary parts A and B which are here illustrated as separable castings and as including parallel sections, each of which is provided at one end with a mixing chamber a and b respectively, into which is to be conducted a suitably controllable gas supply and a similarly controllable air supply. Near one end the section A is provided with a transverse branch a' which extends to the section B but does not communicate therewith. The section B is provided with a similar transverse branch b' at the end opposite that at which the section A is provided with its branch a' . The branch b' similarly extends to, but does not communicate with, the section A. At their ends at which they are formed with their mixing chambers, the respective sections are provided with two con-

tiguously disposed branches a^2 and b^2 , which extend longitudinally of the assembled burner. The burner, when assembled, is disposed above or below the oven chamber C, as may be desired, while the oven casing is provided with a sliding door c adapted to close the openings of the contiguously disposed branches a^2 and b^2 .

When it is desired to use the burner, since they are non-communicating, the sections must be lighted separately. This may be done in a most convenient manner by turning on the gas in both sections and lighting them both at the contiguously disposed branches which terminate at a common point. If it is desired to light only one of the sections, the gas is turned only into such section, and it may thereupon be lighted at the same point as before. If subsequently it is desired to light the second section, this may be done by simply turning on the gas in such section, for since the two sections are formed with branches extending from one to the other such branches will serve to conduct the flames from the lighted section to the one which it is desired to light, so that the one which was first lighted, in reality forms a pilot light for the section last lighted. It is finally to be noted that by not having the transverse branches contiguous to each other, and by providing the sections with separate branches which terminate at a common point, the two sections may be cast independently of each other and conveniently assembled when desired into a completed burner. It is, of course, to be understood that I do not limit such construction to a burner having only two complementary sections, but the burner may be composed of any number of such sections dependent upon the amount of heat required.

While I have herein shown the sections of my burner as consisting of separable castings, this is obviously a structural detail that may be varied to suit the convenience of the manufacturer; for it is obviously a matter of indifference whether such sections be thus cast singly or together so as to form an integral structure of the burner.

Other modes of applying the principle of my invention may be used instead of the one explained, change being made as regards the mechanism herein disclosed and particularly pointed out in the claims.

I therefore particularly point out and distinctly claim as my invention:—

1. A burner of the character described, comprising a plurality of non-communicating sections and independent fuel supplies for the respective sections, said sections being provided with branches spaced from each other, said branches extending from one section to the body of the other, whereby one section may be lighted from another.

2. A burner of the character described, comprising a plurality of parallel non-communicating sections and independent fuel supplies for the respective sections, said sections being provided with transverse branches spaced from each other, said branches extending from one section to the body of the other, whereby one section may be lighted from another.

3. A burner of the character described, comprising a plurality of parallel sections and independent fuel supplies for the respective sections, said sections being provided with transverse branches near their opposite ends respectively, said branches extending from one section to the body of the other but not communicating with the latter, whereby one section may be lighted from another.

4. A burner of the character described, comprising a plurality of non-communicating sections and independent fuel supplies for the respective sections, said sections being provided with branches spaced from each other, said branches extending from one section to another, whereby one section may be lighted from another, and said sections being provided with portions terminating at a common point.

5. A burner of the character described, comprising a plurality of parallel non-communicating sections and independent fuel supplies for the respective sections, said sections being provided with transverse branches spaced from each other, said branches extending from one section to an-

other, whereby one section may be lighted from another, and said sections being further provided with portions terminating at a common point.

6. A burner of the character described, comprising a plurality of parallel sections and independent fuel supplies for the respective sections, said sections being provided with transverse branches near their opposite ends respectively, said branches extending from one section to another but not communicating with the latter, whereby one section may be lighted from another, said sections being further provided with portions terminating at a common point.

7. A burner of the character described, comprising a plurality of parallel non-communicating sections and independent fuel supplies for the respective sections, said sections being provided with transverse branches spaced from each other, said branches extending from one section to another, whereby one section may be lighted from another, and said sections being further provided at one end with branches terminating at a common point.

8. A burner of the character described, comprising a plurality of parallel non-communicating sections and independent fuel supplies for the respective sections, said sections being provided with transverse branches near their opposite ends respectively, said branches extending from one section to another but not communicating with the latter, whereby one section may be lighted from another, and said sections being further provided at one end with longitudinally extending branches terminating at a common point.

Signed by me this 27th day of December, 1909.

BERNARD A. GEURINK.

Attested by—

ANNA L. GILL,
JNO. F. OBERLIN.