B. A. GEURINK.

GAS BURNER.

APPLICATION FILED JUNE 10, 1909.

941,708. Patented Nov. 30, 1909.

Fig. 1

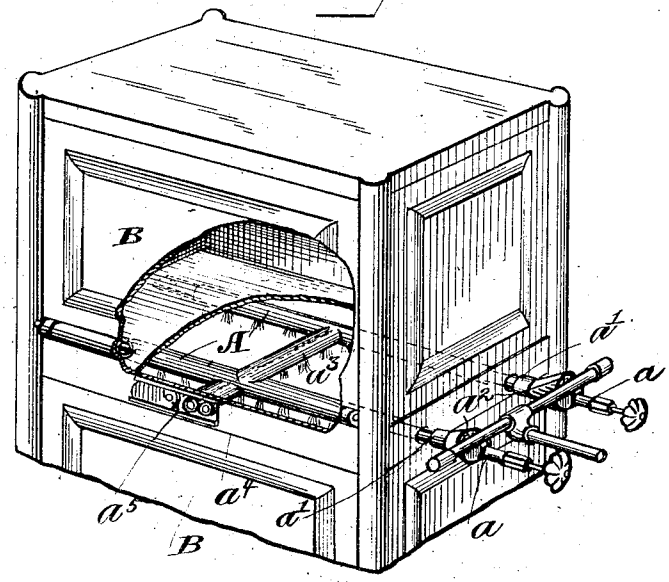


Fig. 2

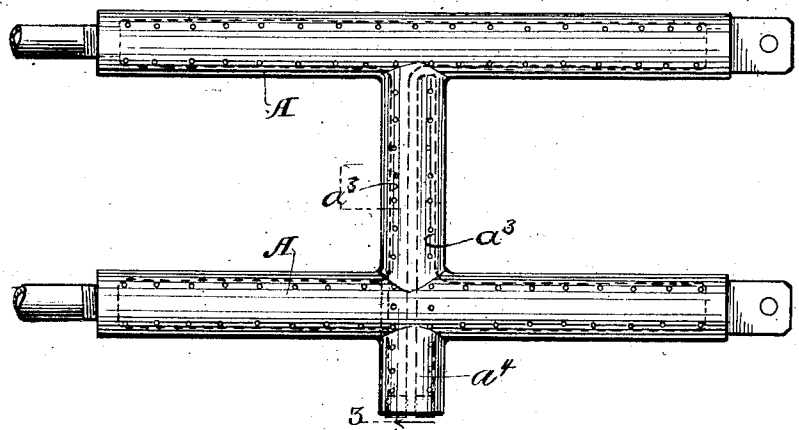
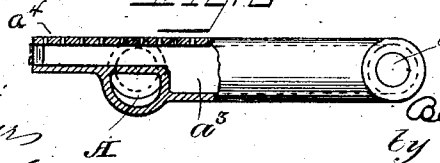


Fig. 3



Witnesses:

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UNITED STATES PATENT OFFICE.

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GAS-BURNER.

941,708. Specification of Letters Patent. **Patented Nov. 30, 1909.**

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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.

The present invention relates particularly to a gas burner designed for use in connection with gas ranges, and more especially for the heating of the ovens and broilers in such ranges.

The object of the invention is the provision of a burner for use in the connection noted that will possess to a high degree the characteristics of convenience and safety which are so desirable in all gas-using appliances designed for domestic use.

To the accomplishment of this and related objects, 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 with a gas burner embodying my several improvements shown as incorporated therein; Fig. 2 is a bottom plan view of such improved burner; and Fig. 3 is a transverse vertical section of the same, taken on the line 3—3, Fig. 2.

As customary in burners designed for the use in question, such burner here comprises a plurality of similar sections A, each provided with its corresponding fuel supply consisting of a suitably controlled gas delivery pipe a leading into a mixing chamber a' to which the required quota of air to form a proper combustive mixture is admitted through openings a^2. The several sections of the burner extend longitudinally above or below the oven chamber B as the case may be, and do not communicate with each other, so that it is necessary to light said burner sections separately. For this purpose a pilot light extending inwardly from the forward end of the burner, that is from the end at which the fuel is supplied, is provided. Obviously there is not only considerable inconvenience entailed in applying a match to such pilot light, but also considerable uncertainty as to the lighting of the burner sections therefrom, especially in the case of drafts, and the possibility of an explosive mixture of gas and air being formed in the burner chamber is always present.

In my present improved construction, I propose to avoid this difficulty by providing such burner sections A with transversely disposed branches a^3 intermediate between their ends and preferably cast integrally with the sections and with each other. These branches likewise do not communicate with each other, but they project beyond one side of the burner to substantially the same point a^4, whereby either one or both of said sections may be lighted at such point, since the flame will travel along the corresponding branch to one or the other burner section, as the case may be. Moreover, since the branch from that burner section nearest the point at which the light is applied, extends across to the other burner, ignition of the latter is assured immediately upon the turning of the gas therein in case the first section was lighted first; the branch from the other section similarly serves as a pilot to said first burner section should the order in which the burners are turned on be reversed; while should both burners be turned on before the match is applied, both will be simultaneously and immediately lighted. A door a^5 serves normally to close the opening in the oven casing through which the match or taper is inserted in order to ignite the gas issuing at point a^4.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by any of the following claims or the equivalent of such stated means be employed.

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 sec-

tions including adjacently disposed portions, whereby one section may be lighted from another, substantially as described.

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 adjacently disposed transverse branches, whereby one section may be lighted from another, substantially as described.

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 adjacently disposed branches extending from one section to another but not communicating therewith, whereby one section may be lighted from another, substantially as described.

4. A burner of the character described, comprising a plurality of non-communicating sections and fuel supplies therefor, respectively, said sections including contiguously disposed portions, whereby either or all of said sections may be lighted at substantially the same point, substantially as described.

5. A burner of the character described, comprising a plurality of non-communicating sections and independent fuel supplies for the respective sections, said sections including branches terminating at substantially the same point, whereby either or all of said sections may be lighted at such point, substantially as described.

6. A burner of the character described, comprising a plurality of longitudinally extending, parallel non-communicating sections and independent fuel supplies for the respective sections, said sections being provided with transversely disposed branches terminating at substantially the same point, whereby either or both said sections may be lighted at such point, substantially as described.

7. A burner of the character described, comprising a plurality of longitudinally extending, parallel sections and independent fuel supplies for the respective sections, said sections being provided with branches extending from one section to the other but not communicating therewith, said branches terminating at substantially the same point, whereby either or both said sections may be lighted at such point, substantially as described.

8. A burner of the character described comprising a plurality of non-communicating sections and independent fuel supplies for the respective sections, said sections including adjacently disposed portions terminating at substantially the same point, whereby one section may be lighted from another, and either or all may be lighted at such common point, substantially as described.

9. 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 adjacently disposed transverse branches terminating at substantially the same point, whereby one section may be lighted from another, and either or all may be lighted at such common point, substantially as described.

10. 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 adjacently disposed branches extending from one section to another but not communicating therewith, said branches terminating at substantially the same point, whereby one section may be lighted from another, and either or both may be lighted at such common point, substantially as described.

11. A burner of the character described, comprising a plurality of longitudinally extending, parallel sections and independent fuel supplies for the respective sections, said sections being provided with branches extending side by side from one section to the other but not communicating therewith, said sections projecting beyond one side of said burner to substantially the same point, whereby one section may be lighted from another and either or both said sections may be lighted at such point, substantially as described.

12. A burner of the character described, comprising a plurality of longitudinally extending, parallel sections, said sections being provided with transversely disposed branches intermediate between their ends, whereby said sections may be lighted, substantially as described.

Signed by me this 7th day of June, 1909.

BERNARD A. GEURINK.

Attested by—

ANNA L. GILL,

JNO. F. OBERLIN.