

E. G. VAN ZANDT.
GAS BURNER.
APPLICATION FILED JULY 11, 1910.

1,045,465.

Patented Nov. 26, 1912.
2 SHEETS—SHEET 1.

Fig. 1.

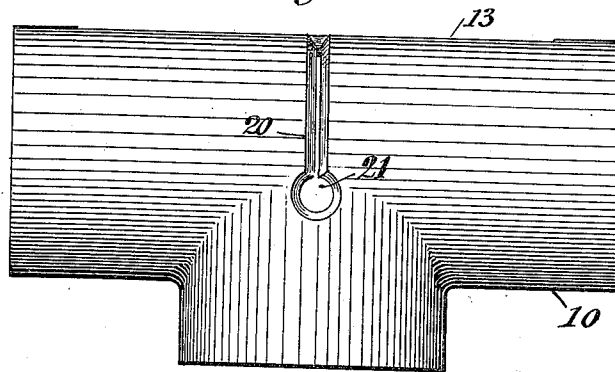


Fig. 2.

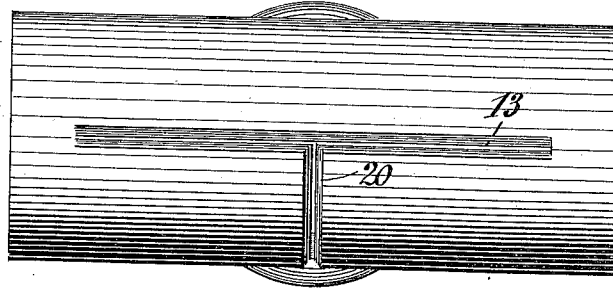
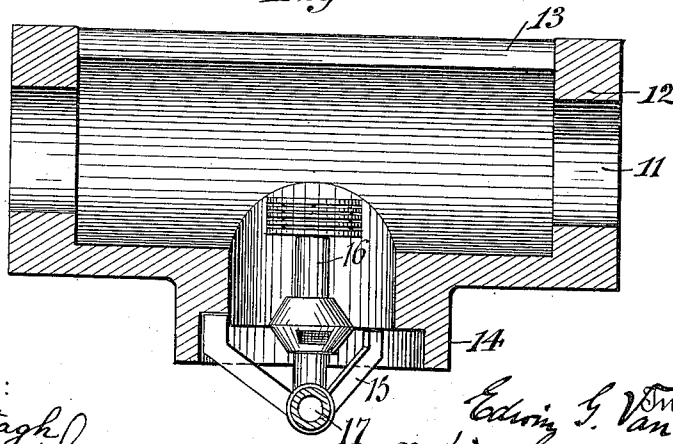


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

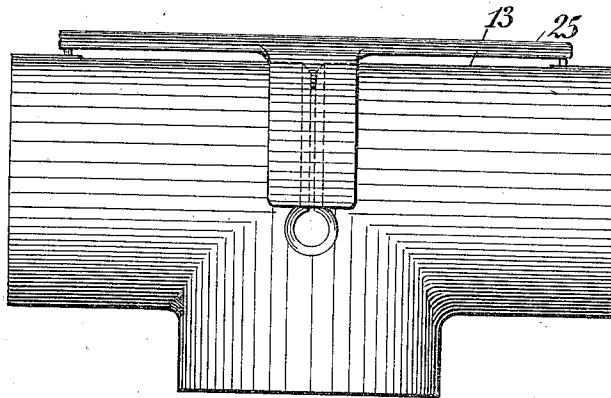


Fig. 5.

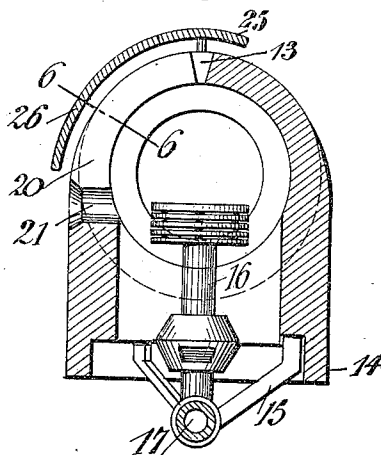
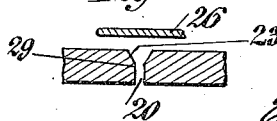


Fig. 6.



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UNITED STATES PATENT OFFICE.

EDWIN G. VAN ZANDT, OF ST. LOUIS, MISSOURI, ASSIGNOR TO VAN ZANDT GAS APPLIANCE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

GAS-BURNER.

1,045,465.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed July 11, 1910. Serial No. 571,347.

To all whom it may concern:

Be it known that I, EDWIN G. VAN ZANDT, a citizen of the United States of America, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Gas-Burners, of which the following is a specification.

This invention relates to gas-burners. More particularly it relates to improvements in the structure shown in the U. S. Letters Patent No. 838,596 dated Dec. 18, 1906, and U. S. Letters Patent No. 867,507 dated Jan. 14, 1908.

The object of this particular invention is to provide means whereby the initial burner may be readily ignited and for this purpose the invention consists in providing at the front of the shell or container, shown in my various patents and applications, a slot having an enlarged portion. The object of this slot and enlarged portion is twofold. First, to permit the ready passage of an ignited match or taper, and secondly, to carry upwardly the flame from the combustible parts of the products of combustion formed in the interior of the shell or container and thereby readily ignite the combustible gases emanating from top of the shell or container.

In the accompanying drawings, Figure 1 shows a front view of my improved device, Fig. 2 a plan-view of the same, Fig. 3 a vertical longitudinal sectional view of the same, Fig. 4 a front view of a modified form of my device, Fig. 5 a central, vertical transverse sectional view of the modified form, and, Fig. 6 is a sectional view taken on the line 6—6 of Fig. 5.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, the shell or container 10 is of the horizontal cylindrical type having end-vents 11 formed by inwardly projecting flanges 12 and having an upper vent 13 being V-shaped in cross-section in the embodiment of the drawings along the upper part of the horizontal cylindrical structure. The cylindrical shell or container has a downwardly projecting flange 14 resting on struts 15 and within the shell or container is the usual initial burner 16 connected with a supply pipe 17.

The present improvement consists in providing a vertical slot 20 in the front-part of

the cylindrical shell or container which slot extends from the upper vent 13 downwardly to the lower front-part of the shell or container, where an enlarged portion 21 is formed. The slot 20 is formed with parallel walls 29 which form a narrow channel and prevent to a great extent the free egress of the combustible gases, which channel terminates in an enlarged beveled V-shaped portion 23. The enlarged portion 21 of the lower end of the slot is slightly beveled. The enlargement 21 is of such a size as to permit the ready entrance of the match or taper and thereby the ready ignition of the gas at the initial burner whereas the channel with its parallel walls retards the egress of the unburnt combustible gases, while the object of the beveled or V-shaped portion is to act for the play of the flame of the combustible gases passing out of the slot and ignited at the exterior thereof. It will be noted, however, that the slot 20 differs from the upper vent 13 in that the gases intended to pass through slots 20 are more impeded by reason of the parallel wall channel than the gases passing out of the upper vent 13.

In the embodiment shown in Figs. 4, 5 and 6, a deflecting plate 25 is disposed over the channel 13 for retarding and spreading the gases emanating from said channel, and a plate 26 is disposed over the slot 20 for the same purpose, which plate 26 extends downwardly to about the top of the enlargement 21.

By my invention the improved burners may be readily ignited and their salability correspondingly increased.

My invention therefore consists of a shell or container having an initial burner, said shell or container having an igniting opening therein, and further in providing an upper and a front slot, and in some instances plates over the slots, the slots being substantially like those described.

I do not wish to claim herein anything claimed in my pending application, Serial Number 571,346, filed July 11, 1910, and make reference hereby to the same.

I do not wish to limit myself to the details herein described necessary for a proper description of the invention, but reserve the right to make various changes within the scope of the appended claims without departing from the spirit of the invention,

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a gas-burner having an initial burner, a shell or container around the initial burner and provided with a slot in the front-part of said shell or container, said slot having an enlarged portion at the lower end of the same for the passage of a match or taper.

2. In a gas-burner having an initial burner, a shell or container around the initial burner having a burner opening and a slot at the front of the shell in communication with the burner opening and the interior of the shell or container.

3. In a gas-burner having an initial burner, a shell or container around the initial burner, and having a slot in the front of the shell or container, said slot having parallel sides forming a channel and beveled portions at the front part of said channel.

4. In a gas-burner, an initial burner and a shell for said initial burner having a burner-opening and an igniting opening in the shell adjacent the initial burner and removed from said burner-opening.

5. In a gas-burner, a shell or container having an outlet vent at the upper part thereof and a slot communicating with the outlet vent and extending downwardly

along the side of the shell, and an initial burner within the shell.

6. In a gas-burner, a horizontal shell or container having a top outlet vent and a vertical slot communicating with the top vent and extending downwardly substantially to the middle of the side of the shell and terminating in an enlargement, said slot and said enlargement having a V-shaped outward flare.

7. In a gas-burner, a shell or container having a top-vent and a vertical front vent communicating with the top-vent and extending downwardly in front of the shell, and a plate over the top-vent and extending forwardly over the front vent.

8. In a gas-burner, a shell or container having a top-vent and a vertical front vent communicating with the top-vent and extending downwardly in front of the shell, and terminating in an enlarged portion, and a plate over the top-vent and extending forwardly over the front-vent but not over the enlarged portion.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

EDWIN G. VAN ZANDT.

Witnesses:

LOUIS BLUM,
LENA WIDRIG.