No. 675,712. Patented June 4, 1901.

H. BURKERT.

INCANDESCENT GAS BURNER.

(Application filed Feb. 6, 1900.)

(No Model.)

Fig. 6.

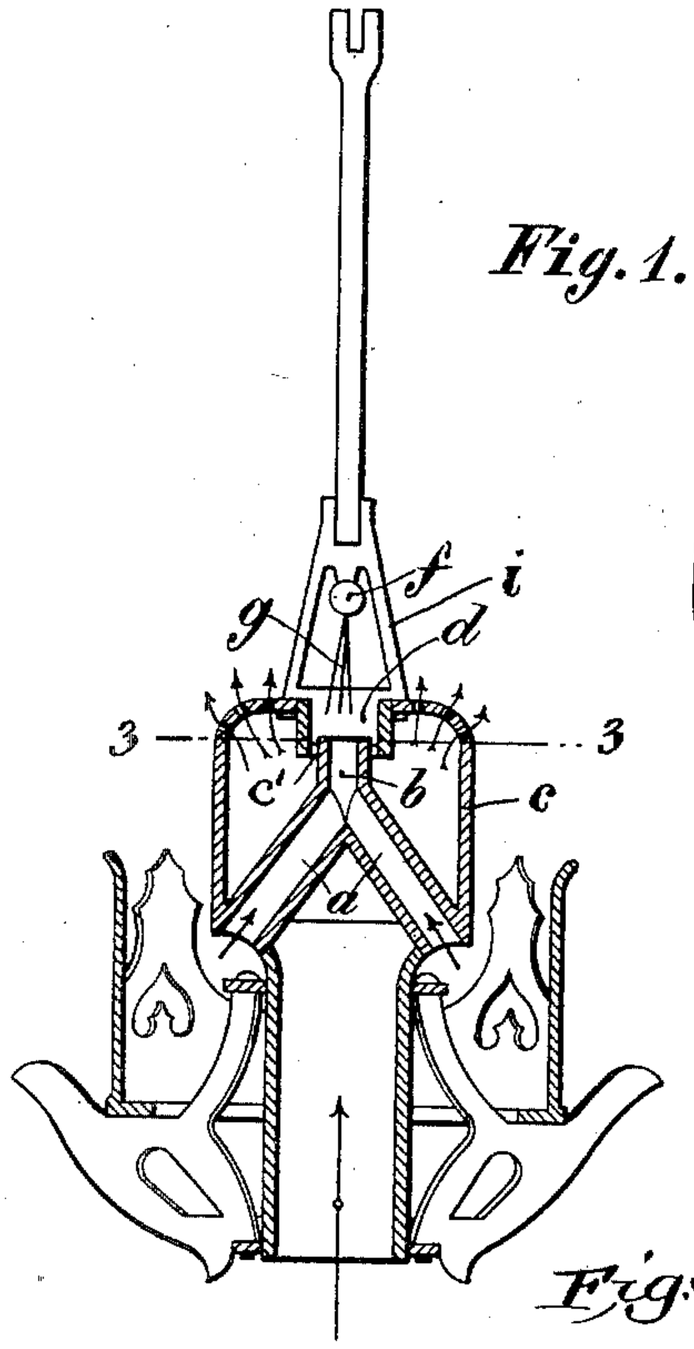


Fig. 1.

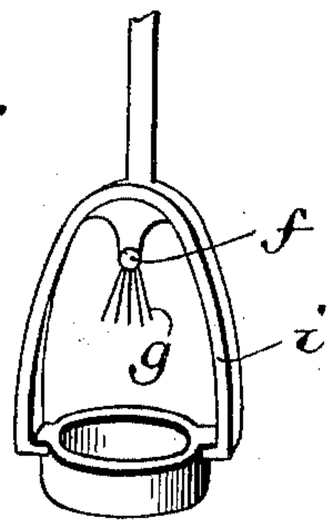


Fig. 2.

Fig. 5.

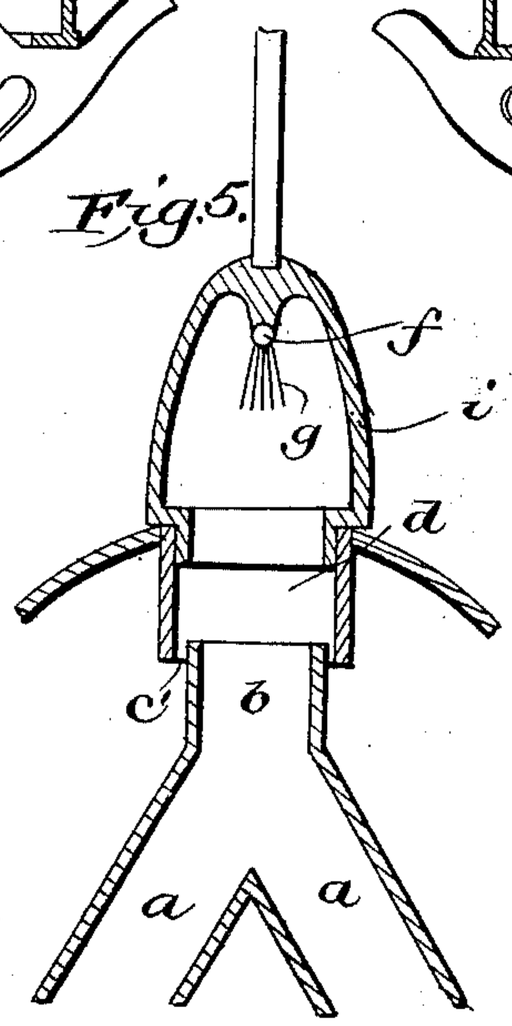


Fig. 3.

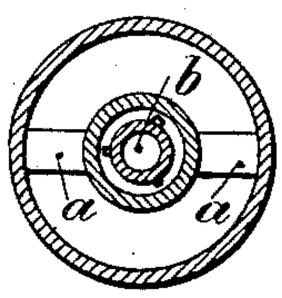
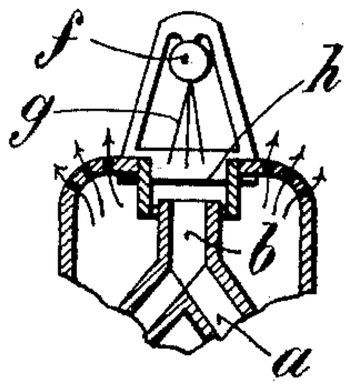


Fig. 4.



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UNITED STATES PATENT OFFICE.

HERMANN BURKERT, OF BERLIN, GERMANY.

INCANDESCENT GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 675,712, dated June 4, 1901.

Application filed February 6, 1900. Serial No. 4,275. (No model.)

To all whom it may concern:

Be it known that I, HERMANN BURKERT, merchant, a subject of the King of Prussia, German Emperor, and a resident of 14 Kommandantenstrasse, Berlin, in the Kingdom of Prussia and Empire of Germany, have invented certain new and useful Improvements in Incandescence Gas-Burners, of which the following is a specification.

My invention relates to improvements in those incandescence gas-burners which are provided with automatic ignition devices in which an ignition-ball is mounted above the burner-head in order to insure ignition of the gas when the gas is turned on.

My invention comprises a burner-head, an ignition-ball provided with a spray of platinum wire arranged directly over the burner-head, a support for the ignition-ball made of sufficiently fireproof material—such as fire-clay, soapstone, magnesia, infusorial earth, or like materials or compounds—a central air-chamber, into which the spray of wire extends, and an independent central air-supply for said chamber to keep the ball with the platinum wire cool by a suitable supply of air, as hereinafter described and claimed.

The accompanying drawings show two forms of construction of incandescence gas-burners with automatic gas-ignition devices consisting of an ignition-ball and a depending spray of platinum wire.

Figure 1 represents a burner-head having a central suspension-rod for the mantle. Fig. 2 represents a burner-head having a lateral suspension-rod for the mantle. Fig. 3 is a horizontal section on the line 3 3, Figs. 1 and 2. Fig. 4 is a detail vertical section showing a modification. Fig. 5 is an enlarged detail sectional view showing the combination of the bridge. Fig. 6 is a perspective view of the bridge detached.

a represents converging tubes or passages through which air is conducted, leading from both sides of the burner upward and meeting in a central air-tube *b*, which is surmounted by an enlargement or chamber *d* at the upper part of the burner-head *c*, so that a central current of air is caused to play directly on an ignition-ball *f* and a spray *g*, of platinum wire, depending therefrom, arranged in or directly above the enlargement or chamber, so that both are continuously cooled by the air flowing toward them and are thus provided with a sufficient supply of oxygen.

c' is a gas-inlet located between the wall of the central air-chamber and the air-tube for admitting a small amount of gas around the air-tube.

The gas and air mixing device in the burner-head need not be described, as it forms no part of the present invention.

By means of the air-supply described it is impossible for the igniting device to fail to act, and the automatic ignition-balls of this description will last much longer than ordinary devices of a somewhat similar kind.

In Fig. 4 I show a screen *h*, located in the chamber *d* and causing the currents passing through the air-chamber to issue against the spray of wire in a series of streams.

i is a bridge fitted in the top of the burner-head, whereby the ball is supported in position on the burner-head.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. An incandescence gas-burner provided with an automatic ignition device comprising a burner-head provided with upwardly-converging air-supply passages meeting in a central air-chamber at the top of the burner-head, an automatic ignition-ball provided with a spray of platinum wire depending in said central chamber, and a bridge whereby the ball is supported on the burner-head; substantially as described.

2. An incandescence gas-burner comprising a burner-head having a central air-chamber, upwardly-converging air-supply passages, a central tube, with which the air-supply passages connect, entering the central air-chamber, a bridge comprising an annular collar fitting in the central air-chamber and arms extending upwardly from the collar and joined together at their upper ends, and an automatic ignition-ball suspended from said arms at their juncture centrally over the central air-chamber and a spray of platinum wire depending from the said ball into the center of the said central air-chamber whereby free access of the inflowing air is allowed to the said spray.

In witness whereof I subscribe my signature in presence of two witnesses.

HERMANN BURKERT.

Witnesses:
WOLDEMAR HAUPT,
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