C. H. HINDS.

Electric Gas-Burner.

No. 209,891. Patented Nov. 12, 1878.

Fig. 1.

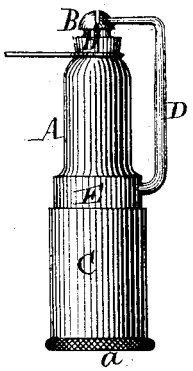


Fig. 2.

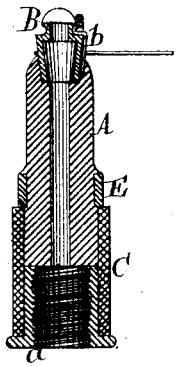


Fig. 3

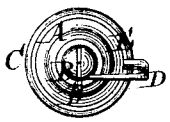
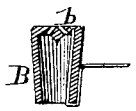


Fig. 4.



Witnesses.

Otto Stupeland.

Chas. Wahlers.

Inventor.

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by

Van Santwood & Hauff

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UNITED STATES PATENT OFFICE.

CHARLES H. HINDS, OF NEW YORK, N. Y.

IMPROVEMENT IN ELECTRIC GAS-BURNERS.

Specification forming part of Letters Patent No. **209,891,** dated November 12, 1878; application filed April 17, 1878.

To all whom it may concern:

Be it known that I, CHARLES H. HINDS, of the city, county, and State of New York, have invented a new and useful Improvement in Gas-Burners, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a side view. Fig. 2 is a central section. Fig. 3 is an end view. Fig. 4 is a modification.

Similar letters indicate corresponding parts.

My invention consists in an electric gas-burner, which is composed of an asbestus body, provided with a socket for the reception of a burner-tip, and of an insulating base provided with a screw-socket to fit the gas-pipe, the spark-conductor being secured to a ring which embraces the body or the base.

This invention consists in a gas-burner having its body made of asbestus, and provided with a lava tip having an electrode embedded therein, in combination with a metallic ring surrounding said body and supporting a spark-conductor, all of which will be hereinafter described and its particular construction and uses explained.

In the drawing, the letter A designates the body of my gas-burner, which is made of asbestus, or of a mixture composed chiefly of asbestus, and which is provided with a socket to receive the burner-tip B. With this asbestus body is combined a base, C, of hard rubber, glass, or other insulating material, which is provided with a screw-socket, *a*, to fit the gas-pipe. The asbestus body, being a very bad conductor of heat, prevents the heat of the flame from affecting the base, and, since asbestus is also a bad conductor of electricity, such asbestus body is peculiarly adapted to electric gas-burners. The spark-conductor D is secured to a metallic ring, E, which embraces the lower part of the body A or the upper part of the base C.

The burner-tip which I use in my electric gas-burner is of that class known as "lava tips," and I combine with such tip an electrode, *b*, of copper or other good conductor of electricity, which is embodied in the tip, as shown in Fig. 4, the point of said electrode being exposed and situated close to the orifice or orifices of the tip. By means of this electrode the electric spark emitted by the spark-conductor is caused to strike the jet of gas issuing from the tip without fail, and an electric gas-burner can be produced which never fails to operate.

If a metal tip is used in a gas-burner of this class, and the spark-conductor is slightly displaced, the spark jumps to the nearest spot of the metallic tip without striking the jet of gas, and the operation of lighting the gas is a failure. The same difficulty arises if the electrode consists of a metal band or wire extending clear round the neck of a lava tip. In my tip the electrode *b* is permanently fixed, and, even if the spark-conductor becomes slightly displaced, the spark jumps to the end of the electrode, such being the nearest metallic part, and the gas is lighted.

Metallic gas-burners have heretofore been surrounded with a non-conducting composition in which electrodes are embedded, and I do not, of course, claim such a device; and I am aware that a bat's-wing lava tip, having a wire bent around it and twisted, in order to secure it (the wire) in position, has been used with electrical gas-lighting apparatus; but this mode of securing the wire can be used only for that particular kind of burners which are split or slitted diametrically through their upper portion, while an electrode may be embedded in a tip of any shape and producing any kind of blaze, and this electrode is not necessarily a piece of flexible wire, but may be rigid, if desired.

What I claim as new, and desire to secure by Letters Patent, is—

1. The gas-burner consisting of the asbestus body A, provided with a lava tip having an electrode embedded therein, in combination with the ring E, embracing said body, and provided with the spark-conductor D, substantially as set forth.

2. As a new article of manufacture, a replaceable gas-burner tip formed entirely of the composition known as "lava," and having embedded therein an electrode, one terminal of which is adjacent to the gas-orifice, while the other projects outwardly for attachment to a suitable conductor.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 12th day of April, 1878.

CHAS. H. HINDS. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.