A. L. BOGART.

ELECTRIC GAS-BURNERS.

No. 194,328. Patented Aug. 21, 1877.

Fig. 1.

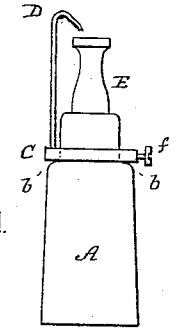
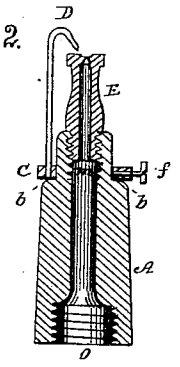


Fig. 3.



Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

ABRAHAM L. BOGART, OF NEW YORK, N. Y.

IMPROVEMENT IN ELECTRIC GAS-BURNERS.

Specification forming part of Letters Patent No. **194,328**, dated August 21, 1877; application filed July 9, 1877.

To all whom it may concern:

Be it known that I, ABRAHAM L. BOGART, of the city, county, and State of New York, have invented certain new and useful Improvements in Electric Gas-Burners; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

The object of this invention is to provide a gas-burner, to be lighted by electricity, of such material and in such a manner that it can be manufactured at a very small cost and at the same time will be very durable and free from liability to get out of order or require repairing.

My improvement consists, mainly, in constructing the pillar or body of the burner of "speckstein," a mineral found in some parts of Germany, and also known by the names of "steatite" and "lava," which possesses the several properties of being a non-conductor of electricity, extremely hard, and free from liability to fracture, water-proof, and capable of resisting the action of fire, and which is of such texture and firmness that screw-threads may be formed thereon for the purpose of attaching the other parts without requiring the use of a metallic base or a metallic cap, which have heretofore been found indispensable when any material other than metal has been used for the pillar or body of the burner.

Several kinds of material have been used for this purpose, as, for instance, rubber, which is affected by the heat and is liable even to become ignited thereby. Porcelain, glass, and other vitreous substances have also been used, but these are liable to be fractured from comparatively slight causes as well as from the heat of the flame. An asbestus composition has also been used, but, by the process of compounding it, it becomes friable and comparatively useless for the purpose; and none of these admit of having screw-threads formed thereon which will retain the other parts in proper position for any considerable length of time, but require for that purpose the interposition of metallic bases or caps or sleeves, which have to be attached by plaster-of-paris or cement, which latter is liable to become detached or to leak, beside occasioning considerable labor in forming the joints.

By my improvement these several difficulties and disadvantages are obviated, and a very cheap, efficient, and durable burner is obtained, possessing the necessary characteristics as to insulation and the non-conduction of heat.

In the accompanying drawings is shown a gas-burner constructed according to my invention, Figure 1 representing an elevation, and Fig. 2 a vertical section of the same.

Similar letters of reference indicate the same parts in both figures.

A is the hollow pillar or body of a gas-burner, which may be of any suitable form and dimension. This pillar, as above mentioned, I make from speckstein or steatite. At some distance below the upper end thereof a shoulder, *b*, is formed to support a metallic ring, C, which carries the electric conductor D. At the upper part of the said pillar A, in the interior thereof, are formed screw-threads *m* to receive the corresponding threads on a metallic or other gas-tip, E, and at its lower end are screw-threads *o* for the purpose of attaching the burner to a chandelier or other support in the usual manner. The gas-tip may be either of the fish-tail or bat's-wing kind, as desired.

f is a set-screw for securing the ring C firmly to the pillar A in proper position.

I do not wish to be understood as confining myself to the exact form or shape of the pillar herein shown, nor to any particular mode of arranging the electric conductors, as these may be varied, the main feature of my invention being in the use of speckstein for the pillar or body of the burner; and it will be readily seen that by the use of the said material for that purpose, possessing and combining, as it does, the several properties above enumerated, and being a non-conductor both of heat and of electricity, an electric burner may be made consisting of a very few and very simple parts, and at a much smaller cost than has heretofore been found practicable.

This speckstein pillar may also be used in connection with a lava bat's-wing tip, Fig. 3, or, if desired, the upper part of the pillar may be extended and formed into a gas-tip.

What I claim as my invention is—

1. The pillar A of a gas-burner, when made from speckstein or steatite, substantially as herein set forth.

2. The pillar A made from speckstein and having screw-threads *m* and *o* formed thereon, substantially as shown, in combination with a metallic gas-tip.

3. The combination of the steatite pillar A, the conductor D, and a metallic gas-tip, substantially as shown and described.

4. The combination of the steatite pillar A, the conductor D, and a lava gas-tip either of the bat'swing or the fish-tail kind, substantially as herein specified.

Dated New York, July 5, 1877.

ABM. L. BOGART.

Witnesses:
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