

Hiram W. Hayden.
Improvement in Gas Burners.

No. 122,382.

Patented Jan. 2, 1872.

Fig. 1.

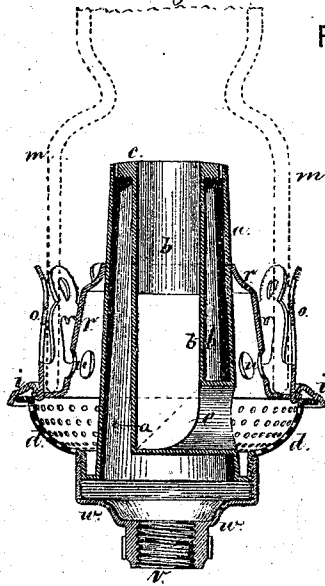
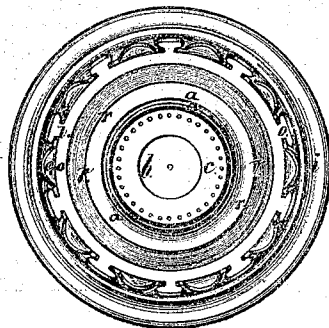


Fig. 2.



Witnesses.

Chas. H. Smith
Harold Perrell

Inventor.

Hiram W. Hayden,
Lemuel M. Perrell
Atty.

UNITED STATES PATENT OFFICE.

HIRAM W. HAYDEN, OF WATERBURY, CONNECTICUT, ASSIGNOR TO HOLMES,
BOOTH & HAYDENS, OF SAME PLACE.

IMPROVEMENT IN ARGAND GAS-BURNERS.

Specification forming part of Letters Patent No. 122,382, dated January 2, 1872; antedated December 19, 1871.

To all whom it may concern:

Be it known that I, HIRAM W. HAYDEN, of Waterbury, in the county of New Haven and State of Connecticut, have invented and made an Improvement in Argand Gas-Burners; and the following is declared to be a correct description thereof.

Argand gas-burners have before been made with a hollow cylinder into which the gaseous hydrocarbon is admitted; they, however, are frequently inconvenient to light, and are influenced by passing atmospheric currents. My present invention is made for regulating the currents of air passing to the flame, and allowing the chimney and chimney-holder to be removed with facility for lighting or cleaning.

In the drawing, Fig. 1 is a vertical section of the said burner, and Fig. 2 is a plan of the same.

The exterior tube *a* and interior tube *b* are united together at their upper ends by the ring *c*, which is perforated for the gas to escape in jets. The tube *b* has an elbow, *e*, forming a lateral inlet through the exterior tapering tube *a*, so that all the air that is admitted to the flame is compelled to pass through the foraminous air-distributor *d*, which surrounds the tube *a* and is firmly attached thereto. The chimney-rest *i*, spring chimney-holder *o*, and tapering perforated tube-guide *r* are connected together and removable from the burner. When in position the chimney-rest is supported by the edges of the air-distributor *d* and guided by the cone *r*. The distributor *d* regulates the

quantity of air admitted, and a portion goes by the elbow *e* and central air-tube *b*, and the other portion passes through holes *u* in the cone *r* to supply the oxygen to the exterior of the flame. The lower end of the tube *a* is connected to the gas-pipe at *v* by means of the contracted coupling *w*. In this construction of argand gas-burner there is a large chamber in which the gas becomes heated previous to issuing in jets, and the burner is adapted to the contracted-neck chimney employed with the St. Germain or student lamps; hence the flame will be intensified by the impingement of the air upon the same and a very bright light produced and less gas consumed than with the ordinary argand gas-burners. Beside this, the burner, being made of sheet metal, is very strong and much cheaper than those before constructed. I have shown the said chimney in dotted lines at *m*.

I claim as my invention—

The argand gas-burner made of a tube, *a*, connected at the lower end to the coupling *w*, and containing the interior air-tube *b* and elbow *e*, in combination with the air-distributor *d* and chimney-holder *o*, substantially as set forth.

Signed by me this 26th day of May, A. D. 1871.

H. W. HAYDEN.

Witnesses:

A. S. CHASE,
A. F. ABBOTT.

(90)