(No Model.)

E. F. GENNERT.

ATMOSPHERIC BURNER.

No. 358,345. Patented Feb. 22, 1887.

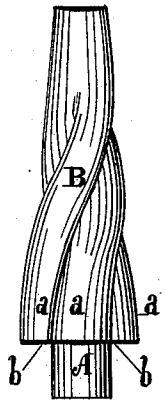


Fig. 1.

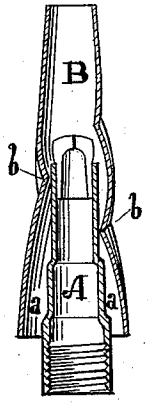


Fig. 2.

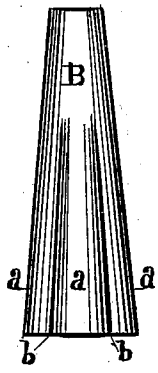


Fig. 3.

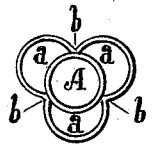


Fig. 4.

WITNESSES:

C. F. Kelly.

J. A. McKay.

Emil F. Gennert INVENTOR

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

EMIL F. GENNERT, OF BROOKLYN, NEW YORK.

ATMOSPHERIC BURNER.

SPECIFICATION forming part of Letters Patent No. 358,345, dated February 22, 1887.

Application filed June 9, 1886. Serial No. 204,560. (No model.)

To all whom it may concern:

Be it known that I, EMIL F. GENNERT, a citizen of the United States, and a resident of the city of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Atmospheric Burners, of which the following is a specification.

This invention relates to that class of atmospheric gas-burning attachments which can be slid onto the ordinary gas-burners used for illuminating purposes.

My object is to overcome the difficulties incident to the manufacture of this kind of burners, and thus to cheapen their production; also, to secure a device which will effect a more perfect mingling of the atmosphere and gas within the burner. I accomplish these objects by constructing the burner attachment in the form of a conical tube indented so as to form three or more corrugations extending from its base longitudinally to near its other end, as will more fully appear, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of the attachment, showing it applied on a gas-burner. Fig. 2 is a longitudinal central section of the same. Fig. 3 is a side view showing a modification; Fig. 4, a cross-section near its base, showing a cross-section of a gas-burner also.

A is an ordinary gas-burner.

B is a conical tube made, preferably, out of sheet metal, although it may be cast. From its base extending toward its smaller end are semicircular corrugations *a a a*, which pursue a spiral course, as shown by Fig. 1. The angles *b b b*, formed between them on the inner side of the tube B, serve to center and support the burner attachment on the gas-burner, and the chambers or grooves within the semicircular corrugations serve as the inlets for air, which, following the spiral course directed by the corrugations, is made to whirl around the gas-burner A, and in passing its orifice to form a vortex when mingling with the gas, and thus being more completely mixed therewith.

To apply this attachment, it is dropped on the gas-burner, when its angles *b b b* will engage on the tapering outside of the gas-burner, and it will thereby be centered and held in place.

It will be observed that this corrugated form of the lower portion of the tube B affords or endows it with a yielding or elastic function, enabling it to accommodate itself to variations in the tapers of different gas-burners and without altering the fixed or firm character of the upper part constituting the mixing-chamber and outlet.

It will also be noted that the manufacture of this invention is exceedingly simple, requiring but two operations—namely, first, drawing the tube from sheet metal; second, striking in the corrugations with properly constructed dies.

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

1. A conical-shaped-tube attachment for gas-burners, provided with longitudinal corrugations extending part way upward from its base, in the manner and for the purpose specified.

2. A burner attachment consisting of a conical tube provided with air-passages *a*, formed by the integrant ribs *b*, which serve as supports and centering bearings, substantially as specified.

3. As an atmospheric burner attachment for gas-burners, a conical tube having its larger end bent into corrugations, which serve for air-passages, substantially as set forth.

4. As an atmospheric-burner attachment for gas-burners, a conical-shaped tube provided with spiral corrugations running partly upward from its base, so as to render its lower part elastic or yielding, for the purpose stated.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 4th day of June, 1886.

EMIL F. GENNERT.

Witnesses:
C. F. KELLEY,
N. FARQUHAR.