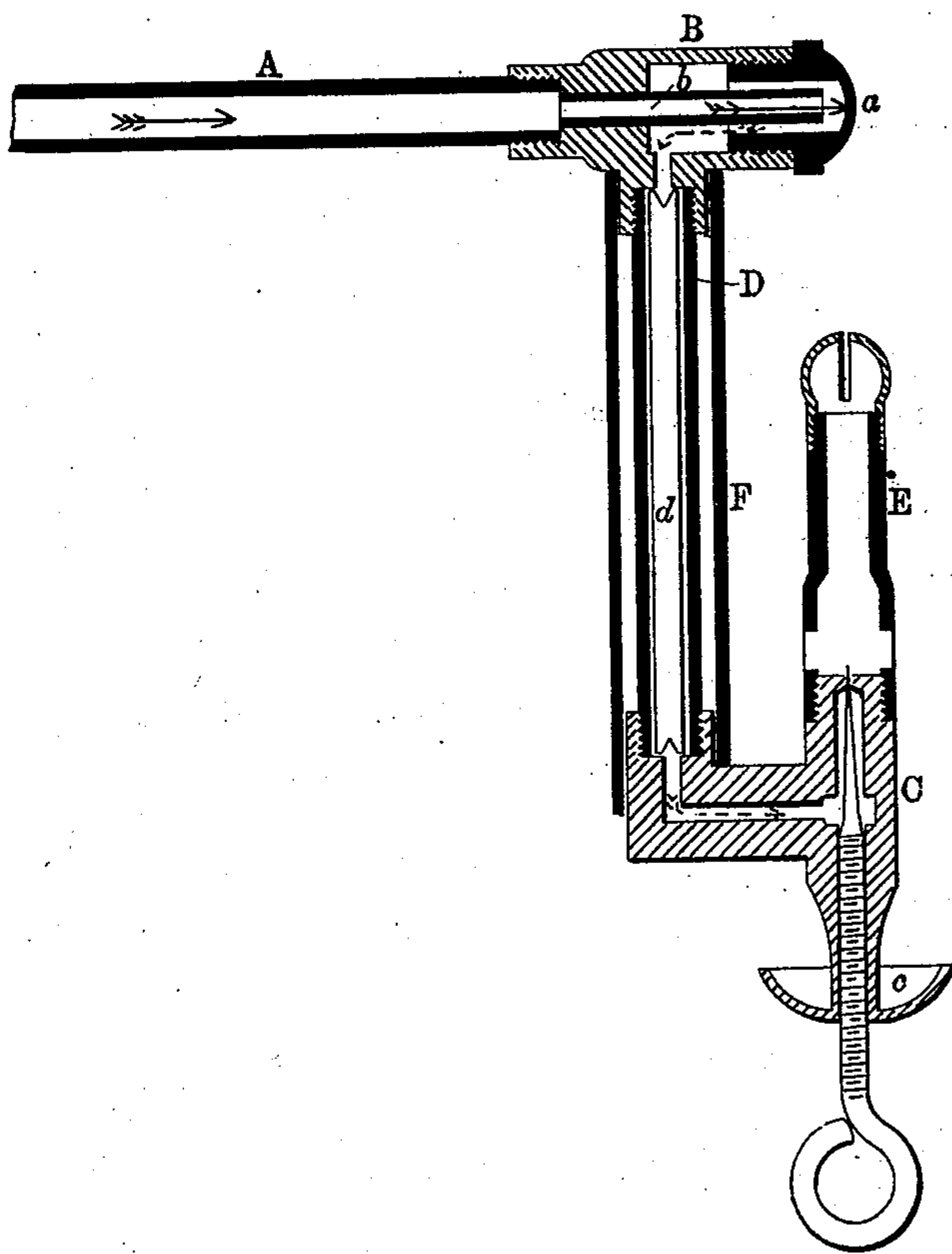


W. BRESLAU.
Vapor-Burner.

No. 209,855

Patented Nov. 12, 1878.



— WITNESSES —

J. Buckingham
D. P. Lowe

— INVENTOR —

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UNITED STATES PATENT OFFICE.

WILLIAM BRESLAU, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF HIS RIGHT TO R. F. DANFORTH, OF SAME PLACE.

IMPROVEMENT IN VAPOR-BURNERS.

Specification forming part of Letters Patent No. **209,855**, dated November 12, 1878; application filed June 22, 1878.

To all whom it may concern:

Be it known that I, WILLIAM BRESLAU, of the city of Baltimore and State of Maryland, have invented certain Improvements in Vapor-Burners, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

This invention relates to certain improvements in that class of burners wherein the illuminating-fluid is vaporized by the heat of the flame before reaching the discharge-orifice; and it consists in the novel construction and arrangement of certain parts of the burner, as will hereinafter fully appear.

The drawing forming a part hereof is a sectional view of the improved burner.

A is the supply-pipe conveying the illuminating-fluid from the reservoir to the burner, and B the generator, or that part of the burner to which heat is applied to vaporize the fluid. The said generator is provided with a button, *a*, screwed into the outer end thereof, and the outer surface of the button, which is rounded, is placed in such position with reference to the tip of the burner as to be heated by the flame projecting therefrom.

The fluid is conveyed from the supply-pipe A to within a short distance of the inner surface of the button *a* by means of a small pipe, *b*, and the interior of the generator around the said pipe *b* is in communication with the valve-chamber C through the medium of a pipe, D.

The burner proper, E, which is of the usual description, is screwed to the valve-chamber, as shown.

The valve consists of a pointed wire screwed into the lower part of the valve-chamber, the point entering a small aperture directly be-

low the burner proper. This burner is provided with the usual fluid-holding cup *c*, to be used in the preliminary heating of the burner.

After the burner is sufficiently heated by means of the ignited fluid in the cup *c* to generate a vapor that will ignite the vaporizing of the fluid takes place in the generator, which continues as long as the burner is in use. The direction of movement of the fluid is indicated by arrows in full lines and that of the vapor by arrows in dotted lines.

In the operation of this burner heat from the generator is communicated to the entire burner; and in order to increase the heating-surface of the pipe D, the said pipe is fitted with a rod, *d*, as shown, and radiation of heat from the said pipe is reduced by means of a jacket, formed preferably of a piece of pipe, which is represented by F.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

1. In a vapor-burner, the generator B, having the button *a* and internal pipe *b*, adapted to convey fluid within said button, a fluid-supply pipe uniting with the generator, a burner and a vapor-supply pipe, uniting the generator and burner, all combined substantially as specified.

2. The generator B and valve-chamber C, united by a connection consisting of the pipes D and F, the former inclosing the rod *d*, all substantially as specified.

In testimony whereof I have hereunto subscribed my name this 8th day of June, in the year of our Lord 1878.

WILLIAM BRESLAU.

Witnesses:

WM. BONE,
THOS. H. SHANKS.