

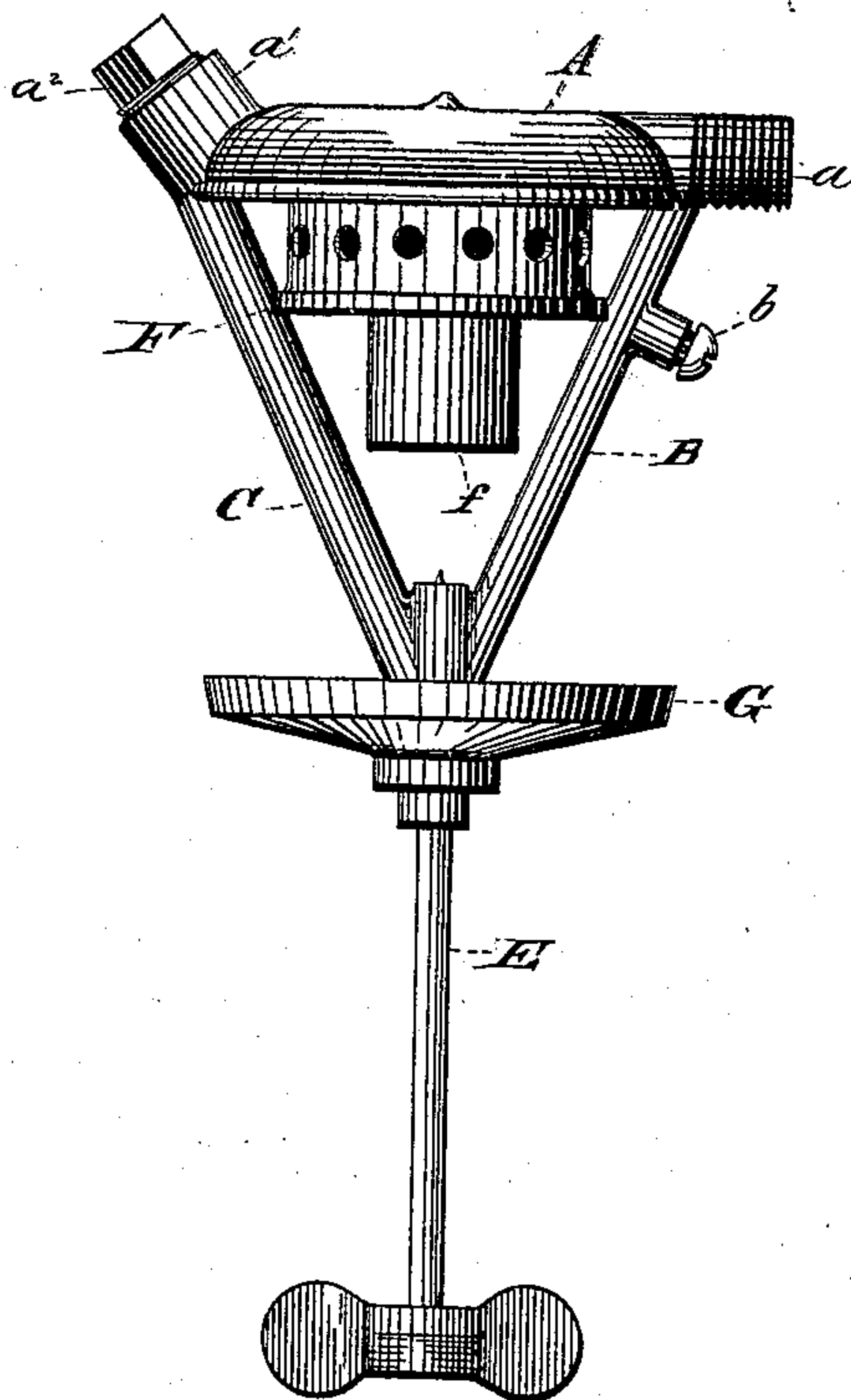
(No Model.)

F. MARQUART.  
OIL VAPOR BURNER.

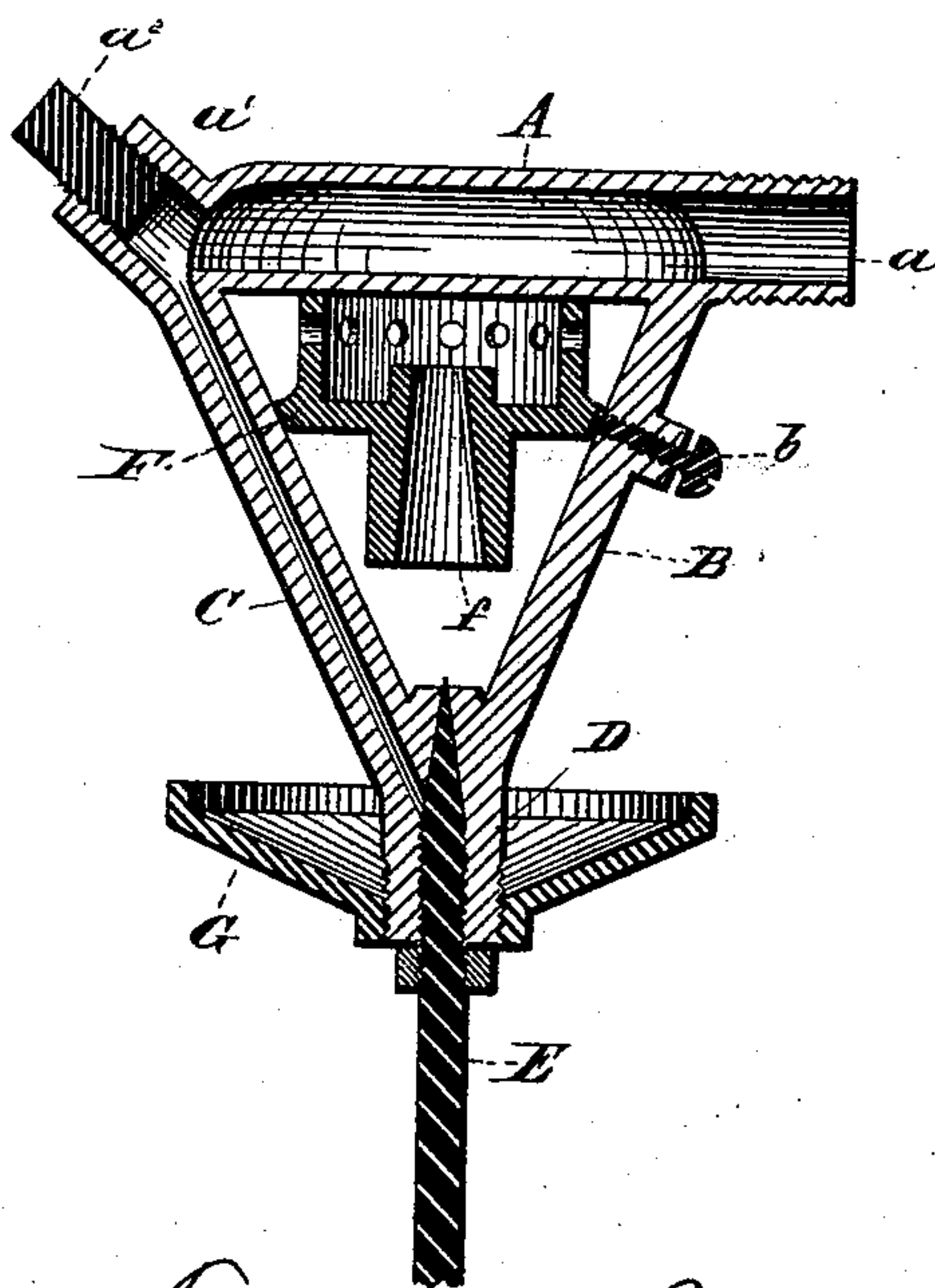
No. 322,620.

Patented July 21, 1885.

*Fig. 1.*



*Fig. 2.*



WITNESSES

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INVENTOR

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# UNITED STATES PATENT OFFICE.

FRIEDRICH MARQUART, OF CLEVELAND, OHIO.

## OIL-VAPOR BURNER.

SPECIFICATION forming part of Letters Patent No. 322,620, dated July 21, 1885.

Application filed September 6, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, FRIEDRICH MARQUART, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Oil-Vapor Burners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same

My invention relates to improvements in oil-vapor burners; and it consists in certain features of construction and in combination of parts, hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a side elevation view of my improved oil-vapor burner. Fig. 2 is a vertical section of the same.

A represents the vaporizing-chamber, and is provided with the nozzle *a* and *a'*, the former adapted to connect with a tube provided with a valve and leading to the oil-container, the latter threaded and provided with a removable plug, *a*<sup>2</sup>, and adapted to furnish access to the inner parts of the device for cleaning and other purposes. B and C are braces integral with each other and with the part A, and terminating at their union in a boss, D, in which is formed a seat for the valve E. The brace C is hollow, and the inclosed duct is in open relation with the chamber A and the valve E. It will be seen that when the plug *a*<sup>2</sup> and the valve E are removed all the internal parts are subject to inspection and are accessible for cleaning. The brace B is provided with the set-screw *b*, that secures in its place the part F, and when loosened renders the part F removable. The part F has a funnel shape opening, *f*, below, and is provided with small jet-orifices around the side, and when in place, as shown, abuts against the bottom of the part A, and forms a commingling and combustion chamber. G is a generating-pan of ordinary construction.

It will be seen that in this manner of construction lightness and strength are combined, and that there are no obstructing bends or elbows in the part E, and that the vapor is conducted from the chamber A to the valve E by the shortest route attainable, and therefore with the least possible exposure to condensation of the vapor.

The operation of the device is similar to other vapor-burners of the class.

The parts A and C are filled with oil from the container, a portion of which may be drawn into the generating-pan by means of the valve E and there ignited. This combustion heats the parts above until the oil contained therein is vaporized. A jet of the vapor is projected from the valve E into the orifice *f*, carrying with it a current of air into the commingling-chamber, where the air and vapor are thoroughly mixed and burned. The heat impinging against the bottom of the chamber A continues the formation of vapor therein, so that the operation is continuous in all of its parts.

What I claim is—

1. The combination of the parts A, B, and C, the plug *a*<sup>2</sup>, and nozzle *a'*, the removable chamber F, with its opening *f*, the screw *b*, the valve E, the boss D, and the generating-pan G, substantially as and for the purpose set forth.

2. The combination of the parts F and the parts A, C, and B, integral with each other, the part B being provided with the screw *b*, and adapted to support the part F, substantially as described.

In testimony whereof I sign this specification, in presence of two witnesses, this 20th day of August, 1883.

FRIEDRICH MARQUART.

Witnesses.

ALBERT E. LYNCH,  
FRANK HUBBELL.