

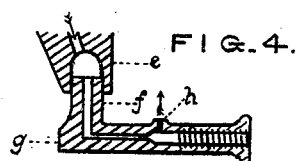
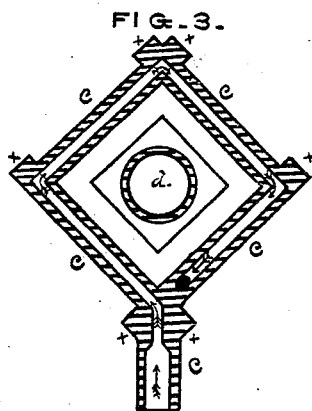
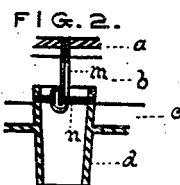
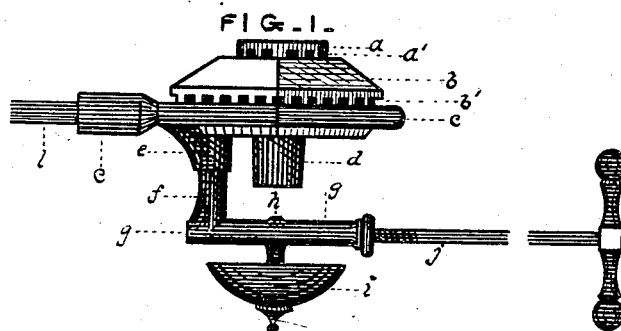
(No Model.)

R. FALKENRATH.

VAPOR BURNER.

No. 265,586.

Patented Oct. 10, 1882.



Witnesses

J. F. Grindol  
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att'y.

# UNITED STATES PATENT OFFICE.

RUDOLPH FALKENRATH, OF DECATUR, ILLINOIS, ASSIGNOR TO THE AMERICAN VAPOR STOVE MANUFACTURING COMPANY, OF SAME PLACE.

## VAPOR-BURNER.

SPECIFICATION forming part of Letters Patent No. 265,586, dated October 10, 1882.

Application filed February 28, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, RUDOLPH FALKENRATH, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Vapor-Burners, of which the following is a specification.

The invention relates to the construction of vapor-burners hereinafter set forth and claimed.

10 In the drawings accompanying and forming a part of this specification, Figure 1 is an elevation of my burner complete. Fig. 2 is vertical section of the conveyer or chimney, showing the device used to connect the distributing-caps to the generator. Fig. 3 is a plan section  
15 of the vapor-generator, showing the progress of the fluid or vapor through the same. Fig. 4 is a vertical section of the pipe used to carry the vapor from the generator to the chimney  
20 or conveyer.

*a* is a hollow circular nut-plate, provided with outlets *a'*.

*b* is a square hollow cap that receives the burning-vapor from the conveyer and discharges it through openings *b'* against generator *c*.

*c* is a generator square in outline, as shown in Fig. 3.

30 *d* is a chimney or conveyer extending slightly above generator *c*, and provided with a rod, *n*, extending diametrically across, as shown in Fig. 2.

*e*, *f*, and *g*, combined, carry the vapor from the generator to the discharge-orifice *h*. *e* may  
35 have a filter provided for it, as is indicated by the solid line across it in Fig. 4.

*i* is an ordinary fluid-receptacle used to heat the burner, and *j* is a screw-valve to regulate the flow of the fluid or vapor.

In constructing the generator a drill is used  
40 from centers *x x* and the projections plugged.

The burner is completed by screwing the generator onto supply-pipe *l*, screwing pipe *f* into *e*, placing cap *b* in position on the generator, and securing the same by means of nut-plate *a* and rod *m*. The generator may be further secured in its adjustment by having  
45 guides to prevent lateral displacement of the cap. I do not claim such guides, and have not shown them.

Filter *o* is supplied with wire coil, siftings,  
50 or other material suitable to retain any particles likely to obstruct the discharge *h*.

The fluid is vaporized by the flame through openings *b'* coming in direct contact with the generator *c* throughout its entire length, and  
55 in the great amount of fluid exposed to the heat consists the one great point of superiority in my burner.

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

Vapor-generator *c*, of the conformation shown, in combination with conveyer *d*, cap *b*, and nut-plate *a*, all connected by means of  
hook-bolt *m* and rod *n*, substantially as and  
65 for the purpose herein set forth.

RUDOLPH FALKENRATH.

Attest:

JOHN N. BILLS,  
L. P. GRAHAM.