

H. Behn.

Lamp Burner.

N^o 35,579.

Patented Jun. 17, 1862.

Fig. 3.

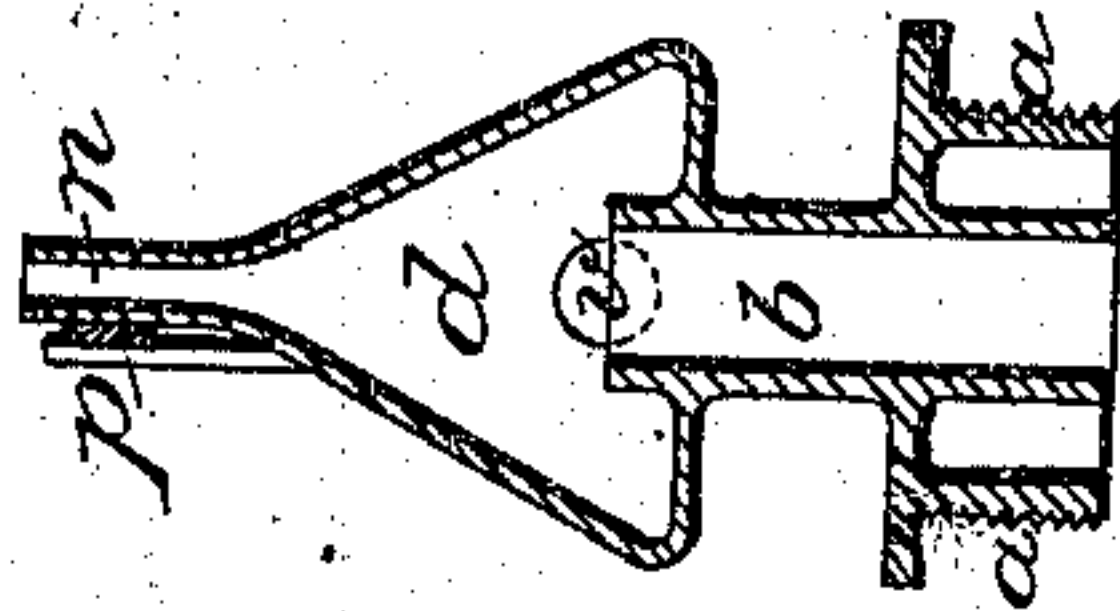


Fig. 2.

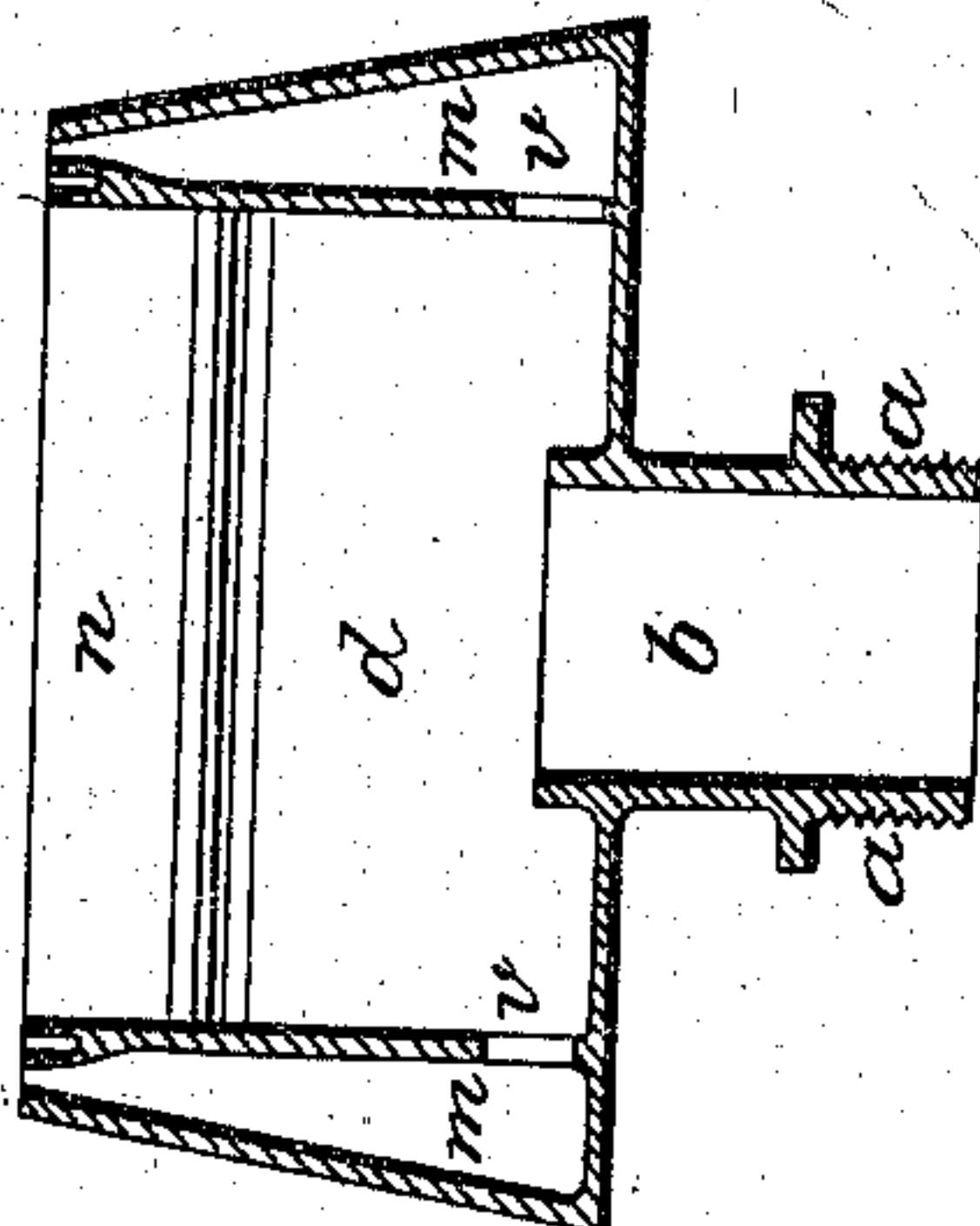
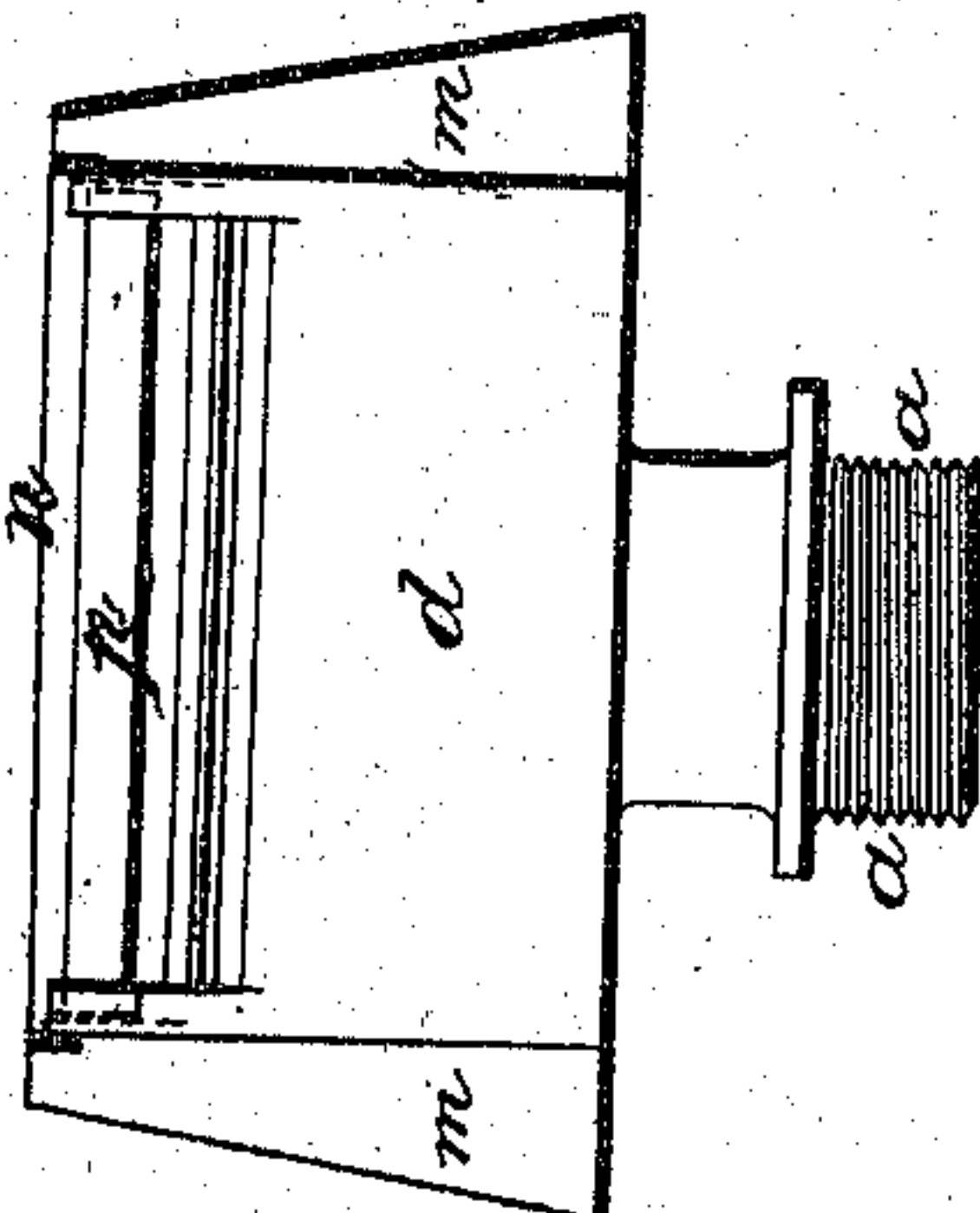


Fig. 1.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY BEHN, OF NEW YORK, N. Y.

IMPROVEMENT IN COAL-OIL LAMPS.

Specification forming part of Letters Patent No. 35,579, dated June 17, 1862.

To all whom it may concern:

Be it known that I, HENRY BEHN, of New York, in the county and State of New York, have invented a new and Improved Coal-Oil Lamp; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the construction of a burner provided with a gas-chamber in which the gases are collected and conducted away from the wick, to allow the illuminating material only to rise to the end of the wick, so as to burn without smoke or offensive odor, and without the inconvenience of a chimney.

Figure I represents an outside view of the finished lamp-burner. Fig. II is a vertical section of the burner, and Fig. III is a cross-section of the same.

The block *a* is screwed firmly into the top of the lamp, and has a wick-tube, *b*, firmly fastened to it. Near the top of this wick-tube *b* a gas-chamber, *d*, is attached, the upper end of which is shaped so as to form a wick-tube, to receive a flat wick. One side of this wick-tube *n* is left free on its edges and not fastened to the other side, by which arrangement sufficient spring and elasticity is obtained to allow the wick to be easily slipped up or down when required. A wedge, *p*, is made to act against this loose side of the wick-tube *n*, whereby said side will be pressed against the wick to hold the same sufficiently tight to retain its position. Instead of a wedge, as above described, a spring or springs may be used as an equivalent for said wedge.

Near the lower part of the gas-chamber *d*

openings *v v* are made, forming communications between said chamber *d* and small tubes or pipes *m m*, closed at the bottom and terminating on a level with and close to the top of the wick-tube *n*.

The wick, passing through the wick-tubes *n* and *b*, passes free or without any close surrounding tube through the gas-chamber *d*.

When the wick is lighted, the heat of the flame affects the ends of the tubes or pipes *m m* and produces a current by which any generated vapors or gases are drawn through said pipes away from the gas-chamber *d*, which will be ignited and consumed at the mouth of said tubes, allowing thereby the illuminating material of the coal-oil to burn at the end of the wick without any smoke and without the necessity and inconvenience of a chimney.

The drawing off of the gases from the gas-chamber *d* through the pipes *m m*, as above described, prevents the lower wick-tube, *b*, from becoming heated and conducting caloric down into the oil, and thus increasing the evaporation.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The arrangement of the gas-chamber *d* between the upper and lower wick-tubes, *n* and *b*, in combination with the tubes or pipes *m m*, in the manner and for the purpose substantially as described.

2. The construction of the upper end of the gas-chamber *d*, forming the upper wick-tube, *n*, provided with a wedge, *p*, or its equivalent, in the manner and for the purpose specified.

HENRY BEHN.

Witnesses:

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