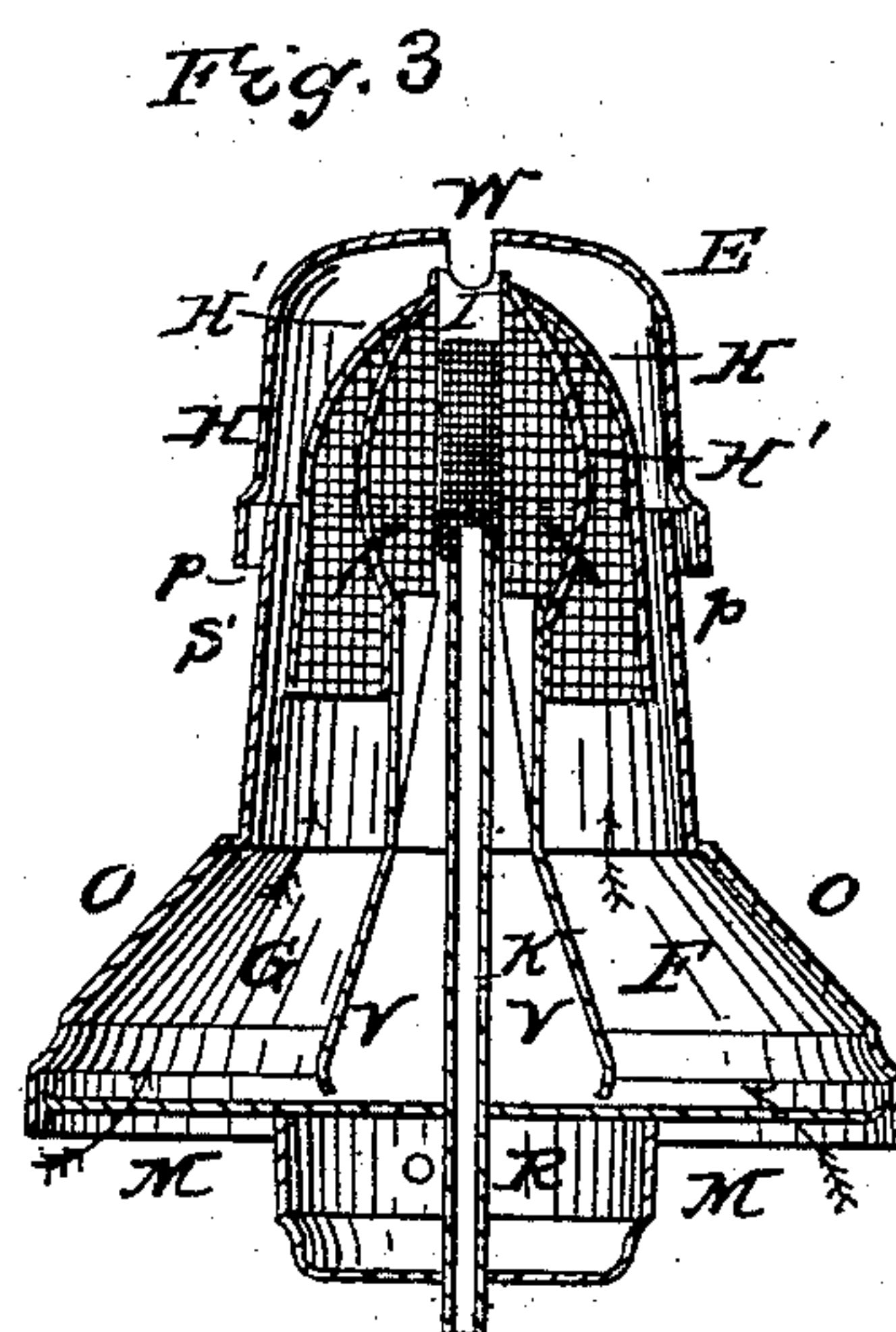
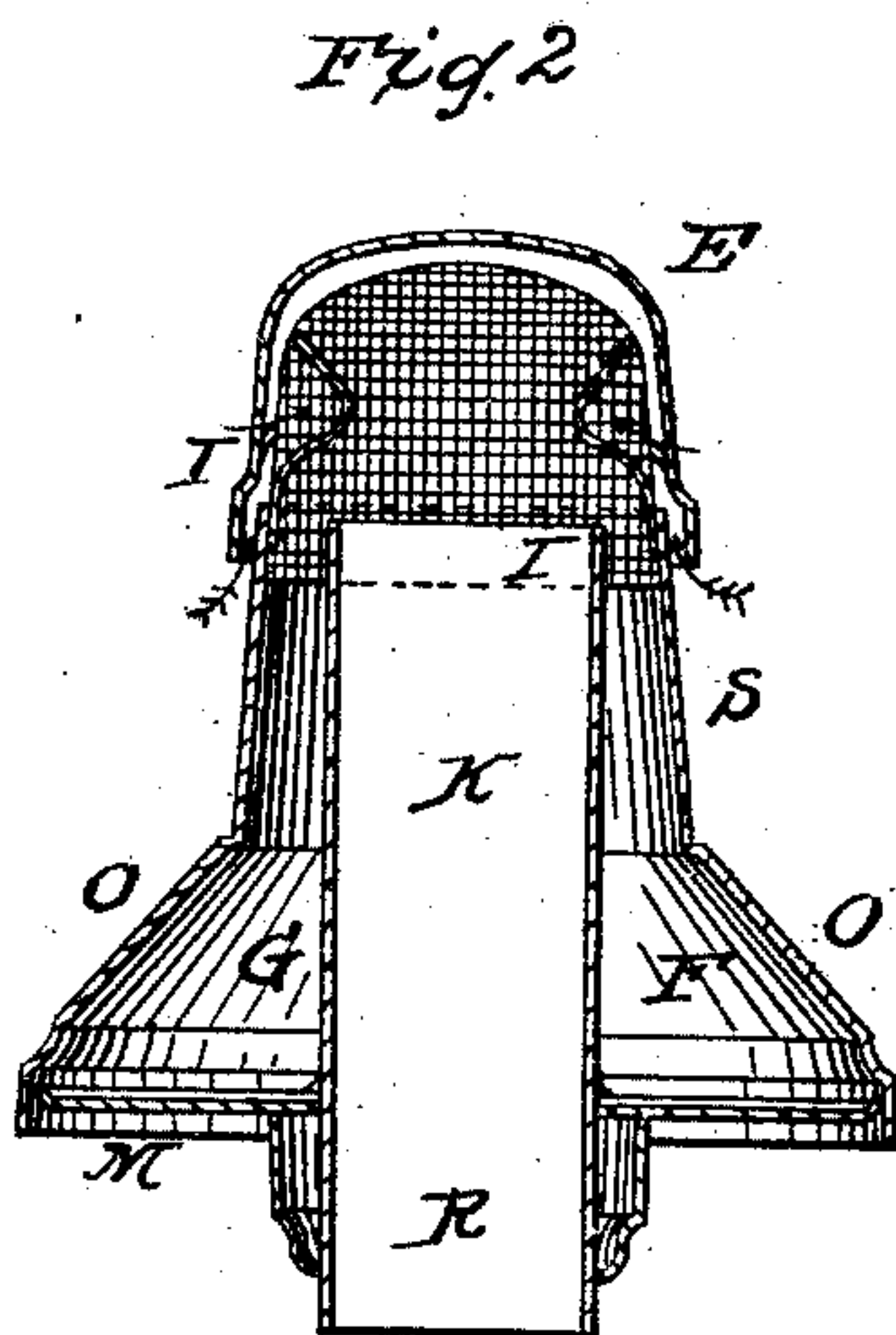
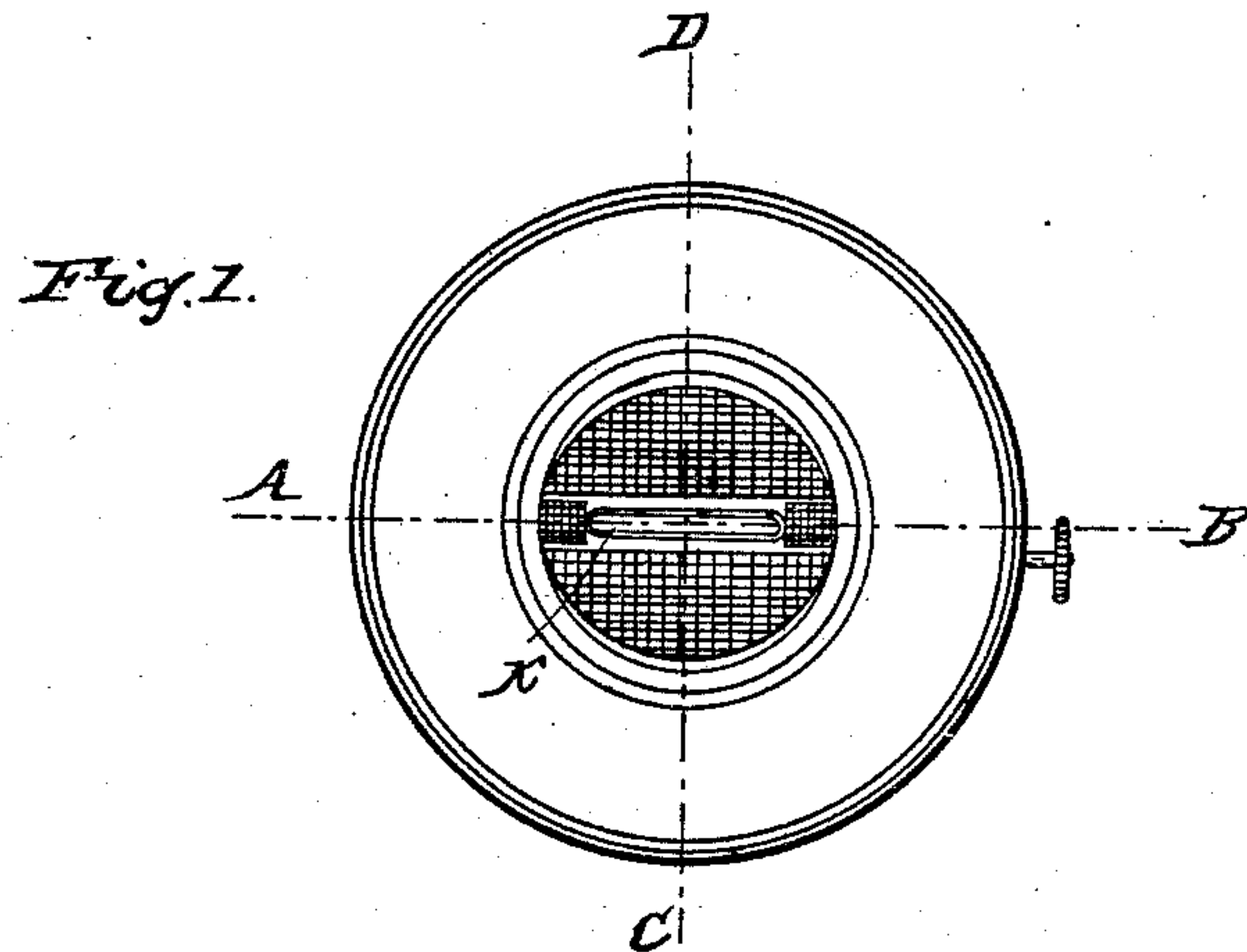


E. TRITTIN.
Lamp Burner.

No. 31,271.

Patented Jan. 29, 1861.



Witnesses
J. H. Child
J. D. Bayard

Inventor
Emil Trittin

UNITED STATES PATENT OFFICE.

EMIL TRITTIN, OF PHILADELPHIA, PENNSYLVANIA.

LAMP.

Specification of Letters Patent No. 31,271, dated January 29, 1861.

To all whom it may concern:

Be it known that I, EMIL TRITTIN, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented
5 new and useful Improvements in the Construction of Lamps for Burning Coal-Oil; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in
10 which—

Figure 1 is a cross-section of my lamp. Fig. 2 is a vertical section through the line A, B, and Fig. 3 is a vertical section through
15 the line C, D.

The bottom of the top of the lamp is provided with the flange or shoulder O. The two diaphragms L, and L, divide the inner space into three chambers as shown in the
20 drawing. The wick-tube K passes up through the middle or center chamber. Over the bottom of the two exterior chambers F, and G, is a perforated plate *m, m*. The projection R, on the bottom of this
25 lamp-top is for the purpose of attaching it to the lamp. The diaphragms L, L, extend nearly to the top of the sides S. A double wire gauze H, H', having a small space between its two sides is placed over this wick
30 and is of the shape shown in the drawing in Fig. 3. The part of this cover H, H', might be made of thin sheet metal were it not that sheet metal is so easily heated, while wire gauze is not. The guard I, made of the
35 form shown in Fig. 2, is placed at the end of the guard H, H' and is also made of wire gauze. The top of the wide tube K, comes a little above the top of the diaphragms L, L. A cover E, with a long slit or opening
40 W, at the top, corresponding to the size of

the wick-tube, is made to fit over the guards and is somewhat larger in diameter than the diameter of the tube S, S. It is sustained in its position by small pins *p, p*. A slight opening is thus left between the
45 cover F, and the tube S, S.

The operation of this burner is as follows: The air passing through the perforated plate *m, m*, passes into the chambers F, G. It here becomes slightly heated, and
50 then passes up between the two sides H, H', of wire gauze and is through the wire gauze H', into the flame at the top of the wide tube. The carbon of the coal-oil is thus all consumed. The cold air passing between the
55 tube S, S, and the cover F through the opening before-mentioned is thrown through the guard I upon the flame. The directions of these currents of air are shown by arrows in
60 Figs. 2 and 3. By these means a light is produced entirely free from smoke, without the aid of the glass chimney hitherto used with coal oil lamps and which was a serious objection to their use.

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

The combination of the flange or projection O, the diaphragm L L, the air chambers F and G, the wire gauze guards H, H',
70 the wire gauze guard I, the cover E, and the tube S, in the manner and for the purpose substantially as herein described.

In testimony whereof, I, the said EMIL TRITTIN, have hereunto set my hand.

EMIL TRITTIN.

Witnesses:

J. GWINN CHILD,
F. D. BAQUES.