

(No Model.)

S. ELLIS.
LAMP BURNER.

No. 398,503.

Patented Feb. 26, 1889.

Fig. 1.

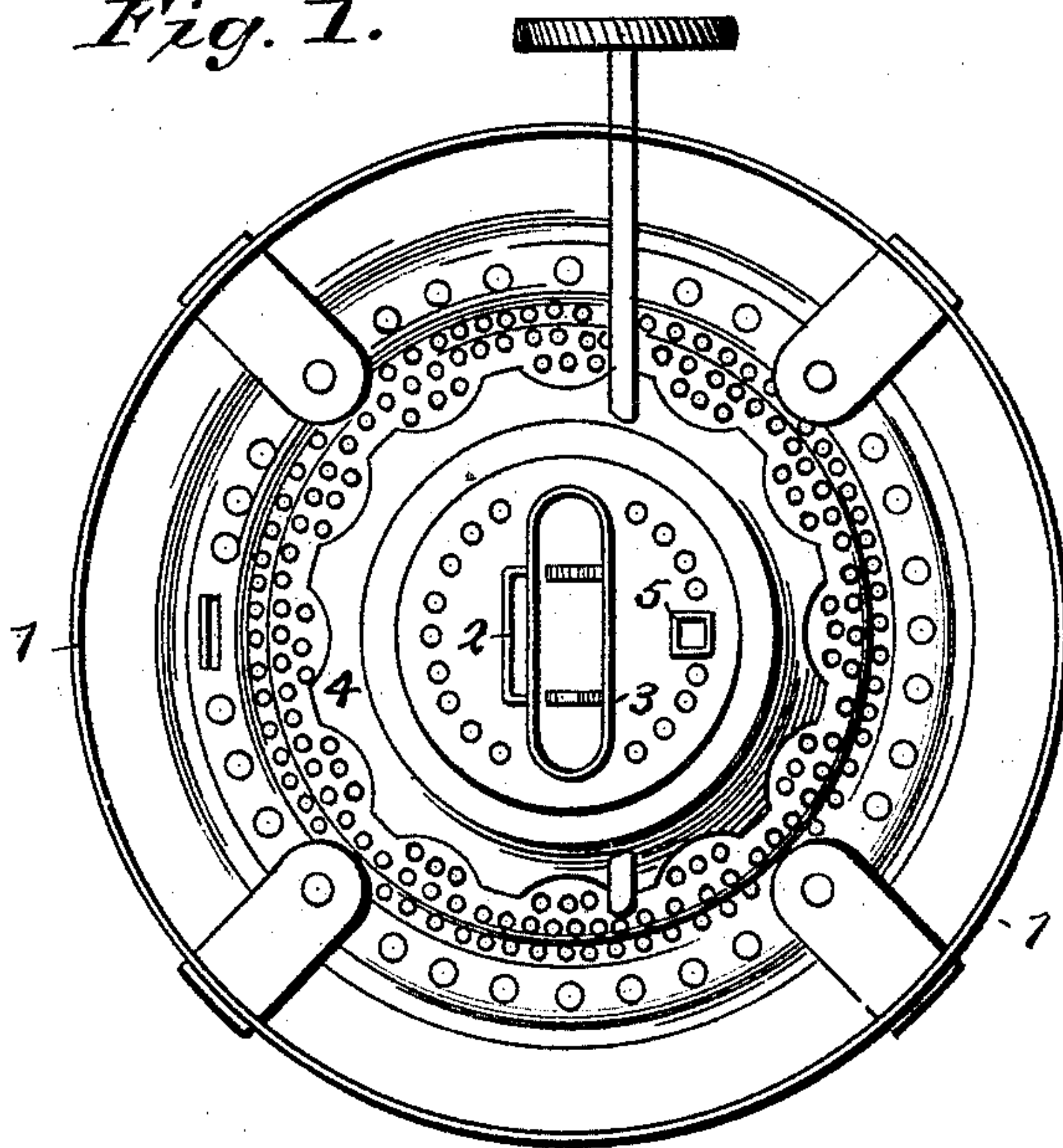


Fig. 2.

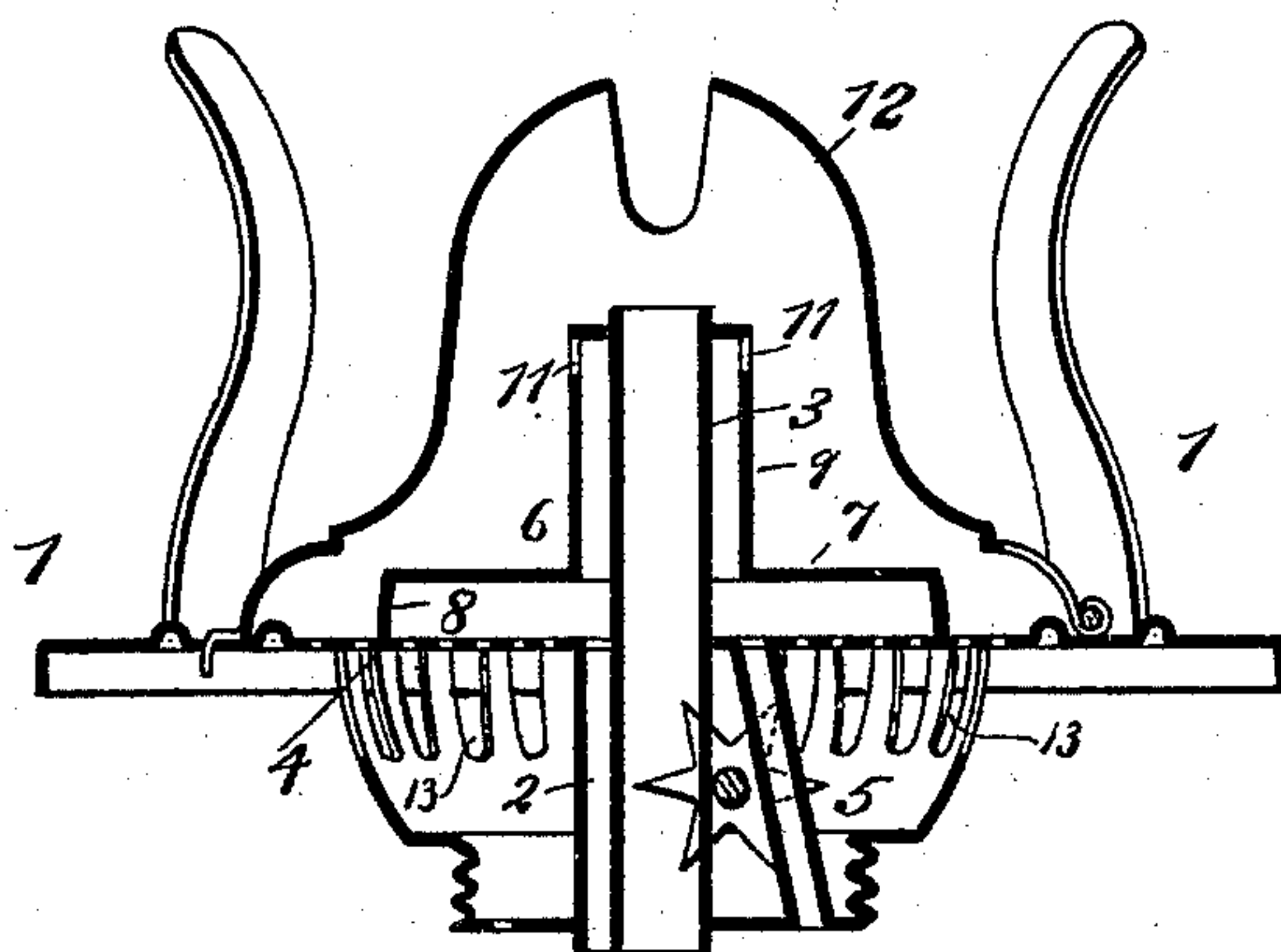
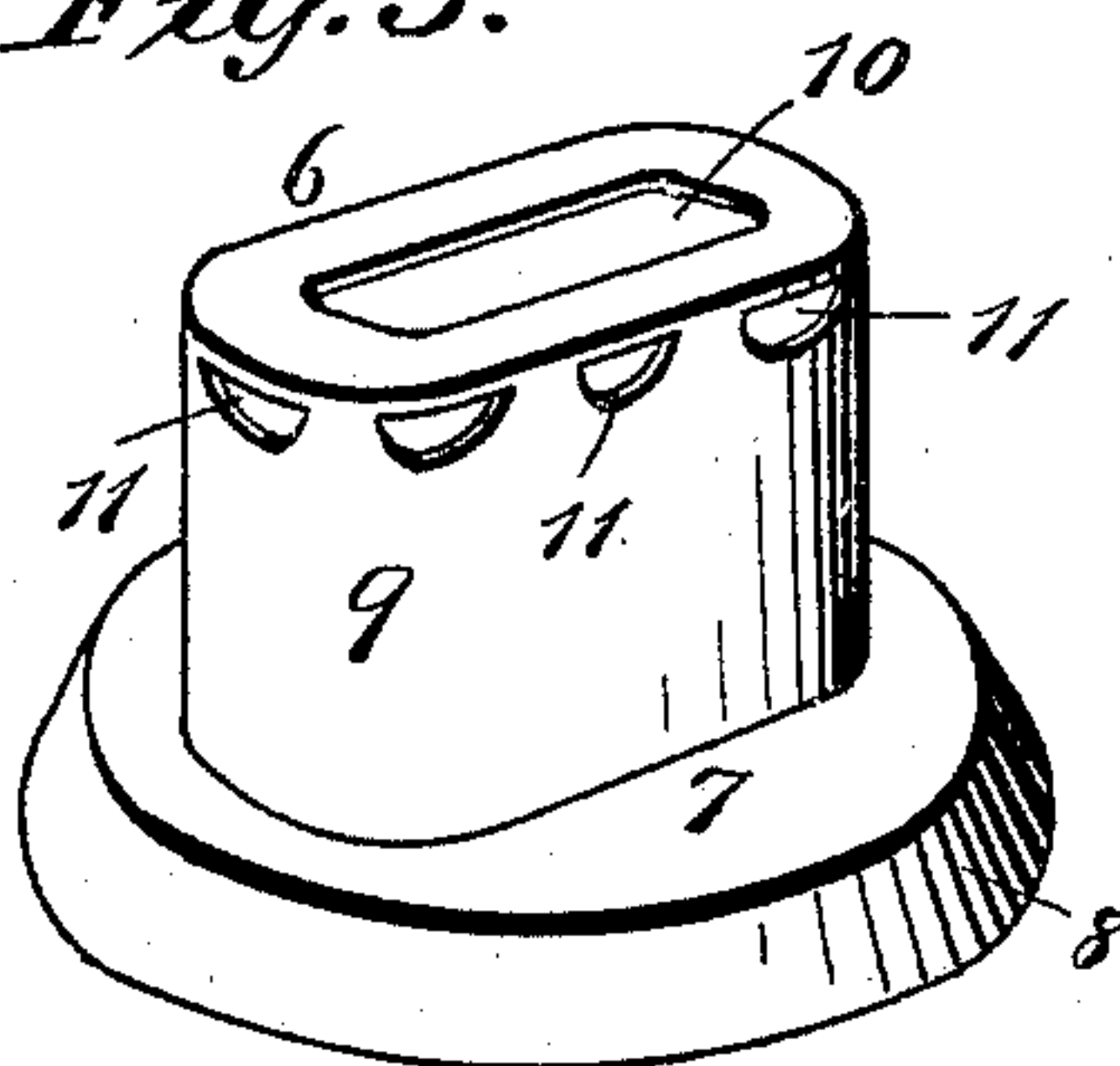


Fig. 3.



WITNESSES:

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STEPHEN ELLIS, OF JACKSONVILLE, ILLINOIS.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 398,503, dated February 26, 1889.

Application filed September 14, 1888. Serial No. 285,367. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN ELLIS, of Jacksonville, in the county of Morgan and State of Illinois, have invented a new and Improved Lamp-Burner, of which the following is a full, clear, and exact description.

This invention relates to lamp-burners, and has for its object to provide a lamp-burner by means of which sparks are prevented from falling through the air-tube and the tube itself from becoming clogged; also, for the protection of the tube and for rendering the lamp non-explosive.

The invention consists in a lamp-burner constructed and arranged as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an inverted plan view of a lamp-burner constructed in accordance with this invention. Fig. 2 is a vertical section of the lamp-burner, and Fig. 3 is a detail showing guard-casing for wick-tube detached.

In this invention, 1 indicates a lamp-burner having an air-tube, 2, adjacent to the wick-tube 3, with its upper end located in the perforated plate 4 of the burner. 5 indicates a gas-tube, with its upper end also located in the perforated plate 4 adjacent to the wick-tube 3. To prevent sparks falling through the air-tube or gas-tube or these tubes from being clogged up with dirt, a detachable guard-casing, 6, is provided, constructed with the base portion 7, with depending flange 8, and the vertical portion 9, having the oblong slot 10 in its top and the openings 11 in its sides, preferably adjacent to the top for the passage of air. The guard-casing 6 is placed over the wick-tube 3, the end of the latter fitting in the slot 10, and the base portion 7 forming, with its flange 8 resting on the perforated plate 4, an air-chamber, into which the upper ends of air-tube 2 and gas-tube 5 open. The vertical portion 9 of guard-casing 6 is of such a size as to form an air-space surrounding the wick-tube 3 and permit air and gas to pass up from tubes 2 and 5 and out of the lateral openings 11.

By means of the guard-casing 6 being constructed with the closed top surrounding the

top of wick-tube, the lateral openings 11, and the chambered base portion 7, inclosing the open upper ends of air-tube 2 and gas-tube 5, sparks will be prevented from falling through the air and gas tubes and the latter will be prevented from becoming clogged with dirt, thereby avoiding danger of explosion and rendering the burner effective. The wick-tube 3 and guard-casing 6 are covered by the usual cover, 12.

In order to cause the gas accumulating in the oil-chamber to be carried off, the lower portion of the burner surrounding the wick-tube is formed with the side openings, 13, through which the outside air is permitted to enter and pass up through the perforated plate 4 to the interior of guard-casing 6 and out through the openings 11. The current of air passing up in the manner just described causes the gas generated in the oil-chamber of the lamp to be drawn up through tubes 2 and 5 into the interior of casing 6 and to be carried off through the openings 11, thereby preventing any accumulation of gas and rendering the lamp absolutely non-explosive.

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

1. A lamp-burner constructed with a perforated horizontal plate, with a wick-tube projecting through the same, an air-tube and gas-tube, a guard-casing resting on the perforated horizontal plate of burner and inclosing the wick-tube and open upper ends of air-tube and gas-tube, with a closed top surrounding the wick-tube, openings in its sides for the passage of air, and an air-space between its walls and the wick-tube and above the open upper ends of air-tube and gas-tube, and the perforated horizontal plate of lamp-burner, substantially as shown and described.

2. A lamp-burner constructed with a perforated horizontal plate, with a wick-tube projecting through the same, an air-tube and a gas-tube, inlet air-passages in the burner beneath the horizontal perforated plate, a guard-casing resting on the perforated plate and inclosing the wick-tube and upper ends of air-tube and gas-tube, with a closed top surrounding the wick-tube, openings in its sides for the escape of air and gas, and an air-space between its walls and the wick-tube and above

the open upper ends of air-tube and gas-tube and the perforated plate, substantially as shown and described.

3. A lamp-burner constructed with a perforated horizontal plate, with a wick-tube projecting through the same, an air-tube and a guard-casing extending over the open upper end of air-tube inclosing the wick-tube and forming an intervening air-space, with a closed top surrounding the wick-tube, and openings in its sides for the passage of air, substantially as shown and described.

4. In a lamp-burner, the guard-casing 6, formed with the vertical portion 9, wick-tube slot 10 in its top, air-openings 11 in its sides, and a base portion, 7, extending laterally therefrom, with a depending flange, 8, substantially as described.

5. The combination, with a lamp-burner, 1, constructed with air-inlet openings 13, an air-tube, 2, and a gas-tube, 5, located adjacent to the wick-tube 3, with their upper open ends in the perforated plate 4, of a detachable guard-casing, 6, having a base portion, 7, with depending flange 8, resting on plate 4 and inclosing open ends of air-tube 2 and gas-tube 5, and the vertical portion 9, with a slot, 10, in its top, inclosing wick-tube 3, and openings 11 in its sides for passage of air from the space between the wick-tube 3 and casing 6, substantially as shown and described.

STEPHEN ELLIS.

Witnesses:

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