

No. 888,162.

PATENTED MAY 19, 1908.

A. H. HANDLAN, JR.

LAMP BURNER.

APPLICATION FILED NOV. 4, 1907

Fig. I.

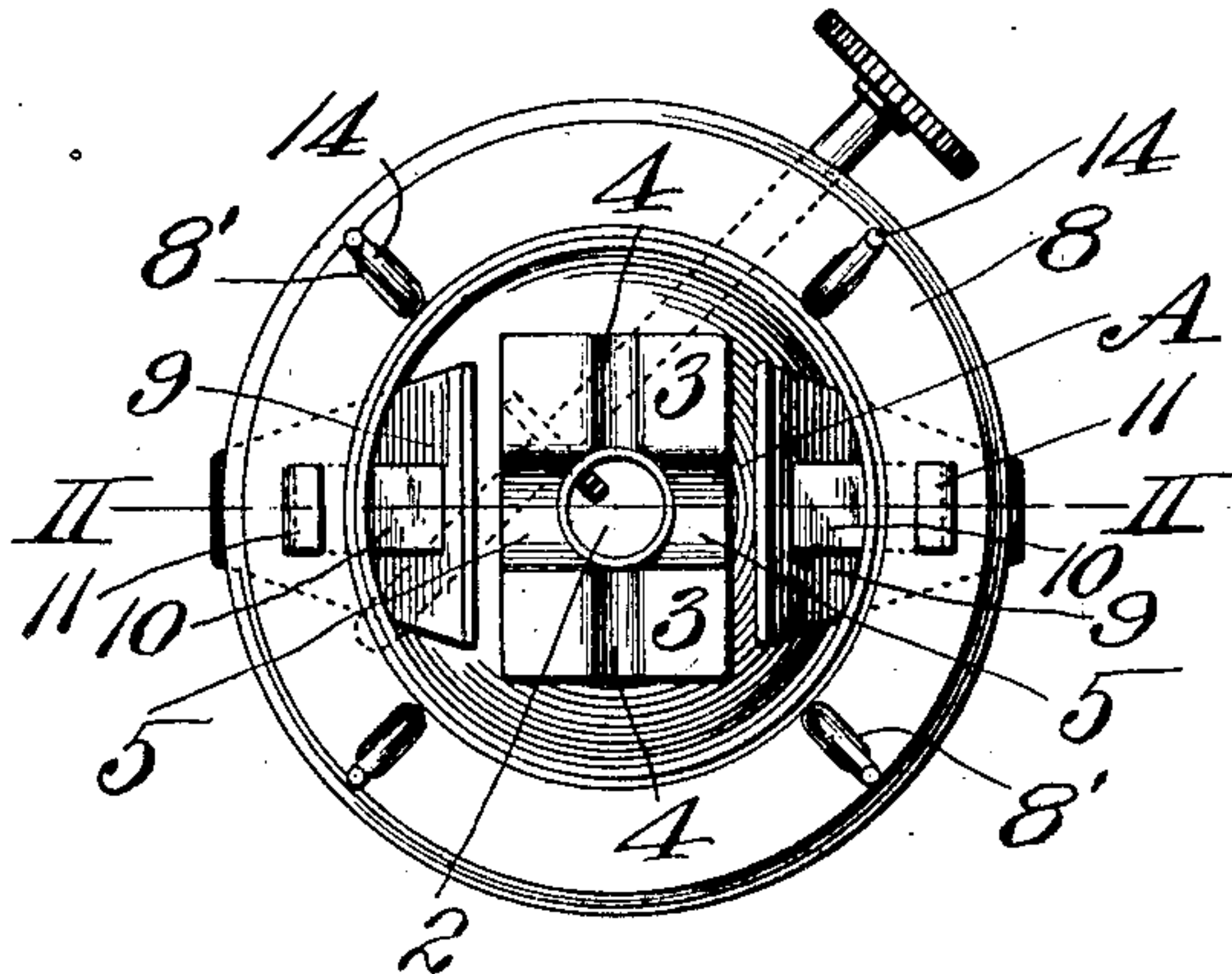


Fig. II.

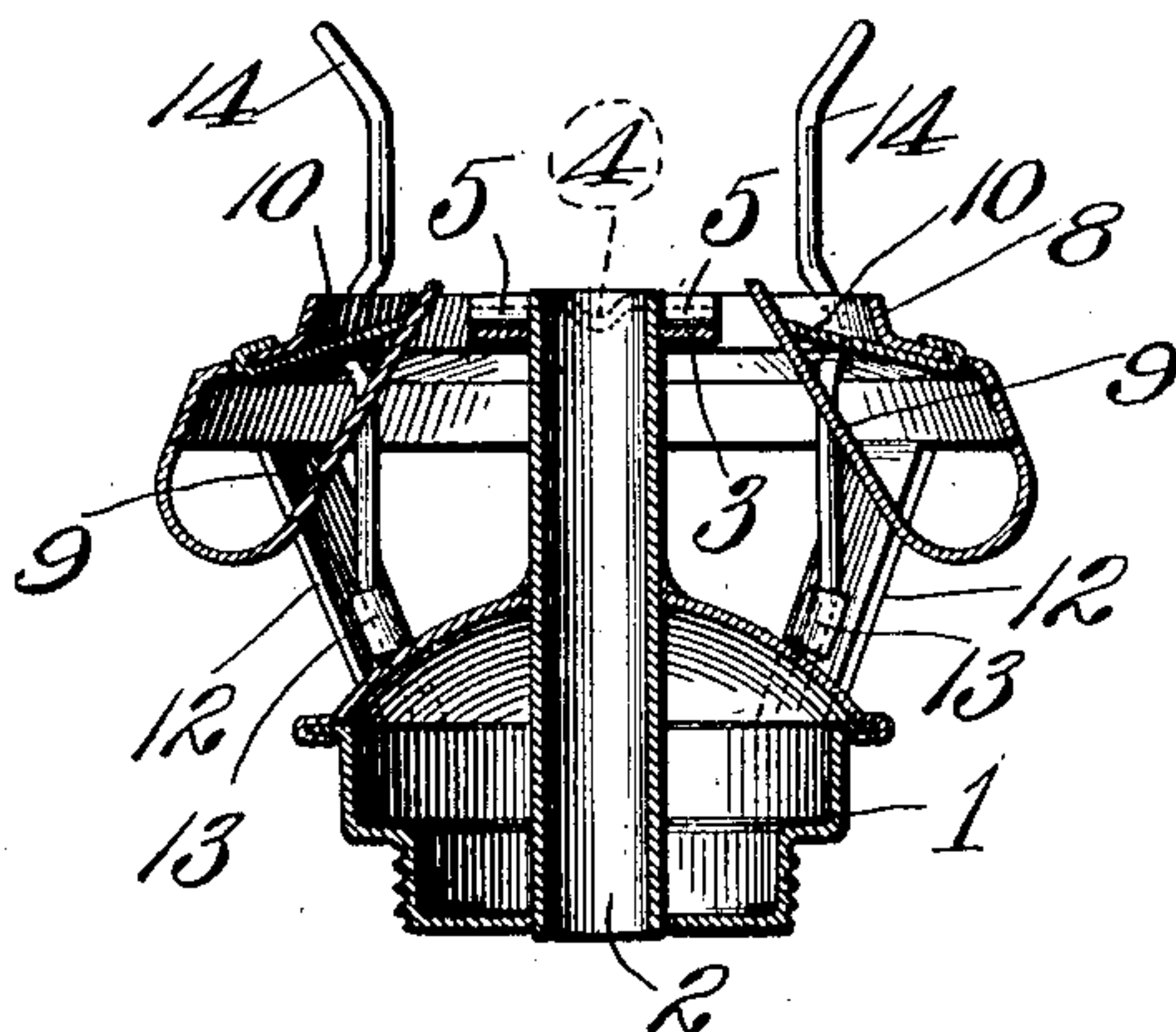
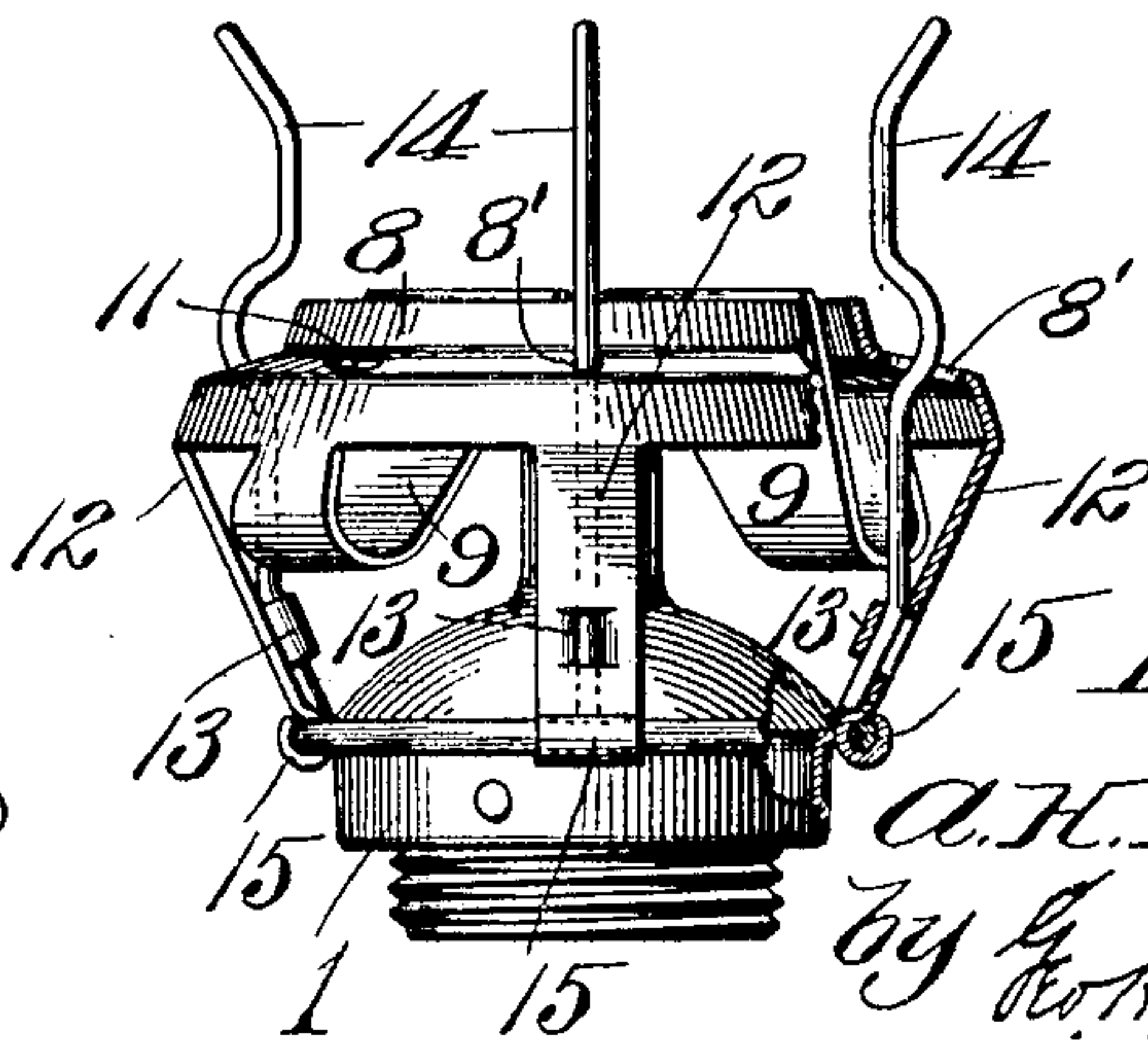


Fig. III.



Attest:
Jm. A. Scott
Lily Rost

Inventor:
A. H. Handlan Jr.
by Geo. H. Knight Atty.

UNITED STATES PATENT OFFICE.

ALEXANDER H. HANDLAN, JR., OF ST. LOUIS, MISSOURI.

LAMP-BURNER.

No. 888,162.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed November 4, 1907. Serial No. 400,535.

To all whom it may concern:

Be it known that I, ALEXANDER H. HANDLAN, Jr., a citizen of the United States of America, residing at the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Lamp-Burners, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification.

My invention relates to a lamp burner so constructed that illumination can be secured in the use of the burner for a long period of time and at a small expenditure of illuminant.

The invention has for its object, aside from that of producing the burner embodying the advantageous features mentioned, one in which the flame in the use of the burner may be spread to a wide extent, due to proper delivery of oxygen to the flame and also one in the use of which deposit of carbon upon the burner may be largely eliminated.

The invention further has for its object to improve the general construction of a lamp burner of the kind named.

Figure I is a top or plan view of my burner. Fig. II is a vertical section taken on line II—II, Fig. I. Fig. III is in part an elevation of the burner and in part a vertical section taken through the gallery of the burner and one of its supporting posts.

1 designates the base portion of my burner which is properly constructed to provide for its being fitted to the front of a lamp or lantern.

2 is the wick tube which is preferably of cylindrical shape and is mounted in the body 1.

A designates a rectangular spreader plate secured to the wick tube 2 at or near its upper end. This spreader plate forms wings 3 extending laterally from the wick tube. The wings 3 are located in diametrically opposite positions relative to the wick tube and their top surfaces are in an approximate horizontal plane or flush with the upper end of the wick tube. In each wing 3 is a longitudinal central groove 4 that extends outwardly from the wick tube to the outer edge of the wing and serves as a channel into which the flame from a wick in the wick tube may spread. In the spreader plate A between its wings 3 are transverse depressions 5 which extend inwardly from the sides of the spreader plate to the wick tube. These depressions serve to permit passage of air to the wick tube

from a point beneath its upper end for the supply of the necessary oxygen to the flame produced during the use of the burner.

8 designates the gallery of the burner which is of converging shape and surrounds the upper portion of the wick tube 2 and has its upper edge approximately flush therewith.

9 are air directing members or plates which are flat and are supported by the gallery 8 and which are inclined inwardly and upwardly from their lower ends toward the wick tube of the burner and the upper ends of which preferably terminate above the top of the wick tube and the wings of the spreader plate A. These air directing members act to cause flow of air in an upward direction around the wick tube and inwardly above the wick tube so that said air is caused to enter the depressions 5 in the spreader plate A and pass therein to the top of the wick tube and the wick from which the flame is burning during the operation of the burner, whereby the flame is spread outwardly from the wick into the grooves 4 of the wings 3 and the illuminant fed through the wick is consumed in a manner to produce a wide and bright flame without the deposit of carbon upon the wick tube or the spreader plate.

The air directing members 9 are preferably formed integral with the gallery 8 from which they extend downwardly and then upwardly in the inclined directions before stated as most clearly seen in Figs. II and III. Each of these air directing members is connected at its upper end that is presented to the wick tube and spreader plate by a tongue which is formed integral or attached to the air directing member and is passed through the gallery 8 and clenched, as seen most clearly in Figs. I and II.

The gallery of the burner is supported by posts 12 interposed between said gallery and the base portion 1 of the burner and which are extended through and clenched to the rim of said base portion at 15. At the inner side of each of the gallery supporting posts is an eye 13 preferably produced by slitting and upsetting a portion of the post.

14 are chimney receiving arms which pass loosely through slots 8' in the gallery 8 and the lower portions of which are threaded through the eyes 13 of the gallery supporting posts.

The herein described construction of at-

taching gallery supporting posts and the chimney engaging arms is simple and efficient and avoids the employment of solder or any means of fastening aside from the connecting
5 and fitting of the parts to each other in the manner set forth.

I claim:

1. In a lamp burner, a wick tube, a horizontal flat spreader plate, extending laterally
10 from said wick tube at its upper end, and provided with longitudinal grooves leading outwardly from said wick tube, and imperforate plates for directing currents of air in upward
15 courses at the sides of said spreader plate; said grooves being parallel with said imperforate plates, substantially as set forth.

2. In a lamp burner, a wick tube, a horizontal flat spreader plate, provided with longitudinal grooves leading outwardly from
20 said wick tube and having its upper surface disposed in the same horizontal plane as that occupied by the top of said wick tube, and imperforate plates for directing currents of air in upward courses at the sides of said
25 spreader plate, substantially as set forth.

3. In a lamp burner, a wick tube, a horizontal flat spreader plate, extending laterally from said wick tube and provided with transverse depressions leading inwardly toward
30 said wick tube, and imperforate plates for directing currents of air in upward courses at the sides of said spreader plate; said depressions being at angles to said imperforate plates, substantially as set forth.

35 4. In a lamp burner, a wick tube, a horizontal flat spreader plate, extending laterally from said wick tube at its upper end and provided with longitudinal grooves leading outwardly from said wick tube, a gallery surrounding
40 said wick tube, and imperforate air directing plates supported by said gallery and by which currents of air are directed in upward courses at the sides of said spreader plate; said grooves being parallel with said
45 imperforate plates, substantially as set forth.

5. In a lamp burner, a wick tube, a horizontal

flat spreader plate, extending laterally from said wick tube at its upper end and provided with longitudinal grooves leading outwardly from said wick tube and with transverse
50 depressions leading inwardly toward said wick tube, a gallery surrounding said wick tube, and imperforate air directing plates supported by said gallery and whereby currents of air are directed in upward courses
55 at the sides of said spreader plate; said depressions being at angles to said imperforate plates, substantially as set forth.

6. In a lamp burner, a wick tube, a spreader plate extending laterally from said
60 wick tube at its upper end, a gallery surrounding said wick tube, air directing members extending downwardly from said gallery and then upwardly into proximity with the sides of said spreader plate, and means
65 for connecting the upper ends of said air directing members to said gallery, substantially as set forth.

7. In a lamp burner, a wick tube, a spreader plate extending laterally from said
70 wick tube at its upper end, a gallery surrounding said wick tube, air directing members extending downwardly from said gallery and then upwardly into proximity with the sides of said spreader plate, and tongues
75 extending from said air directing members and having clenched engagement with said gallery, substantially as set forth.

8. In a lamp burner, a base portion, a gallery, gallery supporting posts clenched to
80 said base portion and provided with eyes, and chimney receiving arms seated in the eyes of said gallery supporting posts and extending through said gallery, substantially as set forth. 85

In testimony whereof I have hereunto affixed my signature this 26th day of October, 1907.

ALEXANDER H. HANDLAN, JR.

In the presence of—

LILY ROST,

H. G. FLETCHER.