

(No Model.)

H. W. HAYDEN.

LAMP BURNER.

No. 262,666.

Patented Aug. 15, 1882.

Fig. 1.

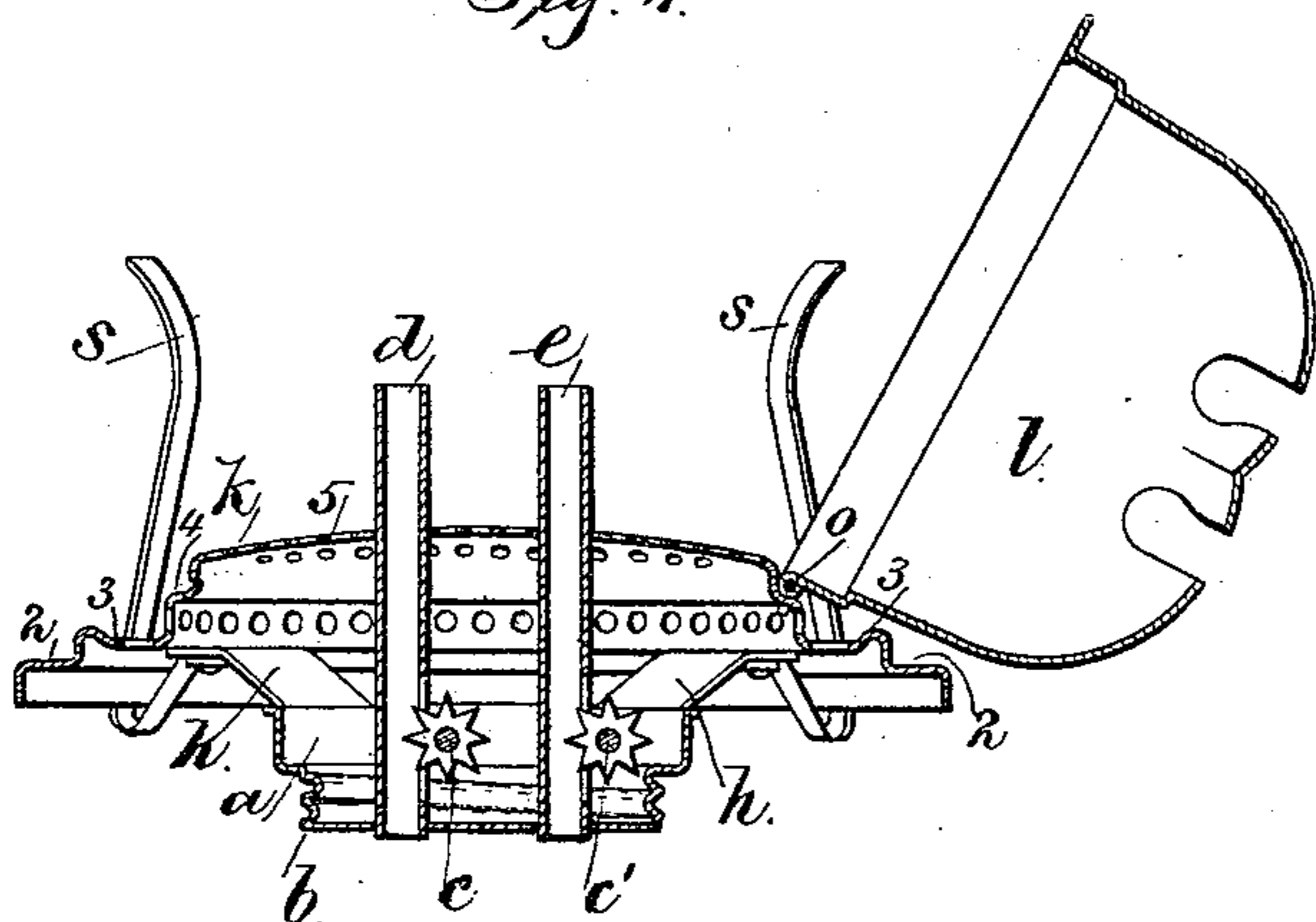


Fig. 2.

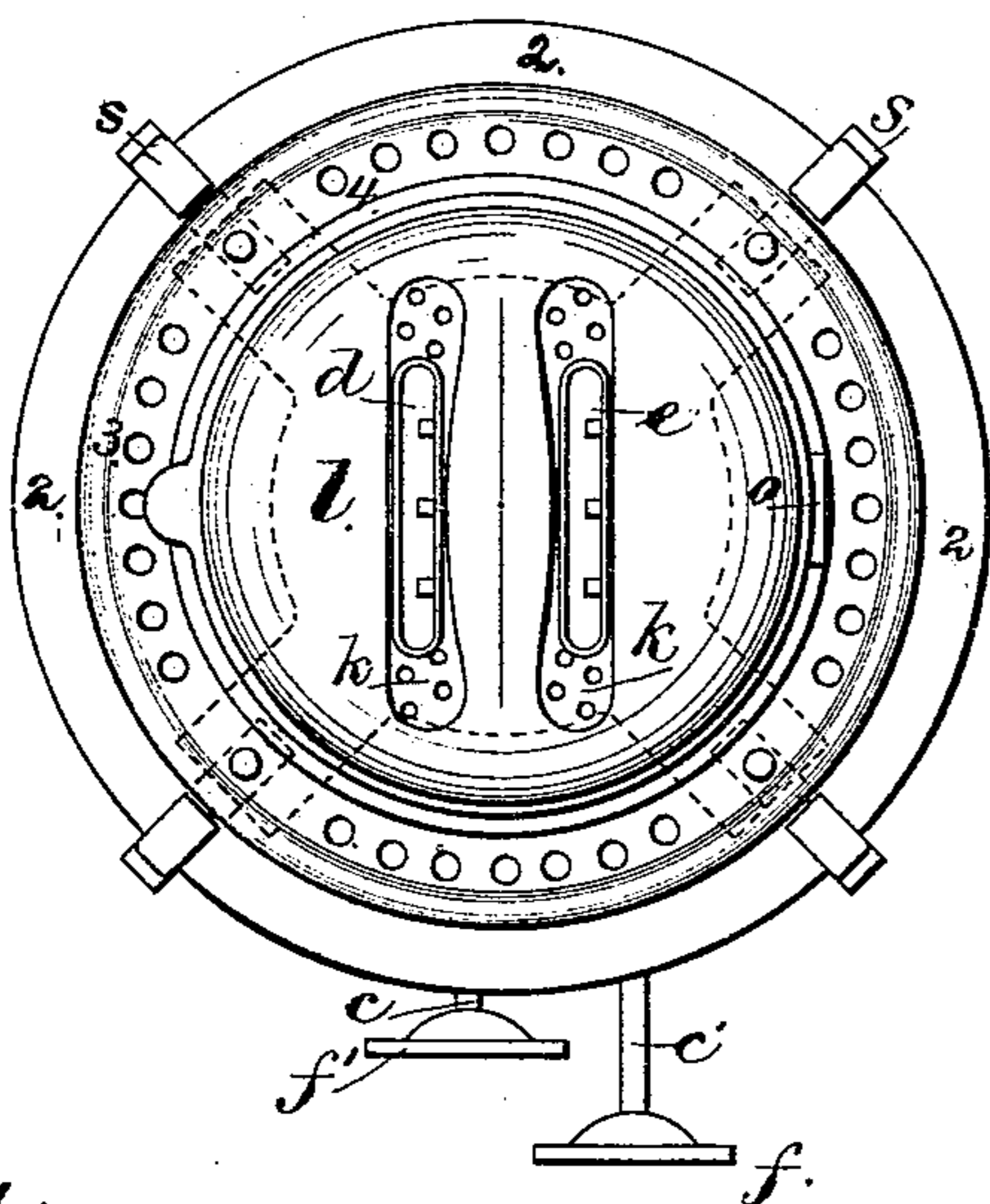
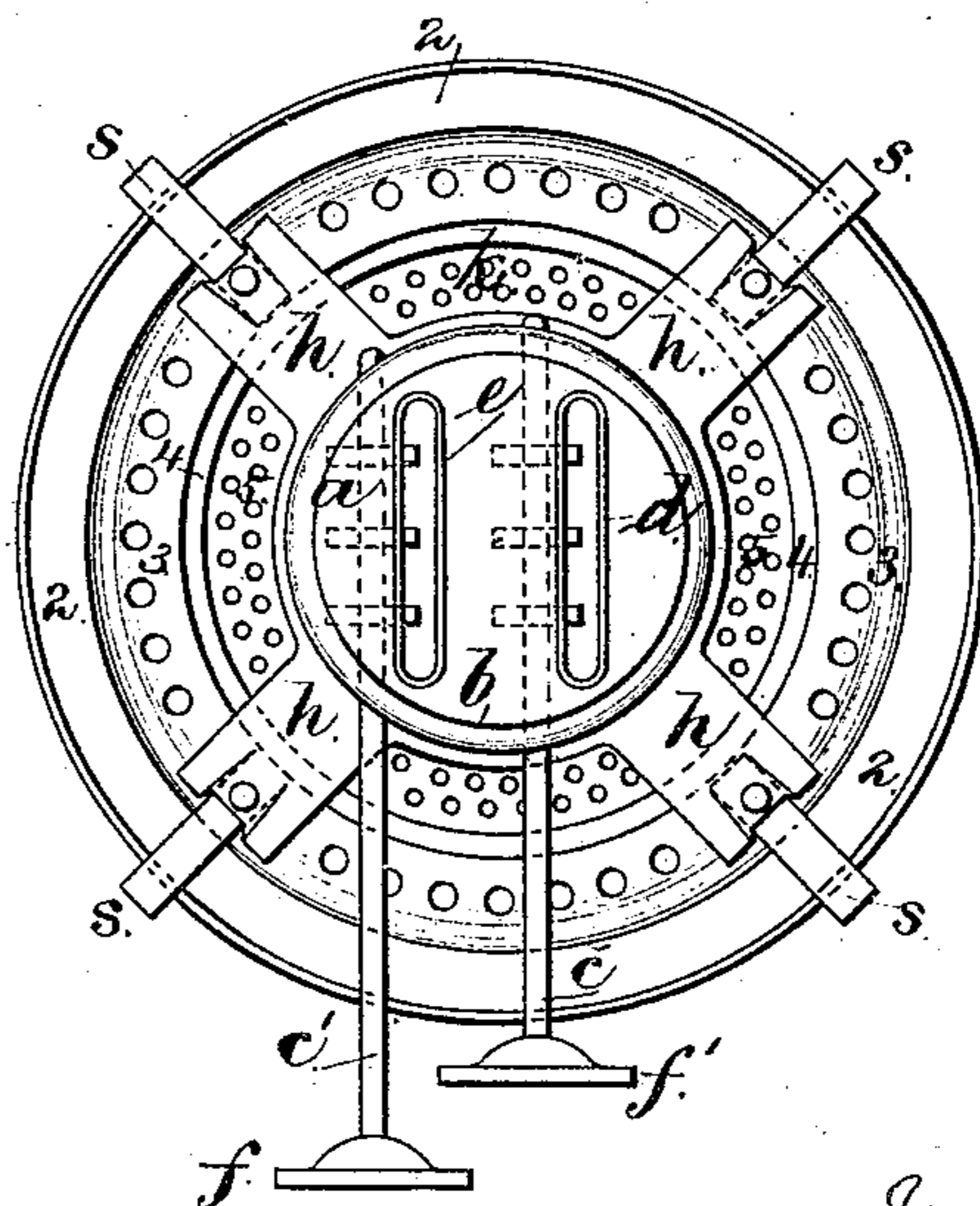


Fig. 3.



Witnesses
Harold Terrell
Chas H. Smith

Inventor
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UNITED STATES PATENT OFFICE.

HIRAM W. HAYDEN, OF WATERBURY, CONNECTICUT, ASSIGNOR TO HOLMES,
BOOTH & HAYDENS, OF SAME PLACE.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 262,666, dated August 15, 1882.

Application filed April 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, HIRAM W. HAYDEN, of Waterbury, in the county of New Haven and State of Connecticut, have invented an Improvement in Lamp-Burners, of which the following is a specification.

Lamps have been made with two wicks and separate wick-raisers. They are heavy and expensive. The chimney rests on the base of the cone. The ring of springs that holds the chimney is also fastened to the cone and occupies considerable space in proportion to the size of wick and light produced.

My invention is for simplifying the lamp, lessening the amount of metal required, preventing the lamp becoming heated, and making the burner cheaper and more durable; and the invention consists in the combination of devices as hereinafter set forth.

In the drawings, Figure 1 is a vertical section of the burner. Fig. 2 is a plan of the same, and Fig. 3 is an inverted plan.

The base *a* of the burner is made with the screw at *b* for attaching the same to the lamp-reservoir. The wick-tubes *d e* pass through the base and are secured thereto at their lower ends.

The wick-raisers are made of pointed wheels on the shaft *c c'*. These shafts pass through and are sustained in the upper part of the base *a*. The shaft *c'* is longer than the shaft *c*, in order that its thumb-wheel *f* may be farther away from the burner than the wheel *f'* of the shaft *c*. This allows for easily grasping either one of the wheels and moving the same without disturbing the other.

The arms *h* extend outwardly from the top edges of the base *a*, and they are secured at their ends to the air-distributor plate *k*. This air-distributor plate *k* has a flat portion at 2, upon which the chimney rests. It is raised, as at 3, and perforated for the passage of air outside the cone. It is raised still higher and formed with a circular shoulder at 4, upon which the base of the cone or deflector *l* rests; and there is a convex surface at 5, which is perforated to form the air-distributor. The

wick-tubes pass through and are supported by this air-distributor. By this peculiar construction the air-distributor prevents heat being radiated to the base *a*, and there is but little conducted to the base by the wick-tubes, because the space around the wick-tubes is open and free for the air to circulate as it passes up to the air-distributor. The cone or deflector is movable and hinged at *o*, or otherwise held in position, so that it can be swung back or removed, and it is made with two flame-slots over the respective wick-tubes. The metal between such slots is V-shaped or inclined in opposite directions, so as to direct the air upon the base of the flame and cause a perfect combustion.

Instead of using a crown-shaped chimney-holder made of an open-work metal cylinder of numerous springs, I employ in this lamp the flat strips of metal *s*, introduced between the arms *h* and the air-distributor, and secured by the rivets that hold said arms. These strips are bent downwardly and then upwardly, and curved, as shown, to form the chimney-holding springs, and these are located so that the deflector swings back between two of them.

This lamp is durable, cheap, and reliable. There is but little shadow cast below the burner. The heat of the flame does not reach the reservoir to any appreciable extent, and a very brilliant light is obtained that is free from smoke and under perfect control.

I claim as my invention—

The combination, with the base *a* and its arms *h*, of the air-distributor supported by such arms, the two wick-tubes passing through the base and air-distributor, the wick-raiser wheels, and the two shafts carrying the same, the hinged cone having duplex flame-slots, and means for holding the chimney in position, substantially as set forth.

Signed by me this 14th day of April, A. D. 1882.

H. W. HAYDEN.

Witnesses:

GEO. T. PINCKNEY,
HAROLD SERRELL.