H. PREISE.

Argand Lamp-Burner.

No. 205,134. Patented June 18, 1878.

Fig. 1.

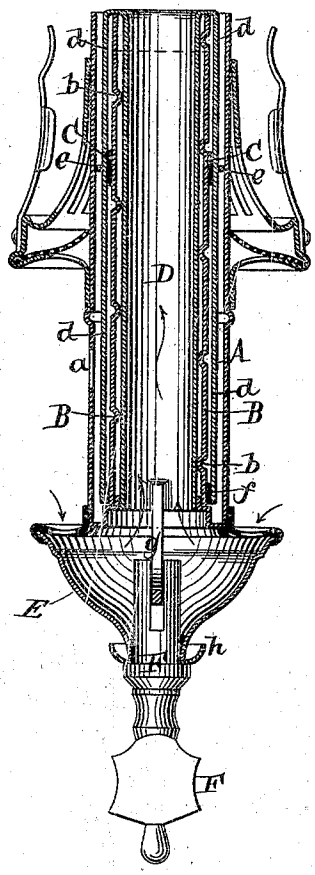


Fig. 2.

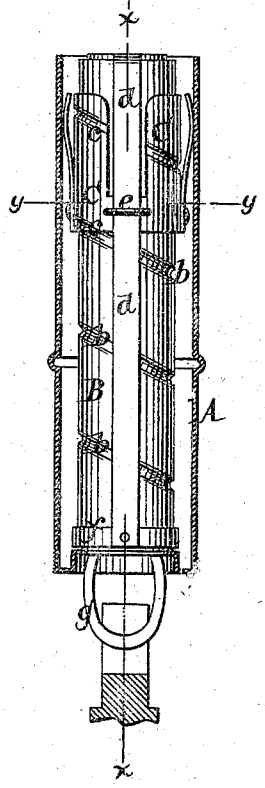
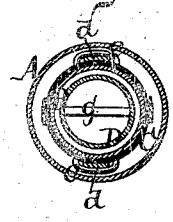


Fig. 3.



Witnesses.

Chas. Wahlers.

Hugo Bruggemann

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Henry Preise

by his Attys.

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UNITED STATES PATENT OFFICE.

HENRY PREISE, OF NEW YORK, N. Y.

IMPROVEMENT IN ARGAND LAMP-BURNERS.

Specification forming part of Letters Patent No. **205,134**, dated June 18, 1878; application filed June 1, 1878.

To all whom it may concern:

Be it known that I, HENRY PREISE, of the city, county, and State of New York, have invented a new and useful Improvement in Argand Lamp-Burners, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a vertical section of my burner in the line *x x*, Fig. 2. Fig. 2 is a side view thereof, partly in section, some of the parts being detached. Fig. 3 is a horizontal section in the line *y y*, Fig. 2.

Similar letters indicate corresponding parts.

My invention relates to that class of burners in which the wick-carrying device is operated by means of a key, located at the bottom of the burner; and its chief aim is to simplify the construction and operation of such burners; another object being to prevent oil from settling on the outer surface of the key, so as to soil one's fingers in taking hold of the key.

My invention consists in the combination of a spirally-grooved wick-carrier, a spirally-grooved draft-tube, on which the wick-carrier is fitted and rotates, and an inner rotating tube, having one or more downwardly-projecting arms at its upper end, which extend over the upper edge of the draft-tube, are of equal length thereto, or nearly so, and so engage with the wick-carrier that the latter is caused to partake of the motion of the inner tube, but is permitted to move up and down, and hence when the inner tube is turned the wick-carrier becomes raised or lowered, as the case may be.

It also consists in the combination, with a drip-cup attached to the lower end of the burner, and a key projecting from the bottom of said cup, of a supplemental drip-cup, which is located on the exterior and lower part of the main cup, so as to catch any oil that may overflow from the drip-cup, and thus keep the key free of oil.

In the drawing, the letter A designates the outer shell or tube of my burner, which is connected to the supporting-arm of a lamp opposite to a hole, *a;* and B is the draft-tube, which is secured to the outer shell at its lower end, so that a space is formed between them for the reception of oil. In the draft-tube B is formed a spiral groove, *b*. C designates the wick-carrier, constructed of a short tube or ring, which is fitted on the draft-tube B, and provided with a spiral groove, *c*, corresponding to the groove *b*, and spring-arms attached to said ring, as clearly shown in Fig. 2. D is the inner tube of the burner, which is fitted within the draft-tube B, and placed loosely therein. This inner tube is provided with two (more or less) arms, *d*, which are preferably formed in one piece therewith, and which project from the upper edge thereof over the upper edge of the draft-tube B, and downward exterior to the latter, the arms being made of a length equal to that of the draft-tube, and being joined at their lower ends by a ring, *f*, placed loosely on the draft-tube. Said arms *d*, moreover, engage with the wick-carrier C; and in order to effect this object, I provide the wick-carrier with staples *e*, through which the arms *d* are caused to pass, so that the wick-carrier is permitted to move lengthwise of the arms *d*, and at the same time partake of any lateral motion of the arms.

In the example shown the inner tube D is made solid; but if desired it can be made in skeleton form.

It will be perceived that when the inner tube D is turned the wick-carrier C is caused to move with it through the arms *d*, and by the action of the spiral grooves *b* and *c* the carrier is caused to move up or down, of which movement it is susceptible, as before stated.

On the lower end of the outer shell A is secured the usual drip-cup E, having holes for the admission of air. Through this cup extends a key, F, which engages with a blade, *g*, projecting from the lower end of the inner tube D, so that by means of this key said tube can be turned in either direction.

To the lower part of the drip-cup E, I attach a curved flange, *h*, to form a supplemental drip-cup, whereby any oil that may run down on the outer surface of the cup E is caught, and thus prevented from flowing over the key.

In the example shown, the key F is secured to the lower part of the drip-cup E, and the latter made to turn in the upper part of the cup; but the key can also be arranged in other ways.

The main advantages of my burner over all others, are, first, no soldering is required at the top, or that part thereof which is exposed to the flame, which latter obviously destroys the solder; second, the wick-carrier need not be taken out in order to fasten the wick, and hence the difficulty experienced in replacing the carrier is obviated; third, the position of the tubes is such, relatively to each other, that the oil is not liable to rise when the movable parts are operated, so as to flow over, making it appear as though the lamp leaked.

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

1. The combination, in an Argand burner, of a spirally-grooved wick-carrier, a spirally-grooved draft-tube, on which the wick-carrier is fitted and rotates, and an inner rotating tube, having one or more downwardly-projecting arms at its upper end, which extend over the upper edge of the draft-tube, are of equal length thereto, or nearly so, and engage with the wick-carrier, substantially in the manner and for the purpose set forth.

2. The combination, with the drip-cup E and key F, projecting from the bottom of said cup, of a supplemental drip-cup situated on the exterior and lower part of the main cup, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 30th day of May, 1878.

HENRY PREISE. [L. S.]

Witnesses:

W. HAUFF,

CHAS. WAHLERS.