

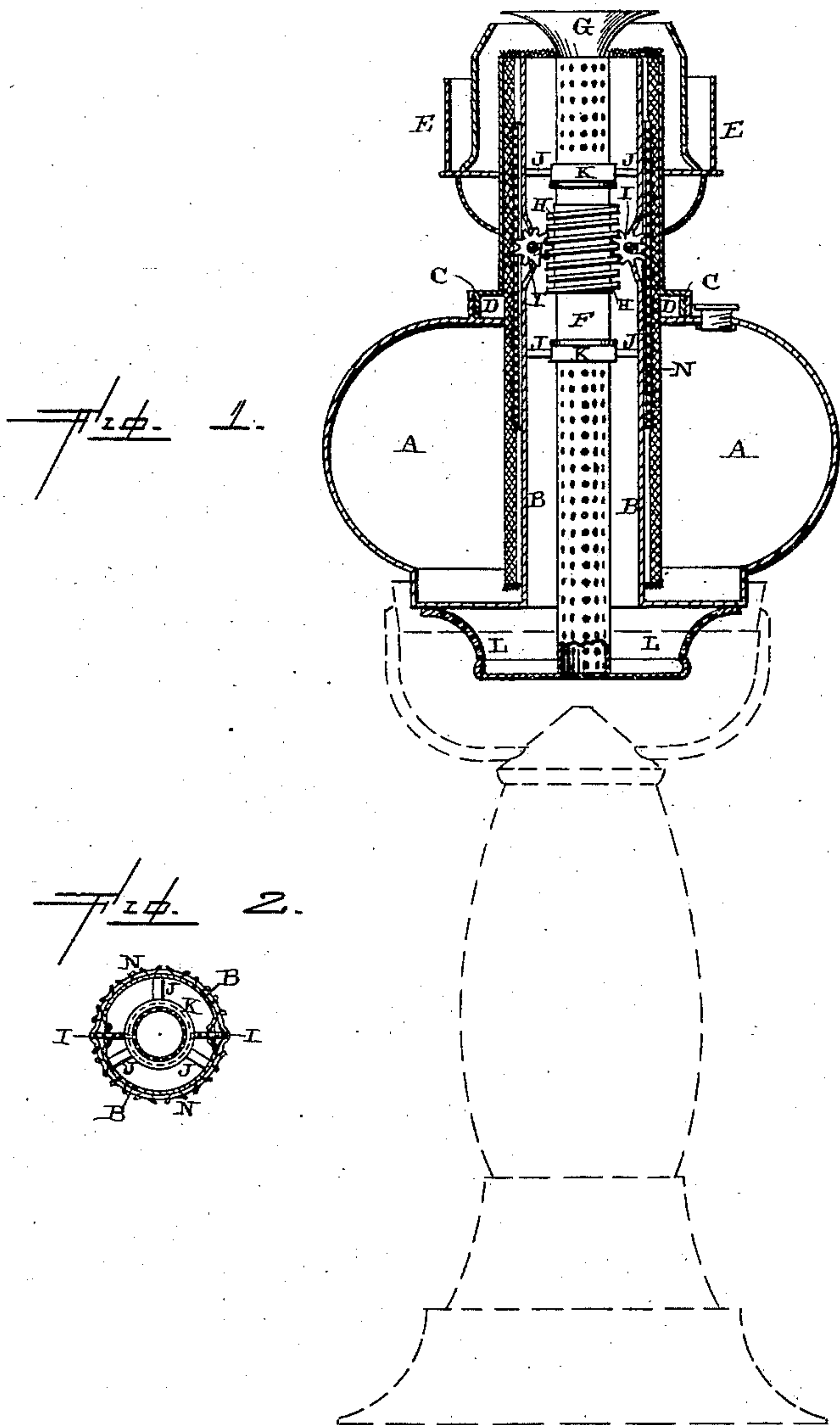
(No Model.)

F. RHIND.

LAMP.

No. 312,762.

Patented Feb. 24, 1885.



— WITNESSES. —

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— INVENTOR —

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UNITED STATES PATENT OFFICE.

FRANK RHIND, OF BROOKLYN, NEW YORK.

LAMP.

SPECIFICATION forming part of Letters Patent No. 312,762, dated February 24, 1885.

Application filed June 4, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRANK RHIND, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful
5 Improvements in Argand Lamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference be-
10 ing had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in Argand burners; and it consists in the combination of the bowl of a lamp having an open-
15 ing through its center, with a central tube, which is placed therein, and which serves as a support for the spreading device, and which is provided with a screw for operating the
20 ratchets being placed inside of the wick in contradistinction to its outer side.

Figure 1 represents a vertical section of a lamp embodying my invention. Fig. 2 is a
25 horizontal section taken through the tube just above the ratchets.

A represents a lamp-bowl, which has the central tube, B, extending up through its center. Through the top of the bowl is made an opening, C, which is much larger than is gen-
30 erally made for lamp-burners, so as to enable the wick to be readily applied and removed at any time. The lower portion, D, of the burner E is made correspondingly larger than usual, so as to fit this opening C, into which
35 it screws.

Passing up through the center of the tube B is the smaller perforated tube F, which serves to support the spreading device G at its top, which is also perforated, so as to allow it to
40 serve as an air-conductor, and which has a worm or spiral, H, formed on its outer side, for the purpose of meshing with the ratchets I, and thus causing them to raise or lower the wick when this central tube is turned. This
45 central perforated tube is supported in the central tube, B, by the arms J and rings K, which project inwardly from the inner side of said tube B, and which allow this central per-
50 forated tube to be freely revolved, but do not allow it any endwise movement. Upon the lower end of this perforated central tube is formed the drip-cup L, which also serves as a

handle, by means of which the tube is turned for raising or lowering the wick. By thus converting this drip-cup into a handle it is
55 specially adapted for use, whether the bowl is to be placed upon a stand or whether it is used in a bracket or as a chandelier. This drip-cup is made sufficiently broad at its bottom to form a reliable base or support for the bowl
60 when it is detached from its pedestal, and having perforated sides, the draft is not interfered with when the bowl is placed upon a table or other support. Were this drip-cup
65 not thus perforated, placing the lamp upon a table would close the central draft, and then the blaze would be caused to smoke, owing to imperfect combustion.

There will be two, three, four, or any suitable number of the ratchets for operating the
70 wick, and these ratchets are all made to extend far enough through the slots in the central tube, B, to engage with the spiral or screw on the central perforated tube. These ratch-
75 ets, all engaging with the same spiral or screw, are operated simultaneously and exactly alike.

Passed over the central tube, B, and having suitable perforated grooves, openings, or crimps, with which these ratchets engage, is a
80 perforated tube, N, over the outer sides of which the wick is placed. This tube N is perforated, as shown, so as not to conduct the heat down into the oil as rapidly, and the edges of the perforations are made to project slightly
85 upon its outer side, so as to engage readily with the wick, and thus cause the wick to always move with the tube. The ratchets, en-
90 gaging with this tube, cause the tube to rise or fall when they are made to revolve by the central perforated tube, and as this tube N moves it carries the wick with it. This tube
95 N is placed inside of the wick, in contradistinction to being applied to its outer side, and hence the usual tube, which is placed inside of the wick, and which serves no other
100 function than simply as a guide, is entirely dispensed with, and the construction of the lamp is thus cheapened accordingly. Over the outer side of the wick the burner E, which is of the usual construction, is slipped down and screwed into the top of the bowl, as shown. The whole of the wick-raising mechanism being applied to the inner side of a circular wick, causes the wick to be raised and lowered

much more evenly than where a single ratchet is applied to its outer side in the usual manner.

5 Instead of having the central perforated tube provided with a spiral or screw and made to rotate, this tube may be provided with a rack or racks and be made vertically adjustable, and thus made to operate the ratchets for the purpose of raising or lower-
10 ing the wick. While a rotating tube is preferable, as the drip-cup then always remains in the same relation to the bottom of the bowl, either a rotating or a vertically-movable tube may be used.

Having thus described my invention, I 15 claim—

In an Argand burner, the combination of the bowl, the central tube, B, and the perforated tube F, which serves as an air-conductor, a support for the spreading device, 20 and as a means for operating the ratchets, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK RHIND.

Witnesses:

B. LEWIS BLACKFORD,
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