G. STOBWASSER.

Lamp-Burner.

No. 168,295. Patented Sept. 28, 1875.

Fig. 4

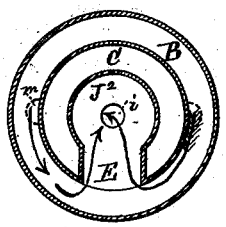


Fig. 3

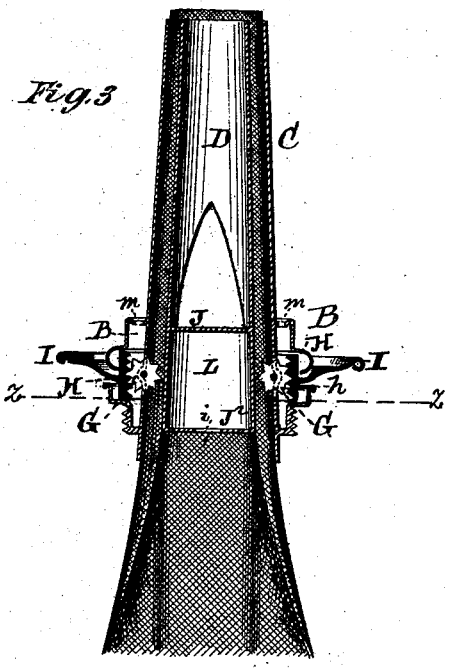


Fig. 2

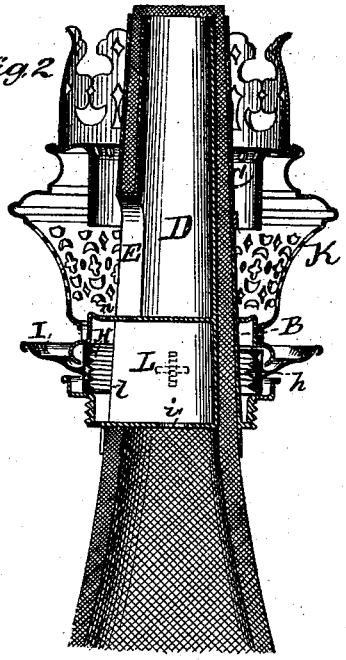
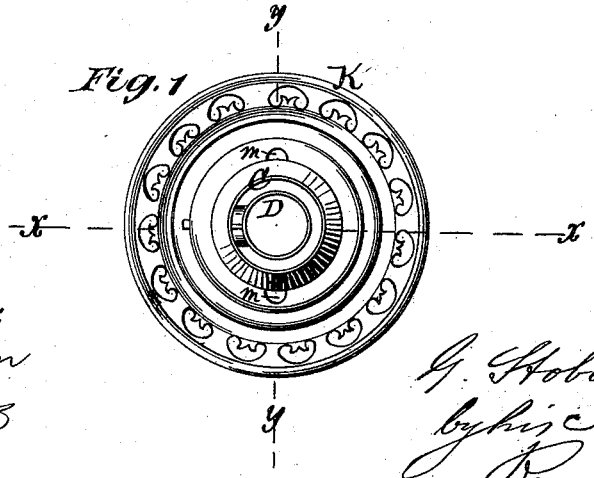


Fig. 1



Witnesses:
Michael Ryan
Fred Haynes

G. Stobwasser
by his Attorneys
Brown & Allen

UNITED STATES PATENT OFFICE.

GUSTAV STOBWASSER, OF BERLIN, PRUSSIA, ASSIGNOR TO BENNETT B. SCHNEIDER, OF NEW YORK, N. Y.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **168,295**, dated September 28, 1875; application filed September 15, 1875.

To all whom it may concern:

Be it known that I, GUSTAV STOBWASSER, of Berlin, in the Kingdom of Prussia, have invented certain Improvements in Lamp-Burners; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

My invention relates to certain improvements which are intended more particularly for application to Argand burners, but are also applicable to burners provided with flat wicks.

The invention consists, first, in the combination, with the wick-raising wheels, of a screw-threaded ring or collar of novel construction, arranged below the chimney-holder, and working independently thereof, whereby the wick is raised and lowered, in a steady and uniform manner, by turning the ring or collar. The invention consists, further, in a novel construction, whereby any oil which may escape from the wick-tube, or drip from the top thereof, is conveyed back to the interior of the lamp, instead of collecting on the outside.

In the accompanying drawing, Figure 1 is a top view of a burner constructed according to my invention. Fig. 2 is a vertical section, taken in the line *x x* of Fig. 1. Fig. 3 is a vertical section, taken in the line *y y* of Fig. 1. Fig. 4 is a horizontal section, taken in the line *z z* of Fig. 3.

The burner is constructed with a cylindrical drum, B, at its base, from which drum rises the tapering wick-tube C and air-tube D. The upper portion of the wick-tube is annular, and in the lower portion the annular form is interrupted by an inlet, E, communicating from the exterior of the wick-tube to the interior of the central air-tube D, which inlet may be of arched or tapering form, as shown. A flat wick is inserted in the wick-tube; and in the portion above the top of the inlet the edges of the wick come together to form an Argand flame. The wick-raising wheels G are arranged in slots in the wick-tube, rotating on axes attached thereto; and there may be any suitable number of such wheels, at equal distances from each other; but, by way of illustration, I have shown only two of the wheels, arranged opposite to each other. One edge of each wheel protrudes into the wick-tube, and engages with the wick, and the opposite edge protrudes into the drum B, and engages with the operating device. This device consists of a ring or collar, H, provided with a screw-thread, *h*, on its inner surface, which gears with the wheels G, so as to rotate them by turning the collar in one direction or the other. The collar H is provided with a circular flange-like projection, I, extending from its outer surface, and having its periphery milled or roughened to facilitate the turning thereof by the fingers. This flange I works in a slot extending around the drum B, and is thus guided so as to turn in a horizontal plane, while its lateral displacement is prevented by reason of the ring or collar H being entirely inclosed by the drum. Instead of being a continuous flange the part I may consist of a ring or hoop connected to the collar H by radial arms working in a number of slots in the drum B. This drum is here represented as made in two parts; but it may be made in one piece, with the slots formed as described; or it may be dispensed with, and the wheel-operating device guided and held in place by lips or flange-like rims attached to the burner. The wheel-operating device, constructed and arranged as above described, has no interference or connection whatever with, but is entirely independent of, the chimney-holder K, which slips over the burner, and rests upon the top of the drum, or a shoulder provided for the purpose, and may be readily removed and replaced. The lower portion of the air-tube D and inlet E hereinbefore referred to is closed by a flat plate, J, which is parallel with, and may form a central continuation of, the top of the drum B. Immediately under this plate is another plate, J^2, of corresponding shape. These two plates, together with the inner wall of the wick-tube, form a chamber, L, with a lateral opening, *l*, on one side communicating with the space inside the drum B, or outside the outer wall of the wick-tube. In the center of the lower plate J^2 is an opening, *i*, which communicates with the interior of the lamp. In the top of the drum B, outside of the outer wall of the wick-tube, are openings *m*, which communicate with the space inside the drum. In consequence of this construction and ar-

rangement any oil which may leak through the slots in which the wick-wheels G are arranged will fall to the bottom of the drum B, and flow into the chamber L through the opening *l*, and pass from thence, through the opening *i*, into the interior of the lamp. Any oil which may drip over the top of the wick-tube on the outside will pass through the openings *m* to the inside of the drum, and flow into the chamber L through the opening *l*, and escape thence, through the opening *i*, to the interior of the lamp; and any oil which may drip over the top of the wick-tube on the inside will run down the air-tube D, pass through the inlet E, and, through the openings *m*, to the chamber L, and thence to the lamp, as before described; or there may be openings *n* in the plate J, and the oil running down the air-tube D may pass through said openings directly into the chamber, and thence to the interior of the lamp.

By this means any oil which may leak or escape from the wick is conveyed back to the interior of the lamp, and prevented from accumulating on the outside.

The invention is represented as applied to an Argand burner, but is readily applicable to burners with flat wick-tubes by a suitable arrangement of the parts.

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

1. The ring or collar H, arranged below and independent of the chimney-holder, in combination with the wick-raising wheels G, substantially as herein described and shown.

2. The combination, with the wick-tube C, air-tube D, and inlet E, of the external annular chamber B, the internal chamber L, and openings *i l m*, substantially as shown and described.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses, this 16th day of August, 1875.

GUSTAV STOBWASSER.

Witnesses:
HERMANN KREISMANN,
BERTHOLD ROI.