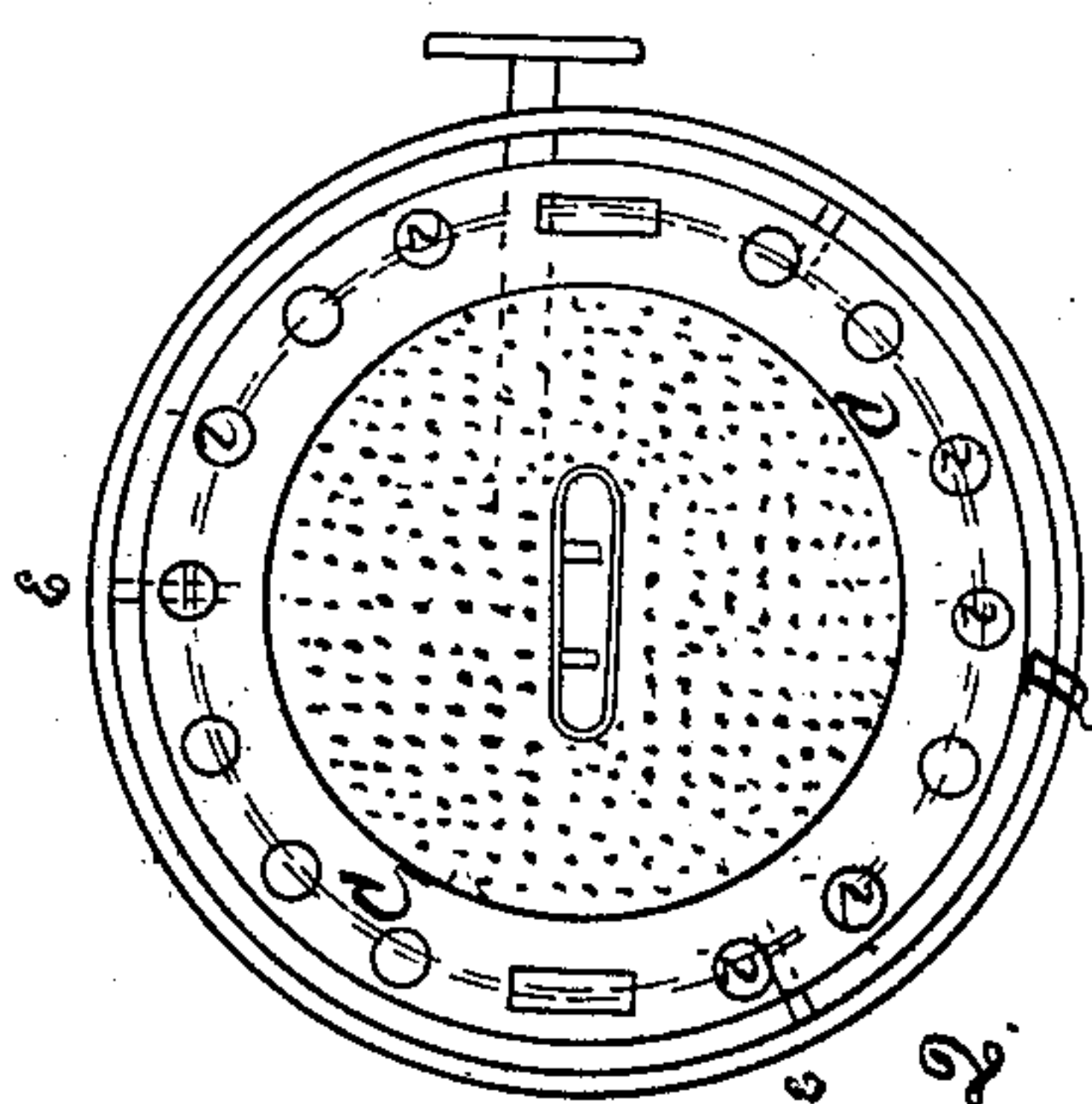
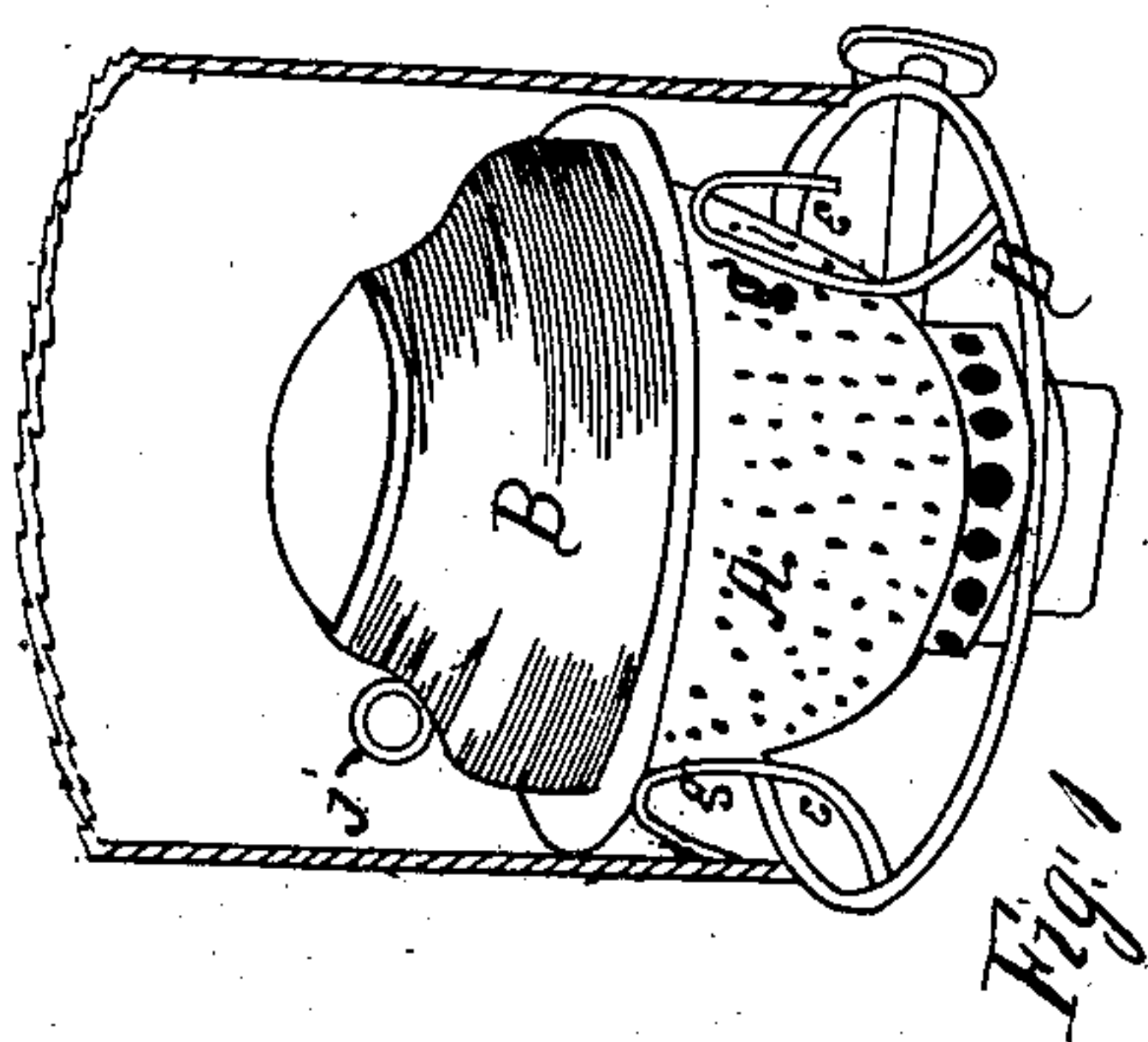
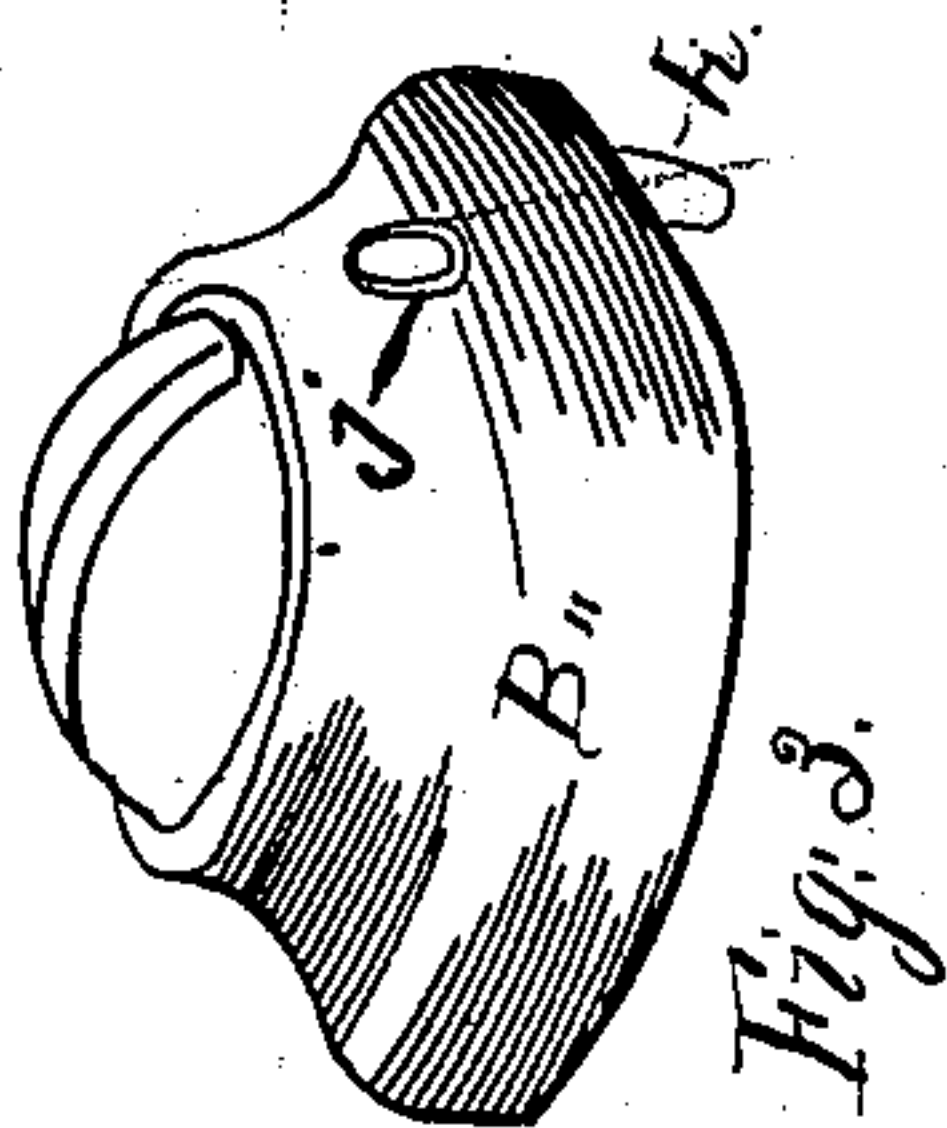


H. Tilden.

Lamp.

N<sup>o</sup> 73409

Patented Jan. 14, 1868.



Witnesses.  
Wm H. Warner  
H. M. Proctor

Inventor,  
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By C. C. Cuckey  
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# United States Patent Office.

HOWARD TILDEN, OF BOSTON, MASSACHUSETTS.

*Letters Patent No. 73,409, dated January 14, 1868.*

## IMPROVEMENT IN LAMPS.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO WHOM IT MAY CONCERN:

Be it known that I, HOWARD TILDEN, of Boston, Suffolk county, State of Massachusetts, have invented new and useful Improvements in Lamp-Burners; and I do hereby declare the following to be a full and exact description of the same, reference being had to the drawings that accompany and form a part of these specifications, in which—

Figure 1 is a perspective view, with section of chimney in red.

Figure 2, plan of the base, the cap being removed.

Figure 3, view of the cap, with the projections that retain it in place.

Letter A, the base of the detachable part of the burner. Letter B, the cap or upper part, in which is the slot for the blaze. Letter C, flange on the base, A, on which the cap B rests, as in fig. 1. D, a ring arranged, as in fig. 1, for supporting the chimney. Letters *e e e*, wires rising from the ring D, and sustain it by joining with the base, A, at *g*, as shown in the drawings. These wires are then continued, and are bent downwards, as shown in the drawings, fig. 1, and serve to steady the chimney, pressing, as they do, slightly against the inner surface thereof. Letters *i i i*, a series of small holes through the flange C, and so arranged that they shall open directly beneath the lower edge of the cap B, a part of the air rising through them passing inside of the cap, and part to the outside.

This arrangement secures two very important objects—first, the proper distribution of air within and without the cap, that the draught on the flame and the amount of oxygen supplied may be in the proper ratio to afford the most perfect combustion; secondly, to keep the base of the cap B cool, and thereby prevent the heating of the base below.

The base, A, it will be observed, is so constructed that the cold air passing the openings therein will come in close proximity, and more or less in contact with the base of the wick-tube, preventing its becoming overheated, and thus making a burner entirely safe to use in connection with the lighter oils, or the more volatile products of petroleum, a very important matter, considering how impossible it is for the consumer to know just the quality of oil he is buying. The projections or steady-pins *h* are flat, and the openings which are to receive these in the flange C are elongated into slots, as in fig. 2. This enables the user to see, at a glance, precisely how the cap B should be placed, that the top of the wick-tube and the flame-slot, in the top of the cap, may correspond.

The manner of sustaining the chimney will be seen to be very unique and novel, whilst the air coming freely in contact with its inner surface, near the bottom, as also the outer, will keep the base of the chimney cool, that it may be easily handled, and the drooping part of the wires being more or less yielding, will readily allow for such variation in size of chimney as would be likely to occur. The ring *j* is for the purpose of handling the cap B more readily, and should be arranged opposite to one end of the slot for the flame, as illustrated in fig. 3.

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

1. The openings *i i*, in the flange C, arranged in relation to the cap B, in the manner and for the purposes specified.
2. The ring D, when provided with the sustaining-wires *e e*, and combined with the base, A, substantially as and to operate as set forth.
3. The base, A, the ring D, and the cap B, when arranged with relation to each other substantially as described.
4. The ring *j*, arranged upon and used to lift the cap B by, as described and set forth.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

HOWARD TILDEN.

Witnesses:

WM. H. WARNE,  
H. W. PROUTY.