

H. C. HART.
Wick-Raiser.

No. 162,286.

Patented April 20, 1875.

Fig. 1.

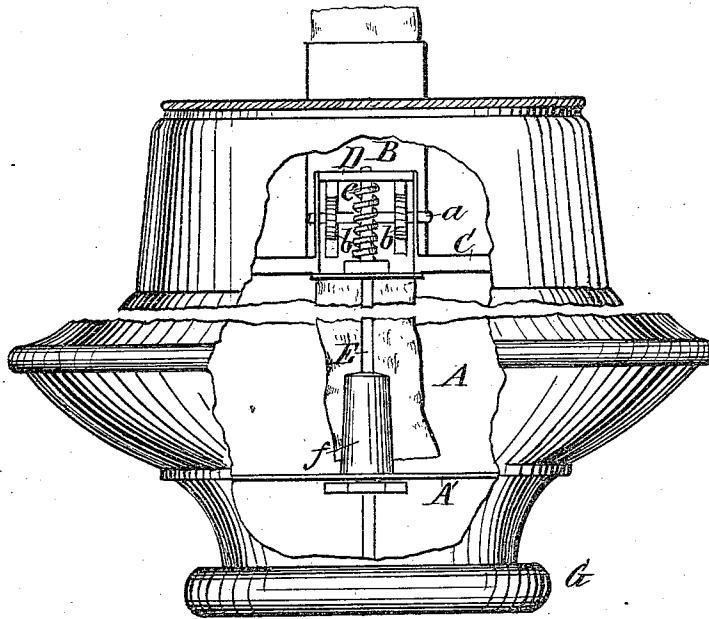
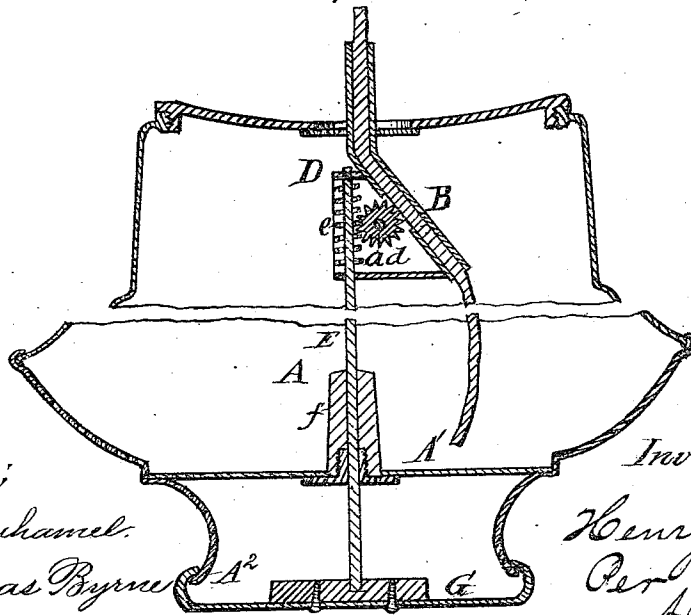


Fig. 2.



Witnesses;

Jas F. Duhamel.

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Per
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UNITED STATES PATENT OFFICE.

HENRY C. HART, OF ADRIAN, MICHIGAN.

IMPROVEMENT IN WICK-RAISERS.

Specification forming part of Letters Patent No. **162,286**, dated April 20, 1875; application filed January 12, 1875.

To all whom it may concern:

Be it known that I, HENRY C. HART, of Adrian, county of Lenawee and State of Michigan, have invented certain new and useful Improvements in Wick-Raisers for Lamps and Lanterns, of which the following is a specification:

My invention relates to lanterns, lamps, or other style of lights where the wick is surrounded by a globe, and it is necessary to remove the globe or the oil-pot to get at the wick; and the nature of my invention consists in the construction and arrangement of the mechanism for raising the wick, as will be herein after more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing which forms a part of this specification, and in which—

Figure 1 is a side elevation of the oil-chamber of a lamp embodying my invention, the chamber being broken open to show the interior mechanism. Fig. 2 is a vertical section of the same transversely through the center of the wick-tube.

A represents the oil-pot or oil-chamber of a lamp or lantern, and B is the wick-tube thereof. Within the chamber A is a horizontal bar, C, provided in the center with an upward-projecting frame, D, one side of which is vertical, and the other side inclined, the wick-tube B being bent to follow said inclined side of the frame. In this frame is a shaft, *a*, provided with the usual toothed wheels *b b*, which enter slots in the wick-tube and operate on the wick therein to raise and lower the same. In the center of the shaft *a* is secured another toothed wheel, *d*, which also enters a slot in the wick-tube and operates upon the wick therein. This last wheel *d* gears with a worm, *e*, on a vertical shaft, E, which passes through and has its bearings in the frame D. The shaft E is extended downward and passes through a stuffing-box, *f*, which is attached in the center of the bottom A¹ of the oil-chamber A. The shaft E extends below said bottom, and has a hand-wheel, G, attached to its lower end, which

hand-wheel fits on the lower end of an apron or extension, A², of the oil-chamber.

This wick-raising device is designed for use in hand-lanterns, especially high-priced conductors' lanterns, and in car-lamps, or any other style of light where the wick is surrounded by a globe, and it is necessary to remove the globe or the oil-pot to get at the wick. It is also especially designed for burning heavy oils, lard-oils, signal-oil or fish-oil, where it is necessary to have the length of wick above the oil as little as possible. This result is secured by placing all the working parts of the burner below the top of the oil-pot. By means of the stuffing-box *f* all leakage around the shaft E is prevented, said shaft running, as shown, through the body of the oil-chamber.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the ordinary wick-raising device, consisting of the shaft *a* and toothed wheels *b b*, of the toothed wheel *d*, arranged within the oil-chamber, and the worm *e*, attached to a vertical shaft passing down through the bottom of the oil-chamber, and operated from below the same, substantially as herein set forth.

2. The combination of the oil-chamber A with the wick-raising mechanism, substantially as shown and described, all arranged and operating so that the wick-raising mechanism is placed within and below the top of the oil-chamber.

3. The combination, with the oil-chamber A, wick-tube B, and wick-raisers *b b*, of the toothed wheel *d*, worm *e*, shaft E, stuffing-box *f*, and hand-wheel G, all constructed and arranged to operate within the oil-chamber, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my invention I hereunto affix my signature this 6th day of January, 1875.

HENRY C. HART.

Witnesses:

HEMAN LOOMIS,
W. K. CHOATE.