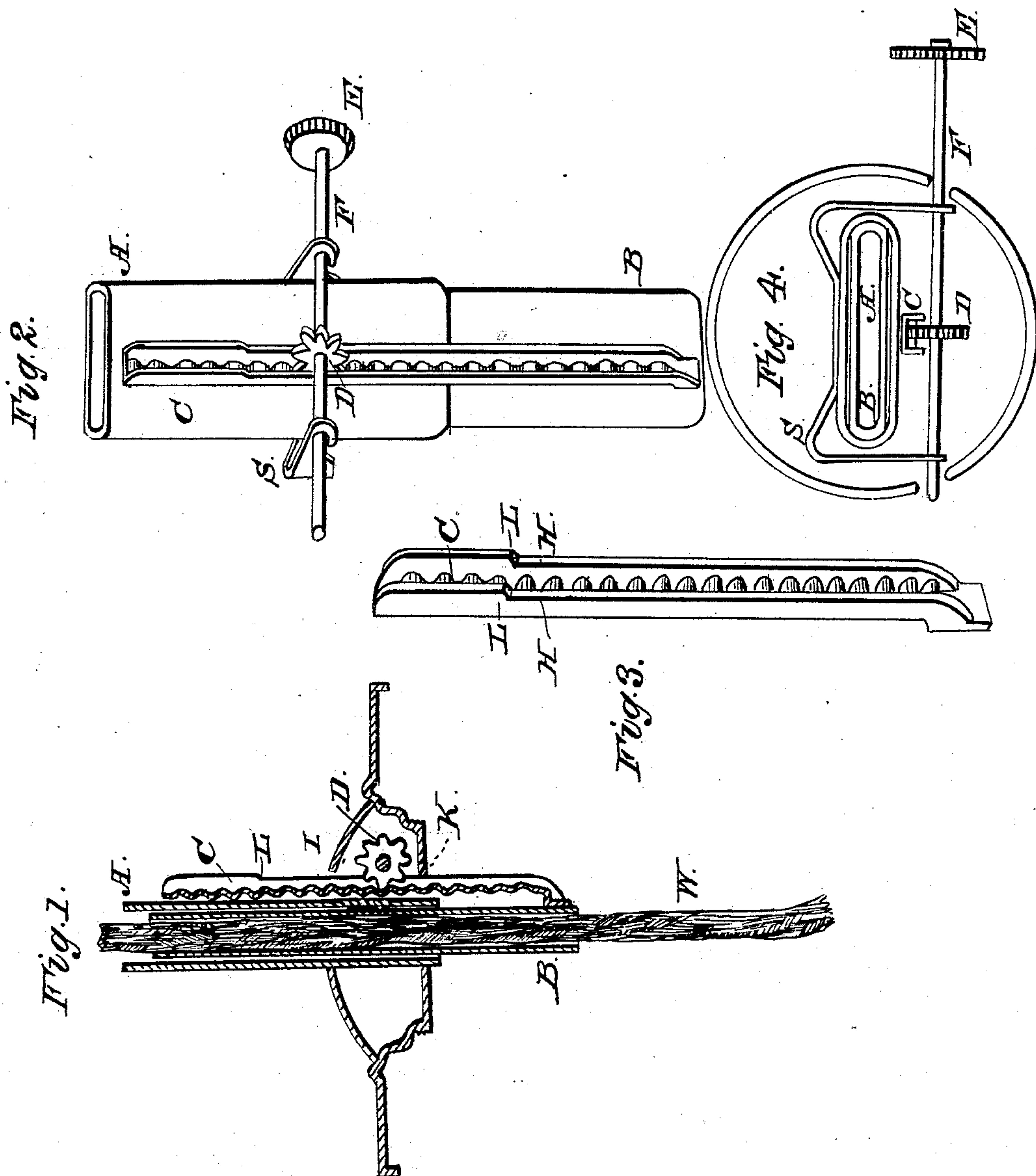


J. B. ALEXANDER.

Wick Raiser.

No. 84,045.

Patented Nov. 17, 1868.



Witnesses
W. O. Baldwin
J. L. Read

Inventor:
J. B. Alexander

United States Patent Office.

JOSEPH BELL ALEXANDER, OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 84,045, dated November 17, 1868.

DEVICE FOR RAISING AND ADJUSTING WICKS IN LAMPS.

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

To all whom it may concern:

Be it known that I, JOSEPH BELL ALEXANDER, of the city of Washington, in the District of Columbia, have invented a new and improved Device for Raising and Adjusting Wicks in Lamps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and the letters of reference marked thereon, making a part of this specification.

Figure 1 represents a vertical section.

Figure 2 represents, in perspective, the wick-tube as detached from the burner, with the wick-clasp or slider inserted, to which is attached the rack, which moves on the outside of the wick-tube.

Figure 3 represents, in perspective, the rack with its guides, as struck up with dies from one continuous piece of metal.

Figure 4 represents a transverse section in a line with the axle F.

Similar letters of reference denote like parts in the several figures.

A, the wick-tube, without a slot.

B, the wick-clasp or slider.

C, the rack.

D, the pinion.

E, the button.

F, the axle.

H and H', the guides struck on the rack, to prevent the pinion from slipping out of place.

S, the bow-spring, acting on the axle F, so as to bind the pinion D, with rack C, firmly against the outside of the wick-tube.

W, the cotton wick inserted in clasp B.

The nature of my invention consists in raising and lowering wicks in lamps, when the wicks are held by a metal clasp, which slides easily in the wick-tube, by means of a pinion acting on a rack, which is attached, by its lower end, to the lower end of the wick-clasp, and works outside of the wick-tube.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and use.

I construct a lamp after any known style or model, and fix in it a wick-tube, without slots either in the side or edge. (See A, figs. 1, 2, and 4.) I then turn the edges of piece of thin sheet-metal, so as to make a wick-clasp which will slide readily through the wick-tube A. (See B.) I then strike up with a die, from

one piece of sheet-metal, an independent rack, C, figs. 1, 2, 3, and 4, with the edges turned, so as to make the guides H and H' project sufficiently to form a trough to keep the pinion D always in proper position. I then attach the lower end of this rack C to the lower end of the clasp B, by solder or otherwise. I then cut a slot in the shank, at K, and one in the cap, at I, to admit the rack C, which rack, being operated by the pinion D, slides up and down on the outside of the wick-tube A, and carries the clasp B with it up and down inside of the wick-tube. The bow-spring S, figs. 2 and 4, binds the axle F, pinion D, and rack C, to the side of the wick-tube A, so as to hold the wick always to the point at which it is adjusted.

To use this lamp, turn the button E in such a way as will push down the clasp B as far as it will go, until arrested by the stops L and L'. The cotton wick W is now easily inserted. Then turn the button E, so as to carry the wick up as high as it will go. Pull the wick W about a half inch above the upper end of the clasp B, turn the button E until the wick comes even with the top of the wick-tube A, by which it may be trimmed. It is now ready for lighting, and adjusted by the pinion D. All or any other parts of lamps which may come in the way of the rack C are slotted to admit its passage.

The advantages of a wick-tube with no slots or perforations in its sides or edges are obvious. The wick, not being pressed or disturbed by the teeth of the ratchet-wheels, rises and falls always as it is trimmed, carrying a full flow of oil, and giving a third larger and brighter light. It will not easily get out of order, and will always work smooth and easy.

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

1. The making of the rack, with the guides H and H' and the stops L and L', by striking it up of one piece of sheet-metal, substantially as described and for the purpose set forth.

2. The combination, with any lamp, of the imperforate wick-tube A, the sliding wick-holder B, the rack C, the pinion D, and the bow-spring S, when arranged together substantially as described and for the purpose set forth.

J. B. ALEXANDER.

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W. O. BALDWIN,
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