A. WINTERBURN.

COAL-OIL LAMP.

No. 192,210. Patented June 19, 1877

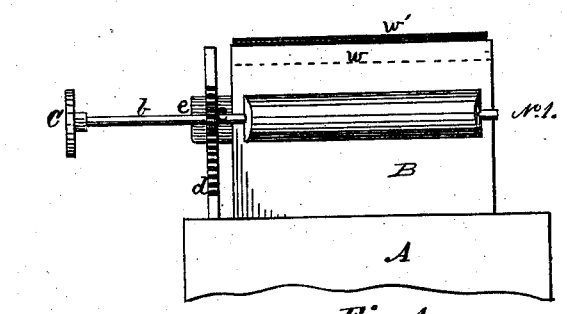

Fig. 1

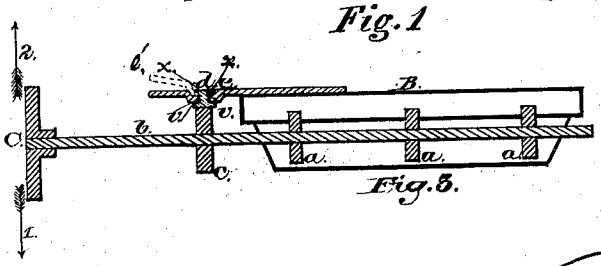

Fig. 3.

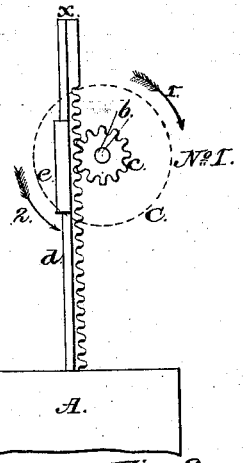

Fig. 2.

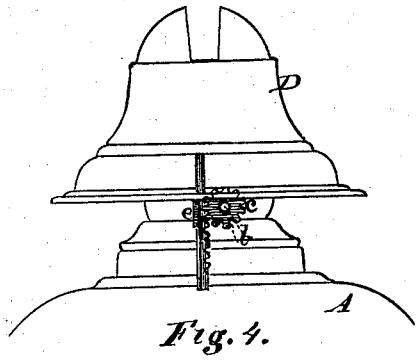

Fig. 4.

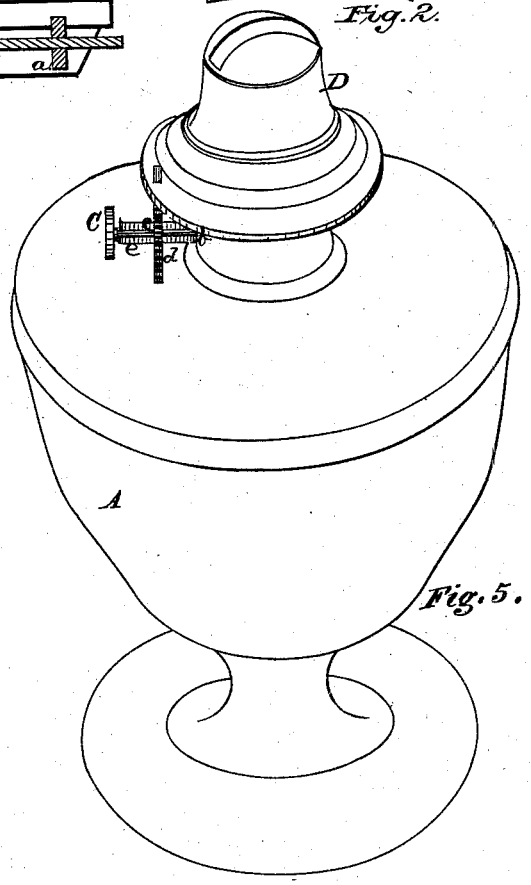

Fig. 5.

Witnesses. James Gray
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UNITED STATES PATENT OFFICE.

ANDREW WINTERBURN, OF ALBANY, NEW YORK.

IMPROVEMENT IN COAL-OIL LAMPS.

Specification forming part of Letters Patent No. **192,210**, dated June 19, 1877; application filed March 15, 1877.

To all whom it may concern:

Be it known that I, ANDREW WINTERBURN, of the city and county of Albany, State of New York, have invented a new and useful Improvement in Coal-Oil Lamps, which improvement is fully set forth in the following specification and accompanying drawing, in which—

Figure 1 represents a side elevation of the wick-tube and its adjunctive parts for raising the wick, with the improvement in this invention applied. Fig. 2 is a transverse elevation of the same. Fig. 3 is a horizontal sectional view taken at line No. 1 in Figs. 1 and 2. Fig. 4 is a side elevation of the same with the cap in place, and Fig. 5 represents a perspective view of a lamp with the improvement applied.

The object of my invention is to provide, in a coal-oil lamp, a device by which the wick raising and lowering mechanism may be stopped and resisted from further movement to carry the wick below a given point in the wick-tube when the said mechanism is being operated to move the wick downward below the upper end of the said wick-tube, and thereby prevent the operator from accidentally or otherwise turning the wick down past the raising-wheel.

In the drawings, A is the lamp. B is the wick-tube. *a a* are the wick-raising wheels. *b* is the shaft by which the said wheels are operated. C is the thumb-wheel for operating the shaft. D is the burner-cap; all of which are old and well known.

To the shaft *b* I secure a pinion, *c*, which pinion may be actuated at the same time the raising-wheels *a a* are operated.

Secured to the wick-tube B, as in Figs. 1 and 2, or to the base or flange of the cap D, is the spring-bracket *e*, which bracket may be readily crowded or pressed back to dotted lines *e'* in Fig. 3. The said bracket holds the vertical stop-bar *d* by means of feathers *v v* made with the said bracket, and working in ways *x x* made in the sides of the stop-bar, as shown in Fig. 3.

The stop-bar *d* has made on its side opposite the pinion *c* a series of cogs or rack-teeth, made to correspond with the cogs in said pinion, so as to be capable of being engaged with by the said pinion and raised or lowered when the said pinion is turned. When the thumb-wheel C is turned in direction indicated by arrow 1 in Figs. 2 and 3, the wick-raising wheels *a a* will be revolved in the same direction, and raise the wicks up from dotted lines *w* to full lines *w'*, Fig. 1; and when turned in an opposite direction, as indicated by arrow 2 in Figs. 2 and 3, the said wick-raising wheels will operate in a reverse manner to carry the wicks down from full lines *w'* to dotted lines *w* in Fig. 1, when the flame will be extinguished. At the same time the wheels *a a* are operating with the wick to carry the same down the pinion *c*, on the same shaft with wheels *a a*, will operate with the teeth on the stop-bar, and carry it down until its lower end rests on the body of the lamp or other equivalent portion of the same capable of resisting a further movement of the said bar in a downward direction. The moment the said lower end of the bar touches the surface on which it may rest the bar is made to operate with the pinion *c* to arrest any further movement of the same, while at the same time the wick-raising wheels secured to the shaft *b* will also be arrested in their operation with the wick, and thereby be prevented from being moved so as to carry the said wick down below a point of engagement with said wheels.

It may be readily seen that by this invention the wick cannot, by the carelessness of the operator, be turned down below the wick-raising wheels, as the stop-bar, when arrested, will indicate to the operator that the shaft carrying the wick-raising wheels has been sufficiently revolved to carry the wick down to a distance sufficient to extinguish the flame. It may also be readily seen that, as the stop-bar is supported by the elastic or spring bracket *e*, the said stop-bar may be at any time moved out from contact with pinion *c*, so as to permit the shaft *b* and wick-raising wheels *a a* to be revolved any extent desired or necessary to permit the insertion of a wick or the proper adjustment of the same in relation to its height in the tube; and that when the wick has been properly adjusted the spring-bracket, when relieved, will carry the said stop-bar back from

dotted lines to full lines in Fig. 3, so as to be again in engagement with the pinion *c*, as before.

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

1. The combination, with a lamp-burner having a wick raising and lowering device, of the stop-bar *d*, operated by pinion *c*, secured to the shaft carrying the wick-raising wheels, and adapted to arrest the movement of the said shaft when the same is revolved in a direction to lower the wicks, substantially as and for the purpose set forth.

2. The combination, with the lamp-burner and a stop-bar, *d*, adapted to be moved simultaneously with the feeding mechanism in either direction, of the spring-bracket *e*, substantially as and for the purpose set forth.

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Witnesses:

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