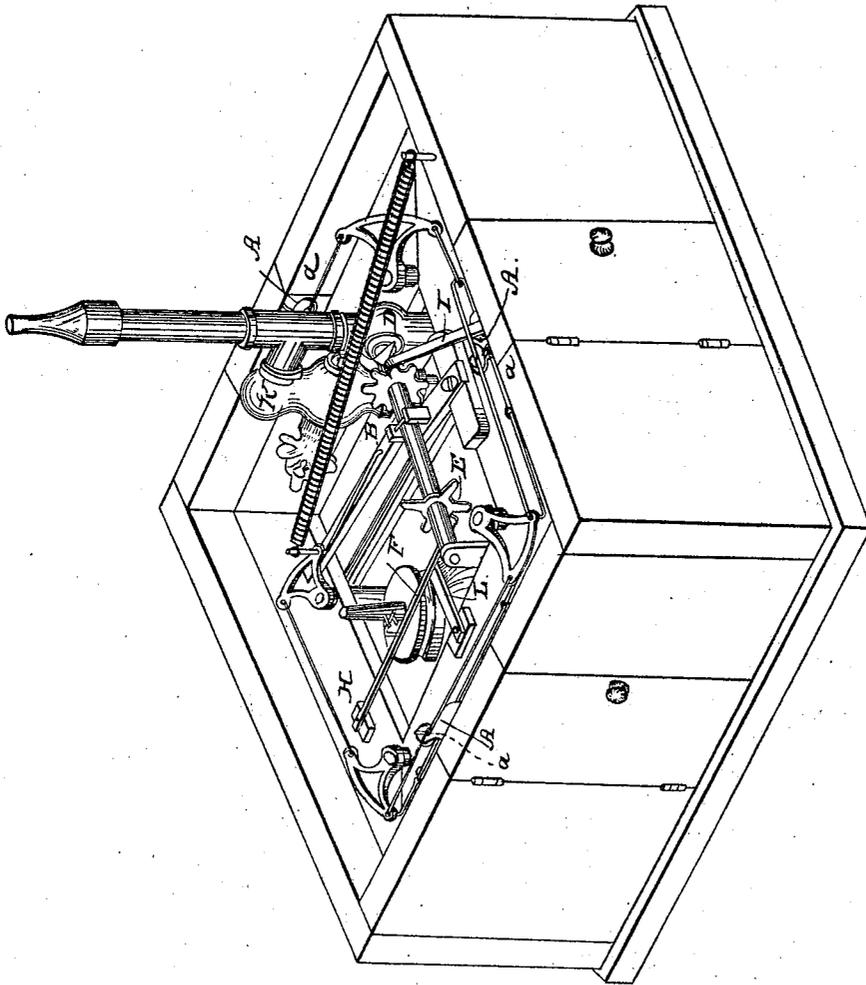


C. W. FELT.  
Lighting Apparatus.

No. 12,200.

Patented Jan. 9, 1855.



Witnesses  
Henry Johnson  
for Reynolds

Inventor  
C. W. Felt.

# UNITED STATES PATENT OFFICE.

CHARLES W. FELT, OF SALEM, MASSACHUSETTS.

## ENTRY-LIGHT.

Specification of Letters Patent No. 12,200, dated January 9, 1855.

*To all whom it may concern:*

Be it known that I, CHARLES W. FELT, of Salem, in the county of Essex and State of Massachusetts, have invented a new and useful contrivance, called the "Automatic Entry-Light," of which the following is a full and exact description.

This invention is designed to effect a saving of a large proportion of illuminating material in entries or any situations where light is needed at short intervals, by reducing the light to the minimum burning point when not needed. This is effected by the following arrangement as shown in the accompanying drawings.

To each and all doors, gates or guards at the entrances to the entry room or other inclosure there is attached in a proper position a piece of metal, or other suitable material, as A, in the accompanying drawing and to this is attached suitable material, as wire and bell joints by which the motion of the piece A, at the point *a*, turning with the door upon the hinges as a center, is conveyed to any point at a proper distance from the light. The connection nearest the burner is supplied with a suitable hook to act upon the toothed wheel B., and as B, contains eight teeth, it is moved one eighth of a revolution at the opening of each or any door, gate or guard, and the wheel B, is connected with the cock D, through the shaft C, in using gas, or with the toothed wheel E which acts upon the lever F, in using oil, burning fluid or any liquid illuminating material. The wheel B, has eight teeth, the wheel E, four teeth, and the cock D, two holes through the plug, at right angles to each other, and a small groove upon the circumference, connecting these holes, to admit the passage of only sufficient gas for the minimum burning. The wheel B is placed upon the shaft C, so that when at the position in which it is left by its operating hook, after an operation, the cock D, is in the position of its greatest or least vent and the wheel E, is so placed that at the same time the lever F is at its greatest depression or elevation. The catch I, prevents back motion. And, as the shaft C, makes one eighth of a revolution at the opening of any door, gate or guard the opening of one of the doors, gates or guards will put the cock in the position of the minimum burning point, and so on alternately—the opening of the door to come in, producing a full light, and the opening to go out, reducing it to the minimum point.

In case of using oil, burning fluid or any liquid illuminating material, the operation is similar, a tube of convenient length, which loosely fits the wick tube, is placed around it, with the tops as near even as may be, this is suitably attached to the lever F., which is depressed by the wheel E., and elevated when that wheel allows by the spring H. The sliding of this tube upon the wick tube above its top, around the burning wick, partially cuts off its supply of air and reduces combustion, and as this is done by the wheel E., once up, and next down, it produces the same effect as with the gas.

As it might often occur that a continued light would be needed for a considerable length of time, the cock K, is provided, which is connected with the tube in which is placed the cock D., at points above and below that cock, so that it may be rendered inoperative upon the light:—and a similar result is produced in the burning of oil, burning fluid, or other liquid illuminating material, by sliding the lever F, from the wheel E, to and upon the rest L.

As, with a large number of doors, gates or guards, the wires if running from every door to near the burner, would become quite cumbersome and expensive, the link connection M, is provided, by which but one wire is needed. It is formed by making a link as shown in the drawing as long inside as the motion of the point *a* in A, at the end of the wire which would run at the side of another, and, also make a similar link in the end of the other wire, but sufficiently wide to take the first link and the end of the piece A., leaving each a free motion without disturbing the other: in this motion the link is kept upon the piece A, by the pin *a*.

I do not claim the cock D, or the link connection, those, being substantially old, but

I do claim—

The combination of the link connection with the cock D, for gas, and the sliding tube around the wick tube for oil, or other liquid illuminating material in the manner and for the purpose set forth.

In witness whereof I have hereto affixed my hand and seal.

CHARLES W. FELT. [L. s.]

Witnesses:

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