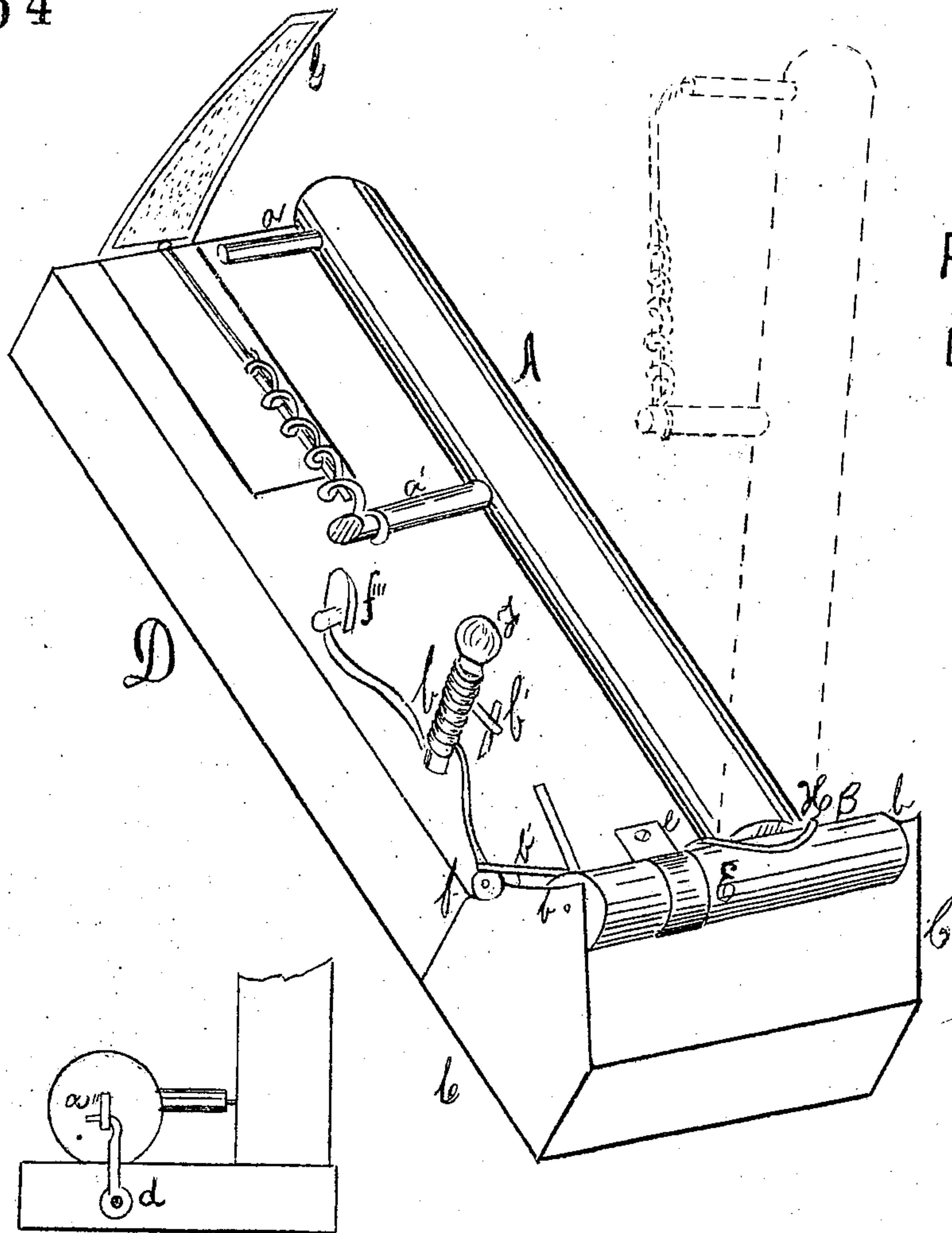


Thomas N. Howell

Lamp Lighter & Alarm.

72854



PATENTED  
DEC 31 1867

Witnesses.

R. S. Turner

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# United States Patent Office.

THOMAS N. HOWELL, OF CIRCLEVILLE, OHIO.

*Letters Patent No. 72,854, dated December 31, 1867.*

## IMPROVEMENT IN LIGHTER AND ALARM.

*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, THOMAS N. HOWELL, of Circleville, in the county of Pickaway, and State of Ohio, have invented a new and improved Device for Automatically Lighting a Lamp, and other purposes; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention consists of a novel device for automatically lighting a lamp or fire, and making an alarm at any desired time, and is also capable of being used as a burglar-alarm, as will be hereinafter fully described.

To enable others to make and use my invention, I will now proceed to describe its construction and operation.

A represents a lamp of tubular form, attached at its base to the axis B, which is pivoted at the points *b* to the supports C, rising from one end of the block D. At the upper end of the lamp A, upon one side, is the tube *a*, which is intended for the insertion of the wick, and about at the centre, upon the same side, is the tube *a'*, through which the oil is placed in the lamp. At the outer end of the tube *a'* is affixed the spiral *a''*, the upper end of which terminates a little below the tube *a*, and is thus arranged for holding a match directly opposite the wick of the tube *a*. About the axis B, and attached to it, is placed the coiled spring E, the outer end of which is fastened to the block D at the point *e*. F represents a standard, upon which is placed the coiled spring *f*, one end of which is attached at the point *f'*, and the other of which terminates in a nipple-shaped head, *f''*, intended for the reception of a cap. It is made ready to operate by drawing the head back until it is caught by the pin *b'*, when the lamp is turned down. The lamp is held in a horizontal position by means of the hook *d* upon the block D catching into the staple *a'''* in the upper end of the lamp. The explosion of the cap is produced by the head *f''* striking forcibly against the stop *f'''* when the spring *f* is allowed to act. G represents a friction-bar, attached to the block D in a direct line with the spiral-holder *a''*, and so arranged that when the lamp, being freed, rises from its horizontal position by means of the spring E, the match held by the spiral-holder moves over the entire surface of the friction-bar, thus insuring the ignition of the match. H represents a wire attached at each end to the block D, and, passing about the lamp A, prevents it from being forced beyond a perpendicular by the action of the spring E.

The operation of my invention is as follows: The lamp being properly prepared, the match being placed in the spiral-holder, and a cap put upon the nipple *f''*, the spring F is forced back to its proper place, and the lamp turned down horizontally. Being secured in that position by means of the hook *d*, my invention is ready to operate. If it is desired to arouse a person at a given time, the hook which holds the lamp is connected by suitable means to the power of an ordinary clock, which must be set at the desired time, as is usual in such cases. When the time is given by the clock, the hook is disengaged from the staple, the lamp assumes a perpendicular position, and is lighted by the match which has been ignited by contact with the friction-bar, and at the same time the spring F is disengaged and the cap exploded, by which means a general disturbance is caused and the sleeper aroused. If it be desired to light a fire in a distant room, suitable arrangement must be made for the proper ignition of the fire when the lamp is lighted. The hook can be disengaged either by the machinery of a clock, as before described, or by a cord attached to it running to the room of the person whose business it is to make the fire. A slight pull will be sufficient to produce the desired effect. This may be given in bed as well as elsewhere, and thus remove the necessity of rising until the fire gets well under way. If it is desired to use it as a burglar-alarm, cords are attached to the hook and carried across the windows and doors in such a manner that when they are opened, the cord will be stretched and the hook disengaged. A pistol can be readily attached to this to be fired by the cap.

Another method of operating my device is as follows: When it is desired to use clock-power to set it off, the lamp may be placed inside of a clock-case, being fastened to the back of the clock by means of a screw in a horizontal position. The lamp having been properly prepared, the device is made ready to operate, and the clock-power is attached to the hook *d*. The clock having been set at the desired time, as is usual in such cases, disengages the hook from the staple when the time arrives. The spring then throws the lamp against the door of the clock, by which means the latter is opened, when the lamp, having been lighted by its outward march, assumes a right-angle position to the block. At the same time the cap is bursted, and a general disturbance takes place.



This device can be used in many ways for general purposes that will readily suggest themselves. For instance, it can be used without the cap or without the alarm, or simply as a lamp.

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

1. The lamp A, constructed as described, and provided with the spring E, in combination with the spiral match-holder *a''* and the friction-plate G, as and for the purpose described.

2. In combination with the above, the alarm-apparatus, consisting of the stud F, spring *f*, nipple *f''*, and stop *f'''*, as and for the purpose described.

THOS. N. HOWELL.

Witnesses:

C. S. BETZER,  
JOHN L. KING.