

(No Model.)

G. J. HACKER.  
LIGHTING DEVICE.

No. 572,930.

Patented Dec. 8, 1896.

Fig. 1.

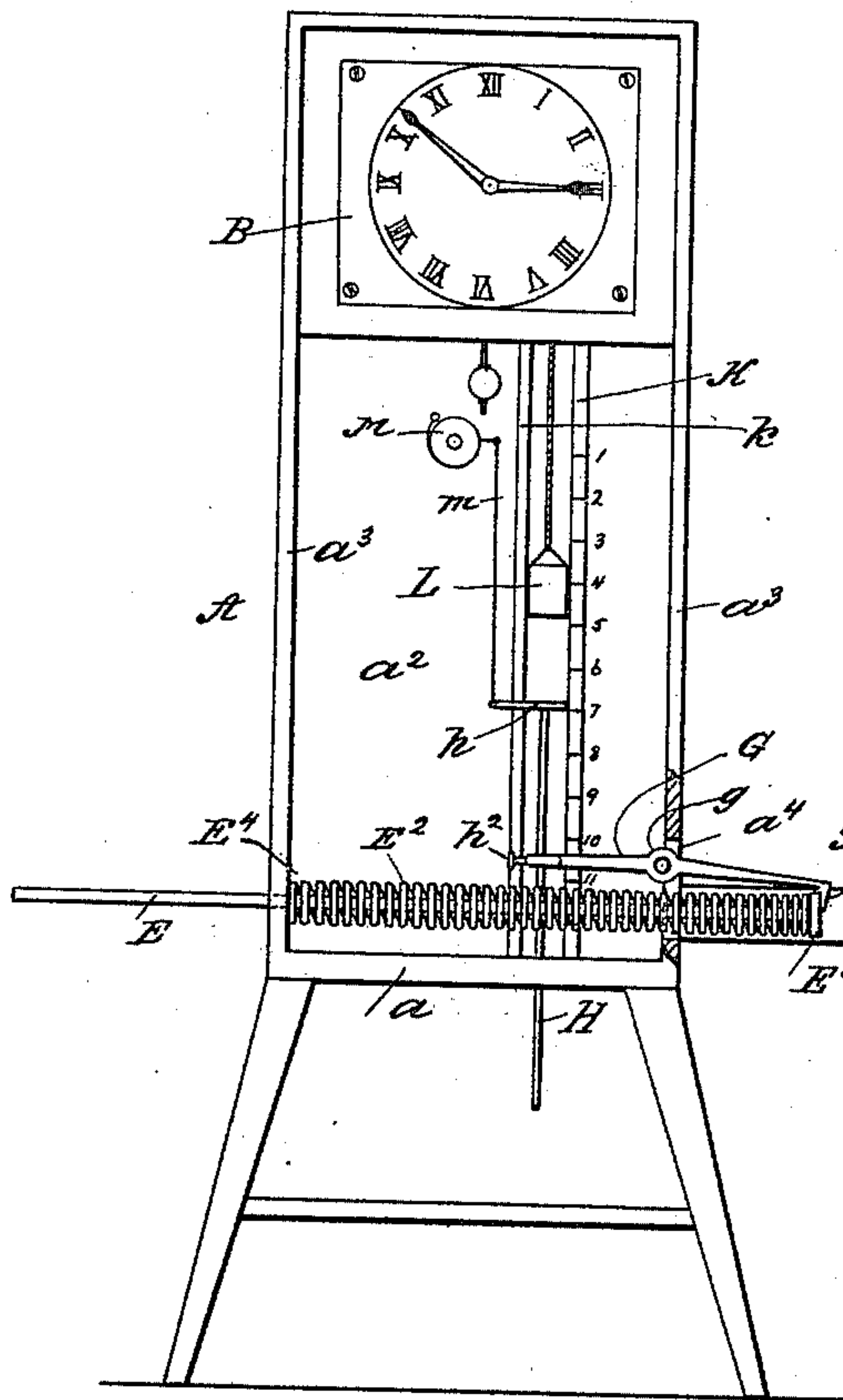
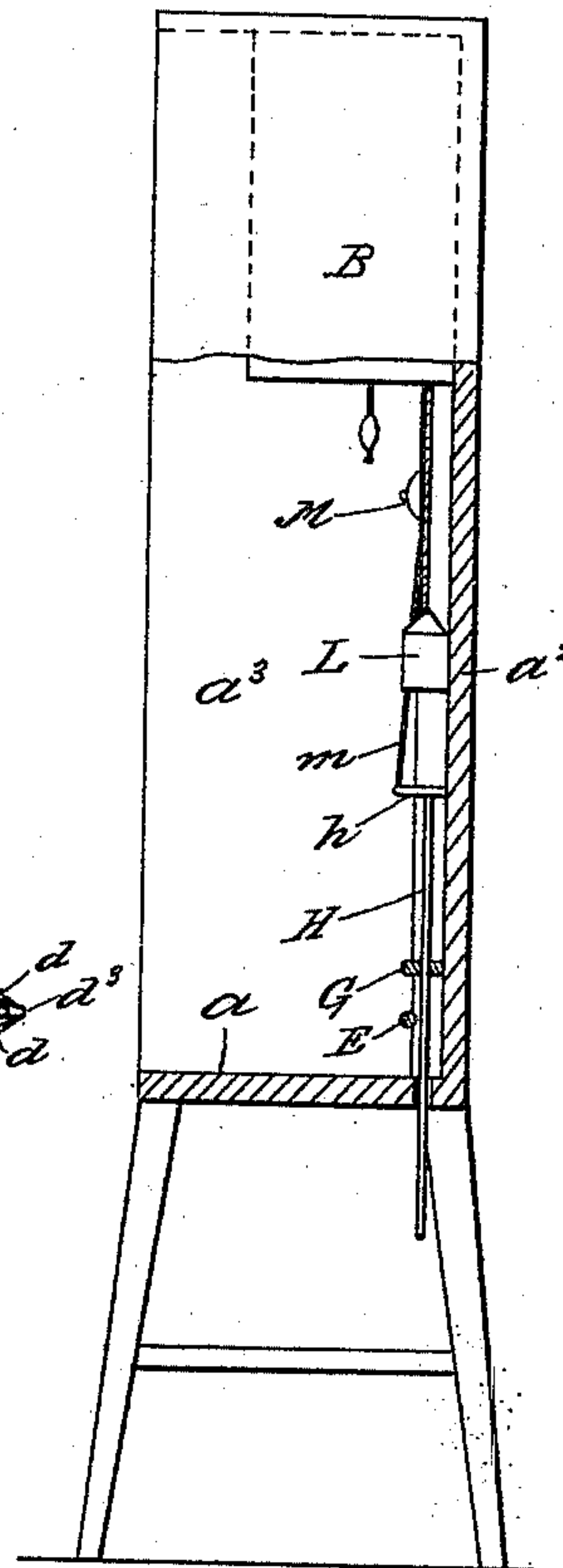


Fig. 2.



**WITNESS:**

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# UNITED STATES PATENT OFFICE.

GEORGE JOSEPH HACKER, OF MOKENA, ILLINOIS.

## LIGHTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 572,930, dated December 8, 1896.

Application filed April 14, 1896. Serial No. 587,491. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE JOSEPH HACKER, a citizen of the United States, and a resident of Mokena, in the county of Will and State of Illinois, have invented certain new and useful Improvements in Lighting Devices, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which  
10 similar letters of reference indicate corresponding parts.

This invention relates to lighting devices, and the object thereof is to provide an improved device of this class which is simple in  
15 construction and operation and which is adapted to start or ignite a fire in a stove, grate, or similar place at a predetermined time, a further object being to provide an automatic fire lighter or starter which is operated by a clock or clock mechanism and which  
20 also sounds an alarm at the time that the fire starter or lighter is operated.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a front view of my improved lighting device, and Fig. 2 a sectional side view thereof.

In the practice of my invention I provide  
30 a box or casing A, which comprises a bottom  $a$ , a back  $a^2$ , and sides  $a^3$ , and in the upper part of which is a clock B. Formed in one side of the box or casing, near the bottom thereof, is an opening or passage  $a^4$ , and back  
35 of said opening or passage is secured a strip or plate D, which is projected outwardly, and the corners of which at its outer end are bent inwardly, as shown at  $d$ , and adapted to receive a match  $d^2$ , which is adapted to be forced  
40 outwardly through an opening at  $d^3$  and to be ignited as it is forced outwardly, as hereinafter described. Passing transversely through the box or casing is a rod E, on which is mounted a strong spiral spring  $E^2$ , one end of  
45 which bears upon the head  $E^3$  of the rod E and the other upon the inner side of one of the sides of the box or casing, as shown at  $E^4$ . The rod E passes through the opening  $a^4$  in the side of the box or casing with which the  
50 strip or plate D is connected, and is adapted to be projected along said strip or plate by the spring  $E^2$ , and I also provide a lever G, which

is pivotally connected with the side of the casing at  $g$  and the outer end of which is provided with a hook or head  $g^2$ , which is adapted to  
55 engage with the head  $E^3$  of the rod E, and passing vertically through the inner end of the lever G and through the bottom of the box or casing is a rod H, the upper end of which is provided with a cross bar or plate  $h$ , and said  
60 rod H is adapted to be adjusted to any desired position by means of a set-screw  $h^2$ , which passes into and through the end of the lever G.

Secured to the back  $a^2$  of the box or casing  
65 are two guide-plates K and  $k$ , between which the weight L of the clockworks moves, and the cross head or plate  $h$  at the upper end of the rod H projects between said guide-plates, and one of said guide-plates is provided with a  
70 scale of figures, as shown in Fig. 1, said scale being designed to represent the hours of the day from one to eleven, inclusive, and also secured to the back  $a^2$  is an alarm-bell or  
75 other device M, with the operative mechanism of which is connected a cord  $m$ , which is also connected with the cross head or plate  $h$  of the rod H.

It will be understood that the weight L takes the place of an ordinary spring in the  
80 clockwork mechanism, and on winding the clock the weight L is raised above the scale formed on the guide-plate K, and this scale or the hours indicated thereon corresponds  
85 with the hours on the dial-plate of the clock, and the operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof.

In practice the cross plate or head  $h$  of the  
90 rod H is set at the hour at which it is desired that the alarm should be sounded and the fire ignited, and the box or casing is placed on a chair or other support in such position that the end of the strip or plate D projects  
95 into the grate or stove, and the weight L is continually descending, and when it strikes the cross plate or head  $h$  at the hour set, the inner end of the lever G will be depressed and the outer end thereof disconnected from  
100 the rod E, and said rod will be projected by the spring  $E^2$ , and the match  $d^2$  will be driven between the jaws  $d$  of the strip or plate D and at the same time ignited.



This device is simple in construction and operation and perfectly adapted to accomplish the result for which it is intended, and it is evident that changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages, and I reserve the right to make all such alterations therein and modifications thereof as fairly come within the scope of the invention.

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

1. A lighting device, comprising a box or casing, in the bottom of which is mounted a transverse spring-operated rod, which is adapted to be projected at one side thereof, by said spring, said box or casing being also provided with a projecting strip or plate, the outer end of which is adapted to hold a match which is adapted to be projected and ignited by said spring-operated rod, and said box or casing being also provided with a pivoted lever, the outer end of which is adapted to hold said rod in the withdrawn position, and the inner end of which is connected with a vertically-movable rod, which is adapted to be operated by a weight connected with a clock mechanism which is located in the upper part of said box or casing, substantially as shown and described.

2. A lighting device, comprising a box or casing, in the bottom of which is mounted a transverse spring-operated rod, which is adapted to be projected at one side thereof, by said spring, said box or casing being also provided with a projecting strip or plate, the outer end of which is adapted to hold a match which is adapted to be projected and ignited by said spring-operated rod, and said box or casing being also provided with a pivoted lever, the outer end of which is adapted to

hold said rod in the withdrawn position, and the inner end of which is connected with a vertically-movable rod, which is adapted to be operated by a weight connected with a clock mechanism which is located in the upper part of said box or casing, said vertically-movable rod being also connected with an alarm-bell or other similar device, substantially as shown and described.

3. A lighting device comprising a box or casing, in the bottom of which is mounted a transverse spring-operated rod, which is adapted to be projected at one side thereof, by said spring, said box or casing being also provided with a projecting strip or plate, the outer end of which is adapted to hold a match which is adapted to be projected and ignited by said spring-operated rod, and said box or casing being also provided with a pivoted lever, the outer end of which is adapted to hold said rod in the withdrawn position, and the inner end of which is connected with a vertically-movable rod, which is adapted to be operated by a weight connected with a clock mechanism which is located in the upper part of said box or casing, said vertically-movable rod being also connected with an alarm-bell or other similar device, said weight being adapted to move between two vertical guide-plates one of which is provided with a scale which represents the hours of the day and which are arranged to correspond with the hours of the day on the dial of the clock, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 7th day of April, 1896.

GEORGE JOSEPH HACKER.

Witnesses:

WM. H. SCHEER,  
FRANK LIESS.