G. K. PROCTOR.

Lamp Lighting Device.

No. 26,953. Patented Jan'y 24, 1860.

Fig: 1.

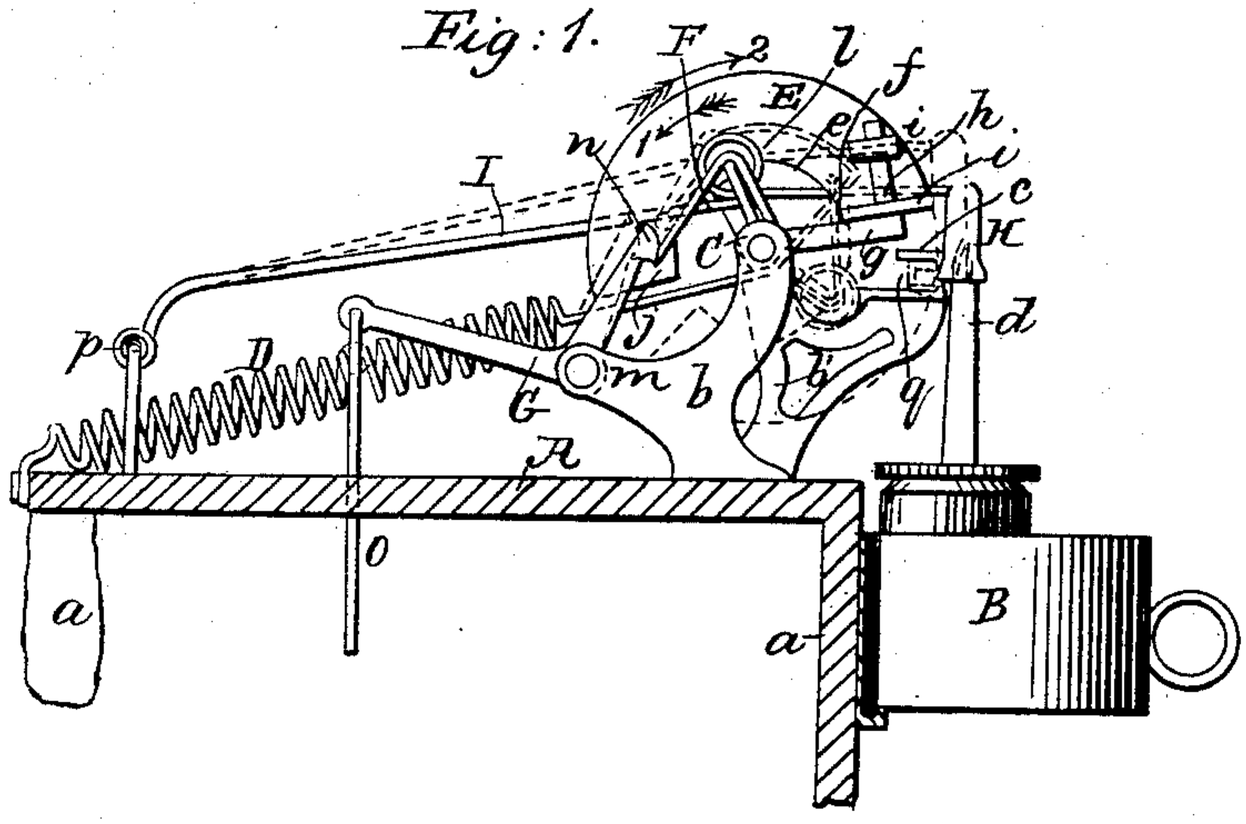
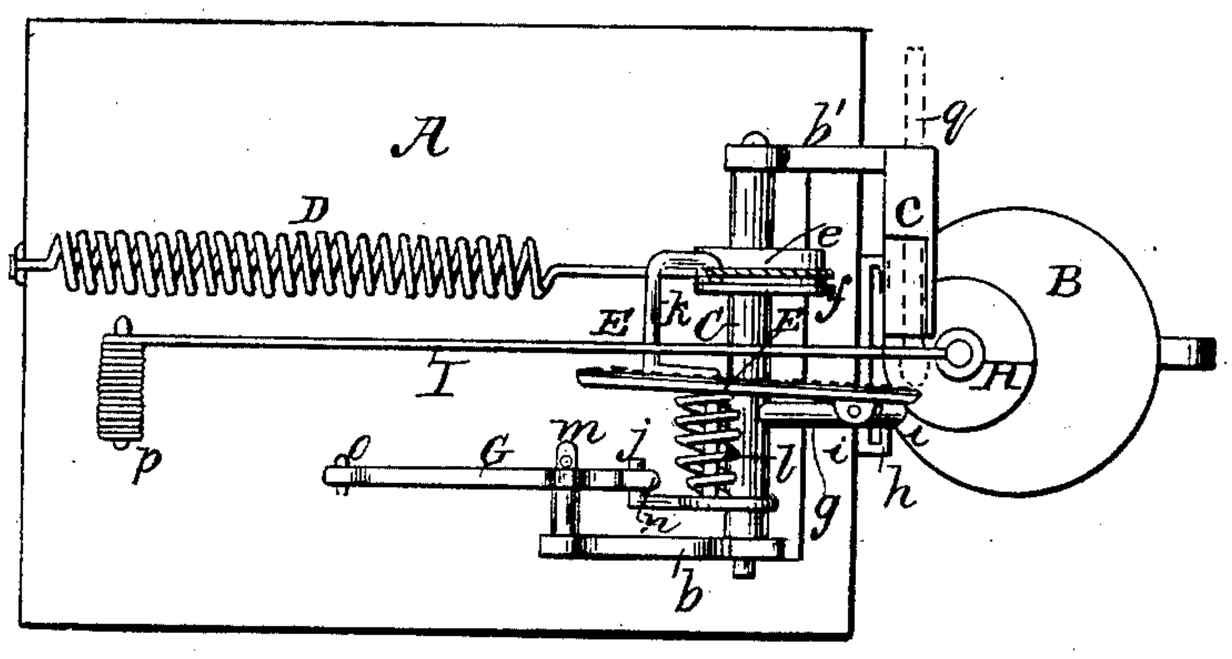


Fig: 2



Witnesses

Stephens Baker

Geo H. Stickney

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UNITED STATES PATENT OFFICE.

GEORGE K. PROCTOR, OF BEVERLY, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND G. H. STICKNEY, OF SAME PLACE.

LAMP-LIGHTING DEVICE.

Specification of Letters Patent No. 26,953, dated January 24, 1860.

To all whom it may concern:

Be it known that I, GEORGE K. PROCTOR, of Beverly, in the county of Essex and State of Massachusetts, have invented a new and Improved Automatic Lamp-Lighting Device; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side view of my invention. Fig. 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in applying to a lamp, a match holder and friction plate, the latter having a spring connected to it and so arranged, that when liberated and actuated by the spring, the friction plate will ignite the match and thereby cause the lamp to be lighted.

The invention is more especially designed to be applied to alarm clocks to be operated by the same simultaneously with the sounding of the alarm. It may, however, be used separately and operated by a cord in cases where necessary.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a bedplate supported by two uprights *a*, *a*, to one of which a lamp B, is attached. To the bedplate two uprights *b*, *b'*, are secured near the lamp B. These uprights are both forked. To the upper part of one end of the upright *b'*, a socket *c*, is attached. This socket is simply a match holder and may be described as being a horizontal box, in line or in the same plane with the upper end of the wick tube *d*, of the lamp.

C, is a shaft which has its bearings in the upper parts of the uprights *b*, *b'*. This shaft is allowed to turn freely in its bearings and it has a sector projection *e*, attached to it. To this projection *e*, one end of a spiral spring D, is connected by a cord *f*, the opposite end of said spring being attached to the back end of the bedplate A. To the shaft C, there is also attached a radial arm *g*, the end of which has an arbor *h*, secured to it at right angles. On this arbor *h*, a semi-circular plate E, is fitted, the arbor passing through eyes *i*, *i*, at one end of the plate. The plate E, is allowed to turn on the arbor *h*.

F, is a rod which passes through the shaft C, near one of its ends and projects therefrom a suitable distance with a hook *j*, formed at its end. This rod F, passes beyond the plate E, has a crank *k*, formed on it and is attached to the sector projection *e*. The shape of this rod is plainly shown in Fig. 2. On the rod F, and adjoining the projecting hooked end a spiral spring *l*, is placed, said spring bearing against the plate E.

G, is a lever which is fitted on a fulcrum pin or projection *m*, on the upright *b*. This lever is of bent form and its front end is provided with a catch *n*, as shown clearly in Fig. 1, and its back end has a rod *o*, attached to it which rod passes through the bed piece.

H, is an extinguisher which is of the usual form and is attached to the front end of a rod I, the back end of which is coiled and fitted loosely on a shaft *p*, so as to form a joint connection.

The operation is as follows: The lamp B, is filled and properly trimmed, and the socket *c*, provided with a match *q*. The semi-circular plate E, is then turned in the direction indicated by the arrow 1, until the hook *j*, is caught under the catch *n*, of lever G. This movement of the plate E, stretches the spring D. The rod I, is adjusted over the crank *k*, of the rod F, the extinguisher H, being fitted on the tube *a*, in order to prevent the evaporation of the fluid within the lamp if a volatile one be used and to keep the upper exposed part of the wick free from dust. The match *q*, is secured in the socket or holder *c*, by a wedge or other proper means and the match is so adjusted that its end which is provided with the igniting compound will project slightly within the plane of the movement of plate E. The parts being thus adjusted, the device is in proper condition to operate when the rod *o*, is actuated. If the device is applied to an alarm clock the rod *o*, will at the proper time be actuated by the mechanism of the clock. If it is designed to operate said rod by a cord a simple jerk or pull of the same is all that is required. The rod *o*, when

pulled down causes the catch *n*, at the front end of lever G, to pass off from the hook *j*, and the spring D, will throw the plate E, rapidly around in the direction of arrow 2, the crank *k*, throwing back the rod I, and thereby freeing the extinguisher from the tube and the side of the plate E, opposite the match *q*, which side is corrugated, or provided with a rough substance, will rub against the end of the match and ignite the same and the lighted end of the match in consequence of its close proximity to the wick of the tube *d*, will light the wick. In order to prevent the plate E, from acting against the end of the match with an undue pressure, the plate E, is enabled to yield or give in consequence of being fitted loosely on the arbor *h*, and made to bear against the spring *l*, as described.

This device may be constructed at a small cost and will in many cases prove very convenient. In cases of burglary for instance, a lamp may be lighted instantly by the occupant of a bed by simply pulling a cord attached to the rod *o*. If applied to an alarm clock in order to insure the rising of a person at a certain hour, the apparatus being in the sleeping apartment, would be certain to effect the desired result in consequence of the alarm being sounded and the lamp lighted simultaneously.

I am aware that automatic lamp-lighting attachments have previously been applied to lamps and I do not broadly claim such device irrespective of the arrangement herein shown and described.

I claim therefore as new and desire to secure by Letters Patent—

1. The partially rotating and yielding plate E, operated by the spring D, or its equivalent, and attached to the shaft C; in connection with the hook *j*, also attached to shaft C, the catch *n*, on lever G, and the match holder *c;* the latter being arranged relatively with the wick tube *d*, of the lamp, substantially as and for the purpose set forth.

2. I also claim the extinguisher H, attached to the rod I, in connection with the crank *k*, on rod F, arranged substantially as shown to insure the exposure of the wick, simultaneously with the ignition of the match *q*.

GEORGE K. PROCTOR.

Witnesses:

STEPHEN BAKER,

GEO. H. STICKNEY.