

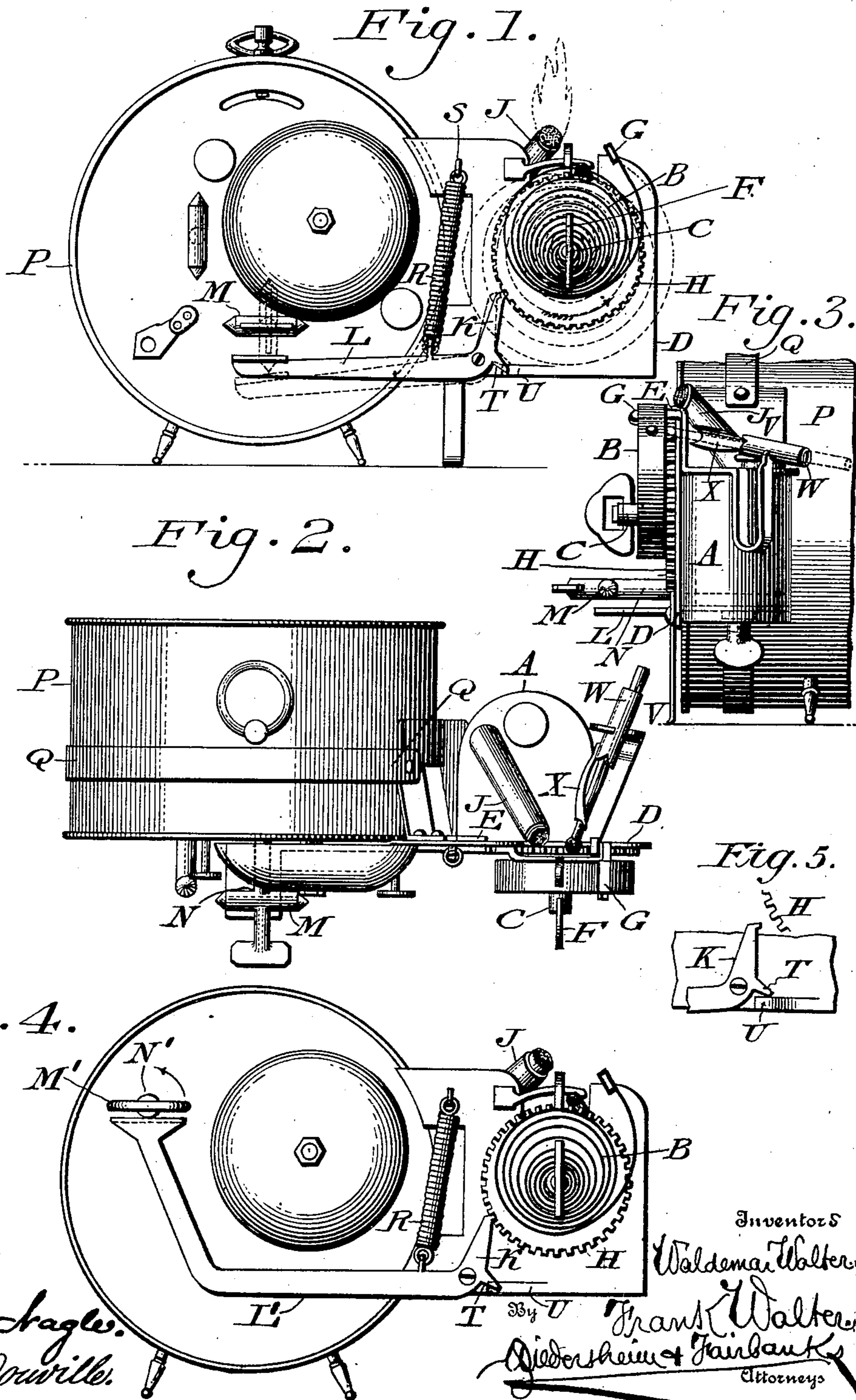
No. 680,090.

Patented Aug. 6, 1901.

W. & F. WALTER.
TIME LAMPLIGHTER.

(Application filed Mar. 26, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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TIME LAMPLIGHTER.

SPECIFICATION forming part of Letters Patent No. 680,090, dated August 6, 1901.

Application filed March 26, 1901. Serial No. 52,894. (No model.)

To all whom it may concern:

Be it known that we, WALDEMAR WALTER and FRANK WALTER, citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Self-Lighting Attachments for Alarm-Clocks, of which the following is a specification.

Our invention consists of a self-lighting attachment for an alarm-clock, the same embodying means which operate said attachment when the time of an alarm is reached, means for striking a match and causing the ignition of the same, and consequently of a lamp adjacent thereto, and of a match-holder of novel construction whereby it may be properly adjusted on the striking device, the attachment in no wise altering the construction of the clock, but merely requiring the lever member of the same to be located adjacent to the cross-bar or handle of the winding-arbor on the exterior of the clock-casing, so that at the proper time said bar or handle will bear against said lever and release a spring-operated wheel with which the head of the match is in contact.

Figure 1 represents a side elevation of a self-lighting attachment for an alarm-clock embodying our invention. Fig. 2 represents a top or plan view thereof. Fig. 3 represents an end view of a portion thereof. Fig. 4 represents a side elevation of a modified portion. Fig. 5 represents a view of a detached portion, showing the position of the lever member when acted on by the winding-arbor of the clock.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a lamp, and B designates a coiled spring, the latter having its arbor C mounted on the plate D, to which said lamp is attached, as at E, said arbor being provided with a handle F, by which the spring may be conveniently coiled, one end of said spring being connected with a fixed member, such as G, on the plate D. Connected with said arbor C is the toothed or spur wheel H, adjacent to which is the wick-tube J of the lamp A.

K designates a pawl or dog which is mounted on the plate D and has connected with it

the lever L, which is adapted to be engaged by a cross-bar M on the winding-arbor N of the clock P, it being noticed that the plate D has secured to it the band Q, the latter being adapted to encircle the case of the clock, and thus retain said plate and connected parts in position thereon. The pawl is held in engagement with the lever L and a fixed member S of the plate D, the lower portion of said pawl being provided with the foot T, which is adapted to engage with the spring U on the base of the plate D, said spring in the present case being formed by slitting said plate and throwing out the piece as slitted or cut, the same becoming resilient in its nature, its object being to hold the pawl from the wheel H during the lighting operation, as will be hereinafter described.

Connected with the plate D or upper portion of the body of the lamp is the match-holder V, consisting of the tubular guide W and the forked arm X, which extends forward from said guide, so as to take firm hold of the match inserted through said guide, it being noticed that the holder is somewhat elastic, whereby it will yield, so that the head of the match may be placed in contact with the peripheral portion of the wheel H.

The operation is as follows: The attachment is located adjacent to an alarm-clock and the limb of the lever L opposite to the pawl K thereof placed adjacent to the cross-bar M, the alarm having been previously set as usual, after which the spring V is wound to the desired extent, it being noticed that, owing to the spring R, the pawl K is held in engagement with the wheel H, it being also noticed that the foot T of the pawl K extends over the end of the spring U, so as not to be controlled by the same. A match is also applied to its holder, the parts then being in the position shown in the drawings, it being noticed that the teeth of the wheel H admit of the controlling engagement of the wheel H by said pawl K and also provide a serrated surface which positively causes the ignition of the head of the match which is in contact with the adjacent teeth of said wheel. When the time for an alarm arrives, the alarm-arbor N rotates as usual, and the cross-bar M bears against the lever L and depresses

the same, whereby the pawl K is removed from the wheel H, and the latter is then controlled by the spring B, causing the rotation of said wheel, the toothed periphery of the latter riding against the head of the match and acting as a striker to ignite the same. As the wick is close to said head, the flame of the match is communicated to the wick, and thus the lamp is lighted. It will be noticed that as the pawl is withdrawn from the wheel H the foot T is above the spring U and engaged by the same, so that the pawl is held clear from said wheel during the rotation of the latter.

In order to reset the device, the alarm is rewound, the spring U pressed in, so as to release the foot T, when the spring R becomes operative and throws the pawl into engagement with the wheel H and controls the spring B.

In Fig. 4 we show a different form of lever L' for the pawl K, the same being of angular form, so as to be engaged by the loop or knob M' of the arbor or winding-post N' of the alarm mechanism.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A toothed wheel, means for holding a match in contact therewith, a spring for caus-

ing the rotation of said wheel, a pawl adapted to engage with the teeth of said wheel for controlling the wheel, and a lever adapted to be located in proximity to the winding cross-bar of the alarm mechanism and be engaged therewith, said pawl being carried by the limb of said lever opposite to the limb engaged by said cross-bar.

2. A toothed wheel, a winding-spring connected therewith, a match-holder and a lamp adjacent to the periphery of said wheel, a lever, a pawl carried by one limb of said lever and engaging the teeth of said wheel and having its other limb adapted to be engaged by the cross-bar of the alarm mechanism on the exterior of the clock-casing.

3. In a self-lighting attachment for an alarm, a wheel adapted to strike a match, means for holding said match, a spring for operating said wheel and a pawl adapted to engage with said wheel, in combination with a spring for holding said pawl engaged with said wheel, and a spring for holding said pawl from said wheel.

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