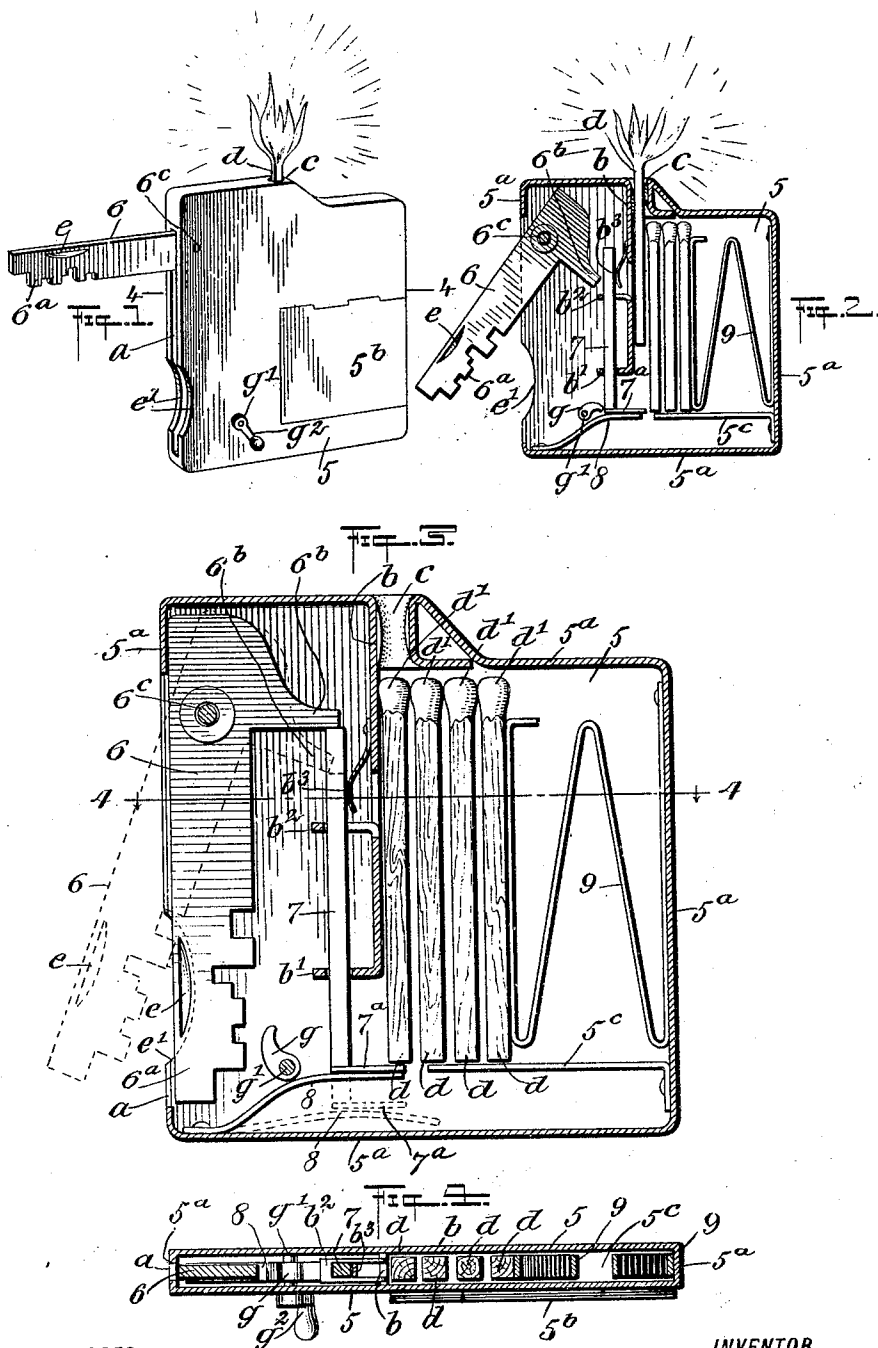


No. 807,402.

PATENTED DEC. 12, 1905.

J. L. SCANLAN.
COMBINED KEY AND LIGHTING DEVICE.

APPLICATION FILED APR. 18, 1905.



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COMBINED KEY AND LIGHTING DEVICE.

No. 807,402.

Specification of Letters Patent.

Patented Dec. 12, 1905.

Application filed April 18, 1905. Serial No. 256,198.

To all whom it may concern:

Be it known that I, JOHN LOMBARD SCANLAN, a citizen of the United States, and a resident of Indianapolis, in the county of Marion and State of Indiana, have invented a new and Improved Combined Key and Lighting Device, of which the following is a full, clear, and exact description.

This invention relates to keys for door-locks of the night-latch type.

It is frequently found difficult to locate the small keyhole for a night-latch, which occasions delay and personal discomfort before the door-lock can be opened.

One object of this invention is to so combine the key of a night latch or lock with a lighting device that an adjustment of the key preparatory to its use will automatically furnish a light adjacent to the key, so that the keyhole may be readily found and the key inserted therein.

A further object is to provide a small portable casing wherein the key of a night-latch is held normally folded, the casing also containing one or more tapers having fulminate ends and simple mechanism which may be operated by the act of unfolding the key for use or by other means independent of the key, whereby one of the tapers will be instantly projected from the casing near the key and automatically ignited, thus furnishing a light for the convenient location of the keyhole of the lock that is to be opened with the key.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the invention arranged for service as a combined key and light. Fig. 2 is a partly-sectional side view showing a lighted taper and a key partly unfolded from a case that contains these parts. Fig. 3 is an enlarged partly-sectional side view showing by full lines a key folded in a containing-casing and partly unfolded by dotted lines, a plurality of ignitable tapers and mechanism for expelling and igniting a single taper when the key is unfolded, means for the expulsion of a taper and its ignition independently of the key being also shown; and Fig. 4 is a transverse sectional view substantially on the line 4 4 of Fig. 3.

The casing which holds details of the invention may be formed of light sheet metal, is mainly quadrangular in contour, and comprises two side plates 5 5, held spaced apart in parallel planes by an edge strip 5^a.

A night latch or lock key 6 of convenient dimensions may have the wards of its bit-end portion 6^a formed to adapt them for actuating the mechanism of any preferred form of night latch or lock. The other end or head of the key 6, that is usually given bow form to permit its convenient manipulation, is here shown as furnished with a lateral limb 6^b, which projects from the normally inner edge of the key-body, and near said limb the head of the key is pivoted in the casing, as shown at 6^c. In the edge wall of the casing, which is near to the key 6, a longitudinal slot *a* is formed, which the key-body may be rocked outwardly through, and, as shown in Fig. 1, the upper end of the slot is so relatively disposed that the key will project at a right angle when its adjacent edge has contact with said termination of the slot *a*. At a suitable distance from the slotted edge wall of the casing a partition *b* is formed or secured within the same parallel with said edge wall and extended from the upper edge wall downward, terminating a proper distance above the lower portion 5^a of the edge wall of the casing. From the depending partition *b*, at or near the lower end thereof, a guide-loop *b'* projects toward the slotted edge wall of the casing, and above said guide-loop, at a proper distance therefrom, a similar guide-loop *b''* is extended from the partition *b* toward the said slotted edge wall. In the guide-loops *b'* *b''* a pusher-bar 7, having a foot-plate 7^a in its lower end, is loosely supported and adapted for reciprocation, the upper end of the pusher-bar being normally positioned near the limb 6^b by the seating of the foot-plate 7^a upon the free end portion of an upwardly and rearwardly bent or arched plate-spring 8 and also by pressure of a finger-spring *b''* upon the bar, said spring being affixed upon the wall *b*. In the top wall of the casing at the rear side of the partition *b* a tubulation *c* is affixed by its upper end and thence projects downwardly, opening into the box-like casing, and, as indicated in Figs. 2 and 3, the inner side of the tubulation is roughened by any suitable means, thus producing an abrading-surface thereon. A hinged or otherwise adjustable door 5^b is held at one side of the casing, so as to close an opening therein, the door when opened

affording access to the interior of the casing rearward of the partition *b*. A horizontal wing-wall 5^c is projected forward from the rear edge wall of the casing at a short distance above the lower edge wall of the same, the forward end of the wing-wall nearly approaching the rear end of the plate-spring 8, and in normal condition the latter is at its rear end about level with the wing-wall.

In the chamber behind the partition *b* and at a suitable distance therefrom an undulating plate-spring 9 is held by an attachment of its rearward member upon the rear edge wall of the casing, the corresponding forward member thereof being disposed parallel with the partition *b* and properly spaced therefrom, leaving room for the introduction of a plurality of tapers *d* in a row between the partition and the forward member of the spring, said tapers having fulminate upper ends *d'*. It will be seen that the tapers *d* are disposed upright when placed in the receiving-chamber and are held loosely pressed toward the partition *b*, whereon the forward taper is impinged, said tapers resting at their lower ends upon wing-wall 5^c, with exception of the forward one, that seats upon the free end of the foot-plate 7^a, with its upper end near to and directly below the tubulation *c*.

There is an indented channel *e* formed in one side of the key 6 near its back edge, and the sides of the casing are scalloped, as at *e'*, opposite said channel, the latter when engaged by the thumb-nail of the user of the device facilitating the outward rocking adjustment of the key-body.

Assuming that there are several tapers *d* placed in the receiving-chamber between the spring 9 and the partition *b*, as shown in Fig. 3, and that the key-body 6 is folded in the casing, it will be seen that when the key is rocked outward the limb 6^b thereon will impinge forcibly upon the upper end of the pusher-bar 7 and press it downward, thus depressing the plate-spring 8, as shown by dotted lines in Fig. 3. The depression of the free end of the spring 8 permits the taper *d*, resting on the foot-plate 7^a, to drop by its gravity, following the spring. The limb 6^b, when the pusher-bar 7 is depressed a proper degree, is rocked away from the upper end of said pusher-bar, releasing the latter and permitting the spring 8 to regain its normal position. (Shown by full lines in Figs. 2 and 3.) The sudden release of the pusher-bar and the violent upward movement of the spring 8 cause the front taper that rested on the plate 7^a above said spring to slide forcibly upward and its fulminate head *d'* to frictionally engage the roughened inner surface of the tubulation *c*, thus igniting the taper that has been driven somewhat above the top wall of the casing. The tapers *d* may be of wood or other inflammable material—a parlor-match, for example—or, if a light that will last a longer time

than a match will burn is desired, waxed cord or paper in consolidated form may be employed for the bodies of the tapers. It will be seen that in this case the act of unfolding the key 6, so as to arrange it in opened condition for insertion into the keyhole of a lock, will simultaneously project a lighted taper from the casing immediately behind the key, and thus afford sufficient light to enable the user to locate the keyhole and introduce the key therein.

It will be noted that the slot in the upper guide-loop *b*² is of sufficient length to permit the upper portion of the pusher-bar 7 to rock toward the partition *b* when the key-body 6 is folded into the casing, this being necessary to permit the limb 6^b to rock upward into the normal position it assumes when the key is folded into the casing.

It may happen that the light of one taper proves insufficient for the location of a keyhole and insertion of the key therein, as a gust of wind may extinguish the light. In order to enable the immediate replacement of the light, there is a cam-head *g*, mounted upon a shaft *g'*, that extends transversely through the sides 5 of the casing above and near to the convex upper side of the spring 8, said shaft extending at one end for reception of a handle *g*², which affords means for rocking the cam-head into enforced engagement with the spring. In case the key 6 is fully projected for service and the light of the first taper has expired it is only necessary for its renewal to pull the stump of the taper up out of the tubulation *c*, which will permit another taper to be pressed forward by the spring 9. The crank-handle *g*² is now quickly rotated a single turn, which will first depress and then release the free end of the spring 8, which will project the taper resting thereon up through the tubulation *c*, that by attrition on the head of the taper lights it, and thus replaces the light that has failed. It will also be seen that by provision of the cam and means for turning it the device may be employed for production of a light in any dark place and greatly increases the scope of usefulness for the improvement.

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

1. In a combined key and lighting device, the combination with a casing, and a locking and releasing key pivoted near one end in the casing and rockable out of the same, of means for ejecting a taper partially from the casing, and means carried by the casing adapted for lighting the taper when ejected.

2. In a combined key and lighting device, the combination with a casing open along one edge, and a door-lock key pivoted near one end in the casing and rockable into and out of the casing through said open edge, of means for ejecting one end of a taper from the casing, means for lighting the taper as it

is ejected, and means actuated by the rocking movement of the key adapted to control the taper-ejecting means.

3. The combination with a casing open along one edge, a key rockable on a pivot near one end out of and into the casing through its open edge, and a projection on the inner edge of the key near the pivot, of means for ejecting one end of a taper from the casing means for lighting the taper as it is ejected, and means impinged upon by the projection on the key, said means being adapted for actuating the taper-ejecting means.

4. The combination with a casing slotted along one side edge, a key pivoted near one end in the casing, and adapted for rocking into and out of the casing through the slot, a limb extended from the normally inner edge of the key, and an upright pusher-bar slidable in the casing and whereon the limb may press when the key is rocked out of the casing, of a support in the casing whereon a plurality of tapers may rest, a tubulation in the upper edge of the casing roughened on the inner surface for engaging the fulminate head of

each taper that is brought below the tubulation, means for pressing the tapers toward the tubulation, and means actuated by the pusher-bar for ejecting a taper.

5. The combination with a casing, a tubulation in the top wall of the casing and roughened on the inner surface, of a supporting-wing in the lower part of the casing, an undulating spring adapted for pressing a plurality of tapers having fulminate heads toward the tubulation, an arched plate-spring having one end extended near to the wing for support of a single taper that is pressed beneath the tubulation, a cam-head, a shaft held to rock in the casing above the arched spring, and whereon the cam is secured, and means for rotating the shaft and cam-head.

In testimony whereof I have signed my name to this specification in the presence of subscribing witnesses.

JOHN LOMBARD SCANLAN.

Witnesses:

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KATE TOWNSEND,
HENRY GREENING.