

(No Model.)

W. A. SAUL & J. H. PECK.
LOCK FOR ELECTRIC LAMPS.

No. 533,670.

Patented Feb. 5, 1895

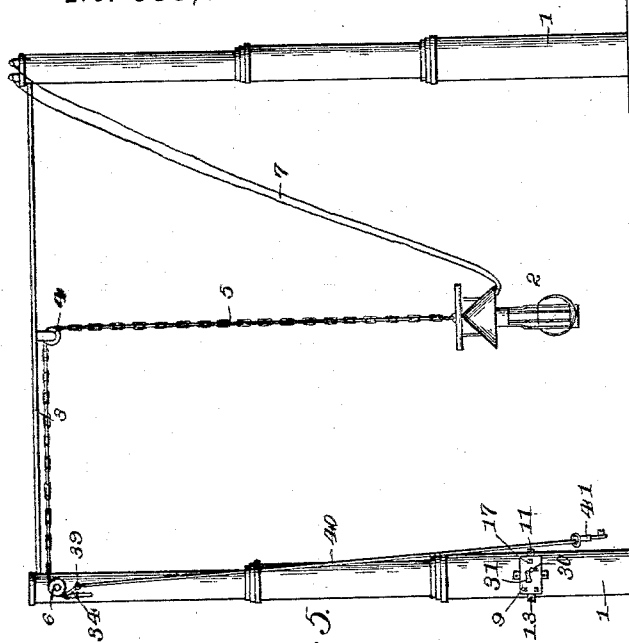


Fig. 1.

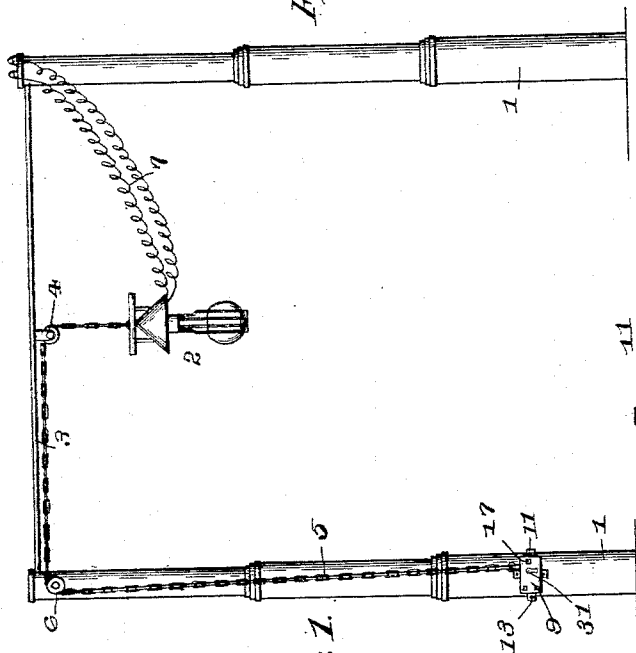


Fig. 2.

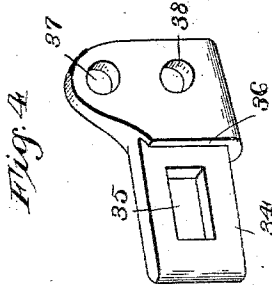


Fig. 3.

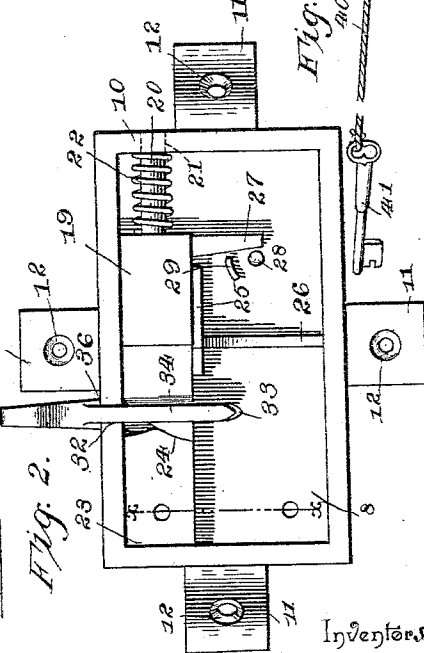


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

WARREN A. SAUL AND JACOB H. PECK, OF STEELTON, PENNSYLVANIA.

LOCK FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 533,670, dated February 5, 1895.

Application filed March 13, 1894. Serial No. 503,466. (No model.)

To all whom it may concern:

Be it known that we, WARREN A. SAUL and JACOB H. PECK, citizens of the United States, residing at Steelton, in the county of Dauphin and State of Pennsylvania, have invented a new and useful Lock for Electric Lamps, of which the following is a specification.

This invention relates to an improved lock for securing the chains of electric lights to the poles or supports thereof, whereby the lamps may be locked in a raised position and lowered at will, upon the release of the lock.

The object contemplated is to provide improved means for connecting the chain with the lock, whereby this connection of the chain may be automatically effected, and whereby it may be released upon simply retracting the bolt of the lock; and to this end the invention consists in certain peculiar features of construction, and combination and arrangement of parts as will be hereinafter specified and finally embodied in the claim.

In the accompanying drawings:—Figure 1 represents a perspective view of an electric light having our improvements applied; Fig. 2, a front elevation of the lock with the cap of face plate removed; Fig. 3, a vertical cross-section on line $x-x$ of Fig. 2; Fig. 4, a detail perspective of the tongue or link for connecting the light chain with the lock; Fig. 5, a perspective view showing the mode of manipulating the device; and Fig. 6, a view showing the key and snap-hook apart from the other devices.

The reference numeral 1 indicates two poles or posts, by which the light 2 is supported. This is done by the supporting wire or cable 3, which is passed from the top of one pole to another, and provided with the pulley 4, over which the chain 5 passes. From the pulley 4 the chain 5 extends to the pulley 6, which is, in turn, secured to the left hand pole 1. The light 2 is connected to the end of the chain 5 which passes over the pulley 4, so that it will hang over the center of the street, while the remaining end of the chain extends down parallel with the left hand pole and is attached to the lock, as will be more fully described hereinafter.

7 indicates the conductor wires, which are arranged so that the light 2 will be free to

move up or down in the operation of our invention.

The frame or casing of the lock consists of three principal parts; the back plate 8, face-plate 9, and sides 10, each of which is formed of cast metal. Back-plate 8 is made with a plane front face, while its rear side curves inwardly so as to lie flush with the vertical sides of the pole. Formed integral with the plate 8 and curving to conform to the shape of the rear face thereof are the lugs 11, which are provided with the countersunk openings 12, through which the screws 13 pass, and by which the plate 8, and consequently the whole device, is secured to the pole.

The side portion 10 of the lock is formed rectangular in shape, in conformity with the front face of plate 8, and may be rigidly and immovably secured thereto or formed integral therewith, preferably the latter, while the face-plate 9 is secured to the front edges thereof by means of the bolts 14. These bolts 14 extend horizontally through the lock from front to back plate, and have their heads arranged in the countersunk openings 15, formed in the back of the plate 8, while the screw ends of the bolts extend forward and through the openings 16, in the plate 9. In these openings the nuts 17 are arranged, and the nuts 17 are countersunk in the face plate, so as to lie flush with its outer surface. By this means the bolts 14 may be screwed up so as to secure the parts in place, and when the lock is secured to the pole, it will be impossible to remove the parts of the lock, since the bolts can only be removed by unscrewing them from their heads, and, for obvious reasons, this cannot be done then.

The face plate 9 is formed on its upper and lower edges with the rearwardly projecting flanges 18, and these are adapted to project over the front edges of the sides 10, at the top and bottom thereof, and serve to prevent the snow and rain from entering the lock and rusting or otherwise injuring its mechanism.

Arranged in the right hand end of the lock casing and in the upper portion thereof, is the bolt 19, which is provided with a shank 20, extending through an opening 21 in the right hand side of the casing. By means of this opening the shank is allowed free movement

with the bolt, and the latter is given a normal tendency to the left by the coil spring 22, which surrounds the shank 20, as shown in the drawings. The normal tendency of the bolt 19 is overcome, and the movements of the bolt to the left limited by the block 23, which is formed integral with the back-plate 8 and is arranged in the upper left hand corner thereof. This block is formed with its right hand end, or that which is engaged by bolt 19, rounded or concave, so that the downwardly and outwardly beveled front end 24, of bolt 19 will lie even therewith when the parts engage.

The bolt 19 is held incapable of lateral movement by the guide 25, which lies parallel with its lower side and is braced by the arm 26, extending at right angles to the guide and secured to it and the back-plate 8. Fixed to the bolt 19 and projecting downwardly from the under side is the tumbler arm 27, which lies adjacent to the key-seating recess 28, and which is adapted to be engaged and moved to the right by the key. Located adjacent to the recess 28 and secured to the plate 8 is the ward-block 29, which is common to all blocks, and which operates to prevent the use of keys other than those made for the lock.

30 indicates the key-hole, which is formed in the plate 9, and provided with the swinging cover or plate 31, whereby it is closed and whereby rain and other foreign matter is prevented from entering the lock.

Formed in the upper side of the casing sides 10 is the opening 32, which communicates with the vertical grooves 33, formed in the inner sides of the back and face plates respectively. Through this opening the tongue or link 34 is adapted to pass, and this tongue or link is of a width that will cause it to fit snugly within the opening and with its edges snugly seated in the grooves 33.

The opening 32 is formed just to the right of the beveled point 24 of the bolt 19, so that as the link is pushed into the opening 32 it will engage the beveled point, and, guided by the grooves 33, will cause the bolt to move to the right against the tendency of its spring.

Formed in the link 34 is the vertically elongated slot 35, which is adapted for the reception of the front end of bolt 19, the said front end being reduced in horizontal thickness so as to permit its introduction into the slot 35.

The upper end of the link 34 is formed with the shoulder 36 thereon, which is adapted to lie over the opening 32, and to prevent the entry of water and other objectionable matter. From the shoulder 36 the link extends upwardly, and slightly forwardly, and is formed with two openings 37 and 38 therein. In the opening 38 the chain 5 is permanently fixed, whereby it is connected to the lock, as will more fully appear hereinafter.

To use our invention the light 2 is connected to chain 5, as shown in the drawings, and the remaining end of the chain connected to the link 34 by means of opening 38. The lock is

now secured to the left hand pole 1 by the means before described, and the link 34 pushed into the opening 32, whereupon it will engage face 24 of the bolt 19 and cause it to move to the right, until the opening or slot 35 of the link is opposite the beveled front face 24 of the bolt. When the parts assume this position the bolt will be allowed to move to the left and pass into the slot 35, thus securely fastening the link to the lock. By this means the light 2 may be hung from its support in a way which will make it impossible for meddlers and other persons not connected therewith to reach it. If, however, an attendant desires to reach it, as will be the case when the carbons are to be replaced or the lamp otherwise attended to, all that will be necessary for the attendant to do, is to connect the snap-hook 39 of the rope 40 to the eye or opening 37 of the link 34, and insert the key 41 into the key-hole 30 and operate the key to move the bolt 19 to the right, thus releasing the link 34 and allowing it to be withdrawn. The rope 40 is of such a length that it will reach from the lock up to the second pulley 6, and has the key 41 and snap-hook 39 connected one to each end. Thus, as the attendant comes along, all that he will have to do is to connect the snap-hook to the link and insert the key. As soon as the link is released the weight of the light 2 will cause it to drop, and the attendant now grasps the rope 40 and plays out slack until the light descends to a point near the ground and the link 34 goes up to pulley 6. Against the pulley 6 the link 34 will bind, thus preventing farther downward movement of the lamp and holding it in the position necessary to its attention. After the lamp has been attended to, the operator, grasps the rope 40 and pulls it down, so as to raise the light and lower the link 34. When he has the link lowered to the lock, the link should be inserted into the opening 32 and in this position it will be automatically locked, by reason of the operation of bolt 19, and its spring. As soon as this has been done the snap-hook 39 is disconnected from the link and the key withdrawn, after which the operator may proceed, carrying rope 40 and its attachments with him, to the next lamp, and go through the same operation.

If so desired and in case iron posts are used, the back plate 8 and sides 10, together with their permanently attached parts, could be cast integral with the post, or, if this is not preferred, the post could be tapped and screws used with the lugs 11, as will be understood.

When we have shown our appliance used in connection with the two pole system, it will be understood that its use is not so limited, and that it could be employed with equal advantage on single poles, or on any other style support.

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

A device for securing the chains of electric lights, and consisting of a lock secured to the electric light post and having a slot in its casing, a plate or link provided with a reduced portion and adapted to have the same inserted in the slot of the lock casing and to engage with the bolt of the lock, the thickened portion of the plate or link being formed with two openings, an electric light chain permanently connected to the plate or link by one opening and a cord provided with a hook by

which it may be connected to the remaining hole of the plate or link, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

WARREN A. SAUL.
JACOB H. PECK.

Witnesses:

JOS. HASLACHER,
E. M. SNAVELY.