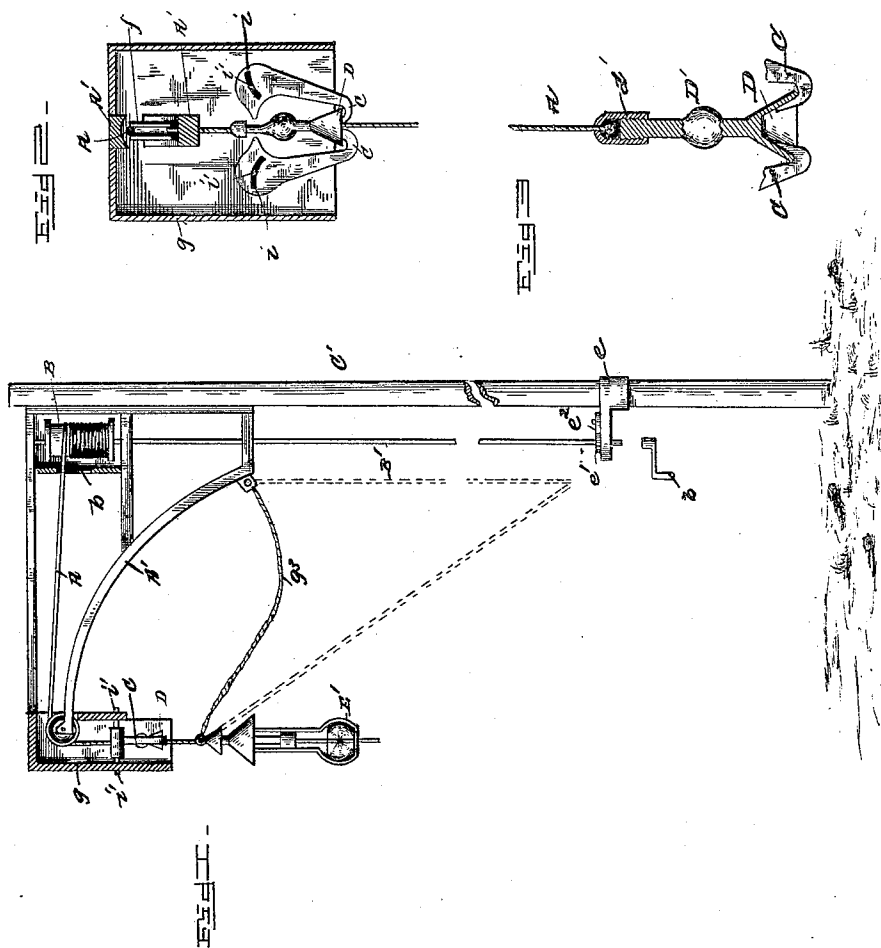


(No Model.)

R. KINNEY & J. P. HEBENDAHL.
ELEVATING AND LOWERING ELECTRIC LIGHTS.

No. 423,873.

Patented Mar. 18, 1890.



Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT KINNEY AND JOHN P. HEBENDAHL, OF WEATHERLY, PENNSYLVANIA.

ELEVATING AND LOWERING ELECTRIC LIGHTS.

SPECIFICATION forming part of Letters Patent No. 423,873, dated March 18, 1890.

Application filed November 6, 1889. Serial No. 329,403. (No model.)

To all whom it may concern:

Be it known that we, ROBERT KINNEY and JOHN P. HEBENDAHL, citizens of the United States of America, residing at Weatherly, in the county of Carbon and State of Pennsylvania, have invented certain new and useful Improvements in Lowering and Elevating Electric Lights, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain improvements in electric-light lamps, having reference, however, more particularly to means for suspending or adjusting the same in position; and it consists of the novel combination and construction of parts, as will appear from the following description and accompanying illustrations, in which—

Figure 1 is a view in elevation, partly sectional, of my invention. Fig. 2 is a cross-section of the inclosing-casing. Fig. 3 is a part side elevation and part sectional view of the support.

In accordance with my invention, I employ, in connection with the lamp suspending or adjusting cable or wire A, a windlass or drum B, suitably supported by bracket A' within an inclosure b, said inclosure being suspended by suspending-bracket A'. The shaft B' of the windlass or drum B extends downward, and has applied to its lower end a crank or handle b' for its convenient manipulation, said end bearing in a bracket e, secured to the support or pole c. In order to automatically effect the holding of the shaft B' against rotation when at rest, a ratchet e' is secured thereto, with which is caused to engage a pawl e², pivoted upon the bracket e. The cable or wire A is guided in its movement and supported upon a pulley f.

C C are opposite jaws pivoted upon and within an inclosure g, secured in position upon bracket A', the pulley f being secured within said inclosure.

The jaws C C are provided with curved or are slots i, through which their pivots i' pass to permit said wings to have a limited movement outward from each other.

D is a conical support from which the lamp is immediately suspended, as shown, and which has proximately spherical or ball-

shaped upper end D', into which is secured a plug or block d', to which is directly connected the suspending wire or cable A. Normally the conical support D, with its ball-shaped end D', stands between and is engaged by the jaws C C, thus serving as a safety retention device for the lamp, since in event of the accidental disengagement of the pawl e² from the ratchet e' of the windlass-shaft it will still retain the lamp in its elevated position. It will be seen that in order to lower the lamp, as is necessary to clean the same and renew the carbon, the shaft B' is first turned so as to still further wind the cable or wire upon the windlass until the ball-shaped end D' of the support D is elevated past the upper inner ends of the jaws, the latter thus being permitted to spread apart. Then by reversing the motion of the shaft B' the weight of the lamp, &c., will cause the ball-shaped end D' of the support D to press downward upon the upper inner ends of the jaws C, thus spreading the lower ends of the latter sufficiently apart to permit the lower flared end of said support to pass said jaws at those points and the consequent lowering of the lamp to the operator, which is effected by means of guide-rope g³. (Shown in dotted lines.)

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

1. In a device for elevating and lowering electric lights, the suspending cable or rope, the drum or reel, its shaft and inclosing-casing, the jaws having a sliding and pivotal connection with their support, and the hollow conical cap connected to the lamp, substantially as shown and described.

2. In a device for elevating and lowering electric lights, the supporting-jaws having a sliding and pivotal connection with their support, and having their lower ends upturned to form a hook or beak which engages the hollow conical cap connected to the lamp, said cap having the screw-threaded plug or block in its upper end having connection with the suspending-wire, substantially as shown and described.

3. In a device for elevating and lowering electric lights, the pole or post having the

supporting bracket or arm at its upper end, in combination with the drum or windlass and its shaft, and inclosing-casing supported by said bracket, the jaws having a pivotal and sliding connection with their support, the inclosing-casing formed on the end of the bracket supporting the pulley, the hollow conical cap connected to the lamp, and the suspending-wire, substantially as shown and described.

4. The combination, with the lamp, of the jaws having a sliding and pivotal connection with their support, and the conical support having a proximately ball-shaped upper end engaging said jaws at their upper inner ends, substantially as shown and described.

5. The combination of the pivoted jaws, the suspending wire or cable, the conical cap, said wire having a screw-plug or block connection with the upper spherical end of said

support, substantially as shown and described.

6. In a device for elevating and lowering electric lights, the drum or windlass, its inclosing-casing, and its shaft having secured thereto near its lower end the ratchet-wheel engaged by the pawl pivoted to the shaft-supporting bracket, the shaft being adapted to receive a crank at its lower end, the suspending rope or cable secured to the hollow cap, and the jaws having the pivotal and sliding connection with their support, substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

ROBERT KINNEY.
JOHN P. HEBENDAHL.

Witnesses:

CY. W. PENROSE,
A. H. HORLACHER.