(No Model.)

D. N. HURLBUT.

ELECTRIC LAMP.

No. 265,810. Patented Oct. 10, 1882.

Fig. 1.

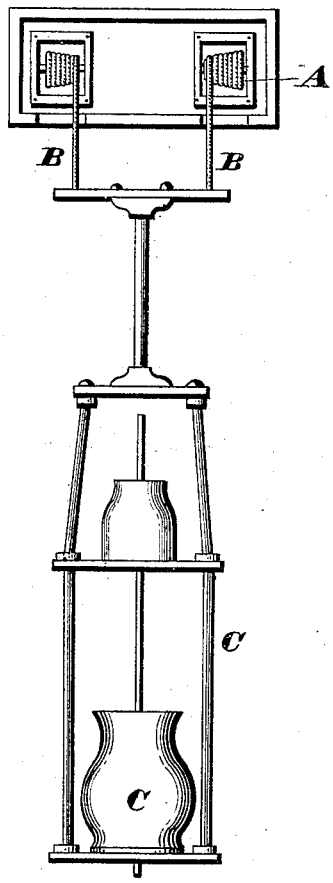
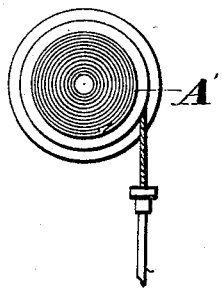


Fig. 2.



WITNESSES

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DANIEL N. HURLBUT, OF CHICAGO, ILLINOIS.

ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 265,810, dated October 10, 1882.

Application filed January 28, 1882. (No model.)

To all whom it may concern:

Be it known that I, DANIEL N. HURLBUT, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electric Lamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to electric lamps, and more particularly to a method of suspending an electric lamp in the place where it is designed to be used, so that it can be raised or lowered to any desired position while in circuit and operation.

In the drawings, Figure 1 is a view in front elevation, illustrating my invention; and Fig. 2 represents a transverse sectional view of a drum, showing the spring contained therein.

A A are conical drums, barrels, or rollers, upon which the suspending cables or flexible supports B B are wound. The supports B B are made from copper or other suitable electro-conductor, and are intended to form a part of the main circuit, as will hereinafter appear. The rollers or drums A may be in any manner suitably attached to the wall, ceiling, or support from which the lamp depends.

C is an electric lamp of any type or description, and it is suspended by the cables or flexible supports B B.

A′ is a spring, of any suitable kind, that is wound up or made tense by the turning of the rollers or drums when the lamp C is drawn down, and are relaxed or relieved when the lamp is raised. By any suitable means the electro conducting and supporting cables B B are connected in the general circuit including the lamp C. One way of accomplishing this would be to construct the drums or rollers A from good electro-conducting material, insulating them from each other and placing them in the main circuit, substantially as indicated in Fig. 1 of the drawings. It matters not how the cables B B are placed in the circuit, as any of many well-known methods may be adopted whereby the current shall pass from one of the drums down its cable through the lamp and out through the other cable and its drum to the main conductor proper.

It is important that the weight of the lamp and the force of the springs in the rollers should at all times practically balance each other, so that the lamp will rest stationary at any desired elevation without a tendency to fall of its superior weight or to be lifted by the overstrength of the springs. This danger I avoid and overcome by the employment of the conical or compensating rollers or drums illustrated in the drawings. Without such a provision the increased tension of the springs A, as the lamp was drawn down, would pull it up again—that is, if the springs properly balanced the weight of the lamp in its raised position; but by the use of the conical rollers the leverage of the cables B upon the springs A increases as the tension of the springs increases, thereby maintaining a practical balance in all positions or elevations between the lamps and the springs. The degree of pitch that must be given to the rollers or drums A A depends upon the strength of the springs. The exact degree of this pitch, therefore, cannot be here specified; but it should be such as to effect the balance heretofore referred to.

What I claim is—

1. The combination, with an electric lamp, of electro-conducting flexible supports B B, constructed and connected to form a part of the general circuit, and conical spring drums or rollers A A, substantially as and for the purpose set forth.

2. The combination of the conical or compensating spring drums or rollers A A, the flexible and electro-conducting cables or supports B B, and an electric lamp, substantially as and for the purpose set forth.

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

DANIEL N. HURLBUT.

Witnesses:

HENRY ABELS,

ALBERT E. LYNCH.