

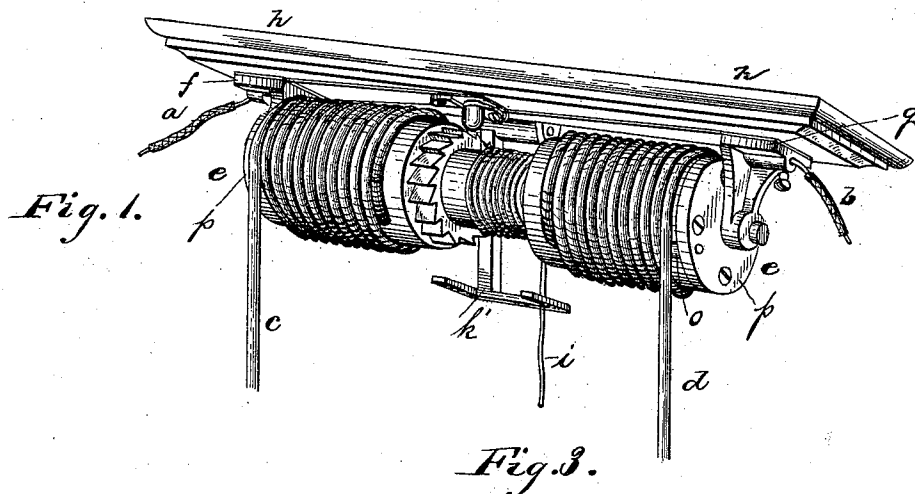
(No Model.)

J. YOUNG.

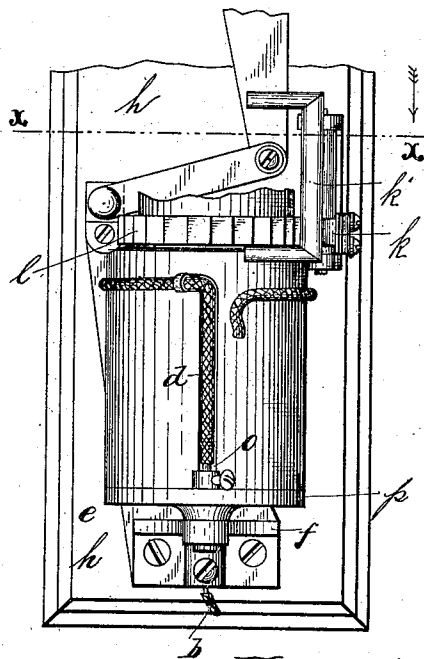
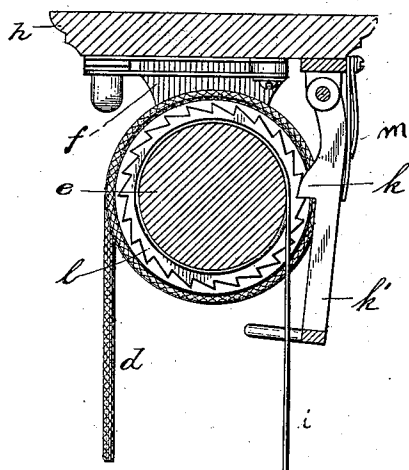
APPARATUS FOR SUSPENDING ARC LAMPS.

No. 322,515.

Patented July 21, 1885.



*Fig. 2.*



*Witnesses.*  
*F. H. McCulloch.*  
*Levi S. Davis.*

*Inventor.*  
*John Young.*  
*By George P. Barton*  
*attorney.*

# UNITED STATES PATENT OFFICE.

JOHN YOUNG, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WESTERN  
ELECTRIC COMPANY, OF SAME PLACE.

## APPARATUS FOR SUSPENDING ARC LAMPS.

SPECIFICATION forming part of Letters Patent No. 322,515, dated July 21, 1885.

Application filed May 12, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN YOUNG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have  
5 invented a certain new and useful Improvement in Apparatus for Suspending Arc Lamps, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part  
10 of this specification.

My invention relates to suspending electric arc lamps; and it consists in a drum around which the flexible conductor which supports the lamp is wound, a cord wound about the  
15 central portion of the drum, a pawl-and-ratchet device operated by the cord, and means for maintaining the circuit through the bearings of the drum between the exterior circuit and the portion of the circuit included in the flexible conducting-cords.

My invention is illustrated in the accompanying drawings, in which Figure 1 is a perspective view of my device. Fig. 2 is a detailed sectional view upon line *x x* of Fig.  
25 3. Fig. 3 is a detailed view showing the manner of maintaining the circuit between the outside wire and the suspending conductor.

Like parts are indicated by similar letters  
30 of reference in the different figures.

The wires *a* and *b* are portions of the main circuit on different sides of the suspending device.

The conducting cords or cables *c* and *d* are  
35 attached, respectively, to the hooks of the lamp.

I have not thought it necessary to show the lamp.

The drum *e* may be of wood, and is supported by the metallic brackets *f g*, which  
40 are screwed to the support *h*, attached to the ceiling.

The cord *i* is wound about the central portion of the drum in the opposite direction to that of the suspending-conductors *c* and *d*,  
45 so that when the cord *i* is pulled down and turns the drum, the conducting-cables *c* and *d* will be wound up, thus raising the lamp.

The pawl *k* is held toward the ratchet *l* by  
50 the spring *m*. The drum is thus held from turning back. The arm *n* of the pawl extends downward, as shown.

By pressing the cord against the arm as

the arm is pulled down the pawl will be lifted from engagement with the ratchet *l*, permitting the drum to turn, thus winding up the  
55 cable and raising the lamp suspended thereby.

In order to lower the lamp it is only necessary to press the cord against the arm sufficiently to disengage the pawl, and, holding  
60 onto the cord, allow the lamp to descend, its weight being sufficient to turn the drum against the slight tension of the cord.

The drum is preferably smaller at the center, which receives the cord, than at the ends,  
65 which carry the cable. A greater length of cable is thus wound or unwound at each revolution of the drum than of the cord.

I provide a longitudinal groove, *o*, in the drum for the cables. Each cable is thus carried outwardly from the center, and electrically connected with the metallic caps *p p*, as shown.

I claim—

1. In a device for suspending electric arc  
75 lamps, the combination of a drum around which the flexible conducting-cables which support the lamp are wound, the metallic caps through which current passes to the cables, and the cord and pawl-and-ratchet de-  
80 vice for raising and lowering the lamp.

2. A support for electric arc lamps consisting of a drum upon which the cables are wound, the cables to which the lamp is attached, electrically connected with the main  
85 circuit through the metallic brackets *f g* and plates *p p*, the said brackets and plates, and the cord and pawl-and-ratchet device by which the lamp is raised and lowered or held in any desired position, substantially as and for the  
90 purpose specified.

3. In a support for electric arc lamps, the combination of a drum smaller in the center, where the cord for raising and lowering the lamp is wound, than at the ends, where the  
95 conducting-cables are wound, the said cord, and the pawl-and-ratchet device operated by the cord, whereby the lamp may be raised or lowered or held in any desired position.

In witness whereof I hereunto subscribe my  
100 name this 9th day of May, A. D. 1885.

JOHN YOUNG.

Witnesses:

GEORGE P. BARTON,  
F. H. McCULLOCH.