

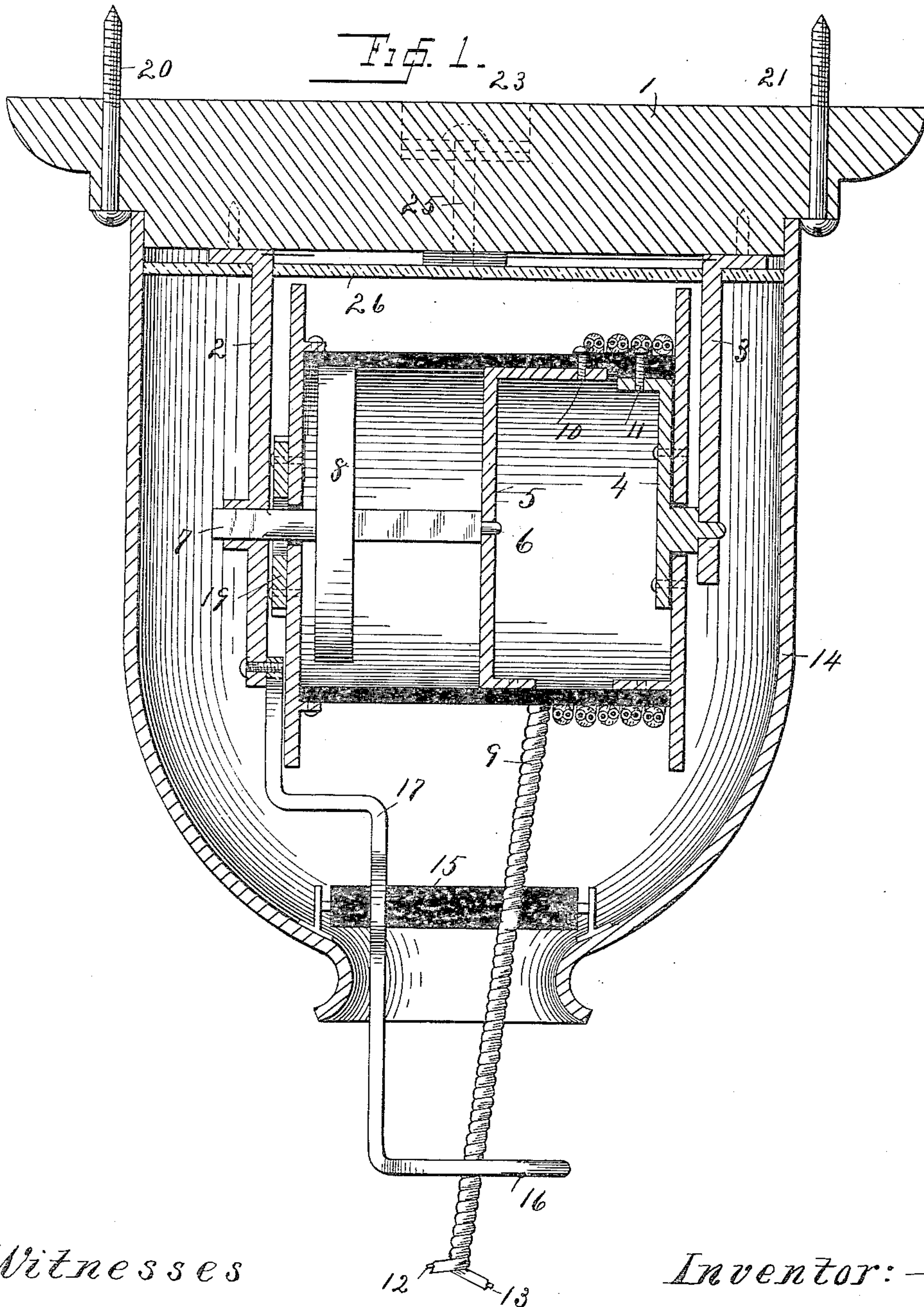
(No Model.)

2 Sheets—Sheet 1.

P. S. BATES.  
HANGER FOR ELECTRIC LAMPS.

No. 451,149.

Patented Apr. 28, 1891.



Witnesses  
W. A. Courtland  
C. C. Grigg.

Inventor:—  
PETER SYLVANUS BATES  
by *Res & Worthington*  
his attorneys—

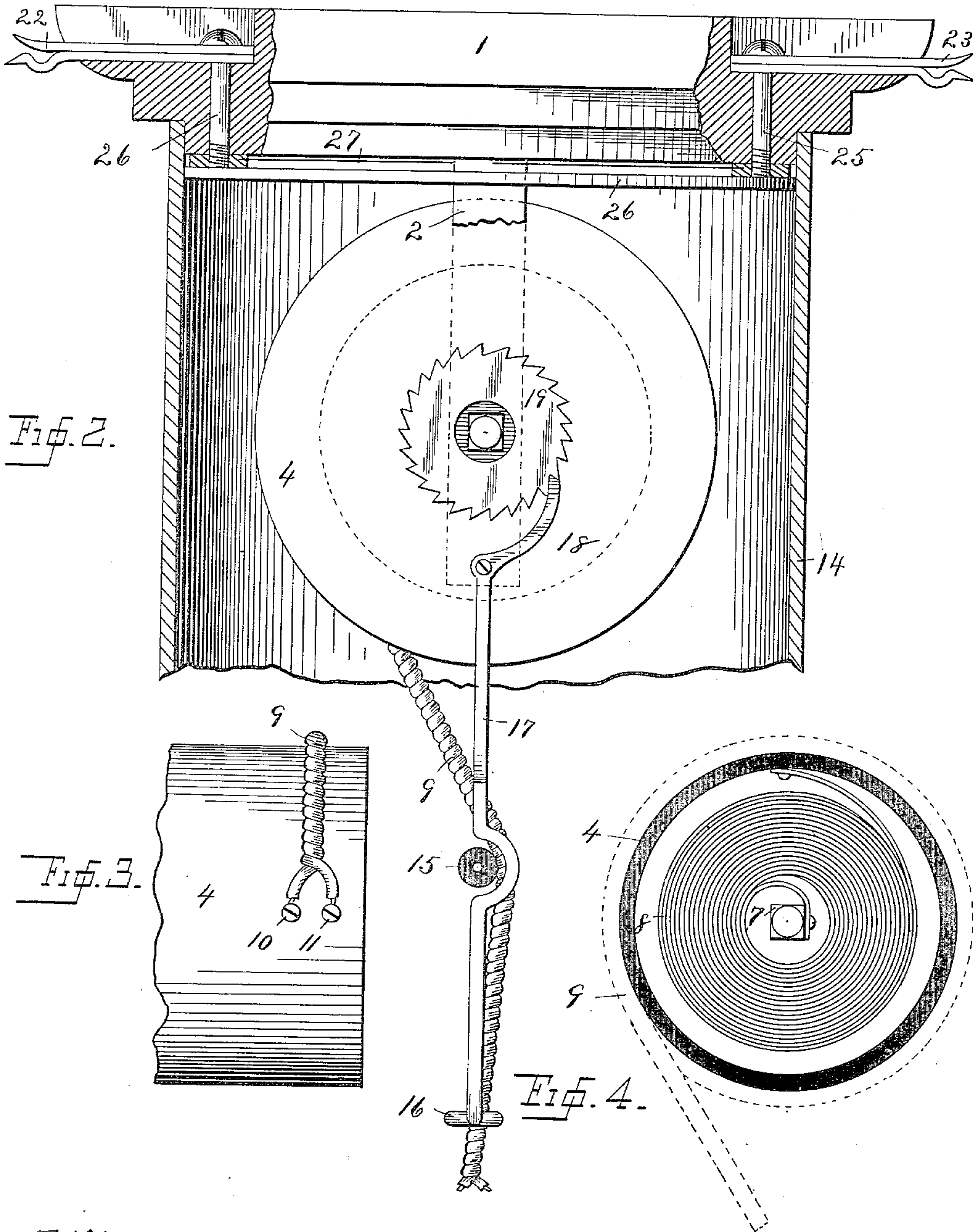
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# UNITED STATES PATENT OFFICE.

PETER SYLVANUS BATES, OF YORK, PENNSYLVANIA, ASSIGNOR TO W. F. BAY  
STEWART, OF SAME PLACE.

## HANGER FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 451,149, dated April 28, 1891.

Application filed January 6, 1891. Serial No. 376,838. (No model.)

*To all whom it may concern:*

Be it known that I, PETER SYLVANUS BATES, a citizen of the United States, residing at York, in the county of York and State of Pennsylvania, have invented certain new and useful Improvements in Hangers for 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 appertains to make and use the same.

This invention relates to hangers or supports for electric lamps, and is designed to permit the lamp to be raised and lowered to any desired elevation in the room as convenience may require.

The invention comprises the fixed casing containing a drum upon which the flexible cord connecting the lamp in circuit is wound, and means for permitting the cord to be wound and unwound from the drum by taking hold of the lamp itself.

The features of novelty will be hereinafter fully described, and specifically indicated in the appended claims.

In the drawings illustrating the invention, Figure 1 is a sectional view of the casing, showing the operative parts and the flexible cord at the end of which the lamp is attached. Fig. 2 is a sectional view taken on a plane at right angles to that indicated in Fig. 1, some of the parts being shown in elevation. Figs. 3 and 4 are detail views of the drum.

Upon a suitable support 1 of insulating material are secured metallic brackets 2 3, in which is supported a rotatable drum. One journal of this drum is mounted in a bracket 3, the journal being electrically connected with a metallic strip 4, secured to one head of the drum, but insulated therefrom. Within the drum is a metallic partition 5, provided with a central perforation, in which is journaled a metallic axis 6, the other end of which is squared, as shown at 7, and fits in a square opening in the bracket 2. A spiral spring 8 has one end fastened to the inner periphery of the drum and the other end to the metallic bar, of which the squared end 7 forms a part. A duplex flexible conductor 9 has one of its terminals secured to the metallic strip 4 by

means of a screw 10, passing through the drum from the outside, as illustrated in the drawings. The other member of the duplex cord has one end fastened to the screw 11, carried by the drum. The lower ends 12 13 of the duplex cord are connected to the lamp terminals. The cord is wound several times about the periphery of the drum, so as to permit the lamp to be raised or lowered to a degree suitable for convenient use wherever located, and is then carried down through an opening in a cap 14, inclosing the parts above described, and secured upon the insulating-support 1. A roller of insulating material 15 is mounted near the opening. The cord passes through an eye 16, formed in the lower end of an arm 17, forming an extension of the pawl 18, pivoted to the bracket 2. This pawl co-operates with a ratchet-wheel 19, secured to one head of the drum. Screws 20 21 are provided for attachment of the device to the ceiling of a room. On a plane at right angles to the screws are metallic clips 22 23 for engaging the service-wires of the system, which supply current to operate the lamp. These clips are held in place by screws 24 25, supporting an insulating-plate 26 of porcelain or other insulating material. A fusible connection 27, which may be a thin lead wire or any other form of cut-out, connects the screw 24 with bracket 2, and another fusible wire connects the screw 25 with bracket 3.

From this description it will be understood that by pulling the lamp supported by the flexible cord the pawl 18 may be withdrawn from engagement with the ratchet-wheel and the drum released, so that the spiral spring can exert its tendency to relax and wind up the drum, thus raising the lamp, whereas the lamp may be lowered by pulling directly upon the lower end of the cord, the pawl then riding over the teeth of the ratchet-wheel and locking it when the lamp has been lowered to the proper point.

In connecting the device with the circuit the insulating-support is simply fastened to the ceiling of the room or any other place desired by means of the screws 20 21. The service-wires are laid bare for about a half-inch and inserted in the clips 22 23. When the



circuit through the lamp is completed, current will then flow, assuming it to enter at the clip 22, through screw 24, fusible cut-out 27, bracket 2, shaft 7, diaphragm 5, screw 10 to one end of the flexible cord, through the lamp, back through the other end of the flexible cord to screw 11, strip 4, bracket 3, fusible cut-out 27, screw 25, and clip 23 to the other side of the main circuit. The cap 14 may be made of any suitable material, but is preferably spun from metal. The porcelain diaphragm 26 prevents the fused wire in case of an excess of current passing from falling upon the drum or cord and interfering with the efficiency of the device.

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

1. A hanger for an electric lamp, comprising a rotatable spring-actuated drum, a flexible cord carrying the lamp wound upon the drum, electric connections between the lamp and a supply system, a detent for locking the drum against the tension of its spring in any posi-

tion of adjustment, and means controlled by the cord for releasing the detent.

2. A hanger for an electric lamp, comprising a rotatable spring-actuated drum, duplex connecting-cord 9 wound thereon, ratchet-wheel, pawl co-operating therewith for adjusting the length of the cord, and the arm 17, forming a lever-arm for the pawl and projecting into the path of the cord.

3. A hanger for electric lamps, comprising a support, rotatable spring-actuated drum suspended therefrom, said drum carrying a flexible conducting-cord wound thereon, pawl and ratchet for locking or unlocking the drum, cap 14, admitting a passage of the cord, arm 17, controlling the pawl and controlled in turn by the cord, and roller 15, as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

PETER SYLVANUS BATES.

Witnesses:

GEO. E. NEFF,

H. C. NILES.

Correction in Letters Patent No. 451,149.

It is hereby certified that Letters Patent No. 451,149, granted April 28, 1891, upon the application of Peter Sylvanus Bates, of York, Pennsylvania, for an improvement in "Hangers for Electric Lamps," was erroneously issued to "W. F. Bay Stewart," as sole owner of the patent, whereas the said Letters Patent should have been issued to said *Bates and W. F. Bay Stewart, jointly*, said Stewart being assignee of one-third interest only in said invention as shown by the record of assignments in the Patent Office; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 12th day of May, A. D. 1891.

[SEAL.]

CYRUS BUSSEY,  
*Assistant Secretary of the Interior.*

Countersigned:

C. E. MITCHELL,  
*Commissioner of Patents.*