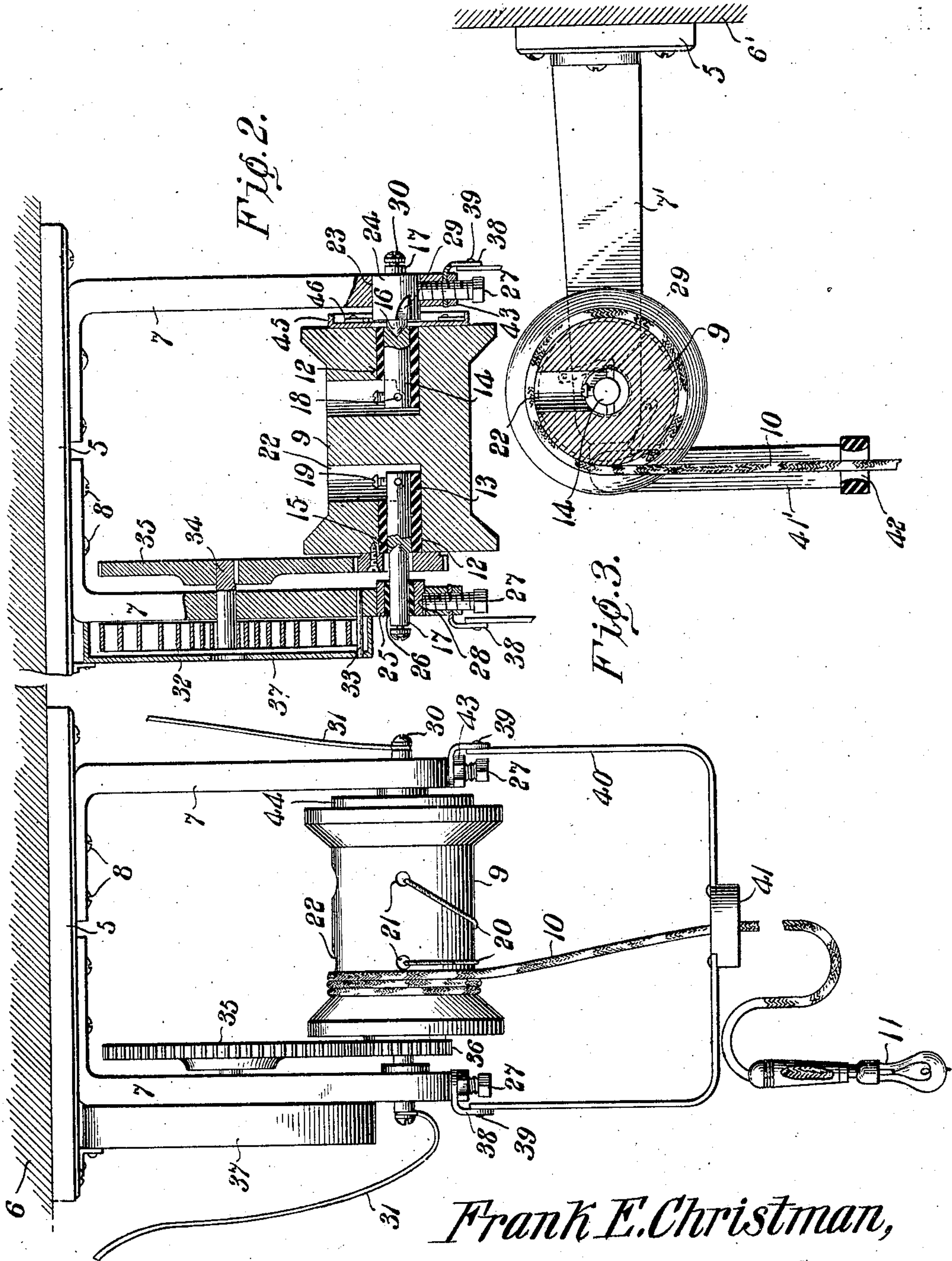


No. 846,778.

PATENTED MAR. 12, 1907.

F. E. CHRISTMAN.  
ELECTRIC LIGHT HANGER.  
APPLICATION FILED DEC. 11, 1906.



WITNESSES:

*E. H. Christman*

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FIG. 1.

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# UNITED STATES PATENT OFFICE.

FRANKLIN E. CHRISTMAN, OF BETHLEHEM, PENNSYLVANIA.

## ELECTRIC-LIGHT HANGER.

No. 846,778.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed December 11, 1906. Serial No. 347,333.

*To all whom it may concern:*

Be it known that I, FRANKLIN E. CHRISTMAN, a citizen of the United States, residing at Bethlehem, in the county of Northampton and State of Pennsylvania, have invented a new and useful Electric-Light Hanger, of which the following is a specification.

This invention relates to electric-light hangers, and has for its object to provide a comparatively simple and inexpensive device of this character by means of which an incandescent lamp may be conveniently suspended from a wall or other support and adjusted to any desired height with respect thereto.

A further object of the invention is to provide a supporting-bracket having a spring-actuated drum mounted for rotation therein and upon which is wound the flexible lamp-supporting conductor, so that by exerting a slight longitudinal pull on the conductor the latter may be wound upon and unwound from the drum, thereby to raise and lower the lamp.

A further object is to provide the supporting-bracket with a depending bail or loop having an opening formed therein for the reception of the conductor, thereby to form a guide for the latter when adjusting the lamp.

A still further object of the invention is to generally improve this class of devices, so as to increase their utility, durability, and efficiency as well as to reduce the cost of manufacture.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, and illustrated in the accompanying drawings, it being understood that various changes in form, proportions, and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation of a lamp constructed in accordance with my invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view showing the supporting-bracket attached to a wall or vertical support.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved device consists of a plate

or block 5, designed for attachment to a ceiling or other suitable support 6, and to which is secured a supporting-bracket consisting of spaced depending arms 7, having their upper ends bent laterally and secured to the plate 5 in any suitable manner, as by screws, rivets, or similar fastening devices 8.

Mounted for rotation between the depending arms 7 of the supporting-bracket is a spring-actuated drum or reel 9, to which is attached one end of a flexible conductor 10, supporting an electric lamp 11 of the ordinary construction. Seated in openings 12, formed in the opposite ends of the drum 9, are insulating-bushings 13, each provided with a longitudinal bore for the reception of rods or contact members 14. The contact members 14 are provided with terminal V-shaped sockets 15, in which are seated the conical terminals 16 of suitable bearing-pins 17. The inner ends of the rods or contact members 14 are provided with transverse openings 18 for the reception of the adjacent terminals of the conductor 10, and carried by said contacts are suitable binding-screws 19, adapted to bear against the terminals of the conductor 10, and thus hold the same in electrical contact with the members 14.

The terminals 20 of the flexible conductor are threaded through transverse openings 21 in the drum 9 for engagement with the binding-screws 19, there being similar openings 22, preferably disposed at right angles to the openings 21, for the reception of a screw-driver or similar tool, whereby the clamping-screws 19 may be adjusted, so as to release or bind the terminals 20.

The depending arms 7 are provided with alined openings 23, in which are seated longitudinally-split collars 24 and 25, and interposed between said collars and the pins 17 are bushings 26, formed of gutta-percha, vulcanized fiber, or other suitable insulating material. The collars 24 and 25 are locked against rotation within the openings 23 by means of clamping-screws 27, which extend through the free ends of the arms 7 and bear against the flattened portions 28 of said collars, as shown, there being one or more teeth 29 formed in the collar 22 for the purpose hereinafter referred to.

Threaded in the outer ends of the pins 17 are binding-screws 30, which engage suitable wires or conductors 31, leading to a socket of the ordinary construction, so that the hanger may be conveniently connected in a lighting



or other energized circuit. It will thus be seen that the current from the lighting-circuit will flow through one of the wires 31 and adjacent stationary pin 17, contact 14, binding-screw 19, and conductor 10 to the lamp 11 and thence through the opposite binding-screw 19, contact 14, and pin 17 back to the lighting-circuit.

As a means for rotating the drum there is provided a coiled spring 32, one end of which is secured to a pin 33, while the opposite end thereof is secured to a stub-shaft 34, extending transversely through the adjacent depending arm 7 and carrying a master-gear 35. The gear 35 meshes with a pinion 36, secured to one end of the drum 9 and spaced from the adjacent pin 17, so as to prevent the current from being short-circuited. The spring 32 is disposed within a suitable housing 37, secured in any suitable manner to the plate 5, while the pin 33 extends transversely through the housing 37 and is rigidly secured to the adjacent depending arms 7, so as to assist in retaining the housing in position on said arm.

Secured to the free ends of the arms 7 are angle-plates 38, on which are pivotally mounted at 39 a depending yoke or bail 40, the latter being provided with an intermediate insulating-block 41, having an opening 42 formed therein for the reception of the conductor 10, so that the latter will be guided on the drum when the lamp is raised or lowered.

Attention is here called to the fact that the screws 27 not only serve to prevent rotation of the collars 23, but also serve to assist in retaining the angle-plates 38 on the arms 7, there being suitable clamping-nuts 43 threaded on the clamping-screws 27 and bearing against the angle-plates for locking the same in engagement with the adjacent ends of the depending arms.

Secured to one end of the drum 9 is a disk 44, having an annular retaining-flange 45 for limiting the movement of the locking-pawls 46, the latter being pivotally mounted on the disk 44 and adapted to engage the teeth 29 of the adjacent split collar 24 for locking the drum against rotation.

In order to lower the lamp, it is merely necessary to exert a slight downward pull on the conductor 10, which will release the pawl 46, and thus permit the drum to rotate and lower the lamp, said drum being locked in lowered position by engagement of the pawl with the teeth 29. As the drum is rotated to lower the conductor the spring will be contracted, so that when a sudden pull is exerted on the conductor 10 and the latter quickly released the pawl will be thrown out of engagement with the teeth 21, and the tension of the spring will rotate the drum in the opposite direction, so as to wind the conductor on said drum, and thereby elevate the lamp.

In Fig. 3 of the drawings the supporting-

bracket is secured to a wall or vertical support 6' with the arm 7' disposed at right angles thereto, while the depending yoke or bail 41' is disposed at right angles to the arms.

It will of course be understood that the mechanism for raising and lowering the lamp will be inclosed in a suitable ornamental casing or housing, so as to give the same a neat attractive appearance, said casing being omitted in the present instance in order to more clearly show the construction of the device.

Having thus described the invention, what is claimed is—

1. An electric-lamp hanger including a supporting-bracket, a spring-actuated drum mounted for rotation in the bracket, a flexible conductor the terminals of which are connected with the drum and lamp, respectively, angle-plates carried by the bracket and a depending bail pivotally mounted for swinging movement on the angle-plates and having a guide-opening formed therein for the reception of the flexible conductor.

2. An electric-lamp hanger including a supporting-bracket having spaced depending arms provided with alined openings, split collars disposed within the openings, stationary pins extending through the collars, a spring-actuated drum mounted for rotation on the pins, insulating-bushings interposed between the pins and the collars, a flexible conductor the terminals of which are connected with the drum and lamp, respectively and clamping-screws carried by the arms and bearing against the split collars.

3. An electric-lamp hanger including a supporting-bracket provided with spaced depending arms having alined openings formed therein, split collars seated in said openings, stationary pins extending through the collars, insulating-bushings interposed between the pins and the collars, clamping-screws threaded through the free ends of the arms and bearing against the collars, a spring-actuated drum mounted for rotation on the pins, and a flexible conductor the terminals of which are connected with the drum and lamp, respectively.

4. An electric-lamp hanger including a supporting-bracket provided with spaced depending arms, angle-plates secured to the ends of the arms, clamping-screws extending through the angle-plates and engaging the arms, a yoke pivotally mounted on the angle-plates, a spring-actuated drum mounted for rotation between the arms, and a flexible conductor the terminals of which are connected with the drum and lamp, respectively, there being an opening formed in the pivoted bail for the reception of said conductor.

5. An electric-lamp hanger including a supporting-bracket provided with spaced depending arms having alined openings formed therein, split collars seated in said openings,



pins extending through the collars and provided at their outer ends with binding-screws, a spring-actuated drum mounted for rotation on the inner ends of the pins, insulating-bushings interposed between the pins and the collars, wires secured to the binding-screws and operatively connected with an energized circuit, a flexible conductor the terminals of which are connected with the drum and lamp, respectively, and electrical connections between the pins and terminals of the flexible conductor.

6. An electric-lamp-light hanger including a supporting-bracket provided with spaced depending arms having alined openings formed therein, split collars seated in said openings, stationary pins extending through the collars and having their outer ends provided with binding-screws, a flexible bushing interposed between the pins and the split collars, a spring-actuated drum mounted for rotation between the arms, contact members carried by the drum and provided with sockets for the reception of the inner ends of the pins, and a flexible conductor the terminals of which are connected with the contact members and lamp, respectively.

7. An electric-lamp hanger including a supporting-bracket provided with depending arms having alined openings formed therein, split collars seated in said openings, pins extending through the openings and having their outer ends provided with binding-screws and their inner ends conical, insulating-bushings interposed between the pins and collars, a spring-actuated drum mounted

for rotation between the arms, contact members having conical-shaped sockets journaled therein for the reception of the conical ends of the pins and provided with transverse openings, a flexible conductor connected with the lamp and passing through the openings in the contact members, and binding-screws carried by the contact members and adapted to engage the terminals of the flexible conductor.

8. An electric-lamp hanger including a supporting-bracket provided with spaced depending arms having alined openings formed therein, split collars seated in said openings, stationary pins extending through the collars and provided with binding-screws, insulating-bushings interposed between the pins and collars, a spring-actuated drum mounted for rotation on the inner ends of the pins and provided with contact members, there being a plurality of spaced openings formed in the drum and disposed at right angles to each other, a flexible conductor operatively connected with the lamp and having its adjacent terminals extending through two of the transverse openings in the drum, and binding-screws for clamping the terminals in engagement with the contact members.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

FRANK. E. CHRISTMAN.

Witnesses:

JOHN H. KRESSLER,  
HENRY A. KRAUSE.