

(No Model.)

E. J. FULGHUM.
ELECTRIC LIGHT SUPPORT.

No. 573,817.

Patented Dec. 22, 1896.

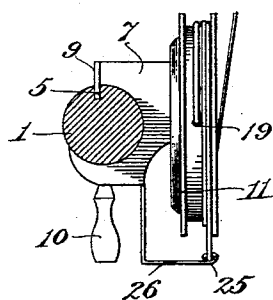
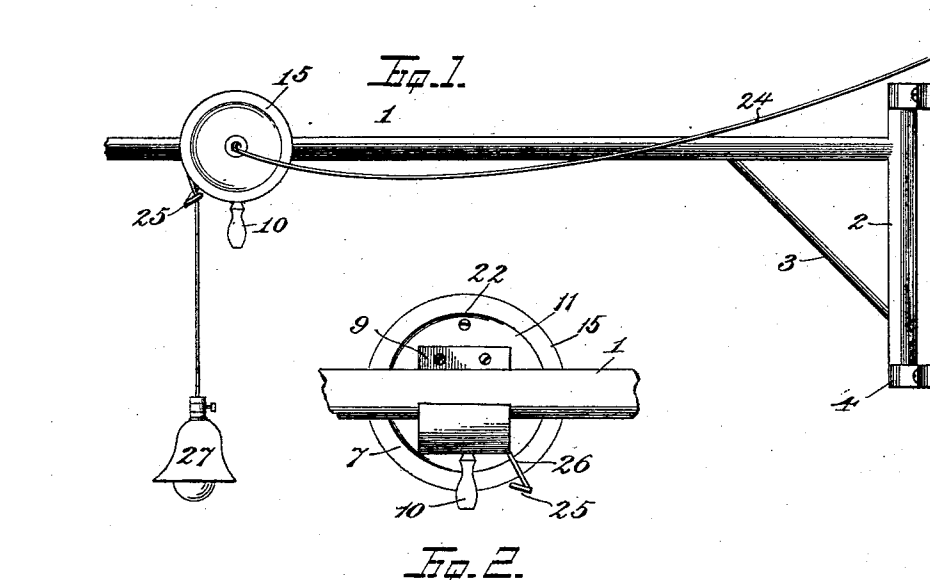


Fig. 3.

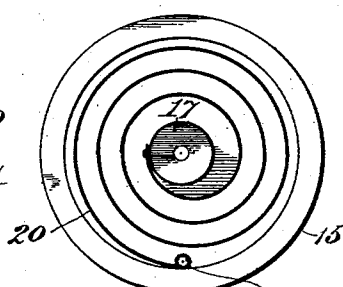


Fig. 4.

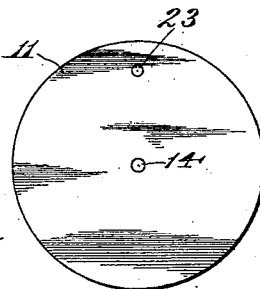


Fig. 5.

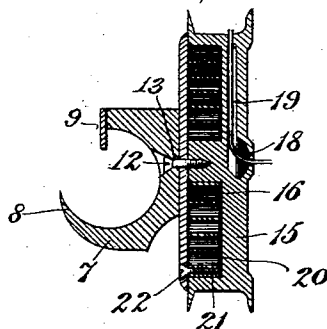


Fig. 6.

Witnesses
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UNITED STATES PATENT OFFICE.

ELISHA J. FULGHUM, OF TRAVERSE CITY, MICHIGAN, ASSIGNOR OF TWO-THIRDS TO ELIJAH C. FULGHUM AND FRANK FRIEDRICH, OF SAME PLACE.

ELECTRIC-LIGHT SUPPORT.

SPECIFICATION forming part of Letters Patent No. 573,817, dated December 22, 1896.

Application filed June 24, 1895. Serial No. 553,864. (No model.)

To all whom it may concern:

Be it known that I, ELISHA J. FULGHUM, a citizen of the United States, residing at Traverse City, in the county of Grand Traverse and State of Michigan, have invented certain new and useful Improvements in Electric-Light Supports; 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.

My invention relates to electric-light supports, and more particularly to that class thereof employed for supporting indoor incandescent lights.

Among the principal objects of my invention are to produce a support that is cheap and simple, as well as ornamental, the same being designed to support the light in such manner as to permit of it being shifted from place to place, as, for instance, from desk to desk located in various points of a room, and to be raised or lowered, as desired, and which when so raised or lowered will automatically retain such adjusted position without further attention upon the part of the manipulator.

Various other objects and advantages of the invention will hereinafter appear, and the novel features of the invention will be particularly pointed out in the appended claims.

Referring to the drawings, Figure 1 is a side elevation of a light together with a support embodying my invention, the same being shown in its simplest form. Fig. 2 is an elevation of the opposite side of the sliding block and drum and a portion of the supporting crane-arm. Fig. 3 is a transverse sectional view through the crane-arm, the block and drum being shown in end elevation. Fig. 4 is an inner face view of the hollow spring-drum. Fig. 5 is a similar view of the friction-disk. Fig. 6 is a vertical transverse sectional view of the sliding block, spring-drum, and friction-disk.

In carrying out my invention I employ a crane, the same consisting of the horizontal arm 1, whose inner end is secured to a vertical swinging post 2, the arm and post being braced by the inclined brace 3. In order to mount the arm so as to swing, the post is ax-

ially pivoted at its upper and lower ends upon brackets 4, that are secured against the wall, window-casing, or other woodwork a proper distance from the floor. A groove 5 is formed in the upper side of the arm 1, the same being at a slight tangent to the center of the arm. The arm is preferably formed of wood; but it will be understood that tubing may be employed.

Arranged for sliding upon the arm 1 is the sliding block 7, the same having at one side a curved recess 8, formed upon the same arc of a circle as is the arm 1 and therefore adapted to partially inclose that portion of the arm 1 upon which it is located. The upper portion of the recessed side of the block is in the same vertical plane as the groove 5 of the arm, and a metal plate 9 is secured to such portion of the block by means of screws, and extending at its lower edge below or into the curved recess 8 engages with and slides in the said groove 8 and serves to secure the block from accidental removal from the arm. From the under side of the arm there depends a handle 10, which may be grasped by the manipulator and through its medium the block be slid horizontally to any desired point along the arm, the frictional contact of the plate against the side of the groove being sufficient to retain the block in any of its adjusted positions. Applied to the opposite face of the block is a friction-disk 11, and the same is mounted for rotation by means of a bearing-screw 12, which is passed through the block and the center of said disk and beyond the latter, bearing-holes 13 and 14, respectively, being formed in the block and disk for the reception of the screw.

15 represents a drum, the same having its periphery provided with a pair of annular flanges and one of its faces or sides provided with the annular chamber or recess 16, at the center of which there is located and projects from the bottom thereof a post 17. The opposite or outer wall of the drum is provided with a central perforation 18, the same communicating with or merging into a radial passage 19, which extends to the periphery at a point between the flanges of the drum. A coiled spring 20 is located in the annular

chamber 16, one end of the spring being made fast to the post 17 and the remaining portion of which is coiled about the post within the annular chamber and finally terminates in an eye 21. The parts of the drum being thus assembled, the same is placed with its chambered side against the friction-disk, which is of such diameter as to cause it to overlap the edge of the chamber 16. The end of the bearing-screw 12 enters the center of the post 17, and by regulating this screw the degree of friction between the friction-disk and drum may be secured. A screw 22 is also passed through a hole 23, formed in the friction-disk near the edge of the latter, and at its inner end engages with the eye 21 of the coiled spring 20, all as best shown in Fig. 4.

24 designates the electrical conductor, which may lead from any suitable point and source of supply to the center hole 18 of the drum, passes through the same into the radial passage 18 beyond the same, and is wound a sufficient number of times around the drum. The number of times the wire is wound around the drum is of course regulated by the length of vertical adjustment desired. The leading end of the wire is now passed through an eye 25, formed at the lower end of an L-shaped wire guide-arm 26, and beyond said eye is secured to the lamp 27. The wire guide-arm depends from the sliding block and its eye extends somewhat under the drum, so as to guide the wire to the drum and between its flanges when slack is being taken up.

This completes the construction of the invention, and the operation will be obvious, but perhaps had best be briefly explained, as follows: Swinging lateral adjustments are of course secured by simply swinging the crane-arm and its post upon the bearing-brackets, and adjustments to and from the wall or along the crane-arm are secured by grasping the handle 10 and moving the block and drum and the parts carried thereby, such movements being permissible by reason of the slack of wire between the drum and the point where the wire is connected to the wall or ceiling. The tension of the spring and the friction between the drum and disk are just sufficient to counterbalance the weight of the electric lamp, so that in order to raise and lower the same it is only necessary to elevate or lower it, and as soon as released it will remain in its adjusted position. In lowering the lamp the wire will be unwound from the drum and in elevating the lamp the wire will wind upon the drum, so that all inconvenient and unsightly slack wire is avoided.

I do not limit my invention to the precise details of construction herein shown and described, but hold that I may vary the same to any degree and extent within the knowledge of the skilled mechanic.

Having described my invention, what I claim is—

1. The combination with a crane-arm having a longitudinal groove, of a block recessed

to receive the arm and having a flange or plate extending therefrom and engaging said groove, a spring-drum carried by the block, an electrical wire wound upon the drum, and a lamp connected to the wire, substantially as specified.

2. The combination with a support, of a spring-drum one wall and rim of which is fixed immovably to the support and the opposite wall of which is axially mounted for rotation against the said wall, an electrical wire wound upon the rim of the drum and depending at one end therefrom, and a lamp connected to the wire, substantially as specified.

3. The combination with a crane-arm and support movable thereon, and a friction-disk mounted immovably on the support, of a spring-drum axially supported for rotation in contact with the disk, means for regulating its frictional contact therewith, an electrical wire wound upon the drum and depending at one end therefrom, and a lamp connected to the aforesaid end and counterbalanced by the spring within the drum, substantially as specified.

4. The combination with a support, a block adjustably mounted for horizontal movement along the same, a friction-disk secured to the block, a spring-drum applied to the friction-disk, a bearing-screw passed through the block, disk and into the drum, whereby the latter may be adjusted to and from the disk, an electrical wire wound upon the drum and depending at one end therefrom, and a lamp connected to said depending wire, substantially as specified.

5. The combination with a swinging crane-arm and its support, of a block adjustably mounted on the former, a friction-disk applied to the face of the block, a spring-drum adjustably mounted in frictional contact with the disk and adapted to rotate, an electrical wire wound upon the drum and having one end depending therefrom, and a lamp connected to the said depending end, substantially as specified.

6. The combination with a support, of a drum mounted for rotation thereon, said drum having a central perforation and a communicating radial passage formed in one of its walls and leading to its periphery at a point between its flanges, an electrical wire passed through the perforation and passage and having its leading end therebeyond wound upon the drum and depending therefrom, a spring within the drum and occupying its interior and a lamp connected to said leading end, substantially as specified.

7. The combination with a crane-arm, the same being provided with a longitudinal groove, of a block having a curved recess to fit the arm and provided above the same with a depending plate engaging with said groove, a friction-disk located at the opposite side of the block, a hollow spring-drum axially pivoted for rotation to and against the friction-disk, the L-shaped guide-arm terminating in

a guide-eye depending from the block, an electrical wire wound upon the drum and having its leading end depending through said eye, and a lamp connected to said end, substantially as specified.

5 8. The combination with the support, a block located thereon, and a friction-disk connected to the block, of the drum chambered at one side and having the central post, the
10 screw passed through the block, friction-disk and into the post, the spring secured to and coiled about the post within said chamber

and terminating in an eye, the screw passed through the friction-disk and engaging the eye, the electrical wire wound upon the drum 15 and depending at one end therefrom, and the lamp connected to the end of the wire, substantially as specified.

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

ELISHA J. FULGHUM.

Witnesses:

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LAURENCE H. DE ZOETE.