(No Model.)

E. DILLS.

ELECTRIC LAMP HANGER.

No. 474,003. Patented May 3, 1892.

Fig. 1.

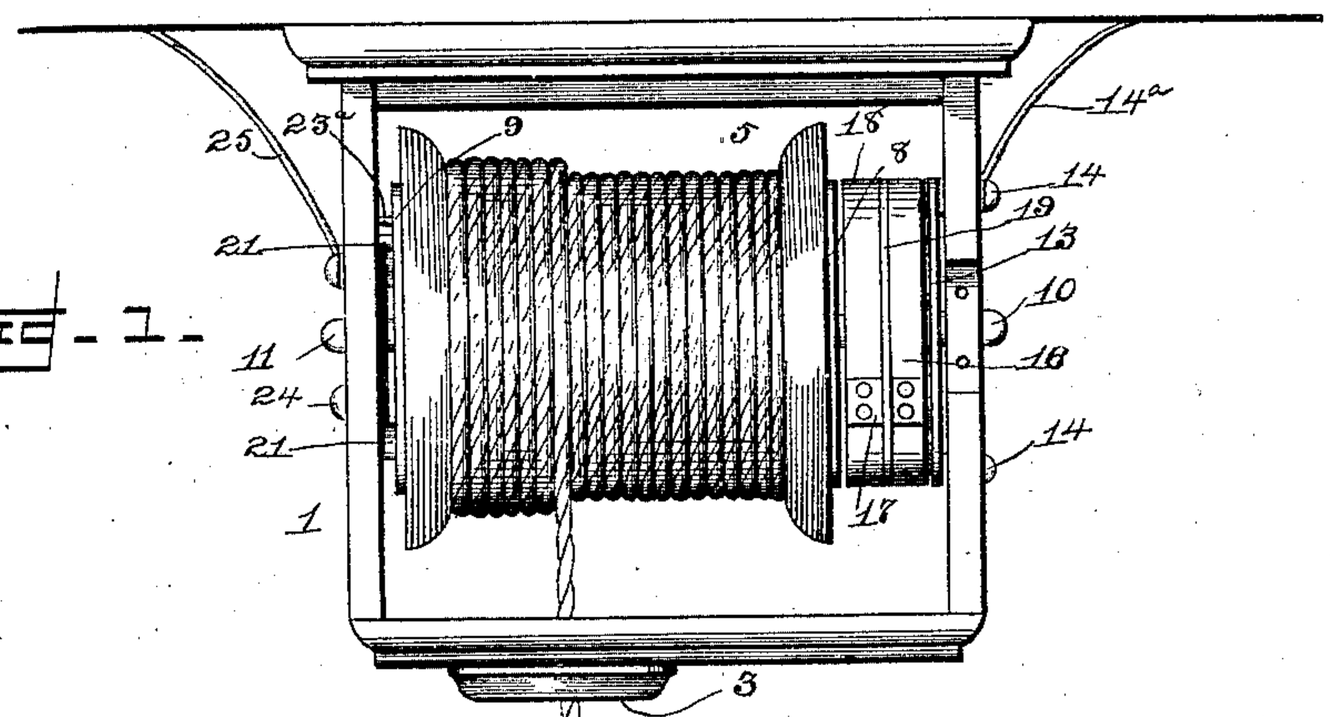


Fig. 2.

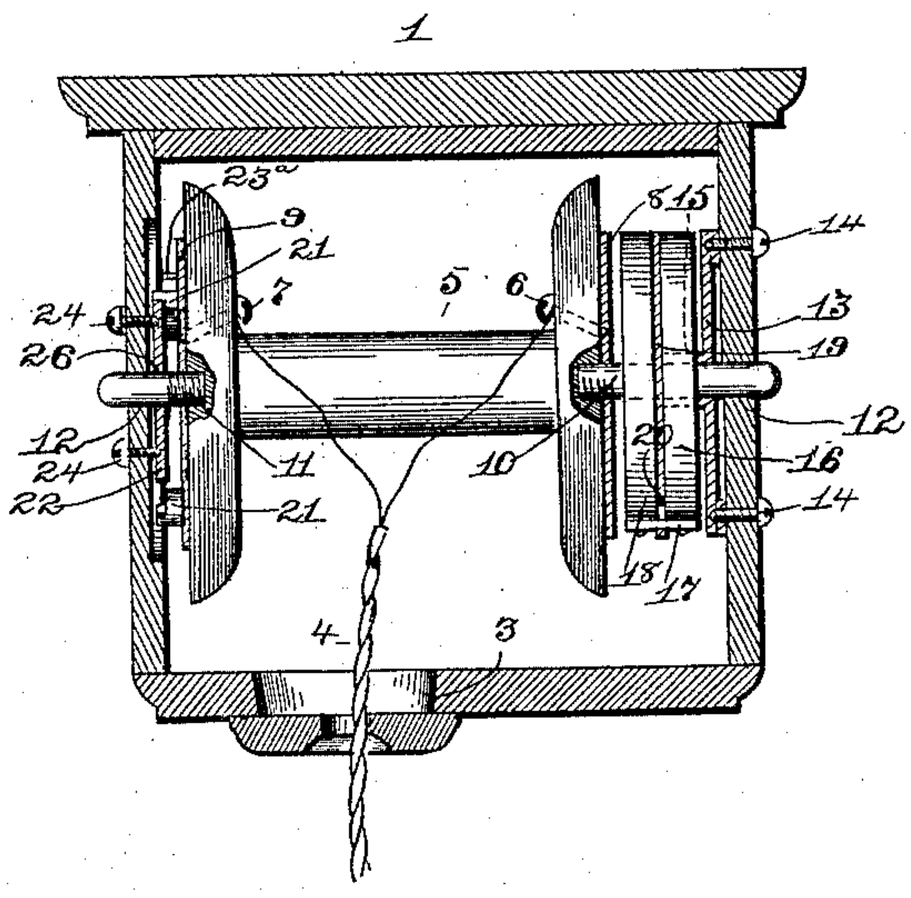
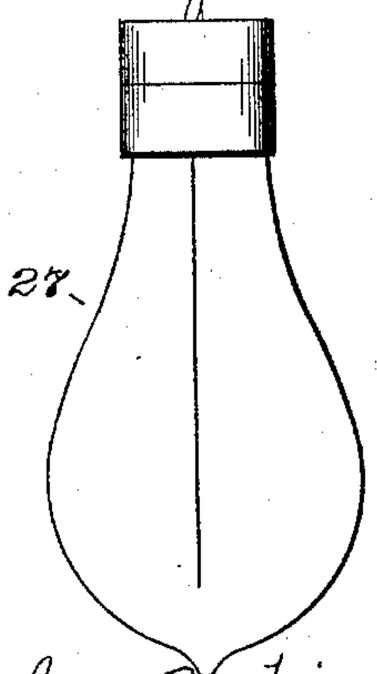


Fig. 3.



Witnesses

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ELECTRIC-LAMP HANGER.

SPECIFICATION forming part of Letters Patent No. 474,003, dated May 3, 1892.

Application filed September 8, 1891. Serial No. 405,074. (No model.)

To all whom it may concern:

Be it known that I, ELBERT DILLS, a citizen of the United States, residing at Sprague, in the county of Lincoln and State of Washington, have invented a new and useful Electric-Lamp Hanger, of which the following is a specification.

This invention relates to adjustable electric-lamp hangers; and it has for its object to provide a device of this character that is adapted to be secured to the ceiling of a room and will facilitate easy handling of the ordinary incandescent lamp for the purpose of raising and lowering the same, and whereby an incandescent light in one room can be readily used in an adjoining room, and when it is desired to replace the light to its original and normal position the same can readily be accomplished by the automatic means hereinafter described; and with these and other objects in view the invention consists of a spring-actuated drum located in a suitable casing and provided with details of construction hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a front elevation of an electric-light-hanger casing supported from the ceiling of a room, with the front side thereof removed, exposing the interior parts. Fig. 2 is a vertical transverse sectional view of the device. Fig. 3 is an end view of the spool or drum engaging the ratchet wheel or plate, which is removed from the casing.

Referring to the accompanying drawings by numerals, 1 designates a suitable rectangular frame or casing, which is secured to the ceiling of a room by means of screws or other suitable securing devices and is adapted to inclose the various parts of the hanging device. The said frame or casing is provided with a door, (not shown,) by means of which ready access may be had to the interior parts of the hanger inclosed by the casing for the purpose of adjusting or repairing the same, and said casing is further provided with a bottom perforation 3, through which the electric-lamp-suspending cord 4 is designed to pass and to be controlled by the means to be presently described. A spool or drum 5 is designed to be located within said casing and adapted to receive the coil of electric wire cord 4, which is wrapped around said spool or drum and wound and unwound as occasion may demand. The ends of said wire or cord within the casing are secured to the conducting-screws 6 and 7, located near the shank of the spool and projecting through the ends slightly beyond the outer faces of said ends for the purpose of establishing the electric current through the cord, as will be described. Securely screwed or otherwise secured to the opposite ends of said spool are the metallic plates 8 and 9, respectively, both of which are in contact with the oppositely-located conducting-screws 6 and 7 and both of which are provided with the projecting journals 10 and 11, which are designed to project within the perforations 12, located in opposite sides of the casing and forming bearings therefor.

Upon the inner side of the casing, adjacent to the conducting-plate 8, is secured the metallic conducting-plate 13, which is secured to said casing by means of the screws 14, to one of which is connected either the positive or negative wire 14^a of the circuit. The said plate is provided with a central perforated projecting sleeve 15, extending inward toward the end of the spool and forming a bearing for the spindle end 10 of the same and providing means whereby the electric current may be conducted from the retaining-screw through the journal end of the conducting-plate and through the conducting-screw in the spool to which one end of the conducting and suspending cord is attached. Rigidly secured to the stationary sleeve or collar 15 is the spiral spring 16, the free end of which is provided with a connecting-plate 17, rigidly attached to the free end of a parallel twin spiral spring 18, which has its inner end rigidly attached to the shaft 10, upon which one end of said spool is supported. These springs must necessarily be reversely wound with relation to each other, so that when the spring 18, which is attached to the shaft, is tightened by the rotation of the shaft the other twin spring 16 will be correspondingly tightened. In order that the contractions and expansions of said springs may not interfere with each other, a circular partition-plate 19 is interposed between the same and is provided with a slotted opening 20, through which the said connecting-plate 17 projects. It can readily be seen that

as the coiled suspending and conducting cord is unwound from the spool or drawn through the opening 3 in the bottom of the casing the spring 18, secured to the journal of the spool, is wound up tight, and, being rigidly secured to the spring secured to the stationary sleeve, that spring is also wound tightly up, and thus a double tension is exerted upon the spool to rewind the cord thereon when the same is released.

Pivotally secured to opposite sides of the plate 9, upon the opposite end of the spool to that just described where the springs are located, are the regulating or stop pawls or dogs 21, which are designed to travel around the periphery of the notched plate 22, secured to the side of the casing adjacent to said plate 9. As said, the plate 22 is provided with a notch 23, that is designed to be engaged by the nearest of the pawls 21 when the lamp has been drawn out a sufficient distance, and the cord is allowed to slowly rewind to insure such engagement, the said pawls being always kept near and adjacent to the periphery of said plate by means of the stop-pins 23, which prevent the same from falling out of position. The said plate 22 is secured to the inner side of the casing by means of the screws 24, to one of which is connected the opposite wire 25 of the circuit, and which thus provides a continuous connection between the end of the wire secured to the conducting-screw 7 and the screw securing the notched plate to said casing, said plate being further provided with a central perforation 26, which forms a bearing for the journal end 11 of the spool.

An ordinary electric incandescent lamp 27 is attached to the lower and outer end of the suspending-cord 4 and is carried and adjusted to any position that may be desired by the means herein described, the construction and operation being thought to be apparent without further description.

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

1. In an electric-light hanger, a casing, a revolving drum provided with opposite end plates having projecting spindles forming the journals of said drum, double reversely-wound spiral springs connected rigidly at their centers with one end of said spool and the casing, respectively, and their outer free ends to each other, a pawl-and-ratchet device located at the opposite end of the spool, and means for establishing an electric circuit through the cord wound on said drum and the opposite journal ends thereof, substantially as set forth.

2. In an electric-light hanger, a casing, a revolving drum provided with opposite end plates having projecting spindles forming the journals of said drum, conducting screws or pins projecting entirely through the ends of the spool and connected with opposite ends of the suspending-cord and having their outer ends in contact with the inner faces of said end plates, separated and reversely-wound actuating-springs located at one end of said spool and connected directly with each other, a pawl-and-ratchet device located at the opposite end of the spool, and means for connecting or placing the journal ends of the spool in electric circuit, substantially as set forth.

3. In an electric-light hanger, a casing, a revolving drum provided with spindles journaled in the opposite sides of said casing, a conducting-plate secured to the inner side of said casing adjacent to one end of the spool and provided with a sleeve or collar, a coiled spring secured to said sleeve, a parallel twin spring secured to the journal of the spool, a division-plate interposed between said spring and provided with a slot or opening, a plate or bar connecting the free ends of said spring, and a pawl-and-ratchet device located at the opposite end of said spool, substantially as set forth.

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

ELBERT DILLS.

Witnesses:
A. W. HOLLAND,
R. M. HOUCK.