E. C. SUITER.

ELECTRIC FIXTURE.

APPLICATION FILED APR. 30, 1907.

902,121.

Patented Oct. 27, 1908.

Fig. 1.

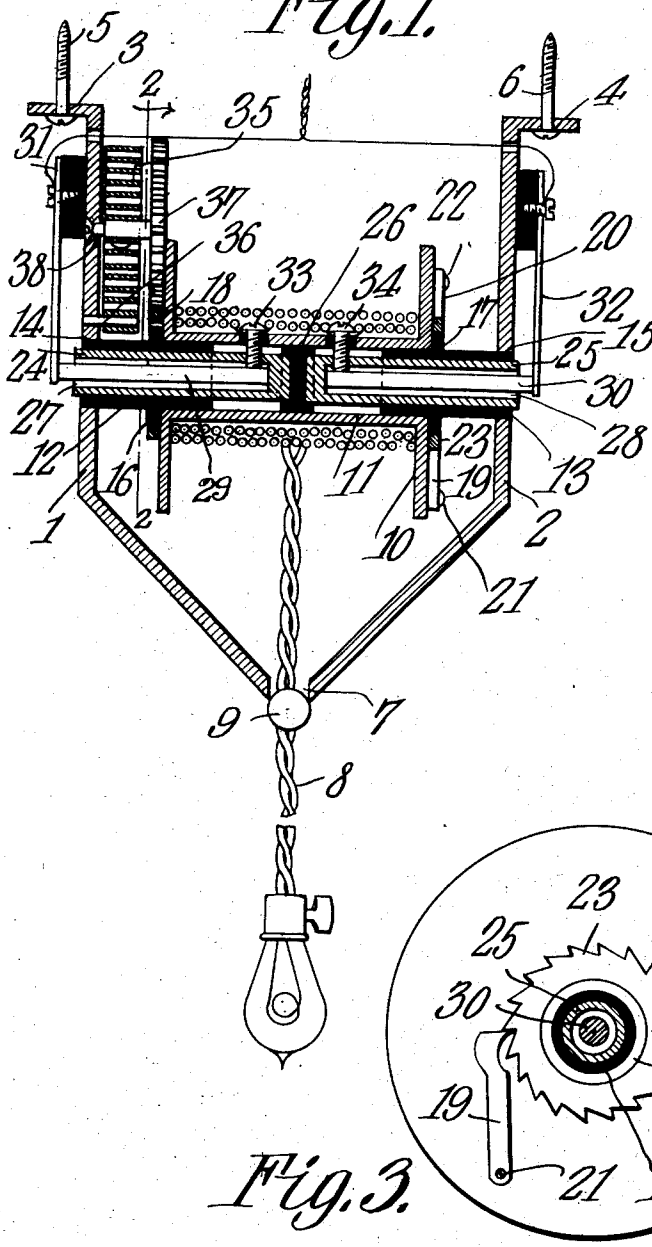


Fig. 2.

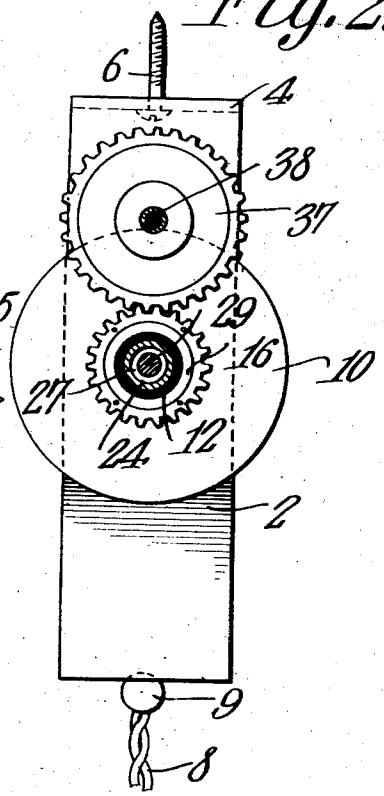


Fig. 3.

WITNESSES:

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ELECTRIC FIXTURE.

No. 902,121. Specification of Letters Patent. Patented Oct. 27, 1908.

Application filed April 30, 1907. Serial No. 371,107.

To all whom it may concern:

Be it known that I, EDGAR CYRUS SUITER, a citizen of the United States, residing at Olympia, in the county of Thurston and State of Washington, have invented a new and useful Electric Fixture, of which the following is a specification.

The present invention relates to improvements in electric fixtures, and more especially to that class adapted for use in adjustably supporting incandescent lamps, and it has for its object to provide a device of this character having a reel capable of containing a considerable length of conducting cord to enable the lamp to be supported at different heights, devices being employed for automatically winding the cord to carry the lamp out of the way, and for retaining the lamp at any desired height, the construction being comparatively simple so that the parts are not able to get out of order, and the devices may be made to sell at a relatively low price.

To these and other ends, the invention comprises the various novel features of construction and combination and arrangement of parts, which will be more fully described hereinafter, and set forth particularly in the claim appended hereto.

In the accompanying drawing:—Figure 1 represents a central vertical section of an electric fixture constructed in accordance with my present invention. Fig. 2 represents a section on the line 2—2 of Fig. 1. Fig. 3 is a detail view of the stop device.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

The fixture shown in the present embodiment of my invention is especially adapted for use in connection with incandescent electric lamps and similar devices wherein it is desirable to support them at different heights and to enable them to be moved entirely out of the way when not in use, and it comprises, in the present instance, a bracket adapted to be attached to a ceiling, wall, or other means of support, the bracket being composed either of a casting of metal, porcelain, or other suitable material, or of sheet metal bent flatwise to form a pair of vertically extending arms 1 and 2 suitably spaced to accommodate the operating elements of the fixture between them, the upper ends of the arms being turned laterally to provide apertured attaching lugs 3 and 4 adapted to be attached to a ceiling, or other means of support, by any suitable means, such as screws 5 and 6 respectively. The lower portions of the arms are convergent and are provided at an intermediate point with an aperture 7 through which the conducting cord for the lamp or other device passes, the conducting cord 8 in the present instance being provided with a ball or other suitable projection 9 adapted to coöperate with the bracket at the edges of the aperture to form a stop for limiting the winding movement of the conducting cord.

A suitable length of conducting cord is wound upon the reel or spool 10, the latter being arranged with its axis extending between the bracket arms and having an axial bearing 11 into the ends of which are fitted insulating bushings 12 and 13, the outer ends of the latter being preferably fitted tightly into the apertures 14 and 15 respectively in the bracket arms and having circumferential shoulders 16 and 17 adapted to coöperate with the ends of the spool or reel to prevent endwise movement thereof. The spool is provided at one side with a pinion 18 and at its opposite side are mounted a pair of dogs 19 and 20 pivoted to swing freely in a plane parallel to the plane of revolution of the reel and about the pivots 21 and 22 respectively as centers, the ends of these dogs being adapted to coöperate with a ratchet wheel 23 rigidly secured to the bushing 13, the centrifugal force when the spool is revolving rapidly being sufficient to hold the dogs clear of the ratchet teeth, although they will coöperate therewith when the spool is revolving relatively slowly or is at rest.

Journaled within the bushings 12 and 13 is a shaft for the spool, the shaft shown in the present instance being composed of the divided sections 24 and 25 arranged in alinement and having their inner ends fitted into an insulating coupling 26, these sections being provided with axial bores 27 and 28 respectively into which are fitted conducting pins 29 and 30, the latter having their outer ends projecting axially beyond the opposite ends of the shaft and adapted to cooperate with the resilient brushes 31 and 32 respectively, the latter being secured to the outer sides of the bracket and suitably connected to the line wires. The inner ends of the conducting pins are electrically connected with the conducting cord 8 by means of the screws 33 and 34, and these screws ex-

tend through the respective shaft sections and thereby serve as an operating connection between the spool and the shaft.

It is preferable to so construct the device that the winding of the conducting cord will be automatic, and for this purpose a spiral actuating spring 35 is provided, this spring being mounted between the arms of the bracket having one end attached to the latter by means of the pin 36 and its other end operatively connected to an actuating gear wheel 37, the latter being revolubly mounted on a stud 38 extending through the bracket arm, the actuating gear wheel cooperating with the pinion on the spool and normally operating to turn the latter in a direction that will wind the conducting cord thereon, the winding movement of the spool being controlled by the dogs thereon coöperating with the ratchet wheel that is secured to the bracket.

An electric fixture constructed in the manner described serves as a convenient support or hanger for electric lamps and similar devices, as the height of the light relatively to the ceiling or any other support may be instantly regulated by manipulating the conducting cords after the manner of an ordinary window shade, that is to say, the lamp may be lowered by merely drawing on the conducting cord, and this will cause a winding of the actuating spring, the direction of the teeth on the ratchet wheel being such as to permit the dogs to move freely, and in order to elevate the lamp, it is only necessary to lower it slightly to disengage the dogs from the ratchet wheel and then permit its rapid rising movement under the action of the actuating spring, the centrifugal force being sufficient to hold the dogs out of engagement with the ratchet wheel until the spool reduces its speed of revolution, at which time the dogs will reëngage the ratchet wheel to retain the lamp at the desired adjustment. During the movements of the spool the continuity of the current is maintained through the brushes coöperating with the axially arranged conducting pins that are operatively connected to the spool and electrically connected to the conductor wound thereon.

What is claimed is:—

The combination with supporting arms; of insulating bushings fixedly mounted therein and extending inwardly therefrom, each bushing having an annular retaining flange adjacent its inner end, a ratchet wheel fixedly mounted on one of said retaining flanges, alining shafts bearing in and extending through the bushings, an insulating coupling between said shafts, a spool journaled upon said coupling and the inner ends of the bushings, said spool being held against longitudinal movement by the retaining means, pawls carried by the spool for engaging the ratchet wheel, conducting pins within and extending beyond the outer ends of the shafts, brushes bearing against the outer ends thereof, a conducting cord adapted to be wound upon the spool, conducting means extending into the spool and against the pins for securing the cord to the spool, and means for rotating the spool.

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

EDGAR CYRUS SUITER.

Witnesses:
W. M. NUNN,
EDITH HUPP.