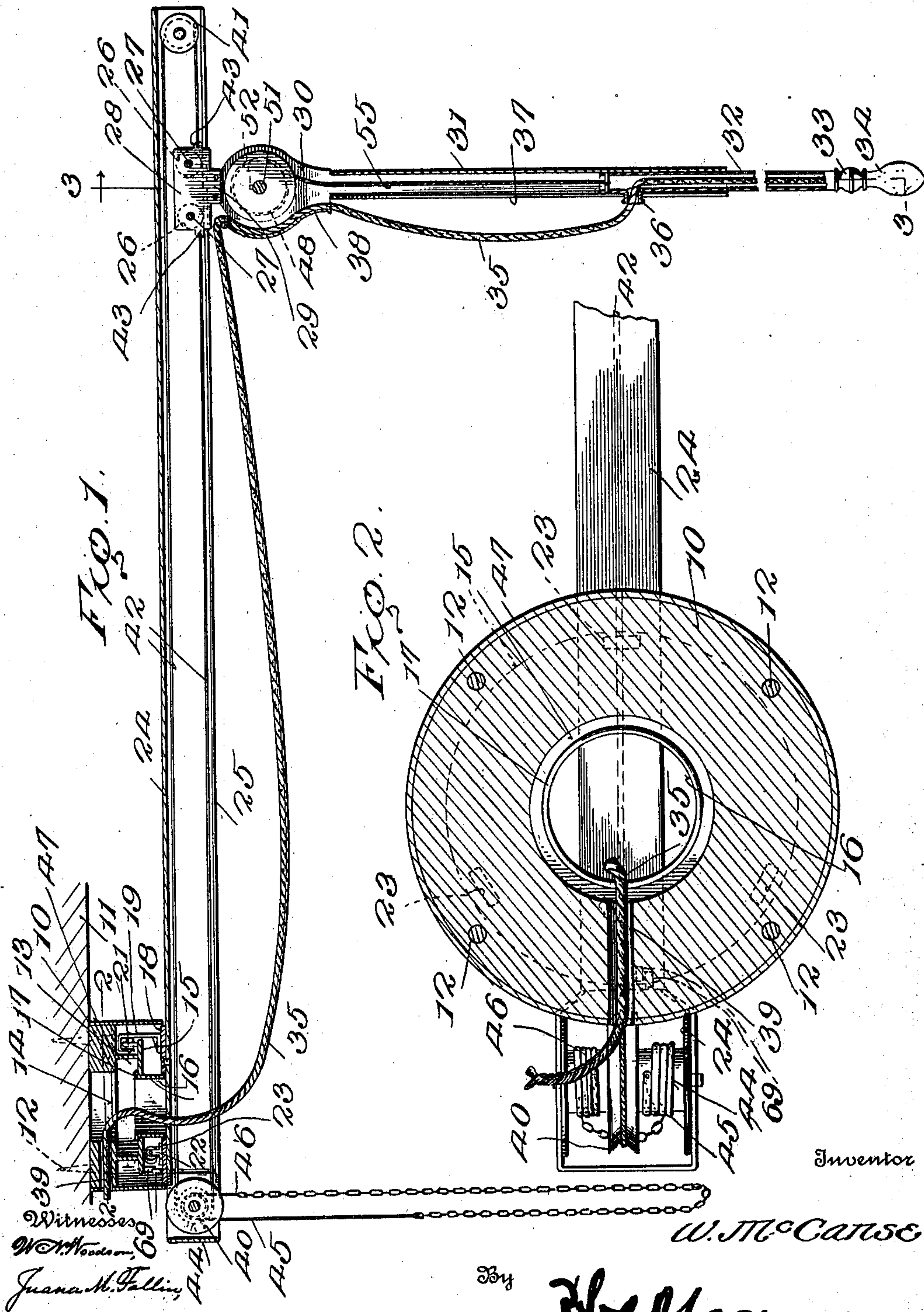


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ELECTRIC LIGHT FIXTURE.
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Patented May 23, 1911.

2 SHEETS-SHEET 1.

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2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

WILLIAM McCANSE, OF HOBART, OKLAHOMA.

ELECTRIC-LIGHT FIXTURE.

992,969.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM McCANSE, citizen of the United States, residing at Hobart, in the county of Kiowa and State of Oklahoma, have invented certain new and useful Improvements in Electric-Light Fixtures, of which the following is a specification.

This invention relates to electric light hangers and refers to an improved hanger which is adapted for various adjustments.

An object of this invention is to form a hanger of this nature whereby the same can be positioned against a ceiling and adjusted to various distances within a circle and may be extended a considerable distance from the point of the support of the same.

The invention has for a further object the formation of a hanger of this character which includes comparatively few operative parts and at the same time which will admit of the various adjustments of the same so as to produce a hanger by means of which the lamp may be raised vertically and adjusted to various parts of the room.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a sectional view of the complete hanger. Fig. 2 is a top plan view of the same partly in section. Fig. 3 is a section on the line 3—3 of Fig. 1. Fig. 4 is a section on the line 4—4 of Fig. 3. Fig. 5 is a side elevation of the carrier partly in section, and Fig. 6 is a slight modification of the hanger.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings the numeral 10 designates a head block which is suitably secured against a ceiling 11, or other suitable support, through the medium of screws 12, or the like, which are positioned upwardly through the head block 10. The head block 10 is provided with a drum 13 depending therefrom and registering about an opening 14 formed centrally through the head block 10. The drum 13 is provided with a web 15 which is secured against the lower end of the drum 13, and is in the form of a circular plate having a central aperture therethrough for the reception of the upper end of a sleeve 16. The sleeve 16 is provided with an an-

nular bead 17 engaging about the inner edge of the web 15 to support the sleeve 16 in position. The lower end of the sleeve carries a circular plate 18 which is loosely disposed thereabout in order to admit of the free rotation of the same. At one side of the plate 18 a bracket 19 is positioned which extends upwardly therefrom and is provided with an overhanging arm 20 supporting a roller 21 for engagement upon the upper face of the web 15 adjacent the edge thereof. Extending upwardly from the opposite side of the plate 18 are reduced brackets 22 arranged adjacent the edge of the plate 18 and carrying rollers 23 for engagement against the under face of the web 15.

Rigidly positioned against the under side of the plate 18 is a channel member 24 which extends outwardly beyond one side of the plate 18 to a considerable distance, while its opposite end projects but a slight distance beyond the opposite side thereof. The channel member 24 is formed preferably from metal and comprises an elongated rectangular hollow member having inturned flanges 25 at its lower end to form rails upon which are mounted rollers 26. The rollers 26 are supported upon pins 27 which extend from the opposite sides of a plate 28, and from the opposite ends of the same, two sets of rollers being preferably employed, the plate extending downwardly through the opening formed in the lower side of the channel member 24 and below the tracks 25. The lower end of the plate 28 is provided with a projection 29 upon its central portion for supporting against the opposite sides thereof the two sections of a cylindrical casing 30. The casing 30 is reduced at its lower end and rigidly supports a depending tube 31. The lower end of the tube 31 is opened to receive in telescopic relation therewith a second or lower tube 32 which is of reduced diameter, and which is provided at its lower end with a socket 33 for the reception of an electric bulb 34. The socket 33 is connected to the electric wires 35, which are twisted in the well-known manner, and which extend upwardly through the tube 32 to a reduced sleeve 36 extending laterally from the upper end of the tube 32. The tube 31 is provided at one side with a slot 37 to receive the sleeve 36. The slot 37 extends substantially the entire length of the tube 31 to admit the longitudinal adjustment of the

tube 32 with respect to the upper tube 31. The wires 35 are carried from the sleeve 36 outwardly of the tube 31 to a channel 38 which is formed through one side of the casing 30 and which conducts the wires 35 to a point immediately beneath the inner end of the plate 28. The wires 35 pass outwardly and longitudinally beneath the channel member 24 to a point immediately beneath the sleeve 16. The wires 35 pass upwardly through the channel member 24, plate 18 into the sleeve 16, and is thence conducted through the drum 13 to the opening 14 formed through the head block 10. An opening 39 is formed through one side of the head block 10 to admit of the passage of the wires 35 there-through.

The means employed for moving the carrier longitudinally within the channel member 24 consists in the provision of the pulleys 40 and 41 which are positioned respectively in the inner and outer ends of the channel member 24 and carry thereover a cable 42. The ends of the cable 42 are secured to the opposite extremities of the plate 28 and terminate in eyes 43 adapted to receive the cable. The inner pulley 40 is mounted centrally upon a drum 44, the drum being thereby divided into two sections for the reception of cords 45 and 46 respectively which are oppositely wound thereon to rotate the drum in opposite directions.

The head block 10 carries a suitable cylindrical casing 47 depending thereabout and terminating adjacent the outer edge of the plate 18, and adjacent the upper face of the channel member 24, for the purpose of housing the pulleys 21 and 23 and the adjacent parts connected thereto.

The means employed for adjustably retaining the lower tube 32 within the upper tube 31 comprises a drum 48 disposed within the casing 30 and provided at one end with a trunnion 49. The trunnion 49 engages through an opening formed in one side of the casing 30. The drum 48 is provided with a recess 50 for the reception of the inner end of a stub-shaft 51 which is rigidly carried through the opposite side of the casing 30. The stub-shaft 51 is provided with a lug 52 engaging in a correspondingly formed opening in the side of the casing 30 to prevent the rotation of the stub shaft 51. The drum 48 is provided with a cylinder 53 which is secured against the inner end of the same in rigid relation therewith, and which loosely engages the stub-shaft 51. A spring 54 is disposed within the cylinder 53 and is secured at its opposite extremities upon the stub shaft 51 and against the inner face of the cylinder 53 respectively. A cord 55 is wound about the drum 48 and depends therefrom through the upper tube 31 to the upper extremity of the lower tube 32 to

which the cord 55 is secured. The tube 32 snugly engages within the tube 31 to frictionally hold the same at the various adjustments and to overcome the tension of the spring 54.

In the modification disclosed in Fig. 6, of the drawings, the hanger comprises a block 56 formed of a cylindrical shell, tapered at its lower end, and carrying in rigid relation therewith a depending tube 57. Slidably and snugly engaging within the lower end of the tube 57 is a second tube 58 which carries at its lower end arms 59, or the like, for supporting the electric bulb 60. The tube 58 is provided at its upper end and at one side thereof with a sleeve 61 which receives a portion of the wire 62 therethrough extending laterally and upwardly from the tube 58 and carried upwardly to the lower end of the casing or block 56. The casing 56 is provided adjacent its opposite sides with curved strips 63, to form a channel between the same and the side walls of the casing 56, for the reception of the wires 62 passing upwardly through the block. It will be observed in this figure that the upper tube 57 is provided at one side with a longitudinal slot 64 to receive the sleeve 61 and admit of the longitudinal movement thereof during the adjustment of the lower tube 58. The block or casing 56 is provided centrally with a drum 65 carrying thereover a cord 66 which is wound about the drum and depended through the casing 56 and upper tube 57. The lower end of the cord 66 is secured to a pin 67 which is passed diametrically through the upper end of the lower tube 58. The drum 65 carries a cylinder 68 through which is disposed a spring corresponding to the spring 54, as hereinbefore set forth. In this construction when the tube 58 is pushed upwardly within the tube 57 the drum 65 is permitted to rotate under the action of the spring which is disposed in the cylinder 68 and overcomes the weight of the tube 58 and the attachments applied to the lower end thereof. The friction between the tubes 57 and 58 thereby holds the same in adjusted position. When the lower tube 58 is moved upwardly the wire 62 is permitted to slacken or loop upon itself between the lower end of the casing and the sleeve 61.

The device as disclosed in the preferred form can be adjusted by swinging the channel member or supporting arm 24 about the block 10, the roller 21 resting upon the upper face of the web 15 to prevent the sagging of the outer end of the arm 24, while the rollers 23 rest against the under face of the web 15 and prevent the upward movement of the inner end of the arm 24. When it is desired to move the carrier longitudinally relative to the arm 24 the cord 45 is drawn downwardly whereby the drum 44 and the pulley 40 are rotated to move the cable 42

in such direction as to force the plate 28 outwardly of the arm 24. When an opposite movement is to be effected the cord 46 is drawn downwardly to rotate the drum 44 and pulley 40 in the opposite direction whereupon the plate 28 is drawn inwardly toward the head block 10. The adjustment of the tube 32 is effected as above disclosed in relation to the tubes 57 and 58 wherein tension of the spring 54 is such as to overcome the weight of the tube 32 and the attachment applied to the lower end thereof to enable the retaining of the tube 32 at the desired height by reason of its frictional engagement within the tube 31. The wires 35 are looped upon themselves upwardly without the tube 31, between the casing 30 and the sleeve 36. The wires are also looped between the inner end of the arm or channel bar 24 and the casing 30 when the plate 28 is moved inwardly toward the head block 10.

With a device of this nature the supporting means for the carrier enables the adjustment of the same within the circle having the radius of the length of the arm 25 and the carrier itself is so mounted upon the arm or supporting device that the bulb may be positioned at practically any point distanced from the central axis of the support.

In order to admit of but one complete revolution of the arm 24 relative to the block, the plates 15 and 18 are each provided with abutments 69 which are adapted to engage one another at the completion of the revolution of the arm 24. These abutments 69 are

provided for the purpose of preventing the undue twisting of the electric wires 35 which pass through the block and the sleeve.

Having thus described the invention what is claimed as new is:—

An electric light fixture including a casing having a depending tube, a lower tube telescopically engaging in the lower end of said first tube, a drum mounted for rotation within the casing and having a trunnion at one end engaging through the casing, and a recess in its opposite end, a stub-shaft rigidly carried by the casing and extending into the recess in said drum, a cylinder mounted in rigid relation upon one end of said drum and engaging about said stub-shaft, a spring located in the cylinder and having its ends secured respectively to the stub-shaft and the cylinder, a cord wound upon the drum and depending through the tube for engagement with the upper end of said lower tube, a sleeve carried upon the upper end of said lower tube and projecting laterally through the upper tube, an electric conductor engaging through the sleeve into the lower tube, and a partition arranged within the casing to form a channel therein for the reception of the upper end of the electric conductor.

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

WILLIAM McCANSE. [L. s.]

Witnesses:

EDGAR C. JOHNSON,
R. E. HOBBS.