W. McCANSE.

ELECTRIC LIGHT HANGER.

APPLICATION FILED FEB. 23, 1909.

958,269.

Patented May 17, 1910.

2 SHEETS—SHEET 1.

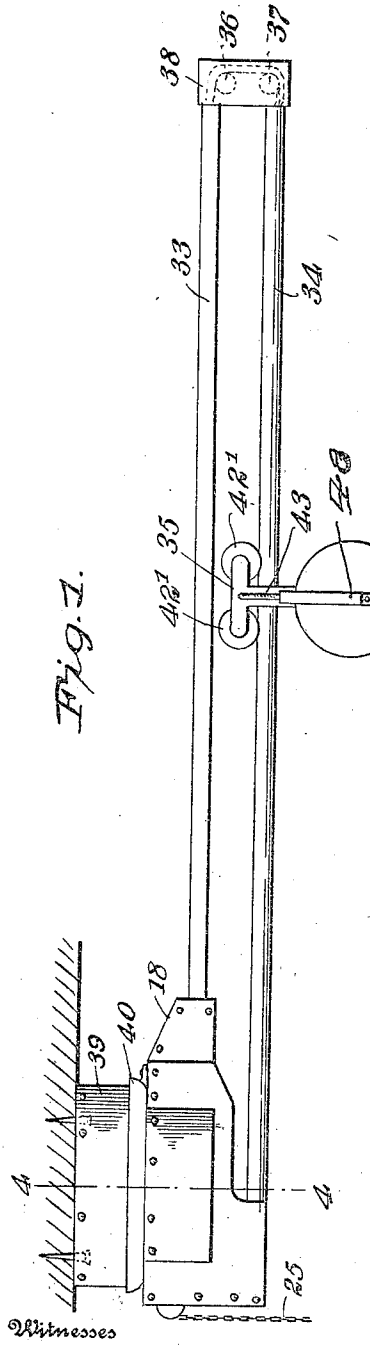


Fig. 1.

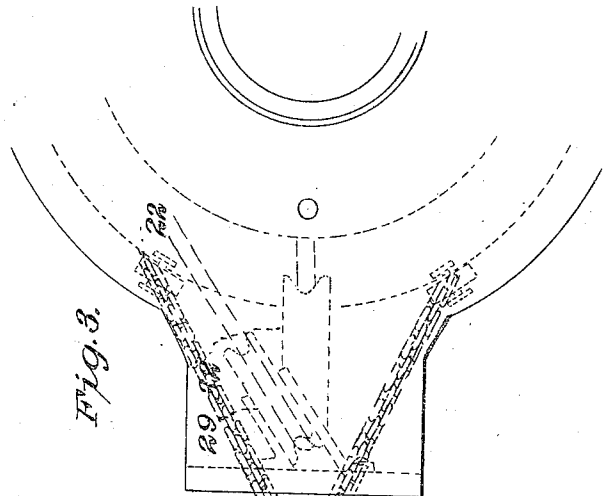


Fig. 3.

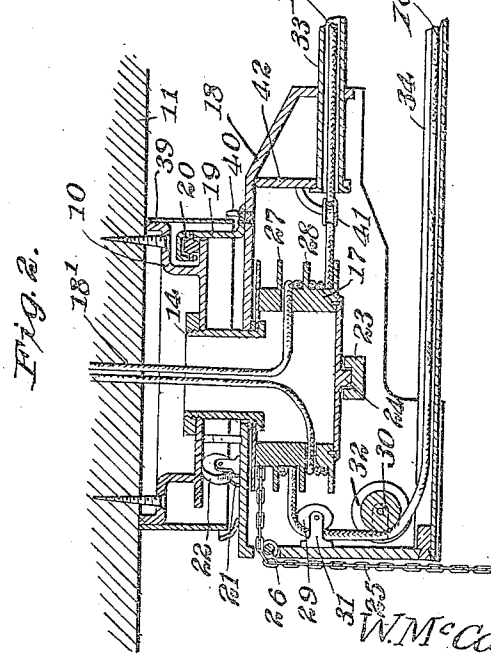


Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

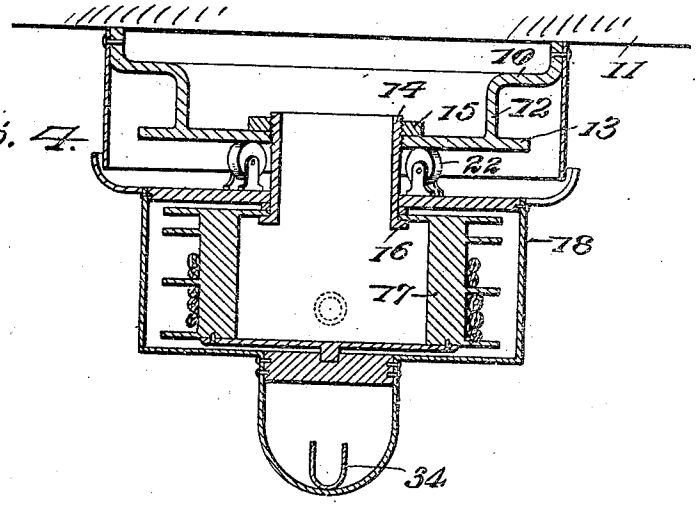


Fig. 5.

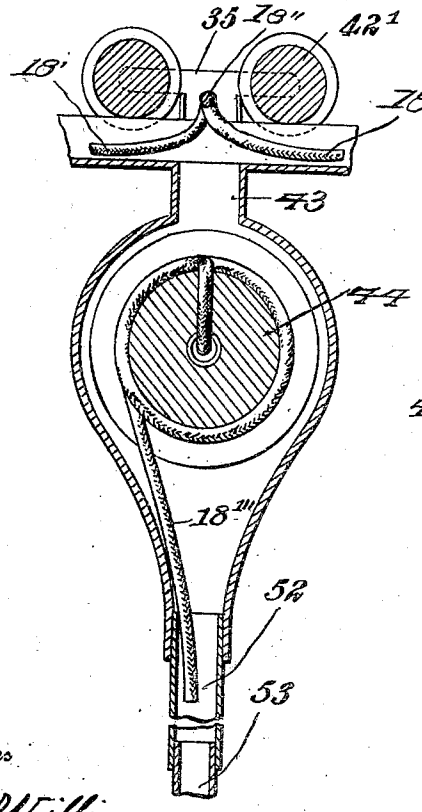
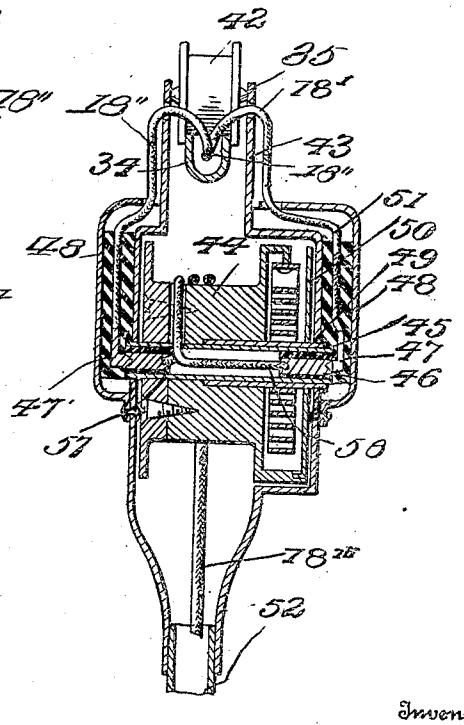


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM McCANSE, OF HOBART, OKLAHOMA.

ELECTRIC-LIGHT HANGER.

958,269. Specification of Letters Patent. Patented May 17, 1910.

Application filed February 23, 1909. Serial No. 479,356.

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 Hangers, of which the following is a specification.

This invention relates to lighting fixtures and refers particularly to a bracket which is adapted to support an electric lamp.

An object of this invention is to construct a bracket of this character which may be adjusted in various angles and also one which may be longitudinally adjusted from the support thereof and which may be swung into various angles as desired.

The invention has for another object the provision of means in connection with a bracket of this character which admits of the positioning of electric wire for conveying the current to the lamp and which also admits of the regular adjustment of the same as the bracket is positioned.

The invention further aims the provision of a bracket of this nature which may also be vertically adjusted in order to support the lamp at various heights as well as to adjust the same horizontally so as to form a convenient lamp adapted for office use and especially in connection with drawing tables where the light is to be adjusted to different angles and at different ends of the table.

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 side elevation of the complete hanger. Fig. 2 is a longitudinal vertical section showing the inner end of the same in detail. Fig. 3 is a top plan view of a fragmentary portion of the rear end of the casing and elements disposed therein. Fig. 4 is an enlarged transverse section through the block and casing in the line 4—4 of Fig. 1. Fig. 5 is a vertical longitudinal section through the movable head and connections therebetween. Fig. 6 is a transverse section through the same.

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 ceiling block or head which is supported upon the ceiling or like support 11 and which is provided with a web 12 inwardly and downwardly extended from the same upon which is formed a flange 13. The block 10 is of circular formation and is provided with a central aperture through the flange 13 carried thereby through which is positioned the upper extremity of a tube 14. The tube 14 is threaded at its upper extremity upon which an annulus 15 is adapted to be engaged downwardly from the upper end of the tube 14 and support the tube within the flange 13. The tube 14 is formed with an outturned flange 16 from its lower extremity upon which is supported a drum 17 and adapted for rotation thereabout, the drum 17 being hollowed centrally for the reception of the flange 16 and also for the introduction of the electric wires 18′ 18″ which are extended downwardly from the block 10 through the tube 14 into the drum 17.

Loosely disposed about the tube 14 is a casing 18 which is provided at its forward extremity with an upwardly extended bracket 19 which is turned upon itself inwardly at its upper extremity in which is supported a roller 20 adapted to ride over the outer edge of the flange 13 upon the upper face thereof. The rear extremity of the casing 18 is provided with brackets 21 in which are supported rollers 22 for engagement against the under face of the flange 13 and of the casing 18 when positioned about the tube 14. The casing 18 is provided with a transverse brace 23 which is provided intermediately with a circularly formed bearing for the reception of a stud 24 depended centrally from the roller or drum 17 for the purpose of supporting the drum in rigid position. The drum 17 is provided with an endless chain 25 which is engaged about the upper end thereof and which is extended rearwardly through the casing where it is passed over idlers 26 to prevent the rubbing of the same against the casing 18 and to enable the operator to rotate the drum readily and easily. The drum 17 is provided with partitions 27 and 28 which are annularly formed in spaced relation about the periphery of the same and which form spaces for the reception of the chain 25 at the upper end of the drum 17, the electric wire 18′ intermediately thereof and the opposite electric wire 18″ at the bottom. The electric wire 18′ passes from the central portion of the drum 17 to the

side thereof between the partitions 27 and 28 where it is wound about the drum 17 and passed rearwardly therefrom for engagement over pulleys 29 and 30 which are mounted in the rear end of the casing 13 upon brackets 31 and 32 respectively. The opposite electric wire 18″ passes from the interior of the drum 17 through the side thereof and is wound about the lower end of the drum whence it is passed forwardly into a tube 33 which is outwardly extended from the casing 18 and supported thereby. The casing 18 is diagonally cut away at its forward lower portion and is provided with a U-shaped channel member 34 which extends from the lower rear end of the casing 18 forwardly in parallel with the tube 33. The wire 18′ which passes over the pulleys 29 and 30 is slidably engaged in the channel member 34 and extends forwardly therein where it is engaged upon a bracket 35 which is slidably mounted upon the channel member 34. The opposite wire 18″ which is positioned in the tube 33 is carried forwardly therein where it is engaged over idlers 36 and 37 mounted in a cross-arm 38 disposed upon the ends of the tube 33 and channel member 34.

The block 10 is provided about its upper edge with a guard 39 which surrounds the same and is slidably engaged at its lower edge with an upwardly projected flange 40 which is carried upon the casing 18 for the purpose of closing communication between the same. As the tube 33 is centrally disposed from the forward end of the casing 18 a pulley 41 is positioned at one side of a web 42 formed within the casing 18 to guide the wire 18″ from the lower end of the drum 17 into the tube 33. The pulley 29 is employed and disposed at an angle for the purpose of guiding the wire 18′ directly into the channel 34 to reduce the friction between the wire 18′ and the chamber 34. The bracket 35 which is carried upon the channel member 34 is mounted upon flanged rollers 42′ which are engaged upon the upper opposite edges of the channel member 34 and are adapted for rotation thereon to reciprocate the bracket 35 thereover. The bracket 35 is provided centrally with arms 43 which are depended therefrom and extend downwardly from the opposite sides of the channel member 34 where they are diverged to rotatably support a drum 44. The arms 43 are provided intermediately thereof with a hollow shaft 45 which is rotatably disposed thereon and which carries at its opposite extremities copper contact bars 46 which are engaged rotatably with suitable rigid contacts 47 carried within a casing 48 disposed upon the outer faces of the arms 43. Disposed about the shaft 45 is a sleeve 49 which is rigidly carried by the arms 43 and which carries adjacent one extremity a cylindrical casing 50 which is rotatably disposed thereon and provided with a coil spring 51, one extremity of the spring 51 being rigidly connected to the cylindrical casing 50 while the opposite extremity thereof is rigidly secured to the sleeve 49, the casing 50 being carried by the drum 44 for the purpose of normally retaining the same in tensional relation to the spring 51. The wire 18′ which is positioned in the channel member 34 is engaged upon the bracket 35 and extended laterally and over the side thereof where it is engaged in the casing 48 and connected to the contacts 47. The wire 18″ which enters the bracket 35 from the opposite end of the channel 34 is extended over the opposite side of the bracket 35 and is secured to the contact 47′. The wires 57 and 58 of the lighting cord 18‴ are secured to the rotary contacts 46 to close a circuit through the contacts 47 and 47′, the cord 18‴ being extended inwardly from the periphery of the drum 44 upon which it is wound. The arms 43 are curved into tubular formation at their lower extremities in which is positioned a tube 52 which is formed for the reception of a second or lower tube 53 which is in telescopic relation therewith and which is adapted for slidable movement relative thereto in order to lengthen the bracket to extend the electric lamp downwardly. The lower tube 53 is provided with a socket 54 upon its lower extremity in which is fitted a ball 55 which is carried upon the upper end of a lamp socket 56 and which is held in engagement with the socket 54 by the tension of the spring 51 acting upon the lighting cord 18‴ extended downwardly about the drum 44 and connected in the socket 56. The tubes 52 and 53 are frictionally engaged with one another for the purpose of the retention of the lower tube 53 when the same is drawn downwardly.

The operation of the device is as follows:—When it is desired to swing the lamp into the desired angle the lower tube 53 is grasped by the operator and drawn into such angle. This action causes the rotation of the casing 18 upon the rollers 20 and 22 which engage upon the opposite faces of the flange 13 and which admits of the swinging of the tube 33 together with the channel member 34. The drum 17 is caused to rotate therewith and when it is desired to adjust the electric lamp longitudinally upon the channel member 34 the operator grasps the chain 25 and draws the same downwardly thereby causing the rotation of the drum 17 dependently of the casing 18 and thereby draws the wire 18″ longitudinally in the tube 33 and channel member 34 causing the reciprocation of the bracket 35. When the lamp is adjusted to the desired position longitudinally upon the channel member 34 the lower tube 53 is grasped and

drawn downwardly to the desired location drawing the lighting cord 18''' taut to rotate the drum 44 which thereby increases the tension of the spring 51. The frictional engagement between the tube 52 and 53 is of necessity sufficient to offset the tension of the spring 51 and the tube 53 is thereby caused to remain in a downward position. The current which is carried over the wires 18' and 18'' disposed in the tube 33 and channel member 34 passes through the copper contacts 47 and 47' into the rotary contacts 46 where it is conveyed to the lighting cord 18''' about the drum 44 and thence through the tubes 52 and 53 to the lamp sockets 56. The sleeve 49 is terminated intermediately of the hollow shaft 45 for the purpose of admitting of the passage of wires 57 and 58 from the contact 46 disposed concentrically within the cylindrical casing 45.

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

1. A device as specified including a block secured to a ceiling, a flange formed on said block, a casing carried by said flange, a drum rotatably mounted within said block, an electric wire extended through said block and wound about the lower end of said drum, a tube forwardly extended from said casing, said wire being extended from said drum into said tube, a second electric wire extended through said block and engaged about the central part of said drum, a channel member forwardly extended from said casing beneath said tube, said second wire being extended from said drum into said channel member, a head engaged across the outer extremities of said tube and said channel member, idlers disposed in said head for the reception of said first wire from said tube and means adjustably disposed on said channel member for supporting an electric lamp and connecting the ends of said wires to the same.

2. In a device as specified the combination of a block, a casing rotatably disposed and depended from said block, a tube forwardly extended from said casing, a channel member forwardly extended from said casing in parallel relation with said tube, said tube and said channel member adapted to convey electric wires from said block and said casing and means adjustably positioned on said channel member for supporting an electric lamp.

3. A device as specified comprising a block, a casing rotatably disposed on said block, a tube forwardly extended from said casing, a channel member forwardly extended from said casing beneath said tube, a bracket adjustably mounted on said channel member, an electric wire disposed in said tube and said channel member and engaged with said adjustable bracket, a drum mounted in said casing adapted for rotation to reciprocate said bracket, a tube depended from said bracket, a second tube telescopically disposed within said first tube, a drum mounted on said bracket, a wire positioned over said drum through said tubes, said wire being connected with said wire in said channel member and a lamp socket adjustably disposed upon the lower extremity of said second tube.

4. A device as specified comprising a ceiling block, a casing rotatably depended from said block, a drum mounted in said casing, electric wires extended through said block into said casing about said drum, a tube outwardly extending from said casing, a channel member carried by said casing in parallel relation with said tube and conveying one of said electric wires, a head positioned across the outer ends of said tube and said channel member, idlers disposed in said head for the reception of said electric wire in said tube, a bracket reciprocally disposed on said channel member and connected to said wires, arms depended from said bracket, a drum mounted in the lower end of said arms adapted to receive said wires, a spring disposed between said arms for engagement with said drum to tensionally hold the wire thereon in a wound position, a tube carried upon the lower extremities of said arms, a second tube telescopically mounted on said first tube, a semi-spherical socket disposed on the lower extremity of said second tube, a lamp socket carried by said tube and a ball disposed on said lamp socket for engagement in said semi-spherical bearing, said lamp socket being connected to the lower extremities of said wires.

5. A hanger as described comprising a block, a casing pivotally depended from said block, a drum horizontally and rotatably disposed in said casing, outwardly extended members carried by said casing, a bracket reciprocally disposed on said members, a lamp socket adjustably mounted on said bracket, electric wires engaged through said block, and on said casing, said wires extended outwardly through said members and connected to said bracket and to said lamp socket, and a chain disposed about said drum for rotating the same, said drum adapted to move said wires to admit of the longitudinal adjustment of said bracket on said members.

6. A hanger as specified comprising a ceiling block, a casing rotatably depended from said ceiling block, a flange annularly formed on said block, rollers carried by said casing and engaged with said flange for supporting said casing, a drum rotatably and horizontally disposed in said casing for the reception of electric wire depended through said block and said casing, a tube outwardly extended from said casing adapted to slidably receive one of the wires, a channel member

outwardly extended from said casing in parallel relation with said tube adapted to receive the opposite of the wires, idlers mounted at the extremities of said tube and said channel members for the reception of the wire in said tube, the wire in said tube being extended downwardly from the forward end of said tube into said channel member to join said wire in said channel member, a bracket mounted on said channel member for longitudinal movement and connected to said wires at their point of join— ture, said drum in said casing adapted to rotate the wires in said tube and said channel members to admit of the adjusting of said bracket and a lamp socket adjustably depended from said bracket.

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

WILLIAM McCANSE. [L. S.]

Witnesses:
WALDO WILLIS,
G. G. COUDILL.