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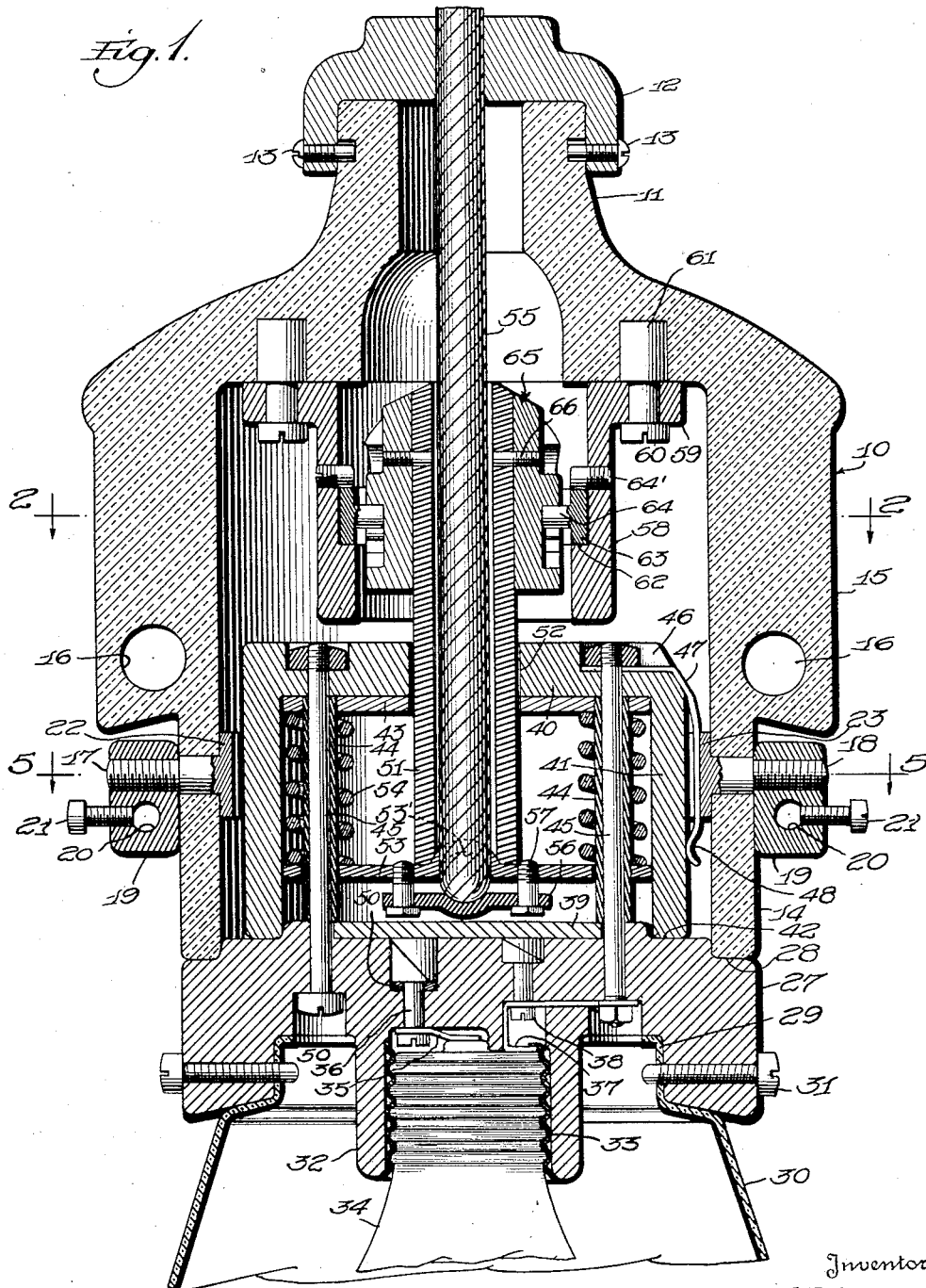
I. W. NYE ET AL

2,029,251

COMBINED LAMP STRUCTURE AND HANGER

Filed March 16, 1933

2 Sheets-Sheet 1



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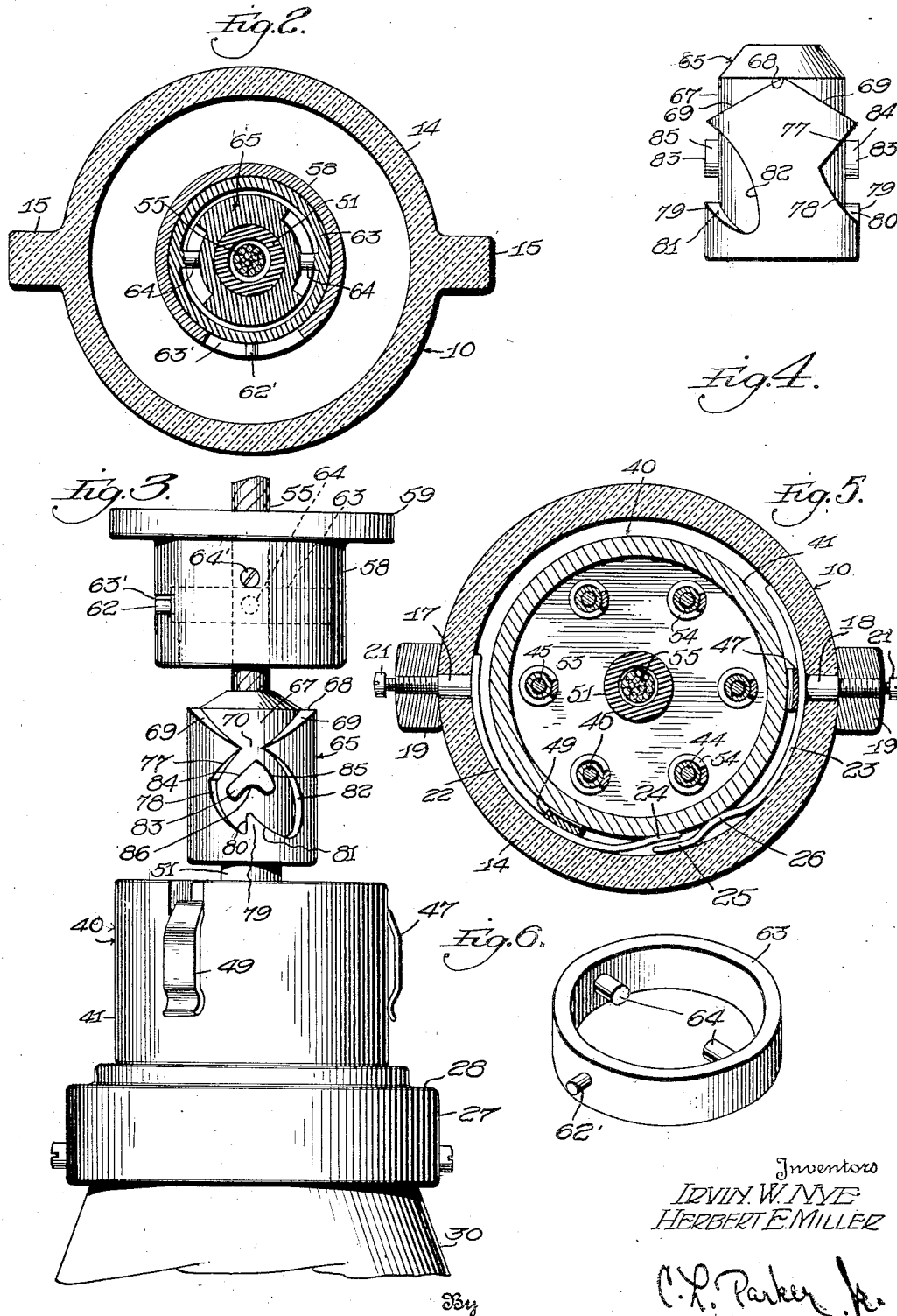
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COMBINED LAMP STRUCTURE AND
HANGER

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11 Claims. (Cl. 240—66)

This invention relates to combined lamp structures and hangers and more particularly to a combined street lighting fixture and supporting means therefor.

5 It has been the common practice to releasably support street lighting fixtures with looped wires leading to the fixture together with releasable means to permit the fixture to be lowered where-
10 by it may be serviced when necessary. Such structures have been open to a number of serious objections and disadvantages. For example, the releasable means has had no mechanical connection with the lighting fixture itself but has been arranged above the fixture thus necessitating a
15 pole height substantially greater than the height of the lighting element above the road or street. Moreover, it has been necessary to provide absolute cut-outs for the lighting circuit to prevent any possibility of injury to workmen when the
20 lamp is lowered. Furthermore, the provision of loops in the feed wires for the lamps has been necessary in order to permit the lamps to be lowered, but the lowering of the lamp flexes and bends the wires, thus frequently breaking them
25 and interrupting service and requiring repairs. The looped wires are further disadvantageous for the reason that they are frequently broken due to swinging in the wind, and they interfere very frequently with other line wires or structures
30 adjacent the lights.

The commonly used types of street fixtures are further disadvantageous for the reason that the light structures themselves swing in the wind and wholly or partially break the circuit through the
35 light contacts, thus causing serious radio interference. A further disadvantage lies in the fact that the structures are wholly unattractive in appearance because of the necessary structural elements employed, and particularly because of the
40 over-all vertical length of the structure.

The present invention has for its principal object the provision of a street lighting fixture or similar structure wherein the fixture and the releasable supporting means therefor are directly
45 mechanically associated with each other in such a way as to materially reduce the size and to increase the attractiveness of the fixture, and to provide an efficient mechanical action through which the lamp may be lowered and raised into
50 position.

A further object is to provide novel means for resiliently locking the vertically movable elements in operative position and at the same time maintaining efficient electrical contact which is
55 not disturbed through the swinging of the lamp

in the wind, thus preventing the creation of radio interference.

A further object is to provide a structure of the character referred to wherein the provision of the usual absolute cut-out referred to above is eliminated through the provision of means within
5 the lamp structure for automatically disconnecting the vertically movable elements from the circuit as the lamp is lowered, thus preventing any danger of injury to workmen.

A further object is to provide such a lamp structure wherein an automatic cut-out switch is provided within the structure and wherein the vertically movable elements operate to maintain the switch in open position when the latter is in normal operation and to permit the switch to close
15 when the lamp is lowered so as to maintain the series circuit through the remaining lamps of the series.

A further object is to provide a street fixture
20 hanger wherein the lighting element and associated parts are adapted to be lowered from operative position without lowering the body of the lamp to which the wires are connected, thus eliminating the necessity for swinging wires together
25 with their obvious disadvantages.

A further object is to provide a novel form of releasable supporting means for the vertically movable elements which embodies the invention disclosed in the copending application of Herbert
30 E. Miller, Serial No. 650,154, filed January 4, 1933, in combination with the remaining elements of the lamp structure to utilize the resilient contact fixing means for efficiently maintaining the movable lamp elements in operative position.

A further object of the invention is to combine such a releasable locking means with the other elements of the structure within the lamp body to reduce the over-all height of the fixture, thus
40 permitting the use of a mast arm arranged below the usual height of such elements together with a consequent saving in pole height.

A further object is to provide novel resilient means for firmly holding the parts in operative position to prevent relative movement between
45 the releasable contacts, and to adequately protect the electrical elements of the device against interference by the weather.

A further object is to provide a lamp structure which effects a material saving in installation and maintenance costs.

Other objects and advantages of the invention will become apparent during the course of the following description.

In the drawings we have shown one embodiment of the invention. In this showing,

Figure 1 is a central vertical sectional view through the device,

5 Figure 2 is a section on line 2—2 of Figure 1,

Figure 3 is a fragmentary side elevation of the vertically movable portions of the device shown separated from the supporting means therefor,

10 Figure 4 is a side elevation of the supporting head shown in Figure 3 looking in a direction at right angles thereto,

Figure 5 is a section on line 5—5 of Figure 1, and,

15 Figure 6 is a detail perspective view of the floating supporting ring.

Referring to Figure 1, the numeral 10 designates a porcelain or similar member forming the body of the device. This body is provided with an upwardly extending hollow axial portion 11 to which a cap 12 is secured by screws 13. The body may be supported at its upper end by any suitable means (not shown) and such means may support the body rigidly, or loosely in accordance with standard practice. The body 10 includes a downwardly extending cylindrical portion 14 open at its lower end. The body 10 is provided with the usual ribs 15 having openings 16 adjacent their lower ends to receive the loops of the lead-in wires in accordance with standard practice, although these wires need not be connected to the pole by swinging loops for reasons which will become apparent.

20 Binding posts 17 and 18 project through the cylindrical portion of the body, preferably at diametrically opposite points, and the outer ends of the binding posts are threaded or otherwise secured to connecting lugs 19. Each of these lugs is provided with an opening 20 to receive the end of the lead-in wire, and such wire is secured in position by screws 21. As shown in Figure 5, the binding posts are respectively provided with curved metallic strips 22 and 23. These strips are of substantial length and are arcuate throughout the greater portions of their lengths to correspond to the curvature of the inner face of the wall 14 and lie thereagainst. The strips 22 and 23 are preferably formed of resilient material which is a good conductor of electricity and the strip 22 has one end offset inwardly as at 24. The adjacent end of the strip 23 has its end 25 normally tending to spring inwardly into engagement with the end 24, and a curved portion 26 formed in the strip 23 is operative in a manner to be described to break the contact across the ends 24 and 25 when the device is in operation.

25 A lamp supporting block 27 is arranged beneath the body 10 and is annularly recessed as at 28 to receive the lower end of the wall 14 to form a substantially tight joint therewith. The block 27 is recessed as at 29 to receive the upper cylindrical end of a suitable reflector 30, and the reflector is secured in position in any suitable manner such as by screws 31 threaded through the block 27. The lamp supporting block is provided with a central axial depending annular member 32 in which is arranged a threaded shell 33 receiving the threaded upper end of a lamp 34. The base contact of the lamp is connected by a clip 35 through a binding post 36 which receives its current in a manner to be described. The shell 33 receives its current through a clip 37 secured in position by a securing bolt 38. The binding post 36 and bolt 38 are inserted from the top of the block 27 and their upper ends are covered by an insulating plate 39 preferably re-

cessed in the upper face of the block 27 and flush therewith.

A housing 40 is arranged within the body 15 and is provided with a depending cylindrical portion 41 having its lower end seating in an annular recess 42 formed in the upper face of the block 27 to center the housing 40 with respect thereto. The housing 40 is formed of insulating material and a metal plate 43 is preferably arranged against the lower face of the upper end portion of the housing. This plate is apertured to receive a plurality of sleeves 44 formed of insulating material and surrounding bolts 45. Any suitable number of the sleeves 44 and bolts 45 may be employed, and six of these elements have been shown for the purpose of illustration. In practice, it has been found that only three sleeves and three bolts are required.

20 The upper and lower nuts and heads of the bolts 45 are arranged in suitable recesses in the housing 40 and block 27. One of the recesses in the housing 40 is cut away as at 46 to receive the upper end of a spring contact member 47. The upper end of this member is secured beneath the nut of the adjacent bolt 45 and the lower end of the spring contact member turns inwardly as at 48 into engagement with the wall of the housing to tend to urge the portion of the contact member thereabove outwardly, as shown in Figures 1 and 5, in engagement with the contact strip 23. A contact member 49, similar to the contact member 47, is electrically connected at its upper end to one of the bolts 45, such as the bolt adjacent the contact member 49 shown in Figure 5. Such bolt is electrically connected in any suitable manner to the binding post 36, as by means of a clip 50. It will be apparent that the contact members 47 and 49 are adapted to remain in engagement with the contact strips 23 and 22 respectively while partaking of a substantial degree of rotation with respect thereto. As previously stated, the shell 33 of the lamp socket receives its current through the clip 37, and as shown in Figure 1, this clip may extend to the bolt to which the contact member 47 is connected, or a wire may extend from such bolt to the bolt 38.

30 A sleeve 51 is arranged axially of the device and projects downwardly through the housing 40 through an opening 52 formed therein. A circular plate 53 is arranged against the lower end of the sleeve 51 or formed integral therewith, and the plate 53 is provided with an arcuate recess 53' to receive the outwardly turned lower end of a cable 55 extending downwardly through the sleeve 51. Compression springs 54 surround the sleeves 44 and have their ends engaging against the plates 43 and 53. A clamping member 56 engages the lower end of the cable 55 and is secured in clamping engagement therewith by screws 57 threaded in the plate 53. The cable 55 extends upwardly through the cap 12 and passes around suitable pulleys (not shown) by means of which it may be raised and lowered for a purpose to be described.

35 A sleeve 58 is arranged in the upper portion of the body 10 and is flanged at its upper end as at 59. Screws 60 secure the flanges 59 to sockets 61 embedded in the body 10. The sleeve 58 is of smaller internal diameter at its lower end than at its upper end, thus forming an annular shoulder 62 on which is supported a floating ring 63. This ring is free to partake of limited rotation about its axis for a purpose to be described, and upward movement of the ring is prevented 75

by screws 64' threaded through the sleeve 58. The ring 63 is shown in detail in Figure 6, and it will be noted that it is provided with diametrically opposite inwardly extending pins 64 which may be formed integral with the ring. The ring 63 is preferably provided with means for limiting its rotation for a purpose to be described. For example, the ring may be provided with an outstanding pin 62' operative in an arcuate slot 63' formed in the sleeve 58.

A head 65 surrounds the upper end of the sleeve 51 and is secured thereto by screws 66. This head is substantially identical with the corresponding element shown in the copending application of Herbert E. Miller, Serial No. 650,154, previously referred to. One side of the head 65 is shown in Figure 3, and the opposite side of the head is identical and need not be illustrated in detail. The head 65 is cut away in a manner to be described to form an inner portion 67 of substantially cylindrical curvature. The upper extremity of the portion lying outwardly of the reduced portion 67 terminates in two upper edges 68 from each of which the outer portion of the head diverges downwardly to form cam faces 69. Each pair of cam faces referred to have their lower ends spaced at 70, as shown in Figure 3, to form a passageway or entrance opening for downward movement of one of the pins 64 there-through. Beneath the entrance opening 70, one side of the head forms a guide face 77 which coincides at its lower end with the upper end of a cam face 78. A guide boss 79 is arranged at the lower end of the cam 78 and one side of this boss is vertical as at 80. The other side of the boss 79 extends downwardly and outwardly from the pointed upper end of the boss to form a cam face 81. The lower end of the cam face connects to an upwardly and then inwardly extending cam face 82 which terminates at its upper end at the lower end of the adjacent cam face 69. Within the cut-out portion formed between the faces 77 and 78 and the face 82, the head is provided with an outwardly extending lug 83. This lug has a pointed or edged upper extremity from which it diverges downwardly on opposite sides to form a cam face 84 and a guide face 85. The pointed upper end of the lug 83 is offset to one side of the entrance opening 70 for a purpose to be described. The bottom of the lug 83 is provided with a recess 86 to receive one of the pins 64 of the floating ring, and the recess 86 is offset to one side of the pointed upper end of the boss 79 to arrange it in vertical alinement with the upper end of the cam face 81, for a purpose to be described.

The operation of the device is as follows:

The parts of the device normally occupy the position shown in Figure 1. The lead-in wires are looped through the openings 16 in the usual manner, and the ends of the wires are inserted in the openings 20 and secured in position by the screws 24. As previously stated, the wire need not be looped inasmuch as the portions of the device to which the wires are connected do not partake of vertical movement under any conditions. The elimination of the wire loops obviously does away with the crystallization and breaking of the wires incident to the swinging of the wires with the usual installations, and the absence of the loops also prevents interference with other wires or structures. Since the body 10 does not partake of vertical movement, breakage of the wires usually occurring through the raising and lowering of the lights also is prevented.

The springs 54 exert an upward force against the plate 43 and a downward force against the plate 53. The bolts 45 definitely fix the housing 40 against upward movement with respect to the lamp block 27, and accordingly the lower edge of the housing 40 is maintained in firm engagement with the upper face of the block 27. The downward force exerted by the springs 54 against the plate 53 tends to pull downwardly on the sleeve 51 surrounding the cable, and this force is transmitted to the head 65 thus causing the sockets 86 to exert a downward force on the pins 64. The force of the springs is sufficient to efficiently maintain the pins 64 of the sockets 83 against movement under the influence of vibration or the swinging of the fixture in the wind. Moreover, this spring tension exerted against the housing 40 holds the housing and the block 27 in its uppermost position with the recess 28 in firm engagement against the lower end of the body 10. Thus it will be apparent that the springs operate to prevent relative movement between any of the parts, and accordingly there is no tendency during the operation of the device for the contacts 47 and 49 to move with respect to the contact strips 23 and 22. This fact, together with the resiliency of the contacts 47 and 49, operates to maintain positive electrical engagement between the respective contacts referred to, and radio interference accordingly is prevented.

As previously stated, the contact strip 23 is provided with a curved portion 26 inwardly of its free end, and when the parts are in the operative positions shown, the curved portion 26 is engaged by the cylindrical wall 41 of the housing 40, as shown in Figure 5, to disengage the contact ends 24 and 25. The design of the lamp obviously may be such as to provide the necessary gap between the contacts 24 and 25 to prevent arcing thereacross. When the device is in operation, current flows from one of the lead-in wires to one of the binding posts 19 such as the left hand binding post in Figure 5 and thence flows through contact strip 22, contact member 49, through the adjacent bolt 45 and contact strip 50 (see Figure 1) to the binding post 36. The binding post 36 is connected to the base contact of the lamp through the contact member 35, and from the shell of the lamp base, current flows through contact 37, through the bolt 35 to which it is connected, thence through contact member 47 and contact strip 23 to the other binding post. As is well known, street lighting fixtures ordinarily are connected in series, and the breaking of the circuit through one light obviously breaks the circuit through the series of lights. When the lower lamp structure is moved downwardly in the present construction, the housing 40 is released from the curved portion 26 of the contact strip 23, whereupon the contact 25 of this member moves inwardly into engagement with the contact end 24. Thus the circuit is maintained through the remaining lights of the series until the device is again placed in normal operation.

When it is desired to lower the movable portions of the lamp structure for repairs, replacement, etc., the operator pulls the free end of the cable 55, thus moving the plate 53, sleeve 51 and head 65 upwardly against the tension of the springs 54. The upward movement of the head obviously moves the bosses 83 upwardly with respect to the pins 64 and accordingly these pins move relatively downwardly and engage the cam

faces 81. This action immediately causes relative rotation between the head 65 and ring 63 and since the ring is relatively light while the parts connected to the head 65 possess substantial inertia, the ring 63 will partake of rotation with respect to the head 65.

The pull on the cable 55 is continued until the upper limit of movement of the head 65 is reached at which time the pins 64 will be arranged at the lower extremities of the cam faces 81. At this time the pins 64 will be arranged out of vertical alinement with the bosses 83, whereupon the cable 55 may be released to permit the head 65 to move downwardly, and the pins 64 will follow the cam faces 82 to rotate the ring 63 in the reverse direction until the pins 64 pass through the cut-out portions 70. At this time, the lower and inner lamp structure will be wholly unsupported and may be lowered by the cable 55. As soon as the housing 40 passes beneath the curved portion 26 of the contact strip 23, the free end of this member will move inwardly to short circuit the lamp across the contact ends 24 and 25, and this action occurs substantially simultaneously with the releasing of the contact members 47 and 49 from the contact strips 23 and 22, and accordingly there will be no interruption in the service of the other lamps in the series.

After the necessary servicing has been completed, the lower lamp structure may be returned to normal position by pulling upwardly on the cable 55. As the cable 55 is pulled, the housing 40 will enter the lower end of the body 10, and will engage against the curved portion 26 of the contact strip 23 to break the circuit across the contact ends 24 and 25. Substantially simultaneously, the contact strips will be engaged by the contact strips 47 and 49 to restore the circuit through the lamp 34 in the manner previously described.

The releasing of the movable portions of the structure and the vertical movement imparted to such portions of the structure takes place without effecting any substantial rotation, since the negligible inertia of the ring 63 substantially eliminates any tendency for the movable lamp structure to rotate. Ordinarily, therefore, the releasing and replacing of the movable lamp structure takes place with the parts occupying the correct relative positions with respect to the stationary portions of the lamp structure, such as the contacts 22 and 23. Similarly, the lamp structure usually will return upwardly toward normal position with the entrance openings 70 in vertical alinement with the pins 64. This vertical alinement however, is not essential to proper operation of the device, since the movable lamp structure may partake of substantial rotation with the contacts 47 and 49 remaining in engagement with their respective contact strips. Similarly, alinement of the pins 64 with the entrance openings 70 is not essential since misalignment is corrected by the inclined cam faces 69. If the movable lamp structure is returned toward normal position with the pins 64 out of vertical alinement with the entrance openings 70, the pins will engage the cam faces 69 whereupon the ring 63 will be rotated until the pins 64 enter the openings 70. The substantial inertia of the vertically movable parts, in practice, prevents rotation of such parts, and the cam faces 69 accordingly effect rotation of the ring 63 in the manner stated. The length of the slot 63' limits the rotating movement of the ring 63 to insure the positioning of the parts with the

contacts 47 and 49 arranged within the limits of the contact strips 22 and 23.

As the pins 64 move relatively downwardly as the head 65 moves upwardly, the pins contact with the cam faces 84 due to the offsetting of the upper end of the bosses 83 from the openings 70. The engagement of the pins 64 with the cam faces 84 again causes rotation of the ring 63 in one direction until the pins leave the cam faces 84, whereupon continued elevation of the head 65 brings the pins into engagement with the cam faces 78 to reverse the rotation of the ring 63 until the pins 64 engage the vertical faces 80. At such time, the head 65 will have reached its upper limit of movement whereupon the cable is released to lower the head 65 and permit the pins 64 to enter the sockets or recesses 86.

At approximately the time the pins 64 are arranged between the cam faces 69, the lamp head 27 will engage the lower end of the body 10 and the various movements of the ring 63 up to the point where the pins 64 engage the vertical faces 80 will take place against the tension of the springs 54, as will be apparent. The releasing of the head 65 from such point accordingly releases the tension of the springs 54 only partially, and the pins 64 will be maintained in the recesses 86 under the tension of the springs as previously stated, whereby all of the parts will be efficiently maintained in their operative positions.

From the foregoing description it will be apparent that the provision of supporting means above the lamp structure is eliminated and the compact arrangement of parts permits the light to be arranged at the desired elevation, usually twenty-two feet above the road level, with the use of shorter poles and lower mast arms than ordinarily are required. The elimination of the separate supporting means above the lamp structure also materially improves the appearance of the fixture. As previously stated, the connections to the lead-in wires all remain in their normal positions when the movable lamp structure is lowered, and thus the disadvantages of looped lead-in wires are eliminated.

The use of six of the springs 54 is not at all essential, since the device is fully operative with two springs and their associated elements diametrically oppositely arranged. It is preferred however, that at least three springs be employed due to the even circumferential distribution of spring tension by means of which all of the parts can be held in their desired positions. As previously stated, the springs serve several functions. They tend to act downwardly with respect to the head 65 and upwardly with respect to the housing 40 and lamp block 47 and the latter action holds the lamp block firmly in engagement with the lower end of the body 10 to prevent relative movement between the parts and to protect the inner structure of the device against the weather. The maintenance of firm engagement between the contacting portions of the body 10 and block 27 also prevents any relative rotation between the parts which would result in movement between the contacts 47 and 49 and their respective contact strips, and thus an efficient electrical engagement is maintained and radio interference is prevented. The springs also serve the additional simultaneous function of efficiently holding the pins 64 in the recesses 86 to prevent accidental disengagement of the movable lamp elements.

It is to be understood that the form of the invention herewith shown and described is to be

taken as a preferred example of the same and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

We claim:

1. A lighting fixture comprising a vertical body having a cylindrical portion open at its lower end, a bodily movable structure having portions adapted for insertion within the lower end of said body, said structure including a pair of elements relatively movable vertically with respect to each other, the lower element being provided with a lamp socket and having an upper face portion engageable with the lower end of said body, a supporting element arranged within said body and relatively rotatable with respect thereto, radial supporting pins carried by said supporting member, the upper element of said movable structure being provided with a pair of downwardly facing notches adapted to receive said pins, and spring means urging the elements of said structure toward each other.

2. A device constructed in accordance with claim 1 provided with a pair of contacts carried by said lower element and electrically connected to the lamp socket, and a pair of contacts arranged within and carried by said body and frictionally engageable with said first named contacts when the upper face portion of said lower element is in engagement with the lower end of said body.

3. A device constructed in accordance with claim 1 provided with a pair of contacts carried by said lower element and electrically connected to the lamp socket, and a pair of arcuate contacts arranged within and carried by said body and extending circumferentially thereof and engageable with said first named contacts when the upper face of said lower element is in engagement with the lower end of said body, said structure being relatively rotatable with respect to said body to bring said notches into cooperative relationship with said pins.

4. A device constructed in accordance with claim 1 provided with a pair of contacts carried by said lower element and electrically connected to the lamp socket, and a pair of arcuate contacts arranged within and carried by said body and extending circumferentially thereof and engageable with said first named contacts when the upper face of said lower element is in engagement with the lower end of said body, said structure being relatively rotatable with respect to said body to bring said notches into cooperative relationship with said pins, said arcuate contacts having free ends arranged in overlapping relationship and normally movable into engagement with each other, one of said arcuate contacts having a portion engageable by said structure to maintain the overlapping portions of said arcuate contacts out of engagement when the upper face portion of said lower element is in engagement with the lower end of said body.

5. A lighting fixture comprising a body having a vertical cylindrical portion open at its lower end, a bodily movable structure having portions adapted for insertion within the lower end of said body, said structure comprising a pair of upper and lower relatively vertically movable elements the lower of which is provided with an upper face portion engageable with the lower end of said body, a lamp socket carried by said lower element, coacting locking means carried by said body and said upper element and engageable with each other when in vertical alinement upon downward

movement of said upper element, a housing carried by and arranged above said upper element a plate carried by said upper element and arranged within the lower portion of said housing, compression springs arranged between said plate and the upper end of said housing to tend to move said elements vertically toward each other, a cable connected to said upper element and extending through the top of said body, a pair of contacts carried by the lower element and connected to said socket, and a pair of contacts carried by said body and frictionally engageable with said first named contacts when the upper face portion of said lower element is in engagement with the lower end of said body.

6. A device constructed in accordance with claim 5 wherein said locking means comprises a member carried by and rotatable with respect to said body and provided with radial pins, and lugs carried by said upper element and provided with downwardly opening notches engageable with said pins, said last named contacts being arcuate and extending circumferentially of said body, said structure and said body being relatively rotatable to bring said notches into vertical alinement with said pins.

7. A lighting fixture comprising a vertical body having a cylindrical portion open at its lower end, a bodily movable structure having portions adapted for insertion within the lower end of said body, said structure including a pair of elements relatively movable vertically with respect to each other, the lower element being provided with a lamp socket and having an upper face portion engageable with the lower end of said body, the upper element and said body constituting a pair of relatively vertically movable members, a supporting element connected to one of said members and relatively rotatable with respect thereto, radial supporting pins carried by said supporting member, the other member of said pair being provided with notches engageable by said pins upon downward movement of said upper element, and spring means urging said pair of elements toward each other.

8. A lighting fixture comprising a body having an open end, a bodily movable structure having portions adapted for insertion within the open end of said body, said structure including two relatively movable elements one of which is provided with a face engageable with the end of said body, coacting locking means carried by said body and the other of said elements, common spring means tending to urge said locking means into engagement with each other and said face into engagement with the end of said body, a lamp socket carried by said first named element, a pair of contacts carried by said structure and having electrical connection with said socket, and a pair of arcuate contacts arranged circumferentially of and carried by said body and frictionally engageable with said first named contacts when said face is in engagement with the end of said body, said arcuate contacts being provided with free ends extending into overlapping relationship, one of said arcuate contacts having a portion engageable by said structure to be held out of engagement with the other arcuate contact when said face is in engagement with said body, said structure and said body being relatively rotatable to bring said locking means into engagement with each other.

9. A lighting fixture comprising a vertical body having a cylindrical portion open at its lower end, a bodily movable structure having por-

tions adapted for insertion within the lower end of said body, said structure including two relatively movable elements arranged one above the other, the lower element being provided with a face engageable with the lower end of said body, coating locking means carried by said body and the upper element and engageable by downward movement of said upper element when the coating locking means are in vertical alinement, spring means tending to urge said elements toward each other, a lamp socket carried by said lower element, a pair of contacts carried by said structure and electrically connected to said socket, and a pair of arcuate contacts carried by and arranged within said body and extending circumferentially with respect thereto and engageable with said first named contacts when said lower element is in engagement with the lower end of said body, said structure and said body being relatively rotatable to bring said locking means into engagement with each other.

10. A lighting fixture comprising a vertical body having a cylindrical portion open at its lower end, a bodily movable structure having portions adapted for insertion within the lower end of said body, said structure including two relatively movable elements arranged one above the other, the lower element being provided with a face engageable with the lower end of said body, coating locking means carried by said body and the upper element and engageable by downward movement of said upper element when the coating locking means are in vertical alinement, spring means tending to urge said elements toward each other, a lamp socket carried by said lower element, a pair of contacts carried by said structure and electrically connected to said socket, and a pair of contacts carried by and mounted within said body and frictionally engageable with said first named contacts when said lower element is in engagement with the lower end of said body, said last named con-

tacts having portions arranged in overlapping relationship and normally engageable with each other, one of said last named contacts having a portion engageable by said structure to maintain it out of engagement with its associated contact when said first named element is in engagement with the lower end of said body.

11. A lighting fixture comprising a vertical body having a cylindrical portion open at its lower end, a bodily movable structure having portions adapted for insertion within the lower end of said body, said structure including two relatively movable elements arranged one above the other, the lower element being provided with a face engageable with the lower end of said body, coating locking means carried by said body and the upper element and engageable by downward movement of said upper element when the coating locking means are in vertical alinement, spring means tending to urge said elements toward each other, a lamp socket carried by said lower element, a pair of contacts carried by said structure and electrically connected to said socket, and a pair of arcuate contacts carried by and arranged within said body and extending circumferentially with respect thereto and engageable with said first named contacts when said lower element is in engagement with the lower end of said body, said structure and said body being relatively rotatable to bring said locking means into engagement with each other, said last named contacts having free end portions arranged in overlapping relationship and normally engaging each other, one of said last named contacts having a portion engageable with said structure to maintain it out of engagement with its associated contact when said first named element is in engagement with the lower end of said body.

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