

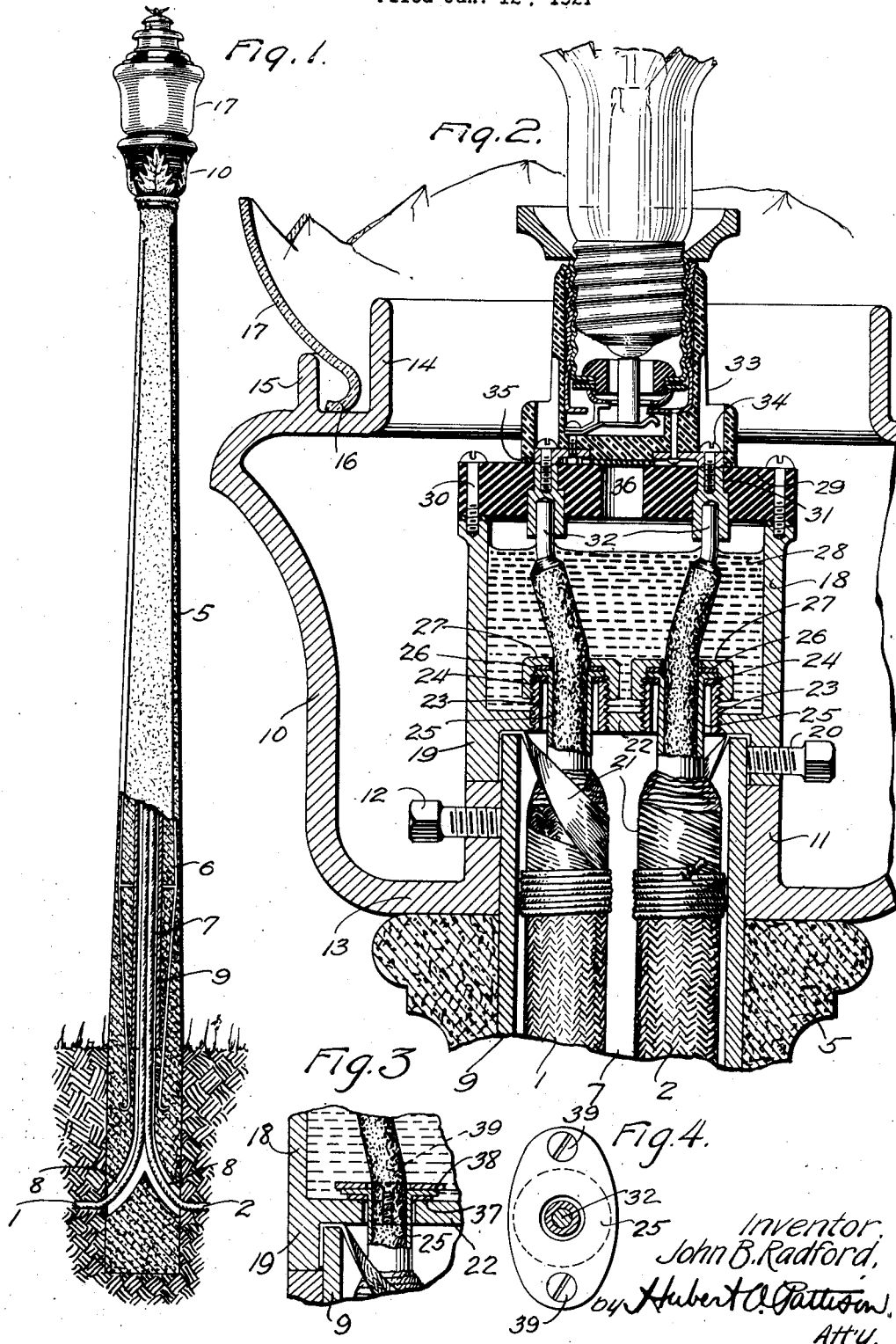
Oct. 21, 1924.

1,512,039

J. B. RADFORD

STREET LIGHTING ACCESSORY

Filed Jan. 12, 1921



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UNITED STATES PATENT OFFICE.

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STREET-LIGHTING ACCESSORY.

Application filed January 12, 1921. Serial No. 436,778.

To all whom it may concern:

Be it known that I, JOHN B. RADFORD, a subject of the King of Great Britain, residing at Valeria, Province of Quebec, Canada, have invented certain new and useful Improvements in Street-Lighting Accessories, of which the following is a full, clear, concise, and exact description.

This invention relates to street lighting accessories and comprises a fixture equipped with current supply cables which terminate in a lamp socket, thus obviating the necessity of providing special wires between the cable terminals and the lamp socket.

An object of the present invention is to provide a street lighting standard so constructed that the current supply cables may be passed up through the interior thereof and have their ends supported at the top of the standard.

A feature of the invention consists in the provision of a combined terminal box and lamp socket adapted to be carried at the top of a standard and so constructed that it will support the weight of the current supply cables within the standard, the said cables having their ends attached to the terminals of the terminal box.

Another feature of the invention relates to the provision of a unitary structure attachable to the top of a lighting fixture standard which serves as an ornamental cap for the standard, carries a combined terminal box and lamp socket, and supports a globe shielding the electric lamp.

Other purposes and advantages of the invention will be set forth in detail in the following specification and particularly pointed out in the appended claims.

In the accompanying drawings,

Fig. 1 is a side elevation, partly in section, of the improved lighting fixture showing in detail the construction of the passages for the reception of the current supply cables.

Fig. 2 is an enlarged sectional view, partly broken away, of the combined cap, terminal box and lamp socket.

Fig. 3 is a fragmentary, vertical sectional view illustrating a modified means for fastening the lead sheath of the cables.

Fig. 4 is a top plan view illustrating the modified form of fastening for the lead sheath of a cable and showing the cable in vertical section.

Referring now to the drawings in detail, in which like reference numerals designate similar parts throughout the several views, 5 represents a tapered standard constructed of concrete reenforced with rods 6, the lower end of the standard being imbedded in the earth. A cylindrical passage 7 is formed in the standard 5 which divides at its lower end to form two oppositely inclined passages 8 which pierce the sides of the standard at diametrically opposite points, forming openings in the standard below the surface of the ground. A liner tube 9 is fitted within the passage 7, the lower end of which terminates at a point above the inclined passages 8, as shown in Fig. 1, the upper end projecting above the top of the standard 5 as is shown in Fig. 2.

Although in the embodiment of the invention shown in the drawings the standard of the fixture is illustrated as constructed of concrete, it is to be understood that the use of such a standard is in no way essential and that standards constructed of iron or other suitable material may be employed with equally desirable results and without departing from the spirit and scope of the invention.

Heretofore in the use of street lighting fixtures employing a standard, and especially where the standards are formed of concrete, it has been the common practice to bury a terminal box at the foot of the standard in which the ends of the current supply cables are fastened. Special wires are then connected at one end to the terminal box and run up the standard, the upper ends of the wires being connected to the terminals of the lamp socket. This practice has the disadvantage, however, that the terminal box is inaccessible, and by the use of special wires connecting the current carrying cables and the lamp socket, several extra joints are added which are objectionable both from an operating and a maintenance standpoint. These objections are overcome in the improved construction, which is the subject matter of the present invention, in which the current carrying cables 1 and 2 are introduced into the standard 5 through the passage 8, and are then passed up through the interior of the standard through the liner pipe 9, the ends of the cables being secured to a combined terminal box and lamp socket

which is of such construction that the weight of the cables within the standard is carried thereby and an electrical connection is made between the conductors and the lamp socket, and electrical connections are also made between the metallic body of the terminal box, the metallic sheaths of the cables and the metallic armoring of the cables, as will be hereinafter more fully described, so that these parts of the cables are grounded to prevent trouble from induced currents due to the sheath or armoring.

The combined terminal box and lamp socket, hereafter to be described, is mounted within an ornamental cap 10, provided with an inwardly extending annular flange 11, the inner diameter of which is of a size to receive the projecting end of the liner pipe 9 and is secured to the said pipe by means of a set screw 12, the bottom 13 of the cap 10 resting upon the top of the concrete standard 5. The upper end of the cap 10 is open and is provided with two parallel annular flanges 14 and 15, the former longer than the latter, which receive between them the bead 16 formed on the lower edge of the lamp shielding globe 17.

The combined terminal box and lamp socket comprises a cup-shaped body portion 18, provided with a depending annular flange 19 which is of a diameter slightly greater than the external diameter of the liner pipe 9, the purpose of which will be hereinafter explained. The flange 19 is fitted over the projecting end of the liner pipe 9 and is held in place by means of a set screw 20, the lower edge of the flange 19 resting upon the upper edge of the flange 11 which is a part of the cap 10.

The cup-shaped body portion 18 is provided with means for supporting the current carrying cables 1 and 2, which, as previously explained, are passed upwardly through the liner pipe 9. One of the wrappings of metallic armor 21 of each of the cables 1 and 2 is unwound and is fitted within the clearance afforded between the flange 19 and the liner pipe 9, and is clamped in this position when the set screw 20 is tightened. The ends of the cables 1 and 2 are passed upwardly through two openings made in the bottom wall 22 of the cup-shaped body portion 18. These openings are screw threaded to receive screw threaded bushings 23 which support on their upper edges washers 24. The metallic sheath 25 of the cables 1 and 2 is formed or flanged outwardly between washer 24 and washer 26 which engage the upper surface of the wrappings. Internally screw threaded caps 27, which are threaded upon the bushings 23, serve to tightly clamp the wrappings 25 between the washers 24 and 26. The clamping of the two wrappings 21 and 25 of the cables 1 and 2, as previously described, serves to

securely hold the ends of the cables in their elevated positions; and form an electrical connection between the metallic coverings of the cable and the terminal casing, thereby forming a continuous electrical path for leakage or induced currents, and forming means for grounding the metallic sheaths and armoring of the cables.

A cover 29 constructed of porcelain or any other suitable insulating material is secured to the upper edge of the body portion 18 by means of screws 30, this cover having recessed holes therein to receive terminal lugs 31, and a hole 36 formed in the center thereof through which terminal filling compound 28 may be introduced into the cup-shaped body portion 18 of the terminal box. Terminal lugs 31 receive the ends 32 of the cables 1 and 2 which are scraped free of all insulation, and are secured thereto by soldering.

A lamp socket 33 of the usual construction is secured to the porcelain cover 29 by means of screws 34 which pass into the terminal lugs 31, a rubber gasket 35 being interposed between the upper face of the porcelain cover 29 and the lower face of the socket 33 to insure a tight joint. In the drawings the lamp socket 33 is illustrated equipped with a usual form of series cutout, but it is to be understood that a cutout of this or any other suitable type may or may not be employed, since the specific construction of the lamp socket forms no part of the present improvement.

In place of the means for fastening the metallic sheath of the cables shown in Fig. 2, a securing means of the type illustrated in Figs. 3 and 4 may be employed. In this construction the metallic sheath 25 is formed or flanged outwardly and is clamped between washers 37 and 38 by means of screws 39 which pass through registering openings in the washers and into screw threaded openings in the bottom wall 22 of the cup-shaped terminal box 18.

What is claimed is:

1. An electric lighting fixture comprising a standard having a passage therein adapted to receive cables, a tubular member projecting beyond the top of the standard and communicating with the passage therein and a terminal box having a depending annular flange adapted to fit over the tubular projecting member, and adapted to receive and clamp wrappings of cables between it and the said tubular member.

2. An electric lighting fixture comprising a standard having a longitudinal passage therein adapted to receive a cable, a tubular member projecting beyond the top of the standard and communicating with the passage therein, and a cup-shaped terminal box mounted upon said tubular member and having an opening in its bottom wall to receive the end of the cable disposed within the passage in the standard, said ter-

minal box and said projecting tubular member cooperating to form a clamp for the wrapping of said cable.

3. An electric lighting fixture comprising a casing having a longitudinal passage therein, a terminal box mounted on the end of said casing, a cable in said passage terminating in said terminal box, and a wrapping on said cable clamped between said casing and said terminal box to support the weight of said cable.

4. An electric lighting fixture comprising a metal casing having a longitudinal passage therein, a terminal box mounted on the end of said casing, a cable in said passage terminating in said terminal box, and a metal wrapping on said cable clamped between said casing and said terminal box.

5. An electric lighting fixture comprising a standard having a passage therein, a tubular member disposed in and projecting beyond the top of said standard, an armored cable disposed in said tubular member, and a terminal box secured to said tubular member and cooperating therewith to receive and clamp the wrappings of said cable.

6. An electric lighting fixture comprising a standard having a longitudinal passage therein, a metal tubular member disposed in and projecting beyond the top of said standard, an armored cable having a metal wrapping disposed in said tubular member, and a terminal box having a downwardly

projecting member mounted on said tubular member and cooperating therewith to clamp the wrapping of said cable.

7. An electric lighting fixture comprising a standard having a longitudinal passage therein adapted to receive a cable, a metal pipe projecting beyond the top of said standard and communicating with the passage therein, and a cup-shaped terminal box mounted upon said tubular member and cooperating therewith to clamp the metal wrapping of said cable and to form a continuous path for the leakage of induced currents.

8. An electric lighting fixture comprising a standard having a longitudinal passage therein, a metal pipe projecting beyond the top of said standard and communicating with the passage therein, an armored cable disposed in said passage and passing through said pipe, a cup-shaped terminal box mounted upon said tubular member and an opening in the bottom wall of said box to receive the end of said cable, said terminal box cooperating with said projecting tubular member to form a clamp for the metal wrapping of said cable and to form a continuous path for the leakage of induced currents.

In witness whereof, I hereunto subscribe my name this third day of January A. D., 1921.

JOHN BODEN RADFORD.