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D. B. HANNA

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STREET LIGHTING EQUIPMENT

Filed June 10, 1925

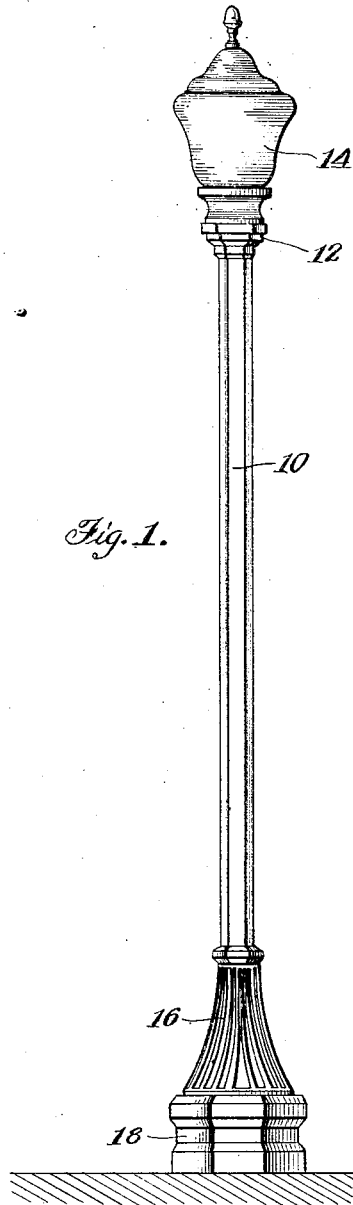


Fig. 1.

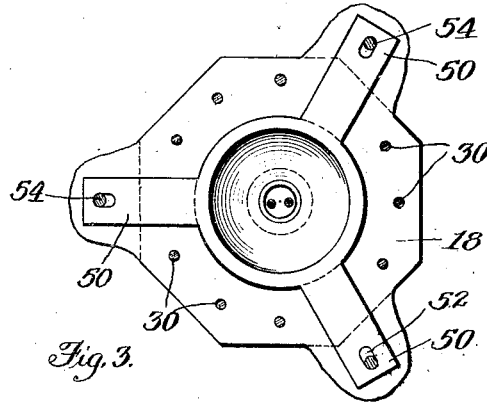


Fig. 3.

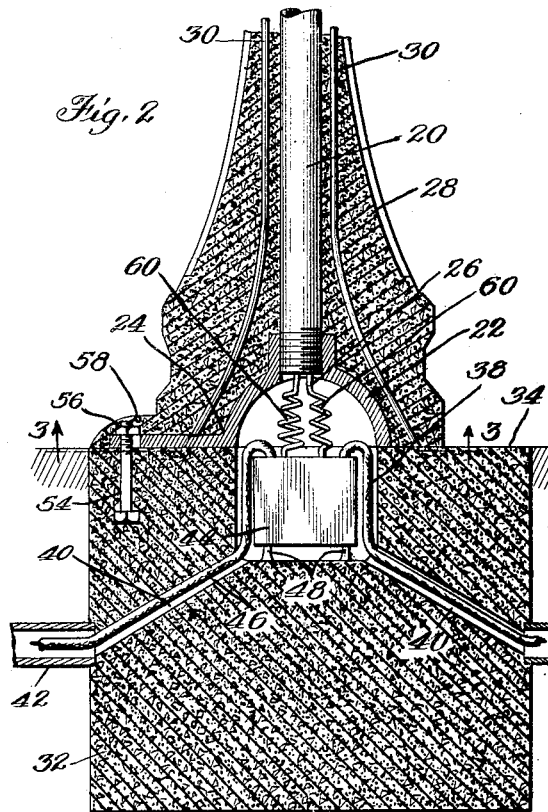


Fig. 2.

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STREET-LIGHTING EQUIPMENT.

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My invention relates to outdoor illumination, and more specifically to the illumination of streets and roadways.

In the concrete installations of the prior art, a lamp post or the like is installed at a given point and nearby it is positioned a box or container, usually of metal, to which the main power leads are extended, and from which individual conductors for supplying current to the lamp extend. This box frequently contains an electrical transformer or transmitter, although in certain systems it is a mere connection box. The use of such a box necessitates two installations; and a box adequate to protect its contents from the weather and from such pedestrian and other traffic as it may be exposed to, is an expensive item. The wires from the box to the lamp itself must be protected and have suitable fittings both where they leave the box and where they enter the post.

In installations employing metal posts a small door is provided in the bottom of the post and the transmitter simply sets inside. In such an installation, when a vehicle accidentally smashes the post, the transmitter is likely to be wrecked also.

Among the objects and advantages of the present invention may be enumerated:

First, to protect the transmitter more effectively than in either of the prior art installations.

Second, to provide a practical construction materially cheaper to manufacture and install than either of those at present in use.

Third, to provide such a construction that will be more satisfactory in service.

Fourth, to provide such a construction that will be more convenient for repair purposes.

Further objects and advantages of my invention will become apparent as the description proceeds.

In the accompanying drawings:

Figure 1 is a side elevation of a street lamp according to the invention.

Figure 2 is a central vertical section through the lower portion of the lamp post and its foundation.

Figure 3 is a bottom view of the post, looking from line 3—3 of Figure 2 in the direction of the arrows.

In the embodiment of the invention selected for illustration, I have illustrated a concrete post comprising a shaft 10 surmounted by a capital 12 supporting the

lighting unit 14, and a pedestal 16 mounted on the base 18.

A central tube 20 provides an axial bore up the post from the dome 22 of the spider 24, through which conductors 26 carry current to the lighting unit. The concrete 28 may be reinforced by a series of rods 30 in addition to the central tube 20, if so desired.

The foundation 32 has been illustrated as a concrete block with its surface at 34 substantially flush with the adjacent terrain 36. A recess 38 is formed in the upper surface of block 32 registering with the dome 22 of the spider. One or more passage-ways 40 lead from the bottom of the recess 38 diagonally downward and outward, preferably terminating at such a level that the conduit 42 through which the power mains are carried from one post to the next, may open directly into the passage-ways without change of level.

Within the recess 38, suitable transmitting means 44 is positioned. This transmitting means may or may not comprise an electrical unit capable of changing the voltage or amperage, or both, of the current in the power mains 46. In some instances it will be a mere electrical connection. It is preferably set on small pedestals 48 spaced slightly from the bottom of the recess. This arrangement, combined with the downward slant of the passage-ways 40 is of material advantage in case moisture should reach the recess.

The spider 24 is provided with a plurality of lugs 50, in this instance three, extending beyond the contour of the base 18 and having slotted holes 52 to receive suitable hold-down means 54 illustrated as bolts embedded in the concrete of the foundation. The bolts preferably have detachable nuts 56 at their upper ends, and the whole assembly during ordinary service periods is preferably capped over with grouting at 58, which also seals the joint between the post and its support.

Where an iron post is employed the recess materially protects the transmitter, and the door may be omitted, if desired, thus saving expense and securing a stronger post.

As compared with previous concrete installations, the extra box is completely eliminated but the transmitter is better protected than before. To get access to conductors 26 and 46 and the transmitter, the grouting can be easily knocked away, two

of the hold-downs disconnected, and the post tipped a little and swung around the remaining hold-down as a vertical pivot to uncover the recess. Suitable coils in the conductors
 5 26 will readily permit such movement.

Without further elaboration, the foregoing will so fully explain the gist of my invention, that others may, by applying current knowledge readily adapt the same for
 10 use under various conditions of service, without eliminating certain features which may properly be said to constitute the essential items of novelty involved, which items are intended to be defined and secured to me by the following claims:

I claim:

1. A street lamp comprising a foundation and a post mounted thereon, said post comprising a base and a superstructure, said
 20 base having a spider with a central dome, said post having a bore extending up from the top of said dome, said foundation having a recess under said dome and passageways extending from said recess outward
 25 and downward to drain said recess, an underground conduit level with the ends of said passages and communicating with them, electrical conductors in the bore of said post, transmitting means in said recess
 30 establishing operative electrical connection between said conduit and post conductors, said spider being of metal and having a plurality of peripherally spaced lugs extending out beyond said base, hold-down
 35 means fastening said lugs to said foundation, and grouting covering said lugs and hold-down means, said hold-down means being detachably connected with said lugs, and said post conductors having coiled extensible portions in said dome.
 40

2. A street lamp comprising a foundation and a post mounted thereon, said post comprising a base and a superstructure, said
 45 base having a spider with a central dome, said post having a bore extending up from the top of said dome, said foundation having a recess under said dome, electrical conductors leading into said recess, electrical conductors in the bore of said post,
 50 transmitting means in said recess estab-

lishing operative electrical connection between said recess conductors and post conductors, said spider having a plurality of peripherally spaced lugs extending out beyond said base, and hold-down
 55 means fastening said lugs to said foundation, said hold-down means being detachably connected with said lugs.

3. A street lamp comprising a foundation and a concrete post mounted thereon, said
 60 post comprising a base and a superstructure, said base having a spider, said base and foundation defining an enclosed chamber, said post having a bore extending up from said chamber, electrical conductors
 65 leadings into said chamber, electrical conductors in the bore of said post, and transmitting means in said chamber establishing operative electrical connection between said chamber conductors and post conductors,
 70 said spider having a plurality of peripherally spaced lugs extending out beyond said base, and hold-down means detachably fastening said lugs to said foundation, said base and foundation abutting on a plane flush
 75 with the surrounding terrain.

4. A street lamp comprising a foundation and a concrete post mounted thereon, said
 80 post comprising a base and a superstructure, said base having a spider, said base and foundation defining an enclosed chamber, said post having a bore extending up from said chamber, electrical conductors leading into said chamber, electrical conductors in the bore of said post, transmitting means in
 85 said chamber establishing operative electrical connection between said chamber conductors and post conductors, said spider having a plurality of peripherally spaced lugs extending out beyond said base, and hold-down
 90 means detachably fastening said lugs to said foundation, said base and foundation abutting on a plane flush with the surrounding terrain, the conductors extending past the plane of said spider having coiled extensible portions in said chamber.
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In witness whereof, I hereunto subscribe my name this 4th day of June, 1925.

DAVID B. HANNA.