C. F. MASSEY.

LAMP SUPPORTING STRUCTURE.

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1,085,145. Patented Jan. 27, 1914.

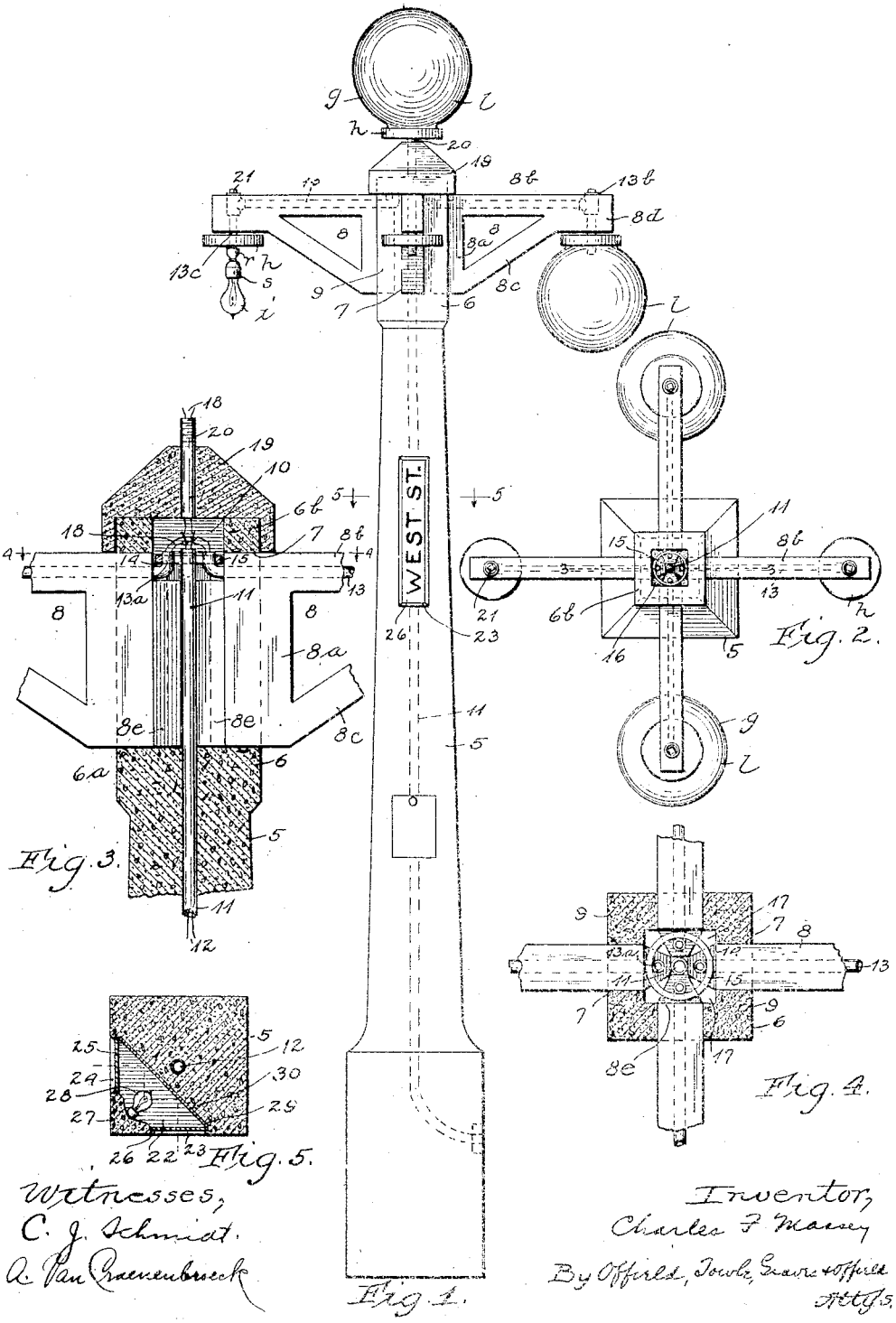

Fig. 1.

Fig. 3.

Fig. 2.

Fig. 4.

Fig. 5.

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UNITED STATES PATENT OFFICE.

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LAMP-SUPPORTING STRUCTURE.

1,085,145. Specification of Letters Patent. Patented Jan. 27, 1914.

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To all whom it may concern:

Be it known that I, CHARLES F. MASSEY, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lamp-Supporting Structures, of which the following is a specification.

My invention relates to lamp supporting structures, particularly to that class adapted for use for street lighting purposes.

Among the important objects are to provide a structure of which the parts can be readily formed up of concrete or other cement material; to provide a construction and arrangement in which lamp supporting brackets are detachable in order that shipment can be made with greater safety and in more compact form; to provide improved means for primarily supporting brackets in place while grouting is applied to fill in the spaces between the inner ends of the brackets in order to form a compact, solid and rigid structure; to provide conduit pipe in each bracket which will act also as reinforcing for such bracket and which has an upturned inner end to form a hook for receiving the means for primarily holding the bracket arms in proper position while the grouting is applied; to provide the conduit pipe in each brackets with upper and lower outlets at the end of the bracket so that lamp structures may be applied either to the tops of the brackets to be held in up-right position, or to be applied to the lower sides of the brackets to hang therefrom; to provide a conduit pipe at the interior of the post whose upper end extends between the inner end of the brackets to form an abutment therefor; to provide a compartment at the upper end of the post head into which the post conduit and the bracket conduits extend and in which compartment connections may be made between main supply conductors in the post conduit and lead conductors running through the bracket conduits to the lamp structures; to provide a cap for the post head constructed of concrete and having a duct for supporting a top lamp structure and which communicates with said compartment, and in general to provide improved, simplified and more desirable construction and arrangement in a lamp supporting structure of the class referred to.

In the accompanying drawings showing the various features of the invention: Figure 1 is an elevational view with one of the lamp structures removed and the end of one bracket in section; Fig. 2 is a plan view with the cap removed; Fig. 3 is an enlarged sectional view of the post head taken on plane 3—3, Fig. 2, showing the inner ends of the brackets supported therein just before application of the grouting material; Fig. 4 is a sectional view taken on plane 4—4, Fig. 3, and Fig. 5 is a sectional view taken on plane 5—5, Fig. 1.

Referring to the drawings a post 5 is built up integral of concrete which may be properly reinforced in any suitable manner. The head 6 is polygonal and has lateral passageways 7 each extending from the center to one of its faces for receiving the lamp supporting bracket structures 8. These passageways are formed by inserting a core in the mold, and when the core is removed only the corner posts 9 will remain between the base 6^a and top 6^b of the head, the lateral channels 7 being between these posts. As shown in the drawings, the head is rectangular and has four lateral passageways for receiving and spacing four brackets ninety degrees apart. The top 6^b of the head is hollow to form a compartment 10 for containing the electrical joints as will be described later. The post 5 has running centrally therethrough a pipe 11 which extends centrally through the head between the corner posts and terminates in compartment 10 for leading current supply conductors 12 to said compartment from the base of the post where such conductors connect with mains in the street.

Each lamp supporting bracket 8 is formed integrally of concrete or other cementitious material and comprises a body part 8^a which fits snugly into one of the passageways 7 of the head between the adjacent corner posts. Extending laterally from the upper end of the body part is an arm 8^b and extending diagonally upwardly from the lower end of the body part is the brace 8^c, the end 8^d being of rectangular cross section as shown. Extending longitudinally through the arm 8^b is the pipe 13 whose inner end 13^a is deflected upwardly and spaced a distance from the body to leave a groove 14. The outer end of this pipe terminates in a T-pipe fitting 13^b whose upper end is flush with the top

surface of the arm and whose lower end receives an extension 13^c which projects beyond the lower face 8^d of the bracket for receiving lamp supporting mechanism. The inner end 8^e of the body 8^a of the bracket is tapered and of conical form, this end being below the pipe end 13^a. Each bracket structure is reinforced in any well known manner and the piping running therethrough also serves to strengthen the structure. When the brackets are to be applied to the post the bodies thereof are inserted in the various channels 7 which they snugly fit and with the ends 8^e abutting against the pipe 11 extending through the head of the post. A ring 15 is then dropped into the groove 14 between the pipe ends 13^a and the body parts and the brackets are thus held in proper position. Such ring may be in the nature of several turns of wire looped about the pipe ends 13^a. After the brackets are thus locked in place grouting material 16 is poured into the pockets 17 between the tapered faces of the ends 8^e and the entire head structure thus becomes solid up to the tops of the brackets. When the brackets are thus secured the pipe ends 13^a all open into the compartment 10 and this compartment will accommodate the joints between the main supply conductors 12 and the leads 18 running through the pipes 13 to the lamp structures. The upper end of the post and the compartment 10 are preferably covered in order to protect the conductors and joints and I therefore provide a removable cap 19 of concrete, and this cap may serve also to support the lamp structure *l* which is supported from the end of a pipe 20 extending centrally through the cap and leading to compartment 10 so that connection can be made between the leads to the lamp and the main supply conductors.

As the pipes 13 have outlet to both the tops and bottoms of the structure ends, the lamp structures *l* may be supported in upright position on the tops of the brackets or to hang from the bracket ends as shown in the drawings. When the lamps are hung as shown, plugs 21 are screwed into the upper ends of the T-fittings 13^b to protect the leads within the piping. When the lamps are hung as shown, the threaded outer ends of the extensions 13^c receive holders *h* for globes *g*. These extensions are usually of larger sized pipe and reducer fittings *r* are therefore applied thereto on which lamp sockets *s* may be secured for receiving the lamps *i*. When the lamps on the brackets are to be supported in upright position the plugs 21 are removed and suitable pipe fittings inserted in the T-fittings to support the lamp structures, and the extensions 13^c are then preferably capped to protect the conductors within the piping 13.

The post may also be adapted for accommodating illuminated sign plates. One arrangement is clearly shown in Fig. 5. The compartment 22 is formed in the post and extends across one corner thereof in order to have the side outlets 23 and 24 which are covered with glass or other plates 25 and 26 on which the street name is painted or otherwise provided. The corner section 27 will secure one or more lamps 28 and on the rear wall 29 of the compartment a reflector 30 is provided for reflecting the light from the lamps through the letter plates.

I thus provide a lamp supporting structure in which the various parts can be readily built up of concrete or other cementitious material. The brackets being flat can be compactly packed for shipping purposes and after the post part is installed in the ground, these brackets can be quickly inserted in the head channels and the ring slipped over the pipe ends 13^a and the grouting material poured in so that the brackets are then securely held in proper position and alinement. Connections are then made between the main supply conductors and the lamp structure leads and the cap then applied. The brackets can of course be applied before the post is set into the ground if desired. If one of the brackets should at any time be broken it can be readily removed by withdrawing the ring 15 and replaced by another bracket. The entire structure has a very neat and pleasing appearance.

I do not desire to be limited to the precise construction and arrangement shown and described as changes and modifications are no doubt possible which would still come within the scope of the invention as set up in the following claims:

1. In a lamp supporting structure, the combination with a post, of a plurality of lamp supporting bracket frames, said post having a plurality of channels or pockets extending from the interior thereof to the various sides thereof, the inner ends of said brackets fitting into said channels or pockets, hooked extensions from the inner ends of said bracket frames, and a ring engaging with said hooked extensions to lock said bracket frames in said channels or pockets.

2. In a lamp supporting structure, the combination with a post, of a plurality of lamp supporting structures, said post and brackets being each formed integrally of cement material, a conduit pipe extending through each bracket structure for receiving current supply leads, the inner ends of said conduit pipes being deflected upwardly, the head of said post having a plurality of pockets or channels extending from the interior thereof to the various sides thereof, said brackets being applied with their inner ends engaging in said channels or pockets, and a ring applied about the upwardly deflected ends of said pipe conduits

for holding said brackets in said channels or pockets.

3. In a lamp supporting structure, the combination with a post formed integral of cementitious material, of a plurality of bracket frames each formed integral of cementitious material, a conduit pipe extending through each bracket frame for containing lead wires for a lamp structure supported by the bracket, the inner ends of said conduit pipes being deflected to form a hook, said post having a plurality of receiving pockets extending from the interior to the faces of the various sides thereof, a conduit pipe extending through said post and centrally between said receiving pockets, said brackets being applied with their inner ends engaging in said receiving pockets and abutting against said post pipe, a ring applied about the hook ends of said bracket pipes for holding said brackets rigidly in place in said receiving pockets, said post pipe serving to convey main supply conductors, the upper part of said head having a compartment in which said post pipe and bracket pipes terminate and which accommodates the connections and joints between said main supply conductors and lamp structure leads, and a cap for said post for covering said compartment.

4. In a lamp supporting structure, the combination with a post formed integral of cementitious material, of a plurality of lamp supporting brackets each formed integral of cementitious material, a conduit pipe extending longitudinally through each bracket adjacent the top thereof and having its inner end deflected vertically to form a retaining hook, the head of said post having a plurality of laterally extending pockets for receiving the inner ends of said brackets, a ring applied about the deflected inner ends of said pipes to lock said brackets in said pockets, said pipes serving to reinforce said brackets and serving also for accommodating current supply leads for lamp structures supported from said brackets.

In witness whereof, I hereunto subscribe my name this 20th day of January, A. D., 1913.

CHARLES F. MASSEY.

Witnesses:
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