(No Model.)

W. H. O'BEIRNE.

MEANS FOR SUSPENDING ELECTRIC LIGHTS.

No. 314,976. Patented Mar. 31, 1885.

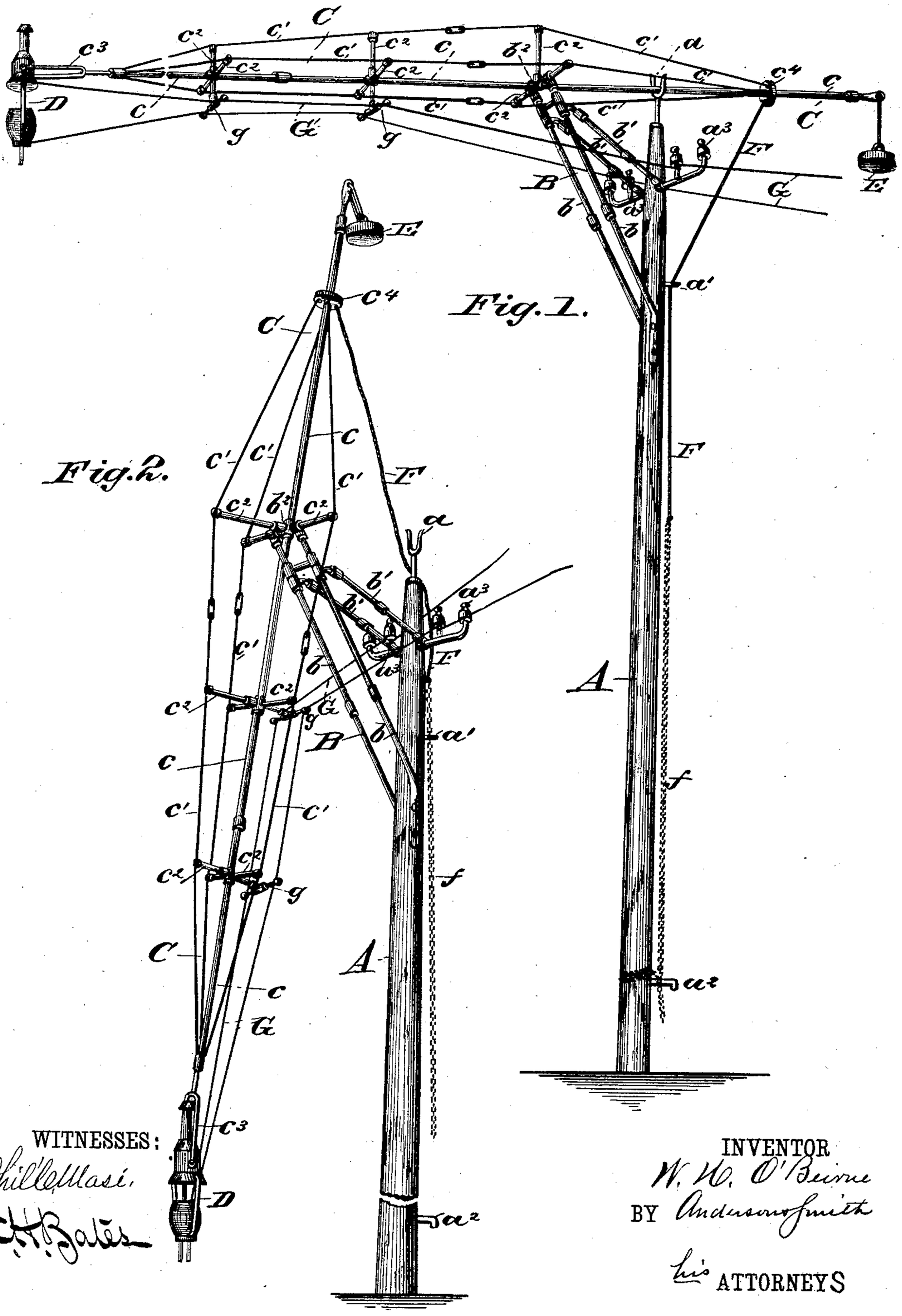

Fig. 1.

Fig. 2.

WITNESSES:

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MEANS FOR SUSPENDING ELECTRIC LIGHTS.

SPECIFICATION forming part of Letters Patent No. 314,976, dated March 31, 1885.

Application filed September 22, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. O'BEIRNE, a citizen of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Means for Suspending Electric Lights; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side view of my device, and Fig. 2 is a perspective view of the same.

The invention relates to an improved method of suspending electric lights in public streets and improved appliances therefor, being particularly adapted for use at or near the corners where two streets intersect.

The objects of the invention are to erect an economical and useful structure from which to swing the lamp, and to enable the attendant to lower and attend to the latter while standing on the ground.

The general construction of the invention is as follows: A pole of proper height similar to a telegraph-pole is erected at a suitable point, and a frame of metal tubing, preferably gas-pipe, fixed to it near its upper end. The frame inclines upward and outward from its points of attachment to the pole, and upon its upper end, which rises to a proper height above the end of the pole, is fulcrumed the frame that carries the lamp. The lamp-frame is composed of a straight piece of tubing, similar to that of the supporting-frame, and is braced on the sides and top in a manner hereinafter described. The lamp is hung in a fork fixed in the end of the frame, toward which the supporting-frame projects, the other end having attached a weight which does not quite counterbalance the lamp on the opposite side of the fulcrum. The lamp-frame is raised and lowered by means of a cord, wire, or chain fixed to the weight end of the frame, and running thence through a staple on the pole to within reach from the ground, where it is locked to the pole. A rest is fixed vertically in the top of the pole to steady the lamp-frame and keep it horizontal when elevated.

In the accompanying drawings, A represents a mast or pole of proper height having fixed vertically in its upper end the forked rest a for the accommodation of the lamp-frame. a' is a staple fixed into the upper part of the mast, and a^2 a locking device fixed below the staple into the lower part of the same. The actuating wire or chain renders through the staple, and is secured at its lower end by the locking device, which is within easy reach from the ground. a^3 a^3 are insulators, around which the electric-light wires turn in coming from their prior supports to run to the lamp. The insulators are secured to a tube fixed transversely across the mast near its upper end, so as to be out of the way of the supporting-frame.

B is the supporting-frame, composed of the tubes b b, bolted at their lower ends on each side of the mast and the upper brace-tubes, b' b'. The frame B inclines upward and outward from the mast on the side opposite the staple and locking device. b^2 is a fulcrum of proper construction between the upper ends of the tubes b b. The fulcrum is of the same height as the rest a', and the lamp-frame turns thereon.

C is the lamp-frame, composed of the straight tube c, the truss-rods c' c', and the supporting-rods c^2 c^2. The tube c fulcrums at a proper point in its length at b^2, and has fixed into its end, on the same side of the mast as the supporting-frame, the fork c^3, of metal or other suitable material. The truss-rods c' run above and on each side of the tube c, their farthest point from the same being opposite the fulcrum, where the longest set of supporters c^2 sustain them. Other sets of supporters are fixed to the tube c at proper intervals and of proper lengths to permit the truss-rods to run straight and be secured to the end of the tube near the fork. The opposite ends of the truss-rods are fixed to a collar, c^4, near the weight.

D is an electric lamp, of ordinary construction, swung between the arms of the fork so as always to hang vertically, and E is a weight hung to the opposite end of the tube c, and not quite counterbalancing the lamp.

F is a wire secured to the collar c^4 and run-

ning thence through the staple *a'*. To the lower end of the wire is fixed a chain, *f*, which continues it downward, and has its lower end secured by the locking device. By means of the wire and chain the lamp is raised and lowered, the weight making its motion easy and without jar.

G are the electric-light wires running around the insulators a^3, and thence on the insulators *g g*, fixed at proper points to the lower side of the tube *c* to the lamp.

In practice the tube *c* and the supporting-frame are made of gas-pipe, the lengths being connected by pipe-joints. The said parts are made tubular for the sake of lightness; but, if desired, solid rods of iron or other metal may be used.

The different parts may have any convenient relative proportions, but as constructed, the mast is thirty feet high, the lamp-frame thirty-one feet long, and the fulcrum four feet from the end of the mast and ten feet from the weight, thus making the lamp twenty-five feet from the end of the mast.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An electric-lamp supporter composed of a mast or pole having a proper supporting-frame fixed to its upper end, and a swinging lamp-frame having the lamp attached to one end, and a counterbalancing-weight attached to the other end and fulcrumed at a proper point between the two to the supporting-frame at a suitable distance from the mast, substantially as specified.

2. In an electric-lamp supporter, the combination of a vertical mast having a vertical rest for the lamp-frame fixed in its top and a supporting-frame fixed to the mast, and having a proper fulcrum situated at the same height as the rest and at a suitable distance from the mast, with a vertically-swinging lamp-frame carrying the lamp at one end and a counter-balance at the other and turning on the fulcrum, and proper means for actuating the lamp-frame from the ground, substantially as specified.

3. The combination, with the mast A, provided with the rest *a*, staple *a'*, locking device a^2, and insulators a^3, and the frame B, provided with the fulcrum b^2, of the trussed lamp-frame C, lamp D, weight E, wire F, chain *f*, and insulators *g g*, substantially as specified.

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

WILLIAM H. O'BEIRNE.

Witnesses:

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