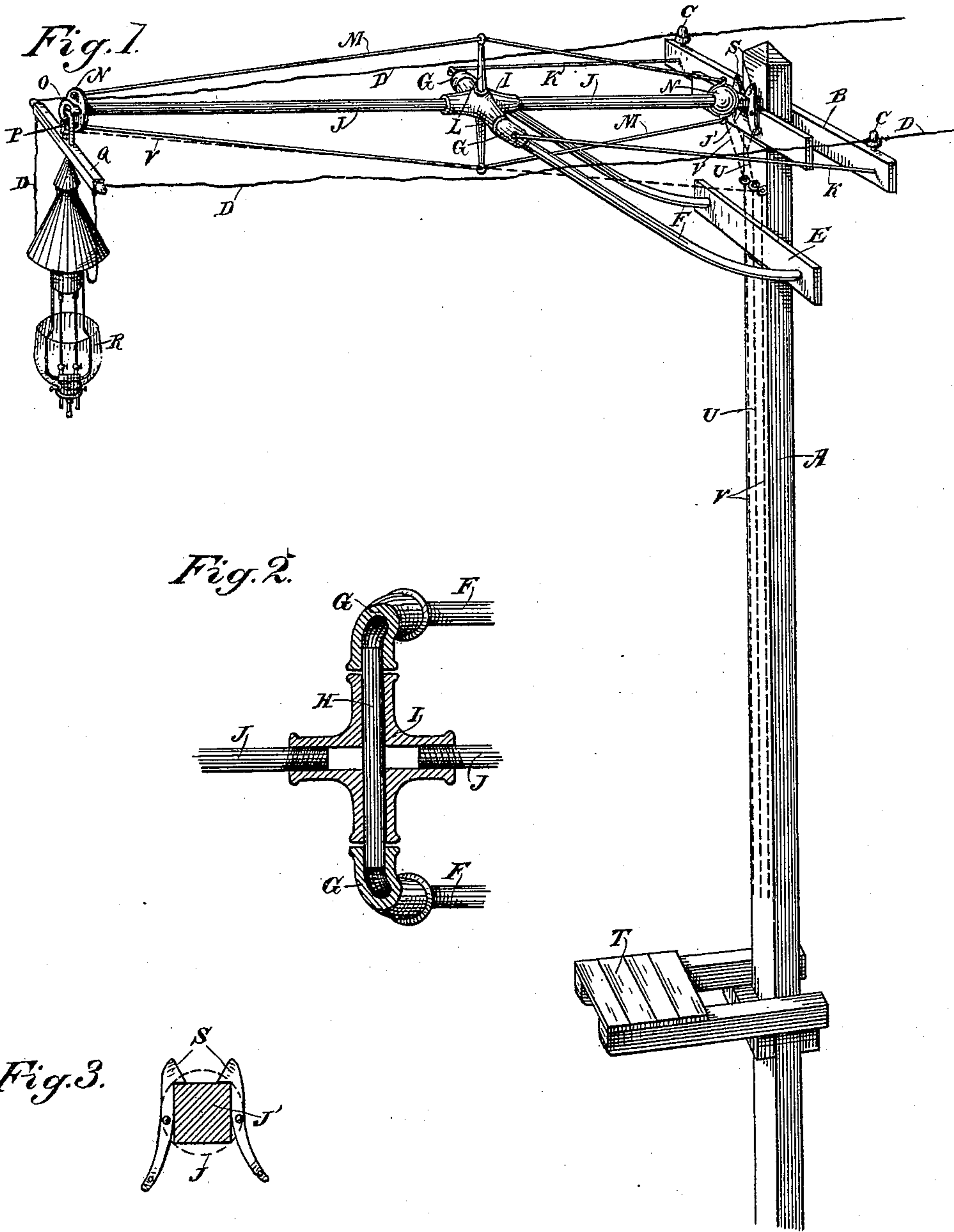


(No Model.)

J. GALLAGHER.
ELECTRIC LIGHT CRANE.

No. 471,968.

Patented Mar. 29, 1892.



Witnesses,
G. H. Hulse
H. F. Aschbeck

Inventor,
James Gallagher
By Deacy & Co
attys

UNITED STATES PATENT OFFICE.

JAMES GALLAGHER, OF OAKLAND, CALIFORNIA, ASSIGNOR OF ONE-HALF
TO JOHN A. BRITTON, OF SAME PLACE.

ELECTRIC-LIGHT CRANE.

SPECIFICATION forming part of Letters Patent No. 471,968, dated March 29, 1892.

Application filed July 13, 1891. Serial No. 399,374. (No model.)

To all whom it may concern:

Be it known that I, JAMES GALLAGHER, a citizen of the United States, residing at Oakland, Alameda county, State of California, have invented an Improvement in Electric-Light Cranes; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to certain improvements in devices for suspending electric lights at street-corners and other points; and my invention consists of the constructions and combinations of devices which I shall herein-after fully describe and claim.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of an electric-light crane embodying my invention. Fig. 2 is a detail showing in section the cross in the supporting-arm. Fig. 3 is a detail showing the latches engaging the squared end of the arm.

A is the mast from which the crane is supported and to which the conducting-wires are also led. In the present case this mast is shown with a cross bar or arm B at the top having the insulators C, to which the conducting-wires D are secured. A short distance below the cross-arm B a second cross-arm or bracket E is strongly secured, and to the ends of this arm the rods F are secured. These arms are preferably made of gas-pipe or other tubular iron for lightness and extend outward to one side of the mast A, being also curved upward and having upon their outer ends the bearings G, in which the shaft of the swinging arm is journaled.

I is a cross, which is preferably made of cast-iron, and it has the tubular bars J screwed into opposite ends of it, so that they stand in line with each other. Through the center of this cross, at right angles with the arm J, passes the journal-shaft H, which is supported in the bearings G, before described. These bearings may be of any suitable form. In the present case I have shown them in the form of ordinary coupling-elbows, such as are used in connecting lengths of gas-pipe where a change of direction is required. One end of each of the elbows is screwed upon the rods F, so that the two other ends face each other,

and they are suitably fitted to receive the ends of the journal-shaft H. The upper ends of the rods F are stayed from the cross-bar B by means of stay rods or wires K.

From the top and bottom of the cross I extend the short arms L, and tension-rods M pass through holes in the ends of these rods and extend through disks or collars N, which are fixed upon opposite ends of the rods J, where they may be made as tight as necessary by means of nuts screwing upon the ends of the rods. These rods form a sufficient brace or stiffening for the arm J to prevent its being twisted or bent out of shape.

In the outer end of the arm J is an eye O, and from this eye the link or staple P is suspended, so as to move freely within the eye. From this staple P is suspended the bar Q, and from its center depends the electric-light globe R, with the usual paraphernalia of such a device.

The wires D pass from the insulators C to each end of the arm Q, as shown, and are thence led down to the lamp, being connected with it in the usual manner for electric lights.

The inner end of the arm J is made square, as shown at J'.

S S are two latches fulcrumed upon the transverse bar B, so that they hook over the square end J', and thus hold the arm J in a horizontal position when the latches engage its inner end. The lower ends of these latches curve outwardly or are otherwise so constructed that a line or rope U may be connected with the outer ends of these latches and extend down the pole to the operator's platform T. Another rope V is connected with the inner end of the arm J, so that the lamp may be allowed to swing down within reach of the operator when the latches are disengaged.

The operation will then be as follows: By pulling upon the ropes U, connected with the latches S, they are disengaged from the inner end of the swiveled arm J, and by means of the second rope V this arm is allowed to turn upon its journal-shaft H until it stands in a vertical position, the lamp swinging in so near to the operator's platform T that it may be trimmed and anything done to it that is necessary. Afterward by pulling upon the rope

V, connected with the inner end of the arm, it is swung upward into a horizontal position and the latches will automatically engage its inner end, so as to hold it in place. By thus
5 suspending the arm of the crane from the end of the bracket, which projects to one side of the pole, I dispense with the heavy counter-weight which would be necessary upon the opposite side of the pole if the arm were jour-
10 naled upon the top of the pole, the weight of all the parts is reduced, and the device is easily operated as above described.

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

1. A crane for the suspension of electric lights, consisting of an arm having a lamp suspended from its outer end and having its opposite end made square, a mast having a
20 bracket or frame-work secured thereto and projecting to one side only, a journal-shaft by which the light-carrying arm is supported so as to turn upon the bracket, automatic latches fixed to the mast and engaging the inner
25 squared end of the arm, and ropes leading from the latches, whereby the latter may be disengaged and the arm allowed to swing

upon its journal-shaft, so as to stand in a vertical position or be drawn up into a horizontal position, substantially as herein described. 30

2. A suspending-crane for electric lights, consisting of the mast having arms fixed thereto and projecting to one side, coupling-elbows forming bearings in the ends of said arms, and a journal-shaft supported thereby, 35 a cross having tubular rods screwed into opposite ends of it to form a suspending-arm for the electric-light lamp, said arm having its inner end made square, means for suspending the lamp from the outer end of said arm 40 and connecting the conducting-wires thereto, and a gravity latch or latches engaging the inner squared end of the arm to hold it in a horizontal position, and rods whereby said latches may be detached and the arm allowed 45 to swing into a vertical position, so as to bring the lamp within reach of the operator, substantially as herein described.

In witness whereof I have hereunto set my hand.

JAMES GALLAGHER.

Witnesses:

S. H. NOURSE,

J. A. BAYLESS.