

No. 636,327.

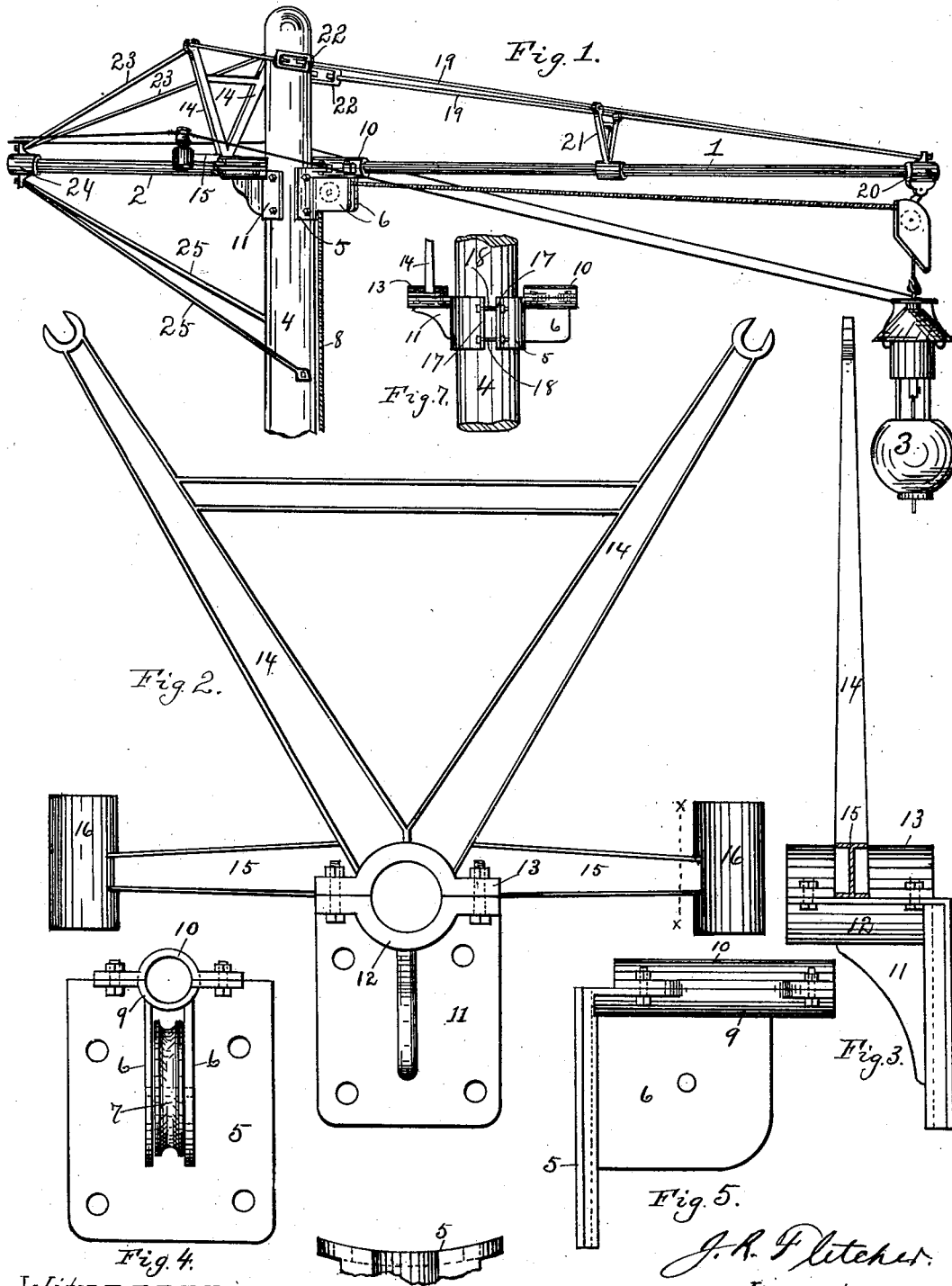
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J. R. FLETCHER.

MEANS FOR SUPPORTING AND BRACING YARD ARMS FOR ARC LAMPS, &c.

(Application filed May 20, 1899.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

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MEANS FOR SUPPORTING AND BRACING YARD-ARMS FOR ARC-LAMPS, &c.

SPECIFICATION forming part of Letters Patent No. 636,327, dated November 7, 1899.

Application filed May 20, 1899. Serial No. 717,541. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. FLETCHER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Means for Supporting and Bracing Yard-Arms for Arc-Lamps, &c.; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 the figures of reference marked thereon, which form a part of this specification.

This invention relates to improved means for supporting a yard-arm to a post, whereby said arm is maintained in a proper horizontal position under a load suspended from the outer end thereof.

The object of the invention is to provide means for connecting the said arm to the post at a central point in order that the strain or tension due to bracing it may be borne by the post and the said arm thereby maintained in a proper horizontal position to support a load suspended from its extreme outer end—such, for example, as an arc-lamp for electric lighting.

The essential features of the invention consist in constructing the arm in two sections which are attached or mounted on the pole by means of specially-designed brackets and the inner ends of the said sections being on opposite sides of the post in line with each other, so that when the said sections are braced in position they practically form one continuous arm, the post serving to withstand, practically, all the strain on the arm due to the weight of the load and the bracing of said arm.

In the accompanying drawings, Figure 1 is an elevation of the upper end of a post, showing the yard-arm, brace-rods, &c.; Fig. 2, an enlarged view of one of the brackets and spanner; Fig. 3, a sectional view of said bracket and spanner on the line *x x* of Fig. 2; Figs. 4 and 5, enlarged front and side views of the bracket for the long section of the arm; Fig. 6, a top view of one of the latter brackets, showing the curvature of the side that embraces the post. Fig. 7, an elevation of a por-

tion of a metallic post, showing the manner of attaching the brackets thereto.

The invention is especially intended for supporting arc-lamps for electric lighting, but may be applied to other uses. The yard-arm, from which the arc-lamp 3 is suspended, consists of a long and short section 1 and 2, of tube-iron, such as gas-pipe, and serves to support the suspended load from its outer end. The long section supports the said load, while the short section enables a proper connection of a series of brace-rods, by means of which the two sections are rigidly secured to the post 4. The bracket for the long section of the arm consists of a curved plate 5, which embraces the post on one side and has two outwardly-projected sides 6 6, which provide a housing and support for a sheave 7, which engages the lamp-rope 8. Projecting outwardly in a horizontal line from the upper end of said bracket and forming the top of the sheave-housing is a socket portion 9, in which the inner end of section 1 is supported and made secure by the top piece 10, which is secured to the top of the bracket. The bracket 11, which supports the short section 2 of the arm, is substantially the same in length as bracket 5, and the part that embraces the other side of the post is of the same curvature. A similar socket 12 is also formed on the upper horizontal part of said bracket, in which the inner end of the short section 2 of the arm is supported. The upper part 13, forming the top half of the socket-piece, is integral with the spreader or brace supporting arms 14 14, cross-arms 15 15, and with the insulator-sockets 16 16. This is an essential and important feature of the invention, as by casting these several supporting-arms 14 and 15 integral with the upper part of the bracket the said parts are always in the proper position when the bracket is attached. The brackets may be attached after the post has been placed in position with an assurance that the arms 14 and 15 will be in the proper relative positions. The post, as shown in Fig. 1, is of wood, and the brackets are attached, by means of nails or screws, directly thereto. In the case of a metal post, as shown in Fig. 7, the brackets are made with flanges 17, projecting from each side, and are clamped around the post by screw-bolts 18, which pass

through holes in said flanges. The upper
brace-rods 19 19 are attached to a pipe end 20
at the end of the long section of the arm, pass
over a spanner 21, mounted or supported on
5 said long section at a central point, and con-
nect with turnbuckles 22 22. Connected also
with said turnbuckles are brace-rods 23 23,
which pass over spanner or arms 14 14 and
connect with a pipe end 24 on the outer end
10 of the short section 2 of the arm. The said
short section 2 is braced to the pole by brace-
rods 25 25, which also connect with the pipe
end 24. When properly tightened by the ma-
nipulation of the turnbuckles, the two sec-
15 tions 1 and 2 of the arm become rigidly braced
against the center of the post and are main-
tained in a proper horizontal position, the
post being the main point to withstand all
the strain exerted on the arm due to brac-
20 ing said arm and the weight of the suspended
load.

Having fully described my invention, I
claim—

1. The combination with a post, of brackets
25 mounted on opposite sides thereof, an arm
consisting of two sections supported on said
brackets with their inner ends in contact with
opposite sides of said post, brace-rods con-
nected to one of said sections and to the post
30 at a point below said brackets, adjustable
brace-rods connecting the outer ends of the
arm and independent of the post, and a span-
ner to support said adjustable brace-rods at
an intervening point, whereby suitable ten-

sion may be applied to said adjustable brace- 35
rods to rigidly bind the inner ends of the arm
against opposite sides of the post.

2. The combination with a post, of an arm
consisting of two sections, the inner ends of
said sections being in contact with opposite 40
sides of the post, brackets upon which said
inner ends are supported, brace-rods con-
nected to one of said sections and to the post,
adjustable brace-rods connecting the two sec-
tions of the arm, and means for supporting 45
said adjustable brace-rods independently of
the post, whereby tension may be applied
thereto to tighten the sections of the arm in
rigid contact with the post.

3. The combination with a post, of an arm 50
consisting of sections, to wit: a long section
and a short section, the inner ends of each
section abutting on opposite sides of the post,
brackets upon which said sections are sup-
ported, a spanner projected from one of said 55
brackets, upper brace-rods connected to the
ends of said sections of said arm and sup-
ported on said spanner, adjusting means con-
nected to said upper brace-rods, and lower
brace-rods connected to the post and to the 60
end of the short section of the arm.

In testimony that I claim the foregoing as
my own I hereto affix my signature in pres-
ence of two witnesses.

JNO. R. FLETCHER.

Witnesses:

R. J. McCARTY,
C. NOE.