

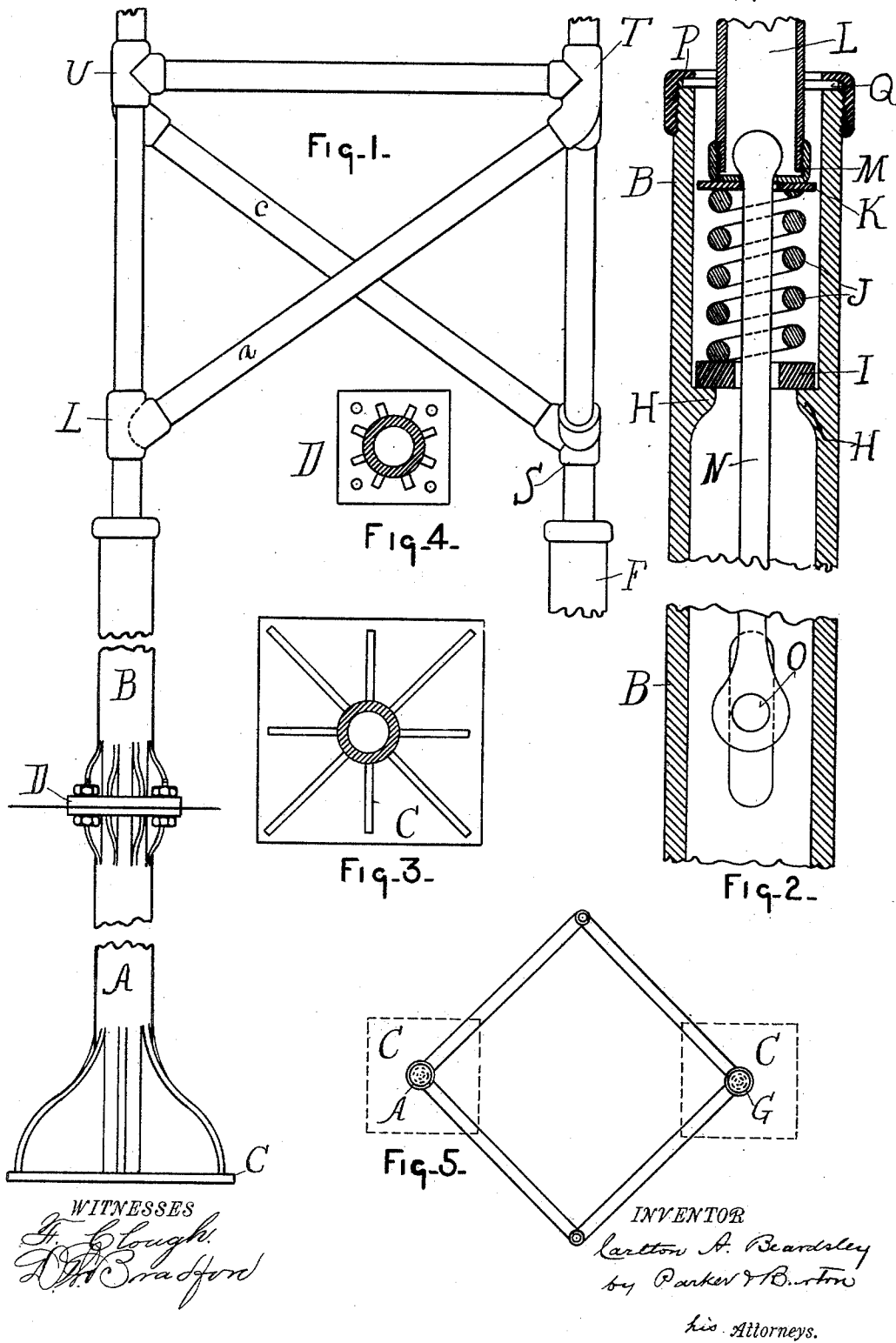
(No Model.)

2 Sheets—Sheet 1.

C. A. BEARDSLEY.
ELECTRIC LIGHT TOWER.

No. 468,186.

Patented Feb. 2, 1892.



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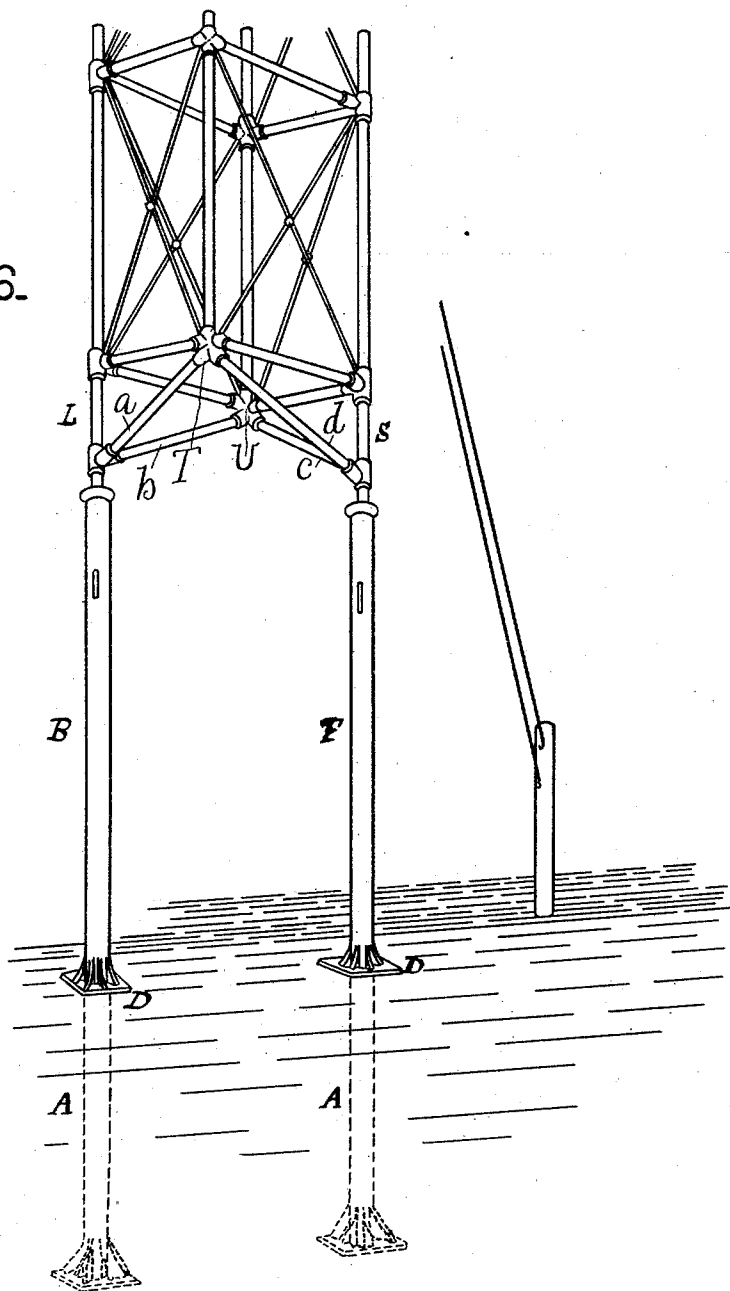
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Fig-6.



WITNESSES

WITNESSES
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INVENTOR

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UNITED STATES PATENT OFFICE.

CARLTON A. BEARDSLEY, OF DETROIT, MICHIGAN.

ELECTRIC-LIGHT TOWER.

SPECIFICATION forming part of Letters Patent No. 468,186, dated February 2, 1892.

Application filed September 13, 1890. Serial No. 364,926. (No model.)

To all whom it may concern:

Be it known that I, CARLTON A. BEARDSLEY, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Towers for Supporting Lights, of which the following is a specification.

This invention relates to skeleton or truss towers, especially such as are used for holding lights at a high elevation; and it has for its object the production of a tower so supported at the base or near the ground as to hold the upper part of the truss-work in a firm manner, but still so as to permit the upper part to swing slightly without breaking or bending the supporting-columns or the attachment to the supporting-columns.

Towers for the purpose of holding aloft electric lights are constructed of great elevation, and it is desirable that the surface of the ground over which their base extends should be as small as possible and that the lower part of the tower springing from the ground should present only a few standards, and that these standards for some distance from the ground should not be joined by cross ties or girts. It is therefore necessary that the supporting-pillars rising from the ground and underneath the truss proper should be strong in character and very firmly placed, and as the top of the tower will always swing somewhat under the force of the wind or from unequal expansion of the tubing or supporting-guys it is necessary that at some point near the bottom of the structure there should be a provision made to allow such swinging of the top without breaking or bending any of the other parts. I produce the desired result by means of the mechanism shown in the accompanying drawings, in which—

Figure 1 shows the bottom panel of the truss-work and one of the supporting-posts springing from the ground and the subterranean supporting-posts buried or sunk into the ground. Fig. 2 shows in detail the connection between the corner-post of the truss proper and the supporting-posts springing from the ground. Figs. 3 and 4 are plan views of the end plates of the supporting-posts. Fig. 5 is a diagram of a cross-section of a structure, in-

dicating the method of supporting the structure at two opposite corners. Fig. 6 shows the completed structure.

I prefer to make the truss-work square and to rest it upon two supporting-posts, one of which is placed under each of two of the opposite angles of the truss-work.

A represents a post having an anchor-plate C at its bottom end and coupling-plate D at its upper end. This post is sunk into the earth, so that the coupling-plate D is at or near the surface. A similar post (indicated at G of Fig. 5) is sunk in proper position to support the opposite corner of the truss-work. To the top of these posts are firmly bolted the supporting-posts B F. The post B is hollow and at a short distance below its upper end has an interior flange or collar H, upon which rests the ring I, supporting the spring J, above which rests the ring K, and on the ring K rests the lower end of the corner-post L of the truss-work proper. The end of the corner-post L is joined by a coupling-ring M to a headed rod N, that passes downward through spring J and ring I and is connected to the post B by a sliding joint O, this sliding joint being made in the usual way by passing a trunnion on the one part through a slot in the other part. The head of the bolt N is joined to the body of the bolt or rod so as to present a curved surface at the opening in the coupling-ring M, and this opening fits so loosely under the head of the rod as to permit of a slight motion in any direction, and the spring J, placed between the rings I and K, acts to support the truss on an elastic bearing, which permits a slight vertical movement, and by the use of the two similar supports at opposite corners I secure all the necessary vertical movement to permit the swaying spoken of.

A rubber gasket Q, held to the top of the post B by the packing-ring P, protects the interior of the post and spring from water.

The truss-work is made in the usual prismatic form with uprights and cross and brace ties and extends to any required height, and is held upright by guy-cables reaching from appropriate points on the tower to the ground at a distance from the base of the tower.

Two of the corners of the tower rest upon the pillars B F in the manner described. The other two corners T U are supported on the brace-rods *a b c d*, springing, respectively, from L and S.

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

1. The combination of a truss-tower having prismatic sides, two supporting-posts placed at opposite angles of said tower, and elastic cushions interposed between the supporting-posts and the supported corner-posts of the said truss-tower, substantially as and for the purpose described.

2. The combination of a supporting-post, a truss-work supported thereon and stayed by guys, and a connecting-rod having a socket connection with one part and a sliding-joint connection with the other part, substantially as and for the purpose described.

3. In a truss-tower, the combination of two or more supporting-posts firmly fixed to the earth, a truss-tower supported by said posts, and a yielding connection between said truss-

tower and said posts, substantially as and for the purpose described.

4. In a tower, the combination of a supporting-post firmly fixed to the earth, hollow, and having an internal flange near its upper end, and a truss-work having supporting corner-pieces, of which two or more are inserted in the hollow top of a like number of said posts and rest on elastic cushions inserted between the lower ends of said corner-pieces and the said interior flanges, substantially as and for the purpose described.

5. The combination of supporting-posts fixed to the earth, a truss-work having depending corner-pieces, two or more of which are inserted in the hollow top of said posts, and a flexible gasket covering said supporting-posts and surrounding the inserted end of said corner-posts, substantially as and for the purpose described.

CARLTON A. BEARDSLEY.

Witnesses:

CHARLES F. BURTON,
EFFIE I. CROFT.