

(No Model.)

3 Sheets—Sheet 1.

A. H. LUCAS.
SUPPORT FOR LAMPS.

No. 473,846.

Patented Apr. 26, 1892.

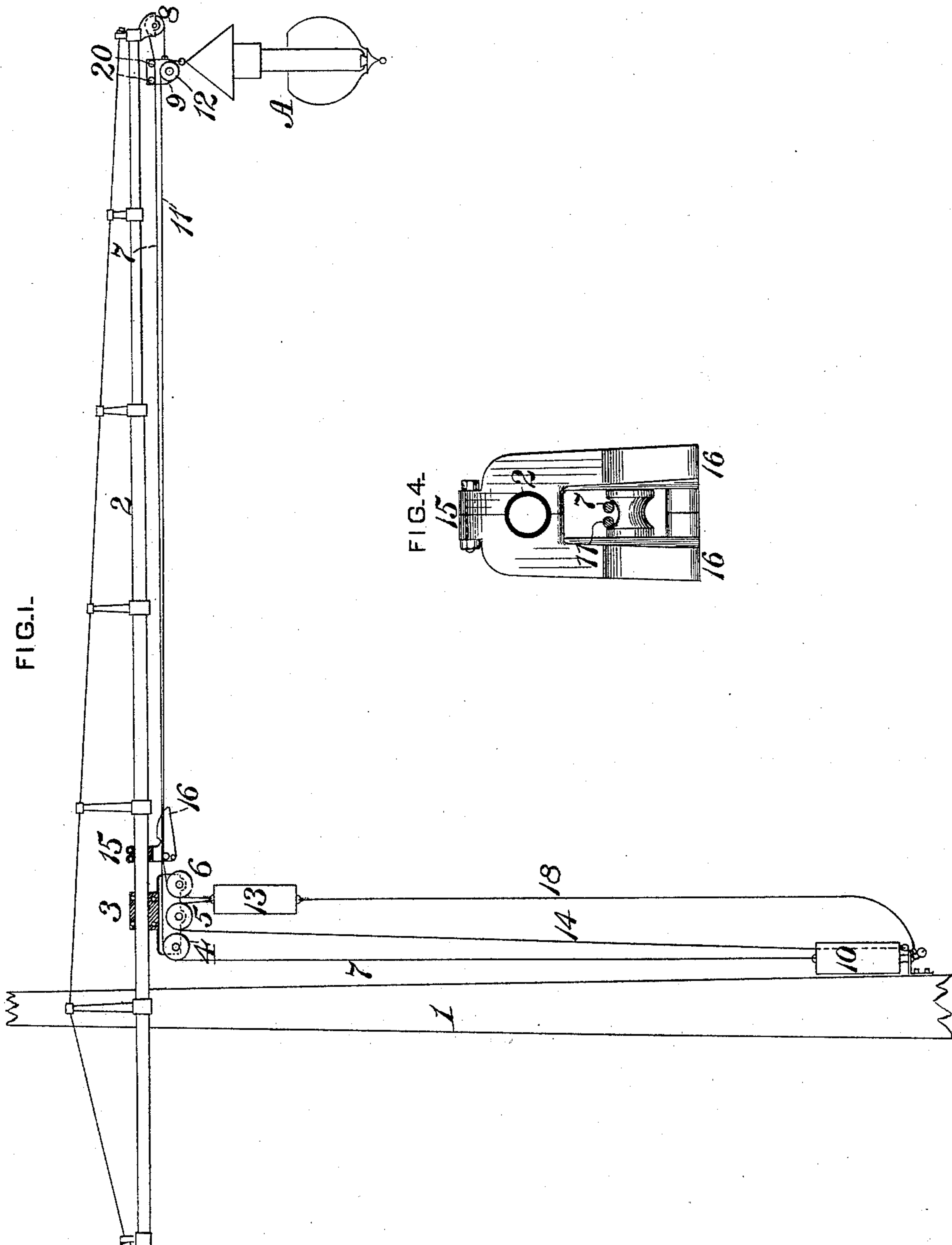


FIG. 1.

FIG. 4.

WITNESSES:

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F. E. Gaither.

INVENTOR,

Austin H. Lucas
by George W. Christy
Att'y.

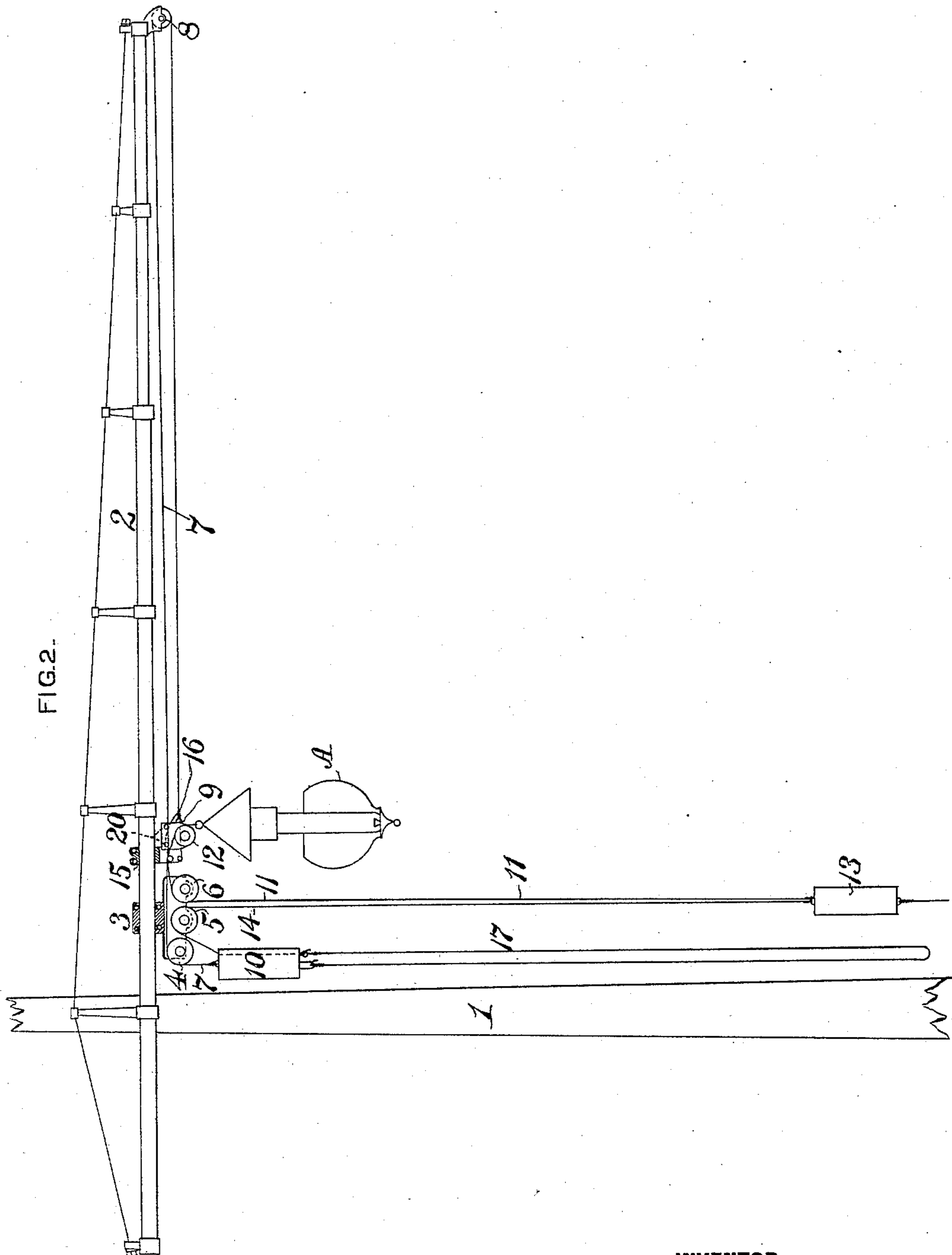
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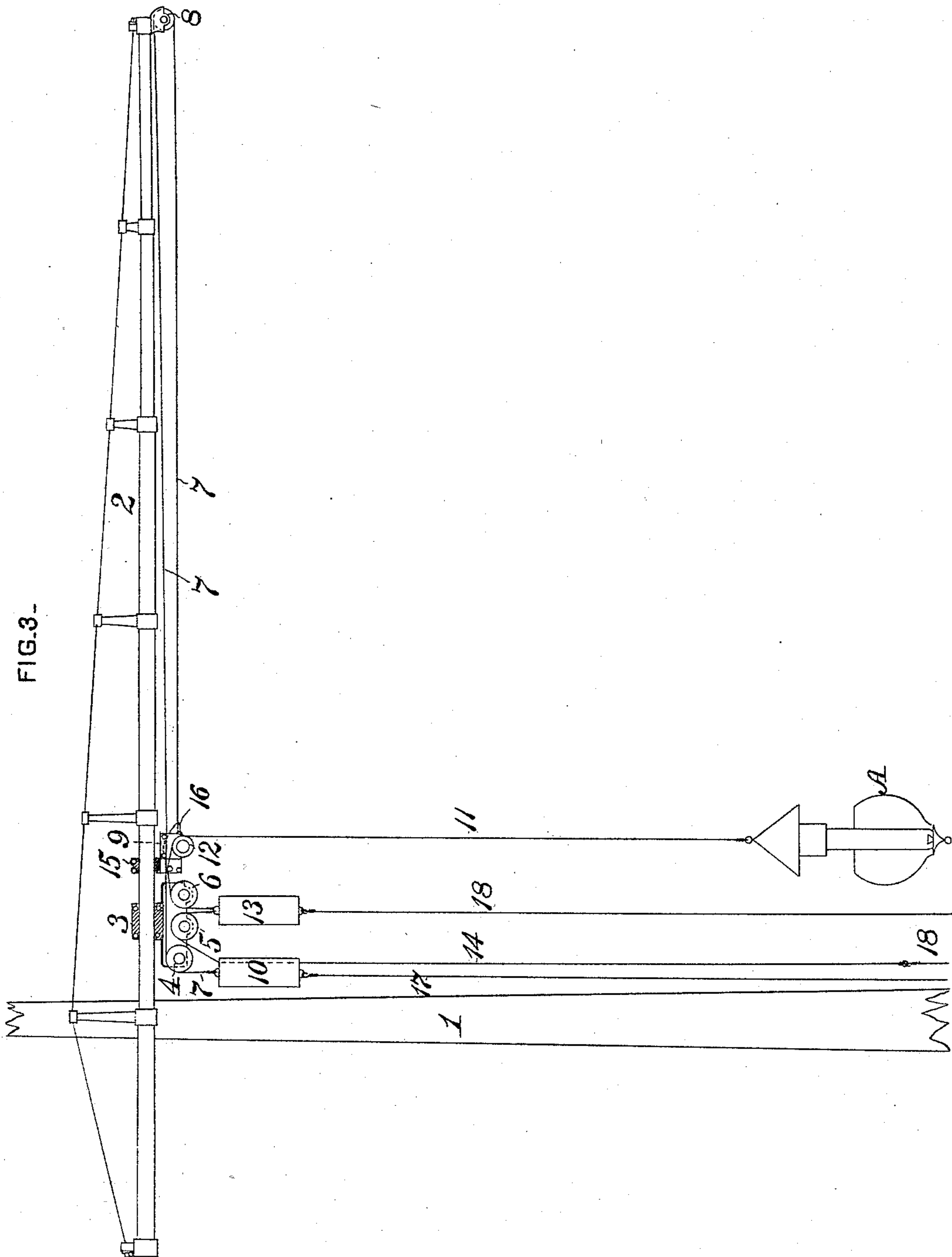
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WITNESSES:

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INVENTOR,

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UNITED STATES PATENT OFFICE.

AUSTIN H. LUCAS, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO GEORGE P. SHANE, OF SAME PLACE, AND EDWARD G. MILLER, OF WILKINSBURG, PENNSYLVANIA.

SUPPORT FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 473,846, dated April 26, 1892.

Application filed May 26, 1891. Serial No. 394,131. (No model.)

To all whom it may concern:

Be it known that I, AUSTIN H. LUCAS, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Supports for Lamps, of which improvements the following is a specification.

The invention described herein relates to certain improvements in supports for lamps, especially arc lamps employed for street-lighting, wherein the lamp is normally suspended over the middle of the street and has to be lowered in order to be trimmed. In an application filed October 27, 1890, and serially numbered 369,402, I have described and shown an apparatus for this purpose, wherein provision is made by means of ropes and drums for drawing the lamp in toward the mast and lowering it to a point adjacent to the curb of the street for trimming.

The object of this invention is to provide means for shifting the lamps other than drums, which are sometimes objectionable, as permitting of the lowering of the lamp by unauthorized persons.

In general terms the invention consists in the construction and combination, as hereinafter more fully described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a view in side elevation of a mast and jib having my improved appliances arranged thereon, the lamp being shown in normal position—i. e., at the outer end of the jib. Fig. 2 is a view similar to Fig. 1, showing the lamp near the inner end of the jib. Fig. 3 is also a similar view showing the lamp in its lowered position and ready to be trimmed, and Fig. 4 is a detail view of the trolley-bracket.

The mast 1 and jib 2 are constructed in the usual or any suitable manner. On the jib, near its point of junction with the mast, is secured a housing 3, in which are mounted the guide-pulleys 4, 5, and 6. Over the pulley 4 is passed a rope 7, which extends along the jib over a pulley 8, mounted in suitable bearings at the outer end of the jib and has one end attached to the trolley 9, the opposite end thereof being attached to a weight 10.

The trolley 9 is supported on that portion of the rope 7 lying between the pulleys 4 and 8 and moves therealong, as hereinafter described. A rope 11 is passed over the guide-pulley 6 in the housing 3 and over a similar guide-pulley 12, mounted in the trolley 9, and has one end attached to the frame of the lamp A, the opposite end of said rope being attached to the weight 13. A rope 14 is passed over the intermediate pulley 5 and has one end attached to the weight 13. The opposite end, being passed through a hole in the weight 10, is provided with a knot or other device below the weight to prevent its slipping through the same. A bracket 15, consisting of two parallel jaws 16, is secured on the jib near the housing 3. These jaws 16 are constructed to permit trunnions or pins 20 on the trolley 9 to ride up along them and enter the notch 21 when the latter is drawn in toward the mast, as hereinafter described.

In describing the operation of my improved apparatus it will be supposed that the lamp is in its normal position, as shown in Fig. 1, and the trimmer is to bring it to the position shown in Fig. 3 and return it to the position shown in Fig. 1. The trimmer is provided with a rope 17 of suitable length, having hooks or other devices adapted to engage an eye in the lower end of the weight 10, and a ring or other device on the end of the rope 14. Having attached the rope 17, the trimmer pulls down on the rope 18, which is permanently attached to the weight 13, thereby through the medium of the ropes 14 and 11 raising the weight 10 and pulling the trolley with its lamp toward the inner end of the jib, the trolley riding along the portion of the rope 7 between the guide-pulleys 4 and 8. As the trolley approaches the bracket 16 the pins 20 thereon pass up over the inclined edges of the jaw 16 and enter the notch 21 at the inner end of said jaws, thereby holding the trolley in the position shown in Fig. 2 until subsequently moved to the outer end of the jib. The several parts of the apparatus being in the position shown in Fig. 2, the operator pulls down on the part of the rope 17, attached to the rope 14, which slips through the weight 10 without shifting it, thereby lifting the weight 13, whose up-

ward movement permits of the downward movement of the lamp to the position shown in Fig. 3. The lamp being trimmed, the operator pulls down on the weight 13, thereby raising the lamp to the position shown in Fig. 2, and then pulls down the weight 10 by means of the rope 17, thereby shifting the trolley and lamp to the position shown in Fig. 1. It will be observed that the ropes 7 and 11 are, as far as the movements of the trolley are concerned, practically a single rope, and that the ropes 14 and 11 are, as regards the movement of the lamp, practically unbroken.

In order to prevent any tampering with the lamp, I provide a bracket 22, which is firmly secured to the mast and is provided with means whereby the weight 10 and rope 17 may be securely locked thereto. The weight 13 is made a little heavier than the lamp and the weight 10 is made sufficiently heavy to overcome the inward pull of the weight 13 and the downward pull of the lamp when in normal position. The purpose of the bracket 15 is to prevent the trolley from being pulled out along the jib by the weight 10 when the weight 13 is raised and the lamp lowered from the position shown in Fig. 2 by pulling down on the rope 14, as described.

I claim herein as my invention—

30 1. The combination of a mast and jib with a trolley movable along the jib, a rope passing over guide-pulleys arranged near the mast and outer end of the jib, respectively, and having one end connected to the trolley and the opposite end to a weight, and a rope passing over guide-pulleys arranged near the mast and on the trolley, respectively, the ends of said rope being connected to a lamp and to a weight, respectively, substantially as set forth.

40 2. The combination of a mast and jib with a trolley movable along the jib, a rope passing over guide-pulleys arranged near the

mast and the outer end of the jib, respectively, and having its ends connected to the trolley and weight 10, respectively, a rope passing over guide-pulleys arranged near the mast and on the trolley, respectively, and having its ends connected to a weight 13 and the lamp, and a rope passing over a guide-pulley near the mast and having its ends connected to the weights 10 and 13, substantially as set forth.

3. The combination of a mast and jib with a trolley movable along the jib, a rope passing over pulleys 4 and 8 and having its ends connected to the trolley and a weight 10, respectively, a rope passing over the pulleys 6 and 12, the latter being mounted in the trolley and having its end connected to the lamp and to a weight 13, respectively, a rope passing over the pulley 5 and having its ends connected to the weights 10 and 13, respectively, and a bracket for holding the trolley at or near the inner end of the jib, substantially as set forth.

4. The combination of a mast and jib with a trolley movable along the jib, a rope passing over pulleys 4 and 8 and having its ends connected to the trolley and a weight 10, respectively, a rope passing over pulleys 6 and 12, the latter being mounted in the trolley and having its ends connected to the lamp and a weight 13, respectively, a rope passing over the pulley 5 and having its ends connected to the weights 10 and 13, respectively, and a rope connected to the weight 13 and hanging down along the mast, substantially as set forth.

In testimony whereof I have hereunto set my hand.

AUSTIN H. LUCAS.

Witnesses:

DARWIN S. WOLCOTT,
R. H. WHITTLESEY.