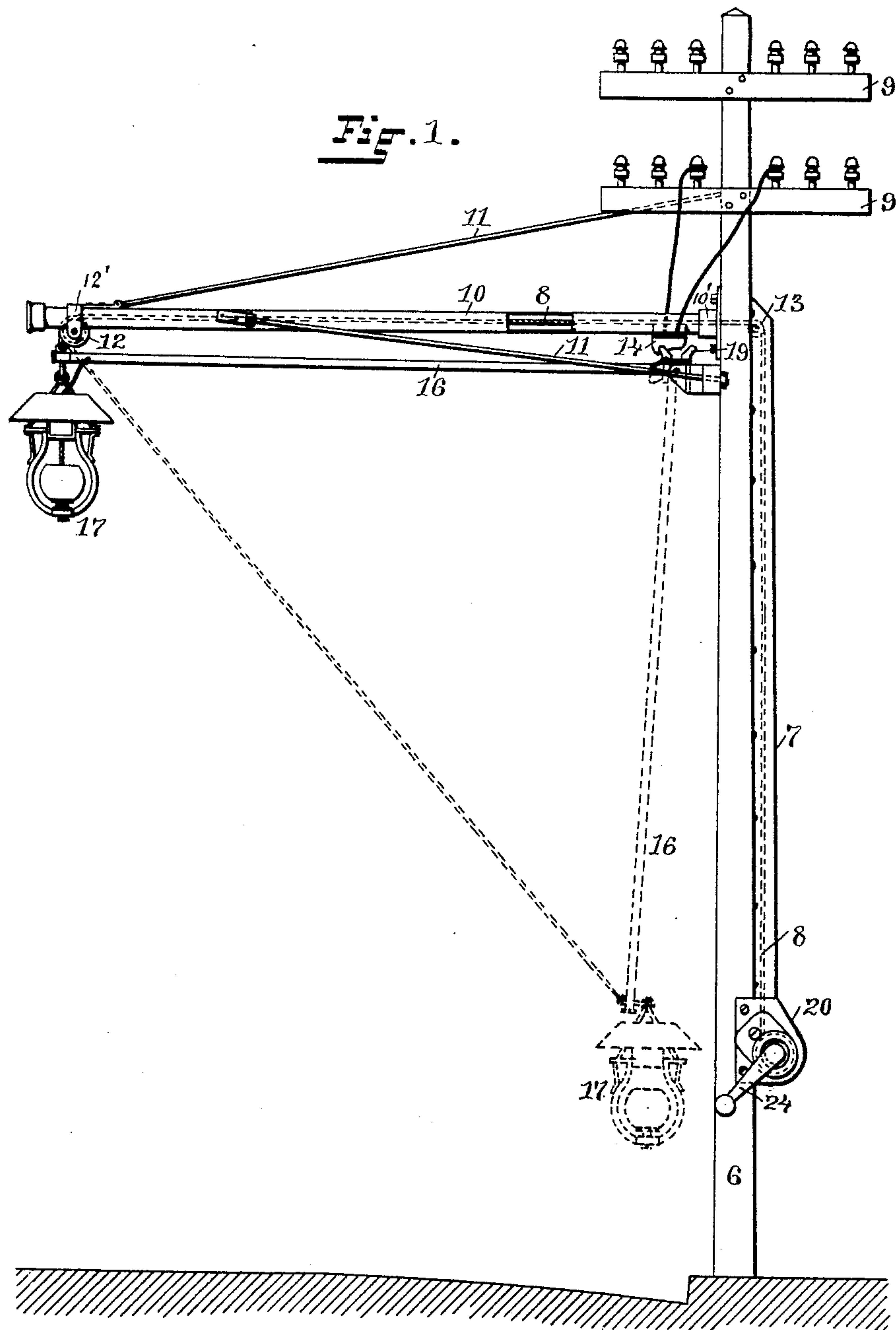


2 Sheets—Sheet 1.

No. 480,539.

Patented Aug. 9, 1892.



INVENTOR:

Henry J. Miller
Chas. H. Luther Jr

Augustus Wright
by Joseph A. Miller & Co
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(No Model.)

2 Sheets—Sheet 2.

A. WRIGHT.
SUPPORT FOR ELECTRIC ARC LAMPS.

No. 480,539.

Patented Aug. 9, 1892.

Fig. 2.

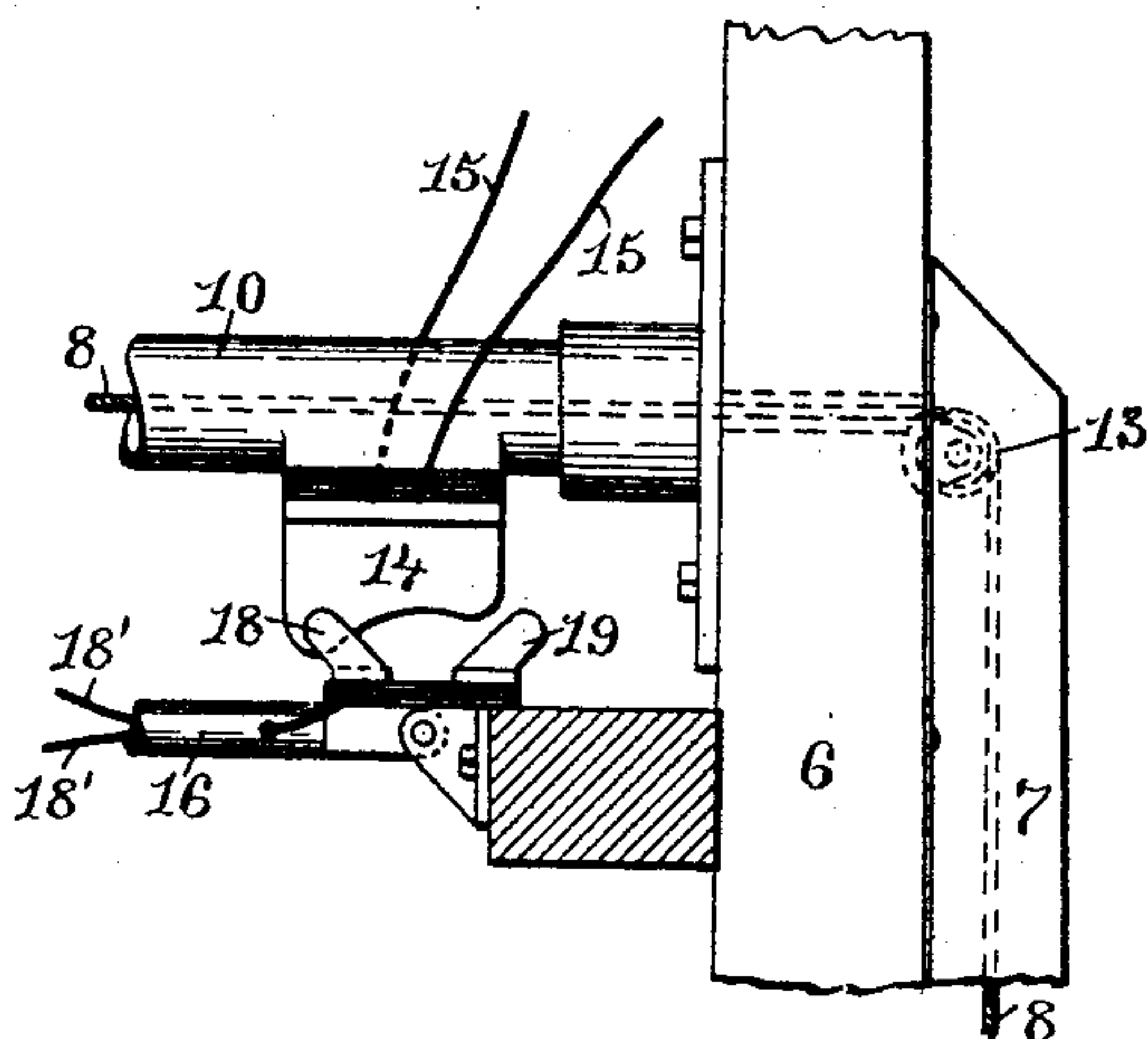


Fig. 3.

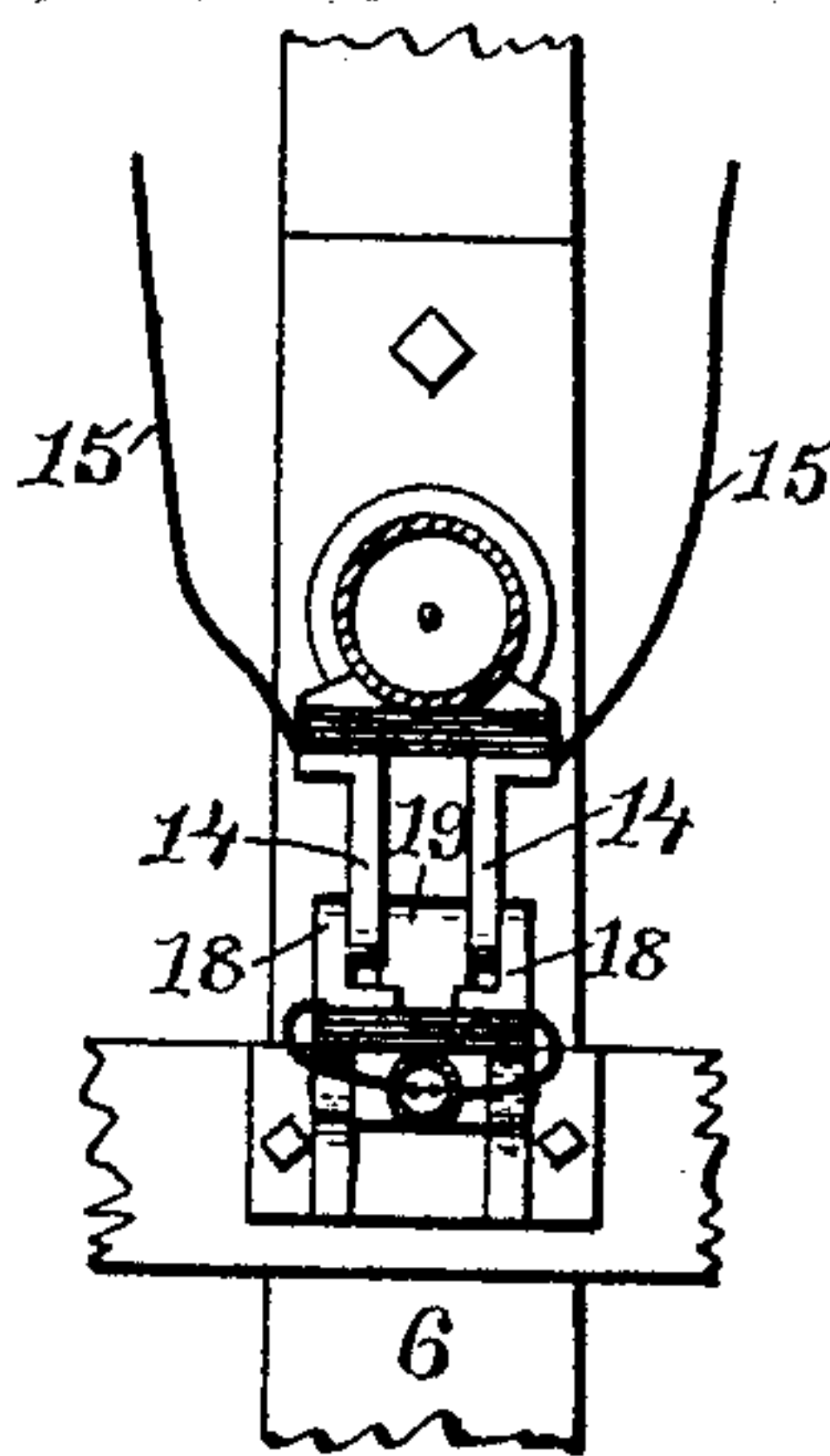


Fig. 4.

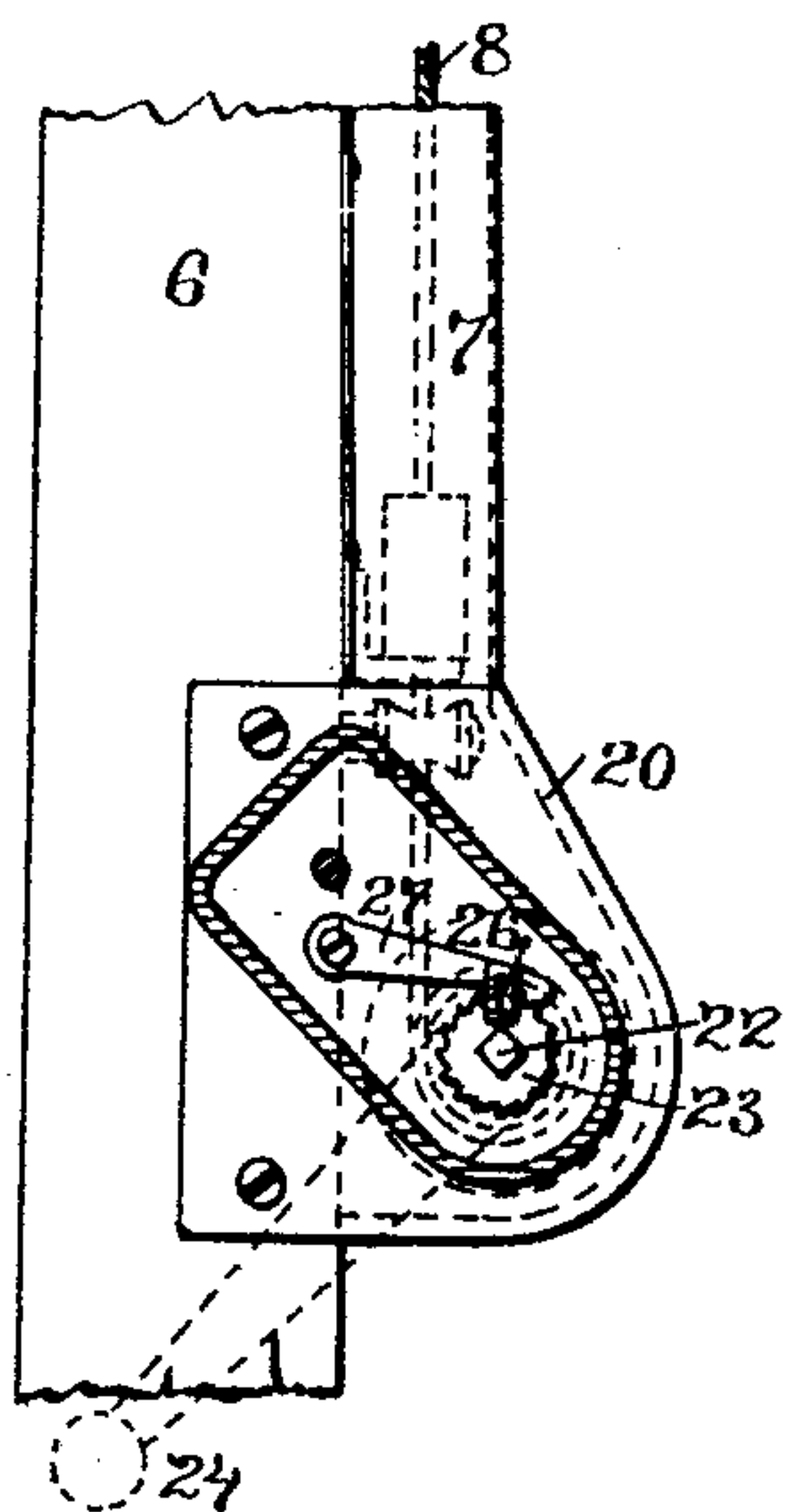
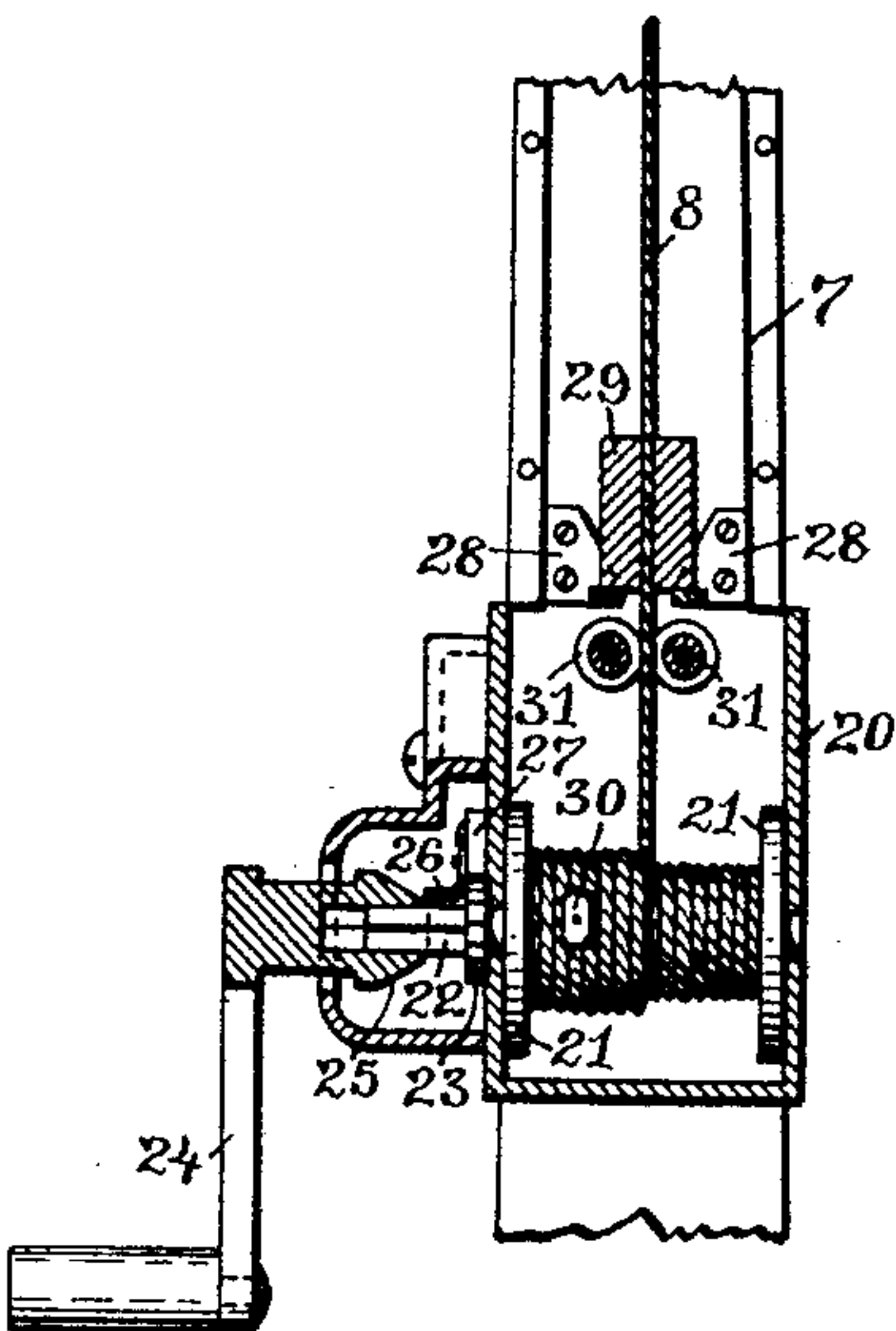


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

AUGUSTUS WRIGHT, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO THE
HOPE ELECTRIC APPLIANCE COMPANY, OF SAME PLACE.

SUPPORT FOR ELECTRIC-ARC LAMPS.

SPECIFICATION forming part of Letters Patent No. 480,539, dated August 9, 1892.

Application filed April 27, 1891. Serial No. 390,562. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS WRIGHT, of the city of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Supports for Electric Lamps; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in mast-arms on which electric lamps are supported and means for operating the same.

The object of this invention is to produce an improved support for an electric lamp adapted for street-lighting, which may be operated to bring the lamp in a convenient position for cleaning without the use of a ladder.

A further object of this invention is to automatically disconnect the lamp from the main circuit while it is being brought into position for cleaning, so that while the main circuit shall not be opened the current will not pass through the lamp.

To attain these ends my invention consists in the use of a rigid lamp-stay pivotally secured to the mast and operated by tackle through a tubular arm rigidly secured to the mast a short distance above said pivoted stay, together with other peculiar features of construction and novel combination of parts, which will hereinafter be more fully described, and pointed out in the claims.

Figure 1 is a view of my improved lamp-supporting device, the operation of the lamp stay and switch being shown in dotted lines. Fig. 2 is an enlarged side view of the butt-ends of the lamp-stay and supporting-arm with the parts of the switch attached thereto. Fig. 3 is an end view of the same, showing the connection with the lamp through the switch. Fig. 4 is a side view of the capstan-box, the lid being removed to show the pawl and ratchet. Fig. 5 is a sectional view through the capstan-box.

Similar numbers of reference designate corresponding parts throughout.

In the drawings, 6 is a mast adapted to support an arm on which the electric lamp is supported. This mast may be solid, as shown in the drawings, and provided with the covered

runway 7, through which the tackle 8 runs, or the pole may be formed of hollow sections through which the tackle may pass.

At the upper portion of the mast 6, but somewhat below the cross-arms 9 9, the tubular mast-arm 10 is rigidly secured at its butt-end in the socketed bracket 10', which is bolted to the mast 6, lateral motion being prevented by the guy-rods 11 11. This mast-arm 10 is provided at its outer end with the pulley 12, which is journaled between the ends of the strap 12', encircling the mast-arm, and a similar pulley 13 is secured to the mast 6 on a level with the center of the mast-arm, a hole being bored through the mast opposite this pulley 13 to allow the tackle 8 to pass.

At or near the butt-end of the mast-arm 10 are insulated metal ears 14 14, which extend downward and are electrically connected with the main lighting-circuit indicated by the wires 15 15.

Immediately below the mast-arm 10 the lamp-stay 16 is pivotally secured to the mast 6. This stay 16 may consist of a small hollow rod, through which the wires extend to the lamp 17, secured at the outer end of the stay. The lamp-stay 16 is secured near its pivoted end to a block, or the pivoted end is formed of a block carrying the upwardly-extending ears 18 18 and the block 19, which are insulated from one another and from the pivoted block by which they are carried.

At a convenient height from the ground the capstan-case 20 is secured to the mast 6. In this case is journaled the capstan 21, provided with the square shaft 22, surrounded by the fixed ratchet 23, and operated by the crank 24, the shaft of which fits over the shaft 22 and is provided with the tapering end 25, which when pushed inward is adapted to engage the arm 26 of the pivoted pawl 27, adapted to engage with the ratchet 23.

At the base of the runway 7 are secured the rests 28 28, adapted to support the balance-weight 29, through which the rope or tackle 8 passes, and to this tackle 8 the stop 30 is adjustably secured and is adapted to engage with the weight 29, which is then lifted by the weight of the lamp and stay, the guide-pulleys 31 31 being arranged to allow the stop 30 to pass between the same.

The lamp-stay 16 is supported by the tackle

8, secured to the outer end thereof and passing over the pulley 12, then through the mast-arm 10 and the hole bored in the mast 6, over the pulley 13, and finally downward through the runway 7 and balance-weight 29, and then between the guide-pulleys 31 to the capstan 20, to which it is fastened.

The rope or tackle 8 is operated by means of the capstan-crank 24 to elevate the end of the stay 16 and the lamp with it, or to allow the lamp and stay to descend. When a suitable length of rope is unwound from the capstan, the stop 30 will engage with the weight 29, which will partially balance the weight of the lamp and the stay. In lowering the lamp it is necessary to push the crank-shaft in over the capstan-shaft 22 to engage the tapering portion 25 with the arm 26 to lift the pawl 27 away from the ratchet 23.

When the lamp-stay is dropped in lowering the lamp, the insulated ears 18 are moved forward over the ears 14; but before passing out of connection with them the block 19 will be moved in between the ears 14, thus giving two courses to the current, one through the ears 18 and wires 18' to the lamp, the other through the blocks 19, which will short-circuit the current from one of the ears 14 to the other, and thence back through the main circuit.

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

1. The combination, with the mast 6, having the capstan-case 20 and a capstan journaled therein and operated by the crank 24, the

tackle 8, provided with the stop 30 and weight 29, adapted to be wound on and unwound from said capstan, and a tubular mast-arm 10, rigidly secured to said mast and provided at its outer end with a pulley 12 to support the tackle 8, of the rigid tubular lamp-stay 16, pivotally secured to the mast 6, the local conductor-wires contained therein, and the lamp 17, secured to the outer end of said stay and supported by the tackle 8, as described.

2. In a support for electric lamps, the combination, with the mast 6 and the tubular mast-arm 10, secured thereto by means of the socketed bracket 10', the guy-rods 11 11, secured at their outer ends to the mast-arm and at their inner ends to the mast 6 or to cross-arms on said mast and adapted to hold the mast-arm in place, the pulley 12, journaled between the ends of the strap 12', near the outer end of the mast-arm, and the insulated ears 14 14, secured to the base portion of said mast-arm and connected in the main circuit, of the rigid tubular stay 16, pivotally secured to the mast 6 at its base and carrying contact-blocks 19 19, engaging the ears 14 14 on the mast-arm 10 and connected in the local lamp-circuit contained within said stay, the lamp 17, secured to the outer end of the stay, and the tackle 8, secured to said outer end of the stay 16 and passing over the pulley 12 and through the tubular mast-arm, and adapted to be operated as described.

AUGUSTUS WRIGHT.

Witnesses:

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