(No Model.)

C. H. SHANK.

ELECTRIC LIGHT CRANE.

No. 456,859. Patented July 28, 1891.

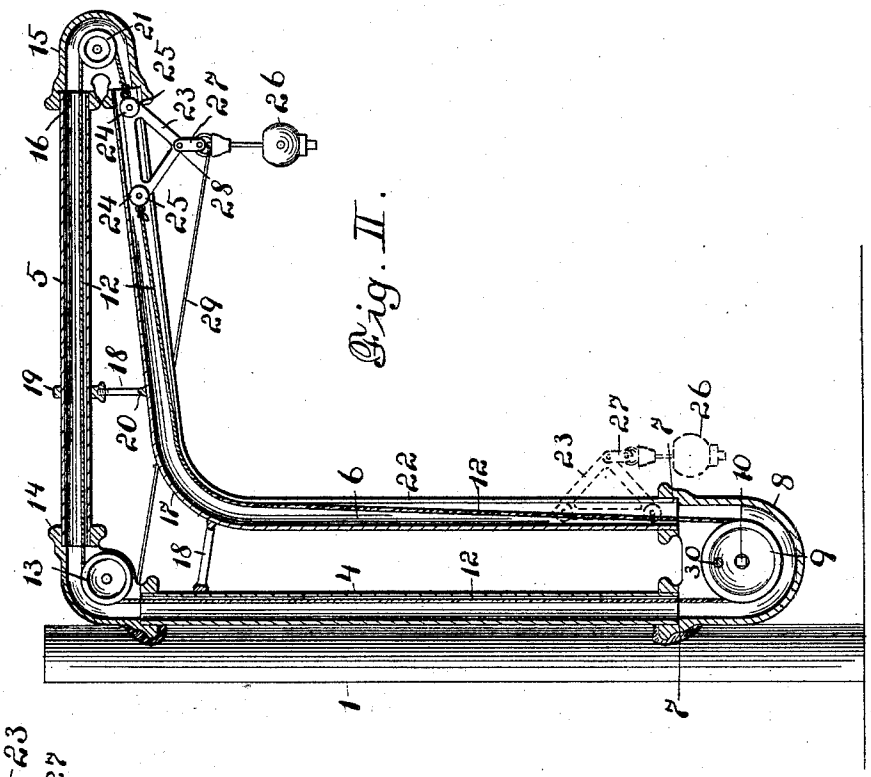


Fig. II.

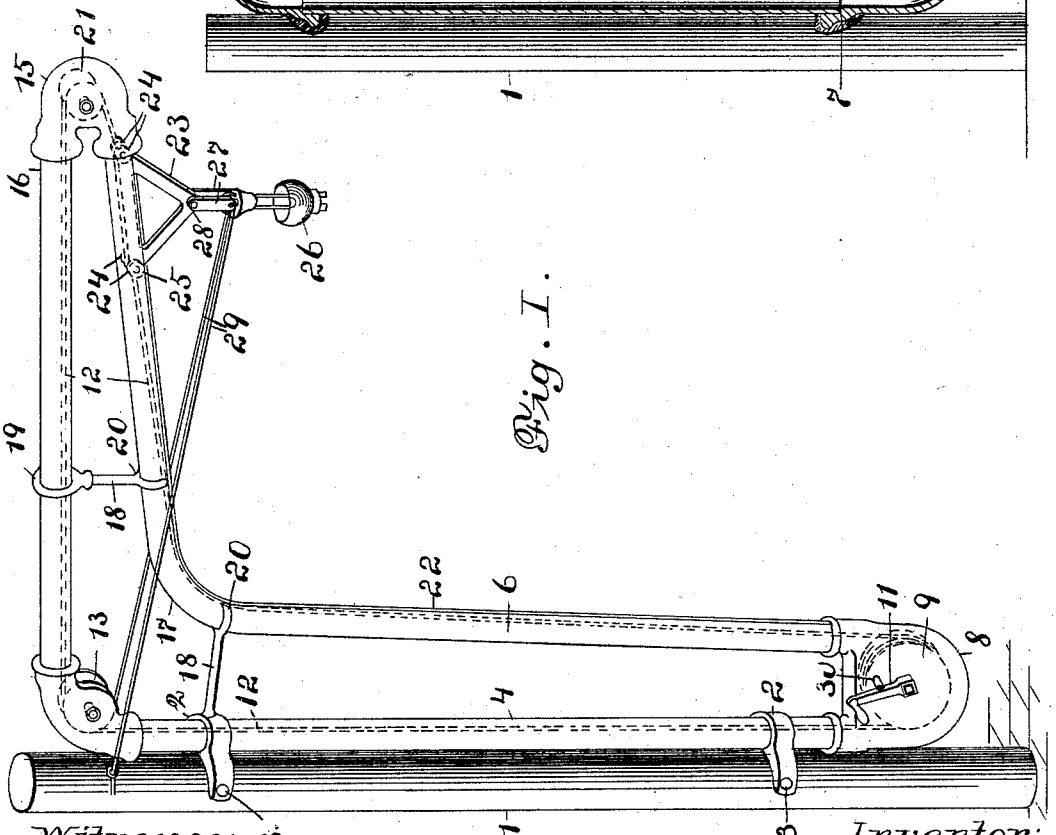


Fig. I.

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UNITED STATES PATENT OFFICE.

CHARLES H. SHANK, OF ARMORDALE, KANSAS.

ELECTRIC-LIGHT CRANE.

SPECIFICATION forming part of Letters Patent No. 456,859, dated July 28, 1891.

Application filed January 10, 1891. Serial No. 377,365. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SHANK, of Armordale, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Electric-Light Cranes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved device for raising and lowering electric-light lamps; and my invention consists in certain features of novelty hereinafter described, and pointed out in the claims.

Figure I is a perspective view of my improved crane, showing the same secured to a post and the lamp in its elevated position. Fig. II is a vertical longitudinal section of the crane, showing the operation of the device for raising and lowering the lamp.

Referring to the drawings, 1 represents a post to which my crane is attached by means of brackets 2, said brackets encircling a portion of the crane and being secured to the post 1 by bolts or pins 3.

The sections 4, 5, and 6 of the crane are made in a hollow form, preferably of gas-pipe. The section 4 is vertical, the section 5 is horizontal, and the section 6 is bent or curved and extends from the lower end of the vertical section to the outer end of the horizontal section. These sections, with certain couplings, form the frame of the crane. The sections 4 and 6 are secured at 7 to a hollow coupling or head 8, located at the bottom of the crane. In the coupling 8 is journaled a pulley 9, having a central shaft 10, on one end of which may be placed a crank 11 for rotating said pulley and thus winding or unwinding a rope 12, which passes over the same, the rope 12 passing over the bearing-pulley 13, located in a coupling or elbow 14, that connects the upper end of the section 4 of the crane with the inner end of the section 5. The outer end of the section 5 of the crane is connected with a hollow coupling or head 15, as shown at 16, said head also being connected with the outer end of the portion 6 of the crane, said portion 6 being bent or curved as shown at 17. The different sections of the crane are braced at suitable distances throughout their length by means of braces 18, connected with a bracket 2, or having a circular portion 19, which passes around a section of the crane, and a forked portion 20, which straddles a portion of the crane.

The rope 12 has for its bearing at its upper outward end a pulley 21, journaled in the head 15. The section 6 of the hollow crane is provided with a slot 22 on its front and under side. Working in said slot is a triangular frame 23, having pulleys 24, which travel along in the inner side of the hollow crane. The rope 12 is secured at each of its ends to the frame 23, as shown at 25.

26 represents an electric lamp suspended to the frame 23 by means of links 27, which are pivoted to the frame 23, as shown at 28, the lamp thus being always held in an upright position, no matter what position the frame 23 may be in. The frame 23 travels up and down the section 6 of the crane, the same traveling on the pulleys 24 and being operated by the rope 12 as the crank 11 turns the pulley 9, said frame 23 sliding in the slot 22 in said section of the crane. By this means the lamp may be readily raised or lowered and at all times be in close connection with the frame, thus not coming in contact with passing vehicles or other objects in the street, and the mechanism for raising and lowering the lamp being thoroughly protected as it travels in the hollow crane. When the lamp is lowered, it will assume the position shown in the dotted lines, Fig. II, at which point it may be readily trimmed and cleaned, and by operating the crank returned to the position shown in the full lines.

29 represents the wires which form suitable connection with the lamp. The lamp may be held at any desired point in the crane by means of a pin 30, which may be passed through the head 8 and the pulley 9, and thus prevent the pulley from rotating.

I claim as my invention—

1. As an improved article of manufacture, a hollow crane having a slot therein extending from top to bottom, through which a lamp-supporting device may travel, substantially as described, and for the purpose set forth.

2. In an electric-light crane, the combina-

tion of a hollow crane having a slot extending from top to bottom, a frame having pulleys attached thereto traveling in said crane, and means for securing a lamp to said frame, substantially as described, and for the purpose set forth.

3. In an electric-light crane, the combination of the sections 4, 5, and 6, said section 6 being bent, as shown at 17, a slot in the section 6, a frame 23, traveling in said section and slot, and means for securing a lamp to said section 23, substantially as set forth.

4. In an electric-light crane, the combination of the sections 4, 5, and 6, suitably secured to a post, and heads 8 and 15, connecting said sections at their upper and lower ends, an elbow 14 for connecting the inner end of the section 5 and the upper end of the section 4, and pulleys journaled in said heads and elbow, through which a rope may pass in order to raise or lower an electric lamp, substantially as set forth.

5. In an electric-light crane, the combination of the hollow sections 4, 5, and 6, secured to each other by heads 8 and 15, and elbow 14, pulleys journaled in said heads and elbow, through which a rope may travel for raising and lowering an electric lamp, the lower one of said pulleys having a shaft 10, to which a crank 11 may be attached in order to operate said rope and raise or lower the lamp, substantially as set forth.

6. In an electric-light crane, the combination of the hollow sections 4, 5, and 6, section 6 being bent, as shown at 17, and having a slot 22, pulleys 9, 13, and 21, journaled in said crane, a rope 12, passing around said pulleys, a frame 23, secured to said rope, said frame traveling in the hollow section 6, and an electric lamp pivoted to said frame, substantially as described, and for the purpose set forth.

7. In an electric-light crane, the combination of the hollow sections 4, 5, and 6, suitable pulleys journaled in said sections, which form a bearing for the rope 12, a frame 23, traveling in section 6 on pulley 24, said section 6 being slotted for this purpose, and braces 18, having circular portions 19, and forked portions 20 for bracing said sections, substantially as set forth.

8. In an electric-light crane, the combination of the post 1, sections 4, 5, and 6 being secured to said posts by brackets 2, a lamp-supporting frame traveling in section 6, said section 6 having a slot 22, through which the frame slides, a pulley for raising and lowering said frame and lamp, a crank for rotating said pulley, and a pin 30, which may be passed through said pulley and prevent the same from rotating, substantially as described, and for the purpose set forth.

9. The combination of the vertical section, the horizontal section, the coupling having a pulley and connecting the vertical and horizontal sections, the bent or curved section having a longitudinal slot, the coupling having a pulley and connecting the vertical and bent or curved sections, the coupling having a pulley and connecting the horizontal and bent or curved sections, the rope working around said pulleys, and the frame traveling through the bent or curved section, substantially as described.

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