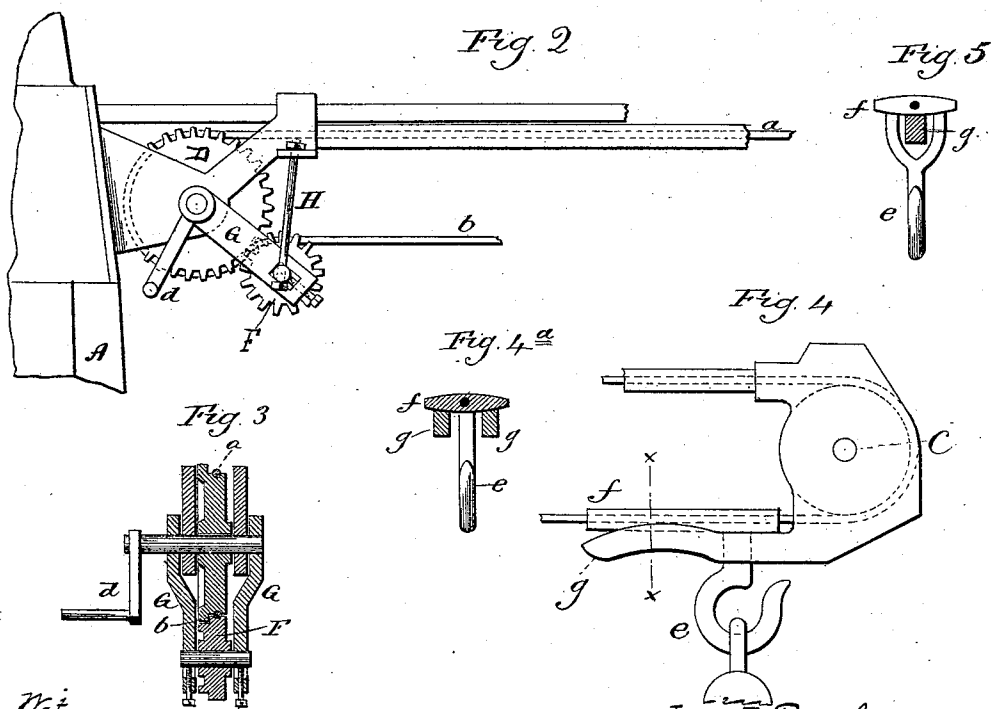
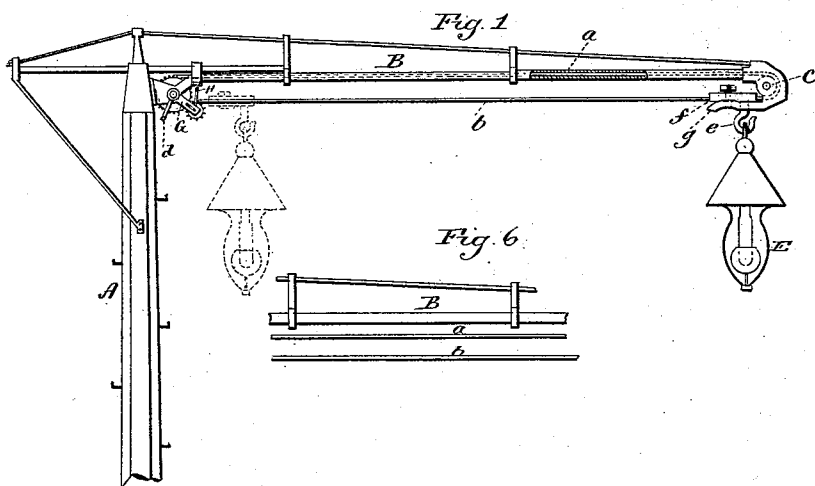


(No Model.)

J. J. RENEHAN.
SUSPENDING DEVICE FOR ELECTRIC LAMPS.

No. 469,048.

Patented Feb. 16, 1892.



Witnesses.

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JAMES J. RENEHAN, OF NEW BRITAIN, CONNECTICUT.

SUSPENDING DEVICE FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 469,048, dated February 16, 1892.

Application filed January 30, 1888. Renewed January 27, 1890. Serial No. 338,219. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. RENEHAN, of New Britain, in the county of Hartford and State of Connecticut, have invented new Improvements in Suspending Devices for Electric Lamps; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of the supporting device complete; Fig. 2, a side view showing a portion of the post and arm with the operative mechanism at the junction of the arm and post enlarged; Fig. 3, a section through the pulley D and the idler; Fig. 4, a side view of the outer end of the arm, showing the shoe and saddle enlarged; Fig. 4^a, a section on line *x x* of Fig. 4; Fig. 5, a modification of the shoe and saddle; Fig. 6, a modification showing the band as running outside the arm.

This invention relates to a suspending device for street electric lamps and such as are of a crane-like character, whereby the lamp is suspended at a considerable distance from the post. In the more general construction of this class of suspending devices the lamp is so hung that is brought near the earth for trimming. This is often inconvenient because of passing vehicles.

The object of my invention is the construction of a device whereby the lamp may be moved close to the supporting-post without substantially changing its level; and it consists in combining with the supporting-arm a pulley at its outer end and a corresponding pulley near the post from which the arm projects, an endless band running around the said two pulleys with means for imparting rotation to the pulley near the post, and a suspending device on the lower run of the said band to receive the lamp, and whereby under the rotation of the pulley the movement of the band will carry the lamp suspended to and from the post, as more fully hereinafter described.

A represents the usual post for supporting the lamp, carrying an arm.

B represents the arm, which is made tubular and is sustained by the post by suitable

braces, as shown; but it terminates short of the post, as represented in Figs. 1 and 2.

At the outer end of the arm B is a pulley C, and near the post at the post end of the tubular arm B is a similar pulley D, the upper side of the said two pulleys being in line with the said tubular arm B, and around said two pulleys is an endless band, one run *a* of which passes through the said tubular arm B, the other run *b* being directly below the said tubular arm. To the pulley D a suitable crank *d* is applied, so that the said pulley may be rotated by turning the crank.

Upon the lower run *b* of the band a suspending-hook *e* is secured, which carries the lamp E. If the pulley D be turned in one direction, it will draw the lamp to the post, as indicated in broken lines, Fig. 1. Then if turned in the opposite direction it will return the lamp to the position at the end of the arm. As the band is necessarily flexible, it is desirable to support the lamp when at its place of rest more firmly than it could be done if left simply suspended upon the band. To this end the hook *e* is attached to or made a part of a shoe *f*, which shoe is made fast to the endless band, and at the outer end of the arm a saddle *g* is provided. This saddle is bifurcated, so that the shank of the suspending-hook may pass between the two parts and the shoe ride onto the said two parts, as seen in Figs. 1 and 4. When in that position, the lamp is supported by the saddle independent of the band. The only office of the band, therefore, is to draw the lamp from the saddle toward the post and return it again to that position.

Instead of bifurcating the saddle as I have described, so that the shank of the hook will run between the two parts, this order may be reversed and the shank of the hook bifurcated, as seen in Fig. 5, the saddle forming a single arm, onto which the shoe will ride, the saddle extending through the shank of the hook.

To maintain the proper tension of the endless band, an idler-pulley F is hung in arms G G on each side of the crank-arbor, and, as seen in Figs. 2 and 3, this idler is therefore adapted to swing on the axle of the pulley D as its center of motion, and the pulley F is in the plane of the band, so that the lower run of the band

will pass over said idler-pulley F. The pulley D and the idler are each provided with a spur-gear, as represented in Fig. 2, whereby the rotation of the pulley D is communicated to the idler. The arms G are provided with one or more adjusting-screws H, by which the idler-pulley may be moved toward or from its run of the band, as may be required, in order to produce the desired tension.

When it is desired to reach the lamp for trimming or other purposes, the trimmer mounts the post A in the usual manner and then turns the crank *d*, imparting a movement to the endless band and so that the lamp will be drawn to the post, as represented in broken lines, Fig. 1, and after adjustment the crank is given a rotation in the opposite direction and the lamp returned. As it returns to its place of rest the shoe passes onto the saddle and there rests, supporting the lamp.

While I prefer to make the arm B tubular, so that the upper run of the band will pass through it, the band may run outside—that is, below the arm, as represented in Fig. 6.

I claim—

1. In an electric-lamp-supporting device, the combination of the post A, arm B, projecting therefrom, a pulley C at the outer end of the said arm and a similar pulley D at the inner or post end of the arm, an endless band around said pulleys, a shoe *f*, fixed to said band and carrying the lamp-suspending device, a saddle *g* at the outer end of the arm, upon which said shoe may rest, and means, substantially

such as described, for imparting rotation to said pulley D, substantially as and for the purpose described.

2. The combination of the post A, tubular arm B, supported by said post, pulley C at the outer end of said tubular arm, corresponding pulley D at the inner end of said tubular arm, an endless band around said two pulleys, one run *a* of which passes through said tubular arm, a saddle *g* at the outer end of said arm, shoe *f*, fixed to the lower run *b* of the band and carrying the lamp-suspending device, the said shoe adapted to seat upon said saddle, with means, substantially such as described, for imparting rotation to said pulley D, substantially as and for the purpose described.

3. The combination of the post A, arm B, supported by said post, pulley C at the outer end of said arm, corresponding pulley D at the inner end of said arm, an endless band running around said two pulleys, a lamp-suspending device *e*, fixed to the lower run of said band, means, substantially such as described, for imparting rotation to said pulley D, and an idler F, hung upon the axis of said pulley D and over which the lower run of the band passes, with an adjusting-screw H for said idler, substantially as and for the purpose described.

JAMES J. RENEHAN.

Witnesses:

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